AGENDA
OTSEGO COUNTY BOARD OF ROAD COMMISSIONERS
THURSDAY, FEBRUARY 9, 2023 – 9:00 A.M.

ITEM 1 – CALL TO ORDER/PLEDGE OF ALLEGIANCE

ITEM 2 - ROLL CALL

ITEM 3 – AGENDA CHANGES/APPROVAL OF AGENDA

ITEM 4 – CONSENT CALENDAR

A. Minutes: The Board approves the Organizational and Regular Meeting Minutes dated January 17, 2023
B. The Board approves Payroll: #1 ($115,264.96), Payroll #2 ($97,179.89) and Payroll Gross Payout ($37,602.99)
C. The Board approves accounts Payable: C/2-1 ($195,865.70); and the Accounts Payable Check Register dated 01/01/2023 to 01/31/2023

ITEM 5 – GUEST SPEAKERS

A. Jason Clement, Otsego County Board Chairman

ITEM 6 – PUBLIC COMMENT

ITEM 7 – OLD BUSINESS/UNFINISHED BUSINESS

A. NONE

ITEM 8 – NEW BUSINESS

A. Marlette Road Transverse Cracking Review
B. Resolution R23-1 Camp Grayling Expansion
C. 2023 Material Bid Approvals
D. 2023 Paving Projects/Funding Review
E. Engineering Services RFP Review

ITEM 9 – STAFF REPORTS

A. Managing Director, Finance Director, Facility Supervisor, County Road Foreman, State Road Foreman

ITEM 10 – COMMUNICATIONS

A. Finance Report
B. Upcoming OCRC Board Meeting Dates: March 9, 2023, April 13, 2023
C. Highway Conference: March 21-23, 2023
D. MDOT 2024 I-75 Bridge Construction on Trowbridge and Webb Road – Update
E. Northern Michigan Counties Road Millage Survey

ITEM 11– PUBLIC COMMENT

ITEM 12– COMMISSIONER COMMENT

ITEM 13– ADJOURNMENT

Otsego County Road Commission
Agenda Item Report

FROM: Rebecca Hilmert, Finance Director

MEETING DATE: January 17, 2023

AGENDA ITEM: 4. A, B, C

SUBJECT: Consent Calendar

DESCRIPTION
The purpose of the Consent Calendar is to expedite business by grouping non-controversial items together without discussion. Any member of the Commission, staff, or the public may ask that any item on the Consent Calendar be removed and placed elsewhere on the agenda for full discussion. Such requests will be automatically respected.

If an item is not removed from the Consent Calendar, all items listed are approved by a single Commission action approving the Consent Calendar. The Finance Director recommends the following items be approved:

A. Minutes: The Board approves the Organizational and Regular Meeting Minutes dated January 17, 2023
B. The Board approves Payroll: #1 ($115,264.96), Payroll #2 ($97,179.89) and Payroll Gross Payout ($37,602.99)
C. The Board approves accounts Payable: C/2-1 ($195,865.70); and the Accounts Payable Check Register dated 01/01/2023 to 01/31/2023

BUDGET ACTION REQUIRED
N/A

LEGAL REVIEW
N/A

SAMPLE MOTION:
Motion to **approve/deny** the February 9, 2023, consent calendar as presented.

DRAFT

MINUTES for the
ORGANIZATIONAL and REGULAR MEETINGS OF THE
OTSEGO COUNTY ROAD COMMISSION
HELD ON TUESDAY, JANUARY 17, 2023, AT 9:00 A.M.

Organizational

ITEM 1 – CALL TO ORDER/PLEDGE OF ALLEGIANCE

- **Meeting called to order by Board Secretary Hilmert, at 9:00 a.m. and Pledge of Allegiance.**

ITEM 2 - ROLL CALL

- **Upon roll call, the following Commissioners responded:**
  Dipzinski, Present
  Wagar, Present
  Gordon, Present
  Heinz, Present
  Huff, Present

The following staff members were present: Kirk Harrier, Managing Director; Rebecca Hilmert, Finance Manager/Board Secretary; David Fox, Equipment/Facilities Supervisor' Steve Mench, County Foreman; and Tim Johnson, State Foreman.

ITEM 3 – NOMINATIONS/ELECTION OF CHAIRMAN

- Board Secretary opened nominations for Chair.
- Mr. Dipzinski nominated Mr. Huff for Chair.
- No other nominations for Chair.
- **Motion by Dipzinski, seconded by Wager to appoint Mr. Huff as Board Chair. Roll call vote: Dipzinski, yes; Wagar, yes; Gordon; yes; Heinz, yes; Huff, yes. Five ayes, no nays. Motion carried.**

ITEM 4 – NOMINATIONS/ELECTION OF VICE-CHAIRMAN

- Chairman Huff opened nominations for Vice-Chair.
- Mr. Dipzinski nominated Ms. Heinz for Vice-Chair.
- No other nominations for Vice-Chair.
- **Motion by Dipzinski, seconded by Gordon to appoint Ms. Heinz as Vice-Chairman. Roll call vote: Dipzinski, yes; Gordon, yes; Wagar, yes; Heinz, yes; Huff, yes. Five ayes, no nays. Motion carried.**

ITEM 5 – APPOINT SECRETARY TO THE BOARD

- **Motion by Heinz, seconded by Dipzinski, to appoint Rebecca Hilmert as Secretary to the Board. Five ayes, no nays. Motion carried.**

ITEM 6 – ADOPT 2023 PROCEDURAL RULES

- **Motion by Heinz, seconded by Gordon, to adopt the 2023 Procedural Rules as presented. Five ayes, no nays. Motion carried.**

ITEM 7 – APPROVE 2023 MEETING SCHEDULE

- **Motion by Heinz, seconded by Dipzinski, to approve the 2023 meeting schedule moving the regular meetings to the second Thursday of every month unless specified, as presented. Five ayes, no nays. Motion carried.**

Regular

ITEM 1 – AGENDA CHANGES/APPROVAL OF AGENDA

- **Motion by Dipzinski, seconded by Wagar, to approve the agenda as presented. Five ayes, no nays. Motion carried.**

ITEM 2 – CONSENT CALENDAR

A. Minutes: The Board approves the Regular Meeting Minutes dated December 15, 2022, and the Capital Improvement Planning Workshop dated December 15, 2022.
B. The Board approves Payroll: #25b ($5,139.64), and #26 ($80,076.96)
C. The Board approves Accounts Payable: C/12-2 ($92,908.38), and C/1-1 ($283,180.94) and the Accounts Payable Check Register dated December 1, 2022, to December 31, 2022.

- **Motion by Wagar, seconded by Dipzinski, to approve the January 17, 2023, Consent Calendar. Five ayes, no nays. Motion carried.**

ITEM 3 – GUEST SPEAKERS

A. Dana Wingo, Otsego County Board, introduced herself as the alternate. Notified the road commission board that the county board passed a resolution against the Camp Grayling expansion, and urged the road commission board to do the same.
B. Matthew Radulski, Michigan Department of Transportation, discussed options for road closures and detours for the I-75 over Trowbridge Road Bridge replacement project to take place in 2024.

ITEM 4 – PUBLIC COMMENT

- Montgomery 'Monty' Bolis and Marcy Beauchesne, spoke about the proposed Camp Grayling expansion and urges the road commission board to pass a resolution against the expansion.

ITEM 5 – OLD BUSINESS/UNFINISHED BUSINESS

- NONE

ITEM 6 – NEW BUSINESS

A. 2023 Equipment Purchase – 2023 Volvo L110H Loader
    a. **Motion by Gordon, seconded by Dipdinski, to deny the purchase of a 2023 Volvo L110H with forks for the amount of $299,438.00. Discussion. Five ayes, no nays. Motion carried.**
B. Engineering Services RFP
    a. **Motion by Heinz, seconded by Wagar, to distribute the Engineer of Record Request for Proposal as presented. Discussion. Five ayes, no nays. Motion carried.**
C. Contractual Services Agreement MSP Seasonal Weight Restrictions Road Patrol
    a. **Motion by Gordon, seconded by Heinz, to approve the 2023 contractual services agreement between the Michigan State Police and the Otsego County Road Commission for additional weight restriction road patrol as presented. Five ayes, no nays. Motion carried.**
D. MERS Defined Benefit Adoption Agreement Amendment
    a. **Motion by Wagar, seconded by Dipzinski, to approve the MERS Defined Benefit Agreement Amendment and set the employee required contribution to 8% of gross income. Five ayes, no nays. Motion carried.**
E. MERS Supplemental Valuation Report

ITEM 7 – STAFF REPORTS

A. Managing Director reported on projects in the upcoming year and staffing needs.
B. Finance Manager gave a recap of December revenues and expenditures and an MTF overview.

ITEM 8 – COMMUNICATIONS

A. Upcoming OCRC Board Meeting Dates: February 9, 2023
B. Upcoming CRA Highway Conference & Road Show: March 21-23, 2023, in Lansing.

ITEM 9– PUBLIC COMMENT

- NONE

ITEM 10– COMMISSIONER COMMENT

- Commissioner Gordon commended the staff on their management of the storm and snow over Christmas.

ITEM 11– ADJOURNMENT

- **Motion by Dipzinski and seconded by Gordon to adjourn meeting at 11:50 a.m. Five ayes, no nays. Motion carried.**

Troy Huff, Chairman

Rebecca Hilmert, Board Secretary

Payroll Gross for P/R of 1/12/2023

PR #1

1/11/2023

12/24/2022 to 1/6/2023

Emp Nbr	and Name	Regular Hours	Total Hours	Gross Amt
264	Huff III,Russell	79.84	104.84	$4,178.48
269	Koronka,Brian	80.00	128.00	$4,066.19
271	Slivinski,Steven	56.50	80.00	$1,918.40
272	Borowiak,Joseph	80.00	128.00	$4,215.16
277	Fox,David	80.00	103.00	$4,130.49
280	Kwapis,Earl	60.50	82.50	$3,288.30
283	Sewell,Dennis	63.88	94.63	$2,620.05
284	Kwapis Jr.,Stanley	67.13	101.13	$2,931.79
287	Myers,Joseph	47.50	81.50	$1,990.34
293	Samkowiak,Timothy	80.00	112.50	$3,285.26
294	Mench,Steven	80.00	112.00	$4,537.44
295	Boughner,Alan	67.75	93.25	$2,553.87
296	Johnson,Timothy	80.00	103.00	$3,781.02
299	Hinton,Justin	80.00	113.00	$3,309.24
303	Coughlin Jr.,Thomas	58.38	93.38	$2,560.10
307	Stiles,William	62.13	88.63	$2,332.29
308	Wcisel,David	70.00	97.50	$2,721.74
311	Wiley,James	72.67	99.17	$2,781.80
314	Kucharek,Joseph	55.00	80.00	$2,105.60
316	Jones,Tianne	80.00	80.00	$2,053.60
317	Mitchell Jr.,Dennis	53.50	80.00	$3,168.40
318	Huff,Troy	0.00	0.00	$921.25
319	Prusakiewicz,Luke	76.34	104.84	$2,973.76
320	Ozzello,Anthony	62.25	87.25	$2,266.11
321	Tracey,Benjamin	55.00	80.00	$2,105.60
323	Falkenhagen,Robert	69.17	96.17	$2,643.91
324	Dipzinski,Michael	0.00	0.00	$807.50
326	Heinz,Kathy	0.00	0.00	$811.25
327	Garlock,Cody	46.75	80.00	$1,918.40
328	Harrier,Kirk	80.00	80.00	$3,863.20
329	Gordon,Lukas	0.00	0.00	$810.63
330	Wagar,Thomas	0.00	0.00	$810.00
331	Boettner,Cary	57.00	80.00	$2,025.60
332	Huff,Cody	57.00	80.00	$2,525.60
333	Kwapis V,Stanley	59.50	80.00	$1,918.40
334	Jones,Samantha	539.50	539.50	$10,406.95
335	Pettis,Charles	64.50	80.00	$1,729.60
336	Hilmert,Rebecca	80.00	80.00	$2,308.00
337	Johnson,Zachary	57.50	80.00	$2,037.07
903	BANK,HORIZON	0.00	0.00	$7,852.57
	Total of Employee checks:	**2,759.29**	**3,603.79**	**$115,264.96**

Gross Pay by Fund:

	Total
201	115,264.96
Total	115,264.96

Approved: January 17, 2023

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Troy Huff, Chairman

Payroll Gross for P/R of 1/26/2023

PR #2

1/24/2023

1/7/2023 to 1/20/2023

Emp Nbr	and Name	Regular Hours	Total Hours	Gross Amt
071	Schmidt Jr.,Edward	3.00	3.00	$82.74
085	Collison,Thomas	8.00	8.00	$191.84
264	Huff III,Russell	88.50	90.00	$2,170.25
269	Koronka,Brian	87.00	119.00	$3,456.37
271	Slivinski,Steven	77.00	80.00	$1,918.40
272	Borowiak,Joseph	80.00	120.00	$3,586.07
277	Fox,David	246.00	246.00	$8,367.68
280	Kwapis,Earl	80.00	80.00	$1,918.40
283	Sewell,Dennis	80.00	80.00	$1,918.40
284	Kwapis Jr.,Stanley	80.00	112.00	$3,261.28
287	Myers,Joseph	143.00	152.00	$3,708.79
293	Samkowiak,Timothy	100.20	100.20	$2,388.66
294	Mench,Steven	83.00	89.00	$3,044.13
295	Boughner,Alan	80.00	86.00	$2,164.20
296	Johnson,Timothy	80.00	80.00	$2,459.20
299	Hinton,Justin	80.00	83.00	$2,026.31
303	Coughlin Jr.,Thomas	80.00	83.50	$2,044.30
307	Stiles,William	184.00	197.50	$4,855.09
308	Wcisel,David	80.00	80.00	$1,918.40
311	Wiley,James	80.00	80.50	$1,936.39
314	Kucharek,Joseph	79.84	82.34	$2,197.98
316	Jones,Tianne	88.00	88.00	$2,240.32
317	Mitchell Jr.,Dennis	77.00	80.00	$1,918.40
319	Prusakiewicz,Luke	80.00	80.00	$1,918.40
320	Ozzello,Anthony	80.00	84.00	$2,062.28
321	Tracey,Benjamin	77.50	80.00	$2,105.60
323	Falkenhagen,Robert	80.00	80.00	$1,918.40
327	Garlock,Cody	75.50	80.00	$1,918.40
328	Harrier,Kirk	200.00	200.00	$9,488.80
331	Boettner,Cary	76.50	80.00	$2,025.60
332	Huff,Cody	79.50	80.00	$2,025.60
333	Kwapis V,Stanley	76.00	80.00	$1,918.40
335	Pettis,Charles	80.00	80.00	$1,729.60
336	Hilmert,Rebecca	80.00	80.00	$2,308.00
337	Johnson,Zachary	79.50	80.00	$1,870.40
903	BANK,HORIZON	0.00	0.00	$6,116.81
	Total of Employee checks:	**3,129.04**	**3,304.04**	**$97,179.89**

Gross Pay by Fund:

	Total
201	97,179.89
Total	97,179.89

Approved: February 9, 2023

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Troy Huff, Chairman

Payroll Gross for P/R of 1/31/2023

PR 2022

1/30/2023

1/31/2023 to 1/31/2023

After 01012009

Emp Nbr	and Name	Regular Hours	Total Hours	Gross Amt
303	Coughlin Jr.,Thomas	0.00	0.00	$1,650.60
304	Rybicki,Louis	0.00	0.00	$1,133.35
307	Stiles,William	0.00	0.00	$1,702.94
308	Wcisel,David	0.00	0.00	$1,695.44
311	Wiley,James	0.00	0.00	$1,672.02
314	Kucharek,Joseph	0.00	0.00	$1,746.75
316	Jones,Tianne	0.00	0.00	$2,673.22
317	Mitchell Jr.,Dennis	0.00	0.00	$1,763.70
319	Prusakiewicz,Luke	0.00	0.00	$1,656.14
320	Ozzello,Anthony	0.00	0.00	$1,652.31
321	Tracey,Benjamin	0.00	0.00	$1,718.43
322	Moulds,Thelma	0.00	0.00	$2,538.09
323	Falkenhagen,Robert	0.00	0.00	$1,746.05
327	Garlock,Cody	0.00	0.00	$1,553.11
328	Harrier,Kirk	0.00	0.00	$5,109.11
331	Boettner,Cary	0.00	0.00	$1,518.90
332	Huff,Cody	0.00	0.00	$1,585.28
333	Kwapis V,Stanley	0.00	0.00	$1,443.91
334	Jones,Samantha	0.00	0.00	$1,737.32
335	Pettis,Charles	0.00	0.00	$462.23
336	Hilmert,Rebecca	0.00	0.00	$616.16
337	Johnson,Zachary	0.00	0.00	$227.93
	Total of Employee checks:	**0.00**	**0.00**	**$37,602.99**

Gross Pay by Fund:

	Total
201	37,602.99
Total	37,602.99

Approved: February 9, 2023

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Troy Huff, Chairman

		Invoice Date	Invoice Number	Days Old	Amount Due
AIRGAS	AIRGAS USA, LLC				
		1/2/2023	9993719279	32	6.39
	AIRGAS	**AIRGAS USA, LLC**			**6.39**
ATTMOBIL	AT&T Mobility				
		1/6/2023	287318351177X01142023	28	146.76
	ATTMOBIL	**AT&T Mobility**			**146.76**
AUTOZONE	AutoZone, Inc.				
		1/26/2023	2278971540	8	74.85
	AUTOZONE	**AutoZone, Inc.**			**74.85**
BILLMARS	Bill Marsh				
		1/23/2023	9018070	11	168.03
	BILLMARS	**Bill Marsh**			**168.03**
BRYCESEE	Bryce Seeley				
		1/24/2023	01242356866	10	58.00
		1/24/2023	01242356870	10	51.50
		1/31/2023	01312357002	3	51.50
	BRYCESEE	**Bryce Seeley**			**161.00**
CINTAS	Cintas Corporation #729				
		1/17/2023	4143644046	17	165.54
		1/24/2023	4144463074	10	166.74
		1/31/2023	4145160254	3	166.74
	CINTAS	**Cintas Corporation #729**			**499.02**
CONSUME	Consumers Energy				
		1/23/2023	205368291019	11	2,662.32
	CONSUME	**Consumers Energy**			**2,662.32**
CONTRACT	Contractors Rental Corp.				
		5/27/2021	619582	617	(228.38)
	CONTRACT	**Contractors Rental Corp.**			**(228.38)**
CRASIF	CRASIF				
		2/1/2023	CRA0008456	2	8,425.00
	CRASIF	**CRASIF**			**8,425.00**

	Invoice Date	Invoice Number	Days Old	Amount Due
DORNBOS	**Dornbos Sign, Inc.**			
	1/24/2023	INV67588	10	83.05
	1/31/2023	INV67691	3	88.80
	DORNBOS Dornbos Sign, Inc.			**171.85**
FEDERALF	**Federal Fluid Power, Inc.**			
	1/18/2023	693918	16	215.94
	1/24/2023	94152	10	114.74
	1/25/2023	94275	9	8.67
	FEDERALF Federal Fluid Power, Inc.			**339.35**
GAYLORDM	**Gaylord Machine & Fabrication, LLC**			
	1/31/2023	1286-12453	3	432.97
	2/1/2023	1286-12454	2	93.46
	GAYLORDM Gaylord Machine & Fabrication, LLC			**526.43**
GFLNA1	**GFL Environmental**			
	1/24/2023	120974	10	1,476.84
	GFLNA1 GFL Environmental			**1,476.84**
HUTSON	**Hutson, Inc.**			
	1/27/2023	9811413	7	88.95
	1/27/2023	9811417	7	1,471.95
	HUTSON Hutson, Inc.			**1,560.90**
JOENEDOW	**Joe Nedow**			
	1/30/2023	2023-02	4	4,085.00
	JOENEDOW Joe Nedow			**4,085.00**
JOHNSONO	**Johnson Oil Company**			
	5/24/2021	616723	620	(11,092.23)
	JOHNSONO Johnson Oil Company			**(11,092.23)**
MEEKHO	**Meekhof Tire Sales & Service**			
	1/23/2023	23-0134427-094	11	1,410.00
	MEEKHO Meekhof Tire Sales & Service			**1,410.00**
MERS	**MERS of Michigan**			
	1/31/2023	00139770-7	3	75,874.10
	MERS MERS of Michigan			**75,874.10**

	Invoice Date	Invoice Number	Days Old	Amount Due
MIDSTATE	**Mid-State Bolt & Screw Co.**			
	1/18/2023	32367953	16	136.26
	1/20/2023	32369659	14	647.48
	1/30/2023	32375385	4	19.82
	1/30/2023	32375387	4	22.20
	MIDSTATE Mid-State Bolt & Screw Co.			**825.76**
MIKENWOR	**Michigan Kenworth, LLC**			
	1/26/2023	022P163330	8	288.78
	MIKENWOR Michigan Kenworth, LLC			**288.78**
MODERNCR	**Modern Crane Technologies, LLC**			
	1/30/2023	11568	4	652.00
	MODERNCR Modern Crane Technologies, LLC			**652.00**
NORTHERN	**Northern Energy, Inc.**			
	1/27/2023	83279	7	204.48
	1/23/2023	83733	11	2,601.63
	1/19/2023	85231	15	1,490.58
	NORTHERN Northern Energy, Inc.			**4,296.69**
OCRC	**Otsego County Road Commission**			
	1/23/2023	01/24/23-1/30/23	11	611.52
	OCRC Otsego County Road Commission			**611.52**
PROONE	**PROTECTION ONE/ADT**			
	1/15/2023	19877752	19	273.57
	PROONE PROTECTION ONE/ADT			**273.57**
SCIBRA	**SCIENTIFIC BRAKE & EQUIP.**			
	1/16/2023	0202100199	18	82.38
	1/16/2023	0202100255	18	243.92
	1/19/2023	0202100256	15	26.10
	1/18/2023	0202100385	16	165.70
	1/19/2023	0202100432	15	136.29
	1/19/2023	0202100461	15	120.78
	1/30/2023	0202100465	4	194.19
	1/19/2023	0202100470	15	56.10
	1/23/2023	0202100472	11	56.10
	1/23/2023	0202100630	11	23.18
	1/23/2023	0202100635	11	66.60
	1/24/2023	0202100652	10	66.60
	1/23/2023	0202100697	11	(33.00)

		Invoice Date	Invoice Number	Days Old	Amount Due
		1/25/2023	0202100810	9	49.54
		1/30/2023	0202100831	4	123.78
		1/26/2023	0202100848	8	23.18
		1/31/2023	0202101054	3	13.73
		1/31/2023	0202101057	3	154.63
		1/31/2023	0202101082	3	199.33
		1/31/2023	0202101120	3	(66.00)
		2/2/2023	0202101131	1	13.58
	SCIBRA	**SCIENTIFIC BRAKE & EQUIP.**			**1,716.71**
SHINECLE	**Shine Cleaning Service Inc.**				
		1/30/2023	302	4	11,479.15
	SHINECLE	**Shine Cleaning Service Inc.**			**11,479.15**
Staples	**Staples**				
		1/26/2023	8069034394	8	935.31
	Staples	**Staples**			**935.31**
STEVEMEN	**Steven Mench**				
		2/2/2023	10/01/2022-12/31/2022	1	150.00
	STEVEMEN	**Steven Mench**			**150.00**
STOOPS	**Stoops Western Star of Michigan**				
		1/24/2023	01P24491	10	51.38
		1/27/2023	01P24591	7	467.90
		1/13/2023	01R8453	21	2,761.98
	STOOPS	**Stoops Western Star of Michigan**			**3,281.26**
TEDFES	**TED FESTERLING LLC**				
		1/16/2023	10258	18	178.88
	TEDFES	**TED FESTERLING LLC**			**178.88**
TERMSUP	**TERMINAL SUPPLY CO.**				
		1/17/2023	12636-00	17	447.28
	TERMSUP	**TERMINAL SUPPLY CO.**			**447.28**
TRUTRA	**TRUCK & TRAILER SPECIALTIES**				
		1/23/2023	BSO019712	11	2,853.30
	TRUTRA	**TRUCK & TRAILER SPECIALTIES**			**2,853.30**
VALTRU	**VALLEY TRUCK PARTS, INC.**				
		1/20/2023	3-1221828	14	100.84

		Invoice Date	Invoice Number	Days Old	Amount Due
		1/26/2023	3-1221873	8	354.97
		1/31/2023	3-1221902	3	11.32
		1/31/2023	3-1221903	3	(11.32)
		1/31/2023	3-1221904	3	12.15
	VALTRU	**VALLEY TRUCK PARTS, INC.**			**467.96**
WADTRI	**WADE TRIM**				
		12/7/2022	3026355	58	1,547.52
		12/7/2022	3026356	58	1,524.90
		12/7/2022	3026357	58	4,046.86
		12/7/2022	3026362	58	2,366.29
		1/19/2023	3026896	15	3,771.96
		1/19/2023	3026897	15	456.44
		1/19/2023	3026898	15	3,217.18
		1/19/2023	3026902	15	8,536.53
	WADTRI	**WADE TRIM**			**25,467.68**
WELAUT	**JASPER WELLER LLC**				
		1/20/2023	402802320	14	703.70
	WELAUT	**JASPER WELLER LLC**			**703.70**
WILAUT	**WILBER AUTOMOTIVE**				
		1/16/2023	284475	18	123.53
		1/18/2023	284759	16	40.17
		1/20/2023	284967	14	287.08
		1/24/2023	285197	10	42.22
	WILAUT	**WILBER AUTOMOTIVE**			**493.00**
ZAREQU	**ZAREMBA EQUIPMENT, INC.**				
		1/23/2023	170164S	11	128.06
		1/18/2023	171550S	16	590.94
		1/20/2023	171618S	14	536.06
		1/23/2023	171665S	11	166.91
		1/25/2023	171725S	9	435.36
	ZAREQU	**ZAREMBA EQUIPMENT, INC.**			**1,857.33**

This report was created with the following parameters

ADD JOHNSON OIL 52,618.60

GRAND TOTAL 195,865.70

Accounts Payable Check Register

1/1/2023 to 1/31/2023

CheckNbr	Vendor Name	Check Date	Part Amount	Amount
618703	Advance Electric	01/17/2023		258.62
618704	AIRGAS USA, LLC	01/17/2023		625.51
618705	Alma Tire Service, Inc.	01/17/2023		279.22
618706	Alpena Supply Company	01/17/2023		98.56
618707	AT&T Mobility	01/17/2023		1,585.86
618708	Baum Hydraulics Corporation	01/17/2023		2,604.78
618709	BBC Distributing	01/17/2023		292.04
618710	Ben Tracey	01/17/2023		150.00
618711	Bryce Seeley	01/17/2023		227.25
618712	Charter Communications	01/17/2023		369.94
618713	Cintas Corporation #729	01/17/2023		665.76
618714	Consumers Energy	01/17/2023		44.68
618715	Dale Dukes & Sons, Inc.	01/17/2023		54,800.00
618716	Dennis Mitchell	01/17/2023		30.00
618717	Dornbos Sign, Inc.	01/17/2023		56.01
618718	DTE Energy	01/17/2023		5,399.78
618719	Federal Fluid Power, Inc.	01/17/2023		507.40
618720	First National Bank of Omaha	01/17/2023		1,600.48
618721	GFL Environmental	01/17/2023		325.47
618722	GFL Environmental	01/17/2023		3,873.49
618723	Grayling Occupational Medicine	01/17/2023		100.00
618724 part of 618725	Grand Traverse Diesel Service, Inc.	01/17/2023	1,438.64	
618725	Grand Traverse Diesel Service, Inc.	01/17/2023	79.65	
	Total of multi-part check 618725			1,518.29
618726	Hutson, Inc.	01/17/2023		324.74
618727	Imperial Supplies LLC	01/17/2023		404.12
618728	Johnson Oil Company	01/17/2023		65,930.12
618729	Justin Hinton	01/17/2023		143.10
618730	JX Truck Center	01/17/2023		677.95
618731	Lawson Products, Inc.	01/17/2023		1,139.71
618732	Marcor Technologies, LLC	01/17/2023		864.00
618733	McVeigh's Truck Springs	01/17/2023		3,397.60
618734	Meekhof Tire Sales & Service	01/17/2023		10,354.05
618735	Mid-State Bolt & Screw Co.	01/17/2023		189.55
618736	Michigan Kenworth, LLC	01/17/2023		420.16
618737	Northern Energy, Inc.	01/17/2023		7,691.01
618738	Otsego County Road Commission	01/17/2023		890.48
618739	Munson Healthcare OMH Medical Group	01/17/2023		123.00
618740	QUALITY PLUMBING AND MECHANICAL INC.	01/17/2023		2,449.44
618741	RONS AUTO & WRECKER	01/17/2023		699.50
618742 part of 618744	SCIENTIFIC BRAKE & EQUIP.	01/17/2023	519.13	
618743 part of 618744	SCIENTIFIC BRAKE & EQUIP.	01/17/2023	567.73	
618744	SCIENTIFIC BRAKE & EQUIP.	01/17/2023	101.48	
	Total of multi-part check 618744			1,188.34
618745	Howard L. Shifman, P.C.	01/17/2023		30.00
618746	Shine Cleaning Service Inc.	01/17/2023		11,479.15
618747	Snethkamp	01/17/2023		200.00
618748	Staples	01/17/2023		107.30
618749	SYLVESTERS	01/17/2023		220.00
618750	TERMINAL SUPPLY CO.	01/17/2023		231.70
618751	TRUCK & TRAILER SPECIALTIES	01/17/2023		5,863.61
618752	US Bank Equipment Finance	01/17/2023		324.03
618753	VALLEY TRUCK PARTS, INC.	01/17/2023		569.23
618754	VERIZON WIRELESS	01/17/2023		0.00
618755	WEX Bank	01/17/2023		1,440.80
618756 part of 618758	WILBER AUTOMOTIVE	01/17/2023	852.82	
618757 part of 618758	WILBER AUTOMOTIVE	01/17/2023	149.92	
618758	WILBER AUTOMOTIVE	01/17/2023	593.58	
	Total of multi-part check 618758			1,596.32
618759	Wonderland Tire Company, Inc.	01/17/2023		169.00
618760	ZAREMBA EQUIPMENT, INC.	01/17/2023		296.02
618761	Russell Huff	01/23/2023		371.10

Accounts Payable Check Register

1/1/2023 to 1/31/2023

CheckNbr	Vendor Name	Check Date	Part Amount	Amount
618762	Blue Care Network of MI	01/27/2023		46,815.58
618763	Ben Tracey	01/27/2023		599.00
618764	Brian Koronka	01/27/2023		150.00
618765	Burnham & Flower	01/27/2023		217.50
618766	Cary Boettner	01/27/2023		599.00
618767	City of Gaylord	01/27/2023		33.52
618768	Cody Huff	01/27/2023		599.00
618769	Cogitate, Inc.	01/27/2023		3,708.00
618770	County Road Association	01/27/2023		1,005.00
618771	Delta Dental	01/27/2023		3,652.58
618772	DTE Energy	01/27/2023		7,235.72
618773	Gaylord Machine & Fabrication, LLC	01/27/2023		103.33
618774	Great Lakes Energy	01/27/2023		41.90
618775	Humana Insurance Co.	01/27/2023		12,673.05
618776	Joe Kucharek	01/27/2023		599.00
618777	Joe Nedow	01/27/2023		4,560.00
618778	Meekhof Tire Sales & Service	01/27/2023		872.20
618779	Mutual of Omaha	01/27/2023		3,095.50
618780	Otsego County Road Commission	01/27/2023		2,877.34
618781	TIMOTHY SAMKOWIAK	01/27/2023		150.00
618782	Billy Stiles	01/27/2023		150.00
EFTP	Merchants Fleet	01/17/2023		1,004.25
EFTP	MERS of Michigan	01/17/2023		87,349.52
	81 Checks Listed			**373,289.26**

Account Summary by Transaction Type

	PAY	Total
201-0-202-202-0-0-0	373,289.26	373,289.26
Total	373,289.26	373,289.26

This report was created with the following parameters

Enter Low and High Dates
1/1/2023 Thru 1/31/2023
Enter Fund(s) to Report On
Enter range of specific checks
Enter Acct2 Range
Enter Acct3 Range
Enter Acct4 Range

Report Executed on: 2/3/2023 2:29:36 PM

Otsego County Road Commission
Agenda Item Report

FROM: Kirk Harrier, Managing Director

MEETING DATE: February 9, 2023

AGENDA ITEM: 8. A

SUBJECT: Marlette Road Transverse Cracking Review

DESCRIPTION
In 2020, Marlette Road from Sherman Road to Fantasy Drive was repaved as part of a federal aid funded project. The work consisted of 3.20 miles of hot mix asphalt base crushing, shaping and resurfacing, aggregate base, drainage and pavement markings.

The following year (2021), the road experienced issues involving small holes (blowouts) and centerline cracking. A corrective action plan was implemented by the contractor and repairs were made to address the deficiencies. See appendix A to this report.

In late 2022, the OCRC noticed transvers cracking on a significant portion of the road that staff believed to be excessive for the age of the road. The OCRC's engineering firm reviewed the matter. See appendix B to this report.

This information is being presented to the OCRC Board for discussion and determination if the Board would like to investigate further action or possibly seek review by the Asphalt Pavement Association of Michigan (APAM). A representative from MDOT is scheduled to be present at the February 9 meeting to answer questions the Board may have.

BUDGET ACTION REQUIRED
N/A

LEGAL REVIEW
N/A

SAMPLE MOTION:
N/A

APPENDIX A

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Project Name:	E. Marlette Road Rehabilitation Project
Agency:	Otsego County Road Commission
CS:	STL 69000
Job No.:	205316
Wade Trim Project Number:	ORC2882.02G
ATTN:	Paul M. Repasky, PE

HMA Crack Treatment Action Plan

For Centerline Joint Treatment Only

Materials and Equipment

- Sealant for a rout and seal process will be a hot-poured joint sealant that meets the requirements of subsection 914.04A for sealing sawn or routed cracks.
- Material will be applied when air temperatures are 45°F to 85°F. If moisture is present in the crack material will not be applied until dry.
- All sealant will be melted by means of a boiler kettle equipped with at least one pressure pump, hose, and applicator wand. Application wand will apply material using a round application head with a concave underside in accordance with the material manufacture's specifications. All units will include the following.
    a) Shutoff control on the applicator hose.
    b) Mechanical full-sweep agitator in the kettle to provide continuous blending.

c) Thermometers to monitor the material temperature and the heating oil temperature.
d) Thermostatic controls that allow the operator to regulate material temperature up to 425°F.

- All cracks will be cleaned of vegetation and debris will be removed using a compressed air system equipped with a moisture separator that's capable of producing at least 100 psi at a continuous air flow of 150 cfm. Cracks will be cleaned no more than 10 minutes before sealing. Field crew will use extreme caution when cleaning cracks to prevent the blowing of debris into passing motorist, pedestrians, parked vehicles, or buildings.

- The foreperson will monitor all work being done to make sure it complies with section 502 of the 2012 MDOT Standard Specifications for Construction for HMA Crack Treatment.

Crack Treatment Methods

- Field crew will treat longitudinal joint openings with the rout and seal process.

- Reservoir configuration for the rout and seal operation will be a volume of at least 7.5 cubic inches per foot of crack and with a 1:1 width to depth ratio. Reservoir walls will be vertical and square to the reservoir bottom. The sealant will be placed flush with a slight overband. Cutting carbides will be replaced or rotated when the reservoir starts to become less than 7.5 cubic inches per foot of crack or when the side walls of the reservoir are no longer vertical and square to the reservoir.

Cure Time and Repair

- Field crew will make sure applied material is cool before opening the road to traffic.
- A de-tackifying solution may need to be used at intersections, driveways, and if there is any tracking from the material.
- The foreperson on site will monitor all work performed to make sure it complies with section 502 of the 2012 MDOT Standard Specifications for Construction for HMA Crack Treatment.
- Any repairs needed will be done before completing the project.

Adverse Environmental Conditions

- Outside of weather, no adverse environmental conditions are present on the project.

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HMA DUST BALL CORRECTIVE ACTION FILL PLAN

MATERIAL AND EQUIPMENT

- The bond coat and sand mix asphalt used to fill these holes meet the approved mix design for the project.
- The proposed work will be performed when air temperatures are above 45 degrees F.
- HMA to be produced by counter flow drum mix plant and will be transported to the job in an insulated box that is heated by a propane heater.
- All holes to be blown clean with compressed air prior to bond coat application.

Hole Fill Method

- Paving crew will address the voids left in the surface of the asphalt road with clean tack and patch process.
- Bond coat will be heated to a temperature of 130 degrees F and hand applied, the HMA will be installed at a temp of 280 degrees F and hand tamp will be used for compaction leaving the surface of the installed HMA flush with the existing surface.

Continual Evaluation Process:

- E Marlette Rd will be evaluated in the Fall of 2021 to monitor the effects of the corrective action plan outlined above. If additional HMA dust balls are discovered, Elmer's will follow the above action plan for the additional HMA dust balls or the corrective plan may need to be adjusted as determined by MDOT, Wade Trim and OCRC. One year after the corrective action plan is completed and no additional HMA dust balls are appearing, the road way surface will be evaluated for final acceptance.

APPENDIX B

Kirk Harrier

From: Repasky, Paul <prepasky@WadeTrim.com>
Sent: Thursday, January 19, 2023 9:05 AM
To: Kirk Harrier
Cc: Steve Mench; Ed Schmidt (thewrest@yahoo.com); Butkovich, Scott
Subject: E Marlette Road HMA cracking
Attachments: Marlette Rd Shoulder Cracking Locations.pdf; Marlette Rd January 2023 PASER Rating Sheet - 8 Rating.pdf; Marlette Rd GoogleEarth_Image.jpg; Marlette Rd STA 153+50 Shoulder Cracking at Santuary Dr 2.pdf.jpg; Marlette Rd STA 153+50 Shoulder Crack Measurement.jpg; Marlette Rd STA 153+50 Shoulder Cracking at Santuary Dr.pdf.jpg

Kirk,

Two weeks ago, Wade Trim went out and performed a field review on the section of Marlette Rd in concern with the HMA cracking. (84 transverse cracks were recorded in the last (east end) 2.5 miles of the project with no transverse cracking located within the first mile. Transverse cracking occurred on an average of every 160 feet. The transverse cracking is not unusual to happen with the extreme freeze/thaw cycles we experience locally.

We have discussed why there is no cracking in the first mile and concluded that this section of roadway has significantly less shading on the roadway from trees which results in more sunlight reaching the HMA surface. More sunlight to the surface keeps the surface temperature higher which allows for less surface shrinkage.

There were four locations located where surface cracking on the shoulder is present. The attached plan sheet highlights these areas. A key contributing factor found with the shoulder cracking is the shoulders not shedding off water. Aggregate shoulders holding water will weaken the base materials allowing the HMA surface to flex further than intended resulting in cracking. Another issue with cracking of the HMA shoulders is the shade projected onto the roadway from trees. As mentioned above, these areas are shaded which doesn't let the surface temperature rise and shoulder material dry out as quickly as non-shaded areas. Another contributing factor could be heavy trucks and constant traffic running on the inside of the curves where the shoulder cracking has developed.

While on site we PASER Rated the roadway and found it is a **7**, "Good Rating" where the shoulder cracking is and an **8**. "Very Good Rating" where there is no cracking and transverse cracking present. See the attached PASER Rating sheet for details of the 7 and 8 ratings. These ratings are common for the age of this roadway. As shown on the PASER Rating sheet, the recommended fix is crack sealing in the spring or summer of 2023 as routine maintenance of this roadway. We also recommend that this roadway is restriped, centerline and edge lane to keep traffic in the driving lanes and off of the shoulders.

Please feel free to contact me if you would like to discuss in further detail.

Thanks,

Paul

WADE TRIM

Paul M Repasky, PE, Professional Engineer
4241 Old US 27 South, Suite 1, PO Box 618, Gaylord, MI 49734

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
ACCEPTANCE OF HOT MIX ASPHALT MIXTURE ON LOCAL AGENCY PROJECTS

CFS:KPK 1 of 7 APPR:CJB:JWB:07-05-16
FHWA:APPR:07-05-16

a. Description. This special provision provides sampling and testing requirements for local agency projects using the roller method and the nuclear density gauge testing. Provide the hot mix asphalt (HMA) mixture in accordance with the requirements of the standard specifications, except where modified herein.

b. Materials. Provide aggregates, mineral filler (if required), and asphalt binder to produce a mixture proportioned within the master gradation limits shown in the contract, and meeting the uniformity tolerance limits in Table 1.

Table 1: Uniformity Tolerance Limits for HMA Mixtures

Parameter			Top and Leveling Course		Base Course	
Number	Description		Range 1 (a)	Range 2	Range 1 (a)	Range 2
1	% Binder Content		-0.30 to +0.40	±0.50	-0.30 to +0.40	±0.50
2	% Passing	# 8 and Larger Sieves	±5.0	±8.0	±7.0	±9.0
		# 30 Sieve	±4.0	±6.0	±6.0	±9.0
		# 200 Sieve	±1.0	±2.0	±2.0	±3.0
3	Crushed Particle Content (b)		Below 10%	Below 15%	Below 10%	Below 15%

a. This range allows for normal mixture and testing variations. The mixture must be proportioned to test as closely as possible to the Job-Mix-Formula (JMF).
b. Deviation from JMF.

Parameter number 2 as shown in Table 1 is aggregate gradation. Each sieve will be evaluated on one of the three gradation tolerance categories. If more than one sieve is exceeding Range 1 or Range 2 tolerances, only the one with the largest exceedance will be counted as the gradation parameter.

The master gradation should be maintained throughout production; however, price adjustments will be based on Table 1. Aggregates which are to be used in plant-mixed HMA mixtures must not contain topsoil, clay, or loam.

c. Construction. Submit a Mix Design and a JMF to the Engineer. Do not begin production and placement of the HMA until receipt of the Engineer's approval of the JMF. Maintain the binder content, aggregate gradation, and the crushed particle content of the HMA mixture within the Range 1 uniformity tolerance limits in Table 1. For mixtures meeting the definition of top or leveling course, field regress air void content to 3.5 percent with liquid asphalt cement unless

specified otherwise on HMA application estimate. For mixtures meeting the definition of base course, field regress air void content to 3.0 percent with liquid asphalt cement unless specified otherwise on HMA application estimate.

Ensure all persons performing Quality Control (QC) and Quality Assurance (QA) HMA field sampling are "Local Agency HMA Sampling Qualified" samplers. At the Pre-Production or Pre-Construction meeting, the Engineer will determine the method of sampling to be used. Ensure all sampling is done in accordance with *MTM 313 (Sampling HMA Paving Mixtures)* or *MTM 324 (Sampling HMA Paving Mixtures Behind the Paver)*. Samples are to be taken from separate hauling loads.

For production/mainline type paving, obtain a minimum of two samples, each being 20,000 grams, each day of production, for each mix type. The Engineer will sample and maintain possession of the sample. Sampling from the paver hopper is prohibited. Each sample will be divided into two 10,000 gram parts with one part being for initial testing and the other part being held for possible dispute resolution testing. Obtain a minimum of three samples for each mix type regardless of the number of days of production.

Obtain samples that are representative of the day's paving. Sample collection is to be spaced throughout the planned tonnage. One sample will be obtained in the first half of the tonnage and the second sample will be obtained in the second half of the tonnage. If planned paving is reduced or suspended, when paving resumes, the remaining sampling must be representative of the original intended sampling timing.

Ensure all persons performing testing are Bit Level One certified or Bit QA/QC Technician certified.

Ensure daily test samples are obtained, except, if the first test results show that the HMA mixture is in specification, the Engineer has the option of not testing additional samples from that day.

At the Pre-Production or Pre-Construction meeting, the Engineer and Contractor will collectively determine the test method for measuring asphalt content (AC) using *MTM 319 (Determination of Asphalt Content from Asphalt Paving Mixtures by the Ignition Method)* or *MTM 325 (Quantitative Extraction of Bitumen from HMA Paving Mixtures)*. Back calculation will not be allowed for determining asphalt content.

Ensure all labs performing local agency acceptance testing are qualified labs per the *HMA Production Manual* and participate in the MDOT round robin process, or they must be *AASHTO Materials Reference Laboratory* (AMRL) accredited for *AASHTO T 30* or *T 27*, and *AASHTO T 164* or *T 308*. Ensure on non-National Highway System (NHS) routes, Contractor labs are made available, and may be used, but they must be qualified labs as previously stated. Contractor labs may not be used on NHS routes. Material acceptance testing will be completed by the Engineer within 14 calendar days, except holidays and Sundays, for projects with less than 5,000 tons (plan quantity) of HMA and within 7 calendars days, except holidays and Sundays, for projects with 5,000 tons (plan quantity) or more of HMA, after the Engineer has obtained the samples. QA test results will be provided to the Contractor after the Engineer receives the QC test results. Failure on the part of the Engineer or the laboratory to provide Quality Assurance test results within the specified time frame does not relieve the Contractor of their responsibility to provide an asphalt mix within specifications.

The correlation procedure for ignition oven will be established as follows. Asphalt binder content based on ignition method from MTM 319. Gradation (*ASTM D 5444*) and Crushed particle content *(MTM 117)* based on aggregate from *MTM 319*. The incineration temperature will be established at the Pre-Production Meeting. The Contractor will provide a laboratory mixture sample to the acceptance laboratory to establish the correction factor for each mix. Ensure this sample is provided to the Engineer a minimum of 14 calendar days prior to production.

For production/mainline type paving, the mixture may be accepted by visual inspection up to a quantity of 500 tons per mixture type, per project (not per day). For non-production type paving defined as driveways, approaches, and patching, visual inspection may be allowed regardless of the tonnage.

The mixture will be considered out-of-specification, as determined by the acceptance tests, if for any one mixture, two consecutive tests per parameter, (for Parameter 2, two consecutive aggregate gradations on one sieve) are outside Range 1 or Range 2 tolerance limits. If a parameter is outside of Range 1 tolerance limits and the second consecutive test shows that the parameter is outside of Range 2, then it will be considered to be a Range 1 out-of-specification. Consecutive refers to the production order and not necessarily the testing order. Out-of-specification mixtures are subject to a price adjustment per the Measurement and Payment section of this special provision.

Contractor operations will be suspended when the mixture is determined to be out-of-specification, but contract time will continue to run. The Engineer may issue a Notice of Non-Compliance with Contract Requirements (Form 1165), if the Contractor has not suspended operations and taken corrective action. Submit a revised JMF or proposed alterations to the plant and/or materials to achieve the JMF to the Engineer. Effects on the Aggregate Wear Index (AWI) and mix design properties will be taken into consideration. Production and placement cannot resume until receipt of the Engineer's approval to proceed.

Pavement in-place density will be measured using one of two approved methods. The method used for measuring in-place density will be agreed upon at a pre-production or pre-construction meeting.

Pavement in-place density tests will be completed by the Engineer during paving operations and prior to traffic staging changes. Pavement in-place density acceptance testing will be completed by the Engineer prior to paving of subsequent lifts and being open to traffic.

Option 1 – Direct Density Method

Use of a nuclear density gauge requires measuring the pavement density using the Gmm from the JMF for the density control target. The required in-place density of the HMA mixture must be 92.0 to 98.0 percent of the density control target. Nuclear density testing and frequency will be in accordance with the *MDOT Density Testing and Inspection Manual*.

Option 2 – Roller Method

The Engineer may use the Roller Method with a nuclear or non-nuclear density gauge to document achieving optimal density as discussed below.

Use of the density gauge requires establishing a rolling pattern that will achieve the required in-place density. The Engineer will measure pavement density with a density gauge using the Gmm from the JMF for the density control target.

Use of the Roller Method requires developing and establishing density frequency curves, and meeting the requirements of Table 2. A density frequency curve is defined as the measurement and documentation of each pass of the finished roller until the in-place density results indicate a decrease in value. The previous recording will be deemed the optimal density. The Contractor is responsible for establishing and documenting an initial or QC rolling pattern that achieves the optimal in-place density. When the density frequency curve is used, the Engineer will run and document the density frequency curve for each half day of production to determine the number of passes to achieve the maximum density. Table 5, located at the end of this special provision, can be used as an aid in developing the density frequency curve. The Engineer will perform density tests using an approved nuclear or non-nuclear gauge per the manufacturer's recommended procedures.

Table 2: Minimum Number of Rollers Recommended Based on Placement Rate

Average Laydown Rate, Square Yards per Hour	Number of Rollers Required (a)	
	Compaction	Finish
Less than 600	1	1 (b)
601 - 1200	1	1
1201 - 2400	2	1
2401 - 3600	3	1
3601 and More	4	1

a. Number of rollers may increase based on density frequency curve.
b. The compaction roller may be used as the finish roller also.

After placement, roll the HMA mixture as soon after placement as the roller is able to bear without undue displacement or cracking. Start rolling longitudinally at the sides of the lanes and proceed toward the center of the pavement, overlapping on successive trips by at least half the width of the drum. Ensure each required roller is 8 tons minimum in weight unless otherwise approved by the Engineer.

Ensure the initial breakdown roller is capable of vibratory compaction and is a maximum of 500 feet behind the paving operations. The maximum allowable speed of each roller is 3 miles per hour (mph) or 4.5 feet per second. Ensure all compaction rollers complete a minimum of two complete rolling cycles prior to the mat temperature cooling to 180 degrees Fahrenheit (F). Continue finish rolling until all roller marks are eliminated and no further compaction is possible. The Engineer will verify and document that the roller pattern has been adhered to. The Engineer can stop production when the roller pattern is not adhered to.

d. Measurement and Payment. The completed work, as described, will be measured and paid for using applicable pay items as described in subsection 501.04 of the Standard Specifications for Construction, or the contract, except as modified below.

Base Price. Price established by the Department to be used in calculating incentives and adjustments to pay items and shown in the contract.

If acceptance tests, as described in section c. of this special provision, show that a Table 1 mixture parameter exceeds the Range 1, but not the Range 2, tolerance limits, that mixture parameter will be subject to a 10 percent penalty. The 10 percent penalty will be assessed based on the acceptance tests only unless the Contractor requests that the 10,000 gram sample part retained for possible dispute resolution testing be tested. The Contractor has 4 calendar days from receipt of the acceptance test results to notify the Engineer, in writing, that dispute resolution testing is requested. The Contractors QC test results for the corresponding QA test results must result in an overall payment greater than QA test results otherwise the QA tests will not be allowed to be disputed. The Engineer has 4 calendar days to send the dispute resolution sample to the lab once dispute resolution testing is requested. The dispute resolution sample will be sent to an independent lab selected by the Local Agency, and the resultant dispute test results will be used to determine the penalty per parameter, if any. Ensure the independent lab is a MDOT QA/QC qualified lab or an AMRL HMA qualified lab. The independent lab must not have conflicts of interest with the Contractor or Local Agency. If the dispute testing results show that the mixture parameter is out-of-specification, the Contractor will pay for the cost of the dispute resolution testing and the contract base price for the material will be adjusted, based on all test result parameters from the dispute tests, as shown in Table 3 and Table 4. If the dispute test results do not confirm the mixture parameter is out-of-specification, then the Local Agency will pay for the cost of the dispute resolution testing and no price adjustment is required.

If acceptance tests, as described in section c. of this special provision, show that a Table 1 mixture parameter exceeds the Range 2 tolerance limits, the 10,000 gram sample part retained for possible dispute resolution testing will be sent, within 4 calendar days, to the MDOT Central Laboratory for further testing. The MDOT Central Laboratory's test results will be used to determine the penalty per mixture parameter, if any. If the MDOT Central Laboratory's results do not confirm the mixture parameter is out-of-specification, then no price adjustment is required. If the MDOT Central Laboratory's results show that the mixture is out-of-specification and the Engineer approves leaving the out-of-specification mixture in place, the contract base price for the material will be adjusted, based on all parameters, as shown in Table 3 and Table 4.

In the case that the Contractor disputes the results of the test of the second sample obtained for a particular day of production, the test turn-around time frames given would apply to the second test and there would be no time frame on the first test.

The laboratory (MDOT Central Laboratory or independent lab) will complete all Dispute Resolution testing and return test results to the Engineer, who will provide them to the Contractor, within 13 calendar days upon receiving the Dispute Resolution samples.

In all cases, when penalties are assessed, the penalty applies to each parameter, up to two parameters, that is out of specification.

Table 3: Penalty Per Parameter

Mixture Parameter out-of-Specification per Acceptance Tests	Mixture Parameter out-of-Specification per Dispute Resolution Test Lab	Price Adjustment per Parameter
NO	N/A	None
YES	NO	None
	YES	Outside Range 1 but not Range 2: decrease by 10%
		Outside Range 2: decrease by 25%

The quantity of material receiving a price adjustment is defined as the material produced from the time the first out-of-specification sample was taken until the time the sample leading to the first in-specification test was taken.

Each parameter of Table 1 is evaluated with the total price adjustment applied to the contract base price based on a sum of the two parameter penalties resulting in the highest total price adjustment as per Table 4. For example, if three parameters are out-of-specification, with two parameters outside Range 1 of Table 1 tolerance limits, but within Range 2 of Table 1 limits and one parameter outside of Range 2 of Table 1 tolerance limits and the Engineer approves leaving the mixture in place, the total price adjustment for that quantity of material is 35 percent.

Table 4: Calculating Total Price Adjustment

Cost Adjustment as a Sum of the Two Highest Parameter Penalties		
Number of Parameters Out-of-Specification	Range(s) Outside of Tolerance Limits of Table 1 per Parameter	Total Price Adjustment
One	Range 1	10%
	Range 2	25%
Two	Range 1 & Range 1	20%
	Range 1 & Range 2	35%
	Range 2 & Range 2	50%
Three	Range 1, Range 1 & Range 1	20%
	Range 1, Range 1 & Range 2	35%
	Range 1, Range 2 & Range 2	50%
	Range 2, Range 2 & Range 2	50%

Table 5: Density Frequency Curve Development

Tested by: _____ Date/Time: _____

Route/Location:		Air Temp:
Control Section/Job Number:		Weather:
Mix Type:	Tonnage:	Gauge:
Producer:	Depth:	Gmm:

Roller #1 Type:

Pass No.	Density	Temperature	Comments
1			
2			
3			
4			
5			
6			
7			
8			
Optimum			

Roller #2 Type:

Pass No.	Density	Temperature	Comments
1			
2			
3			
4			
5			
6			
7			
8			
Optimum			

Roller #3 Type:

Pass No.	Density	Temperature	Comments
1			
2			
3			
4			
5			
6			
7			
8			
Optimum			

Summary: _____

Michigan Department
of Transportation
1911 (03/14)

JOB MIX FORMULA (JMF)
HMA FIELD COMMUNICATION

This form 1911 applies only to the project listed below and is not transferable to other projects.

DISTRIBUTION: ORIGINAL - Project Engineer **COPIES** - Contractor, Testing Laboratory, Inspector, and TMI

File 305

CONTROL SECTION	JOB NO.	PROJECT ENGINEER	DATE EFFECTIVE
STL 69000	205316A	Paul Repasky	10/13/20

CONTRACTOR	PLANT LOCATION	PLANT NO.
Team Elmers	Traverse City	175-02

TYPE OF MIXTURE	MIX DESIGN NO.	TESTING OPTION	PLANT CERTIFICATION DATE	CONTRACTOR'S QC PLAN TO PROJECT ENGINEER
4E1	20MD049	Extraction	4/20/20	☑ YES ☐ NO

STAND. SPEC. DATE	MIX SP. PROV. DATE	QC/QA SP. PROV. DATE	VMA	VFA	% AIR VOIDS	ANGULARITY	DUST CORR.
2012	2012 Std. Spec.	12SP-501J-05	14.62	79.49	3.00	42.4	

Gmm	Gmb	Gb	Gse	Gsb	FINES/ASPHALT RATIO	COMPACTION TEMP.	MIXING TEMP.
2.441	2.368	1.024	2.667	2.614	1.05	296 F	316 F

MIX/AGG. GRADATION, %

ITEM	PERCENT
ASPHALT,%	5.76
P 1-1/2" (37.5 mm)	100.00
P 1" (25.0 mm)	100.00
P 3/4" (19.0 mm)	100.00
P 1/2" (12.5 mm)	96.60
P 3/8" (9.5 mm)	88.70
P No. 4 (4.75 mm)	69.60
P No. 8 (2.36 mm)	53.80
P No. 16 (1.18 mm)	42.60
P No. 30 (600 µm)	31.90
P No. 50 (300 µm)	15.40
P No. 100 (150 µm)	6.90
P No. 200 (75 µm)	5.30
CRUSHED 1 FACE	98.4
CRUSHED 2 FACES	
BOND COAT	

MIX/AGG. PROPORTION, %

MATERIAL/PRODUCER	PIT NO.	PERCENT
31A	45-39	22.0
Man Sand	45-39	12.0
2NS	45-38	31.0
5/8 ST	45-39	15.0
RECLAIMED: RAP		20.0
FILLER		

ASPHALT BINDER	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT #	% ADDED
	PG 58-28	Marathon / Detroit ABS 3505	4.84

AWI (Spec.)	AWI (Actual)
	246.0

☐ QUALITY ASSURANCE TESTING ☑ REGULAR TESTING

PRODUCER/LOCATION	CERTIFIED
Bit-Mat, Bay City	☑ YES ☐ NO

REMARKS:

JOB LOCATION	TRAVELING MIX INSPECTOR (TMI)	DATE
Marlette Road; Otsego County	Richard King	10/13/20

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
ACCEPTANCE OF HOT MIX ASPHALT MIXTURE ON LOCAL AGENCY PROJECTS

CFS:KPK APPR:CJB:JWB:07-05-16
FHWA:APPR:07-05-16

a. Description. This special provision provides sampling and testing requirements for local agency projects using the roller method and the nuclear density gauge testing. Provide the hot mix asphalt (HMA) mixture in accordance with the requirements of the standard specifications, except where modified herein.

b. Materials. Provide aggregates, mineral filler (if required), and asphalt binder to produce a mixture proportioned within the master gradation limits shown in the contract, and meeting the uniformity tolerance limits in Table 1.

Table 1: Uniformity Tolerance Limits for HMA Mixtures

Parameter			Top and Leveling Course		Base Course	
Number	Description		Range 1 (a)	Range 2	Range 1 (a)	Range 2
1	% Binder Content		-0.30 to +0.40	±0.50	-0.30 to +0.40	±0.50
2	% Passing	# 8 and Larger Sieves	±5.0	±8.0	±7.0	±9.0
		# 30 Sieve	±4.0	±6.0	±6.0	±9.0
		# 200 Sieve	±1.0	±2.0	±2.0	±3.0
3	Crushed Particle Content (b)		Below 10%	Below 15%	Below 10%	Below 15%

a. This range allows for normal mixture and testing variations. The mixture must be proportioned to test as closely as possible to the Job-Mix-Formula (JMF).
b. Deviation from JMF.

Parameter number 2 as shown in Table 1 is aggregate gradation. Each sieve will be evaluated on one of the three gradation tolerance categories. If more than one sieve is exceeding Range 1 or Range 2 tolerances, only the one with the largest exceedance will be counted as the gradation parameter.

The master gradation should be maintained throughout production; however, price adjustments will be based on Table 1. Aggregates which are to be used in plant-mixed HMA mixtures must not contain topsoil, clay, or loam.

c. Construction. Submit a Mix Design and a JMF to the Engineer. Do not begin production and placement of the HMA until receipt of the Engineer's approval of the JMF. Maintain the binder content, aggregate gradation, and the crushed particle content of the HMA mixture within the Range 1 uniformity tolerance limits in Table 1. For mixtures meeting the definition of top or leveling course, field regress air void content to 3.5 percent with liquid asphalt cement unless

Michigan Department of Transportation 1903 (09/04)

DAILY REPORT OF HMA PLANT INSPECTION

DISTRIBUTION: ORIGINAL - Project Engineer, **COPY** - Testing Laboratory and Plant Inspector

PLEASE PRINT O.C.P.C.

CONTROL SECTION	JOB NUMBER	JOB LOCATION	PROJECT ENGINEER
STL 69000	205316 A	Marlette Road	J. Kramer / MDOT P. Repasky / Wade-Trim

CONTRACTOR	PLANT NUMBER	PLANT LOCATION	REPORT No.	DATE SAMPLED
Team Elmers	175-02	Traverse City, MI	1	11-02-20

FIELD TEST RESULTS

EXTRACTION NUMBER	TYPE OF MIXTURE (1)	MIX DESIGN No. (1)	TYPE OF MIXTURE (2)	MIX DESIGN No. (2)
	4K1	20 MD 049		

	JMF	ACTUAL	DEV.	TOL.	JMF	ACTUAL	DEV.	TOL.
ASPHALT %	5.76	5.65	-0.11	±0.40 ±0.30				
P. 1-1/2" (37.5 mm) %	100.00	100.00	Ø	+/- 5.00				
P. 1" (25.0 mm) %	100.00	100.00	"	"				
P. 3/4" (19.0 mm) %	100.00	100.00	"	"				
P. 1/2" (12.5 mm) %	96.60	94.45	-2.15	"				
P. 3/8" (9.5 mm) %	88.70	87.92	-0.78	"				
P. No. 4 (4.75 mm) %	69.60	70.48	+0.88	"				
P. No. 8 (2.36 mm) %	53.80	52.79	-1.01	"				
P. No. 30 (600 µm) %	31.90	30.51	-1.39	½ 4.00				
P. No. 200 (75 µm) %	5.30	4.64	-0.66	½ 1.00				
CRUSHED %	98.4	99.0	+0.60	- 10%				

MATERIAL	LAB SAMPLE TIME TAKEN	PROJECT PRODUCTION RECORD DAILY TONS	ACCUMULATED TONS
BASE			
LEVELING		2400.32	2400.32
TOP			
FILLER			
ASPHALT BINDER			

AGGREGATE MOISTURE CONTENT			MINERAL FILLER	
MATERIAL	TIME	%		
			P. No. 30 (600 µm)	
			P. No. 200 (75 µm)	

PLANT OPR. START	END	LOST TIME	ACTUAL HRS. OPR.

KIT NUMBER

EXTRACTOR NUMBER

MIX / AGGREGATE BLEND PROPORTIONS

PIT NUMBER	GRADE, MANUFACTURER MATERIAL, SUPPLIER	TYPE OF MIXTURE	
		%	%
		%	%
		%	%
		%	%
	See JMF	%	%
		%	%
RECLAIMED		%	%
FILLER		%	%
ASPHALT BINDER		%	%
		%	%

TEMPERATURE		
TIME TAKEN	MIX	AIR

☐ DRUM PLANT

☐ BATCH PLANT

MIX TIME: DRY ___ WET ___

REMARKS:

In Range 1

QUALIFICATION NUMBER 101653

PLANT INSPECTOR'S NAME (PRINT)	SIGNATURE	DATE TESTED
David W. Ashenfelter		11-02-20

Michigan Department of Transportation 1839 (09/02)

TESTING OF HMA

(VACUUM WORKSHEET)

CONTROL SECTION	JOB NO.	MIXTURE TYPE	MIX DESIGN NO.	REPORT NO.	DATE
STL 81000	205316A	4E1	20 MD 049	#1	11-02-20
CONTRACTOR		PLANT NO.	PLANT LOCATION		SHEET
TEAM ELMERS'		175-02	TRAVERSE City MI		1 OF 2
TESTER (Please Print)			QUALIFICATION NO.	LOT NO.	SUBLOT NO.
David W. Ashenfelter			101653	#1	#1

J M F

ASPHALT CONTENT - VACUUM		AGGREGATE ANALYSIS				
		SIEVE SIZE	WEIGHT RETAINED GRAMS	FRACTION RETAINED %	CUMULATIVE FRACTION PASSING %	
A. WT. OF SAMPLE	1227.5					
B. WT. OF FILTER AND DE	200.0	1-1/2" (37.5 mm)	0.00	0.00	100.00	100.00
C. WT. OF FILTER, DE AND FINES	250.9	1" (25.0 mm)	0.00	0.00	100.00	100.00
D. WT. OF FINES (C - B)	50.9	3/4" (19.0 mm)	0.00	0.00	100.00	100.00
E. WT. OF DRY EXTR AGGREGATE	1107.3	1/2" (12.5 mm)	64.3	5.55	94.45	96.60
F. TOTAL WT. OF AGGREGATE (D + E)	1158.2	3/8" (9.5 mm)	75.6	6.53	87.92	88.70
G. WT. OF ASPHALT (A - F)	69.3	No. 4 (4.75 mm)	202.0	17.44	70.48	69.60
H. % ASPHALT (G / A) * 100 JMF 5.76%	5.65%	No. 8 (2.36 mm)	204.9	17.69	52.79	53.80
CRUSHED PARTICLE CONTENT		No. 16 (1.18 mm)	136.1	11.75	41.04	42.60
X. WT. OF AGG. RET. ON No. 4 (4.75 mm) & ABOVE	341.9	No. 30 (600 µm)	121.9	10.53	30.51	31.90
Y. WT. OF 2 FACE OR MORE CRUSHED	—	No. 50 (300 µm)	174.7	15.08	15.43	15.40
Z. WT. OF 1 FACE OR MORE CRUSHED	338.4	No. 100 (150 µm)	98.8	8.53	6.90	6.90
% CRUSHED, 2 FACE (Y / X) * 100	—	No. 200 (75 µm)	26.2	2.26	4.64	5.30
% CRUSHED, 1 FACE (Z / X) * 100	98.9%	P. No. 200 (75 µm) + D.	50.9+2.8 / 53.7	4.64	C = CARE A = ACCURACY P = PRECISION	
JMF - 98.4%	99.0%	TOTAL	1158.2	100.00		

REMARKS

In Range 1

File 208

Michigan Department of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
SLT 69000	205316 A	Marlette Road	20MD-049	4E1	10/29/20	10/29/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repasky	Joe Schlink	Joe Schlink	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.614	2.667	Variable	Day 1	AM Sample	199	199

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	96.6	96.27	-0.33	+/- 4	+/- 10		
P 3/8"(9.5mm)	88.7	88.93	0.23	+/- 4	+/- 10		
P No.4(4.75mm)	69.6	70.53	0.93	+/- 4	+/- 8		
P No.8(2.36mm)	53.8	53.85	0.05	+/- 4	+/- 8		
P No.16(1.18mm)	42.6	41.52	-1.08				
P No.30(600um)	31.9	31.04	-0.86	+/- 2	+/- 6		
P No50(300um)	15.4	14.42	-0.98				
P No.100(150um)	6.9	6.45	-0.45				
P No.200(75um)	5.3	5.00	-0.30	+/- 0.5	+/- 2		
CRUSH-1 FACE	98.4	97.2	-1.2	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	5.76	5.82	0.06	+/- 0.50	+/- 0.75	
Gmm	2.441	2.440	-0.001	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.368	2.372	0.004			
AIR VOIDS	3.00	2.81	-0.19	+/- 0.60	+/- 1.00	
VMA	14.62	14.54	-0.08	-0.4 / +0.8	+/- 1.00	
VFA	79.49	80.70	1.21			
F A RATIO	1.05	0.99	-0.06	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	4.84

GYRATORY WEIGHTS / COMPACTION TEMPERATURE 4775 270

MARSHALL WEIGHTS / COMPACTION TEMPERATURE

NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%) 9

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Test #1

Elmers Crane and Dozer

Ticket #1648463
Date: 07:29:05 AM 10/29/2020
Plant #401
Truck #2443

Customer #02788
ELMER'S CRANE & DOZER INC
3600 RENNIE SCHOOL RD
PO BOX 6150
TRAVERSE CITY, MI 49696-6150

Job #502041 / 777
PAVE MARLETTE RD OTSEGO
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Shipping Info
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Material #400646
4E1
Load #4

	TN	MT
GROSS WEIGHT	75.80	68.75
TARE WEIGHT	26.06	23.64
NET WEIGHT	49.74	45.12
TOTAL TODAY	198.19	179.76
MATERIAL TODAY	198.19	179.76

We certify that this material meets Michigan Department of Transportation specifications. This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation. I have inspected transport number ______ and found it to be in such condition that will not affect conformance of materials with specification requirements.

FOB Shipping Point

WEIGHMASTER

1020 RD

DRIVER

335

Michigan Department of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
SLT 69000	205316 A	Marlette Road	20MD-049	4E1	10/29/20	10/29/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repasky	Joe Schlink	Joe Schlink	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.614	2.667	Variable	Day 1	Sample 2	1445	1445

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	96.6	96.80	0.20	+/- 4	+/- 10		
P 3/8"(9.5mm)	88.7	89.08	0.38	+/- 4	+/- 10		
P No.4(4.75mm)	69.6	69.85	0.25	+/- 4	+/- 8		
P No.8(2.36mm)	53.8	52.77	-1.03	+/- 4	+/- 8		
P No.16(1.18mm)	42.6	40.46	-2.14				
P No.30(600um)	31.9	30.11	-1.79	+/- 2	+/- 6		
P No50(300um)	15.4	14.00	-1.40				
P No.100(150um)	6.9	6.41	-0.49				
P No.200(75um)	5.3	5.00	-0.30	+/- 0.5	+/- 2		
CRUSH-1 FACE	98.4	98.3	-0.1	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	5.76	5.88	0.12	+/- 0.50	+/- 0.75	
Gmm	2.441	2.438	-0.003	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.368	2.375	0.007			
AIR VOIDS	3.00	2.60	-0.40	+/- 0.60	+/- 1.00	
VMA	14.62	14.50	-0.12	-0.4 / +0.8	+/- 1.00	
VFA	79.49	82.08	2.59			
F A RATIO	1.05	0.97	-0.08	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	4.84

GYRATORY WEIGHTS / COMPACTION TEMPERATURE	4775	270
MARSHALL WEIGHTS / COMPACTION TEMPERATURE		
NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%)		9

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Test #2

Ticket #1648673
Date: 10:42:06 AM 10/29/2020
Plant #401
Truck #2400

Customer #02788
ELMER'S CRANE & DOZER INC
3600 RENNIE SCHOOL RD
PO BOX 6150
TRAVERSE CITY, MI 49696-6150

Job #502041 / 777
PAVE MARLETTE RD OTSEGO
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Shipping Info
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Material #400646
4E1
Load #31

	TN	MT
GROSS WEIGHT	75.15	68.16
TARE WEIGHT	28.93	26.24
NET WEIGHT	46.22	41.92
TOTAL TODAY	1509.98	1369.60
MATERIAL TODAY	1509.98	1369.60

332°

We certify that this material meets Michigan Department of Transportation specifications. This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation. I have inspected transport number _____ and found it to be in such condition that will not affect conformance of materials with specification requirements.

FOB Shipping Point

WEIGHMASTER

1004

DRIVER
*** **MANUAL TICKET** ***

Michigan Department of Transportation
1911 (03/14)

JOB MIX FORMULA (JMF)
HMA FIELD COMMUNICATION

This form 1911 applies only to the project listed below and is not transferable to other projects.

DISTRIBUTION: ORIGINAL - Project Engineer **COPIES** - Contractor, Testing Laboratory, Inspector, and TMI

File 305

CONTROL SECTION	JOB NO.	PROJECT ENGINEER	DATE EFFECTIVE
STL 69000	205316A	Paul Repasky	10/13/20

CONTRACTOR	PLANT LOCATION	PLANT NO.
Team Elmers	Traverse City	175-02

TYPE OF MIXTURE	MIX DESIGN NO.	TESTING OPTION	PLANT CERTIFICATION DATE	CONTRACTOR'S QC PLAN TO PROJECT ENGINEER
4E1	20MD049	Extraction	4/20/20	☑ YES ☐ NO

STAND. SPEC. DATE	MIX SP. PROV. DATE	QC/QA SP. PROV. DATE	VMA	VFA	% AIR VOIDS	ANGULARITY	DUST CORR.
2012	2012 Std. Spec.	12SP-501J-05	14.62	79.49	3.00	42.4	

Gmm	Gmb	Gb	Gse	Gsb	FINES/ASPHALT RATIO	COMPACTION TEMP.	MIXING TEMP.
2.441	2.368	1.024	2.667	2.614	1.05	296 F	316 F

MIX/AGG. GRADATION, %

ITEM	PERCENT
ASPHALT,%	5.76
P 1-1/2" (37.5 mm)	100.00
P 1" (25.0 mm)	100.00
P 3/4" (19.0 mm)	100.00
P 1/2" (12.5 mm)	96.60
P 3/8" (9.5 mm)	88.70
P No. 4 (4.75 mm)	69.60
P No. 8 (2.36 mm)	53.80
P No. 16 (1.18 mm)	42.60
P No. 30 (600 µm)	31.90
P No. 50 (300 µm)	15.40
P No. 100 (150 µm)	6.90
P No. 200 (75 µm)	5.30
CRUSHED 1 FACE	98.4
CRUSHED 2 FACES	
BOND COAT	

MIX/AGG. PROPORTION, %

MATERIAL/PRODUCER	PIT NO.	PERCENT
31A	45-39	22.0
Man Sand	45-39	12.0
2NS	45-38	31.0
5/8 ST	45-39	15.0
RECLAIMED: RAP		20.0
FILLER:		

ASPHALT BINDER	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT #	% ADDED
	PG 58-28	Marathon / Detroit ABS 3505	4.84

AWI (Spec.)	AWI (Actual)
	246.0

☐ QUALITY ASSURANCE TESTING ☑ REGULAR TESTING

PRODUCER/LOCATION: Bit-Mat, Bay City — CERTIFIED ☑ YES ☐ NO

REMARKS:

JOB LOCATION	TRAVELING MIX INSPECTOR (TMI)	DATE
Marlette Road; Otsego County	Richard King	10/13/20

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
ACCEPTANCE OF HOT MIX ASPHALT MIXTURE ON LOCAL AGENCY PROJECTS

CFS:KPK APPR:CJB:JWB:07-05-16
FHWA:APPR:07-05-16

a. Description. This special provision provides sampling and testing requirements for local agency projects using the roller method and the nuclear density gauge testing. Provide the hot mix asphalt (HMA) mixture in accordance with the requirements of the standard specifications, except where modified herein.

b. Materials. Provide aggregates, mineral filler (if required), and asphalt binder to produce a mixture proportioned within the master gradation limits shown in the contract, and meeting the uniformity tolerance limits in Table 1.

Table 1: Uniformity Tolerance Limits for HMA Mixtures

Parameter			Top and Leveling Course		Base Course	
Number	Description		Range 1 (a)	Range 2	Range 1 (a)	Range 2
1	% Binder Content		-0.30 to +0.40	±0.50	-0.30 to +0.40	±0.50
2	% Passing	# 8 and Larger Sieves	±5.0	±8.0	±7.0	±9.0
		# 30 Sieve	±4.0	±6.0	±6.0	±9.0
		# 200 Sieve	±1.0	±2.0	±2.0	±3.0
3	Crushed Particle Content (b)		Below 10%	Below 15%	Below 10%	Below 15%

a. This range allows for normal mixture and testing variations. The mixture must be proportioned to test as closely as possible to the Job-Mix-Formula (JMF).
b. Deviation from JMF.

Parameter number 2 as shown in Table 1 is aggregate gradation. Each sieve will be evaluated on one of the three gradation tolerance categories. If more than one sieve is exceeding Range 1 or Range 2 tolerances, only the one with the largest exceedance will be counted as the gradation parameter.

The master gradation should be maintained throughout production; however, price adjustments will be based on Table 1. Aggregates which are to be used in plant-mixed HMA mixtures must not contain topsoil, clay, or loam.

c. Construction. Submit a Mix Design and a JMF to the Engineer. Do not begin production and placement of the HMA until receipt of the Engineer's approval of the JMF. Maintain the binder content, aggregate gradation, and the crushed particle content of the HMA mixture within the Range 1 uniformity tolerance limits in Table 1. For mixtures meeting the definition of top or leveling course, field regress air void content to 3.5 percent with liquid asphalt cement unless

Michigan Department of Transportation 1903 (09/04)

DAILY REPORT OF HMA PLANT INSPECTION

DISTRIBUTION: ORIGINAL - Project Engineer, **COPY** - Testing Laboratory and Plant Inspector

PLEASE PRINT

CONTROL SECTION	JOB NUMBER	JOB LOCATION	PROJECT ENGINEER
STL 69000	205316 A	Marlette Road	J. Kramer / MDOT P. Repasky / Wade Trim

CONTRACTOR	PLANT NUMBER	PLANT LOCATION	REPORT No.	DATE SAMPLED
Team Elmers	175-02	Traverse City MI	2	11-6-20

FIELD TEST RESULTS

EXTRACTION NUMBER	TYPE OF MIXTURE (1)	MIX DESIGN No. (1)	TYPE OF MIXTURE (2)	MIX DESIGN No. (2)
	4E1	20 MP 049		

	JMF	ACTUAL	DEV.	TOL.	JMF	ACTUAL	DEV.	TOL.
ASPHALT %	5.76	5.68	-0.08	-0.30 +0.40				
P. 1-1/2" (37.5 mm) %	100.00	100.00	Ø	±5.00				
P. 1" (25.0 mm) %	100.00	"	Ø	"				
P. 3/4" (19.0 mm) %	100.00	"	Ø	"				
P. 1/2" (12.5 mm) %	96.60	96.49	-0.11	"				
P. 3/8" (9.5 mm) %	88.70	88.34	-0.36	"				
P. No. 4 (4.75 mm) %	69.60	71.37	+1.77	"				
P. No. 8 (2.36 mm) %	53.80	54.31	+0.51	"				
P. No. 30 (600 µm) %	31.90	30.41	-1.41	±4.00				
P. No. 200 (75 µm) %	5.30	5.84	+0.54	±1.00				
CRUSHED %	98.4	98.0	-0.4	-10.0				

MATERIAL	LAB SAMPLE TIME TAKEN	PROJECT PRODUCTION RECORD DAILY TONS	ACCUMULATED TONS
BASE			
LEVELING			
TOP			
FILLER			
ASPHALT BINDER			

AGGREGATE MOISTURE CONTENT MATERIAL	TIME	%

MINERAL FILLER	
P. No. 30 (600 µm)	
P. No. 200 (75 µm)	

PLANT OPR. START	END	LOST TIME	ACTUAL HRS. OPR.

KIT NUMBER

EXTRACTOR NUMBER

MIX / AGGREGATE BLEND PROPORTIONS

PIT NUMBER	GRADE, MANUFACTURER MATERIAL, SUPPLIER	TYPE OF MIXTURE	
		%	%
		%	%
		%	%
		%	%
		%	%
	See JMF	%	%
RECLAIMED		%	%
FILLER		%	%
ASPHALT BINDER		%	%
		%	%

TEMPERATURE

TIME TAKEN	MIX	AIR

☐ DRUM PLANT

☐ BATCH PLANT

MIX TIME: DRY____ WET____

REMARKS :

In Range 1

QUALIFICATION NUMBER 101653

PLANT INSPECTOR'S NAME (PRINT) David W. Ashenfelter

SIGNATURE

DATE TESTED 11-7-20

Michigan Department of Transportation 1839 (09/02)

TESTING OF HMA

(VACUUM WORKSHEET)

CONTROL SECTION	JOB NO.	MIXTURE TYPE	MIX DESIGN NO.	REPORT NO.	DATE
STL 69000	205316A	4E1	20 MD 049	2	11-7-20
CONTRACTOR		**PLANT NO.**	**PLANT LOCATION**		**SHEET**
Team Elmers'		175-02	Traverse City MI		1 OF 2
TESTER (Please Print)			**QUALIFICATION NO.**	**LOT NO.**	**SUBLOT NO.**
David W. Ashenfelter			101653	2	#1

JMF

ASPHALT CONTENT - VACUUM		AGGREGATE ANALYSIS				
A. WT. OF SAMPLE	1514.7	SIEVE SIZE	WEIGHT RETAINED, GRAMS	FRACTION RETAINED, %	CUMULATIVE FRACTION PASSING %	
B. WT. OF FILTER AND DE	200.0	1-1/2" (37.5 mm)	0.00	0.00	100.00	100.00
C. WT. OF FILTER, DE AND FINES	280.7	1" (25.0 mm)	0.00	0.00	100.00	100.00
D. WT. OF FINES (C - B)	80.7	3/4" (19.0 mm)	0.00	0.00	100.00	100.00
E. WT. OF DRY EXTR AGGREGATE	1348.0	1/2" (12.5 mm)	50.20	3.51	96.49	96.60
F. TOTAL WT. OF AGGREGATE (D + E)	1428.70	3/8" (9.5 mm)	116.5	8.15	88.34	88.70
G. WT. OF ASPHALT (A - F)	86.0	No. 4 (4.75 mm)	242.5	16.97	71.37	69.60
H. % ASPHALT (G / A) * 100 JMF 5.76%	5.68%	No. 8 (2.36 mm)	243.6	17.06	54.31	53.80
CRUSHED PARTICLE CONTENT		No. 16 (1.18 mm)	179.5	12.56	41.75	42.60
X. WT. OF AGG. RET. ON No. 4 (4.75 mm) & ABOVE	409.20	No. 30 (600 µm)	162.0	11.34	30.41	31.90
Y. WT. OF 2 FACE OR MORE CRUSHED	—	No. 50 (300 µm)	248.6	17.40	13.00	15.40
Z. WT. OF 1 FACE OR MORE CRUSHED	401.2	No. 100 (150 µm)	85.2	5.96	7.04	6.90
% CRUSHED, 2 FACE (Y / X) * 100	—	No. 200 (75 µm)	17.2	1.20	5.84	5.30
% CRUSHED, 1 FACE (Z / X) * 100	98.0%	P. No. 200 (75 µm) + D.	80.7+2.7 / 83.4	5.84	C = CARE A = ACCURACY P = PRECISION	
JMF 98.4%		TOTAL	1428.7	99.98 / 100.00		

REMARKS

In Range 1

Michigan Department of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
SLT 69000	205316 A	Marlette Road	20MD-049	4E1	11/06/20	11/06/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repasky	Joe Schlink	Joe Schlink	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.614	2.667	Variable	Day 2	AM Sample	299	299

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	96.6	95.52	-1.08	+/- 4	+/- 10		
P 3/8"(9.5mm)	88.7	89.05	0.35	+/- 4	+/- 10		
P No.4(4.75mm)	69.6	71.43	1.83	+/- 4	+/- 8		
P No.8(2.36mm)	53.8	54.65	0.85	+/- 4	+/- 8		
P No.16(1.18mm)	42.6	42.04	-0.56				
P No.30(600um)	31.9	31.09	-0.81	+/- 2	+/- 6		
P No50(300um)	15.4	14.83	-0.57				
P No.100(150um)	6.9	7.35	0.45				
P No.200(75um)	5.3	5.89	0.59	+/- 0.5	+/- 2		
CRUSH-1 FACE	98.4	98.2	-0.2	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	5.76	5.76	0.00	+/- 0.50	+/- 0.75	
Gmm	2.441	2.442	0.001	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.368	2.379	0.011			
AIR VOIDS	3.00	2.57	-0.43	+/- 0.60	+/- 1.00	
VMA	14.62	14.21	-0.41	-0.4 / +0.8	+/- 1.00	
VFA	79.49	81.93	2.44			
F A RATIO	1.05	1.17	0.12	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	4.84

GYRATORY WEIGHTS / COMPACTION TEMPERATURE	4775	270
MARSHALL WEIGHTS / COMPACTION TEMPERATURE		
NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%)		9

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Ticket #1652292
Date: 07:04:44 AM 11/06/2020
Plant #401
Truck #2439

Customer #02788
ELMER'S CRANE & DOZER INC
3600 RENNIE SCHOOL RD
PO BOX 6150
TRAVERSE CITY, MI 49696-6150

Job #502041 / 777
PAVE MARLETTE RD OTSEGO
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Shipping Info
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Material #400646
4E1
Load #6

341 0

	TN	MT
GROSS WEIGHT	76.00	68.93
TARE WEIGHT	26.38	23.93
NET WEIGHT	49.62	45.01
TOTAL TODAY	298.34	270.60
MATERIAL TODAY	298.34	270.60

We certify that this material meets Michigan Department of Transportation specifications. This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation. I have inspected transport number _____ and found it to be in such condition that will not affect conformance of materials with specification requirements.

FOB Shipping Point

Test #2
11-7-20
AM/Sample

WEIGHMASTER

43 a Jeff

DRIVER

Ticket #1652484
Date: 09:28:57 AM 11/06/2020
Plant #401
Truck #2419

Customer #02788
ELMER'S CRANE & DOZER INC
3600 RENNIE SCHOOL RD
PO BOX 6150
TRAVERSE CITY, MI 49696-6150

Job #502041 / 777
PAVE MARLETTE RD OTSEGO
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Shipping Info
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Material #400646
4E1
Load #28

	TN	MT
GROSS WEIGHT	75.93	68.87
TARE WEIGHT	29.81	27.04
NET WEIGHT	46.12	41.83

TOTAL TODAY	1363.46	1236.70
MATERIAL TODAY	1363.46	1236.70

We certify that this material meets Michigan Department of Transportation specifications. This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation. I have inspected transport number _____ and found it to be in such condition that will not affect conformance of materials with specification requirements.

FOB Shipping Point

WEIGHMASTER

DRIVER

File 208

Michigan Department of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
SLT 69000	205316 A	Marlette Road	20MD-049	4E1	11/06/20	11/06/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repasky	Joe Schlink	Joe Schlink	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.614	2.667	Variable	Day 2	PM Sample	1365	1365

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	96.6	95.25	-1.35	+/- 4	+/- 10		
P 3/8"(9.5mm)	88.7	88.04	-0.66	+/- 4	+/- 10		
P No.4(4.75mm)	69.6	70.93	1.33	+/- 4	+/- 8		
P No.8(2.36mm)	53.8	53.22	-0.58	+/- 4	+/- 8		
P No.16(1.18mm)	42.6	40.90	-1.70				
P No.30(600um)	31.9	30.41	-1.49	+/- 2	+/- 6		
P No50(300um)	15.4	13.97	-1.43				
P No.100(150um)	6.9	6.24	-0.66				
P No.200(75um)	5.3	4.82	-0.48	+/- 0.5	+/- 2		
CRUSH-1 FACE	98.4	97.6	-0.8	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	5.76	5.80	0.04	+/- 0.50	+/- 0.75	
Gmm	2.441	2.439	-0.002	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.368	2.362	-0.006			
AIR VOIDS	3.00	3.15	0.15	+/- 0.60	+/- 1.00	
VMA	14.62	14.89	0.27	-0.4 / +0.8	+/- 1.00	
VFA	79.49	78.82	-0.67			
F A RATIO	1.05	0.95	-0.10	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	4.84

GYRATORY WEIGHTS / COMPACTION TEMPERATURE 4775 270

MARSHALL WEIGHTS / COMPACTION TEMPERATURE

NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%) 9

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Michigan Department of Transportation
1911 (03/14)

JOB MIX FORMULA (JMF)
HMA FIELD COMMUNICATION

This form 1911 applies only to the project listed below and is not transferable to other projects.

DISTRIBUTION: ORIGINAL - Project Engineer **COPIES** - Contractor, Testing Laboratory, Inspector, and TMI

File 305

CONTROL SECTION	JOB NO.	PROJECT ENGINEER	DATE EFFECTIVE
STL 69000	205316A	Paul Repasky	10/13/20

CONTRACTOR	PLANT LOCATION	PLANT NO.
Team Elmers	Traverse City	175-02

TYPE OF MIXTURE	MIX DESIGN NO.	TESTING OPTION	PLANT CERTIFICATION DATE	CONTRACTOR'S QC PLAN TO PROJECT ENGINEER
5E1	20MD005	Extraction	4/20/20	☑ YES ☐ NO

STAND. SPEC. DATE	MIX SP. PROV. DATE	QC/QA SP. PROV. DATE	VMA	VFA	% AIR VOIDS	ANGULARITY	DUST CORR.
2012	2012 Std. Spec.	12SP-501J-05	15.34	80.40	3.00	43.0	

Gmm	Gmb	Gb	Gse	Gsb	FINES/ASPHALT RATIO	COMPACTION TEMP.	MIXING TEMP.
2.431	2.358	1.024	2.672	2.613	1.02	270 F	291 F

MIX/AGG. GRADATION, %		MIX/AGG. PROPORTION, %		
ITEM	PERCENT	MATERIAL/PRODUCER	PIT NO.	PERCENT
ASPHALT,%	6.17	31A	45-39	35.0
P 1-1/2" (37.5 mm)	100.00	Man Sand	45-39	15.0
P 1" (25.0 mm)	100.00	2NS	45-38	30.0
P 3/4" (19.0 mm)	100.00			
P 1/2" (12.5 mm)	100.00			
P 3/8" (9.5 mm)	99.20			
P No. 4 (4.75 mm)	77.40			
P No. 8 (2.36 mm)	56.40			
P No. 16 (1.18 mm)	43.80			
P No. 30 (600 µm)	32.50			
P No. 50 (300 µm)	15.70	RECLAIMED	RAP	20.0
P No. 100 (150 µm)	7.20	FILLER		
P No. 200 (75 µm)	5.50	ASPHALT BINDER	GRADE: PG 58-28	CERTIFIED SUPPLIER/LOCATION/CERT #: Marathon / Detroit ABS 3505 — % ADDED: 5.22
CRUSHED 1 FACE	97.9	AWI (Spec.): 220.0	AWI (Actual): 246.0	
CRUSHED 2 FACES		☐ QUALITY ASSURANCE TESTING	☑ REGULAR TESTING	
BOND COAT	PRODUCER/LOCATION: Bit-Mat, Bay City		CERTIFIED: ☑ YES ☐ NO	

REMARKS:

JOB LOCATION	TRAVELING MIX INSPECTOR (TMI)	DATE
Marlette Road; Otsego County	Richard King (Digitally signed by Richard King)	10/13/20

Michigan Department of Transportation 1839 (09/02)

TESTING OF HMA

(VACUUM WORKSHEET)

CONTROL SECTION	JOB NO.	MIXTURE TYPE	MIX DESIGN NO.	REPORT NO.	DATE
STL69000	205316A	5E1	20 MD 005	1	11-09-20

CONTRACTOR	PLANT NO.	PLANT LOCATION	SHEET
Team Elmers'	175-02	Traverse City MI	1 OF 2

TESTER (Please Print)	QUALIFICATION NO.	LOT NO.	SUBLOT NO.
David W. Ashenfelter	101653	1	1

JMF

ASPHALT CONTENT - VACUUM

A. WT. OF SAMPLE	1084.6
B. WT. OF FILTER AND DE	200.0
C. WT. OF FILTER, DE AND FINES	252.5
D. WT. OF FINES (C - B)	52.5
E. WT. OF DRY EXTR AGGREGATE	964.8
F. TOTAL WT. OF AGGREGATE (D + E)	1017.3
G. WT. OF ASPHALT (A - F)	67.3
H. % ASPHALT (G / A) * 100 JMF 6.17%	6.21%

CRUSHED PARTICLE CONTENT

X. WT. OF AGG. RET. ON No. 4 (4.75 mm) & ABOVE	219.6
Y. WT. OF 2 FACE OR MORE CRUSHED	———
Z. WT. OF 1 FACE OR MORE CRUSHED	217.1
% CRUSHED, 2 FACE (Y / X) * 100	———
% CRUSHED, 1 FACE (Z / X) * 100	98.9%
JMF 97.9	

AGGREGATE ANALYSIS

SIEVE SIZE	WEIGHT RETAINED GRAMS	FRACTION RETAINED %	CUMULATIVE FRACTION PASSING %	JMF
1-1/2" (37.5 mm)	0.00	0.00	100.00	100.00
1" (25.0 mm)	0.00	0.00	100.00	100.00
3/4" (19.0 mm)	0.00	0.00	100.00	100.00
1/2" (12.5 mm)	0.00	0.00	100.00	100.00
3/8" (9.5 mm)	17.0	1.67	98.33	99.20
No. 4 (4.75 mm)	202.6	19.92	78.41	77.40
No. 8 (2.36 mm)	227.4	22.354	56.07	56.40
No. 16 (1.18 mm)	125.1	12.30	43.77	43.80
No. 30 (600 µm)	107.7	10.59	33.18	32.50
No. 50 (300 µm)	188.4	18.52	14.66	15.70
No. 100 (150 µm)	78.5	7.72	6.94	7.20
No. 200 (75 µm)	16.0	1.57	5.37	5.50
P. No. 200 (75 µm) + D.	52.5 + 2.1 = 54.6	5.37	C = CARE A = ACCURACY P = PRECISION	
TOTAL	1017.3	100.00		

REMARKS

IN RANGE 1

Michigan Department of Transportation 1903 (09/04)

DAILY REPORT OF HMA PLANT INSPECTION

DISTRIBUTION: ORIGINAL - Project Engineer, **COPY** - Testing Laboratory and Plant Inspector

PLEASE PRINT

CONTROL SECTION	JOB NUMBER	JOB LOCATION	PROJECT ENGINEER
STL 69000	205316	Marlette Road	J. Kramer / MDOT

CONTRACTOR	PLANT NUMBER	PLANT LOCATION	REPORT No.	DATE SAMPLED
Team Kimmers'	175.02	Traverse City MI	1	11-9-20

FIELD TEST RESULTS

EXTRACTION NUMBER	TYPE OF MIXTURE (1)	MIX DESIGN No. (1)	TYPE OF MIXTURE (2)	MIX DESIGN No. (2)
	5E1	20 MD 005		

	JMF	ACTUAL	DEV.	TOL.	JMF	ACTUAL	DEV.	TOL.
ASPHALT %	6.17	6.21	+0.04	+0.40 -0.30				
P. 1-1/2" (37.5 mm) %	100.00	100.00	0	±5.00				
P. 1" (25.0 mm) %	100.00	"	"	"				
P. 3/4" (19.0 mm) %	100.00	"	"	"				
P. 1/2" (12.5 mm) %	100.00	"	"	"				
P. 3/8" (9.5 mm) %	99.20	98.33	-0.87	"				
P. No. 4 (4.75 mm) %	77.40	78.41	+1.01	"				
P. No. 8 (2.36 mm) %	56.40	56.07	-0.33	"				
P. No. 30 (600 µm) %	32.50	33.18	+0.68	±4.00				
P. No. 200 (75 µm) %	5.50	5.37	-0.13	±1.00				
CRUSHED %	97.9	98.9	+1.0	-10.00				

MATERIAL	LAB SAMPLE TIME TAKEN	PROJECT PRODUCTION RECORD DAILY TONS	ACCUMULATED TONS
BASE			
LEVELING			
TOP	—		
FILLER			
ASPHALT BINDER			

AGGREGATE MOISTURE CONTENT MATERIAL	TIME	%

MINERAL FILLER

P. No. 30 (600 µm)	
P. No. 200 (75 µm)	

PLANT OPR. START	END	LOST TIME	ACTUAL HRS. OPR.

KIT NUMBER

EXTRACTOR NUMBER

MIX / AGGREGATE BLEND PROPORTIONS

PIT NUMBER	GRADE, MANUFACTURER MATERIAL, SUPPLIER	TYPE OF MIXTURE	
		%	%
		%	%
		%	%
		%	%
		%	%
		%	%
RECLAIMED		%	%
FILLER		%	%
ASPHALT BINDER		%	%
		%	%

See JMF

TEMPERATURE

TIME TAKEN	MIX	AIR

☐ DRUM PLANT

☐ BATCH PLANT

MIX TIME: DRY WET

REMARKS :

In Range 1

QUALIFICATION NUMBER 101653

PLANT INSPECTOR'S NAME (PRINT) David W. Ashenfelter

SIGNATURE

DATE TESTED 11-9-20

Michigan Department of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
STL 69000	205316 A	Marlette Road Otsego	20MD-005	5E1	11/07/20	11/07/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repaskey	Joe Schlink	Joe Schlink	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.613	2.672	Variable	Day 1	AM Sample	250	250

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	100.0	100.00	0.00	+/- 4	+/- 10		
P 3/8"(9.5mm)	99.2	98.36	-0.84	+/- 4	+/- 10		
P No.4(4.75mm)	77.4	77.50	0.10	+/- 4	+/- 8		
P No.8(2.36mm)	56.4	56.15	-0.25	+/- 4	+/- 8		
P No.16(1.18mm)	43.8	43.83	0.03				
P No.30(600um)	32.5	33.20	0.70	+/- 2	+/- 6		
P No50(300um)	15.7	15.87	0.17				
P No.100(150um)	7.2	7.18	-0.02				
P No.200(75um)	5.5	5.40	-0.10	+/- 0.5	+/- 2		
CRUSH-1 FACE	97.9	97.53	-0.37	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	6.17	6.26	0.09	+/- 0.50	+/- 0.75	
Gmm	2.431	2.431	0.000	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.358	2.360	0.002			
AIR VOIDS	3.00	2.91	-0.09	+/- 0.60	+/- 1.00	
VMA	15.34	15.34	0.00	-0.4 / +0.8	+/- 1.00	
VFA	80.40	81.02	0.62			
F A RATIO	1.02	0.99	-0.03	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	5.22

GYRATORY WEIGHTS / COMPACTION TEMPERATURE	4775	270
MARSHALL WEIGHTS / COMPACTION TEMPERATURE		
NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%)		9

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Elmers Crane and Dozer

Ticket #1653054
Date: 09:45:30 AM 11/07/2020
Plant #401
Truck #15002

Customer #02788
ELMER'S CRANE & DOZER INC
3600 RENNIE SCHOOL RD
PO BOX 6150
TRAVERSE CITY, MI 49696-6150

Job #502041 / 777
PAVE MARLETTE RD OTSEGO
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Shipping Info
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

364251.7 tammy

Material #400650
5E1
Load #29

	TN	MT
GROSS WEIGHT	76.12	69.04
TARE WEIGHT	27.84	25.25
NET WEIGHT	48.28	43.79
TOTAL TODAY	1413.68	1282.25
MATERIAL TODAY	1413.68	1282.25

337°

We certify that this material meets Michigan Department of Transportation specifications. This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation. I have inspected transport number _____ and found it to be in such condition that will not affect conformance of materials with specification requirements.

FOB Shipping Point

WEIGHMASTER

Jeff Sebele

DRIVER

Michigan Department of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
STL 69000	205316 A	Marlette Road Otsego	20MD-005	5E1	11/07/20	11/09/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repaskey	Joe Schlink	Joe Schlink	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.613	2.672	Variable	Day 1	PM Sample	1415	1415

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	100.0	100.00	0.00	+/- 4	+/- 10		
P 3/8"(9.5mm)	99.2	98.71	-0.49	+/- 4	+/- 10		
P No.4(4.75mm)	77.4	78.13	0.73	+/- 4	+/- 8		
P No.8(2.36mm)	56.4	56.65	0.25	+/- 4	+/- 8		
P No.16(1.18mm)	43.8	43.97	0.17				
P No.30(600um)	32.5	33.16	0.66	+/- 2	+/- 6		
P No50(300um)	15.7	16.07	0.37				
P No.100(150um)	7.2	7.25	0.05				
P No.200(75um)	5.5	5.49	-0.01	+/- 0.5	+/- 2		
CRUSH-1 FACE	97.9	97.02	-0.88	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	6.17	6.18	0.01	+/- 0.50	+/- 0.75	
Gmm	2.431	2.432	0.001	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.358	2.357	-0.001			
AIR VOIDS	3.00	3.08	0.08	+/- 0.60	+/- 1.00	
VMA	15.34	15.36	0.02	-0.4 / +0.8	+/- 1.00	
VFA	80.40	79.92	-0.48			
F A RATIO	1.02	1.02	0.00	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	5.22

GYRATORY WEIGHTS / COMPACTION TEMPERATURE	4775	270
MARSHALL WEIGHTS / COMPACTION TEMPERATURE		
NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%)		9

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Michigan Department of Transportation 1911 (03/14)

JOB MIX FORMULA (JMF)
HMA FIELD COMMUNICATION

This form 1911 applies only to the project listed below and is not transferable to other projects.

DISTRIBUTION: ORIGINAL - Project Engineer **COPIES** - Contractor, Testing Laboratory, Inspector, and TMI

File 305

CONTROL SECTION	JOB NO.	PROJECT ENGINEER	DATE EFFECTIVE
STL 69000	205316A	Paul Repasky	10/13/20

CONTRACTOR	PLANT LOCATION	PLANT NO.
Team Elmers	Traverse City	175-02

TYPE OF MIXTURE	MIX DESIGN NO.	TESTING OPTION	PLANT CERTIFICATION DATE	CONTRACTOR'S QC PLAN TO PROJECT ENGINEER
5E1	20MD005	Extraction	4/20/20	☑ YES ☐ NO

STAND. SPEC. DATE	MIX SP. PROV. DATE	QC/QA SP. PROV. DATE	VMA	VFA	% AIR VOIDS	ANGULARITY	DUST CORR.
2012	2012 Std. Spec.	12SP-501J-05	15.34	80.40	3.00	43.0	

Gmm	Gmb	Gb	Gse	Gsb	FINES/ASPHALT RATIO	COMPACTION TEMP.	MIXING TEMP.
2.431	2.358	1.024	2.672	2.613	1.02	270 F	291 F

MIX/AGG. GRADATION, %

ITEM	PERCENT
ASPHALT,%	6.17
P 1-1/2" (37.5 mm)	100.00
P 1" (25.0 mm)	100.00
P 3/4" (19.0 mm)	100.00
P 1/2" (12.5 mm)	100.00
P 3/8" (9.5 mm)	99.20
P No. 4 (4.75 mm)	77.40
P No. 8 (2.36 mm)	56.40
P No. 16 (1.18 mm)	43.80
P No. 30 (600 µm)	32.50
P No. 50 (300 µm)	15.70
P No. 100 (150 µm)	7.20
P No. 200 (75 µm)	5.50
CRUSHED 1 FACE	97.9
CRUSHED 2 FACES	
BOND COAT	

MIX/AGG. PROPORTION, %

MATERIAL/PRODUCER	PIT NO.	PERCENT
31A	45-39	35.0
Man Sand	45-39	15.0
2NS	45-38	30.0
RECLAIMED: RAP		20.0
FILLER:		
ASPHALT BINDER: GRADE PG 58-28; CERTIFIED SUPPLIER/LOCATION/CERT #: Marathon / Detroit ABS 3505		% ADDED: 5.22
AWI (Spec.): 220.0; AWI (Actual): 246.0		
☐ QUALITY ASSURANCE TESTING ☑ REGULAR TESTING		
PRODUCER/LOCATION: Bit-Mat, Bay City		CERTIFIED ☑ YES ☐ NO

REMARKS:

JOB LOCATION	TRAVELING MIX INSPECTOR (TMI)	DATE
Marlette Road; Otsego County	Richard King	10/13/20

Michigan Department of Transportation 1903 (09/04)

DAILY REPORT OF HMA PLANT INSPECTION

DISTRIBUTION: ORIGINAL - Project Engineer, **COPY** - Testing Laboratory and Plant Inspector

PLEASE PRINT

CONTROL SECTION	JOB NUMBER	JOB LOCATION	PROJECT ENGINEER
STL 69000	205316A	Marlette Road	J. Kramer / MDOT P. Repaski / KudeTrim

CONTRACTOR	PLANT NUMBER	PLANT LOCATION	REPORT No.	DATE SAMPLED
Team Elmer's	175-02	Traverse City MI	2	11-9-20

FIELD TEST RESULTS

EXTRACTION NUMBER	TYPE OF MIXTURE (1)	MIX DESIGN No. (1)	TYPE OF MIXTURE (2)	MIX DESIGN No. (2)
	5E1	MP 20 005		

	JMF	ACTUAL	DEV.	TOL	JMF	ACTUAL	DEV.	TOL.
ASPHALT %	6.17	6.00	-0.17	+0.50 -0.30				
P. 1-1/2" (37.5 mm) %	100.00	100.00	-0-	±5.00				
P. 1" (25.0 mm) %	100.00	100.00	-0-	"				
P. 3/4" (19.0 mm) %	100.00	100.00	-0-	"				
P. 1/2" (12.5 mm) %	100.00	100.00	-0-	"				
P. 3/8" (9.5 mm) %	99.20	99.61	+0.41	"				
P. No. 4 (4.75 mm) %	77.40	76.86	-0.54	"				
P. No. 8 (2.36 mm) %	56.40	55.39	-1.01	"				
P. No. 30 (600 µm) %	32.50	32.50	-0-	±5.00				
P. No. 200 (75 µm) %	5.50	5.13	-0.37	±1.00				
CRUSHED %	97.9	97.7	-0.2	-10.0				

MATERIAL	LAB SAMPLE TIME TAKEN	PROJECT PRODUCTION RECORD DAILY TONS	ACCUMULATED TONS
BASE			
LEVELING			
TOP —			
FILLER			
ASPHALT BINDER			

AGGREGATE MOISTURE CONTENT MATERIAL	TIME	%	MINERAL FILLER
			P. No. 30 (600 µm)
			P. No. 200 (75 µm)

PLANT OPR. START	END	LOST TIME	ACTUAL HRS. OPR.

KIT NUMBER	EXTRACTOR NUMBER

MIX / AGGREGATE BLEND PROPORTIONS

PIT NUMBER	GRADE, MANUFACTURER MATERIAL, SUPPLIER	TYPE OF MIXTURE	
		%	%
	36E JMF	%	%
		%	%
		%	%
		%	%
		%	%
RECLAIMED		%	%
FILLER		%	%
ASPHALT BINDER		%	%
		%	%

TEMPERATURE

TIME TAKEN	MIX	AIR

☐ DRUM PLANT

☐ BATCH PLANT

MIX TIME: DRY ____ WET ____

REMARKS :

IN RANGE 1

QUALIFICATION NUMBER 101653

PLANT INSPECTOR'S NAME (PRINT)	SIGNATURE	DATE TESTED
David W. Ashenfelter		11-10-20

Michigan Department of Transportation 1839 (09/02)

TESTING OF HMA

(VACUUM WORKSHEET)

CONTROL SECTION	JOB NO.	MIXTURE TYPE	MIX DESIGN NO.	REPORT NO.	DATE
STL 69000	205316A	5E1	20 HD 005	2	11-10-20
CONTRACTOR		PLANT NO.	PLANT LOCATION		SHEET
Team Elmers		175-02	Traverse City MI		1 OF 2
TESTER (Please Print)			QUALIFICATION NO.	LOT NO.	SUBLOT NO.
David W. Ashenfelter			101653	2	1

J M F

ASPHALT CONTENT - VACUUM		AGGREGATE ANALYSIS				
A. WT. OF SAMPLE	1115.2	SIEVE SIZE	WEIGHT RETAINED, GRAMS	FRACTION RETAINED, %	CUMULATIVE FRACTION PASSING %	
B. WT. OF FILTER AND DE	200.0	1-1/2" (37.5 mm)	0.00	0.00	100.00	100.00
C. WT. OF FILTER, DE AND FINES	251.8	1" (25.0 mm)	0.00	0.00	100.00	100.00
D. WT. OF FINES (C - B)	51.8	3/4" (19.0 mm)	0.00	0.00	100.00	100.00
E. WT. OF DRY EXTR AGGREGATE	996.5	1/2" (12.5 mm)	0.00	0.00	100.00	100.00
F. TOTAL WT. OF AGGREGATE (D + E)	1048.3	3/8" (9.5 mm)	4.1	0.39	99.61	99.20
G. WT. OF ASPHALT (A - F)	66.9	No. 4 (4.75 mm)	238.5	22.75	76.86	77.40
H. % ASPHALT (G / A) * 100 JMF 6.17%	6.00%	No. 8 (2.36 mm)	225.0	21.467	55.39	56.40
CRUSHED PARTICLE CONTENT		No. 16 (1.18 mm)	129.5	12.35	43.04	43.80
X. WT. OF AGG. RET. ON No. 4 (4.75 mm) & ABOVE	242.6	No. 30 (600 µm)	110.5	10.54	32.50	32.50
Y. WT. OF 2 FACE OR MORE CRUSHED	—	No. 50 (300 µm)	191.0	18.22	14.28	15.70
Z. WT. OF 1 FACE OR MORE CRUSHED	237.1	No. 100 (150 µm)	80.0	7.63	6.65	7.20
% CRUSHED, 2 FACE (Y / X) * 100	—	No. 200 (75 µm)	15.9	1.52	5.13	5.50
% CRUSHED, 1 FACE (Z / X) * 100	97.7%	P. No. 200 (75 µm) + D.	2.0+51.8 / 53.8	5.13	C = CARE A = ACCURACY P = PRECISION	
JMF 97.9		TOTAL	1048.3	9999 / 100.00		

REMARKS

In Range 1

Ticket #1653226
Date: 08:11:57 AM 11/09/2020
Plant #401
Truck #2438

Customer #02788
ELMER'S CRANE & DOZER INC
3600 RENNIE SCHOOL RD
PO BOX 6150
TRAVERSE CITY, MI 49696-6150

Job #502041 / 777
PAVE MARLETTE RD OTSEGO
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

5E1

Tested QA

Shipping Info
STL 69000-205316A
MARLETTE RD
OTSEGO COUNTY, MI

Material #400650
5E1
Load #2

	TN	MT
GROSS WEIGHT	75.81	68.76
TARE WEIGHT	26.74	24.25
NET WEIGHT	49.07	44.51
TOTAL TODAY	98.56	89.40
MATERIAL TODAY	98.56	89.40

We certify that this material meets Michigan Department of Transportation specifications. This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation, according to the applicable regulations of the Department of Transportation. I have inspected transport number _____ and found it to be in such condition that will not affect conformance of materials with specification requirements.

FOB Shipping Point

WEIGHMASTER

#90 Denny

DRIVER

File 208

Michigan Department
of Transportation
1903C(04/09)

DAILY REPORTS OF CONTRACTOR'S QUALITY ASSURANCE TESTS

DISTRIBUTION: ORIGINAL- Project Engineer, COPIES - TMI

CONTROL SECTION	JOB NUMBER	PROJECT LOCATION	MIX DESIGN NUMBER	MIXTURE TYPE	DATE SAMPLED	DATE TESTED
STL 69000	205316 A	Marlette Road Otsego	20MD-005	5E1	11/09/20	11/09/20

CONTRACTOR	PLANT NO.	PLANT LOCATION	FORM 1911 DATE
Elmer's Crane and Dozer	175-02	Traverse City, MI	10/13/20

PROJECT ENGINEER	NAME OF TESTER (Please Print)	NAME OF TESTER (Signature)	QUALIFICATION NUMBER
Paul Repaskey	Joe Schlink	Joe Schlink (digitally signed)	01020320

Gb	Gsb	Gse	SUBLOT SIZE	LOT NO	SUBLOT NO	SUBLOT RANDOM TON	ACCUMULATED TONS
1.024	2.613	2.672	Variable	Day 2	AM Sample	110	110

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*		AGG
P 1-1/2"(37.5mm)	100.0	100.00	0.00				
P 1"(25.0mm)	100.0	100.00	0.00				
P 3/4"(19.0mm)	100.0	100.00	0.00				
P 1/2"(12.5mm)	100.0	100.00	0.00	+/- 4	+/- 10		
P 3/8"(9.5mm)	99.2	98.77	-0.43	+/- 4	+/- 10		
P No.4(4.75mm)	77.4	76.73	-0.67	+/- 4	+/- 8		
P No.8(2.36mm)	56.4	55.74	-0.66	+/- 4	+/- 8		
P No.16(1.18mm)	43.8	43.44	-0.36				
P No.30(600um)	32.5	32.49	-0.01	+/- 2	+/- 6		
P No50(300um)	15.7	16.17	0.47				
P No.100(150um)	7.2	7.53	0.33				
P No.200(75um)	5.5	5.72	0.22	+/- 0.5	+/- 2		
CRUSH-1 FACE	97.9	97.87	-0.03	+/- 6	+/- 15		
CRUSH-2 FACE							

TEST RESULTS

	JMF	CONTR	DEV	ACTION LIMITS*	SUSP LIMITS*	
ASPHALT %	6.17	6.26	0.09	+/- 0.50	+/- 0.75	
Gmm	2.431	2.428	-0.003	+/- 0.013	+/- 0.020	
Gmb @ N DESIGN	2.358	2.361	0.003			
AIR VOIDS	3.00	2.73	-0.27	+/- 0.60	+/- 1.00	
VMA	15.34	15.28	-0.06	-0.4 / +0.8	+/- 1.00	
VFA	80.40	82.14	1.74			
F A RATIO	1.02	1.05	0.03	>1.2	<0.6 / >1.4	

	GRADE	CERTIFIED SUPPLIER/LOCATION/CERT#	% ADD
ASPHALT BINDER	58-28	Marathon Detroit ABS 3505	5.22

GYRATORY WEIGHTS / COMPACTION TEMPERATURE 4775 270

MARSHALL WEIGHTS / COMPACTION TEMPERATURE

NUMBER OF SOLVENT WASHES (When using the vacuum extraction method for Asphalt%) 8

REMARKS

* CIRCLE TEST RESULTS THAT ARE OUT OF LIMITS

Otsego County Road Commission
Agenda Item Report

FROM: Rebecca Hilmert, Finance Manager/Board Secretary

MEETING DATE: February 9, 2023

AGENDA ITEM: 8. B

SUBJECT: Resolution R23-1 Camp Grayling Expansion

DESCRIPTION
Community members recently requested the OCRC Board adopt a resolution opposing the expansion of Camp Grayling. In part, the community members opposed to the expansion, state the following reasons for their opposition:

1.) The increased activities and traffic associated with the proposed expansion of Camp Grayling will have a significantly adverse impact on the wear and tear of county roads within Otsego County.
2.) The increased activities and traffic associated with the proposed expansion of Camp Grayling will create significant adverse impact on noise levels within Otsego County.
3.) The increased activities and traffic associated with the proposed expansion of Camp Grayling will generally have an adverse impact on the health, welfare and safety of the residents of within Otsego County.
4.) The increased activities and traffic associated with the proposed expansion of Camp Grayling will generally have an adverse impact on the environment and natural habitats within Otsego County
5.) The proposed expansion of Camp Grayling onto DNR lands does not support the Mission Statement of the Michigan Department of Natural Resources.

A draft resolution has been prepared and is included with this report for the Board's consideration if the Board so chooses to take a position on this matter.

BUDGET ACTION REQUIRED
N/A

LEGAL REVIEW
N/A

SAMPLE MOTION:
Motion to **approve/deny** Resolution R23-1 as presented.

OTSEGO COUNTY ROAD COMMISSION
RESOLUTION R23-1

A RESOLUTION TO OPPOSE THE CAMP GRAYLING INCREASED EXPANSION INTO OTSEGO COUNTY

WHEREAS, the County Board of Road Commissioners of the County of Otsego, State of Michigan, have expressed concerns with the expansion of Camp Grayling into Otsego County;

WHEREAS, Camp Grayling is requesting a 20 year lease for 162,000 acres from the Michigan DNR for National Guard Training activities significantly expanding the area used for this purpose within Otsego County;

WHEREAS, the Michigan Department of Natural Resources is seeing public comment on the proposed expansion and has been met with justifiable concerns from the public about the proposed expansion and proposed used;

WHEREAS, the Otsego County Road Commission is concerned with the potential negative impact such expansion would have on county roads;

WHEREAS, the proposed expansion of Camp Grayling does not secure additional funding to repair roads.

NOW THEREFORE BE IT RESOLVED, unless adequate additional funding is provided to improve and maintain roads within the expansion area, the County Board of Road Commissioners of the County of Otsego hereby opposes the proposed expansion of Camp Grayling into Otsego County.

BE IT FURTHER RESOLVED, that the Board directs the Board Secretary to forward a copy of this resolution to the Counties of the State of Michigan, The Director of the Michigan Department of Natural Resources, the Michigan State Legislature and State Senators, and the

AYES: _____

NAYS: _____

ABSTAIN: _____

ABSENT: _____

ADOPTED February 9, 2023

OTSEGO COUNTY ROAD COMMISSION

BY: _____
Troy Huff, Chairman

CERTIFICATION

I, Rebecca Hilmert, the duly appointed Board Secretary of the Otsego County Road Commission, do hereby certify that the foregoing is a true and complete copy of a Resolution adopted by the Otsego County Board of Road Commissioners at a regular meeting held February 9, 2023, in compliance with the Open Meetings Act, Act No. 267 of the Public Acts of Michigan, 1976, as amended, the minutes of the meeting were kept and will be or have been made available as required by said Act.

_____
Rebecca Hilmert, Board Secretary

Otsego County Road Commission
Agenda Item Report

FROM: Kirk Harrier, Managing Director

MEETING DATE: February 9, 2023

AGENDA ITEM: 8. C

SUBJECT: 2023 Material Bids

DESCRIPTION
Bids for 2023 dust control, 23A aggregate, and pavement markings were advertised and received. The bid tabulation is attached to this report.

BUDGET ACTION REQUIRED
N/A

LEGAL REVIEW
N/A

SAMPLE MOTION:
Motion to **approve/deny** the following vendor's bids: dust control, _____, 23A aggregate, _____, and pavement markings , _____.

WADE TRIM

Tabulation of Bids

2023 Annual Dust Control
Otsego County Road Commission, 669 W. McCoy Road, Gaylord, Michigan 49735
Wednesday, February 8th, 2023

BASE BID ITEMS

				D & J Bownen Dust Control		Northern A-1		Liquid Calcium Chloride Sales		Michigan Chloride Sales	
Item No.	Description	Estimated Quantity	Unit	Unit Price 1	Bid Price 1	Unit Price 2	Bid Price 2	Unit Price 3	Bid Price 3	Unit Price 4	Bid Price 4
1	26% Mineral Brine - Delivered to tank	325,000	Gal	$0.260	$84,500.00	$0.285	$92,625.00	No Bid		$ 0.24	$78,000.00
2	26% Mineral Brine - Continuous Application	325,000	Gal	$0.300	$97,500.000	$0.305	$99,125.000	No Bid		No Bid	
5	38% Calcium Chloride - Delivered to tank	325,000	Gal	No Bid		No Bid		No Bid		No Bid	
6	38% Calcium Chloride - Continuous Application	325,000	Gal	No Bid		No Bid		$0.773	$251,225.00	No Bid	
			Total =		**$182,000.00**		**$191,750.00**		**$251,225.00**		**$78,000.00**

Total for Delivered to supplied tank =	$84,500.00	$92,625.00
Total for Continuous Application =	$97,500.000	$99,125.000

NOTES:
Liquid Calcium Chloride Sales only submitted a bid to deliver to a contractor supplied storage tank.
Liquid Chloride Sales only submitted a bid for 38% Calcium Chloride for continuious application.

WADE TRIM

Tabulation of Bids

OTSEGO COUNTY ROAD COMM. MICHIGAN'S VACATIONLAND

2023 Annual 23A Aggregate
Otsego County Road Commission, 669 W. McCoy Road, Gaylord, Michigan 49735
Tuesday February 8th, 2023

BASE BID ITEMS

				Lewiston Sand & Gravel		J&N Construction		Reith & Riley	
Item No.	Description	Estimated Quantity	Unit	Unit Price	Bid Price	Unit Price	Bid Price	Unit Price 2	Bid Price
1	23A Aggregate - OCRC Loaded and Transferred	25,000	Ton	$ 7.30	$ 182,500.00	$ 8.42	$ 210,500.00	$ 6.50	$ 162,500.00
2	23A Aggregate - Delivered to OCRC Garage	25,000	Ton	$ 12.60	$ 315,000.00	$ 12.98	$ 324,500.00	$ 18.50	$ 462,500.00
			Total =		**$497,500.00**		**$535,000.00**		**$625,000.00**

Total for OCRC Loaded and Transferred =	$182,500.00	$210,500.00	$162,500.00
Total for Delivered to OCRC Garage =	$315,000.00	$324,500.00	$462,500.00

Notes:

OCRC Loader Operator must be MSHA Trained and Certified for this price, Price rises to $7.70/Ton if LSG Loads material into OCRC trucks. Loaded out of Buttles Pit.

Price for 23A loaded out of N. Townline Rd Pit.

Price for 23A Limestone.

WADE TRIM

Tabulation of Bids

OTSEGO COUNTY ROAD COMM. MICHIGAN'S VACATIONLAND

2023 Annual Pavement Markings
Otsego County Road Commission, 669 W. McCoy Road, Gaylord, Michigan 49735
Tuesday February 8th, 2023

BASE BID ITEMS

				Michigan Pavement Markings		PK Contracting		M&M Pavement Markings	
Item No.	Description	Estimated Quantity	Unit	Unit Price	Bid Price	Unit Price	Bid Price	Unit Price	Bid Price
1	4" White Centerline - Waterborne	1,800,000	Lft	$ 0.053	$ 95,400.00	$ 0.055	$ 99,000.00	$ 0.056	$ 100,800.00
2	4" White Centerline - Regular Dry		Lft	$ 0.079	$ -	$ 0.080	$ -	$ 0.100	$ -
3	4" Yellow Edgeline - Waterborne	1,182,000	Lft	$ 0.055	$ 65,010.00	$ 0.059	$ 69,738.00	$ 0.059	$ 69,738.00
4	4" Yellow Edgeline - Regular Dry		Lft	$ 0.079	$ -	$ 0.081	$ -	$ 0.100	$ -
5	Turn Arrows(Left, Right & Thru) - White	65	Each	$ 35.00	$ 2,275.00	$ 50.00	$ 3,250.00	$ 55.00	$ 3,575.00
6	Railroad Grade Crossing Symbol - White	17	Each	$ 95.00	$ 1,615.00	$ 100.00	$ 1,700.00	$ 150.00	$ 2,550.00
7	12-Inch Pedestrian Crossing - White	50	Ft	$ 1.50	$ 75.00	$ 1.75	$ 87.50	$ 2.00	$ 100.00
8	24-Inch Stop Bar - White	2,000	Ft	$ 1.50	$ 3,000.00	$ 2.25	$ 4,500.00	$ 2.50	$ 5,000.00
			Total =		**$167,375.00**		**$178,275.50**		**$181,763.00**

Notes:

Otsego County Road Commission
Agenda Item Report

FROM: Kirk Harrier, Managing Director

MEETING DATE: February 9, 2023

AGENDA ITEM: 8. D

SUBJECT: 2023 Paving Projects/Funding Review

DESCRIPTION
Attached to this report is a proposed paving project capital improvement list. The roads identified on this list are the priorities the Board has established based on a combination of Township and citizen input. Estimates have been developed for each of the projects. The Board will need to review the proposed projects and develop a final list for 2023 based on available funding. Below are the budgetary amounts staff is recommending as the Board reviews the projects on the paving CIP list.

Paving funds for primary and local roads allocated from MTF:	$3,000,000.00
Add: Est. 2023 millage distribution:	$1,160,000.00
Add: Est. current millage acct in liquid form:	$ 597,300.00
Total available for paving projects:	$ 4,757,300.00
Less: federal aid match requirements:	($1,052,000.00)
Net available (without Twp Contributions)	$3,705,300.00

**Engineering/inspection costs will need to be deducted from net available.*

BUDGET ACTION REQUIRED
N/A

LEGAL REVIEW
N/A

SAMPLE MOTION:
Motion to **approve/deny** the 2023 Paving CIP list as amended and request the Otsego County Treasurer make the necessary funds from the 418 Millage account available to the OCRC for the projects.

WADE TRIM
4241 Old US-27 South, Gaylord, MI 49735
Phone: 989.732.3584

Otsego County Road Commission - Paving CIP (2023)
Revision Date: 02/08/2023

2023				Contracted Amount	COST TO DATE / ACTUAL COST		FUNDING										
Project Type	**Length (Miles)**	**Location**	**Estimated Construction Costs**	**Budgeted Design Engineering Cost (6.5%)**	**Design Engineering Cost**	**Budgeted Construction Engineering Cost (8.0%)**	**STP**	**TEDF**	**State**	**Road Commission**	**County Road Millage**	**Township**	**Grants**	**TOTAL FUNDING**	**Awarded Cost**	**Awarded Contractor**	**Cost Per Mile**
Crush and Shape Projects																	
Elmira TWP - Primary	2.01	Theisen Rd - Hallock Rd to N Townline Rd (LAP PROJECT)	**$ 1,065,300.00**	$ 26,500.00	$ 11,275.15	$ 85,224.00	$ 469,000.00			$ 396,300.00		$ 200,000.00		**$ 1,065,300.00**			*$ 591,193.61*
Livingston TWP - Primary	1.02	Murner Rd - M-32 to Five Lakes (LAP PROJECT)	**$ 597,859.86**	$ 34,750.00	$ 26,978.98	$ 47,828.79	$ 407,740.00			$ 101,636.00			$ 88,483.00	**$ 597,859.00**			*$ 693,546.69*
Elmira TWP - Local	2.00	Hallock Rd - M-32 to Theisen	**$ 365,406.70**	$ 23,751.44	$ 8,000.00	$ 29,232.54								**$ 60,983.97**	$ 321,290.00	Rieth Riley	*$ 213,195.34*
Elmira TWP - Local	2.50	Gaylord West Subdivision	**$ 502,613.33**	$ 32,669.87	$ 5,000.00	$ 40,209.07								**$ -**	$ 459,452.50	Payne & Dolan	*$ 232,196.91*
Bagley TWP - Local	0.69	Patrick and Greentree	**$ 151,219.00**	$ 9,829.24		$ 12,097.52				$ 79,500.00		$ 79,500.00		**$ 159,000.00**			*$ 250,935.88*
Charlton TWP - Primary	2.00	Sparr Rd - Tin Shanty Rd to Wolf Rd	**$ 596,962.00**	$ 38,802.53		$ 47,756.96				$ 450,000.00		$ 150,000.00		**$ 600,000.00**			*$ 341,760.75*
Chester TWP - Primary	2.80	Old State Rd - E Opal Lake Rd to Turtle Lake	**$ 934,225.00**	$ 60,724.63		$ 74,738.00				$ 500,000.00		$ 250,000.00		**$ 750,000.00**			*$ 382,031.29*
Chester TWP - Primary	1.50	Beckett Road - 1/4 East of West Cargas Rd. to Wheeler Rd	**$ 535,444.00**	$ 34,803.86		$ 42,835.52				$ 500,000.00		$ 250,000.00		**$ 750,000.00**			*$ 408,722.25*
Corwith TWP -Primary	1.50	Sturgeon Valley Rd - Fontinalis to Green Timbers	**$ 311,444.00**	$ 20,243.86		$ 24,915.52				$ 250,000.00		$ 75,000.00		**$ 325,000.00**			*$ 237,735.59*
Dover TWP - Primary	3.00	Sparr Rd - Dover to Sawyer Rd	**$ 872,488.00**	$ 56,711.72		$ 69,799.04				$ 565,000.00		$ 155,000.00		**$ 720,000.00**			*$ 332,999.59*
Hayes TWP - Local	1.40	Old Stump Rd - Hayes Tower to End	**$ 252,936.00**	$ 16,440.84		$ 20,234.88				$ 282,500.00		$ 150,000.00		**$ 432,500.00**			*$ 206,865.51*
Livingston TWP - Primary	2.00	N Townline Rd - Allis to Theisen	**$ 368,045.00**	$ 23,922.93		$ 29,443.60				$ 276,000.00		$ 150,000.00		**$ 426,000.00**			*$ 210,705.76*
Otsego Lake TWP - Local	1.60	Highlands (Trillium, Edelweiss)	**$ 325,455.00**	$ 21,154.58		$ 26,036.40				$ 137,500.00		$ 137,500.00		**$ 275,000.00**			*$ 232,903.73*
Mill & Fill Projects																	
Elmira TWP - Primary	3.10	Alba Rd (CR-42) - 200 ft west of Mt. Jack Rd to M-32 (LAP PROJECT)	**$ 842,633.70**	$ 27,300.00	$ 18,995.54	$ 67,410.70	$ 347,110.00		$ 7,388.00	$ 212,182.00				**$ 566,680.00**	$ 748,348.00	Rieth-Riley	*$ 308,496.75*
Hayes TWP - Primary	4.50	Hayes Tower Rd - M32 to 1/4 mile North Lake Manuka Rd	**$ 612,902.00**	$ 39,838.63		$ 49,032.16				$ 282,500.00		$ 150,000.00		**$ 432,500.00**			*$ 155,949.51*
Wedge & Overlay Projects																	
Otsego Lake TWP - Local	1.60	Michaywe (Bob White Way, Snowmass, Golden Elk)	**$ 277,160.00**	$ 18,015.40		$ 22,172.80				$ 137,500.00		$ 137,500.00		**$ 275,000.00**			*$ 198,342.63*
Bagley TWP - Local	0.27	Charboneau Ln	**$ 60,853.00**	$ 3,955.45		$ 4,868.24				$ 26,500.00		$ 26,500.00		**$ 53,000.00**			*$ 258,061.80*
Livingston TWP - Local	0.14	Fischer Rd - 700' W of Murner Rd (flood repair)				$ -											$ -
Total:			**$ 8,672,946.59**	**$ 489,414.95**	**$ 70,249.67**	**$ 494,357.96**	**$ 1,223,850.00**	**$ -**	**$ 7,388.00**	**$ 4,197,118.00**		**$ 1,911,000.00**	**$ 88,483.00**	**$ 7,435,822.97**			
			TOTAL ESTIMATED/BUDGETED COSTS =			**$ 9,726,969.16**						***TOTAL FUNDING =***		**$ 7,435,822.97**			

Otsego County Road Commission
Agenda Item Report

FROM: Kirk Harrier, Managing Director

MEETING DATE: February 9, 2023

AGENDA ITEM: 8. E

SUBJECT: Engineering Services RFP Review

DESCRIPTION
The OCRC currently utilizes Wade Trim as its engineering firm and Paul Repasky as the engineer of record. At the January OCRC meeting, the OCRC Board directed staff to advertise for proposals for engineering services. The purpose of this exercise is to review costs and services for these specific professional services. A request for proposal (RFP) was published with a due date of February 7 for the OCRC to receive proposals from interested firms. A total of 6 proposal were received from the following firms: Fleis & Vandenbrink, Gourdie Fraser (GFA), HDR, Prein & Newhof, Soils & Structures, and Wade Trim.

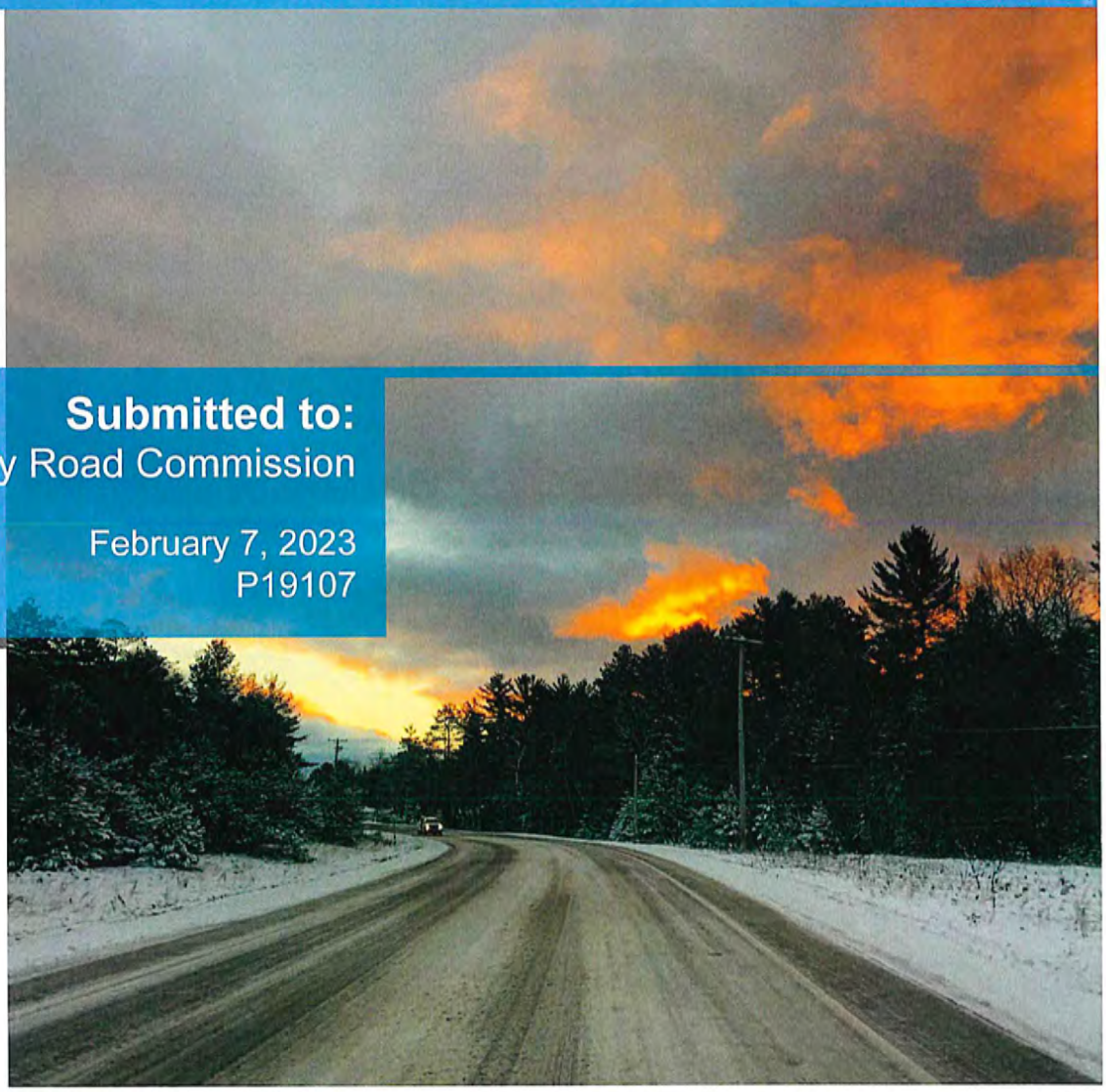
A possible next step would be for the Board to select firms from the proposals submitted and schedule interviews with the firms.

BUDGET ACTION REQUIRED
N/A

LEGAL REVIEW
N/A

SAMPLE MOTION:
Motion to **approve** the selection of the following engineering firms _____and direct staff to schedule a special meeting on February ____, at _____a.m. to conduct interviews.

REQUEST FOR PROPOSAL
ENGINEER OF RECORD



Submitted to:
Otsego County Road Commission

February 7, 2023
P19107

FLEIS&VANDENBRINK
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FLEIS&VANDENBRINK

DESIGN. BUILD. OPERATE.

February 7, 2023

Rebecca Hilmert, Finance Manager
Otsego County Road Commission
669 West McCoy Road
Gaylord, MI 49735

RE: ENGINEER OF RECORD

Dear Ms. Hilmert:

Maintaining a county local road network can be an engineering challenge for many County Road Commissions. With the Otsego County Road Commission being responsible for 229 miles of Primary roads and 605 miles of Local roads as well as performing maintenance on 188 lane miles of MDOT roads having a Team available to assist can be invaluable. F&V is ready and eager to work with and support the Otsego County Road Commission in meeting those challenges.

Our full-service firm's submittal of qualifications and experience to provide Engineer of Record services to the Otsego County Road Commission shows that F&V is capable and well-suited to assist you. For example, each year F&V works with numerous State and Local Agencies providing design, construction engineering, construction oversight and contract administration services for over 100 miles of roadway replacement and improvements.

F&V meets or exceeds the qualifications the Otsego County Road Commission is looking for:

MDOT Road Design

F&V has more than 30 MDOT prequalification's, including Design – Roadway and Design – Roadway Intermediate – and we have completed numerous MDOT Local Agency Projects (LAP) and Log Job projects ranging from very complex roadway, bridge, and enhancement projects to less complicated resurfacing and log-type projects. We are familiar with and understand the process necessary to satisfy the LAP standards and provide clients their desired results in a successful completed on-time and on-budget project. We are also under contract with MDOT to review LAP projects that other firms completed statewide.

Federal Aid Project Requirements

F&V's experience in Federal Aid Projects is extensive. This also includes the Transportation Alternatives Program (TAP) that funds projects such as nonmotorized paths, streetscapes, and historic preservation of transportation facilities. Our knowledge can aid in your project's implementation of the TE/TAP program in areas such as SHPO requirements, AASHTO guidelines for Bicycle facilities and LAP program criteria.

Office Tech Certification

F&V has several experienced MDOT office technicians dedicated to MDOT LAP services. Their work includes establishing and maintaining project files in accordance with State and Federal standards, distribution of project related information to internal and external customers, compilation of project information, coordination and communication with internal and external customers and miscellaneous technical assistance as required.

603 Bay Street, First Floor
Traverse City, MI 49684
P: 231.932.8600
F: 231.932.8700
www.fveng.com

Road Construction Layout

Our team uses a mixture of techniques and equipment to deliver projects accurately and timely – laying the foundation for a successful project. Layout services include staking out structures, curbs, buildings, roads and utilities, utilizing a control network with GPS machine control. We also use precision site monitoring of critical site features to check for movement or changes.

Road Software and PASER Proficiency

We routinely assist a variety of clients by providing traffic studies and Pavement Surface Evaluation and Rating (PASER) assessments. F&V has used (PASER) condition assessments on dozens of parking lots, driveways and roads. Our expertise in knowing what to look for has helped roads rise from near failure (1-3 to a perfect rating (10) while keeping within a framework and budget of each respective agency.

Grant Writing

F&V has assisted its clients in obtaining state and federal grants and loans to help stretch their local dollars. We have assisted clients in receiving over $1,000,000,000 in grants and low-interest loans and administering them. F&V is constantly reviewing funding alternatives and communicating updates to our clients via urgent e-mail alerts and phone calls.

Finally, Why F&V?

- We work with over a dozen County Road Commissions, including Branch, Genesee, Kalamazoo, Lapeer, Mecosta, Newaygo, Oceana, Ottawa, Saginaw, St. Clair, and Wexford.
- Our construction projects average less than a 1% change between as-bid costs and final construction cost.
- We strive to provide low impact development (LID) and best management practices (BMPs) to limit post-development runoff rates and volumes and reduce the discharge of pollutants to the receiving water bodies.
- We are nearly 270 employees strong, with over 55 licensed Professional Engineers.
- Our traffic engineers complete over 1,000 traffic studies and analyses per year.

We look forward to working with the Otsego County Road Commission. Please let us know if you have any questions.

Sincerely,

FLEIS & VANDENBRINK

Larry Hummel, PE
Senior Project Manager

TABLE OF CONTENTS

SECTION 1: **FIRM INTRODUCTION**

F&V was established in 1993 by two friends and civil engineers – Larry Fleis and Steve VandenBrink. The firm currently boasts a staff of 270 professionals who carry on the tradition Larry and Steve started of hiring good people, doing good work and having good client relationships.

We build relationships by being good listeners, and hearing your concerns and issues before starting a project. We also try to get a thorough understanding of your goals and critical success factors.

Clients like our technical expertise, responsiveness, and working relationship that puts them at ease. Working together on custom-fit solutions, we help deliver results and award-winning projects as promised – on time and on budget.

Our team is made up of engineers, architects, water resource specialists, landscape architects, geologists, environmental scientists, surveyors, GIS specialists, inspectors, field technicians, construction managers, professional emergency managers, operations specialists, and administrative support.

CORPORATION

Fleis & VandenBrink Engineering, Inc. (F&V) was established in January of 1993 as a firm of Professional Consulting Engineers.

F&V currently operates as a Corporation in the States of Michigan and Indiana.

Years in Business: 30

Larry Fleis, PE
Chairman of the Board

John DeVol, PE
President

www.fveng.com | 800.494.5202

CORE PRINCIPLES

Understand our customers' needs and satisfy them...
Employ, value, and empower good people...
Do what we say we are going to do...
Have fun!

VISION STATEMENT

F&V is the leader for delivering efficient, effective, innovative projects by top professionals who are making a difference.

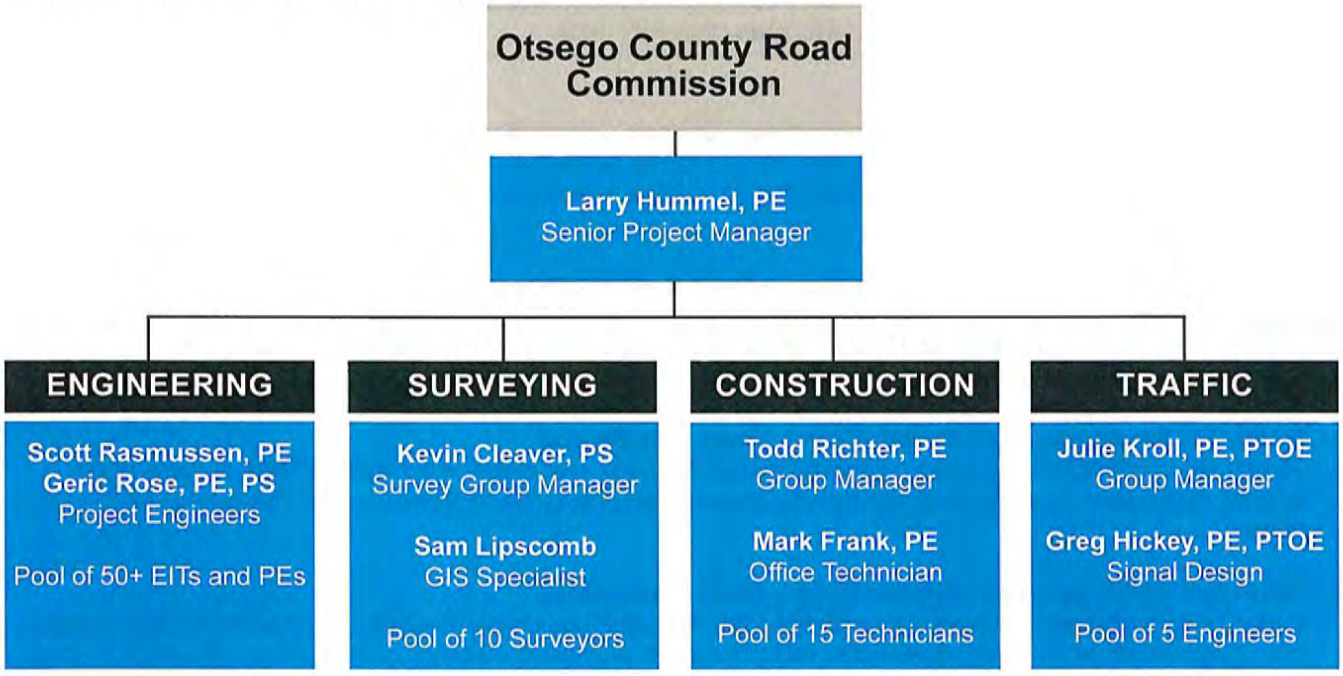
As a strategic partner, F&V listens to clients needs to provide customized solutions to design, build and operate successful projects.

F&V

SECTION 2: KEY PERSONNEL & CAPACITY

We are providing a highly experienced team in the survey, design, and construction engineering of roadway and utility projects, ranging from simple improvements to complex rehabilitation. All our team members have worked with County Road Commissions and MDOT and are incredibly familiar with their standards, guidelines, and expectations.

Resumes are provided on the following pages.



CAPACITY

F&V has more than adequate capacity to provide added value to the Otsego County Road Commission. Your team is supported by our nearly 270 professional staff who are able to step up and assist, should it be needed. We also have landscape architects, traffic engineers, environmental engineers, process engineers, structural engineers, and operations specialists on staff to assist with more specialized projects. F&V's present workload fits this project schedule. F&V prepares quarterly utilization projections to monitor staffing needs throughout the entire organization. These projections are based on past experience and they are updated monthly to conform scheduling commitments to our clients.

PROFESSIONAL BIO

Larry has nearly 30 years of experience in County and State Transportation. He has deep industry knowledge with experience guiding a highly competent workforce in day-to-day operations, project development utilizing federal, state, and local funding sources, and community engagement with county, township, municipal officials, and the public.

Larry excels at communicating the company mission and maintaining consistent messaging across all levels, internal and external to the organization.

Larry has nearly 27 years of County Road Commission experience as a Highway Engineer and 17 years as Managing Director-County Engineer and is well versed in road commission operations.

LARRY HUMMEL, PE

Senior Project Manager

lhummel@fveng.com
616.401.8053

BS Civil Engineering, Michigan Technical University 1993
MA Public Administration, Western Michigan University 2005

Professional Engineer
Michigan (No. 6201045736)

FEATURED EXPERIENCE

Oceana Dr. Reconstruction (HMA Resurfacing) - Oceana County Road Commission
Design and construction engineering services for this locally funded resurfacing project on Oceana Drive in Oceana County. The project included resurfacing of nearly a mile of existing HMA surface, shoulder and approach improvements.

Snow Prairie Road Preventative Maintenance Project - Branch County Road Commission
Project manager for the design engineering for over 10 miles of over band crack seal, chip seal and fog seal with associated pavement markings. MOT coordination with the MDOT for the intersection and traffic control at US-12. This was an MDOT LAP project.

Shelby Rd. Reconstruction - Oceana County Road Commission
Design and construction engineering services for this full crush and shape of the existing HMA surface, HMA overlay, intersection improvements and pavement markings on one mile of Shelby Road. This was an MDOT LAP project.

192nd Ave. Reconstruction - Oceana County Road Commission
Design and construction engineering services for this full crush and shape of existing HMA surface, HMA overlay, intersection improvements, super-elevation corrections and pavement markings on two and a half miles of 192nd Avenue. This was an MDOT LAP project.

Drake Rd. HMA Mill & Overlay, ADA Upgrades, Signal Upgrades & Fiber Installation – Road Commission of Kalamazoo County (Prior Staff Experience)
Project manager for the design and construction engineering for the milling and HMA resurfacing, traffic and pedestrian signal upgrades, fiber optic interconnection, ADA upgrades and associated pavement markings. MOT coordination with the MDOT on West Main/M43 and Stadium Drive Signals. This was an MDOT LAP project.

PROFESSIONAL BIO

Todd has experience in the design and construction of transportation projects. The majority of these consist of MDOT local agency projects.

His experience includes construction engineering and administration of state, municipal and private engineering projects. He has performed inspection and testing for quality control of concrete, asphalt and other construction materials and is familiar with the procedures and paperwork associated with local municipal and MDOT funded projects.

Todd is recognized as a Consultant Assistant for MDOT Local Agency Programs providing project delivery assistance for rural, and TAP (Enhancement and Safe Routes to Schools) projects.

TODD RICHTER, PE

Construction Engineering Group Manager | Senior Associate

trichter@fveng.com
616.942.3605

MS Civil Engineering
Michigan State University

Professional Engineer
Michigan (No. 6201044422)
Indiana (No. PE10910485)

FEATURED EXPERIENCE

MDOT Traffic Signals - Osceola and Wexford Counties

Project manager for the as needed construction inspection and testing services on traffic signal moderation and sidewalk ADA ramp upgrades across Osceola and Wexford Counties. Inspection included: removal and replacement of 23 existing traffic signals; installation of concrete sidewalk and ADA-compliant ramps and 10 pedestrian crossing signals; installation of 3 wireless vehicle detection systems with 36 wireless sensor nodes; installation of 1 solar powered flashing beacon on an advance warning sign; and direction placement of placement markings.

Green Avenue Improvements - Newaygo County Road Commission

Project manager responsible for the design and construction engineering services on this 1.0 mile crushing and shaping project. Project included crushing and shaping the existing asphalt surface widening along each side for proposed shoulder, drainage improvements including cross culverts and ditch grading. Project was funded as an MDOT local agency project and was designed and constructed according to MDOT standards.

6 Mile Bridge over the White River - Newaygo County Road Commission

Bridge design checker and QA/QC for the design and replacement of a two span steel bridge including close coordination with the MDEQ floodplain and Huron-Manistee National Forest. The project was funded with MDOT Local Bridge Program funds.

MDOT Local Agency Review Assistance

Project engineer providing local agency project review assistance on local road and enhancement projects for MDOT. Todd has experience conducting local agency reviews on over 45 projects for MDOT local agency programs. Todd's experience includes both Rural and Enhancement projects.

Ottawa County Salt Storage Facility - Grand Haven

Project manager for the design and construction of a 12,000 sf salt storage facility.

PROFESSIONAL BIO

Scott has over ten years of engineering design and consulting experience. He has experience in water distribution system and sewer system design. He was the lead inspector on watermain construction, sanitary sewer construction, and transportation projects. He has additional experience consulting commercial, residential, mixed-use, and industrial projects.

As a project engineer, Scott is involved with the design of municipal projects. He assists with permitting, budgeting, and preparation of specifications for design projects. He performs flow testing and hydraulic computer modeling of water systems for water reliability studies. He also assists with storm and sanitary pipe network mapping and computer modeling.

SCOTT RASMUSSEN, PE

Project Engineer | Associate

srasmussen@fveng.com
231.751-0056

MS: Construction Engineering and Management, North Carolina State University

Professional Engineer
Michigan (No. 6201066854)
Illinois (No.062.067689)

FEATURED EXPERIENCE

Water and Sewer Improvements (MEDC ICE) - Roscommon
Project engineer for design of watermain and appurtenances, gravity sewer collection, new sanitary forcemain, wastewater pump station replacement, and WWTF improvements. The project replaced aging watermain to improve system reliability and capacity in addition to improving water quality. Assisted in the review of shop drawings during the construction phase and performed on-site inspections to ensure compliance with contract documents. Assisted in preparation of final punchlist and project closeout.

Sewer Phase II - Oshtemo Township
Design engineer for the design of approximately 11 miles of sanitary sewer, one submersible pump station and the reconstruction of the roadways within the project limits.

Water System Study and Asset Management Program - Roscommon
Project engineer for Water System Study and Master Plan. Comprehensive water system study including system flow testing, hydraulic computer modeling, study report and recommendations

Water System Study and Asset Management Program - Harrison
Project engineer for Water System Study and Master Plan. Comprehensive water system study including system flow testing, hydraulic computer modeling, study report and recommendations

Water System Study and Asset Management Program - Suttons Bay
Project engineer for Asset Management Program and update to the Water System Study. Update to the water system study included refined recommendations and an updated report.

Sanitary Sewer Improvements (USDA RD) - Bellaire
Project engineer for assisting the design and permitting of sanitary collection system, WWTF, and pump station improvements.

PROFESSIONAL BIO

In his nearly 25 years of experience, Geric has been involved in the planning, design, and construction of municipal, county, and private engineering and surveying projects. Having experience in both design and construction, he is typically involved in a project from the initial planning/programming phase through completion of construction.

Geric regularly assists communities with their day-to-day engineering needs including planning, design, and implementation of municipal projects. He is instrumental in completing engineering assignments including utility master planning, roadway and utility design, pathways and trails, cost estimation, project bidding, construction engineering, grant writing, funding assistance, and plan reviews.

GERIC ROSE, PE, PS

Project Engineer | Associate

grose@fveng.com
810.244.1729

BS Surveying Engineering
Ferris State University

Professional Engineer
Michigan (No. 6201055609)
Professional Surveyor
Michigan (No. 4001047972)

FEATURED EXPERIENCE

Seymour Road Rehabilitation - Genesee County Road Commission
Project engineer for roadway rehabilitation. Tasks completed included field evaluation of roadway repairs, NEPA and SHPO clearance, and geometric design.

Coldwater Road Rehabilitation - Genesee County Road Commission
Project engineer for the design of 1.6 miles of Coldwater Road rehabilitation. Work included changing the vertical location of sanitary sewer manhole and watermain valve manhole in order to be consistent with others throughout the Beecher Metropolitan District.

Clio Road Improvements - Genesee County Road Commission
Project engineer for 2.1 miles of four lane MDOT Local Agency rehabilitation project in Mt. Morris Township and Flint, consisting of HMA and concrete surface.

Otisville Garage Salt Storage Building - Genesee County Road Commission
Project engineer for architectural and engineering services of a 7,000 SF salt storage building. Work included 18'-6" high concrete walls, wood trusses, steel roof, and lean-to. Building met the Michigan Building Code, Michigan Mechanical Code, National Electrical Code, and MDOT 2012 Standard Specifications for Construction.

Argentine LAFF Pathway - Argentine Township and Genesee County Road Commission
Project manager and engineer responsible for conceptual engineering, grant applications, preliminary engineering and construction engineering services for 2.0 miles of shared use HMA pathway Safe Routes to School project along Lobdell Road, Silver Lake Road, and the Linden Community Schools campus.

Culvert Replacement Program - Genesee County Road Commission
Design engineer for the replacement of five short span mini bridges with concrete box culverts that ranged in size from 7-foot span x 7-foot rise to 19-foot span x 9-foot rise. Work included hydraulic analysis and design of culverts, EGLE permitting, preparation of contractor plans, and specifications.

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SECTION 3: PROJECT EXPERIENCE AND REFERENCES

F&V studies, designs, and constructs roadways and highways that move you wherever you're going.

We are proud to have worked with the following Road Agencies:

- Alcona County Road Commission
- Allegan County Road Commission
- Barry County Road Commission
- Bay County Road Commission
- Benzie County Road Commission
- Berrien County Road Department
- Branch County Road Commission
- Calhoun County Road Department
- Chippewa County Road Commission
- Clare County Road Commission
- Cheboygan County Road Commission
- Clinton County Road Commission
- Eaton County Road Commission
- Emmet County Road Commission
- Genesee County Road Commission
- Grand Traverse County Road Commission
- Hillsdale County Road Commission
- Huron County Road Commission
- Ingham County Road Department
- Ionia County Road Commission
- Iron County Road Commission
- Jackson County Department of Transportation
- Kalkaska County Road Commission
- Kent County Road Commission
- Lake County Road Commission
- Lapeer County Road Commission
- Leelanau County Road Commission
- Livingston County Road Commission
- Macomb County Department of Roads
- Manistee County Road Commission
- Marquette County Road Commission
- Mason County Road Commission
- Mecosta County Road Commission
- Midland County Road Commission
- Missaukee County Road Commission
- Monroe County Road Commission
- Muskegon County Road Commission
- Newaygo County Road Commission
- Oceana County Road Commission
- Ogemaw County Road Commission
- Osceola County Road Commission
- Otsego County Road Commission
- Ottawa County Road Commission
- Road Commission for Montcalm County
- Road Commission of Kalamazoo County
- Roscommon County Road Commission
- Saginaw County Road Commission
- Saint Clair County Road Commission
- Saint Joseph County Road Commission
- Van Buren County Road Commission
- Washtenaw County Road Commission
- Wexford County Road Commission

We have provided more specific experience sheets on the following pages.

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GENERAL CONSULTATION - NEWAYGO CRC

F&V has been working with Newaygo County Road Commission for over 17 years on a variety of general consultation service projects, including:

- 80th Street over Butler Creek
- Cypress & 112th Intersection Improvements
- Cypress & 22 Mile Intersection Improvements
- Bridge Inspections (62+)
- Croton Drive Bridge
- 6 Mile Bridge over White River Improvements
- Old M-20 Bridge Replacement
- Salt Storage Facility
- Green Avenue over White River Improvements
- Muskegon Drive Bridge Improvements
- Colonial Road Bridge Improvements

Many of these projects were coordinated and funded through the MDOT Local Bridge Program.

GENERAL CONSULTATION - OCEANA CRC

F&V has been working with Oceana County Road Commission since 2012 on a variety of general consultation service projects, including:

- Grant Road Improvements
- Water Road Improvement
- Wilke Road Ditch Erosion Improvements
- Woodrow Road Repaving
- Water Road Reconstruction
- Oceana Drive Improvements
- 192nd Avenue Improvements
- Shelby Road Improvements

Many of these projects included construction testing, HMA surfacing, aggregate base, conditioning & shaping, drainage improvements and earthwork.

BRIDGE INSPECTIONS
Wexford CRC

Bridge safety inspections to insure the safe use of bridge structure by the motoring public by National Bridge Inspection Standards (NBIS), AASHTO standards and MDOT standards. We provided bridge file review, field inspection, reports, and communications of the findings and recommendations for improvements to the WCRC Owner. We inspected 22 bridges (1 fracture critical bridge) in Wexford County.

14 MILE BRIDGE OVER LITTLE SOUTH BRANCH
Newaygo CRC

The 14 Mile Road Bridge over the Little South Branch of the Pere Marquette River was selected by the MDOT Local Bridge Program for an estimated $959,000 replacement project.

F&V provided topographic survey and design of the new structure. Work included a hydraulic analysis of the crossing to establish the low beam elevation to dictate the vertical alignment for the crossing, as well as permits and GI Review for MDOT.

SIGNAL TIMING OPTIMIZATION
St. Clair CRC

F&V performed an evaluation of several intersections throughout St. Clair County to optimize signal operations. Intersection turning movement counts were collected during the weekday AM (7:00 AM to 9:00 AM), Off-Peak (11:00 AM to 1:00 PM) and PM (4:00 PM to 6:00 PM) peak periods. This data was used as a baseline to evaluate the existing signal timing and the optimized signal timing. Additionally, F&V collected an inventory of existing lane use and traffic controls at the intersection. The signal timing was optimized for the Off-Peak (normal), AM peak, and PM peak hours using Synchro (Version 10) traffic analysis software. Before and After vehicle delays and Levels of Service (LOS) were calculated at the study intersection based on the existing lane use, traffic control, and optimized signal timing. The deliverables included a study report and final signal timing permits consistent with St. Clair County Road Commission requirements.

COLONIAL ROAD BRIDGE IMPROVEMENTS
Newaygo CRC

The Colonial Road Bridge was erected by the railroad in 1905 and served as the connecting gateway joining Colonial Drive for the past century. Given its age, the speed limit was reduced to 5 mph and weight restrictions fell below that of a more modern bridge.

In 2016, the bridge was closed to traffic and selected by the MDOT Local Bridge Program for a $1,392,000 replacement project. F&V was hired by the Newaygo County Road Commission to assist with Design Engineering and assistance during construction of the project. F&V was responsible for aspects of the project including: preconstruction activities, initial bridge safety inspection, coordination of private utilities, on-site observation/testing, preparation of contract modifications, construction staking, and coordination of the MDOT file review and closeout activities.

LAPEER AND ALLEN ROAD ROUNDABOUT DESIGN
St. Clair CRC

F&V provided the design engineering for the reconstruction of the intersection of Lapeer and Allen Roads utilizing a single lane roundabout. Improvements included the conversion of a simple two-lane intersection to a roundabout, storm sewer and drainage improvements, and watermain upgrades.

The design included a geometric layout of the roundabout, pavement cross sections, storm sewer improvements, a watermain design, pavement striping and signage plans, maintaining of traffic control and detour plans, special provisions, and cost estimates. The roundabout's close proximity to two K-12 school zones will increase student's safety and reduce crashes. Summer-time construction eliminated the need for road-closure during school business hours.

COLDWATER ROAD REHABILITATION
Genesse CRC

F&V provided preliminary engineering for 3.8 miles of Coldwater Road reconstruction between Clio Road and Harry Street as a two-phase project.

Phase 1 consisted of the removal of the entire four lane roadway down to the existing subgrade and replacement with a three lane HMA roadway. All drainage structures and storm sewer beneath the new road were replaced as part of this reconstruction project.

Phase 2 consisted of the reduction of the roadway (road diet) from four lanes to three lanes, milling the remaining three lanes, resurfacing with HMA pavement and new curb. Project involved utility coordination with the Beecher Metropolitan District and utility companies for the construction of new water main and new gas service leads.

OCEANA DRIVE IMPROVEMENTS
Oceana CRC

F&V provided planning, design and construction engineering services for this MDOT local agency project for resurfacing Oceana Drive in Oceana County. The project included crushing and shaping and resurfacing of nearly a mile of existing HMA surface.

The existing pavement section of this roadway failed much sooner than the County expected. F&V evaluated the underground site condition of the project area to determine why the failure took place. Information from existing plans, previous soil investigation reports, and interviewing the key players involved was used to determine what design was feasible. F&V also conducted extensive underground investigation of both the roadway and roadside area to ensure the success of the design.

FARRAND ROAD OVER PINE RUN CREEK
Genesee CRC

F&V completed design and construction engineering services for a single span, two lane bridge structure in Genesee County. The project involved bridge replacement, scour protection, approach reconstruction, and related work. The bridge is located in close proximity to two large wastewater force mains, requiring special accommodations in the substructure design. The project required close coordination with the GCRC, EGLE, and other project stakeholders. The project was funded in part by the MDOT.

OTISVILLE GARAGE SALT STORAGE BUILDING
Genesee CRC

F&V provided architectural and engineering services of 7,000 square foot salt storage building. The design was based on an MDOT standard salt storage building and included 18'-6" high concrete walls, wood trusses, steel roof and lean-to. Building met the Michigan Building Code, Michigan Mechanical Code, National Electrical Code, and MDOT 2012 Standard Specifications for Construction.

Storm water detention was also required as the new impervious area exceeded the 10% increase allowed by the Genesee County Drain Commissioner's (GCDC) Office for sites without detention. The project was completed ahead of schedule.

RICHFIELD ROAD REHABILITATION AND ROAD DIET
Genesse CRC

F&V was responsible for 1.6 miles of road rehabilitation where nearly 14,000 tons of hot mix asphalt was used. Traffic was a concern and involved night paving. Project passes PWL and CPM performance warranty specifications. This road diet was a conversion from four lanes to three lanes.

The project was honored with 2014 APAM/MDOT Asphalt Paving Award Winner: 'Award of Excellence' in category 3: 2,500 - 20,000 tons.

IRISH ROAD IMPROVEMENTS
Genesee CRC

This MDOT Local Agency project involved one mile of pavement removal, HMA base crushing and shaping, paving, road reconstruction, pavement markings, guardrail improvements, and permanent sign replacement.

Approximately 2/3 of this project involved HMA base crushing and shaping and repaving. Complete roadway reconstruction was completed at the existing residential side streets, as well as the beginning and ending, in order to match the existing road grades.

5 MILE ROAD OVER THE LITTLE MUSKEGON RIVER
Mecosta CRC

F&V completed design engineering services for a superstructure replacement project which included substructure modifications, approach improvements,Sorry and related work.

The project was funded by the MDOT Local Bridge Program.

190TH AVENUE OVER THE LITTLE MUSKEGON RIVER
Mecosta CRC

F&V completed design and construction engineering services for this bridge replacement project.

The project involved replacement of a historic two-span concrete-through-girder bridge with a single-span structure skewed to better fit the channel. The project was funded through MDOT's Local Bridge Program.

MCDEVITT AVENUE RECONSTRUCTION
Jackson County Department of Transportation

Summit Township's McDevitt Avenue, constructed in 1922, had a 1.5-mile critical section of concrete pavement that was deteriorating and the Jackson County's Department of Transportation's efforts to maintain it were failing. The JCDOT secured a $3.7 million special grant through the Michigan Department of Talent and Economic Development to reconstruct it.

F&V provided design engineering services for removing and replacing 1.5-miles of concrete pavement, HMA, curb and gutter, and storm sewer. In addition, F&V also provided engineering services for moving a bike path behind the curb to allow for a non-motorized pathway.

The project put new life into an important commercial corridor that served a large residential network and provided a critical link to I-127 for the township and the south end of the City of Jackson. The non-motorized pathway now allows pedestrian access along the entire section or road.

The project required special coordination with the Township's watermain improvement project and many stakeholders along the route including a school, churches, and local businesses and residents. The project also benefited from utilization of the County's pavement recycling equipment. The base of the new roadway was recycled asphalt from the county airport.

This project was recognized with a Merit Award for Engineering in 2022 American Council of Engineering Companies of Michigan (ACEC/M) and an APWA Project of the Year (Transportation).

REFERENCES

Branch County Road Commission
Jay Miller, Manager Engineer
P: 517.278.2022

Oceana County Road Commission
Mark Timmer, Managing Director
P: 231.873.4226

Genesee County Road Commission
Fred Peivandi, PE, Manging Director
P: 810.767.4920 x243

Road Commission of Kalamazoo County
Ryan Minkus, PE, County Engineer
P: 269.381.3171 x275

Newaygo County Road Commission
Derek Wawsczyk, Manager
P: 231.689.6682

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SECTION 4: **FEE PROPOSAL**

As projects are identified and selected for funding, we propose to provide appropriate project scopes and budgets using the following rates:

Classification	Rate
CIVIL ENGINEERS	**$108 - $165**
Engineers-in-Training	$108 - $125
Engineer	$125 - $145
Project Engineer	$145 - $154
Engineer Manager	$154 - $165
PROJECT MANAGERS	**$145 - $196**
Project Manager	$145 - $186
Senior Project Manager	$186 - $196
TECHNICIANS	**$76 - $146**
Technician	$76 - $114
Environmental Technician	$83 - $90
Office Technicians	$96 - $98
Senior Engineer Technician	$120 - $146
SURVEYORS	**$103 - $167**
Survey Crew Chief	$103 - $119
Survey Manager	$131 - $167
SITE DEVELOPMENT	**$83 - 172**
Architectural Designer	$83 - $121
Landscape Designer	$89 - $103
Senior Architect Designer	$121 - $139
Senior Landscape Architect	$151 - $166
Architect	$139 - $157
Senior Architect	$157 - $172
OTHER PROFESSIONALS	**$85 - $140**
Geologist	$85 - $121
Environmental Specialist	$88 - $131
Chemist	$100 - $140
Senior Geologist	$121 - $139
ADMINISTRATIVE AND BUSINESS SERVICES (IT, HR, MARKETING, ACCOUNTING, BUSINESS DEVELOPMENT)	**$70 - $155**
Administrative Assistant	$70 - $155

Note: Rates are typically adjusted annually in April.

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Traverse City, Michigan 49684
231 946 5874
231 946 3703

February 7, 2023

Otsego County Road Commission
669 West McCoy Road
Gaylord, MI 49735

RE: Request for Proposals: Engineer of Record

Dear Otsego County Road Commission,

Thank you for the opportunity to submit this proposal for Engineer of Record for the Otsego County Road Commission. Please let this letter along with the attached proposal documents demonstrate our interest and level of qualifications to provide these services.

GFA is an experienced, full-service engineering and consulting firm licensed to do business in the state of Michigan with 30 employees and over 75 years of experience in a diverse array of project types. These project types range from public infrastructure, to road improvement projects, to private site developments and much more. GFA also boasts one of the largest and most sophisticated survey departments in Northern Michigan that is supplemented by our construction services and onsite water and wastewater operations departments.

We have completed work and are currently working on projects for multiple road commissions including, but not limited to, the Tuscola County Road Commission, the Clare County Road Commission, the Emmet County Road Commission, the Kalkaska County Road Commission, the Benzie County Road Commission, and the Mackinac County Road Commission, as well as direct work for the Michigan Department of Transportation. This work ranges from the surveying, engineering and construction services of locally funded projects to Federal and State funded projects. We are highly qualified and experienced with the MDOT Local Agency Program Design Standards and approval processes, and currently maintain 18 MDOT prequalification's, including:

- Construction Engineering: Assistance
- Construction Engineering: Roadway
- Construction Engineering: Roadway – Local Agency Program
- Construction Inspection: HMA Pavement
- Construction Inspection: Roadway
- Construction Inspection: Traffic and Safety
- Construction Inspection: Bridges & Ancillary Structures
- Construction Testing: Aggregates
- Construction Services: Office Technician
- Design: Utilities – Municipal
- Surveying: Construction Staking
- Surveying: Hydraulics
- Surveying: Right-of-way
- Surveying: Road Design
- Surveying: Structure
- Construction Testing: Density
- Design: Roadway
- Construction Testing: Concrete

In this proposal you will find our professional qualifications, key staff personnel, relevant project history with job references, and our 2023 Hourly Rate Schedule. We would be honored to be selected as Engineer of Record for the Otsego County Road Commission. Should you have any questions regarding our proposal or to schedule a time to meet our team, please feel free to contact me at 231-632-4308 or joew@gfa.tc.

Joseph D. Williams, PE
Project Manager

Company Profile & Philosophy

Gourdie-Fraser (GFA) has been headquartered in downtown Traverse City since 1948 and employs over 30 residents of the area. Rather than accumulating a large volume of municipal clients and public agencies for whom we only do a project or two, it has always been our company's philosophy to contract with a select number of municipal and governmental clients, providing them with exceptional service and dedication. The services offered by GFA can compete with some of the largest companies across the State of Michigan. What makes GFA unique is our small business mission to put our Clients first. This mentality has led to GFA maintaining existing relationships with local road commissions, municipalities and private Clients for over 25 years. Putting our clients first is the foremost reason for our success over the last 75 years and the countless successful projects we have completed.

Qualifications of Team

GFA has an exceptional team with both local Road Commission and MDOT experience to serve as Engineer of Record for the Otsego County Road Commission by providing as-needed engineering, surveying and construction phase services. This is supplemented by GFA's existing relationships with local sub-consultant firms for specialized services not offered by GFA such as geotechnical soil borings and wetland studies. With a proven past history of delivering successful design, surveying and construction engineering projects across the state of Michigan for varying Road Commissions and MDOT Transportation Services Centers, GFA's work speaks for itself. This is demonstrated through the 18 MDOT prequalifications that GFA holds, including:

- Construction Engineering: Assistance
- Construction Engineering: Roadway
- Construction Engineering: Roadway – Local Agency Program
- Construction Inspection: HMA Pavement
- Construction Inspection: Roadway
- Construction Inspection: Traffic and Safety
- Construction Inspection: Bridges & Ancillary Structures
- Construction Testing: Aggregates
- Construction Services: Office Technician
- Design: Utilities – Municipal
- Surveying: Construction Staking
- Surveying: Hydraulics
- Surveying: Right-of-way
- Surveying: Road Design
- Surveying: Structure
- Construction Testing: Density
- Design: Roadway
- Construction Testing: Concrete

GFA understands that the duties and scope of work of the Engineer of Record will vary depending on the Road Commission's needs, as outlined in the Request for Proposals. These services include, but are not limited to, engineering design and contract administration, meeting attendance, funding and grant applications, construction materials testing and construction observations, plan reviews and more. Although GFA has a current book of projects, our projected future workload and staff availability will allow us to meet all services and responsibilities outline in the RFP. It is understood that in-person meetings and sites visits will be required as a part of the Engineer of Record service. GFA's dedicated staff is willing to travel and work overtime as-needed.

Professional Engineering Services

GFA's Engineering Department has a team of licensed Professional Engineers, Draftsmen and Design Engineers. The engineering department has completed the design and construction engineering of countless local and federally funded (including MDOT Local Agency Program) projects across the State of Michigan, and has the experience and certifications to take projects from conceptual design to final construction closeout. GFA regularly works with local Road Commissions such as the Benzie County Road Commission, the Emmet County Road Commission, the Kalkaska County Road Commission, the Clare County Road Commission, the Tuscola County Road Commission and the Mackinac County Road Commission to provide a wide array of services, whether that be road design and plan preparation, construction engineering, materials testing or obtaining and utilizing federal funding. This work is made possible by the design team's experience with MDOT and AASHTO design guidelines and utilization of state-of-the-art software such as Autodesk Civil3D, HEC-RAS, ProjectWise, HydroCAD, FieldManager, MERL and Bentley OpenRoads. Furthermore, GFA's Engineering Department regularly contracts with the Michigan Department of Transportation's Gaylord Transportation Service Center and Traverse City Transportation Service Center for both the design and construction engineering of region projects. In addition to providing transportation engineering services, GFA serves at Engineer of Record for multiple municipalities across the region including, but not limited to, the City of Clare, Village of Rosebush, Charter Township of Union, Charter Township of Garfield, the City of Manton, Peninsula Township, the Village of Bellaire and the Village of Central Lake. As Engineer of Record for these municipalities, GFA provides municipal engineering services such as water supply and waste water infrastructure project design and contract administration, development plan reviews, grant administration, asset management plans, attends Township board meetings and much more. To further round the Engineering Department's services, GFA provides site engineering services from conceptual zoning planning to project permitting for a wide range of development project types.

Professional Surveying Services

GFA boasts one of the largest and most sophisticated survey department's local to Northern Michigan and that consists of a team of licensed Professional Surveyors, CAD technicians and numerous survey field crews to support them. The department is outfitted with the most current state-of-the-art technology and equipment, including a fleet of boats, off-road utility vehicles, and drones. The Survey Department regularly contracts with MDOT to complete road design mapping, GIS inventory mapping (TAMS), hydraulic surveys, structure surveys and right-of-way surveys across Northern Michigan. The department regularly performs work for local Road Commissions and municipalities including gravel pit volume mapping, construction staking, boundary surveys, topographic mapping, and more.

Construction Services

GFA's Construction Services Department holds and maintains all certifications and MDOT prequalifications to perform material testing and construction oversite on a wide array of project types. The department regularly provides as-needed construction services for local Road Commissions and MDOT Transportation Services Centers. The technicians also perform material testing for private Clients and construction observation for municipal projects. GFA's technicians are equiped with technology, testing devices, and vehicles needed to perform almost any construction service required by the Otsego County Road Commission. It should be noted that GFA does not own or operate a drill rig suitable for geotechnical soil borings but maintains local relationships to perform this work. GFA's construction technicians regularly use FieldManager and ProjectWise to document project construction.

Sub-Consultant Partnerships

To provide services not currently offered in-house, GFA maintains relationships with local firms who offer these services. These firms include environmental firms to perform wetland delineations and geotechnical firms to perform geotechnical analysis and soil borings for projects. GFA has partnered with these firms to complete numerous successful projects in recent years.

References

Dirk Heckman - Manger, Mackinac County Road Commission - 906.430.0455
Kim Smith - Utility Coordinator, Charter Township of Union - 989.772.4600
Chuck Korn - Township Supervisor, Charter Township of Garfield - 231.941.1620
Brent Shank – Manager, Emmet County Road Commission – 231.347.8142
Matt Skeels – Manager, Benzie County Road Commission – 231.325.3051
Jeremy Howard – Manager, City of Clare – 989.386.7541

Key Personnel

The following key personnel are available to provide the duties of Engineer of Record for the Otsego County Road Commission. Resumes for key personnel are attached.

Project Manager, Joseph Williams, P.E. – Point of Contact

Mr. Williams has been with GFA since 2015 and has civil experience in roadway, public utility design, site development and construction engineering, with a focus in transportation engineering. As a Project Manager for GFA he has worked on roadway improvement and bridge projects, soil and erosion and sedimentation control plans, storm water management plans, and contract and grant administration. His experience includes plan set development, NRCS design and construction requirements, MDOT LAP programming, and MDOT Construction Engineering standard practices. Mr. Williams has MDOT design and construction engineering project management experience in both Tier 1 and Tier 2 MDOT contract categories. These projects range in size from rural roadways and city streets to recreational trials and MDOT safety projects. Mr. Williams is a certified office technician and maintains several material testing certifications.

Responsibility: Joseph will be the point of contact for the Otsego County Road Commission, attend meetings, and coordinate the efforts of the rest of the project team to fulfill all the required tasks and deliverables.

Project Engineer, Shane Gamrat, P.E.

Mr. Gamrat has been with GFA since 2020. Prior to joining GFA, he worked in Michigan's thumb region for 2 years. As a Project Engineer for GFA he has worked on a wide array of project types, with a focus in transportation engineering and site development. Mr. Gamrat's experience includes the used of AutoCAD Civil 3D and Bentley OpenRoad for plan design and preparation, HEC-RAS modeling for culvert sizing, and MDOT LAP programming. Mr. Gamrat has served as the staff engineer, office technician, and field inspector on numerous successfully completed MDOT TSC and MDOT-let Local Agency Program projects across the State of Michigan.

Responsibility: Shane will provide day-to-day engineering design, plan and report preparation, office technician duties and assist the Project Manager in the completion of any as-needed work.

QA/QC Engineer & Director of Engineering, Jennifer Graham-Hodges, P.E.

Mrs. Graham-Hodges joined GFA in 2004 and is the Director of the Engineering Department and the primary municipal client representative for GFA's Engineer of Record municipalities. Her project focus includes studies, water, sewer and road design, EGLE permitting, grant application and administration, coordination, and monitoring for both sizeable communities like the City of Clare, the Charter Township of Garfield and Charter Township of Union.

Responsibility: Jennifer will provide QA/QC as-needed.

Survey Project Manager, Andrew Murphy, P.S.

Mr. Murphy has over 13 years of experience in land surveying and survey project management. He has successfully completed numerous MDOT survey contracts for topographic mapping, right-of-way alignment establishment, bridge surveys and hydraulic surveying. Mr. Murphy has further completed numerous road design topographic mapping surveys, MDOT-let LAP road construction staking projects, MDOT TAMS inventory collection and regularly performs section documentation across the region. Prior to joining GFA, Mr. Murphy worked directly for MDOT. Mr. Murphy oversees GFA's survey field crews and will be responsible for coordinating all survey work required for this contract. He has the MDOT specific and road specific experience to provide survey project oversite and streamline the construction staking process.

Responsibility: Andrew will provide oversite of the survey field crews for as-needed survey work or GIS inventory collection.

Construction Project Manager, Marty Alley

Mr. Alley, a fieldwork veteran, oversees the observation and testing of GFA projects. During his 25+ years at GFA he has played a role in all projects requiring construction services. He handles scheduling field staff, conducts testing, and provides construction observation and documentation. Marty has worked on numerous MDOT Let projects and is familiar with AASHTO, MDOT, MUTCD and NACTO design and construction standards.

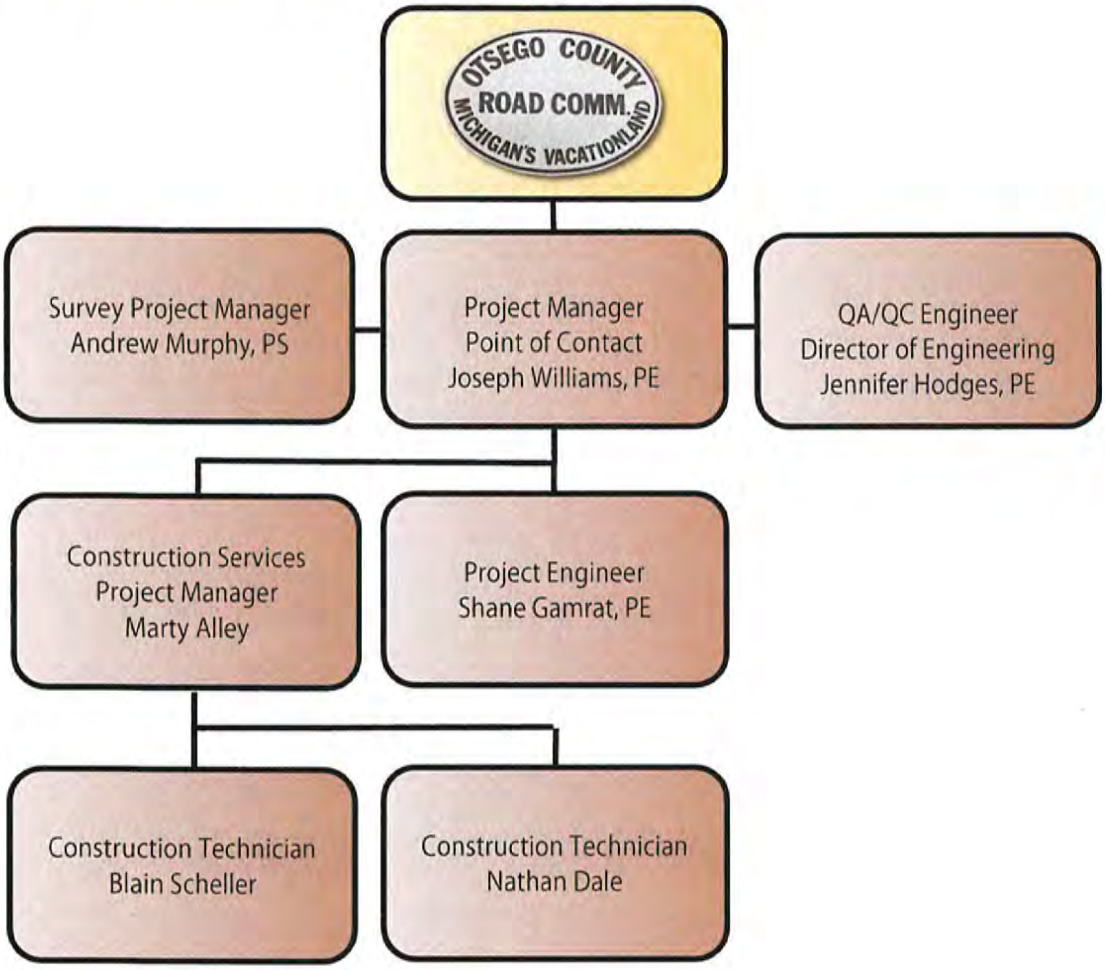
Responsibility: Marty will provide coordination of as-needed construction services and serve as role of construction technician if needed.

Construction Technicians, Blain Scheller, Nathan Dale, Mark Walters

Mr. Scheller, Mr. Dale and Mr. Walters will serve as the primary field inspectors for projects as-needed and hold all necessary certifications required to provide construction services on road projects. Together, the three inspectors have over 45 years of combined inspection experience on a wide range of project types and sizes. All technicians have experience in using GIS equipment for asset inventory.

Responsibility: Blain, Nate and Mark will provide construction technician services as-need for the road commission.

Project Team Organizational Chart



Project Experience

"Super 6", Clare County Road Commission, (Construction Value: N/A) – On-Going

This project is currently in design and MDOT programming for the Clare County Road Commission. The project consists of road widening, super corrections, HMA overlay, shoulder aggregate, pavement markings, and signage upgrades for 6 roads in various parts of Clare County. The projects are being funded with Rural Task Force 7A Federal and State Program funding and are being completed as log projects in accordance with MDOT Local Agency Design Standards and policies. The construction of all 6 roads are anticipated be let together as one project. Also included in this project is the rehabilitation of 2 bridges on Colonville Road that included abutment work and new bridge decks. Construction is anticipated for 2023 and 2024.

MDOT Non-Freeway Sign Upgrades, MDOT Gaylord TSC (Construction Value: $1,200,000) – On-Going

GFA is contracted with the MDOT Gaylord TSC to provide full construction engineering services for sign upgrades on US-31, US-23 and M-68 in Emmet, Cheboygan and Crawford Counties. GFA is providing all office technician responsibilities, project management duties, including contract administration and resolving construction issues, and construction inspection and material testing for the project. The project includes the replacement of over 15,000 square feet of signs of varying sign and foundation types.

Bevens Road & Cemetery Road HMA Overlay, Tuscola County Road Commission (Construction Value: $1,011,500) – On-Going

This project is currently in design and MDOT programming for the Tuscola County Road Commission. The project consists of HMA overlay, shoulder aggregate, pavement markings and signage upgrades for 3.25 miles of Bevens Road from M-24 to Dayton Road and 4.3 miles of Cemetery Road from the Cass City North Village to the Huron County Line. The projects are being funded with Rural Task Force 7A Federal and State Program funding and are being completed as log projects in accordance with MDOT Local Agency Design Standards and policies. Construction is anticipated for 2023 and 2024.

MDOT US-31 Reconstruction, MDOT Traverse City TSC (Construction Value: $19,500,000) – On-Going

This project is currently in the early stages of design. GFA is part of the design team with R.S. Engineering for the reconstruction and widening of US-31 from Sullivan Road to Reynolds Road in Grand Traverse County and Benzie County. This project is part of MDOT's Mentor-Protégé Program with GFA providing all permanent pavement marking and permanent signage design and plans for the 8.39 mile project. The plans are being completed per MDOT standard in Bentley OpenRoads. The plans are anticipated to be completed in 2024.

Lake Shore Drive Over Wycamp Creek, Emmet County Road Commission (Construction Value: $850,000) – On-Going

This project was completed for the Emmet County Road Commission and the Little Traverse Band of Ottawa Indians with grant funding being provided the NRCS. The project involved the replacement of an existing undersized 72" perched corrugated metal culvert in Wycamp Creek with a pre-engineered double span timber bridge. GFA performed all surveying and engineering design for this project including EGLE permitting, hydraulic surveying, HEC-RAS modeling, cost estimates, plan preparation and the evaluation of alternative crossing options including arched culverts, pre-engineered rolled girders, and concrete box culverts. GFA partnered with Link Engineering for this project. The project plans are currently under review by the NRCS with construction anticipated in 2024.

Esch Road Reconstruction - Benzie County Road Commission (Construction Value: $602,000) – 2019-2022

This project was completed for the Benzie County Road Commission by GFA, involving surveying, engineering design and construction engineering. The project involved the reconstruction of Esch Road, from M-22 to the end of the road at Lake Michigan, roughly 1.5 miles, as part of MDOT's LAP programing. The primary goal of the project, identified by Benzie County Road Commission, was to improve road conditions while also establishing a parking area within the road right of way at the end of the paved road surface.

Esch Road – Benzie County

Lower Shore Drive Over Five Mile Creek, Emmet County Road Commission (Construction Value: $615,000) – On-Going

This project was completed for the Emmet County Road Commission and the Little Traverse Band of Ottawa Indians with grant funding being provided the NRCS. The project involves the replacement of an existing undersized 60" perched corrugated metal culvert in Five Mile Creek with a concrete box culvert with headwalls, wing walls, baffles, and in-stream restoration to promote fish migration. GFA performed all surveying and engineering design for this project including EGLE permitting, hydraulic surveying, HEC-RAS modeling, cost estimates, plan preparation and the evaluation of alternative crossing options including arched culverts, pre-engineered rolled girders, and timber bridges. GFA partnered with Link Engineering for this project. The project plans are currently under review by the NRCS with construction anticipated in 2024.

Bellmer Road, Emmet County Road Commission (Construction Value: $890,000) – 2022

This project was completed for the Emmet County Road Commission and Forest Home Township. GFA provided full surveying, engineering design and plan preparation, and EGLE permitting for the reconstruction 0.5 miles of Bellmer Road from Rustic Road to Pinewood Road. The project consists of upgrading the existing gravel roadway to meet current road commission specifications and included trenching and widening, HMA paving, raised asphalt curbs, guardrail, and steep slopes. Over half of the road travels through a large wetland area with ground water seeps along the steep slopes adjacent to the road. GFA developed a plan that was economical to construct for the Township while ensuring the poor soil conditions and groundwater were accounted for using bank underdrain, subbase underdrain, geogrid, and culverts.

Maple City Highway Resurfacing, Benzie County Road Commission (Construction Value: $525,085) -2021

This project was completed for the Benzie County Road Commission with GFA completing the construction engineering of this MDOT-let LAP project. GFA provided full time inspection and testing services for 3.03 miles of HMA overlay, gravel shoulders, pavement markings, guardrail adjustments, and restoration such as quantity measuring, completing IDR's, material testing and MDOT required documentation. GFA further provided all construction engineering services for the road commission such as Office Technician duties and contract administration.

East Main Street Bridge - Manton, MI

East Main Street Bridge Replacement, City of Manton (Construction Value: $325,000) - 2021

This project involved surveying, engineering design and construction services to rehab bridge abutments and replace the superstructure of the existing Main Street bridge over Manton Creek. The project was completed with MDOT Category B Grant Funding and consisted of installing a new pre-engineered Contech bridge superstructure, modifying the existing concrete abutments, new guardrail and bridge approaches, and hydraulic HEC-RAS modeling with EGLE permitting. GFA partnered with Link Engineering for this project.

Cass Road Drain Project, GT County Drain Commission (Construction Value: $2,400,000) -2021

This project involved engineering design assistance and construction serves to replace two critical undersized and perched culverts in county road and MDOT railroad right-of-ways. The work was funded by NRCS Grant Funding and the creation of a Special Assessment District. 100 linear feet of 12'x7' concrete box culvert with headwalls and wing wall and 80 feet of 10'6' concrete box culvert with headwalls and wing walls were installed along with stream restoration such as plunge pools and cross vanes. EGLE permitting, hydraulic HEC-RAS modeling and MDOT railroad permitting were included in this project. GFA performed construction staking and topographic surveying for this project as well.

River Road Reconstruction, Benzie County Road Commission (Construction Value: $275,000) - 2021

This project was completed for the Benzie County Road Commission with GFA completing engineering design and construction engineering. The project involved the reconstruction of approximately 0.7 miles of River Road from the Betsie River east to the west village limit of Benzonia Village. The project required trenching, widening, crushing and shaping. This project was designed as a log job consistent with MDOT guidelines for federal aid projects.

MDOT As-Needed Construction Engineering Services, MDOT Traverse City TSC (Construction Value: Varies) -2021

GFA provided as-needed construction engineering services for the MDOT Traverse City Transportation Service Center. Projects covered parts of Antrim, Benzie, Grand Traverse, Leelanau, and Manistee Counties. The services included office technician work, project management, construction inspection, documentation and material testing for numerous projects during the contract life. These projects included, but are not limited to, delineator installation, high friction surface treatments, safety signing upgrades, crack fill projects, etc.

Iron Belle Trail – Higgins Lake, MI

MDOT Iron Belle Trail Construction Engineering Services, MDOT Gaylord TSC (Construction Value: $656,934) -2021

GFA worked for the MDOT Gaylord TSC to perform full construction engineering services for the construction of 2.53 miles of the Iron Belle Trail from Higgins Lake State Park to Fletcher Road. GFA provided all office technician responsibilities, provided project management including contract administration and resolving construction issues, and performed construction inspection and material testing for the project. The project included aggregate pedestrian path, tree/stump removal, path signing/fencing, concrete ADA road crossings, culvert upgrades, restoration and soil erosion control and more.

MDOT TAMS, MDOT (Construction Value: N/A) -2021

GFA provided asset recovery, identification, spatial location, and attribution information for culverts up to a span of 10 feet for projects that had recently finished construction throughout the Upper Peninsula.

Staff Education & Experience Report

Joseph Williams, P.E.

Company Title
Project Manager

Service Title:
Project Manager – Point of Contact

Years of Experience
8 with company, 2 with others

Education
Bachelor of Science in Civil Engineering, 2015
Western Michigan University

Licenses & Certifications

- Michigan P.E. License #6201069873
- MDOT Office Tech Certification
- MCA Concrete Field Testing Technician
- MDOT Certified Aggregate Technician Level II
- MDOT Certified Density Technician
- MDOT Prevailing Wage Training
- MDOT HMA Paving Operations Certification
- ACI Concrete Field Testing Technician G1
- EGLE Soil Erosion and Sedimentation Control Plan Review & Design Certification
- EGLE Construction Storm Water Operator Certification
- APNGA Nuclear Gauge Safety Certification

General Experience and Qualifications

Mr. Williams has civil expertise in roadway design, public utility design, and construction engineering, as it relates to municipal engineering, transportation, and private development projects. He serves in the capacity of a design engineer, project manager, and client representative in providing engineering services to several governmental and private development clients across the state of Michigan. He is versed in AASHTO and MDOT standards and procedures, Field Book, Field Manager, MERL, Roadsoft, MDOT Prevailing Wage, MDOT Documentation, Material Acceptance Procedures, ProjectWise, and has implemented in design of numerous unique roadway design projects. In 2015 he began working full time for GFA as a design engineer, while also assisting in construction engineering, permitting, and utility coordination. Over the past 8 years Mr. Williams has completed and overseen numerous MDOT Local Agency projects, as well as MDOT Full CE projects across northern Michigan. Joe will serve as the GFA representative and oversee the completion of any/all Design and Construction Engineering tasks under the supervision of the Otsego County Road Commission. Mr. Williams has provided similar services on countless miles of County and State trunkline over the past 8 years, including many LAP projects and MDOT Construction Engineering projects in the North Region.

Specific Project History

Project: US-31 Reconstruction		
Project Role:	Project Manager (Sub-Consultant)	Project Manager responsible for the design and plan preparation for permanent pavement markings and signage for the reconstruction of approximately 8 miles of US-31 from Sullivan Road to Reynolds Road. Mr. Williams is responsible for the day-to-day communication with the Prime Consultant and the design team, as well as overseeing the Design Engineer's work.
Project Dates:	On Going	
Client:	MDOT	
Construction Cost:	$19,500,000.00	

Project: Lower Shore Drive Drive Over 5 Mile Creek		
Project Role:	Project Manager	Project Manager for the replacement of an undersized CMP culvert in 5 Mile Creek with a concrete box culvert. Mr. Williams is responsible for the day-to-day communication with the Emmet County Road Commission, handling discussions with the NRCS in regards to the project design and funding, overseeing the day-to-day design and evaluating costs of alternative replacement options.
Project Dates:	On Going	
Client:	Emmet County Road Commission	
Construction Cost:	$615,000.00	

Project: Bevens Road and Cemetery Road Resurfacing		
Project Role:	Project Manager	Project Manager for approximately the HMA Overlay and sign upgrades of Bevens Road and Cemetery Road. Mr. Williams is the point of contact for this MDOT LAP project and is responsible for overseeing the day-to-day design of the project and ensuring the required MDOT documentation, such as NEPA form 5323 and the program application, are submitted on time in order to meet the target MDOT letting date.
Project Dates:	On Going	
Client:	Tuscola County Road Commission	
Construction Cost:	$1,011,500.00	

Project: Esch Road Reconstruction		
Project Role:	Project Manager	Project Manager for 1.34 miles of HMA crushing, shaping, aggregate base, HMA paving, pavement marking design, sign upgrades, street side parking additions, and restoration work in Benzie County, Mi. Provide the engineering design and performed all Office Technician duties, coordinated progress meetings, maintained communication with the MDOT Project Manager, ensured contractor payments, and managed field inspectors for the project.
Project Dates:	2021-2022	
Client:	Benzie County Road Commission	
Construction Cost:	$596,966.00	

East Main Street Bridge Replacement		
Project Role:	Project Engineer	Project Engineer for replacement rehabilitation of the existing bridge abutments and superstructure replacement of the East Main Street Bridge in the City of Manton. Mr. Williams assisted the City in securing MDOT Category B funding and oversaw the da-to-day design and construction of the project. Mr. Williams review the HEC-RAS modeling, completed the required EGLE permitting, and was responsible for the overall project success.
Project Dates:	2021	
Client:	City of Manton	
Construction Cost:	$325,000.00	

Project: US-31, US-131, US-72 Curve Signing		
Project Role:	Project Manager	Project Manager for approximately 15.21 miles of curve signing upgrades on US-31, M-72, M-65, and US-131BR in Wexford, Iosco and Grand Traverse Counties. Performed all Office Technician duties, coordinated progress meetings, maintained communication with the MDOT Project Manager, ensured contractor payments, and managed field inspectors for the project.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	$137,015.00	

Project: MDOT Iron Belle Trail – Cradle of Forestry Interpretive Trail		
Project Role:	Project Manager	Project Manager for approximately 2.53 miles of shared use path, signing upgrades, grading, ADA ramps, HMA paving and drainage improvements in Crawford County. Project involved both MDOT and DNR funding sources necessitating comprehensive stakeholder coordination. Assisted and oversaw all Office Technician duties, coordinated progress meetings, maintained communication with the MDOT Project Manager, ensured contractor payments, and managed field inspectors.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	$656,934.00	

Project: M-55 / US-31 Delineation		
Project Role:	Project Manager	Project Manager for approximately 75.24 miles of non-freeway delineator removal and installation on various routes, Grand Traverse, Leelanau and Wexford Counties. Performed all Office Technician duties, coordinated progress meetings, maintained communication with the MDOT Project Manager, ensured contractor payments, and managed field inspectors for the project.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	$135,000.00	

Staff Education & Experience Report

Shane J. Gamrat, P.E.

Company Title
Design Engineer

Service Title:
Design Engineer

Years of Experience
3 with company, 2 with others

Education
Bachelor of Science in Civil Engineering, 2018
Lawrence Technological University

Licenses & Certifications

- Michigan P.E. License #6201311874
- MDOT Office Tech Certification
- OSHA 10 Hour Card
- APNGA Nuclear Gauge Safety Certification
- EGLE Soil Erosion and Sedimentation Control Plan Review & Design Certification
- EGLE Construction Storm Water Operator Certification

General Experience and Qualifications

Mr. Gamrat serves in the roll as Design Engineer on almost all of GFA's transportation projects for both road commissions and MDOT directly. Prior to joining GFA Mr. Gamrat worked as a CAD Technician and a Graduate Engineer for both a surveying company and then a consulting engineering firm in south east Michigan. Although well versed in all project types, he specialized in site development and transportation engineering. Mr. Gamrat has experience in the design, construction engineering, and construction observation and testing of both locally and federally funded roadway construction projects, direct MDOT work, municipal infrastructure improvements, private site developments, and county drain work. Mr. Gamrat is familiar with both AASHTO and MDOT standards and procedures for roadway design. His experience comes with a deep understanding of construction observation, documentation, materials testing and project management. Mr. Gamrat's software experience includes AutoCAD Civil 3D, MERL, Field Manager, Field Book, Hec-Ras, WaterCAD, StormCAD, and Bentley OpenRoads. He is an MDOT Certified Office Technician familiar with a deep understanding of the documentation requirements and contract administration procedures for MDOT-let projects.

Specific Project History

Project: US-31 Reconstruction		
Project Role:	Design Engineer (Sub-Consultant)	Design Engineer responsible for the design and plan preparation for permanent pavement markings and signage for the reconstruction of US-31 form Sullivan Road to Reynolds Road. Mr. Gamrat is responsible for evaluating existing signage, determine the location and type of new signage and pavement markings, and preparing all permanent traffic control plans in Bentley OpenRoads Designer in accordance with the MDOT 2020 Standards Specifications for Construction and MMUTCD standards.
Project Dates:	On Going	
Client:	MDOT	
Construction Cost:	$19,500,000.00	

Project: Clare County "Super 6"		
Project Role:	Design Engineer	Design Engineer for the resurfacing and widening of 6 roads and 2 bridges in various locations throughout Clare County. This RTF funded project is being completed as one log job and consists of trench widening, HMA overlay, pavement markings, sign upgrades, and bridge modifications. Mr. Gamrat is responsible for the MDOT programming, preparing the project log, writing Special Provisions and day-to-day design for the project.
Project Dates:	On Going	
Client:	Clare County Road Commisison	
Construction Cost:	TBD	

Project: Bellmer Road Reconstruction		
Project Role:	Design Engineer	Design Engineer for the reconstruction and improvements of 0.5 miles of existing gravel road to meet road commission standards including trenching and widening, HMA paving, raised asphalt curbs and guardrail. The road provided unique challenges with poorly drained soils, wetlands, steep slopes and ground water seeps that needed to be accounted for. Mr. Gamrat was responsible for the day-to-day engineering design, permitting and plan preparation of the roadway under the Project Manager.
Project Dates:	2022	
Client:	Emmet County Road Commission	
Construction Cost:	$890,000.00	

Project: Lake Shore Drive Over Wycamp Creek		
Project Role:	Design Engineer	Design Engineer for the replacement of an undersized CMP culvert in Wycamp Creek with a pre-engineered timber bridge, raising the road grade of the approaches, and in-stream restoration. Mr. Gamrat was responsible for the day-to-day engineering under the Project Manager, including HEC-RAS modeling, plan drafting and development, alternative stream crossing option analysis', EGLE permitting, and more.
Project Dates:	On Going	
Client:	Emmet County Road Commission	
Construction Cost:	$850,000.00	

Project: Esch Road Reconstruction		
Project Role:	Design Engineer & Office Technician	Performed plan drafting, project design, LAP programming, and office technician duties 1.34 mi of HMA crushing and shaping, aggregate base, HMA paving, pavement marking design, sign upgrades, street side parking additions, maintenance of traffic plans, drainage improvements and restoration work in the Sleeping Bear Dunes National Lakeshore in Benzie County, Michigan. This project was let through the MDOT Local Agency Program.
Project Dates:	2021-2022	
Client:	Benzie County Road Commission	
Construction Cost:	$596,966.00	

Project: Maple City Highway Resurfacing		
Project Role:	Office Technician	Office Technician Support for 3.03 miles of HMA overlay, gravel shoulders, pavement markings, guardrail adjustments, and restoration. GFA provided constructions engineering services for the road commission. Mr. Gamrat provided office technician support to leak office technician by assisting in project documentation and filing, reviewing IDR's and providing general project support.
Project Dates:	2021-2022	
Client:	Benzie County Road Commission	
Construction Cost:	$525,085.00	

Project: River Road Reconstruction		
Project Role:	Design Engineer & Office Technician	Design Engineer and Office Technician Support for 0.70 mi of HMA crushing, shaping, trenching, widening, resurfacing and pavement markings along River Road from the Betsie River crossing to the western limits of the Village of Benzonia, Benzie County, Michigan. Mr. Gamrat provided office technician support to the lead office technician for this MDOT Local Agency Program project.
Project Dates:	2021	
Client:	Benzie County Road Commission	
Construction Cost:	$285,338	

Project: MDOT Iron Belle Trail – Cradle of Forest Interpretive Trail		
Project Role:	Office Technician	Office Technician for a 2.53 mile segment of the Iron Belle Trail that included an aggregate pedestrian path, tree/stump removal, path signing/fencing, culvert upgrades, restoration and soil erosion control. This was a direct MDOT Construction Engineering contract with responsibilities including construction administration, resolving construction issues, and project documentation in FieldManager, LCPTracker and ProjectWise.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	$656,934.00	

Project: Huron Boulevard Reconstruction		
Project Role:	Design Engineer, Construction Inspector & Office Technician	Design Engineer, Construction Inspector and Office Technician Support for the full reconstruction of 1.25 miles of roadway in Marysville, Michigan that included full pavement removal, concrete curb and gutter, storm sewer improvements, HMA paving, and sign upgrades. This project was let through the MDOT Local Agency Program. Mr. Gamrat served as lead inspector for this project and provided office support to the lead office technician.
Project Dates:	2018	
Client:	City of Marysville	
Construction Cost:	$1,500,000.00	

Staff Education & Experience Report

Blain J. Scheller

Company Title
Testing & Inspection Technician III

Service Title:
Lead Construction Technician

Years of Experience
14 with company, 7 with others

Education
Applied Science in Concrete Technology Inspection, 2002
Alpena Community College

Licenses & Certifications

- Concrete MCA Certified Level I & Level II
- ACI Certified Concrete Technician
- MDOT Certified Density Technician
- ACI Concrete Strength Testing Technician
- MDOT FieldManager Training
- Radiation Safety Training
- EGLE SESC Inspector Training #I-09-0448
- Michigan Certified HMA Lab Tech Level I
- MDOT Hot Mix Paving Operations
- Certified Aggregate Level II Technician
- Class A CDL Driver's License
- First Aid / CPR Certified

General Experience and Qualifications

Mr. Scheller has over 21 years of experience in construction inspection, testing, and field survey. He has performed QA/QC testing for MDOT projects on behalf of both Contractors and MDOT directly. He has successfully executed numerous construction inspection or testing contracts on MDOT-let Local Agency Program projects, as well as successfully completed numerous direct MDOT CE projects across Michigan. Mr. Scheller has performed construction inspection on HMA paving, concrete, bridge construction, ITS/traffic signal, underground utilities, and sign upgrade projects. He also regularly performs inspection and testing on GFA's municipal infrastructure jobs and is well versed in the use of GPS surveying equipment for asset inventory, concrete testing and mix design, as well as nuclear density gauge, and other density technology.

Specific Project History

Project: Esch Road Reconstruction		
Project Role:	Lead Construction Technician	Lead Construction Inspector providing full time inspection and testing services and day to day oversight and Contractor coordination for the project. The project consisted of 1.34 mi of HMA crushing and shaping, aggregate base, HMA paving, pavement marking design, sign upgrades, street side parking additions, maintenance of traffic plans, drainage improvements and restoration work in the Sleeping Bear Dunes National Lakeshore in Benzie County, Michigan. This project was let through the MDOT Local Agency Program.
Project Dates:	2021-2022	
Client:	Benzie County Road Commission	
Construction Cost:	$596,966.00	

Project: M-55 Bridge		
Project Role:	Lead Construction Technician	Construction Inspector/Tester providing daily inspection and testing in tandem with MDOT personnel for the construction of the M-55 Bridge over the Manistee River. The project included the construction of 60 inch by 49 inch prestressed concrete bulb tee beams, piles, cofferdams, riprap, concrete curb and gutter, earthwork, drainage, water main and approach work on M-55 over the Manistee River, Manistee County, Michigan.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$10,300,000.00	

Project: Curve Signing Upgrades		
Project Role:	Lead Construction Technician	Lead Construction Inspector/Tester in charge of providing daily inspection and field testing on the project in Wexford, Iosco, and Grand Traverse Counties. Project included 15.21 miles of curve signing upgrades on US-131, M-72, M-65 and US-131BR in multiple counties. Responsibilities included inspection, writing detailed daily reports, precise quantity tracking using FieldBook.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$137,015.00	

Project: MDOT Traverse City Signal Modernization (ITS)		
Project Role:	Lead Construction Technician	Lead Construction Inspector/Tester for this traffic signal modernization project. Project included ITS device installation, strain pole installation, as well as sidewalk ramp improvements along US-31, M-22, M-37 & M-72 in the City of Traverse City, Acme, Blair, East Bay and Garfield Townships across Grand Traverse and Leelanau Counties. Responsibilities included daily inspection, comprehensive drawings and quantity tracking, detailed inspector daily reports, and concrete testing using FieldBook.
Project Dates:	2020	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$5,500,000.00	

Project: M-55 Claybank to Udell Hills Road		
Project Role:	Lead Construction Technician	Lead Construction Inspector/Tester for this complete road reconstruction project which included 7.62 miles of hot mix asphalt crushing, shaping, and resurfacing, concrete curb and gutter, drainage improvements and pavement markings on M-55 from east of Claybank Road to Udell Hills Road, in Manistee County. Responsibilities included construction staking, inspection, writing of detailed inspector daily reports, density, hot mix asphalt and concrete testing, in addition to the use of FieldBook.
Project Dates:	2020	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$3,500,000.00	

Project: M-37 & US-31 Sign Upgrades		
Project Role:	Key Inspector	Key Construction Inspector/Tester for this 32.54 miles of non-freeway signing upgrades on various routes in Grand Traverse County. Responsibilities included inspection, writing of detailed inspector daily reports, density, hot mix asphalt and concrete testing, in addition to the use of FieldBook.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$634,000.00	

Project: M-22 Elberta & & M-113 HFST		
Project Role:	Lead Construction Technician	Lead Construction Inspector/Tester for this 0.21 miles of high friction surface treatment and pavement markings on M-113 at Vans Lane and M-22 at River Road in the City of Frankfort, Benzie and Grand Traverse Counties. Responsibilities included full time inspection, writing of detailed inspector daily reports, density, hot mix asphalt and concrete testing, in addition to the use of FieldBook.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$105,056.00	

Project: River Road Reconstruction		
Project Role:	Key Inspector	Key Construction Inspector/Tester for this 0.70 miles of hot mix asphalt base crushing, shaping and resurfacing, trenching and pavement markings on River Road from the Betsie River east to the west city limit of Benzonia Village, Benzie County. Responsibilities included inspection, writing of detailed inspector daily reports, density, and hot mix asphalt testing, in addition to the use of FieldBook.
Project Dates:	2021	
Client:	Benzie County Road Commission	
Construction Cost:	$274,690.00	

Project: Eight Street Reconstruction		
Project Role:	Lead Construction Technician	Lead Construction Inspector/Tester for this 0.45 miles of complete road reconstruction including concrete pavement removal, water main, sewer main, and storm upgrades, lighting upgrades, traffic signal upgrades, and streetscape in the City of Traverse City. Responsibilities included inspection, writing detailed inspector daily reports, quantity tracking, density, material testing including concrete and HMA, in addition to the use of FieldBook.
Project Dates:	2019	
Client:	City of Traverse City	
Construction Cost:	$4,514,844.00	

Staff Education & Experience Report

Nathan A. Dale

Company Title
Testing & Inspection Technician II

Service Title:
Construction Technician

Years of Experience
5 with company, 8 with others

Education
Bachelor of Arts in Environmental Studies, 2004
Allegheny College (PA)

Licenses & Certifications

- Level I Concrete MCA Certified
- ACI Concrete Technician I
- MDOT Certified Density Technician
- EGLE Construction Site Stormwater Operator
- Portable Nuclear Gauge Safety Certified
- MDOT Hot Mix Paving Operations

General Experience and Qualifications

Nate began working at GFA during the 2017 construction season where he gained valuable Local Agency experience on several MDOT LAP jobs across multiple counties. He also performed construction inspection and material testing for both private clients, contractors, and multiple municipal clients on numerous MDOT and local projects in the area. Nate is well versed in FieldBook and MDOT material documentation and acceptance. He has performed inspection, testing, material verification and tracking, and was a key part of GFA's most recent As-Needed MDOT CE contract, providing inspection and testing on multiple projects involving sign upgrades, safety improvements, and county-wide delineation upgrades and replacements. Prior to working at GFA, Nate worked for both geotechnical based consulting and environmental firms in other states.

Specific Project History

Project: Borgstrom Road HMA Overlay		
Project Role:	Construction Technician	Construction Inspector / Tester providing base and paving inspection and testing services in support of Road Commission staff. The project consists of 7.64 mi of HMA overlay and pavement markings on Borgstrom Road from H-40 north to the north Mackinac County line, in Mackinac County. This project was let through the MDOT Local Agency Program.
Project Dates:	2022	
Client:	Mackinac County Road Commission	
Construction Cost:	$1,224,025.00	

Project: MDOT 2021 Crack Fill		
Project Role:	Construction Technician	Construction Inspector / Tester providing inspection and testing support for approximately 82.39 miles of asphalt crack treatment with warranty at various locations on M-22, M-37, US-31, M-72, M-66, M-55, M-42 and US-131, Manistee, Benzie, Leelanau, Wexford, Grand Traverse, Missaukee and Kalkaska Counties.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$692,784.00	

Project: Maple City Highway Resurfacing		
Project Role:	Construction Technician	Construction Inspector / Tester providing inspection and testing support services for 3.03 miles of HMA overlay, gravel shoulders, pavement markings, guardrail adjustments, and resotration. GFA provide construction engineering services for the road commission.
Project Dates:	2021-2022	
Client:	Benzie County Road Commission	
Construction Cost:	$525,085.00	

Project: Esch Road Reconstruction		
Project Role:	Construction Technician	Construction Inspector / Tester providing supplemental inspection and testing services in support of Lead Construction Inspector during certian items of work. The project consisted of 1.34 mi of HMA crushing and shaping, widening, aggregate base, HMA paving, pavement marking design, sign upgrades, street side parking additions, maintenance of traffic plans, drainage improvments and restoration work in the Sleeping Bear Dunes National Lakeshore in Benzie County, Michigan. This project was let through the MDOT Local Agency Program.
Project Dates:	2021-2022	
Client:	Benzie County Road Commission	
Construction Cost:	$596,966.00	

Project: 2021 Crack Fill		
Project Role:	Construction Technician	Construction Inspector for project including 82.39 miles of hot mix asphalt crack treatment with warranty at various locations on M-22, M-37, US-31, M-72, M-66, M-55, M-42 and US-131, Manistee, Benzie, Leelanau, Wexford, Grand Traverse, Missaukee and Kalkaska Counties.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$692,784.00	

Project: Curve Signing Upgrades		
Project Role:	Construction Technician	Support Construction Inspector/Tester in charge of providing inspection and field testing on the project in Wexford, Iosco, and Grand Traverse Counties as needed. Project included 15.21 miles of curve signing upgrades on US-131, M-72, M-65 and US-131BR in multiple counties. Responsibilities included inspection, writing detailed daily reports, precise quantity tracking using FieldBook.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$137,015.00	

Project: M-37 and US-31 Sign Upgrades		
Project Role:	Construction Technician	Construction Inspector/Tester for this 32.54 miles of non-freeway signing upgrades on various routes, in Grand Traverse County. Responsibilities included staking corrections, inspection, detailed inspector daily reports, and concrete testing while using FieldBook software.
Project Dates:	2021	
Client:	MDOT – Traverse City TSC	
Construction Cost:	$634,000.00	

Staff Education & Experience Report

Andrew Murphy, P.S.

Company Title
Project Manager

Service Title:
Survey Project Manager

Years of Experience
7 with company, 6 with others

Education
Bachelor of Science in Land Surveying, 2014
Ferris State University
Associated Degree in Applied Science, 2012
North Central Michigan College

Licenses & Certifications

- Michigan P.S. License #68325
- H2S Certification
- CPR Certification

General Experience and Qualifications

Mr. Murphy has over 13 years of experience in land surveying and survey project management. He has successfully completed numerous MDOT survey contracts for topographic mapping, right-of-way alignment establishment, bridge surveys and hydraulic surveying. Mr. Murphy has further completed numerous road design topographic mapping surveys, MDOT-let LAP road construction staking projects, MDOT TAMS inventory collection and regularly performs section documentation across the region. Prior to joining GFA, Mr. Murphy worked directly for MDOT. Mr. Murphy oversees GFA's survey field crews and will be responsible for coordinating all survey work required for this contract.

Specific Project History

Project: US-31 Design Topo and Right-of-Way Survey		
Project Role:	Survey Project Manager	Project Manager responsible for topographic mapping and right-of-way alignment establishment for the reconstruction of approximately 8 miles of US-31 from Sullivan Road to Reynolds Road. GFA partnered with Fishbeck who performed mobile LIDAR work on the project.
Project Dates:	2022	
Client:	MDOT	
Construction Cost:	N/A	

Project: Esch Road Reconstruction		
Project Role:	Survey Project Manager	Project Manager responsible for topographic mapping and construction staking for 1.34 mi of HMA crushing and shaping, aggregate base, HMA paving, pavement marking design, sign upgrades, street side parking additions, maintenance of traffic plans, drainage improvements and restoration work in the Sleeping Bear Dunes National Lakeshore in Benzie County, Michigan. This project was let through the MDOT Local Agency Program.
Project Dates:	2022	
Client:	Benzie County Road Commission	
Construction Cost:	$596,966.00	

Project: Bellmer Road Reconstruction		
Project Role:	Survey Project Manager	Project Manager for the reconstruction and improvements of 0.5 miles of existing gravel road to meet road commission standards including trenching and widening, HMA paving, raised asphalt curbs and guardrail. The road provided unique challenges with poorly drained soils, wetlands, steep slopes and ground water seeps that needed to be accounted for.
Project Dates:	2022	
Client:	Emmet County Road Commission	
Construction Cost:	$890,000.00	

Project: M-37 Design Survey		
Project Role:	Survey Project Manager	Project Manager and point of contact on this project. GFA provided MDOT with a mile of Road Design and Right of Way surveying along Division St (M-37) in the City of Traverse City from 11th Street north to Grandview Parkway (M-72). This survey included full topographic mapping including a mile of M-37 50' each side of centerline and 25 side streets and alleys, and also included the inventory of around 200 storm and sanitary structures and their connectivity. This survey also included a full legal alignment and right of way establishment. This project was located within portions of Sections 3, 4, 9, & 10 of T27N, R11W within the City of Traverse City, Grand Traverse County.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	N/A	

Project: Otto Creek Crossing		
Project Role:	Survey Project Manager	Project Manager and point of contact on this project. GFA provided MDOT with hydraulic surveying including 31 cross sections along Otto Creek, structure surveying on C01 of 48032 and a county road bridge along Charcoal Grade Road which included bridge measurements and schematics for both structures. GFA also provided 1300' of full road design topographic mapping to 25' outside the right-of-way lines, and a full legal alignment to aid in the design of a temporary run-around road during construction.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	N/A	

Project: East Main Street Bridge Replacement		
Project Role:	Survey Project Manager	Project manager responsible for topographic mapping, hydraulic surveying and construction staking for the rehabilitation of the existing bridge abutments and superstructure replacement of the East Main Street Bridge in the City of Manton.
Project Dates:	2021	
Client:	City of Manton	
Construction Cost:	$325,000.00	

Project: Reed City US-131 and US-10 Hydraulic, Design Topo and Right-of-Way Survey		
Project Role:	Survey Project Manager	Project Manager and point of contact on this project. GFA provided MDOT with hydraulic surveying including 12 cross sections along the Hersey River, structure surveying on B01 of 67011 and B02 of 67021 including bridge measurements and schematics for both structures. GFA also provided 400' of full road design topographic mapping to the right-of-way lines around B02 of 67021, and full legal alignments of US-10, Old US-131 NB and SB, Old US-131, and US-10 BR to temporary easements for possible scour countermeasures.
Project Dates:	2021	
Client:	MDOT	
Construction Cost:	N/A	

Project: Wixom Dam Survey		
Project Role:	Survey Project Manager	Project Surveyor on this project. Gourdie-Fraser provided emergency Hydraulic mapping including 47 Hydraulic Cross Sections and bridge measurements and schematics for scour countermeasure along M-30 for B01 of 56032 over the Tittawabassee River and the Curtis Rd Bridge over the Tittawabasse River, along with dam measurements and schematics for the Tobacco River Dam and the Tittawabassee River Dam in Edenville, MI. This survey also included a full bathymetric survey and aerial mapping within Wixom Lake, A legal Alignment and Right of Way along M-30 for the length of the project. This project was located within Sections 1 & 11 T16N, R01W, Edenville Twp, Midland County and Sections 35 & 36 T17N, R01W, Tobacco Twp, Gladwin County.
Project Dates:	2020	
Client:	MDOT	
Construction Cost:	N/A	

Engineering
Surveying
Testing &
Operations

123 West Front Street
Traverse City, Michigan 49684
231 946 5874
231 946 3703

EXHIBIT 2
2023 BILLING RATES

Classification	Hourly Rate
Director of Engineering	$165
Senior Project Manager	$150
Project Manager	$145
Project Engineer II	$130
Project Engineer I	$125
Design Engineer II	$120
Design Engineer I	$105
Project Specialist	$125
Design CAD Leader	$110
Design CAD Technician III	$102
Design CAD Technician II	$95
Design CAD Technician I	$85
GIS Technician	$100
MDOT Office Technician	$95
Controller	$115
Project Manager Assistant	$80
Administrative Assistant	$70

Classification	Hourly Rate
CEO	$225
Director of Surveying	$165
Professional Surveyor IV	$150
Professional Surveyor III	$145
Professional Surveyor II	$140
Professional Surveyor I	$125
Project Surveyor	$105
Survey Crew Chief	$105
Survey Crew Person	$78
1 Person Survey Crew	$120
GPR Technician	$105
Licensed UAV Pilot	$110
Senior Testing & Inspection Technician	$108
Testing & Inspection Technician III	$98
Testing & Inspection Technician II	$92
Testing & Inspection Technician I	$80
Operations & Maintenance Technician II	$96
Operations & Maintenance Technician I	$86

REIMBURSABLE CHARGES

Reimbursables such as off-site printing, postage, permits, sub consultants, rentals, etc. will be invoiced at cost plus 15%.
Expert Witness Testimony & Preparation will be invoiced at 2.0 x billing rate

Prints, Plots & Copies	B & W	Color
8½ x 11	$0.10	$0.20
8½ x 14	$0.15	$0.30
11 x 17	$0.20	$0.40
24 X 36	$3.00	$6.00
Other Sizes	$.50 SF	$1.00 SF

Travel

Mileage $0.655 Mile

Per Diem - Current rates listed at the U. S. General Services Administration (GSA) webiste:

https://www.gsa.gov/travel/plan-book/per-diem-rates/per-diem-rates-results/?action=perdiems_report&state=MI&fiscal_year=2022&zip=&city=

Misc.

Postage/Shipping Costs	Cost Plus 15%
Permit Fees	Cost Plus 15%
Computer	$14.00 Day
Rentals	Cost Plus 15%
Generator	$25.00 Hour

Materials Testing Equipment

Beam Breaker	$50 Day
Concrete Beams	$25 Each
Coring Machine	$75 Day
12" Core Bit Extractor	$100 Day
Concrete Cylinder	$20 Each
Nuclear Density Gauge	$54 Day

O & M Equipment	Daily Rate	Weekly Rate	Monthly Rate
Infiltrometer	$50	$275	$600
Portable Sampler	$40	$200	$450
Portable Flow Meter	$50	$275	$600
Fresh Air Blower	$20	$100	$165
Gas Meter	$15	$75	$165
Tripod with Harness	$15	$75	$165
Rain Gauge with Data logger	NA	$275	$600
Sludge Blanket Meter	$5	$25	$55
Pilot Tube & Gage	$15	$75	$165
D. O. Meter (portable)	$20	$100	$165

Survey Equipment Rental Cost	
Digital Level	$30 Day
Static GPS Rental (Per Receiver)	$150 Day
Robotic Total Station	$40/$250 Hour/Day
Real Time GPS	$40/$200 Hour/Day
UTV or Side by Side	$550 Day
Hydrographic Sounder (Single Beam)	$350 Day
Hydrographic Sounder (Multi Beam)	$650 Day
Echo Boat (Remote Controlled)	$525 Day
Surveyor Boat I - 14'	$200 Day
Surveyor Boat II - 16'	$350 Day
Surveyor Boat III - 22'	$425 Day
Surveyor Kayak	$25/$100 Day/Week
Lath	$0.75 Each
Concrete Monuments	$25.00 Each
Re-Bar	$3.50 Each
Pipe Locator	$50 Day
Ground Penetrating Radar	$400 Day
charge per hour after 8 hours	$100 Hour
UAV / Drone Rental	$175 Day

Effective 1/24/2023

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/27/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Peterson McGregor & Associates 1368 Business Park Dr Traverse City MI 49686	CONTACT NAME: Janet Douglas PHONE (A/C, No, Ext): 231-944-7027 FAX (A/C, No): 231-922-7275 E-MAIL ADDRESS: jdouglas@team-pma.com
INSURED GOUFR-1 Gourdie-Fraser, Inc. 123 West Front Street, Suite A Traverse City MI 49684	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Hastings Mutual Insurance Co. — 14176 INSURER B : Accident Fund Insurance Co. — 10166 INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 1990287487 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			CPP9954910	7/1/2022	7/1/2023	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			ACV9954911	7/1/2022	7/1/2023	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB [X] OCCUR			ULC9954914	7/1/2022	7/1/2023	EACH OCCURRENCE	$ 3,000,000
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$ 3,000,000
	DED [X] RETENTION $ 0							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N			AF WCP 100039666 01	7/1/2022	7/1/2023	X PER STATUTE [ ] OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [ ] (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	Rented/Leased Equipment From Others			CPP9954910	7/1/2022	7/1/2023	Rented/Leased Equipme Deductible	$100,000 $1,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

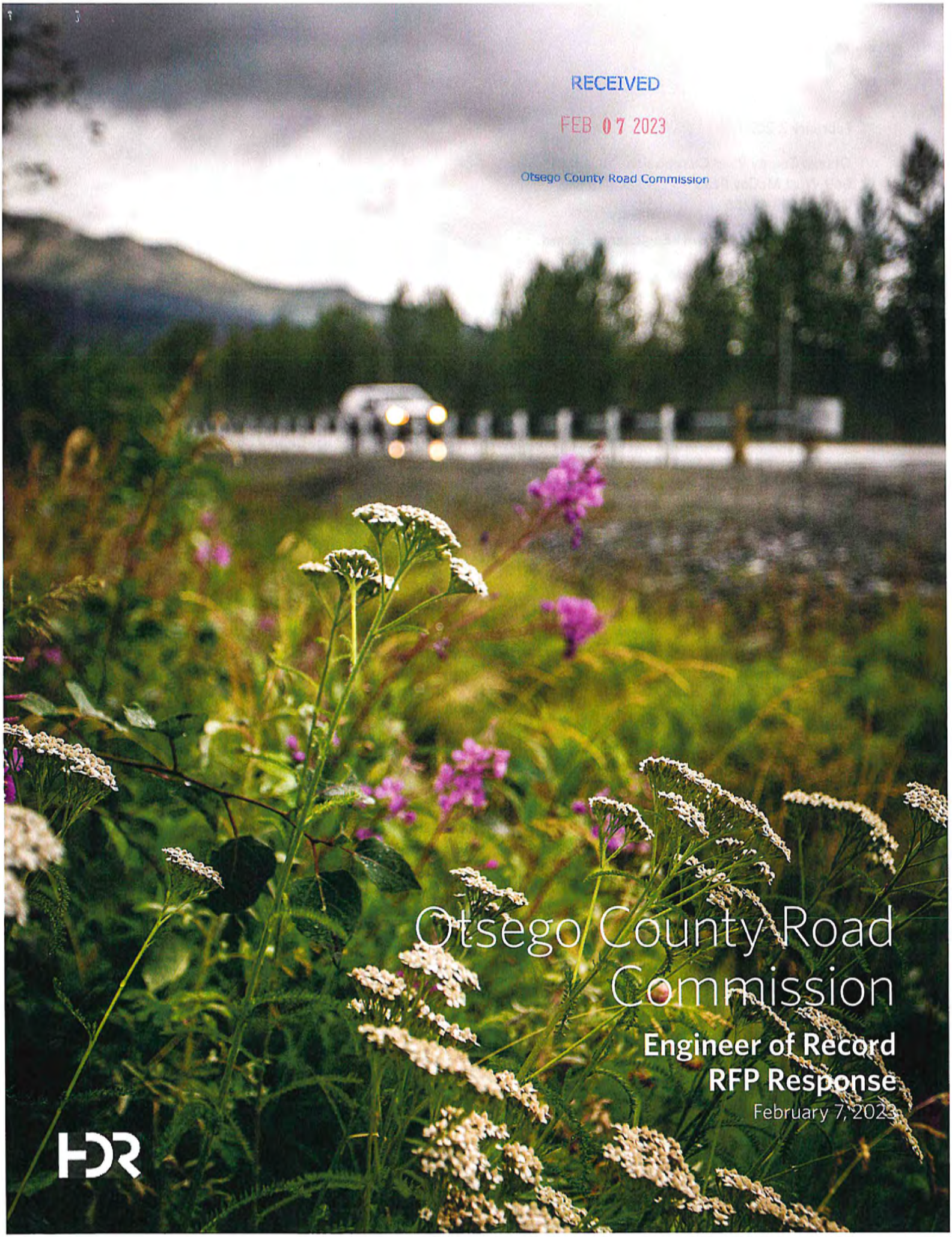
Otsego County Road Commission
669 W McCoy Rd
Gaylord MI 49735

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Steven D. McGregor



Otsego County Road Commission

Engineer of Record RFP Response

February 7, 2023

HDR

February 7, 2023

Otsego County Road Commission
669 West McCoy Road
Gaylord, MI 49735

RE: Request for Proposal - Engineer of Record

Dear Evaluation Committee:

We are pleased to present Otsego County Road Commission with our proposal for Engineer of Record. The Commission requires an engineer and consultant that has the right team and experience to support a variety of on-call engineering needs.

HDR is ready to serve the Otsego County Road Commission for its upcoming projects. Specially, we offer the Commission:

- **A project manager who understands how to deliver on-call projects that have many stakeholders. Joshua Salazar, PE (MI) brings 18 years of experience to the team, working for a variety of agencies. He will be the Commission's main point of contact and will connect HDR's local resources and national experience to serve the Commission.**
- **A dedicated team with deep bench of engineers and professionals that have successfully completed projects similar to those the Otsego Road Commission is looking to undertake, and**
- **Staff with an understanding of how to help obtain funding through the various state and federal grant programs available to the Commission.**

Selecting HDR provides you with an experienced firm that can deliver the projects the Commission is looking to deliver to improve the safety and reliability of the roadways.

HDR has been operating in Michigan for more than 90 years, and has over 120 HDR team members throughout the state and 50+ Michigan PEs. When determining the appropriate staff for a task, we focus on selecting the right team with the technical expertise and know-how to efficiently achieve your goals. We look forward to providing the Ostego County Road Commission with the right team with the right experience to support your projects.

We welcome the opportunity to discuss your Engineer of Record Project needs further. Please contact Joshua Salazar if you have questions regarding this submittal at joshua.salazar@hdrinc.com or 734.332.6463.

Sincerely,
HDR Michigan, Inc.

Joshua Salazar, PE (MI)
Project Manager

Khaled Soubra, PhD, PE (MI), LEED AP
Vice President, Michigan Area Manager

hdrinc.com
1000 Oakbrook, Suite 200, Ann Arbor, Michigan 48104
T 734.332.6300

Contents

01 About HDR

Smart Solutions to Keep You Moving Forward

Founded in 1917, HDR has built upon a long history of both achievement and challenges to create a strong, resourceful organization. Our expertise spans nearly 12,000 employees, in more than 200 locations around the world — and counting.

A major factor in HDR's success around the country is the ability to deliver world-class resources to local projects through a corporately supported and proven work-sharing philosophy coupled with cutting edge technology. We offer clients the best possible economic, social and environmental value by delivering integrated, high-quality, sustainable solutions, on time and on budget. Our goal is to develop long-term relationships with clients, earning your trust by providing excellent services.

Our operating philosophy is to be an expertise-driven national firm that delivers tailored solutions through a strong local presence, including Michigan-based key team members. We accomplish this by listening to your needs and combining proven processes, systems, and resources to create a cohesive project team. Our goal is to engage the best minds and resources to deliver the right solution for you.

HDR established its first Michigan office in 1939 and has continued to invest in growing our local team to over 120 professionals with more than 50 Michigan PEs, and increased capabilities building from our Ann Arbor office location to also include Lansing and Detroit.

HDR staff provides professional planning, design and construction engineering services to state, county, and municipal agencies as well as private utilities throughout Michigan. HDR also brings a depth of knowledge from its experts beyond Michigan allowing you to tap into these valuable resources.

We have reviewed the listed scope of services and our committed team have a strong history delivering the diverse range of tasks on-call engineering services for municipalities and MDOT offices across the Michigan. **Our local team takes pride in prioritizing our local client relationships and sustainability growing our strong base of local operations to serve the Otsego County Road Commission.**

FAST FACTS

Responsive, local team leadership
based in Lansing and Ann Arbor

Multiple On-Call
contracts held in Michigan with:

- MDOT
- City of Grand Haven
- City of South Haven
- Lansing Board of Water and Light
- Consumers Energy

120+ Michigan-based staff, supported by 12,000 global resources

3,445 Highways and Roadway staff

50+ Michigan PEs

3 Michigan offices, 200+ around the world

2022 ENR RANKINGS

No. 5 Top 25 in Highways

No. 3 Top 25 in Bridges

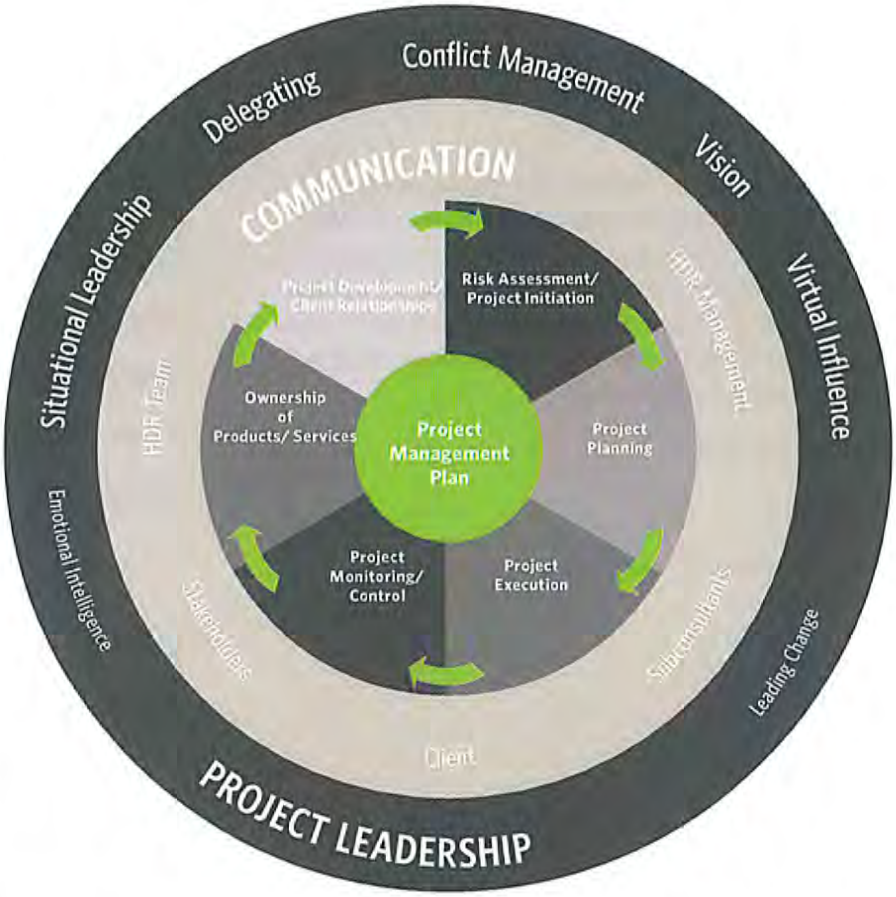
No. 5 Top 20 in Transportation

No. 5 Top 500 Design Firms

ROBUST TRANSPORTATION ENGINEERING AND CONSULTING SERVICE OFFERING, TAILORED FOR YOUR NEEDS:

- Budgeting, planning, rate studies
- Data gathering
- Grant writing
- Regulating support
- Permitting
- Studies
- Procurement support
- Detailed design
- Surveying
- Construction administration
- Construction observation
- Funding application support
- Resident observation
- Field engineering
- Geotechnical
- Wetlands
- Project controls including cost estimating

Spicer is on our team as a subconsultant to provide additional capacity for potential field tasks. Spicer Groups Construction Services Department has provided construction administration services for multiple local agencies and MDOT TSC's for nearly 25 years. Spicer adds to our team of construction engineers, managers, and technicians strong experience working together in multiple stages of construction and understanding of the duties associated in the construction administration process within the various material testing, inspection, office technician, project management, and project engineer roles.



Spicer Group has built a national reputation as a leader in surveying and geospatial services, operating one of the largest surveying groups in the Midwest. With 13 professional surveyors and 22 field survey crews and leading the way with high tech services like Mobile LiDAR, terrestrial laser scanning, single and multi-beam bathymetry, and unmanned aerial vehicles, Spicer Group's surveyors are industry leaders in collecting efficient and accurate data for infrastructure projects. Over the last 25 years, Spicer Group's surveyors regularly support MDOT's largest infrastructure projects, including comprehensive aspects of surveying services to support the complete design and construction process. From right of way determination, design surveying, to construction staking and final as-builts, Spicer's survey teams supports the entire project life cycle.

Management Approach

With local and as-needed contract experience our project manager, Joshua Salazar, has developed a communication plan on these multi-faceted projects to make sure that the client and project team are on the same page. Joshua systematically identifies the communication needs associated with the project and timeline at the onset of the project. Communication provides information, direction, and project updates for the purpose of aligning the team with the goals, schedules and requirements for successful implementation. Meetings (virtual and/or in-person) will help to facilitate strong communication, understanding and decision making to keep the project moving smoothly.

The typical project communication plan consists of:

- Identification of staff who require involvement in or have a vested interest in the project
- The type of information to be communicated including Topic, Format, Content, and Level of Detail
- Person(s) responsible for communicating the information
- Person(s) who will receive the information on the client side
- Methods or technologies used to convey the information such as OneNote, SharePoint, email, etc.
- Frequency of the communication, weekly, monthly etc.

Upon receipt of Notice to Proceed from Otsego County Road Commission, we'll plan a kickoff meeting with your team to understand the desired communication and project management approach. This discussion will

influence the development of a Project Management Plan (PMP) that outlines the proper work flow for how HDR will be working with the commission's team to fulfill the goals and requirements of the project.

Joshua will prepare a PMP that details the items listed below. The PMP will be updated whenever significant events affect the scope and/or schedule of the project. The PMP becomes the project living document and the basis for which the project manager, project team, and the Otsego County Road Commission move forward with the project design and execution.

The PMP includes:

- Schedule
- Project Design Criteria & Document Production Requirements
- Project Team
- Training Requirements
- Quality Management Plan
- Site Specific Health and Safety Plan
- Project Administration Requirements
- Change Management Plan
- Communication Plan
- Project Close-Out Plan

02 Relevant Experience and References

HDR is an established engineering company with in-depth understanding of the laws and regulations governing transportation systems in alignment with national and state design guidelines, such as but not limited to the AASHTO Policy on Geometric Design of Highways and Streets, AASHTO Roadside Design Guide, MMUTCD, MDOT Road Design Manual, MDOT's Work Zone & Safety Mobility Manual, MDOT Traffic & Safety Geometric Design Guides, and MDOT Standard Specifications for Construction. We also have practical experience supporting clients like Otsego County Road Commission through programming, planning, grants management, design, construction, operations and maintenance procedures to sustain the preventative maintenance of the transportation network our communities rely on. The projects below provide a sampling of our experience with respect to the different potential engineering and consulting needs outlined in the RFP.

EXCHANGE STREET (CH 49) AND BURVILLE ROAD

Will County Division of Transportation

Located on a rural section of County Highway, the intersection is in the middle of a curve that has a history of fatal and serious injury crashes. Having received Federal Highway Safety Improvement Program funds, interim and long term improvements have been identified to address the intersection's safety. HDR was selected based on our ability to provide interim and long term solutions. Interim improvements will consider installing dynamic curve warning signs and vegetation modifications to help focus drive attention to the intersection. The long term improvement will evaluate roundabout alternatives that will consider right-of-way and floodplain impacts.

SR 3 HMA OVERLAY

INDOT - Seymour District

HDR managed the roadway design and environmental services for this HMA Overlay project with full-depth patching in the Seymour District. The project development did not include survey, so the plan preparation for the corridor was performed using aerial photography, information from site visits, and publicly available GIS map information to save INDOT costs. The completed project will overlay more than 13 miles of two-lane highway, which also will include paved shoulders (varying from 6" to 1'-6"), mailbox approaches, drives and approach roadways. Traffic will be maintained during construction using flagging operations, but to provide additional workzone safety, a project-wide Maintenance of Traffic plan was specified, which includes intersection phasing details at the SR 3 / SR 356 intersection at the north project limit, and an alternate truck route to divert larger vehicles off of SR3 through a portion of the project limits.

HARBOR ISLAND ENVIRONMENTAL SERVICES CONTRACT

City of Grand Haven

HDR is working with the City to define the source and extent of PFAS contamination. Following the discovery of PFAs and other contaminants on the Island, the City wanted to keep the community informed of the investigation and potential remediation activities. HDR has led Community Advisory Group (CAG) meetings to support the City of Grand Haven with a proactive approach with the community throughout the project. Prior to the CAG creation, neighbors, residents, officials and community members made their presence known at city meetings where they not only voiced displeasure but showed potential to be a part of the solution. HDR's role includes the development of FAQs, website content, presentations for members and guided facilitation to achieve desired objectives.

ON-CALL ENGINEERING SERVICES

City of South Haven

HDR has a history of serving the City of South Haven since 2015. HDR is dedicated to prompt responsiveness and coordinating as an extension of staff for the City Engineer with our tasks. HDR provides on-call engineering services to support the city's asset management plan for the Dyckman Avenue Bascule Bridge including recommendations for programming, planning, engineering analysis, field inspections, contractor observations, maintenance of files, address engineering inquiries that may arise between inspection an maintenance cycles, and to maintain compliance with MDOT requirements for funding agreements. Examples of this support are routinely coordinating with the City Engineer to program preventative maintenance activities, procedural operations and maintenance activities, and capital investments. HDR assigns qualified personnel to coordinate and reconcile bridge needs that are customary to MDOT standards and guidelines..

MADISON STREET INTERSECTION IMPROVEMENTS

Village of Burr Ridge

HDR provided engineering services to the Village of Burr Ridge for improvements to address traffic congestion at three intersections along Madison Street. The preliminary engineering study recommended improvements to intersections including installation of traffic signals at Joliet Road, installation of roundabouts at 79th Street and 83rd Street, shared use paths, and improved pedestrian access. The design and construction moved forward for the Joliet Road intersection and included intersection signalization, roadway widening and resurfacing and storm sewer improvements under staged construction. HDR also performed extensive utility coordination, secured the required regulatory permits, and coordinated with partnering agencies including the County and DOT. Upon completion of the improvements at Joliet Road, HDR prepared a CMAQ application on behalf of the Village for the construction of a roundabout on Madison Street at 79th Street.

Following continuous public and agency involvement throughout the project, HDR evaluated criteria, brainstormed and researched a range of potential alternatives, and then evaluated results to identify the Preferred Alternative. When a Preferred Alternative was identified, the Team developed preliminary design plans, along with a drainage study outlining the existing and proposed drainage system. The project was processed as a categorical exclusion, environmental study and a project development report was prepared.

The Madison Street and Joliet Road intersection signalization design included roadway widening and resurfacing staged under congested traffic to add turn lanes and storage to improve the operations of the intersection. Drainage improvements included the design of a separate storm sewer system. Extensive utility coordination occurred due to the limited ROW available and the need for a power sources for the signal.

During construction, HDR developed a QA/QC plan that construction methods, assumptions, calculations, correspondence, reports and documentation were thoroughly reviewed for accuracy and consistency throughout the duration of the project. Post-construction services included securing required construction documentation, monitoring punch list completion work, reviewing as-built drawings and facilitating final project close-out activities.

ON-CALL SERVICES MUNICIPAL ENGINEER

Village of Grayslake

HDR provided support to the Village Engineer for the Village of Grayslake with tasks including public involvement, landscape architecture, and traffic signal design. HDR assisted the Village in preparing sidewalk/crosswalk and traffic signal pedestrian crossing improvements at the intersection of IL 120 and US 45. HDR performed the signal design, prepared the plan set, special provisions and cost estimating for the Local Letting. HDR also provided, architectural visualizations for street lighting and multi-use path amenities along IL 83, traffic and roadway evaluations for improvements along the IL 120 corridor, and aesthetic improvements to the CN railroad bridge over Washington Street.

LAKEWOOD CORRIDOR PROJECTS

McHenry County Division of Transportation

Traffic Signal Installation Planning and Engineering - HDR successfully completed the Lakewood Road Corridor Improvements Project that upgraded stop-controlled intersections at Miller Road and Reed Road. Planning activities included data collection, operational/crash analysis, alternatives analysis, environmental studies (biological, cultural, wetland, floodplains), permitting, drainage technical memorandum, concept staging plans and utility coordination. At the conclusion of the planning stage, HDR proceeded to design to develop the contract documents including plans, specifications and cost estimates for the intersections of Miller Road and Reed Road along the Lakewood Road corridor. Engineering activities included maintenance of traffic plans, plan and profile, drainage design, temporary and permanent traffic signal design, 3D modeling of earthwork and cross section development, sidewalk upgrades to meet ADA requirements, and signal interconnects. Agency coordination was required with the IDNR, Lake in the Hills and the McHenry County Conservation District. HDR delivered the project on schedule, on budget and meeting quality standards following HDR's Quality Management Plan.

Multi-Use Path and Intersection Improvements - HDR developed preliminary engineering for the Lakewood Road Corridor Multi-Use Path and Intersection Improvement at Miller Road which include the development of a shared use path and implementation of an intersection improvement. The engineering documentation is being prepared to keep the project eligible for federal funding. These improvements are needed to mitigate congestion, improve safety, promote mobility, diversify transportation options, preserve the environment, and support development. The main elements of the preliminary work consist of data collection, survey, environmental studies, geotechnical investigations, utility coordination, alternatives analyses, drainage analysis, public involvement, type size and location, permitting, agency coordination, maintenance of traffic, and project development report.

M-14/BARTON DRIVE INTERCHANGE PEL STUDY

State of Michigan Department of Transportation (MDOT)

The intent of the study is to analyze the environmental and social impacts of a proposed FY 2025 operational improvement alternative to improve the geometry of the EB M-14/ Barton Drive on and off ramps. This area of Ann Arbor has a known history of crashes due to non-standard entry/exit ramp geometry, extensive park property and trail networks along with other potential environmental and public involvement concerns. HDR is performing strategic communications, bridge alternative analysis, and technical evaluation of interchange alternatives to address complex interchange operational challenges and diverse community opinions to focus on an impactful solution to a problematic interchange.

DOWNTOWN CROSSING SHARED STREETS

City of Boston Public Works Department

HDR is currently working with the City of Boston Public Works Department to re-imagine 5 blocks of Downtown Boston as a pedestrian priority zone. Design improvements to the Washington Street, Summer, and Winter Street intersections will include reconstruction of the roadway, implementation of a shared street, and security improvements. Place based solutions include universally accessible design, public seating, trees, lightings, and unique paving materials.

PLATTSMOUTH MAIN STREET STREETSCAPE

City of Plattsmouth

To guide the process, the City of Plattsmouth established a blue-ribbon Citizens Committee to work with the HDR design team to reach consensus on key streetscape features in this historic downtown. The Committee focused on paving patterns and

coloration, native landscaping, classic street lights, an acoustic sound system, and complementary site furnishings (benches, trash receptacles, bike racks). Corner nodes are the focal point of the project and are dimensioned to accommodate truck traffic and shorten the distance for pedestrians crossing the street. Brick paving accents, wayfinding, signage, and public art celebrate these corners as key community gathering spaces. As an historic Main Street, the new streetscape concept draws many design details from historic Plattsmouth. Combined with a parallel downtown revitalization plan that provide incentives to restore Main Street's historic façades, this streetscape project is making a long awaited dream a reality. With this streetscape investment and ensuing façade enhancements, historic Main Street Plattsmouth is one step closer to reclaiming its title as the "Jewel of the Platte."

AS-NEEDED ENGINEERING SERVICES

MDOT Grand Region

HDR leads tasks assigned as-needed that include support for project scoping, preliminary cost estimates, preliminary engineering, concept evaluation, traffic analysis, and supplemental data needs for candidate projects for the MDOT Grand Region and in use for preparing grant applications. HDR has assessed multiple project candidates with safety assessments, review of crash history, traffic patterns, and development trends to evaluate roadway improvements for operational issues and safety benefits for corridors, intersections, and interchanges. Highlights include the preparations for the 2021 BUILD Grant for the I-96 at Fruit Ridge Interchange and 2021 RAISE Grant for the US-31 at Sherman Boulevard Interchange that are both advancing to construction for MDOT. Joshua Salazar is HDR's PM and has led multi-disciplinary teams of engineers, planners, economists, and grant writers to respond to various work order requests.

GRANT WRITING & ECONOMIC ANALYSIS ON-CALL

MoDOT

HDR has been retained by the Missouri Department of Transportation to perform grant writing services along with economic impact analyses and benefit-cost analyses of various programs and projects. At MoDOT's request, HDR leads the development of formal responses to federal grant solicitations. This work includes grant requirement reviews, collection of data required for responses, interviews with grant recipient stakeholders, writing of the grant response, economic analysis of the grant request including a benefit-cost analysis, development of graphics, review meetings with MoDOT, and creation of the final grant response document for MoDOT's official submission.

POSEYVILLE RD MILL AND RESURFACING CONSTRUCTION MANAGEMENT

Midland County Road Commission

Spicer led the construction engineering and inspection for the nearly two miles of hot mix asphalt cold milling and resurfacing of Poseyville Road between Gordonville Road and the Midland City Limits. The project also involved curb and gutter, ADA ramps, and pavement markings. Nathan Pfenninger, P.E. was the Project Manager and responsible for the day-to-day managing, coordination, and communication with the contractor and the Midland County Road Commission project engineer. In addition, Spicer tracked and distributed shop drawings, assisted in creating contract modifications, and work orders.

CENTER STREET AND ANTON STREET OVER THE SEBEWAING RIVER

Village of Sebewaing

Spicer led the construction management for the rehabilitation of Center Street and Anton Street over the Sebewaing River located in the Village of Sebewaing. The project included bridge deck patching, sidewalk repairs, epoxy overlay, and penetrating healer/sealer. Nathan Pfenninger, P.E. was the Project Engineer and was responsible for verifying the contractors work performed was consistent with the project plans, proposal and specifications, communicating crucial data such as changes in the schedule, contractor claims, traffic/mobility issues, and lane closure requests.

References

PROJECT	PLANNING, BUDGETING, AND/OR RATE STUDIES	ENVIRONMENTAL, REGULATORY/ AND/OR PERMITTING	ENGINEERING STUDIES	DETAILED DESIGN	COST ESTIMATING	PROCUREMENT SUPPORT	CONSTRUCTION ADMINISTRATION	CONSTRUCTION OBSERVATION	PUBLIC ENGAGEMENT	GRANT WRITING
On-Call Engineering Services, City of South Haven, MI - HDR has a history of serving the City of South Haven since 2015 in support of their asset management plan, planning/programming, compliance with MDOT's bridges and structures program, including the Dyckman Avenue Bascule Bridge. HDR is dedicated to prompt responsiveness and coordinating as an extension of staff for the City Engineer with our tasks. • **HDR PM** – Joshua Salazar • **Client Contact** – Mike Dopp, PE, City Engineer, 1199 8th Avenue, South Haven, MI 49090, 269.637.0700, mdopp@south-haven.com	●	●	●	●	●		●	●		
On-Call Professional Services, City of Grand Haven, MI - HDR provides on-call support for various tasks related to engineering, EGLE/EPA permitting, hydrology, and stakeholder engagement. • **HDR PM** – Lara Zawaideh • **Client Contact:** Derek Gajdos, Public Works Director, City of Grand Haven, 519 Washington Avenue, Grand Haven, MI 49417, 616.847.3493, dgajdos@grandhaven.org	●	●	●		●	●			●	
MDOT As-Needed Grand Region Engineering Services, in Grand Rapids, MI - HDR leads tasks assigned as-needed that include support for project scoping, preliminary cost estimates, preliminary engineering, concept evaluation, traffic analysis, and supplemental data needs for candidate projects the Grand Region and in use for preparing grant applications. HDR has led multi-disciplinary teams of engineers, planners, economists, and grant writers to respond to various work orders. • **HDR PM** – Joshua Salazar • **Client Contact** – Mike Wilson, PE, Grand Region Bridge Engineer Manager, MDOT, 1420 Front Avenue, NW, Grand Rapids, MI 49504, 616.498.2295, wilsonm23@michigan.gov	●		●	●	●					●
On-Call Engineering, Village of Cary IL - HDR is serving the Village of Cary as an extension of staff for efficient execution of tasks for roadway design, programming, grant applications, traffic engineering, railroad crossings, and right-of-way services. • **HDR PM** - Jeff Young • **Client Contact:** Erik Morimoto, Village of Cary, 755 Georgetown Drive, Cary, IL 60013, 847.639.0003 x 8104, EMorimoto@caryillinois.com	●	●	●	●	●		●	●	●	●

KEY DISCIPLINES

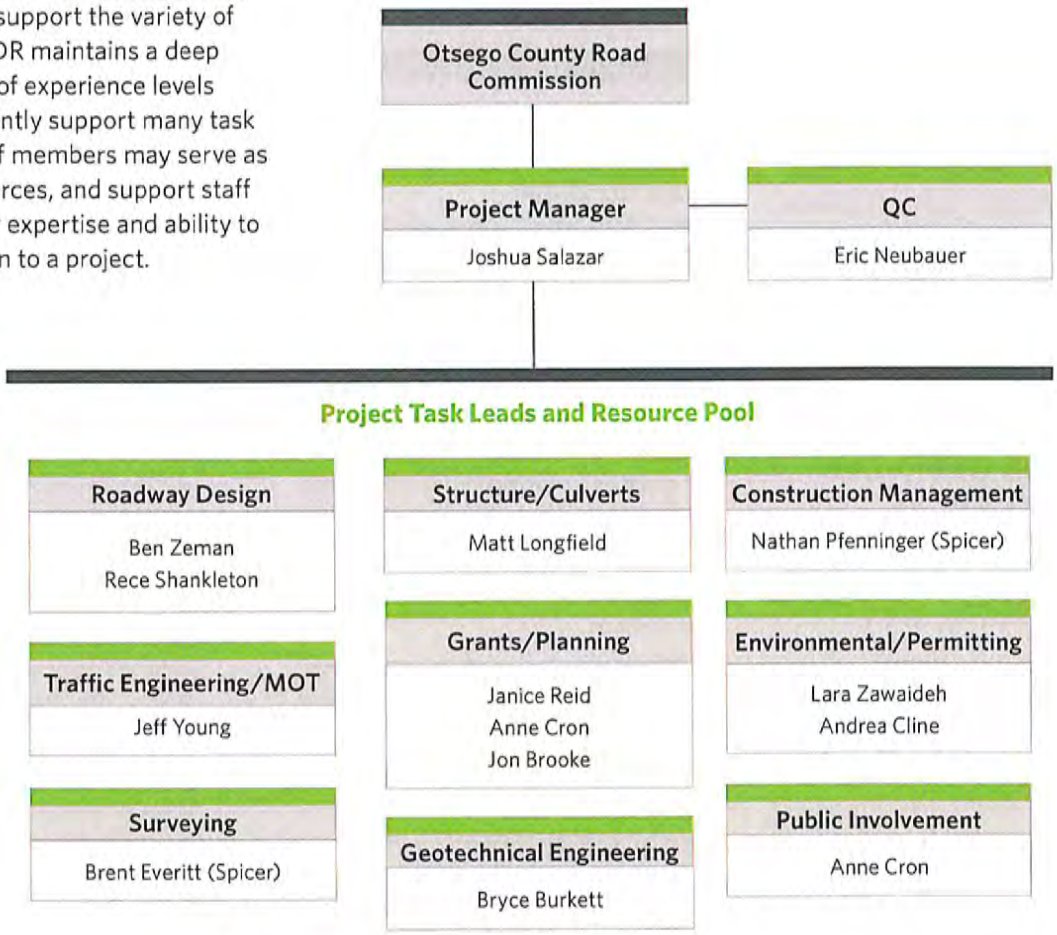
PROJECT	KEY DISCIPLINES									
	PLANNING, BUDGETING, AND/OR RATE STUDIES	ENVIRONMENTAL, REGULATORY/ AND/OR PERMITTING	ENGINEERING STUDIES	DETAILED DESIGN	COST ESTIMATING	PROCUREMENT SUPPORT	CONSTRUCTION ADMINISTRATION	CONSTRUCTION OBSERVATION	PUBLIC ENGAGEMENT	GRANT WRITING
On-Call Services Municipal Engineer, Village of Grayslake, IL - HDR is serving as support to the Village Engineer for the Village of Grayslake. HDR is called upon by the Village to assist in tasks that are above and beyond staff capabilities. Tasks included roadway, structures, public involvement, landscape architecture, and traffic signal work. • **HDR PM:** Jeff Young • **Client Contact:** William Heinz, 10 South Seymour Avenue, Grayslake, IL 60030, 847.223.8515, whienz@villageofgrayslake.com	●	●	●	●	●	●	●	●	●	●

03 Project Team Organization and Resumes

The project team identified below has the capacity to support the task types identified for the Engineer of Record scope. We have a pool of resources – both local to Michigan and in nearby offices that we will use to support the variety of task types we may see. HDR maintains a deep bench of staff at a variety of experience levels that are available to efficiently support many task orders at once. These staff members may serve as task leads, technical resources, and support staff and are leveraged for their expertise and ability to make the right contribution to a project.

We also have included a reliable subconsultant in Spicer for additional capacity with local construction engineering, inspection, and staking resources.

HDR is a matrix organization, which means that our primary focus for every project is bringing together the right people with the right skillsets for each individual project.



Core Leadership will Guide Successful Project Delivery

As Project Manager, Joshua will leverage his extensive experience with similar on-call engineering efforts to help the Commission achieve positive, implementable solutions. Joshua brings over 18 years of experience as an engineering project manager for projects with complex scopes and schedules.

"My job is to help you think about things from a 30,000-foot-view and balance the tactical execution of tasks at hand with scaled efficiency. I'll help keep you one step ahead of where you're looking to be. I will also act as a conduit between you and our HDR bench, finding the efficient resources within our team to provide leadership for your projects."

Joshua Salazar, PE (MI)

Project Manager

Joshua is HDR's Michigan Transportation Practice leader and committed to excellence in project delivery for MDOT. He is an experienced professional with both public and private sector leadership serving as Project Manager, QA/QC lead, lead engineer, and Program Manager. Joshua has managed complex bridge design, scoping, and inspection projects for MDOT, as well as several multi-modal Program Management projects through the production of design alternatives, plans/specifications, capital cost estimates, evaluation of environmental impacts, and comprehensive stakeholder outreach. His experience also includes developing the federal agency documentation required for compliance with grant funding agreements.

EDUCATION

Master of Public Administration, Florida Atlantic University, Boca Raton, FL, 2009

Bachelor of Science, Civil Engineering, University of Michigan, Ann Arbor, MI, 2001

REGISTRATIONS

Professional Engineer - Michigan No. 6201062335

Professional Engineer - Florida No. 69976

INDUSTRY TENURE

18 years

RELEVANT EXPERIENCE

Michigan Department of Transportation, M-25 over Saginaw River (Veteran's Memorial) Bascule Bridge Rehabilitation Design, Bay City, MI.
Project Manager. HDR was selected to perform design of the M-25 (McKinley St / Veteran's Memorial) Movable Bridge over the Saginaw River in Bay City, MI. The design elements include the electrical, mechanical, and structural rehabilitation, roadway approach, and maintenance of traffic plans. Joshua was the primary contact and managed the contract, production schedule, deliverable production, and quality management process. Scoped repairs included this epoxy overlay of deck and sidewalks, steel repairs in sections of high section loss, retrofitting braces, span balancing, resetting bearings, and bridge approach rehabilitation.

Michigan Department of Transportation, Mackinac Bridge As-Needed Engineering Consulting Services, St. Ignace, MI.
Deputy Project Manager. This contract is broad spanning engineering needs including scoping inspections, structural designs, emergency repair consultation details, short- and long-term maintenance plans, and generation of studies and reports. Joshua is responsible for planning, coordinating, and executing tasks with specialized staff for unique circumstances related to the asset management and preservation activities of the Mackinac Bridge in St. Ignace, MI - including the July 2021 detailed inspection throughout four weeks. Upon completion of the inspection, Joshua led the team's effort in preparing the detailed scoping reports, including repair recommendations, quantity, and cost estimates.

Michigan Department of Transportation, Second Avenue Bridge over I-94 - Bridge Replacement, Detroit, MI.
HDR Project Manager. HDR's Project Manager managing the contract, production schedule, QC process, and securing team resources. As a subconsultant to Tetra Tech, HDR was responsible for the structural design services for the superstructure and Accelerated Bridge Construction methods, including Plans, Specifications, and Estimates for the Second Avenue Bridge over I-94. The bridge is a first of its kind in Michigan, as a network tied arch with a span of 245 feet, and Accelerated Bridge Construction methods including Self-Propelled Modular Transporters (SPMTs).

As-Needed Engineering Services, MDOT Grand Region, Grand Rapids, MI.
HDR Project Manager. Joshua leads tasks assigned as-needed that include support for project scoping, preliminary cost estimates, concept evaluation, traffic analysis, and supplemental data needs for candidate projects the Grand Region is preparing for USDOT Grant Applications. Highlights include the preparation for the 2021 BUILD Grant for the I-96 at Fruit Ridge Interchange and 2021 RAISE Grant for the US-31 at Sherman Boulevard Interchange that are both advancing to construction for MDOT. Joshua has led multi-disciplinary teams of engineers, planners, economists, and grant writers to respond to various work orders.

On-Call Movable Bridge Operations/Facilities Services, MDOT, Statewide, MI
Deputy Project Manager. Joshua managed the multi-disciplined team resources, contract, production schedule, deliverable production, and quality management process. HDR has provided emergency trouble-shooting response, in-depth inspection for structural, electrical and mechanical components for MDOT's movable bridge inventory, OSHA and MIOSHA safety improvements for staff and contractors on-site at the bridge tender

SALAZAR (CONTINUED)

facilities, scoping estimates, special provision development for issues related to system controls, span motor drives, PLC, and fiber optic patch cables & connectors. Joshua coordinated with a multi-disciplinary team of structural, electrical, and mechanical system specialists for system operations recommendations to MDOT to improve reliability and safety at those 12 facilities.

Michigan Department of Transportation, Specialty Training for 3D Design Data for Construction Field Applications, Lansing, MI.

Project Manager. HDR was selected to provide MDOT specialized training utilizing 3D digital design data in construction field applications (Project PDF, 3D Line Strings). This project encourages innovation in the development of design techniques that promote the knowledge and use of 3D model data through FHWA's State Transportation Innovation Council (STIC) Program. Joshua managed the contract, production schedule, deliverable production, and quality management process.

MDOT Grand Rapids TSC, I-96/I-196 Interchange Study Grand Rapids, MI.

HDR Project Manager. Joshua led the team to develop innovative system-to-system interchange concepts and construction staging plan, and operations analysis reporting. The I-96 improvements in the vicinity of the recent I-96 Flip interchange project and focus on removing westbound I-96 through traffic from the weaving segment and provide additional capacity for the East Beltline Avenue interchange on-ramp traffic between the East Beltline Avenue interchange and I-196. The decrease in volume in this weaving section is expected to reduce the frequency of crashes between East Beltline Avenue and I-196 interchanges. A new weaving segment would be created between the relocated westbound I-96 and Leonard Street off-ramp. Operational analysis was used to evaluate complex interchange concepts, and prepare scoping documentation, including submittals to Lansing Congestion & Mobility Unit using MDOT's VISSIM guidelines and Freeway Reliability and Operations Template.

Michigan Department of Transportation, M-14 Barton Drive Interchange PEL Study, Ann Arbor, MI.

HDR Project Manager. The intent of the study is to analyze the environmental and social impacts of a proposed FY 2025 operational improvement alternative to improve the geometry of the EB M-14/Barton Drive on and off ramps. This area of Ann Arbor has a known history of crashes due to non-standard entry/exit ramp geometry, extensive park property and trail networks along with other potential environmental and public involvement concerns. Joshua performed interchange concept development, public engagement strategy, and led the multi-disciplined team to address complex interchange operational challenges and diverse community opinions to focus on an impactful solution to a problematic interchange.

Michigan Department of Transportation, Bay Region Bridge Scoping Inspection at 10 structures along I-75 - MDOT JN 213772 SCOP, Grand Blanc, MI.

Principal-in-Charge. The HDR-led project involved planning, coordination, and execution of detailed scoping inspections for 10 structures on I-75 between Flint, MI and Saginaw, MI. HDR deployed multiple teams to perform concurrent inspections following two methods. Teams were either present at multiple bridge locations within a single lane closure or at multiple locations at a single bridge in a combination of lane and ramp closures to maximize efficiency in equipment and lane closure use. This included two railroad locations with flagging and hi-rail equipment. Each structure required a full scoping inspection for repair development which included hands-on inspection of bridge components and detailed condition evaluation and documentation. Joshua served as the principal-in-charge and provided executive oversight for this project.

On-Call Traffic Systems Planning, FDOT District 4, Broward County, FL

HDR Project Manager. HDR provided professional traffic engineering, and planning services to District 4's System Planning unit with assignments ranging from traffic forecasting, developer traffic impact study reviews, project traffic reviews, design / MOT plan reviews, interchange traffic document reviews, and analytical summary reports. Joshua led tasks coordinating with internal FDOT units, external jurisdictions, and developers.

FDOT District 4, I-95 from N. of Becker Rd to S. of SR-70, Port St. Lucie, FL.

Lead Engineer. Managed the roadway design tasks for the suburban 15 mile limits, including modifications to the existing drainage system. The project improvements included widening the interstate from 4 to 6 lanes, including auxiliary lanes, 4 arterial interchange modifications, major overhead electric utility crossing, new overpass bridge, and replace I-95 bridge at grade-separated freight railroad crossing under I-95.

Eric Neubauer, PE (MI)

Quality Control

Mr. Neubauer has more than 22 years of engineering experience on roadway, bikeway, airport, freight and passenger rail projects. His experience includes planning studies, preliminary design, geometrics, drainage, materials, and plan production for roadway and bicycle improvements, with a specialty in multi-modal design and Federally funded projects. Clients he has worked with include the Michigan Department of Transportation, universities, counties, municipalities, and local agencies.

EDUCATION
Bachelor of Science in Civil Engineering, University of Illinois at Urbana-Champaign, 2001

REGISTRATIONS
Professional Engineer, IL, #062-059188, 2006

Professional Engineer, MI, #6201062940, 2015

INDUSTRY TENURE
22 years

RELEVANT EXPERIENCE

Michigan DOT, Bay Region Bridge Scoping Inspection at 10 structures along I-75, MI.
Roadway/MOT Lead. HDR was responsible for performing detailed scoping inspections for 12 structures on I-75 in Grand Blanc, MI. HDR deployed multiple teams to perform concurrent inspections following two methods. Teams were either present at several bridge locations within single lane, ramp closures or at single bridges in single closures to maximize efficiency in equipment and lane closure use. This included multiple inspection locations along I-75 including a railroad with flagging. Most structures required full scoping for repair development which included hands-on inspection of bridge components and detailed condition evaluation and documentation. Eric was responsible for preliminary mobility analysis, identifying MOT options for construction, determining anticipated delay and project significance, and developing preliminary cost estimate.

Michigan DOT, Scoping Inspections for 4 Structures within MDOT's "Big Bridge" Inventory, MI.
MOT & Cost Estimating Lead. The HDR led project involved detailed scoping inspection and report production for 4 "Big Bridge" structures, three over the Black River in Port Huron, Michigan and one historic pony truss over the Au Sable River in Iosco County, Michigan. Each structure required a full scoping inspection for repair development which included hands-on inspection of bridge components and detailed condition evaluation and documentation. Following completion of the inspections, Eric supported the team's effort in preparing the detailed scoping reports, including repair recommendations, quantity and cost estimates, and supporting appendix material, on an expedited schedule to meet planned project letting and construction milestones. Eric was responsible for preliminary mobility analysis, identifying MOT options for construction, determining anticipated delay and project significance, and developing preliminary cost estimate.

DTE Energy, Fort Street Gas Pipeline, Detroit, MI.
Roadway Lead. Led roadway design of a new natural gas distribution pipeline serving Detroit, Michigan. DTE Energy is conducting a multi-phased, large main replacement project to improve safety and reliability to the downtown area of Detroit. The project includes the installation of 24-, 20-,16-, and 12-inch-diameter high-pressure pipe, multiple regulator stations, and high-pressure commercial services. As the lead consultant on the project, HDR is providing detailed survey, utility and geotechnical investigations, route evaluation, engineering design, trenchless engineering, environmental, and permitting and coordination for each phase of the project.

Kane County Randall Road at Weld Road Planning and Design Engineering Services, Elgin, IL.
Project Engineer. The Randall Road at U.S. 20/Weld Road Intersection includes the development of planning engineering and preparation of preliminary design for improvements at this intersection in the City of Elgin. The HDR Team performed traffic operational analyses and provided intersection design options. Environmental Analyses was coordinated with the IDOT Bureau of Local Roads and Streets. The impacts included wetlands, trees, noise, and air quality. A Project Development Report was prepared. IDOT coordination includes environmental field reviews, meetings with the Bureau of Local Roads, and FHWA Coordination meetings. This project included coordination with the IDOT bridge office for a retaining wall improvement requiring the development of a TSL. Upon receipt of Design Approval, the project transitioned to the design phase. HDR led the production of plans, specifications and estimates including permit coordination with the USACE and the Kane DuPage Soil and Water Agency.

NEUBAUER (CONTINUED)

Lake County Fairfield Road Throughway Intersection Improvements, Planning and Design, Village of Round Lake, IL.
QA/QC Reviewer. The project includes designengineering services for the improvement of the intersection of Fairfield Road and the Metra Railroad / IL Route 134. Work includes the preparation of PS&E's along with ROW acquisition. This project will comply with the Federal Aid guidelines as federal funding is anticipated.

Indiana DOT, SR 3 HMA Overlay, IN.
QA/QC reviewer. HDR is responsible for the approach for SR 3 overlay. Roadway Rehabilitation Design Services include two HMA overlay minor structural; one pavement replacement and one small structure replacement at various locations in the Seymour District. Eric was responsible for performing quality reviews prior to submittal to the client.

Illinois DOT, I-294 Central Tri-State and Archer Road Interchange Reconstruction, IL.
Project Manager. Oversight for the roadway geometrics and interdisciplinary coordination for the reconstruction of I-294 for 2.9 miles and modifying the configuration of the Archer Rd (IL171) interchange with I-294. Project includes design of interstate, state highway and local roads as well as detention ponds, four bridge replacements, retaining walls and sign trusses. Project constraints necessitate multistage construction with temporary roadway widening and partial removal of existing structures. The project is also part of an urban limited-access corridor reconstruction requiring coordination with three interfacing projects under design.

Illinois Department of Transportation, Various/Various PTB181-04, Planning and Design, IDOT, IL.
Project Manager. As a subconsultant to EFK Moen, HDR performed a variety of tasks including barrier warrant/safety studies, bid documents for a bridge fiber optic cable interconnect, and ADA ramp designs.

Illinois Department of Transportation, Phase II Various Projects, Various Locations, IL.
Design Engineer. As a sub to EFK Moen, HDR performed ADA ramp designs for more than 40 ramps on IDOT projects within Mount Prospect and the City of Chicago. In addition, barrier warrant analyses were performed at two concerning locations within District 1.

Illinois Department of Transportation, East Avenue Reconstruction, McCook, IL.
Project Manager. HDR provided design engineering services as a sub-consultant for the reconstruction of East Ave. Engineering services included survey, geotechnical borings, preparing TS&L plans, completing and updating existing design plans that are partially complete and finishing the contract plans for letting. The proposed improvement consist of widening the intersections at East Avenue and Joliet Road, East Avenue and 55th Street and provide traffic signal modernization, drainage, retaining walls, rehabilitations to existing culverts, and modifications to existing lighting.

Michigan DOT, University Region Bridge Scoping Inspection at 10 structures regionwide, MI.
Roadway/MOT Lead. HDR was responsible for performing scoping inspections for 10 structures over Limited Access Freeways in Hillsdale, Jackson, Lenawee, and Monroe, MI. HDR deployed multiple teams to perform concurrent inspections at several bridge locations within a single lane closure to maximize efficiency in equipment and lane closure use. This included multiple inspection locations along US-127 between Berry Rd. and E. Territorial Rd, two bridges on US-23 between Sterns Rd. and Alexis Rd. over a creek, and two bridges further south on US-127 and County Rd. 156. Most structures required full scoping for repair development which included hands-on inspection of bridge components and detailed condition evaluation and documentation. Eric was responsible for preliminary mobility analysis, identifying MOT options for construction, determining anticipated delay and project significance, and developing preliminary cost estimate.

Illinois Department of Transportation, East Avenue Reconstruction and Widening Design, IL.
Project Manager. As a subconsultant to Accurate Engineering, Inc., Egineering services are required for improvements to East Avenue (FAU 2719) from north of 55th Street to south of Joliet Road (Historic US 66). HDR specifically performed the drainage and maintenance of traffic design for the project.

Rece Shankleton, EIT

Roadway Design Support

Rece is a graduate of Michigan State University College of Engineering with a degree in Civil Engineering. He works with the Transportation group as a Roadway Designer. Rece's experience includes construction materials testing, site design, and, most recently, QA/QC work with the Michigan Department of Transportation's Structural Fabrication Unit. Rece has a wide variety of CAD development and drafting experience through his previous employers. In his time with HDR, Rece has been involved in a number of MDOT bridge inspection projects providing inspection access planning and report preparation support, as well as work zone maintenance of traffic planning and traffic analysis for construction scope of work development. Rece has also developed bridge design skills through multiple design and rehabilitation projects including movable bridges, rail bridges, and packages of multiple bridges at interchanges.

EDUCATION
Bachelor of Science, Civil Engineering, Michigan State University, East Lansing, MI, 2019

REGISTRATIONS
Michigan Engineer in Training - 20-910-01 (03/2020)
ACI Concrete Field Testing Technician - Grade I, 2019-01400262

INDUSTRY TENURE
3 years

RELEVANT EXPERIENCE

Michigan Department of Transportation, M-14 Barton Drive Interchange PEL Study, Ann Arbor, MI.
Task Lead. The intent of the study is to analyze the environmental and social impacts of a proposed FY 2025 operational improvement alternative to improve the geometry of the EB M-14/Barton Drive on and off ramps. This area of Ann Arbor has a known history of crashes due to non-standard entry/exit ramp geometry, extensive park property and trail networks along with other potential environmental and public involvement concerns. HDR is performing strategic communications, cultural resource research, bridge alternative analysis, and technical evaluation of interchange alternatives. Rece performed interchange concept development, stating/MOT concepts, and developed estimates associated with the interchange alternatives.

Michigan Department of Transportation, I-94/Conrail Bridge Overpass Replacement, Detroit, MI
EIT - Design Support. As part of the I-94 Modernization Advance Bridges Program, HDR is responsible for the structural design services for the railroad structure X01 over I-94 utilizing Accelerated Bridge Construction methods, including Plans, Specifications, and Estimates and lead designers for the structure. The bridge is to accommodate interim conditions and future widening of the I-94. Rece provided design support for the substructure, shoring, geometry, and staging. He is also continuing to provide CAD design support for the plan set.

MDOT Grands Rapids TSC, I-96/I-196 Interchange Study, Grand Rapids, MI.
MOT and Scoping Engineer. Rece supported the team to develop innovative system-to-system interchange concepts and construction staging plan, and operations analysis reporting. The I-96 improvements in the vicinity of the recent I-96 Flip interchange project and focus on removing westbound I-96 through traffic from the weaving segment and provide additional capacity for the East Beltline Avenue interchange on-ramp traffic between the East Beltline Avenue interchange and I-196. The decrease in volume in this weaving section is expected to reduce the frequency of crashes between East Beltline Avenue and I-196 interchanges. A new weaving segment would be created between the relocated westbound I-96 and Leonard Street off-ramp. Operational analysis was used to evaluate complex interchange concepts, and prepare scoping documentation, including submittals to Lansing Congestion & Mobility Unit using MDOT's VISSIM guidelines and Freeway Reliability and Operations Template.

Michigan Department of Transportation, Metro Region Bridge Scoping Inspection at 22 structures along I-75 in Wayne County Wayne County, MI.
MOT and Scoping Engineer. This project encompassed detailed scoping inspections for a project total of 22 structures, 16 of which are situated along the I-75 corridor and at the M-8 (Davison) interchange. These bridges consisted of freeway over grade crossings, underpass ramps, local street crossings, one railroad bridges, two bridges over railroads, and a high-level flyover. Other locations included four bridges at the 8 Mile and Telegraph cloverleaf interchange, Telegraph over a railroad, and a local street overpass. The field inspection of the project's 22 bridges was completed over the course of six weeks by two teams, coordinating the schedule around railroad flagging and two freeway construction projects on I-75. Inspection activities were planned around lane and ramp closures encompassing several bridges in a group, such as closing the I-75 SB

SHANKLETON (CONTINUED)

& NB exit ramps to M-8 EB concurrently, and deploying two teams working at four bridges. The team used a grouping methodology with as many of the structures as possible, performing as much inspection within a combination lane closure so lane locations did not need to be closed multiple times.

Michigan Department of Transportation, Bay Region Bridge Scoping Inspection at 12 structures along I-75 - MDOT JN 211801 SCOP Grand Blanc, MI.
MOT and Scoping Engineer. This project included the inspections of 12 structures on I-75 in Grand Blanc, MI. HDR deployed multiple teams to perform concurrent inspections following two methods. Teams were either present at multiple bridge locations within a single lane closure or at a single bridge in a combination lane and ramp closure to maximize efficiency in equipment and lane closure use. This included multiple inspection locations along I-75 including a railroad with flagging. Each structure required a full scoping inspection for repair development which included hands-on inspection of bridge components and detailed condition evaluation and documentation. Rece supported project preparations including MOT and access planning, field inspection materials and documentation. Following completion of the inspections, Rece supported in preparing the detailed scoping reports including sketches, quantity, and cost estimates, and supporting appendix material, on an expedited schedule to meet planned project letting and construction milestones. Rece was also responsible for preparing the mobility analysis, identifying MOT options for construction, determining anticipated delay, and developing preliminary cost estimates.

Public Works Department, Delaware, OH, DEL-Signal System Upgrade Ph1, Ohio, Delaware
EIT. This project includes preparation of construction contract plans for Traffic Signal Design and Traffic Signal System upgrades citywide in Delaware, Ohio. Phase 1 of the project will address 37 signalized intersections located on US 36 (William St), SR 37 (Central Ave), Sandusky Street and London Road including right of way plan preparation as needed with the design.
Improvements include upgrades to the signalization system including but not limited to:

- Optimized Traffic Signal Timings for 37 signals
- System Level Improvements
- Signal equipment upgrades/replacements as needed at each intersection
- Pedestrian Upgrades

Michigan Department of Transportation, University Region Bridge Scoping Inspection at 10 structures regionwide - MDOT JN 212188 SCOP, University Region, MI.
MOT and Scoping Engineer. This project included the inspections of 10 structures in Jackson, Lenawee, and Monroe counties. HDR deployed a single team to perform concurrent inspections at several bridge locations within a single lane closure to maximize efficiency in equipment and lane closure use. This was employed at the group of six structure along US-127 between Berry Rd. and E. Territorial Rd. Each structure required a full scoping inspection for repair development which included hands-on inspection of bridge components and detailed condition evaluation and documentation. Rece supported project preparations including MOT and access planning, field inspection materials and documentation. Following completion of the inspections, Rece supported in preparing the detailed scoping reports including sketches, quantity, and cost estimates, and supporting appendix material, on an expedited schedule to meet planned project letting and construction milestones. Rece was also responsible for preparing the mobility analysis, identifying MOT options for construction, determining anticipated delay and project significance, and developing preliminary cost estimates.

Michigan Department of Transportation, Belle Isle Bridge Scoping Inspection, Detroit, MI.
Scoping Engineer. This project involved a detailed scoping inspection of Belle Isle Bridge, focusing on the deck underside, superstructure and substructure elements at this historic and large deck area structure. Composed of 19 spans, the bridge is unique in its construction as the open spandrel arches of each span are not true arches, but double cantilevers from each pier, consisting of steel trussed frames and beams encased in concrete with "drop-in" spans at the center of each arch to support the roadway and provide an expansion joint. The inspection included a detailed and hands-on inspection of the deck underside, superstructure arch ribs, spandrel columns, diaphragms and longitudinal girders, and the main piers, to assess the condition of these elements and develop a scope and quantity of repair recommendations.

Ben Zeman, PE (IL)

Roadway Design

Mr. Zeman has knowledge and experience with planning, design and construction inspection of roadways. His key strengths lie in geometric design, which he has performed on all levels, from concept to final construction drawings. He also has experience in developing complex 3D models and maintenance of traffic plans. Mr. Zeman is proficient in MicroStation, Geopak Road, InRoads, AutoTurn and Open Roads.

EDUCATION

Bachelor of Science, Civil and Environmental Engineering, University of Illinois Urbana-Champaign, 2011

REGISTRATIONS

Professional Engineer, Illinois, #062-067545, 2015

Indiana, 12100427, 2021

INDUSTRY TENURE

12 years

RELEVANT EXPERIENCE

Northern Indiana Commuter Transportation District, West Lake Corridor NEPA & Engineering Services for New Starts Project, Northwest Indiana.
Roadway Engineer. NICTD hired HDR to support NICTD and serve as an extension of staff to advance an eight-mile extension of the South Shore Line (SSL), known as the West Lake Corridor, southward to provide new passenger rail service to three municipalities in Lake County, IN: Hammond, Munster and Dyer. Trains on the new branch line would connect with the existing SSL and ultimately Metra Electric District line to the north. The project would provide new transit services between Dyer, Indiana and Metra Millennium Station in Downtown Chicago, Illinois, a total distance of approximately 30 miles. The West Lake Corridor project scope includes engineering design, a Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) and Federal Transit Administration (FTA) Capital Investment Grant application support. The FTA issued the Record of Decision for West Lake in 2018. Ben developed concept-level designs for over a dozen at-grade rail crossings, verifying compatibility with FRA and INDOT guidelines. He also developed concepts for several large commuter transit parking facilities in compliance with local zoning ordinances, including kiss-and-ride drop-off zones. Ben developed concept designs for a shared-use trail and for the reconfiguration of several local roads along the proposed rail corridor.

City of Wheaton, Wesley Street/Manchester Road Bridge Replacement Construction Services, Wheaton, IL.
Field Engineer. The City of Wheaton selected HDR to perform Construction Management services for the $10M replacement of an historic bridge near downtown Wheaton. The project included construction of extensive mechanically-stabilized earth retaining walls, rehabilitation and extension of a bicycle bridge and complete reconstruction of six impacted roadways. As a field engineer, Mr. Zeman worked with the resident engineer and construction inspectors to maintain daily reports of construction progress. He was responsible for the measurement, calculation and tracking of pay items based on field measurements. The project was selected by ACEC-IL for an award in Engineering Excellence.

Illinois Department of Transportation, Pump Station No. 4 Reconstruction Study (PTB 156-07), Cook County, IL.
Roadway Engineer. HDR was selected by IDOT to conduct a Study for the replacement of the existing stormwater pumping station along I-290/Eisenhower Expressway at the Des Plaines River. The report presented the conditions and capacity of the existing facility the hydraulic capacity needed to prevent flooding of the expressway and the subsequent design layout of a 300 MGD pumping station with mechanically cleaned screens and new discharge culverts. Emphasis was placed on the constructability of the station with the site confined by I-290 to the north the Des Plaines River to the east a cemetery to the south and west and bedrock 50-feet below. HDR is preparing a Pump Station Report and preliminary submittal as well as PS&E and bid documents for the demolition of an existing and construction of a new pumping station at I-290 and the Des Plaines River. Ben was responsible for preliminary site design of the parking lot around the proposed pump station, verifying access for maintenance vehicles. He also performed detail technical reviews for the proposed maintenance of traffic on I-290 and helped assemble the project plans, summary of quantities, estimate of cost, and special provisions.

ZEMAN (CONTINUED)

Gonzalez Company, Illinois Tollway I-294 Construction Management-Toll Plazas 36 and 39 Rehabilitation and Widening, Downers Grove, IL.
Project Engineer. HDR provided construction services in support of the rehabilitation and widening of I-294 mainline toll plazas at 82nd Street and 83rd Street. HDR was responsible for responding to RFI's, reviewing shop drawings, and responding to requests for design changes. Ben was responsible for the design and coordination efforts during construction, including generating or reviewing responses to RFI's, shop drawing and product data submittals, and requests for design changes.

Gewalt Hamilton Associates, Inc., Illinois Tollway I-90 Construction Management-Central Road Reconstruction and WB I-90 Entrance Ramp Construction, IL.
Project Engineer. HDR provided construction services in support of the reconstruction of Central Rd in Schaumburg and Hoffman Estates, as well as the construction of a new entrance ramp from Central Rd to WB I-90. HDR was responsible for responding to RFI's, reviewing shop drawings and other submittals, responding to requests for design changes, and attending construction meetings. Ben was responsible for the design and coordination efforts during construction, including generating or reviewing responses to RFI's, shop drawing and product data submittals, and requests for design changes. He also attended several in-person meetings to coordinate design solutions to issues that arose during construction.

Pennsylvania Department of Transportation, Rapid Bridge Replacement Program, PA.
Maintenance of Traffic Detail Checker. This multi-year public-private partnerships upgraded and replaced 558 aging, structurally deficient bridges throughout Pennsylvania. The bridges were primarily crossings on smaller state highways, many in rural areas, rather than interstate bridges or large river crossings. As part of the consortium, HDR was the lead design firm with a joint venture of Walsh Granite serving as the lead construction firm. HDR developed and implemented a robust quality control/quality assurance plan to help achieve a high level of design among the various HDR offices and subconsultants, located across the United States, utilized on the project. Ben performed detailed technical reviews of maintenance of traffic plans for the reconstruction of several rural bridges to verify compliance with national and state standards and guidelines.

DuPage County Division Of Transportation, Fabyan Parkway at IL Route 38 Intersection Improvements Design, West Chicago, IL.
Project Engineer. This HDR-led intersection improvement project included the resurfacing and widening of IL Route 38 and the reconstruction of Fabyan Parkway from a 2-lane road to a 4-lane road. The improved intersection of these two strategic regional arterials has additional turn lanes on all four legs to vastly alleviate traffic congestion. The project is the first phase of proposed corridor-wide improvements to Fabyan Parkway. As project engineer, Mr. Zeman was responsible for the development of contract plans, specifications and estimate. He was also responsible for coordinating the design with teaming partners, sub-consultants and project stakeholders such as municipalities and utility companies. The bid opening occurred in early 2015 and the low bid was within 1% of the engineer's estimate.

Illinois Department of Transportation, IL 19/ Irving Park Road and York Road Intersection Design (CREATE GS 16), Bensenville, IL.
Design Engineer. HDR performed Design for the reconstruction and widening of the Irving Park Road at York Road intersection. The project included the grade separation of the Canadian Pacific Railroad over Irving Park Road, intersection geometry improvements including additional auxiliary lanes, pavement widening and reconstruction, drainage system improvements, and signal modernization. The project was coordinated to be compatible with the O'Hare Modernization Program and the Elgin O'Hare Western Bypass. Mr. Zeman was responsible for plan preparation and quantity take-off's.

Kane County, Randall Road, U.S. 20, Foothill Road Intersection Improvements Phase II Design, Elgin, IL.
Design Engineer. HDR was selected to prepare plans, specifications and cost estimate for improvements at this intersection in the City of Elgin. The improvements to add turn lanes and storage to improve intersection operations included roadway widening and resurfacing staged under congested traffic. Drainage improvements and traffic signal work were included in the project. Mr. Zeman was responsible for Phase II plan preparation. He was responsible for calculating pay item quantities and costs.
alternative.

Matt Longfield, PE (MI), SE (IL)

Structural/Culverts

Mr. Longfield has over thirteen years of bridge design and inspection experience with many complex structure types including prestressed and post-tensioned concrete girders, post-tensioned multi-cell concrete box girders, steel box girders, steel plate girders, steel arches, steel trusses, and timber structures. His experience includes various stages of projects ranging from scoping, preliminary design engineering, final design and plan production, construction specifications, construction inspection, and load rating of new and existing bridges. His project experience also ranges from small river crossings and grade separations, to major river bridges over the Ohio and Mississippi Rivers. Additionally, he is a member of the American Institute of Steel Construction and the American Segmental Bridge Institute.

EDUCATION

Master of Structural Engineering, University of Michigan, Ann Arbor, MI, 2009

Bachelor of Science, Civil Engineering, University of Toledo, Toledo, OH, 2008

REGISTRATIONS

Professional Engineer - 2011, Michigan, 58463

Structural Engineer - 2015, Illinois, 081007680

Professional Engineer - 2012, Wisconsin, 42240-6

Professional Engineer - 2012, Indiana, PE11200111

Professional Engineer - 2012, Illinois, 062064382

FHWA-NHI: 130055: Safety Inspection of In-Service Bridges

FHWA-NHI: 130035 Bridge Inspection Refresher: 10/2020

FHWA-NHI: 130078: Fracture Critical Inspection Techniques for Steel Bridges

INDUSTRY TENURE

14 years

RELEVANT EXPERIENCE

I-94 under 2nd Ave (Network Tied Arch Bridge)
Bridge Engineer: The bridge is a first of its kind in Michigan, as a network tied arch with a span of 245 feet, and Accelerated Bridge Construction methods including Self-Propelled Modular Transporters (SPMTs). The bridge is also the first unbraced, skewed network arch bridge to be designed in the United States. The project utilizes innovative accelerated construction methods including launching and panelized construction for the arch ribs and the use of precast, post-tensioned concrete tie girders to provide resistance to overload vehicle impacts. Currently providing design services during construction including technical oversight, shop drawing review and RFI responses, development of operation and maintenance manual, and development of a structural monitoring system for use during construction and in-service conditions.

M-14 Barton Drive Interchange PEL Study
Bridge Lead. The intent of the study is to analyze the environmental and social impacts of a proposed FY 2025 operational improvement alternative to improve the geometry of the EB M-14/Barton Drive on and off ramps. This area of Ann Arbor has a known history of crashes due to non-standard entry/exit ramp geometry, extensive park property and trail networks along with other potential environmental and public involvement concerns. HDR is performing strategic communications, cultural resource research, bridge alternative analysis, and technical evaluation of interchange alternatives. Matt is leading the bridge evaluation with the interchange concept development, construction staging, and cost estimates for the project.

Michigan Department of Transportation, I-96 under Pleasant Valley Rd (Bridge Rehabilitation), Livingston County, MI.
Lead Bridge Engineer. The Pleasant Valley Road Bridge over I-96 in Livingston County, MI sustained a high load hit from a truck passing under the bridge on I-96 EB. The impact to the bridge forced emergency removal of the span over the eastbound lanes and full closure of the Pleasant Valley Road Bridge. Mr. Longfield supervised, coordinated and led the design effort for the design team and subconsultants which included replacing the removed span and raising the remaining existing superstructure and substructures over 20" to improve vertical clearance under I-96. The existing structure is a 4-span rolled steel beam structure with pin and hangers supported on cap and column piers with spread footings at all supports. The increased loading from the profile raise required lightweight fill EPS blocks to be placed behind each abutment wall. The project also required joint replacement, bearing replacement, pin and hanger replacement, temporary support design and partial cleaning and coating of structural steel. (Non-HDR Experience)

Michigan Department of Transportation, I-94 under Conrail Railroad (Bridge Replacement), Wayne County, MI.
Bridge Engineer. As part of the I-94 Modernization Advance Bridges Program, HDR is responsible for the structural design services for the railroad structure X01 over I-94 utilizing Accelerated Bridge Construction methods, including Plans, Specifications, and Estimates and lead designers for the structure. The bridge is to accommodate interim conditions and future widening of the I-94. Applying his well-rounded experience with MDOT and bridges in Michigan, Matt is responsible for providing QC/QA reviews, constructability reviews, and

LONGFIELD (CONTINUED)

conformance with MDOT standards and best practices for the project.

Michigan Department of Transportation, I-75 over the Rouge River and I-75 over Fort Street (Bridge Deck Replacement), Wayne County, MI.
Lead Bridge Engineer. This project includes more than one million square feet of deck replacements on four structures carrying the I-75 corridor through Detroit, Michigan: I-75 over the Rouge River (B01), the I-75 northbound off ramp over the Conrail Railroad (B01-5), the I-75 southbound on ramp over Dearborn Street and the Conrail Railroad (B01-6), and I-75 over Fort Street (S06). 3D finite element analysis was completed to determine live load distribution factors for load rating of the bridges. The scope of work also included beam repair and strengthening, and upgrading existing crash walls. The design team studied multiple replacement options including rapid deck replacement utilizing precast deck panels and night-time only lane closures. Mr. Longfield led the design efforts and plan production. Additional responsibilities included coordinating with sub-consultants and in-house staff, QC/QA of plans, developing specifications, and providing technical guidance on the design throughout the study and final design phases. (Non-HDR Experience)

Michigan Department of Transportation, US-41/M-26 Portage Lake Lift Bridge Rehabilitation Houghton-Hancock, MI.
Bridge Engineer. HDR provided structural, mechanical and electrical engineering services to assess and design repairs to the 60-year old vertical lift bridge. The project consisted of finger joint replacement, machinery room painting, minor deck repairs, cleaning and repairs of the lift span expansion rockers, update rope-access platforms, floorbeam strengthening, gusset plate plug weld repairs and analysis, guide casting retrofit design, and later lift span adjustments. Mr. Longfield analyzed and developed repair details for the gusset plates and provided Quality Control Reviews for the structural work and contract documents.

Michigan Department of Transportation, Rehabilitation of Eleven Bridges on I-75 in Wayne County (Bridge Deck Replacements and Rehabilitations), Wayne County, MI.
Lead Bridge Engineer. Rehabilitation design for deck replacement, widening and miscellaneous repairs to 11 bridges on the I-75 corridor in Wayne County. The scope of work also includes steel repairs, full and partial painting, joint and railing replacement, substructure repair, slope protection repair, approach work and silt removal. The bridges are simply supported and were constructed in the 1960's. Eight bridges have pin-and-hangers. Two bridges are single spans that carry I-75 traffic over Blakely Drain. The existing superstructures consist of wide flange beams, all supported on column-and-cap type piers and stub abutments. Substructure rehabilitation includes pier cap replacement and foundation strengthening. Several beams were raised to increase the vertical clearance and avoid a design exception. (Non-HDR Experience)

Michigan Department of Transportation, Bridge Information Modeling I-94 Modernization Program, Detroit, MI.
Bridge Engineer. HDR is developing a first of its kind, 3D Bridge Information Model from MDOT in-house bridge design of two bridges in the I-94 Modernization Advance Bridges Program: East Grand Boulevard over I-94 and Milwaukee Street over I-75. The BIM model includes an independent structural analysis of the design elements, including clash detection of utilities and constructability. Matt is a technical advisor on the project providing guidance to the production team and ensuring conformance with MDOT standards and best practices for the project.

Michigan Department of Transportation, High Priority Bridge Rehabilitation Design of 10 Bridges, MDOT University Region
Bridge Engineer. Rehabilitation design of 10 bridges to address deficiencies that require high priority action. Bridges are located within the University Region. Scope of work included deck patching, expansion joint replacement, construction joint resealing, epoxy overlay, PCI beam end repairs, barrier replacement, joint relief substructure repairs, and bearing replacement. (Non-HDR Experience)

Michigan Department of Transportation, Cut River Bridge Rehabilitation Design Plans (US-2 over Cut River), Hendricks Township, MI.
Bridge Engineer. Rehabilitation design and preparation of the plans and specifications for the Cut River Bridge including structural steel repairs, zone painting, substructure repairs, stone facing crack repair, road approach shoulder repair and maintenance of traffic. Specific structural repair design included several lower and upper gusset plates to address corrosion and/or increase the capacity of the gusset plates. Several lateral braces were also replaced to address corrosion and/or to facilitate the repair of the gusset plates. (Non-HDR Experience)

Jeff Young, PE (IL, IA), PTOE (IL)

Traffic Engineering/MOT

Jeff is a Traffic Engineering Lead/Transportation Project Manager with 25 years of experience delivering safe, reliable, and economical infrastructure to a variety of clients through collaboration and innovation. His specialties include transportation planning and geometric design studies in addition to traffic impact studies, safety studies, and intersection evaluation.

EDUCATION

Bachelor of Science in Civil and Environmental Engineering, University of Wisconsin-Madison, 1995

REGISTRATIONS

Professional Engineer, IL, #062-055033, 2001

Professional Engineer, IA, P26187, 2020

Professional Traffic Operations Engineer, IL, #4978, 2020

INDUSTRY TENURE

27 years

RELEVANT EXPERIENCE

On-Call Services Municipal Engineer, Village of Grayslake, IL.
Project Manager. HDR is serving as support to the Village Engineer for the Village of Grayslake. HDR is called upon by the Village to assist in tasks that are above and beyond staff capabilities. Tasks included roadway, structures, public involvement, landscape architecture, and traffic signal work.

On-Call Engineering, Village of Cary, IL.
Project Manager. HDR is serving the Village of Cary as an extension of staff for efficient execution of tasks for roadway design, programming, grant applications, traffic engineering, railroad crossings, and right-of-way services.

DTE Energy, Fort Street Gas Pipeline, Detroit, MI.
QC Reviewer. Led roadway design of a new natural gas distribution pipeline serving Detroit, Michigan. DTE Energy is conducting a multi-phased, large main replacement project to improve safety and reliability to the downtown area of Detroit. The project includes the installation of 24-, 20-,16-, and 12-inch-diameter high-pressure pipe, multiple regulator stations, and high-pressure commercial services. As the lead consultant on the project, HDR is providing detailed survey, utility and geotechnical investigations, route evaluation, engineering design, trenchless engineering, environmental, and permitting and coordination for each phase of the project.

McHenry County Division of Transportation, Lakewood Road Shared Use Path and Miller Road Intersection Preliminary Engineering, McHenry County, IL.
Project Manager. HDR was selected by McHenry County to develop Phase I engineering for the Lakewood Road Shared Use Path and Miller Road Intersection. As a part of the shared used path, a structural crossing of the Kishwaukee Creek through culvert improvements or a new pedestrian bridge will be provided. In addition to the pedestrian improvements, roadway restoration will be performed and the intersection at Miller Road will be evaluated to determine a preferred alternative for traffic control. Documentation will be prepared to keep the project eligible for federal funding. The project will address congestion, safety, mobility, transportation options, and the environment. Jeff was responsible for project oversight to ensure the clients' goals were being met.

Village of Mount Prospect, Railroad Crossing Alternatives Feasibility Study, Mount Prospect, IL.
Quality control. The Village of Mount Prospect selected HDR Engineering to perform a feasibility study to improve safety for pedestrians, bicyclists, commuters, and motorists moving through the Village's downtown area. Special attention will be given to the Union Pacific railroad tracks adjacent to downtown that also serve the Metra Commuter heavy rail service for the Chicago region evaluating at-grade crossings, station platform locations, and the potential for a roadway grade separation with the tracks to meet the Village's goals. Jeff assisted with quality control to ensure the deliverables were addressing the needs of the project.

Illinois Department of Transportation, Planning Studies for I-290 Bridges (PTB 169-16), Cook County, IL.
Project Manager. As a subconsultant to Lin Engineering, HDR is preparing preliminary engineering environmental studies for the improvement of seven bridges along the I-290 corridor in Cook County. Services include environmental studies, Intersection Design Studies, geometric studies including ADA evaluation of pedestrian facilities, crash and safety analysis, signal warrant analysis, a Traffic Management Plan, and peer review of bridge condition reports. Jeff was responsible for the day to day activities for the project to ensure deliverables, timelines, and budget goals were achieved.

Cook County DOH, Portwine Rd Feasibility Study, Chicago, IL
Project Manager. Traffic analysis, cost analysis and development of feasibility memorandum for alternatives for closing all or portions of Portwine Road between Lake Cook Road and Dundee Road.

YOUNG (CONTINUED)

Cook County DOH, Bat Habitat Assessment, Chicago, IL.
Project Manager. Bat Habitat Assessment for the Central Avenue Bridge and other environmental services as requested.

Cook County DOH, On-Call Geotechnical Services, Chicago, IL
Project Manager. This work order includes on-call reviews of geotechnical reports (e.g. RGRs, SGRs, etc.) to be conducted by Wang Engineering with HDR as liaison between Wang and Cook County.

NON-HDR EXPERIENCE

McHenry County Division of Transportation, Woodstock, IL.
Assistant County Engineer. Jeff's major responsibilities included:

- Oversee Planning, Design, Construction, GIS, IT, Communications, and Administration for the Division of Transportation
- Develop annual budget with $7 million operating and over $40 million capital
- Collaborate with key elected and appointed officials at the state, county, and local levels presenting before elected bodies and the public regarding projects
- Oversee public outreach and presentation materials
- Manage land acquisition for capital improvement projects
- Review of consultant work products (roadway plans, traffic studies, and reports)

Major Design Projects: Coordinated and guided staff and consultants on 25 to 30 projects at various stages (Feasibility Studies, Phase I, and Phase II engineering). Major projects include:

- Algonquin Road - Illinois Route 47 to Randall Road
- Illinois Route 31 Western Algonquin Bypass
- Rakow Road - Ackman Road to IL Route 31
- Walkup Road- IL Route 176 to Bull Valley Road

Major Transportation Planning: Coordinated with and guided Planning staff on the development of the $197 million 5-Year Transportation Program, the Long Range Transportation Plan and several roadway corridor planning projects.

Civiltech Engineering, Inc., Itasca, IL.
Project Engineer with increasing responsibilities in the preparation of location design studies, traffic impact studies, traffic signal warrant studies, and traffic signal designs. Key projects included:

- Feasibility Studies/Phase I Projects
  - IL Route 22 – Illinois Department of Transportation (IDOT)
  - IL Route 31 Western Algonquin Bypass – McHenry County DOT
- Comprehensive Planning Studies
  - USX South Works Redevelopment – City of Chicago
  - Transportation Comprehensive Plan – Village of Huntley
  - Strategic Regional Arterials – IDOT

Metro Transportation Group, Inc., IL.
Transportation Consultant. Performed comprehensive planning studies, traffic impact studies, and traffic signal warrant studies. Major clients included IDOT, University of Illinois-Chicago, Allen Bradley-Rockwell, IDI Logistics and other regional developers.

Janice Reid, PTP

Grants/Planning

Janice is a Professional Transportation Planner and leads HDR's Environmental Services Section. She has over 28 years of experience in planning and environmental documentation for all modes of transportation, and in all phases of project implementation. For the last 20 years, her focus has been on transit and railroad environmental documentation for FRA and FTA. Janice is experienced and knowledgeable in NEPA, Section 4(f), Section 6(f), Section 106 and regulatory permitting. She is also well versed in grant programs, federal regulations, and public involvement. Janice is considered one of HDR's most experienced environmental leaders, contributing oversight and quality control to several high profile projects across the country, and awarded the "Professional Associate" recognition by HDR leadership.

EDUCATION

Bachelor of Science, Sociology, Illinois State University, 1992

Associate of Arts, Liberal Arts/Science, Oakton Community College, 1990

REGISTRATIONS

Professional Transportation Planner, Illinois, #430, 2013

INDUSTRY TENURE

28 years

RELEVANT EXPERIENCE

Michigan DOT, Chicago to Detroit/Pontiac Passenger Rail Corridor Investment Plan, MI. HDR Project Manager. The 305-mile corridor between Chicago and Detroit/Pontiac via Indiana is part of the Midwest Regional Rail Initiative and is a federally-designated high-speed rail corridor. The project work supports the phased implementation of 10 intercity passenger rail round trips daily, at up to 110 mph. HDR, as subconsultant to another firm, assisted in the preparation of the Draft Environmental Impact Statements (DEIS) which was published in 2014. Janice led the impact analysis for certain environmental categories, oversaw the development of the Service Development Plan, operations modeling, and cost/benefit analysis.

Detroit Department of Transportation. Coolidge Terminal and Maintenance Facility, NEPA and Design, Detroit, MI. Environmental Lead. HDR is providing NEPA and design services to the City of Detroit for the construction of a new bus storage and maintenance facility. Janice is leading the Environmental Assessment for the project. Modern, 40-foot buses and longer 60-foot articulated buses require maintenance bays designed for today's low-floor boarding. The facility will have the capacity to store and service up to 250 buses; 24 hour operations; 1,000 bus drivers, maintenance, operations and administrative personnel; and up to 450 parking spaces. The facility will be constructed on the existing Coolidge Terminal site, which has not been used since 2012. The building is eligible for the National Register of Historic Places, and HDR is supporting FTA and DDOT in consultation with the SHPO. The site also contains several underground tanks and other special waste indicators, necessitating Phase I and II Environmental Site Assessments. $150M Construction Estimate.

Northern Indiana Commuter Transportation District, Double Track NWI New Starts Project, NEPA and Engineering, Northwest IN. Project Manager. HDR prepared preliminary design, cost estimates, an Environmental Assessment and Finding of No Significant Impact, and conducted public involvement in the first phase of this project. The Team prepared FTA New Starts grant documentation for a $460 million, 26-mile double track expansion of the South Shore Line between Gary and Michigan City, Indiana. Janice managed all aspects of NEPA, client and FTA-environmental interface, agency coordination, and public engagement. The project is adjacent to the Indiana Dunes National Park, thereby requiring coordination with and approvals from the National Park Service. No Park property will be permanently disturbed as part of the project, but temporary use of Park property near stream culverts is required. Janice also led the coordination with the US Army Corps of Engineers, US Fish and Wildlife Service, US Environmental Protection Agency, the Indiana Department Natural Resources and State Historic Preservation Officer. The project adversely effects 27 historic properties in Michigan City, resulting in a Memorandum of Agreement with the SHPO, as well as an Individual Section 4(f) determination.

Northern Indiana Commuter Transportation District, NEPA, Engineering and Program Management for West Lake Corridor Project-Hammond to Dyer, Chesterton, IN. Northern Indiana Commuter Transportation District, NEPA, Engineering and Program Management for West Lake Corridor Project-Hammond to Dyer, Chesterton, IN.

REID (CONTINUED)

Environmental Lead. HDR prepared preliminary design, cost estimates, a Final EIS/Record of Decision, public involvement, and FTA New Starts grant documentation for a new $933 million, 8-mile southern extension of the existing South Shore Line. FTA issued the ROD in March 2018. At the conclusion of the NEPA and engineering phase, HDR was awarded the Program Management Consultant contract, and Janice continues to serve as the Environmental Lead, preparing environmental-related procurement documents for the design/build project. As the design-build process continues, Janice is responsible for environmental mitigation monitoring and reporting, permitting, and implementing the stipulations of the Memorandum of Agreement with the SHPO.

City of Moline, Transit-Oriented Development Study, City of Moline, IL.
Project Manager. The study included conceptual planning for a new intermodal transit Center in Moline to serve the future Chicago - Quad Cities Amtrak service. Centre Station currently serves as a major regional bus transfer station/terminal. HDR's duties focused on documenting existing conditions, ridership, program needs for transit modes and funding strategies.

Illinois Department of Transportation, Chicago Region Environmental and Transportation Efficiency Program (CREATE) Environmental Documentation, Chicago, IL.
Environmental Lead + Deputy Project Manager. The CREATE multi-modal program (freight, commuter and passenger rail along with highway) capitalizes on a rare, but fragile spirit of collaboration amongst competitors to provide significant benefits to the Chicago region and the nation. Six Class I Railroads; the American Association of Railroads; Illinois Department of Transportation; Chicago Department of Transportation; Metra; and the Federal Highway Administration are all involved in CREATE. Janice led the development of environmental documentation for seven CREATE projects. The process involved the development of Environmental Class of Action Determination documents (ECADs) to ensure categorical exclusions and documents are processed in accordance with the National Environmental Policy Act (NEPA) and IDOT Bureau of Design and Environmental guidelines. The projects required coordination with the sponsoring railroad, adjacent railroads, City of Chicago, IDOT, FHWA and permitting authorities. Detailed studies were conducted for certain projects where special waste, noise and vibration, and/or environmental justice populations were involved.

Illinois Department of Transportation, Central Avenue/BRC Railroad Grade Separation Phase I Study, Chicago, IL.
Environmental Lead. HDR is conducting a Phase I Study for the grade separation of Central Avenue and the BRC Railroad. The project involves the relocation of several homes and businesses along the busy Central Avenue/ Archer Avenue corridors. I am leading the production of the Environmental Assessment.

Iowa Department of Transportation, Chicago to Council Bluffs-Omaha Regional Passenger Rail Study, Tier I Environmental Impact Statement, IA.
Environmental Quality Control/Quality Assurance for the Service-Level Tier 1 Environmental Impact Statement (EIS) document for new passenger rail service on the Chicago to Council Bluffs/Omaha Corridor. The Corridor would implement 470 miles of new state-supported intercity passenger rail between Chicago, Illinois and Omaha, Nebraska. I also assisted in Agency Scoping and Public Involvement. The Record of Decision was issued by FRA in August 2013.

Metra, BNSF Extension Environmental Assessment, Oswego, IL.
Project Manager. Metra has been working with Kendall County and the communities of Montgomery, Oswego, Yorkville, Plano and Sandwich, Illinois on the development of a proposed extension of Metra's busiest commuter line from Aurora. The project is needed to meet the needs of the growing population of southwestern Kane County and Kendall County, and relieve parking congestion at existing Metra stations. The project will include at least three new stations, a new commuter rail yard, and track and signal improvements.

Michigan Department of Transportation, Chicago to Detroit/Pontiac Passenger Rail Corridor Investment Plan, IL, IN, MI.
Project Manager. The 305-mile corridor between Chicago and Detroit/Pontiac via Indiana is part of the Midwest Regional Rail Initiative and is a federally-designated high-speed rail corridor. The project work supports the phased implementation of 10 intercity passenger rail round trips daily, at up to 110 mph. HDR, as subconsultant to another firm, assisted in the preparation of the Draft Environmental Impact Statements (DEIS) which was published in 2014. HDR led the impact analysis for certain environmental categories, developed the Service Development Plan and performed operations modeling and cost/benefit analysis.

Anne Cron, APR

Grants/Planning & Public Involvement

Anne is a skilled communication strategist who has expertise in message construction, community engagement and collaborative solution creation. She has extensive experience facilitating large community groups and is able to assist clients and their stakeholders to find consensus, engage in substantive decision-making and achieve greater project buy-in. Prior to her tenure with HDR, Anne was a K-12 community engagement administrator and served as president to the over 200-member Michigan K-12 communications association. Her strategic communications plans served to address issues around water clean-up, infrastructure creation and updates, public health and safety concerns, and accessibility and equity. As a manager at the Ann Arbor HDR office, she is responsible for leading strategic communication efforts for Michigan clients, with additional support for projects across the Midwest. Anne is truly a team player who can lead and assist clients as they create strong plans and community-supported solutions.

EDUCATION
Bachelor of Arts, Journalism, Oakland University, Rochester, MI, 2002

REGISTRATIONS
Accreditation in Public Relations, 2023

Public Relations Society of American

INDUSTRY TENURE
22 years

RELEVANT EXPERIENCE

Michigan Department of Transportation, MDOT M-14 Barton Drive Interchange PEL, Lansing, MI.
Strategic Communications Lead for Public Engagement meetings. Public Engagement efforts included in-person farmers market public meeting, virtual website meetings and various avenues to provide feedback. The project includes evaluating interchange modifications and safety improvements to a historically challenged area covering limited access, complex weaving ramps, and local roadways, parks/greenery and residential areas adjacent the M-14/US-23 and Barton Drive Interchange. HDR leads the stakeholder and public engagement efforts throughout the study (Scheduled to end 2022)

City of Grand Haven, Renew Harbor Island - Community Engagement, Grand Haven, MI.
Strategic Communications Lead. Following the discovery of PFAs and other toxic materials on Harbor Island, the site of a former power plant and trash dump, HDR was hired to complete the necessary clean up. Anne has led Community Advisory Group (CAG) meetings to support the City of Grand Haven with a proactive approach with the community throughout the project. Prior to the CAG creation, neighbors, residents, officials and community members made their presence known at city meetings where they not only voiced displeasure but showed potential to be a part of the solution. Under Anne's leadership, HDR Strategic Communications members developed and led the Renew Harbor Island Community Advisory Group, aimed at keeping the community informed and supportive partners throughout and following the clean-up. Anne's role includes the development of FAQs, website content, presentations for members and guided facilitation to achieve desired objectives.

Confidential Client, Website content, Confidential Location.
Communications Advisor. Working with the client, HDR provides on-call advisory support for communications and outreach strategy related to communicating technical data to the public. The client has a variety of short term and ongoing projects that require one-way and two-way communications with the area community. These projects impact quality of life and livelihood, making strong communications not only a benefit, but a necessity to the successful implementation. Anne has provided website content options and graphic solutions to make projects more accessible to the public.

Des Moines Water Works (DMWW), 2021 Strategic Planning Facilitation, Des Moines, IA.
HDR is supporting DMWW in gathering insights and data to inform and facilitate the development of the utility's 2021 Strategic Plan. The approach offers a multi-faceted mixed methodology that leverages data from multiple sources to produce a comprehensive understanding of community, customer and employee input. The project includes data collection and community assessment methods such as a community and stakeholder surveys, Community Advisory Group, desktop analysis using community data assessment and social listening, utility benchmarking, employee/ retiree virtual listening tours, and management team oversight and decision-making. Anne provided outreach material creation, scripts and initial event coordination information to support public meetings.

CRON (CONTINUED)

Invenergy GBX PO4, Grain Belt Express transmission project.
HDR Strategic Communications is providing ongoing strategic communications support to Invenergy, LLC for the Grain Belt Express transmission project. The nearly 800-mile, 500+ kilovolt HVDC line spans the states of Kansas, Missouri, Illinois, and Indiana. In November 2019, Invenergy announced its intent to acquire the transmission line and is currently finalizing acquisition process. The project, when built will deliver approximately 4,000 megawatts of low-cost, clean energy from a wind generation source in western Kansas. Clean, reliable energy will be delivered to utilities in Kansas, Missouri others within the region. The HDR StratComm team provides project branding, campaign development and management, key messaging, ongoing stakeholder communications management, and engagement tool development and implementation. She leads the digital campaign and messaging strategy for the project including audience analysis, listening, message construction, and responsiveness. Additionally, HDR is providing ongoing graphic design and materials support, video production, and event planning support for the project. Anne provided comment management and quality control to support public meetings and public research.

Sewerage & Water Board of New Orleans (SWBNO), Communications Support, New Orleans, LA.
HDR supports internal and external communications as an extension of SWBNO's Communications Department. The New Orleans Strategic Communications team pair local experience with national expertise to deliver a broad range of services, including communications planning, protocol development, crisis communications support, content development, graphic design, website development, social media strategy, event coordination, and stakeholder management. Working with the New Orleans Strategic Communications team, Anne provided strategic advising on school relations connected to water quality.

Birmingham Public Schools, Birmingham Public Schools, Beverly Hills, MI.
Anne Cron served as Executive Director of Communications and Family Engagement for Birmingham Public Schools prior to her joining the HDR team. During her 12-year tenure with the K-12 schools, she led two successful bond campaigns ($66 mill and $195 mill) along with three millage renewals and restorations. Her role led communities through focus group sessions to develop key messaging and grass-roots support prior to campaign launches. Anne also served the school community as lead communicator in water remediation work, including communications around legionella, lead and copper. Her general responsibilities included website management and page creation, crisis and topic-specific communication plans, digital accessibility management, privacy and public information officer and other school administrative duties. (Non-HDR experience)

Jon Brooke, PLA (MI)

Grants/Planning

With more than 29 years' experience, 22 in the Chicago region, Jon has expertise in all facets of landscape architecture, planning and design. His passion for the design of Civic spaces is infectious and he believes strongly in the positive ways they support the wellbeing of a community in terms of the health of its people, environment and economy. Jon provides leadership to the site design team, furthering design excellence and quality. He uses the innate ability of landscape architecture to cross disciplines and areas of expertise within the architecture-engineering industry to achieve success through collaboration. Jon is also dedicated to education and is a former instructor of Landscape Architecture at the Illinois Institute of Technology College of Architecture in Chicago.

EDUCATION

Master of Arts, Landscape Architecture, 2020, Leeds Beckett University, UK

Postgraduate Diploma, Landscape Architecture, 1992, Leeds Metropolitan University, UK

Bachelor of Arts, Landscape Architecture, 1990, Leeds Polytechnic, UK

REGISTRATIONS

Professional Landscape Architect:

Illinois, #157-001198

Indiana, #LAR20000306

Michigan, #39010011708

Ohio, #LA.0801198

LEED Accredited Professional

REGISTRATIONS

American Society of Landscape Architects

Lambda Alpha International

INDUSTRY TENURE

29 years

RELEVANT EXPERIENCE

Focal Point Development Plan, Chicago, IL.
Site Design Principal. Urban community hospitals in lower income areas often struggle to serve their communities while maintaining growth and profits. One approach to addressing these is creating a hospital as an extension of the community, and as a place where medical care, social services and community outreach overlap.
Focal Point Community Campus, a mixed-use development on Chicago's Southwest Side is being designed by HDR to help improve the lives of more than 400,000 residents in Southwest Chicago. What began as an idea to build a replacement hospital is now a 300,000 SF, full-scale, mixed-use community campus, with the hospital serving as an anchor to the development.
The architectural design supports the hospital's dual role as anchor and change agent, linked to its environment by a band of food and retail markets, and health-related amenities. These spaces, along with a large park with sports fields and basketball courts, will become a new gateway to the community. Rental income from revenue-generating tenants—such as retail stores and schools, hospitality, and parking, as well as the Hospital and outpatient clinic—will be reinvested into community programs and services such as continuing education, wellness classes, a park and a recreation center.
The Focal Point Community Campus was awarded a 2013 AIA AAH National Healthcare Design Awards in the Master Planning and Urban Design category.
As Site Design Principal, Jon's led the development of site and land use proposals, leading up to fundraising and City Planning approval processes. The project is expected to continue in 2021.

NON-HDR EXPERIENCE

Downtown Streetscape Implementation Phase 1 and 2, Wheaton, IL.
Project Lead. This project comprised of two phases of a 5-year implementation of Wheaton's Downtown streetscape master plan which reimagines the City's core of more than 20 blocks. Focused on providing increased sidewalk space to promote safety for pedestrians, the project increases opportunities for enjoyment of stores and restaurants, increases shade, improves stormwater efficiency and replaces inefficient street lighting and utilities. The new streetscape features two community plazas and "festival streets" that can be closed for events and will ultimately be home to a major farmers market. Jon's role included leading the internal and consultant project team, making presentations to City Council, meeting with City project managers, project design, detail design and specification, quality management, construction phase services.

Downtown Streetscape and French Market Master Plan, Wheaton, IL.
Project Lead. A precursor to the above project, the study finalized preliminary designs for Wheaton's downtown, validated these with the community and City Council, and developed a funding and implementation plan. Jon's role included leading planning and public outreach efforts with internal and consultant team, public workshops and open house sessions, developing preliminary designs and cost estimates, working with client to develop implementation plan for approval by City Council.

BROOKE (CONTINUED)

Mellody Farm Development, Vernon Hills, IL.
Project Lead. In order to counteract the challenges many retailers face from online retail, developers and municipalities need to deliver environments that attract and retain shoppers by providing them with a quality environment and a range of authentic experiences. This commercial development provides a range of retail uses, anchored by Whole Foods Market, within a framework of well-appointed streetscape and richly detailed architecture. As lead of the landscape architectural team that developed landscape architecture and streetscape proposals in collaboration with the developer, architects and engineers, Jon met with the Village to support the approval process and led, detail design specification, quality management and construction phase services for the project.

Forest Park Great Streets Mobility Plan, St. Louis, MO.
Project Manager. More than twice the size of Central Park, the 1,200-acre Forest Park is one of the largest urban public parks in the US. As home to three of the top ten attractions in the State of Missouri, the park attracts 13 million visitors annually. The effects of such a large visitorship on a park located within a city with wide disparities in income and opportunity, present the City and operating foundation with significant challenges related to equity, access, mobility and circulation. These include safe access to facilities via various modes, wayfinding, heavy bike and pedestrian facilities use, programming for large events, traffic congestion and parking issues. The product of a major Great Streets grant from local COG, East-West Gateway, the project used a significant community and stakeholder outreach process to explore issues, and to develop and gain support for various mobility strategies within and around the park. As project manager, Jon led an internal and consultant team that ran workshops and charrettes with the client, stakeholders and park users, developed strategies and budgets and made final recommendations for improvements and implementation.

Bike Facilities Master Plan, Lincolnwood, IL.
Project Planner. As key planner for the project, Jon developed strategies to improve bike access and safety throughout the Village of Lincolnwood, which is crossed by four state routes, two rail lines and a larger power corridor. Although developed in 2005, the Bike Facilities Plan remains the primary bike planning tool used by the community.

Lara Zawaideh, PE (MI), ENV SP

Environmental/Permitting

Lara is a project manager and an environmental engineer in HDR's Ann Arbor office. As project manager, Lara has worked with a variety of clients from public to private entities, small to large industrial facilities, commercial and agricultural clients, public and private power utilities and regulatory agencies. Lara has over 20 years of experience in marketing and engineering in the areas of civil/environmental engineering, project management, environmental assessments (Phase I and Phase IIs), remedial investigation and design, Resource Conservation and Recovery Act (RCRA), industrial stormwater pollution prevention plans (SWPPP), spill prevention control and countermeasures (SPCC) plans, Facility Response Plans (FRP), air emission inventories, and environmental management systems (EMS). Lara works with clients to evaluate and improve their current environmental systems or evaluate new environmental systems based on business and compliance needs.

EDUCATION

Master of Engineering Management, University of Nebraska, Lincoln, 2022

MS, Civil Engineering, University of Nebraska, Lincoln, 1997

BS, Civil Engineering, University of Nebraska, Lincoln, 1995

BCE, Civil Engineering, Jordan University of Science and Technology, 1993

REGISTRATIONS

Professional Engineer:
Michigan No. 6201065363
Nebraska No. E-11855
Illinois No. 062061361
Florida No. 89941
Iowa No. 18129

ISI Envision Sustainability Professional (ENV SP)

INDUSTRY TENURE

29 years

RELEVANT EXPERIENCE

Lansing Board of Water & Light, Program Management Erickson Power Station, Michigan

Lara is the Program Manager at Erickson Power Station to facilitate the expedient closure of the Coal Combustion Residuals (CCR) impoundments and Coal Pile Removal. The program components include General Project Development Support, Site Investigations/ Data Gathering to Support CCR Compliance, Conceptual Design Assistance, Detailed Design Assistance, Procurement Support, Environmental Assessment and Permitting Support, OE Services, and Construction Oversight and Support.

Confidential Energy Client, CCR Rule and Michigan Part 115 Groundwater Compliance at Power Plant, MI

Project Manager. Lara is the Project Manager for CCR Rule Compliance program management at a power plant with multiple bottom ash impoundment CCR facilities. HDR first reviewed existing site data and altered the prior site groundwater conceptual site model after conducting a Hydrogeologic Characterization, which guided the design of the groundwater monitoring network to support compliance with 40 Code of Federal Regulations (CFR) §257.91. HDR developed and implements the groundwater monitoring program for CCR Rule compliance, including design and well installations, Groundwater Monitoring Network Certification, Statistical Methods Procedures Plan, managing data collection, statistics, interpretation and recommendations for Rule compliance, and reporting. HDR is developing the Assessment of Corrective Measures and numerical groundwater flow and transport model. HDR prepared a Feasibility Study to identify and evaluate the potential water treatment options for the CCR unit for continued coal combustion operations after the April 11, 2021 deadline. Developed a Demonstration for alternative closure under 40 CFR §257.103(f). In addition to federal CCR Rule compliance, HDR is assisting this client through the application and permitting to comply with the State of Michigan new Part 115 CCR regulations. HDR developed the Hydrogeologic Monitoring Plan, Assessment Monitoring Plan, Response Action Plan, and reporting to the State. HDR is assisting the client in a Closure Alternatives Study Memo to select an appropriate option to close the CCR impoundments as well as dewatering planning and data collection and clean closure verification work plan development.HDR recently developed Design Basis Documents for a permanent CCR wastewater treatment system and a new non-CCR pond that included permit matrix development and geotechnical investigations. Due to the timing of the expected end of operations, the option of utilizing temporary equipment for treatment of CCR wastewater has been identified and HDR is working with vendors to evaluate cost/benefit. To vet this approach, HDR is identifying system configuration including balance of plant requirements, the associated life cycle cost, and implementation schedule for which the system may be designed, constructed/ mobilized, and commissioned. As a strategic consultant to this client, HDR is continuously developing tasks to assist the client in managing their risk in complying with the CCR Rule and Part 115.

ZAWAIDEH (CONTINUED)

DTE Energy Grosse Ile 2nd FEED, Grosse Ile, MI
Environmental and Permitting Lead. HDR is supporting DTE Energy in the design of a new natural gas distribution pipeline serving Grosse Ile Township, Michigan. Lara is the state lead for the preliminary environmental assessment of the pipeline routes. In her role, Lara was tasked with the development of the permitting matrix of regulatory permits and approvals required for construction. Based on the environmental review, provided recommendation for the applicable permitting along with the timeline associated with gaining regulatory approvals.

Permitting Strategy Matrix, Confidential Development Project, City of Trenton, MI
Environmental permitting lead for a confidential industrial development project in the City of Trenton, Wayne County, Michigan. Responsibilities included the development of a matrix of state and local environmental permits base on a desktop review of the project area. Based on the initial environmental review, HDR provided recommendation for the applicable permitting along with the timeline associated with gaining regulatory approvals.

DTE Fort Street Gas Pipeline, Detroit, MI
Lead state permitting specialist for the design of a new natural gas distribution pipeline serving Detroit, Michigan. Responsible for the preliminary environmental assessment the route and development of a matrix of permits and approvals required in order to construct. The desktop review included current land use, NWI and regulatory floodway and floodplain data, public lands data, streams, waterways, and potential wetlands areas, Michigan Natural Features Inventory (MNFI) Natural Heritage database including Michigan's endangered, threatened, or otherwise significant plant and animal communities, and other natural features; Michigan Economic Development Corporation- State Historic Preservation Office for Registrar of Historic Places and Districts; and State and Federal Threatened and Endangered Species along the project area. The final permitting matrix included the process and the timeline associated with each of the regulatory approvals.

Michigan Department of Natural Resources, Construction Permitting and Sediment Erosion Control Plan, Site Development Thompson State Fish Hatchery (SFH) and Little Manistee Weir, Manistique, MI
Environmental and Permitting Lead. The Thompson SFH and the Little Manistee Weir Facility received upgrades including site development and reworking the existing fish holding pond,. Lara's responsibilities included permitting for upgrades including preparation of a Part 91, Soil Erosion and Sedimentation Control (SESC) as part of the Natural Resources and Environmental Protection Act (NREPA) (Part 91) which provides for the control of soil erosion and protects adjacent properties and the waters of the state from sedimentation. The task included preparing plans and specification for soil erosion and sediment control during construction and preparing the appropriate permitting.

Former BC Cobb Power Generating Facility, Charah Solution, LLC, Muskegon, MI
Environmental and Permitting Lead . Charah Solutions is developing a major Environmental Liability Transfer project which will result in the closure and reclamation of the B.C. Cobb Generating Facility's ash ponds in Muskegon, MI. Lara's responsibilities include development of a permitting strategy for the closure of 10 ponds to comply with state and federal requirements. Lara is overseeing a team of engineers and scientist responsible for permit acquisition and facilitating coordination between the project proponent and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and USACE regarding Joint Permit Application (JPA). Lara was responsible for the SESC Part 91 permit application to Muskegon County which included preparing plans and specification for soil erosion and sediment control during construction.

Andrea Cline, PWS

Environmental/Permitting

Andrea is an accomplished water resource professional with a passion for clean water and incorporating green solutions. She delivers work products with a focus on customer satisfaction, client education, outreach and understanding, and professional products. Andrea has the ability to translate highly technical solutions into a means by which clients may achieve business objectives. Andrea's vast experience includes planning, grant writing and management, project and construction management, environmental compliance permitting, green infrastructure, stormwater best management practices, soil erosion and sediment control, wetlands, community outreach and education.

EDUCATION

Masters, Conservation Biology and Sustainable Development, University of Wisconsin, Madison, 2003

Bachelors Degree, Biology, University of Illinois at Urbana-Champaign (UIUC), 2000

REGISTRATIONS

Professional Wetland Scientist, US, #1808

Certified Professional in Soil Erosion and Sediment Control, US, #4490

INDUSTRY TENURE

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RELEVANT EXPERIENCE

Canadian National Railway, Pontiac Autoport Wetland Delineation Study, Lansing, MI.
Senior Environmental Scientist/PM. HDR performed field investigation and completed a wetland delineation report to inform permitting requirements and improve design decisions.

Canadian National Railway, Lansing Autoport Wetland Study, Pontiac, MI.
Senior Environmental Scientist/PM. HDR to conduct wetland delineation and associated permitting, including a National Pollutant Discharge Elimination System (NPDES) permit, for the construction of the proposed Lansing Autoport extension located south of Davis Highway and west of Guinea Road, near Lansing, Michigan.

PNE Wind USA, Inc. Various Project Sites, Illinois.
Senior Environmental Scientist. HDR was selected to provide site investigation and planning, including environmental services, for three solar photovoltaic projects in Illinois. Andrea led a team of field biologists to complete wetland field delineations including floristic quality assessments, as well as threatened and endangered species habitat surveys, to assist the client in planning for solar farms.

Missouri Department of Transportation, I-70 Wentzville NEPA Re-Evaluation, MO.
Senior Environmental Scientist. HDR is performing the NEPA re-evaluation for the corridor improvements to address clearance and mobility limitations and update existing infrastructure. Includes wetland delineations and reports; threatened and endangered species habitat surveys and reports; and Section 404 permitting.

Illinois Capital Development Board, Veterans Home, Quincy, IL.
Senior Environmental Scientist. The Illinois Capital Development Board is undertaking a large $230M design-build project to replace the State-owned Veteran's Home in Quincy, IL. The project will include two ground up, concrete structure, 3-story buildings (324,000 SF) to provide 340 beds for skilled nursing and domiciliary housing. The project will also include a major renovation of the existing Nielson Dining Hall (50,000 SF). The expansion requires field work, including wetland delineations and permitting.

Champaign Urbana Mass Transit District Illinois Terminal, Champaign, IL.
Senior Environmental Scientist. HDR will assist CUMTD in modernizing the Illinois Terminal by developing a NEPA Environmental Assessment (EA). Andrea contributed to the EA, and completed sections associated with natural resources.

Illinois Department of Transportation, Central Avenue/BRC Railroad Grade Separation Phase I Study, IL.
Senior Environmental Scientist. HDR was selected by IDOT to conduct a Phase I Study for the grade separation of Central Avenue and the BRC Railroad. The three-year study will be conducted using the principles of Context Sensitive Solutions (CSS) for stakeholder involvement engaging a host of City of Chicago agencies and includes the preparation of an Environmental Assessment and Combined Design Report. The engineering and environmental studies will identify and gain approvals for a preferred alternative.

Illinois Farm Bureau, Wetland FactSheet, City, IL.
Senior Environmental Scientist. HDR will develop an informational wetland factsheet that can be distributed to Illinois Farm Bureau members (landowners and producers) to improve awareness as it pertains to Clean Water Act Section 404 permitting and agricultural operations.

Northern Indiana Commuter Transportation District, South Shore Doubletrack Phase II, IN.
Senior Environmental Scientist. HDR is the program manager for the Double Track project,

CLINE (CONTINUED)

overseeing the final design and environmental compliance of over 26-mile-long rail project. Andrea is responsible for overseeing the environmental compliance and ensuring that the NEPA mitigation commitments are met. HDR previously completed the NEPA Environmental Assessment/FONSI.

Northern Indiana Commuter Transportation District, South Shore Doubletrack Ogden Dunes NEPA Re-evaluation, IN.
Senior Environmental Scientist. As part of the program management services provided by HDR, Andrea led the NEPA re-evaluation of the additional Ogden Dunes parcels. Work included wetland assessment and field delineation, threatened and endangered species habitat surveys, and a memorandum of findings.

Northern Indiana Commuter Transportation District, West Lake Corridor Phase II, IN.
Environmental Scientist. HDR is the program manager for the nine-mile rail extension project, overseeing the engineering and environmental work. Andrea is the Environmental Lead, representing NICTD and is responsible for overseeing the environmental compliance and ensuring that the NEPA mitigation commitments are met. The extension of the South Shore Line (SSL), known as the West Lake Corridor, will provide new passenger rail service to three municipalities in Lake County Indiana: Hammond, Munster, and Dyer.

Indiana Department of Transportation, Roadway Rehabilitation Design Services 1904-Item 08), IN.
Environmental Scientist. As a subconsultant to American StructurePoint, HDR is responsible for the approach for SR 3 overlay. Below is a brief description of the overall project. Roadway Rehabilitation Design Services - Two HMA Overlay Minor Structural; One Pavement Replacement and One Small Structure Replacement at various locations in the Seymour District.

NON-HDR EXPERIENCE

Metropolitan Water Reclamation District of Great Chicago's (MWRD), New Comprehensive Stormwater Master Planning Program, Cook County, IL.
Project Manager. Responsibilities included management of program development and developing partnerships with potential funders, municipalities, and an Advisory Committee to guide the program formation.

National Pollutant Discharge Elimination System (NPDES).
Project Lead. Andrea led and supported staff engineers to annually obtain NPDES and local Soil Erosion and Sediment Control permit compliance for over 20 construction sites throughout the Midwest for a single client. Consultation regarding threatened and endangered species and cultural resources was required for each site. Assisted in overseeing the NPDES compliance audit program for client.

CenterPoint, Des Plaines River Bridge, Joliet, Will County, IL.
Project Lead. Andrea led he environmental permitting effort for a design build project to support the largest master-planned inland port in North America. Due to the effects on the navigational channel, the U.S. Coast Guard was the lead federal agency and the project required a bridge permit, as well as Clean Water Act Section 404 permit. Andrea worked closely with the client, design build team, and the regulatory agencies to help obtain environmental permits and clearances in a timely manner.

Pulte Homes, Various Project Sites, Illinois.
Municipal National Pollutant Discharge Elimination System; soil erosion, and sediment control inspector; field biologist. Andrea provided construction oversight for threatened and endangered species during construction; wetland identification and restoration expertise; development and compliance permitting; and construction and soil erosion and sediment control oversight. (Christopher B. Burke Engineering, Ltd., Rosemont, IL.)

Lakewood Homes, Various Project Sites, Illinois.
Municipal National Pollutant Discharge Elimination System, soil erosion, and sediment control inspector. Andrea provided wetland identification and restoration expertise; development and compliance permitting; and construction and soil erosion and sediment control oversight. (Christopher B. Burke Engineering, Ltd., Rosemont, IL.)

Bryce Burkett, PE (MI)

Geotechnical

Bryce has more than 10 years of experience as an engineering consultant, including extensive work with geotechnical field and instrumentation explorations relating to oil and gas, industrial, and municipal projects. He has managed and coordinated large field exploration and instrumentation programs for various oil and gas and environmental related projects along the Gulf Coast and in the Midwest. He also has significant experience in shallow and deep foundation design and remediation, slope stability and settlement analysis, pavement design, building distress assessments, and deep foundation installation and load testing. Bryce has supported numerous project initiatives including petrochemical and industrial facilities, storage tank farms, coal combustion residual (CCR) site remediation, large diameter water line installation, dredge material placement areas, dams, pump stations, intake structures, levees, ship and barge docks, and bulkheads.

EDUCATION

Masters, Civil Engineering (Geotechnical Engineering), University of Texas at Austin, 2013

Bachelors Degree, Civil Engineering, Louisiana State University, 2009

REGISTRATIONS

Professional Engineer - Civil, Michigan, US, #6201066757, JAN-2023

Professional Engineer - Civil, Louisiana, US, #39785, SEP-2023

Professional Engineer - Civil, Texas, US, #118702, SEP-2023

Professional Engineer, North Carolina, US, #054264, DEC-2023

NCEES, US, #15-422-92, No data entered.

Professional Engineer, Virginia, US, #0402065367, JUN-2024

INDUSTRY TENURE

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RELEVANT EXPERIENCE

Former BC Cobb Power Generating Facility, Charah Solution, LLC, Muskegon, MI.
Geotechnical Project Manager. HDR provided CCR Rule Compliance program management for Charah. HDR managed groundwater data collection, provided the client interpretations and recommendations for Rule compliance, and authored compliance reporting. In addition to federal CCR Rule compliance, HDR assisted this client through the application and permitting to comply with the State of Michigan new Part 115 CCR regulations, including development of the Hydrogeologic Monitoring Plan. HDR provides engineering and environmental documentation needed for the closure of 10 ash ponds located adjacent to Waters of the State to comply with state and federal requirements. HDR is providing clean closure verification methodology development to comply with both the CCR Rule and State closure regulations. HDR is responsible for verification of ash removal from excavation area in accordance with EGLE approved closure plans utilizing multiple lines of field evidence. HDR performed stability modeling for the ponds to evaluate slurry wall.

City of Grand Haven, Harbor Island Env Consulting, Grand Haven, MI.
Geotechnical Project Manager. Roles included overseeing the closure of the previously closed coal yard at the site and developing delineation and construction of the North Channel area. Field investigations included geotechnical sampling and advanced laboratory testing.

DTE Energy, Fort Street Main Replacement, Detroit, MI.
Field Support. DTE Energy is conducting a multi-phased, large main replacement project to improve safety and reliability to the downtown area of Detroit. The project includes the installation of 24-, 20-,16-, and 12-inch-diameter high-pressure pipe, multiple regulator stations, and high-pressure commercial services. As the lead consultant on the project, HDR is providing detailed survey, utility and geotechnical investigations, route evaluation, engineering design, trenchless engineering, environmental, and permitting and coordination for each phase of the project.

DTE Energy, Grosse Ile 2nd Feed Engineering, Gross Ile Township, MI.
Geotechnical Field Oversight. HDR is currently conducting preliminary environmental assessment as part of the overall gas pipeline route design by conducting a desktop review of topographic and aerial photograph base maps for the project area utilizing our state-of-the-art GIS Analytical Web Mapping tool. HDR will overlay digital National Wetland Inventory (NWI) regulatory floodway and floodplain data, public lands data, and other locally available data for Wayne County, Michigan to assess environmental conditions.
HDR will provide DTE with web map access, which will allow DTE to interact with the mapping tool to show preferred routes in relation to environmental features. HDR will also provide DTE a report of findings from the desktop review that includes the following. Following mapping and the initial environmental assessment, HDR will complete a regulatory review and permit evaluation of the proposed project work as it relates to the following federal, state, and local environmental regulations, etc.

BURKETT (CONTINUED)

Confidential Client, BESS Feasibility Study, Michigan.
Geotechnical Project Manager. As part of initial development efforts for the energy storage project, HDR completed the feasibility study to evaluate the suitability of installing energy storage equipment at three separate sites. HDR worked with the utility to assess three existing Peaker locations to determine land availability for the installation of a 14MW 56MWH energy storage facility. Our team also provided budgeting, project development, and benchmarking services. Bryce developed the geotechnical scope of work, provided field oversight, and provided geotechnical design recommendations for the BESS structures.

Confidential Client, Confidential CCR Project, Lansing, MI.
Geotechnical Project Manager. The project included completing a review of the geology and hydrogeology of the site. HDR prepared a Hydrogeologic Characterization Report to document the available data on hydrogeologic resources. The hydrogeology of the site is guiding the design of the groundwater monitoring network to support compliance with a federal regulation. The project includes assessing the hydrogeologic conditions of the site and recommending locations and depths of new groundwater monitoring wells. The scope of work includes preparing well design specification and providing technical support for field staff during the drilling of the monitoring well system. HDR is assisting the client with additional Michigan Department of Environment, Great Lakes, and Energy (EGLE) requirements as the project progresses. Bryce performed annual inspections and updated compliance reporting in accordance with EPA Rule 257. Additionally, Bryce developed and performed geotechnical engineering services for various modifications to the site.

Lansing Board of Water and Light, Erickson Power Station Decommissioning, Lansing, MI.
Impoundment Closure Designer. HDR developed the design for the closure of three existing CCR impoundments and coal yard. Services included developing plans and specifications to excavation, dispose, and verify CCR and coal removal to meeting EPA compliance.

Lansing Board of Water and Light, Wastewater Treatment Upgrades, Michigan.
Geotechnical Project Manager. Geotechnical services included developing and performing a geotechnical field and laboratory program and providing tank foundation recommendations along with supplementary structure foundation recommendations as well as slope stability design for a new water holding pond.

BRENT J. EVERITT, P.S.

ROLE ON THIS PROJECT: Lead Surveyor
YEARS OF EXPERIENCE: Spicer Group – 0.5 | Other Firms - 16

GENERAL EXPERIENCE AND QUALIFICATIONS

As a Project Surveyor, Mr. Everitt is directly involved with every aspect of the projects he oversees including project scope, budget, schedule, plans, calculation, review, and deliverables. He has a clear understanding of project needs that are required to create a complete deliverable. Brent is constantly striving to make sure that projects are performed efficiently with his direct approach for the most common-sense results.

Although new to Spicer Group, Brent has a vast background with a wide range of experience in design that includes numerous urban and freeway transportation projects. With Brent's experience, he has the knowledge and ability to manage a full range of project complexities, while being able to communicate and solve design issues with the project team. Brent's background ensures all work is conducted skillfully, in a timely manner and has been through the proper checks and balances to assure quality.

EDUCATION

Bachelor of Science in Surveying Engineering, Ferris State University, 2010

LICENSES/REGISTRATION

Professional Surveyor: Michigan, 2014 (62012)

ADDITIONAL TRAINING

- CPR/First Aid/AED
- OSHA 10 Hour Construction Safety and Health

SIMILAR EXPERIENCE	
US-23 Tawas CS 35022 JN 210956PE Year: 2023 Location: Arenac County Vendor Role: Prime	Project Manager- responsible for full MDOT Design Survey including, legal alignment and ROW from three hundred feet south of bridge of the Tawas River (including all of 9th St.) to seven hundred feet northeasterly of Tawas Beach Road. Project includes intermediate and vertical control, full utility inventory, Conventional and LiDAR mapping, all easements that extend to the water's edge, and a complete MDOT portfolio submittal in ORD and the latest workspace. Client Contact: MDOT, Ron Harris P.S. (517) 241-0648 Service Budget: $343,760.37 Construction Budget: N/A
M-66 over the Muskegon River CS 67031 JN 203489 Year: 2022 Location: Osceola County Vendor Role: Prime	Project Surveyor - responsible for the overall Hydro Survey of M-66 over the Muskegon River. Project included full intermediate control, all road and bridge mapping including the river bottom mapping, road and bridge alignments with ROW, and full 3D terrain development. Client Contact: MDOT, Tony Milanowski, P.S. (517) 241-0648 Service Budget: N/A Construction Budget: N/A

BRENT J. EVERITT, P.S.

SIMILAR EXPERIENCE	
M-66 over the Doc and Tom Drain CS 67031 JN 211436 Year: 2022 Location: Osceola County Vendor Role: Prime	**Project Surveyor** - responsible for the overall Hydro Survey of M-66 over the Doc and Tom Drain. Project included full intermediate control, all road and bridge mapping including the river bottom mapping, road and bridge alignments with ROW, and full 3D terrain development. **Client Contact:** MDOT, Tony Milanowski, P.S. (517) 241-0648 **Service Budget:** N/A **Construction Budget:** N/A
I-96 at Grand River Avenue Interchange CS 47065 JN 210679PE Year: 2021 Location: Livingston County Vendor Role: Prime	**Staff Surveyor** – responsible for the Road Design Survey, Right of Way, Structure, and Hydraulic Surveys for the Grand River Interchange at I-96 in the city of Brighton. Tasks included Mobile LiDAR acquisition and extraction for all hard surface, ramps, and cross-roads. Horizontal and vertical control set to MDOT Standards of Practice. Supplemental mapping performed using conventional techniques (GPS and Total Station) of the LiDAR obscured areas, and utility mapping including supplemental topography along ditch, culverts, and other areas not visible to LiDAR. **Client Contact:** MDOT, Dave Bowerman, P.S. (517) 241-0648 **Service Budget:** N/A **Construction Budget:** N/A
US-23 at Plank Road Interchange CS 58033 JN 205508 Year: 2021 Location: Monroe County Vendor Role: Prime	**Staff Surveyor** – responsible for the Road Design, Right of Way, and Structure Surveys for the Plank Road Interchange at US-23 in the City of Milan. Tasks included Mobile LiDAR acquisition and extraction for all hard surface, ramps, and cross-roads. horizontal and vertical control set to MDOT Standards of Practice. Supplemental mapping performed using conventional techniques (GPS and Total Station) of the LiDAR obscured areas, and utility mapping including supplemental topography along ditch, culverts, and other areas not visible to LiDAR. **Client Contact:** MDOT, Dave Bowerman, P.S. (517) 241-0648 **Service Budget:** N/A **Construction Budget:** N/A
I-69 / Lapeer County CS 44044 JN 204418 Year: 2021 Location: Lapeer County Vendor Role: Sub	**Staff Surveyor** - performed two Design Surveys for WSP, both of which were approximately ten miles long. One Road Design Survey stretched from Newark Road east to the county line, while the other that included Road Design and Right-of-Way Surveys, stretched from M-24 to just shy of the Lake Pleasant Interchange. Tasks included Mobile LiDAR acquisition and extraction for all hard surface, ramps, and cross-roads. Horizontal and vertical control set to MDOT Standards of Practice. Supplemental mapping performed using conventional techniques (GPS and Total Station) of the LiDAR obscured areas, and utility mapping including supplemental topography along ditch, culverts, and other areas not visible to LiDAR. **Client Contact:** WSP, Matt Wendling, P.E. (313) 202-1175 **Service Budget:** N/A **Construction Budget:** N/A
I-96 / Bridges CS 82123 JN 129149, 130174PE Year: 2020 Location: Wayne County Vendor Role: Sub	**Staff Surveyor** - project included Structure Surveys of bridges along the I-96 corridor along with approach mapping. Role included Mobile LiDAR acquisition and extraction for all hard surface and structure information. Validation of bridge structures was done with hard measurements, and supplemental mapping taken where needed for soft surface, utilities, and drainage, all in current MDOT Horizontal and Vertical Datum. **Client Contact:** C2AE, Al Kaltenthaler, P.E. (866) 454-3923 **Service Budget:** N/A **Construction Budget:** N/A

NATHAN P. PFENNINGER, P.E.

ROLE ON THIS PROJECT: Construction Engineer
YEARS OF EXPERIENCE: Spicer Group – 11 | Other Firms – 0.5

GENERAL EXPERIENCE AND QUALIFICATIONS

Mr. Pfenninger's work experience includes project management, office technician, design, and inspection and material testing for MDOT and Local Agency Projects. He has experience overseeing multiple technicians and managing construction projects in the field and from the office. He is well versed in MDOT standard procedures and has been an integral part of successful large-scale projects such as the US-23/I-96 Interchange Reconstruct and Zilwaukee Bridge Bearing Replacement project. He is highly experienced in road and bridge rehabilitation and reconstruction projects. His material testing experience includes density testing on granular and aggregate materials and concrete testing for road and bridge construction.

EDUCATION

Bachelor of Science in Civil Engineering, Michigan Technological University, 2010

LICENSES/REGISTRATION

Professional Engineer: Michigan, 2017 (65226)

ADDITIONAL TRAINING

- Troxler Nuclear Testing Safety
- MDOT Density Technology
- MDOT Hot Mix Asphalt Paving Operations
- MDOT Concrete Paving Inspection
- Michigan Concrete Association Concrete Field Testing Technician Level I
- American Concrete Institute Concrete Field Testing Technician: Grade I
- Michigan Certified Aggregate Technician Sampling Only
- OSHA 10 Hour Construction Safety and Health
- Storm Water Management: Construction Site
- Soil Erosion Sedimentation Control Plan Review and Design
- MDOT Computerized Office Technician
- MDOT Modern Survey Technology for Construction
- American Red Cross First Aid/CPR/AED
- MDOT Prevailing Wage Training
- FieldManager
- MDOT Bridge Construction/Rehabilitation
- MDOT Bridge Paint School
- Materials Acceptance Seminar
- PASER Training
- Pavement Surface Evaluation and Rating Training
- IBR System for Rating Unpaved Roads
- Prevailing Wage Training

SIMILAR EXPERIENCE	
West Vermontville Highway over Thornapple River **CS** 23000 **JN** 209875 **Year:** 2022 **Location:** Eaton County **Vendor Role:** Full Construction Engineering	**Project Manager** responsible for day-to-day managing, coordination, and communication with the contractor and the technicians for the West Vermontville Highway over Thornapple River. Project included bridge rehabilitation including replacement of the asphalt wearing surface, repair railing, waterproof membrane, and approach work. **Client Contact:** Eaton County Road Commission, Mathew Hannahs, P.E. (517) 543-1630 **Service Budget:** $47,360 **Construction Budget:** $418,700
Maple Street over Manistee River **CS** 51000 **JN** 209842 **Year:** 2022 **Location:** Manistee County **Vendor Role:** Full Construction Engineering	**Project Engineer** responsible for verifying that all requirements of the plans and specifications are being met, communicates crucial data such as changes in the schedule, contractor claims, traffic/mobility issues and lane closures for the Maple Street (Washington Street) over Manistee River. Project included bridge rehabilitation includes epoxy overlay, cleaning and coating structural steel and concrete patching. **Client Contact:** City of Manistee, Heather Pefley, P.E. (231) 398-2803 **Service Budget:** $177,500 **Construction Budget:** $858,800

NATHAN P. PFENNINGER, P.E.

SIMILAR EXPERIENCE	
US-23/M-13 Rehabilitation **CS** 06041 **JN** 126951 **Year:** 2022 **Location:** Arenac County **Vendor Role:** As-Needed Construction Engineering	**Project Manager** responsible for day-to-day managing, coordination, and communication with the contractor and the technicians for rehabilitation of US-23 and M-13 in Standish. Project included 6.40 miles of hot mix asphalt cold milling and two course bituminous resurfacing and bridge rehabilitation includes deck patching, epoxy overlay, joint replacement, railing replacement, deck replacement, beam end repair, full and partial painting, substructure repair, concrete surface coating and approach work on 19 bridges on various routes. **Client Contact:** MDOT Bay City, Paul Schiefer, P.E. (989) 671-1555 **Service Budget:** $325,000 **Construction Budget:** $38,050,000
Center Street over the Sebewaing River **CS** 32000 **JN** 206075 **Year:** 2022 **Location:** Village of Sebewaing **Vendor Role:** Full Construction Engineering	**Project Engineer** responsible for verifying that all requirements of the plans and specifications are being met, communicates crucial data such as changes in the schedule, contractor claims, traffic/mobility issues and lane closures for Center Street over the Sebewaing River. Project included Deck epoxy overlay, epoxy healer/sealer of sidewalk, deck patching, sidewalk concrete patching and pavement markings. **Client Contact:** Village of Sebewaing, Matt Bumhoffer,P.E. (989) 883-2150 **Service Budget:** $17,466 **Construction Budget:** $82,800
I-75 and M-46 Design Build **CS** 73111 **JN** 127021 **Year:** 2020-2022 **Location:** Saginaw County **Vendor Role:** As-Needed Inspection and Testing	**Interim Project Manager** responsible for day-to-day managing, coordination, and communication with the contractor and the technicians for I-75 and M-46 Design Build. Project included 2.4 miles of reconstruction and widening on I-75 from Hess Avenue to I-675 and reconstruction of M-46, reconstruction of the I-75/M-46 interchange and replacing structures at M-46 over I-75 and at I-75 over LSRC/CSX Railroad. **Client Contact:** MDOT Bay City TSC, Paul Schiefer, P.E. (989) 671-1555 **Service Budget:** $239,000 **Construction Budget:** $61,500,000
Poseyville Road **CS** 56000 **JN** 129774 **Year:** 2021 **Location:** Midland County **Vendor Role:** Full Construction Engineering	**Project Manager** responsible for day-to-day managing, coordination, and communication with the contractor for Poseyville Road from Gordonville Road to the south city limits of Midland. Project included 1.98 miles of hot mix asphalt cold milling and resurfacing, concrete curb, gutter and sidewalk ramps, and pavement markings. **Client Contact:** Midland County Road Commission, Jonathan Myers, P.E. (989) 687-9060 **Service Budget:** $122,800 **Construction Budget:** $1,200,000
US-127 from French Road to Maple Rapids Road **CS** 19132 **JN** 207754 **Year:** 2021 **Location:** Clinton County **Vendor Role:** Full Construction Engineering	**Project Manager** responsible for day-to-day managing, coordination, and communication with the contractor and the technicians for US-127 from French Road to Maple Rapids Road. Project included 4.20 miles of concrete pavement indirect left turns with loons, extending concrete left turn lanes to crossroads and constructing concrete right turn lanes. **Client Contact:** MDOT Lansing TSC, Mike Meyer, P.E. (517) 335-3754 **Service Budget:** $260,000 **Construction Budget:** $2,172,000
Davis Road **CS** 73024 **JN** 130442 **Year:** 2020-2021 **Location:** Saginaw County **Vendor Role:** Full Construction Engineering	**Project Manager & Office Technician** responsible for FieldManager documentation, materials, Inspector Daily Report review, generating pay estimates, contract modifications, and reviewing all MERS documentation for Davis Road. Project included 2.10 miles of hot mix asphalt reconstruction, concrete curb and gutter, ditching, culverts, storm sewer, signing and pavement markings. **Client Contact:** Saginaw County Road Commission, Daniel Armentrout, P.E. (989) 752-6140 **Service Budget:** $303,800 **Construction Budget:** $4,235,000

04 Rate Schedule

Schedule of Hourly Professional Service Billing Rates 2023

STAFF CLASSIFICATION	BILLING RATE
Project Manager II	$159.50
Project Manager III	$188.50
Project Manager IV	$232.00
Civil Engineer I	$101.50
Civil Engineer II	$130.50
Civil Engineer III	$180.00
Civil Engineer IV	$223.30
Engineering Technician I	$72.50
Engineering Technician II	$116.00
Engineering Technician III	$159.50
Traffic Engineer II	$116.00
Traffic Engineer III	$159.50
Traffic Engineer IV	$217.50
Structural Engineer II	$145.00
Structural Engineer III	$185.00
Structural Engineer IV	$217.50
GIS Specialist	$135.00
Communications Specialist II	$89.00
Communications Specialist V	$174.00

STAFF CLASSIFICATION	BILLING RATE
Transportation Planner I	$110.00
Transportation Planner II	$130.50
Transportation Planner III	$174.00
Transportation Planner IV	$261.00
Environmental Engineer IV	$227.00
Landscape Architect I	$101.50
Landscape Architect II	$130.50
Landscape Architect III	$159.50
Landscape Architect IV	$203.00
Admin/Clerical I	$85.00
Admin/Clerical II	$99.00
Admin/Clerical III	$120.00
Admin/Clerical IV	$145.00
Spicer Classications	
Project Surveyor II	$225.00
Crew Chief I	$144.00
Survey Technician	$94.00
Construction Manager II	$178.00
Construction Services Technician I	$115.00

Notes:

- Rates in US dollars and in effect through December 31, 2023, subject to increase thereafter.
- Rates include labor rate, overhead, profit and escalation.
- Labor rates for additional specialty consulting services (e.g. expert witness testimony, etc.) provided upon request.
- HDR will, on occasion, utilize contract employees on projects in order to accommodate schedules and peak workload. Contract employees will be invoiced at the standard HDR rate corresponding to their position classification.

Schedule of Reimbursable Expenses
2023

Per Unit Expenses:

Automobile travel, rate per mile Standard IRS Business Mileage Rate

Items invoiced at actual cost include:

Postage, express delivery, copies, field materials, travel expenses

05 Proof of Insurance

Sample Certificate of Insurance

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 06/02/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Willis Towers Watson Midwest, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	CONTACT NAME: Willis Towers Watson Certificate Center PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@willis.com
INSURED HDR Michigan, Inc. 1917 South 67th Street Omaha, NE 68106	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: Liberty Mutual Fire Insurance Company — 23035 INSURER B: Ohio Casualty Insurance Company — 24074 INSURER C: Liberty Insurance Corporation — 42404 INSURER D: INSURER E: INSURER F:

COVERAGES — CERTIFICATE NUMBER: W24977703 — REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR X Contractual Liability GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:			TB2-641-444950-032	06/01/2022	06/01/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 1,000,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY			AS2-641-444950-042	06/01/2022	06/01/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 2,000,000 $ $ $
B	UMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0			EUO(23)57910363	06/01/2022	06/01/2023	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: No If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WA7-64D-444950-012	06/01/2022	06/01/2023	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Sample

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) — The ACORD name and logo are registered marks of ACORD

SS ID: 22658058 BATCH: 2547319

ACORD

CERTIFICATE OF LIABILITY INSURANCE

6/1/2023

DATE (MM/DD/YYYY) 6/1/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000 ketsu@lockton.com	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:
	INSURER(S) AFFORDING COVERAGE — NAIC #
INSURED 1429583 HDR MICHIGAN, INC. 5405 DATA COURT ANN ARBOR MI 48108	INSURER A : Lloyds of London INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 18584305 **REVISION NUMBER:** XXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY CLAIMS MADE / OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / PRO-JECT / LOC OTHER:			NOT APPLICABLE			EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $
	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY			NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
	UMBRELLA LIAB / OCCUR EXCESS LIAB / CLAIMS-MADE DED / RETENTION $			NOT APPLICABLE			EACH OCCURRENCE AGGREGATE $	$ XXXXXXX $ XXXXXXX $ XXXXXXX
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N / N/A If yes, describe under DESCRIPTION OF OPERATIONS below			NOT APPLICABLE			PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ XXXXXXX $ XXXXXXX $ XXXXXXX
A	ARCH & ENG PROFESSIONAL LIABILITY	N	N	P001412200	6/1/2022	6/1/2023	PER CLAIM: $1,000,000 AGGREGATE: $1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

18584305
SAMPLE

CANCELLATION See Attachment

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Joseph M Agnello

Attachment Code: D608624 Master ID: 1429583, Certificate ID: 18584305

This endorsement, effective: 06/01/2022 12:01 A.M.

Forms a part of policy no.: P001412200

Issued to: HDR, Inc

By: Lloyd's of London

NOTICE OF CANCELLATION TO CERTIFICATE HOLDERS ENDORSEMENT

Except respect cancellation non-payment premium (10 day notice cancellation), the **Insurer** shall give day notice cancellation the Certificate Holder(s) set forth herein, provided that:

The **First Named Insured** is required by contract give notice cancellation the Certificate Holder, and

Prior the **Insurer** sending notice cancellation the **First Named Insured** the **First Named Insured** shall provide the **Insurer** in writing, either directly or through the **First Named Insured** broker record, the name each person or organization requiring notice cancellation and the corresponding address such person orther employee responsible receipt of notice of cancellation on behalf of such organization.

Notice cancellation be sent in accordance the terms and conditions the policy, except that the **Insurer** may provide written notice individually or collectively the Certificate Holders by email at the current email address given by the **First Named Insured** Proof sending the notice of cancellation by email shall be sufficient proof of notice.

Any failure provide notice cancellation the Certificate Holder due inaccurate or incomplete information provided by the **First Named Insured** shall remain the sole responsibility the **First Named Insured**

The following definitions apply to this endorsement:

1. **First Named Insured** means the Named Insured shown in Item 1. of Declarations.
2. **Insurer** means the insurance company shown in the header on the Declarations.

All other terms and conditions of the policy remain the same

06 Master Service Contract

Please find attached HDR's standard masters services agreement. Please contact us to discuss items included.

MASTER SHORT FORM AGREEMENT FOR PROFESSIONAL SERVICES
AGREEMENT NUMBER _____

THIS AGREEMENT is made as of this _____ day of _____, 20_____, between Otsego County Road Commission, hereinafter referred to as "OWNER", and HDR Michigan, Inc., hereinafter referred to as "ENGINEER" or "CONSULTANT," for engineering services as described in this Agreement.

WHEREAS, OWNER desires to retain ENGINEER, a professional engineering firm, to provide professional engineering, consulting and related services ("Services") on one or more projects in which the OWNER is involved; and

WHEREAS, ENGINEER desires to provide such services on such projects as may be agreed, from time to time, by the parties;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree as follows:

SECTION I. PROJECT TASK ORDER

1.1 This Agreement shall apply to as many projects as OWNER and ENGINEER agree will be performed under the terms and conditions of this Agreement. Each project ENGINEER performs for OWNER hereunder shall be designated by a "Task Order." A sample Task Order is attached to this Agreement and marked as Exhibit "A". No Task Order shall be binding or enforceable unless and until it has been properly executed by both OWNER and ENGINEER. Each properly executed Task Order shall become a separate supplemental agreement to this Agreement.

1.2 In resolving potential conflicts between this Agreement and the Task Order pertaining to a specific project, the terms of this Agreement shall control.

1.3 ENGINEER will provide the Scope of Services as set forth in Part 2 of each Task Order.

SECTION II. RESPONSIBILITIES OF OWNER

In addition to the responsibilities described in paragraph 6 of the attached "HDR Engineering, Inc. Terms and Conditions for Professional Services," OWNER shall have the responsibilities described in Part 3 of each Task Order.

SECTION III. COMPENSATION

Compensation for ENGINEER's Services shall be in accordance with Part 5 of each Task Order, and in accordance with paragraph 11 of the attached HDR Michigan, Inc. Terms and Conditions.

SECTION IV. TERMS AND CONDITIONS OF ENGINEERING SERVICES

The HDR Michigan, Inc. Terms and Conditions, which are attached hereto in Exhibit B, are incorporated into this Agreement by this reference as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first written above.

_____

"OWNER"

BY: _____

NAME: _____

TITLE: _____

ADDRESS: _____

_____

HDR MICHIGAN, INC.
"ENGINEER"

BY: _____

NAME: Khaled Soubra, Ph.D., P.E., LEED AP

TITLE: Vice President / Michigan Area Manager

ADDRESS: 1000 Oakbrook Drive,Ste.200
Ann Arbor, MI 48104

EXHIBIT A

TASK ORDER

This Task Order pertains to an Agreement by and between Otsego County Road Commission, ("OWNER"), and HDR Michigan, Inc. ("ENGINEER"), dated _____, 20___, ("the Agreement"). Engineer shall perform services on the project described below as provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Task Order shall supplement the Agreement as it pertains to the project described below.

TASK ORDER NUMBER:
PROJECT NAME:

PART 1.0 PROJECT DESCRIPTION:

PART 2.0 SCOPE OF SERVICES TO BE PERFORMED BY ENGINEER ON THE PROJECT:

PART 3.0 OWNER'S RESPONSIBILITIES:

PART 4.0 PERIODS OF SERVICE:

PART 5.0 ENGINEER'S FEE:

PART 6.0 OTHER:

This Task Order is executed this _____ day of _____, 20___.

_____	HDR MICHIGAN, INC.
"OWNER"	"ENGINEER"
BY: _____	BY: _____
NAME: _____	NAME: Khaled Soubra, Ph.D., P.E., LEED AP
TITLE: _____	TITLE: Vice President / Michigan Area Manager
ADDRESS: _____	ADDRESS: 1000 Oakbrook Drive,Ste.200
_____	Ann Arbor, MI 48104

EXHIBIT B

TERMS AND CONDITIONS

HDR Michigan, Inc. Terms and Conditions for Professional Services

1. **STANDARD OF PERFORMANCE**
The standard of care for all professional engineering, consulting and related services performed or furnished by ENGINEER and its employees under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under the same or similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.

2. **INSURANCE/INDEMNITY**
ENGINEER agrees to procure and maintain, at its expense, Workers' Compensation insurance as required by statute; Employer's Liability of $250,000; Automobile Liability insurance of $1,000,000 combined single limit for bodily injury and property damage covering all vehicles, including hired vehicles, owned and non-owned vehicles; Commercial General Liability insurance of $1,000,000 combined single limit for personal injury and property damage; and Professional Liability insurance of $1,000,000 per claim for protection against claims arising out of the performance of services under this Agreement caused by negligent acts, errors, or omissions for which ENGINEER is legally liable. If flying an Unmanned Aerial System (UAS or drone), ENGINEER will procure and maintain aircraft unmanned aerial systems insurance of $1,000,000 per occurrence. OWNER shall be made an additional insured on Commercial General and Automobile Liability insurance policies and certificates of insurance will be furnished to the OWNER. ENGINEER agrees to indemnify OWNER for third party personal injury and property damage claims to the extent caused by ENGINEER's negligent acts, errors or omissions. However, neither Party to this Agreement shall be liable to the other Party for any special, incidental, indirect, or consequential damages (including but not limited to loss of use or opportunity; loss of good will; cost of substitute facilities, goods, or services; cost of capital; and/or fines or penalties), loss of profits or revenue arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, errors or omissions, strict liability or breach of contract. The employees of both parties are intended third party beneficiaries of this waiver of consequential damages.

3. **OPINIONS OF PROBABLE COST (COST ESTIMATES)**
Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s') methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

4. **CONSTRUCTION PROCEDURES**
ENGINEER's observation or monitoring portions of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. ENGINEER shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs or precautions connected with the work and shall not manage, supervise, control or have charge of construction. ENGINEER shall not be responsible for the acts or omissions of the contractor or other parties on the project. ENGINEER shall be entitled to review all construction contract documents and to require that no provisions extend the duties or liabilities of ENGINEER beyond those set forth in this Agreement. OWNER agrees to include ENGINEER as an indemnified party in OWNER's construction contracts for the work, which shall protect ENGINEER to the same degree as OWNER. Further, OWNER agrees that ENGINEER shall be listed as an additional insured under the construction contractor's liability insurance policies.

5. **CONTROLLING LAW**
This Agreement is to be governed by the law of the state where ENGINEER's services are performed.

6. **SERVICES AND INFORMATION**
OWNER will provide all criteria and information pertaining to OWNER's requirements for the project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations. OWNER will also provide copies of any OWNER-furnished Standard Details, Standard Specifications, or Standard Bidding Documents which are to be incorporated into the project.

OWNER will furnish the services of soils/geotechnical engineers or other consultants that include reports and appropriate professional recommendations when such services are deemed necessary by ENGINEER. The OWNER agrees to bear full responsibility for the technical accuracy and content of OWNER-furnished documents and services.

In performing professional engineering and related services hereunder, it is understood by OWNER that ENGINEER is not engaged in rendering any type of legal, insurance or accounting services, opinions or advice. Further, it is the OWNER's sole responsibility to obtain the advice of an attorney, insurance counselor or accountant to protect the OWNER's legal and financial interests. To that end, the OWNER agrees that OWNER or the OWNER's representative will examine all studies, reports, sketches, drawings, specifications, proposals and other documents, opinions or advice prepared or provided by ENGINEER, and will obtain the advice of an attorney, insurance counselor or other consultant as the OWNER deems necessary to protect the OWNER's interests before OWNER takes action or forebears to take action based upon or relying upon the services provided by ENGINEER.

7. **SUCCESSORS, ASSIGNS AND BENEFICIARIES**
OWNER and ENGINEER, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the covenants of this Agreement. Neither OWNER nor ENGINEER will assign, sublet, or transfer any interest in this Agreement or claims arising therefrom without the written consent of the other. No third party beneficiaries are intended under this Agreement.

8. **RE-USE OF DOCUMENTS**
All documents, including all reports, drawings, specifications, computer software or other items prepared or furnished by ENGINEER pursuant to this Agreement, are instruments of service with respect to the project. ENGINEER retains ownership of all such documents. OWNER may retain copies of the documents for its information and reference in connection with the project; however, none of the documents are intended or represented to be suitable for reuse by OWNER or others on extensions of the project or on any other project. Any reuse without written verification or adaptation by ENGINEER for the specific purpose intended will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER will defend, indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses, including attorney's fees,

arising or resulting therefrom. Any such verification or adaptation will entitle ENGINEER to further compensation at rates to be agreed upon by OWNER and ENGINEER.

9. **TERMINATION OF AGREEMENT**
OWNER or ENGINEER may terminate the Agreement, in whole or in part, by giving seven (7) days written notice to the other party. Where the method of payment is "lump sum," or cost reimbursement, the final invoice will include all services and expenses associated with the project up to the effective date of termination. An equitable adjustment shall also be made to provide for termination settlement costs ENGINEER incurs as a result of commitments that had become firm before termination, and for a reasonable profit for services performed.

10. **SEVERABILITY**
If any provision of this agreement is held invalid or unenforceable, the remaining provisions shall be valid and binding upon the parties. One or more waivers by either party of any provision, term or condition shall not be construed by the other party as a waiver of any subsequent breach of the same provision, term or condition.

11. **INVOICES**
ENGINEER will submit monthly invoices for services rendered and OWNER will make payments to ENGINEER within thirty (30) days of OWNER's receipt of ENGINEER's invoice.

ENGINEER will retain receipts for reimbursable expenses in general accordance with Internal Revenue Service rules pertaining to the support of expenditures for income tax purposes. Receipts will be available for inspection by OWNER's auditors upon request.

If OWNER disputes any items in ENGINEER's invoice for any reason, including the lack of supporting documentation, OWNER may temporarily delete the disputed item and pay the remaining amount of the invoice. OWNER will promptly notify ENGINEER of the dispute and request clarification and/or correction. After any dispute has been settled, ENGINEER will include the disputed item on a subsequent, regularly scheduled invoice, or on a special invoice for the disputed item only.

OWNER recognizes that late payment of invoices results in extra expenses for ENGINEER. ENGINEER retains the right to assess OWNER interest at the rate of one percent (1%) per month, but not to exceed the maximum rate allowed by law, on invoices which are not paid within thirty (30) days from the date OWNER receives ENGINEER's invoice. In the event undisputed portions of ENGINEER's invoices are not paid when due, ENGINEER also reserves the right, after seven (7) days prior written notice, to suspend the performance of its services under this Agreement until all past due amounts have been paid in full.

12. **CHANGES**
The parties agree that no change or modification to this Agreement, or any attachments hereto, shall have any force or effect unless the change is reduced to writing, dated, and made part of this Agreement. The execution of the change shall be authorized and signed in the same manner as this Agreement. Adjustments in the period of services and in compensation shall be in accordance with applicable paragraphs and sections of this Agreement. Any proposed fees by ENGINEER are estimates to perform the services required to complete the project as ENGINEER understands it to be defined. For those projects involving conceptual or process development services, activities often are not fully definable in the initial planning. In any event, as the project progresses, the facts developed may dictate a change in the services to be performed, which may alter the scope. ENGINEER will inform OWNER of such situations so that changes in scope and adjustments to the time of performance and compensation can be made as required. If such change, additional services, or suspension of services results in an increase or decrease in the cost of or time required for performance of the services, an equitable adjustment shall be made, and the Agreement modified accordingly.

13. **CONTROLLING AGREEMENT**
These Terms and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice-to-proceed, or like document.

14. **EQUAL EMPLOYMENT AND NONDISCRIMINATION**
In connection with the services under this Agreement, ENGINEER agrees to comply with the applicable provisions of federal and state Equal Employment Opportunity for individuals based on color, religion, sex, or national origin, or disabled veteran, recently separated veteran, other protected veteran and armed forces service medal veteran status, disabilities under provisions of executive order 11246, and other employment, statutes and regulations, as stated in Title 41 Part 60 of the Code of Federal Regulations § 60-1.4 (a-f), § 60-300.5 (a-e), § 60-741 (a-e).

15. **HAZARDOUS MATERIALS**
OWNER represents to ENGINEER that, to the best of its knowledge, no hazardous materials are present at the project site. However, in the event hazardous materials are known to be present, OWNER represents that to the best of its knowledge it has disclosed to ENGINEER the existence of all such hazardous materials, including but not limited to asbestos, PCB's, petroleum, hazardous waste, or radioactive material located at or near the project site, including type, quantity and location of such hazardous materials. It is acknowledged by both parties that ENGINEER's scope of services do not include services related in any way to hazardous materials. In the event ENGINEER or any other party encounters undisclosed hazardous materials, ENGINEER shall have the obligation to notify OWNER and, to the extent required by law or regulation, the appropriate governmental officials, and ENGINEER may, at its option and without liability for delay, consequential or any other damages to OWNER, suspend performance of services on that portion of the project affected by hazardous materials until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the hazardous materials; and (ii) warrants that the project site is in full compliance with all applicable laws and regulations. OWNER acknowledges that ENGINEER is performing professional services for OWNER and that ENGINEER is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous materials, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the project site in connection with ENGINEER's services under this Agreement. If ENGINEER's services hereunder cannot be performed because of the existence of hazardous materials, ENGINEER shall be entitled to terminate this Agreement for cause on 30 days written notice. To the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER, its officers, directors, partners, employees, and subconsultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from hazardous materials, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's sole negligence or willful misconduct.

16. **EXECUTION**
This Agreement, including the exhibits and schedules made part hereof, constitute the entire Agreement between ENGINEER and

OWNER, supersedes and controls over all prior written or oral understandings. This Agreement may be amended, supplemented or modified only by a written instrument duly executed by the parties.

17. ALLOCATION OF RISK

OWNER AND ENGINEER HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING ENGINEER'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE RISKS, SO, TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF ENGINEER (AND ITS RELATED CORPORATIONS, SUBCONSULTANTS AND EMPLOYEES) TO OWNER AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE LESSER OF $1,000,000 OR ITS FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF ENGINEER'S SERVICES OR THIS AGREEMENT REGARDLESS OF CAUSE(S) OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. ENGINEER'S AND SUBCONSULTANTS' EMPLOYEES ARE INTENDED THIRD PARTY BENEFICIARIES OF THIS ALLOCATION OF RISK.

18. LITIGATION SUPPORT

In the event ENGINEER is required to respond to a subpoena, government inquiry or other legal process related to the services in connection with a legal or dispute resolution proceeding to which ENGINEER is not a party, OWNER shall reimburse ENGINEER for reasonable costs in responding and compensate ENGINEER at its then standard rates for reasonable time incurred in gathering information and documents and attending depositions, hearings, and trial.

19. NO THIRD PARTY BENEFICIARIES

Except as otherwise provided in this Agreement, no third party beneficiaries are intended under this Agreement. In the event a reliance letter or certification is required under the scope of services, the parties agree to use a form that is mutually acceptable to both parties.

20. UTILITY LOCATION

If underground sampling/testing is to be performed, a local utility locating service shall be contacted to make arrangements for all utilities to determine the location of underground utilities. In addition, OWNER shall notify ENGINEER of the presence and location of any underground utilities located on the OWNER's property which are not the responsibility of private/public utilities. ENGINEER shall take reasonable precautions to avoid damaging underground utilities that are properly marked. The OWNER agrees to waive any claim against ENGINEER and will indemnify and hold ENGINEER harmless from any claim of liability, injury or loss caused by or allegedly caused by ENGINEER's damaging of underground utilities that are not properly marked or are not called to ENGINEER's attention prior to beginning the underground sampling/testing.

21. UNMANNED AERIAL SYSTEMS

If operating UAS, ENGINEER will obtain all permits or exemptions required by law to operate any UAS included in the services. ENGINEER's operators have completed the training, certifications and licensure as required by the applicable jurisdiction in which the UAS will be operated. OWNER will obtain any necessary permissions for ENGINEER to operate over private property, and assist, as necessary, with all other necessary permissions for operations.

22. OPERATIONAL TECHNOLOGY SYSTEMS

OWNER agrees that the effectiveness of operational technology systems and features designed, recommended or assessed by ENGINEER (collectively "OT Systems") are dependent upon OWNER's continued operation and maintenance of the OT Systems in accordance with all standards, best practices, laws, and regulations that govern the operation and maintenance of the OT Systems. OWNER shall be solely responsible for operating and maintaining the OT Systems in accordance with applicable laws, regulations, and industry standards (e.g. ISA, NIST, etc.) and best practices, which generally include but are not limited to, cyber security policies and procedures, documentation and training requirements, continuous monitoring of assets for tampering and intrusion, periodic evaluation for asset vulnerabilities, implementation and update of appropriate technical, physical, and operational standards, and offline testing of all software/firmware patches/updates prior to placing updates into production. Additionally, OWNER recognizes and agrees that OT Systems are subject to internal and external breach, compromise, and similar incidents. Security features designed, recommended or assessed by ENGINEER are intended to reduce the likelihood that OT Systems will be compromised by such incidents. However, ENGINEER does not guarantee that OWNER's OT Systems are impenetrable and OWNER agrees to waive any claims against ENGINEER resulting from any such incidents that relate to or affect OWNER's OT Systems.

23. FORCE MAJEURE

ENGINEER shall not be responsible for delays caused by factors beyond ENGINEER's reasonable control, including but not limited to delays because of strikes, lockouts, work slowdowns or stoppages, government ordered industry shutdowns, power or server outages, acts of nature, widespread infectious disease outbreaks (including, but not limited to epidemics and pandemics), failure of any governmental or other regulatory authority to act in a timely manner, failure of the OWNER to furnish timely information or approve or disapprove of ENGINEER's services or work product, or delays caused by faulty performance by the OWNER's or by contractors of any level or any other events or circumstances not within the reasonable control of the party affected, whether similar or dissimilar to any of the foregoing. When such delays beyond ENGINEER's reasonable control occur, the OWNER agrees that ENGINEER shall not be responsible for damages, nor shall ENGINEER be deemed in default of this Agreement, and the parties will negotiate an equitable adjustment to ENGINEER's schedule and/or compensation if impacted by the force majeure event or condition.

Prein&Newhof
Engineers ▪ Surveyors ▪ Environmental ▪ Laboratory

February 6, 2023

Mr. Kirk Harrier, Managing Director
Otsego County Road Commission
669 W. McCoy Road, P.O. Box 537
Gaylord, MI 49734-0537

Re: Proposal for Engineer of Record Engineering Services

Dear Mr. Harrier,

Prein&Newhof (P&N) is very pleased to submit this Proposal for Engineer of Record Engineering Services for the Otsego County Road Commission (OCRC). Our continuous project involvement with many Road Commissions and the MDOT Local Agency Programs (LAP) team for over 30 years gives us the experience and knowledge to provide engineering services needed for your projects.

P&N has a diverse support team that have the capabilities to jump in and assist with your current construction and engineering projects. We can assist with virtually any project or task in the engineering department that you need help with.

We continue to provide As-Needed engineering and construction inspection services to many Road Commissions, including Lake, Missaukee, Ionia, Gladwin, Clare, Isabella, and Wexford counties. Through this work we have developed an identity with County transportation projects and treasure close relationships with the MDOT team that oversees federal aid projects.

Your point of contact will be Connie Houk and Eric Seguin for Engineering and Josh Gottschall for Construction. Attached is our proposed Scope of Services, along with our Project Team, accompanying resumes, billing rates, references, and our MDOT Prequalifications for your information.

We look forward to the opportunity to work with you. Please contact us if you have any questions. Thank you.

Respectfully Submitted,
PREIN&NEWHOF

Connie S. Houk

Connie S. Houk, P.E.
Project Manager

Jason Washler, P.E.
Vice President

Enclosures

SCOPE OF SERVICES

Prein&Newhof (P&N) is a full service company offering an extensive range of Design and Construction Engineering Services. Our Team specializes in working with County Road Commissions and Local Agencies and understands the funding, permitting, planning, and design constraints.

We understand that the proposed services will be on an As-Needed and As-Requested basis. Our intent is to not become involved with management or administrative issues, but to fill the County's engineering needs. **Our Team is an extension of Your Team.** We will provide these services on an hourly basis, so the Road Commission will be invoiced for actual time worked on specific engineering issues or projects which are needed and requested by the Road Commission. When assigned complete design on projects, estimated budgets will be given for planning and budgeting purposes. We can attend Board Meetings and Public Meetings as requested.

We have many years of experience in all of the scope items in your RFP.

- Assist with budgeting, planning, and rate studies.
- Assist with GPS/GIS data gathering and information compilation relating to existing infrastructure.
- Work with road commission staff, organizations, and funding agencies to help develop competitive and complete grant applications or funding proposals.
- Work with road commission staff to review or complete federal or state permits, applications, or agency notification.
- Act as the road commission's representative with other state, federal, or local governmental agencies.
- Provide detailed design and construction specifications for successful bidding and construction coordination of county road infrastructure improvement and maintenance projects.
- Attend pre-application, construction, or other meetings as requested.
- Provide various construction services for selected construction projects, e.g., project management, engineering design, pre-qualification, preparation of bid documents, solicitation, procurement, and construction observation.
- Perform final construction observations and punch lists for completion, including review of as-built drawings, testing results, as-built certification, project closeout and initiation of the required construction warranty period.
- Perform additional basic engineering and special services which cannot be fully described at this time, as requested by the road commission.

Otsego County Road Commission
Engineer of Record

We understand the Services and Responsibilities of the Engineer as stated in your RFP. Our experience with working for over 10 counties as their As-Needed Engineer in the past has given us the technical background needed to perform these duties for you. Below is a list of specific tasks we perform routinely for Road Commissions.

Design Services

- Topographic/Right-of-Way/Hydraulic Surveys.
- Road Design, Streetscapes, Sidewalk, and Path Design.
- Road and Stream Crossing Design, Drainage Design, Culvert Sizing.
- Guardrail and Signing Design.
- Intersection and Safety Design.
- Roundabout Design.
- Traffic Engineering Studies, Intersection and Safety Design Services.
- Coordination with MDOT and Local Agency Programs.
- Preparation of Plans, Specifications, and Estimates.
- Preparation of Bid Documents.
- Yearly Act 51 Map Certification.
- Coordinate Biennial Bridge Inspections.
- Preparation of Permit Documents – SHPO, EGLE, MDNR, USFWS, T&E, and NEPA.
- Auto CAD Civil 3D.
- MicroStation and Bentley InRoads.
- Assist Road Superintendent.

Prepare Grant/Funding Applications

- Local Bridge Program.
- Local Safety and High Risk Rural Roads Program.
- TEDF Category A and F.
- Safe Routes to School, TAP, CDBG, and MDNR Trust Fund Grants.
- Assist with procuring local match funding.

Pavement Asset Management

- Complete Road Asset Management Plans – Utilizing TAMC Template.
  P&N completed 15 Road AMP's in 2018 and 2019, and full Compliance AMP's in 2020-2023.
- Collect PASER Rating on Local Roads – *4 Certified TAMC Trained Raters with over 25 years of experience.*
- Assist with Federal Aid PASER ratings if needed.
- Asset Management Program Review.
- Develop Strategies for the entire County Road System.
- Assist with Project Selection.
- Assist Townships with project planning as needed.
- Determine necessary funding/budgets.
- Assist with Selecting a Future 5 Year Program.

Otsego County Road Commission
Engineer of Record

Construction Engineering Services

- Office Technician Duties and Administration of Construction Projects.
- Construction Staking.
- Inspection and Testing.
- Provide engineering oversight of federal aid local projects.
- Approve contractor payments on federal aid projects.
- Provide inspection and testing services as needed.
- Provide survey and construction staking as needed.

Material Testing Services

- Onsite Density and Concrete Testing.
- Offsite sampling and testing of Aggregates and Concrete cylinders in our Lab.
- Offsite testing of HMA at the producer's plant.

Construction Staking

- Slopes stakes, Benchmarks, Drainage structure stakes, Curb stakes, and Muck stakes.
- All other staking.

Other Services Prein&Newhof can provide, if needed:

- Environmental Studies.
- Private Development Plan/Plat/Driveway permit reviews, obtain easements.
- Global Positioning Surveys (GPS).
- Computer Mapping/Graphic Information System (GIS) Mapping.
- Structural Engineering Services.

In addition to the specific services listed above, we understand that the following items are important:

Responsiveness - We learned long ago that **all clients need solid, cost-effective engineering that results in constructible projects on time and within budget.**

Full Service - P&N is able to provide **engineering, surveying, traffic, geotechnical, design, and construction testing and inspection services.**

Relationship with MDOT & Local Agency Programs (LAP) – Our staff has worked with MDOT for over 32 years. We are familiar with many of their staff, their organization structure, and have effective working relationships. For your Local Agency Projects, Connie has exceptional relationships with MDOT Local Agency Programs Rural Roads and Bridges; Bruce Kadzban, Dale Spencley, Keith Cooper, and the LAP Team. Having worked on hundreds of Local Agency projects, our Team has worked with a variety of reviewers and have heard numerous times "*our plans are the easiest they get to review*" which makes us proud of our hard work. Our Team works very closely with MDOT in many TSC's and Region Offices as well.

Road Maintenance Techniques and Applications – It's all about the right fix at the right time! Connie was the Pavement Management Engineer at MDOT for 12 years and has continued to prepare Asset Management Plans and effective pavement strategies for counties, cities, and villages all over Michigan. She has vast experience with roadway maintenance programs, fixes, and strategies. She enjoys preparing plans for future road programs and then ensuring that plan happens.

Survey – Our surveyors will perform as-needed topographic surveys for road and bridge design, hydraulic surveys, boundary surveys, property surveys, and monument preservation. They will assist with title research and prepare grading permits and easements. They will perform the construction staking throughout construction.

Material Testing - Materials testing is always important to ensure that the client receives the quality product expected. Our Inspectors are cross-trained in current MDOT inspection practices and are certified to perform necessary soil, aggregate, and concrete verification testing.

Inspection and Testing - The Construction Team will be led by Josh Gottschall who will serve as your Project Manager for Construction and primary point of contact. We are confident that Josh's 24 years of experience, along with the experience of available inspectors and testing technicians, will demonstrate a high degree of professionalism, responsiveness and availability when working for you. Our construction inspection staff has been using FieldManager/FieldBook since its inception by MDOT. We will use a MDOT Certified Office Technician to perform the Field Manager duties as required by MDOT and FHWA for the file, project management, and close out. Our field staff are certified in MDOT Density Technology, Michigan Certified Aggregate Technician, MCA/ACI Concrete, Storm Water for Construction Sites and Soil Erosion and Sedimentation Control. Our staff is very experienced with LAP requirements for documentation and testing.

Trucks and Equipment - Our Staff use trucks properly marked, supplied by P&N, and are fully equipped. Our construction trucks are stocked with measuring devices which include levels, wheels and tape measures. We have properly calibrated density and concrete testing equipment loaded all the time.

PROJECT TEAM

The P&N Team proposed consists of highly qualified and experienced professionals who are very competent in their individual expertise. **Connie Houk will be the Project Manager** and provide experienced assistance for all calls, questions, and assignments. She is available to you at all times. **Eric Seguin will work with Connie as Assistant Project Manager and will be a daily contact.** Josh Gottschall will be the Construction Project Manager and handle all construction projects, Field Manager, Office Technician duties, and managing of inspection staff.

Points of Contact

Engineering Manager	Connie Houk, P.E.	231-468-3456 (o)	231-342-8480 (c)
Engineering – Assistant P.M.	Eric Seguin, P.E.	231-468-3456 (o)	231-878-5094 (c)
Construction	Joshua Gottschall	231-468-3456 (o)	231-846-0986 (c)

Design Team As-Needed:

• QA/QC Engineer	Connie Houk, P.E.
• Lead Surveyor	Tom Hall, P.S.
• Traffic Engineer	Scott Tezak, P.E.
• Design and Hydraulics Engineer	Eric Seguin, P.E.
• Geotechnical Engineer	Chris Cruickshank, P.E.
• CADD Technicians	Gerald Morton, Floyd Morris, & Ted Thomson

Construction/Survey Team:

- Construction Project Manager/Office Technician — Josh Gottschall
- Construction Staking — Tom Hall, P.S. and Tyler Pullen

Inspectors/Testing Technicians

- Don Hiltz
- Ethan Bancroft
- Bob Ouwinga
- Mitch Hastings
- Brett Hastings
- Jim Powell
- Mark Soper

Out Team has the capacity to perform your As-Needed Engineering needs. Please review our resumes and project information in Exhibit A. Here is a short biography of our key staff.

- **Connie Houk, P.E. – Project Manager.** Connie has over 33 years of Project Management and Road Design experience, including over 12 years at MDOT and 22 years in the private sector working with Road Commissions, MDOT, private clients, and Municipalities. She offers her project experience, knowledge of Federal Aid and MDOT Local Agency processes as well as locally design, let and built projects. Her experience indicates a wide and deep background of engineering designs which include rural and urban road reconstruction and rehabilitation design as well as preventative maintenance projects, crush and shape projects, ASCRL, complex intersection designs, additions of turn lanes and tapers, drainage, culverts and bridges, high traffic and high profile projects, as well as pavement fix recommendations. Connie has gained invaluable experience from managing, designing, and being Project Engineer which provides feedback during construction and allows us to build a 'lessons learned' library in order to improve every design based on site, soil, and local traffic conditions. She is or previously has been the County Engineer for Ionia, Lake, Missaukee, and Oceana County Road Commissions. She provides As-Needed Design and Construction Engineering Services on projects and County Highway Engineering duties and is responsible for as-needed scoping and development of Capital Improvement Plans, Services range from miscellaneous consultation and review to specific project management, design and construction engineering. This work involves scoping, project development, estimating, development of maintaining traffic plan for preventative maintenance, 3R, and 4R projects, many which are coordinated through MDOT Local Agency Programs. P&N also prepares Bridge and Safety Applications with a very high rate of success. We prepare permit applications for all agencies. She also schedules and coordinates support services such as soils investigation, testing, and environmental services. She has worked with both FEMA and Federal Highway on several disasters since 2008.

- **Eric Seguin, P.E. – Engineer.** Eric will be in contact daily if needed. Eric has significant engineering experience working on road, bridge, stream crossing, and other projects for numerous Road Commissions, the CRA, MDOT, EGLE, and private industry. He is experienced in roadway and bridge design, drainage and hydraulic analysis and design, permitting (environmental and project specific), coordination of easements and grading permits, preparation of plans and design specification, as well as project coordination with utilities and other stakeholders. He designs multiple Federal Aid and MDOT Local Agency projects every year. He is extremely knowledgeable in the LAP processes and funding. He assists with procuring grant funding for local agency's such as Federal Local Bridge Applications Safety Project Applications, and Bridge Applications for CPM and Reconstruction. Eric works with the local agency and our Traffic Engineer, Scott Tezak to isolate areas of potential safety concerns and reviews crash data provided by the agency or Roadsoft to perform HSM Analysis to better support

safety improvement where accidents may not be present yet. Eric gained a strong foundation of experience by starting with construction oversight of major facility projects, such as wastewater systems, sand recovery devices, and melt system devices. He oversees the bidding process, directing contractors and maintenance personnel, tracking budgets, reviewing and compiling daily reports, and holding progress meetings with contractors.

- **Josh Gottschall – Construction Project Manager.** Josh is responsible for Project Management and coordination of construction related activities. Josh has over 22 years of experience on road and bridge construction projects for Local Agency Programs, MDOT Traverse City, Mt. Pleasant, Cadillac, and many other TSC's and Regions serving as Certified Office Tech, Lead Inspector/ Tester, and Project Manager. Josh is able to select and assign his staff to projects whenever needed. He has significant experience with FieldManager, FieldBook, and the E–Construction process. He is certified and experienced in all required MDOT/testing of aggregates, concrete and density.

FEES

See Exhibit B for our 2023 Billing Rate Schedule.

CAPACITY

Prein & Newhof has over 150 engineers and technicians to draw from to ensure we meet and exceed your engineering needs. We have the availability to act upon your requests in a very timely fashion and provide documents, estimates, and services prior to deadlines.

PROJECT REFERENCES & EXPERIENCE

See Exhibit C for several project references and a list of our MDOT Prequalifications.

INSURANCE

See Exhibit D for our Insurance Certificate.

CONSTRUCTION CERTIFICATIONS

See Exhibit E for the Training Certifications of our Construction Team.

Exhibit A

Key Personnel Resumes

Prein&Newhof

Connie Houk, PE
Project Manager

Connie is a Senior Transportation Civil Engineer with over 33 years of engineering experience. She worked for MDOT for over 12 years, where she gained experience in road design, construction, and managed the Statewide Pavement Management program for MDOT before joining Prein&Newhof. Connie also worked for Wilcox Professional Services in Cadillac, serving as the office leader managing both road and bridge design, as well as oversight of the geoenvironmental, drilling, survey, construction, and alternative energy groups. Connie has been with Prein&Newhof since 2013.

Connie has extensive experience in roadway projects from beginning to end—starting with a project's inception, determining the best pavement fix for the life extension desired, scoping the project, incorporating Complete Streets principles, designing the plans, and following the project into construction while conducting the field inspection. Connie's project management and project engineering experience is specialized in asset management planning, road and freeway design projects, streetscape designs, trails, greenways, non–motorized paths, pavement management, and a variety of other civil engineering projects.

Representative Projects

Roads

- **City of Big Rapids:** 4th Avenue from Madison Avenue to Baldwin Street, Bjornson Street from DeKrafft Avenue to Milton Avenue, Bronson Avenue from Maple Street to Milton Avenue, US-131 BR Michigan Avenue Streetscape and Roadway Reconstruction Project, Monroe Avenue Street Improvements, Sherman Street Reconstruction
- **City of Cadillac:** Leeson Street Reconstruction, Cass Street Redesign, Cobb and Division Streets Reconstruction, Ford Street, Smith Street, Wheeler Street, Garfield Street, Blodgett Street, Marble Street, Holly Road, Wren Place, Vine Street, Heather Place, South Street, the Cadillac Plaza, Roundabout @ Division & Crosby, Mason & Bremer Streets, Aldrich Street from Bond to Linden, Chestnut Street, Crosby Road, Carmel Street from Cobbs to Stimson, Burlingame Street from 13th to Ford, Crestview Street, Evart Street, Crippen Street from Mitchell to Hemlock, Simons Street, Shelby Street, Stimson Street, Ayer Street, Division Street, Cadillac Culvert Pilot, Potvin Industrial Park Streets/Site Readiness Grant

Education

Bachelor of Science, Civil Engineering

Michigan Technological University, 1989

Registrations

Engineering Michigan, 1994

Certifications & Training

Bridge Asset Management Training

Compliance Plan Training

Pavement Asset Management Plan Training

Advanced Roadsoft Training

Construction Stormwater Operator Certification

FHWA Real Estate - Basic Uniform Act Appraisal Requirements

FHWA Real Estate- Federal Uniform Act Requirements

LTAP Training, Asset Management Workshop

LTAP Training, Building a Pavement Deterioration Model & Pavement Management Advanced Training

Michigan Traffic Sign Inventory System Training

Mini Roundabout Symposium Training

PASER Training

Pavement Surface Evaluation and Rating Training

Roadsoft PASER Training

Soil Erosion and Sedimentation Control Certificate

Transportation and Environment

USDA Rural Development Financing

Professional Activities

ACEC Michigan, Board of Directors (2021 – Present)

Professional History

Prein&Newhof, 2013-Present

33 years in Industry

- **City of Ferrysburg:** Dogwood Drive Reconstruction
- **City of Grand Haven:** North Shore Drive Reconstruction
- **City of Grand Rapids:** Sidewalk Improvements in Plainfield I-96 to 390' North of Salerno Drive, Reconstruction of Fulton Street, Resurfacing of Hall Street from Division Avenue to Jefferson Avenue
- **City of Harrison:** 2nd Street & Main Street (M-61) DIG Project
- **City of Hastings:** East Woodlawn Avenue, Michigan Avenue
- **City of Kentwood:** 32nd Street Reconstruction, Engineering Services for Sparks Drive & Forest Hill Avenue Improvements
- **City of Ludington:** Loomis Street Reconstruction
- **City of Mount Pleasant:** Broadway Street Reconstruction, Broadway-CE, Brown Street Reconstruction (2 Phases)
- **City of Muskegon:** Lakeshore Drive Reconstruction-McCracken to Laketon, Reconstruction of Muskegon & Webster Avenues, Peck Street Reconstruction-Merrill to Laketon, Old Business Route US-31 (Muskegon and Webster Avenues Reconstruction)
- **City of Muskegon Heights:** Sherman Boulevard Resurfacing
- **City of Norton Shores:** Broadway Avenue Restoration
- **City of Parchment:** Commerce Lane (Mosel to Riverview) Road Resurfacing, Traffic Signal Warrant Study-Riverview Drive
- **City of South Haven:** 8th Avenue Reconstruction
- **City of Walker:** Kinney Avenue & Trail Connector, Remembrance Road & Kinney Avenue Intersection
- **Clare CRC (CRC):** Chip and Seal Projects, Overlay Project, Colonville Road, Vandecar Road/Mill Creek Pond Dam, Stockwell Road, Pine Road, Clare Avenue, Arnold Lake Road
- **Emmet CRC:** Lake Shore Drive
- **Georgetown Charter Township:** Complete Streets Study
- **Gladwin CRC:** Knox Road Reconstruction
- **Grand Haven Charter Township:** General Engineering Services, Mid-Block Crosswalk Study, Lakeshore Drive NMP Repairs: Ferris Street to Hayes Street
- **Grand Traverse CRC:** South Airport Road
- **Hayes Township:** Southwood Drive Reconstruction
- **INDOT:** SR120 & SR327 Orland Roundabout
- **Ionia County Road Department:** Chip & Fog Seal, County Engineer-2019-Present
- **Isabella CRC:** Walton Road Design, Vernon Road Design, Whiteville Road Design, Winn Road
- **Kalamazoo Charter Township:** US-131 BR Interchange Study
- **Kalkaska CRC:** Shippy Road Design, Starvation Lake Road Reconstruction, Spencer Road Hot-Mix Asphalt Overlay, Manistee Lake Road-East of 571, Shore Road, Spencer Road Hot-Mix Asphalt Overlay
- **Lake CRC:** 8 Mile to Brooks Road – Safety Project, Beech Street & 3rd Street, Heritage Bay & Kings Highway Soil Borings, FY Safety Applications, Hawkins Road Overlay, Gleason's Landing FLAP Grant, Storm Event South Branch Road
- **Lake Township:** Green Road Design, Green Road Boat Launch Area
- **Manistee CRC:** 2020 LAP WCF, Kott & Siuda Roads, Seaman Road, River Road, Hoxeyville Road
- **Missaukee CRC:** Burkett Road Design & CE, 8 Mile Road, Jennings Road Improvements, Lakeview Drive Improvements
- **Muskegon CRC:** Ellis Road Resurfacing, Maple Island to Ravenna Road
- **Muskegon County:** Swanson Road
- **National Gypsum Company:** US-23 South of Tawas – Drive Improvements
- **Oceana CRC:** 192nd Avenue Safety Project, Monroe Road (All 4 Phases), Shelby Road Phase I and II, Act 51 Mileage Certification Assistance, Monroe Road Phases 1-4, Lakeview Road Design, Oceana Drive
- **Roscommon CRC :** 2017 Safety Project, County Road 100
- **Village of Fruitport:** Third Avenue Category F Assistance, Third Avenue Improvements
- **Village of Shelby:** State Street Reconstruction
- **Village of Vicksburg:** Capital Improvements, Prairie Street Reconstruction, State Street Reconstruction, E. Highway Street (Kalamazoo Avenue to East Village Limits)
- **Wexford CRC:** Chittenden Nursery Road/M-55 Construction Engineering & Upgrades, Mackinaw Trail

Bridges

- **Antrim CRC and Conservation Resource Alliance (CRA):** Cokirs Creek Crossing, Old State Road over Jordan River Bridge
- **Barry CRC and CRA:** Finkbeiner Road and Thornapple River Bridge
- **Benzie CRC and CRA:** Burnt Mill Road over Woodcock Creek, Nessen Road over Little Betsie River
- **City of Rockford:** Main Street Bridge Application
- **City of Walker:** Walker Avenue Bridge Removal
- **Emmet CRC:** McDougal Road Bridge Design, Carp River Crossings-Munger Road & Reed Road, McDougal Road Bridge Design
- **Gladwin CRC:** McNamara Road over North Branch Tobacco River, Townhall Road Bridge Construction Engineering
- **Isabella CRC :** Walton Road, Chip Seal Lap Projects, FY 2019 Chip Seal Program Design, Vernon Road Design, Whiteville Road Design, Winn Road
- **Huron Pines:** West Karen Lake Road Bridge over E Branch AuSable Road
- **Kalkaska CRC:** West Sharon Road Bridge over the Manistee River, Biennial Bridge Inspections, Big Cannon Culvert Replacement, Rapid River Crossings
- **Kent County Drain Commissioner:** Ball Creek No. 4 Drain-M-46 Culvert Replacement
- **Lake CRC and CRA:** 40th Street Sanborn Creek Crossing, Star Lake Drain and Lake Control Structure
- **Roscommon CRC:** Albermarle Boulevard Culvert Replacement, Long Point Drive Westerly Culvert Replacement, Eighth Street Ditch Enclosure Hydraulics, Old US-27 Bridge over Muskegon River
- **Manistee CRC:** Red Bridge-Coates Highway
- **Mason CRC:** Hawley Road Bridge, Hansen Road
- **Missaukee CRC:** Lucas Road Bridge, Vandermuelen Road Bridge, Star City Road Bridge
- **Village of Augusta:** Washington Street Bridge Replacement
- **Village of Baldwin:** 8th Street Bridge Inspection and Funding Application, 8th Street Bridge Replacement
- **Village of Muir:** New Twin Rivers Bridge Design

MDOT Projects

- As Needed, As Needed Inspection & Testing - Mt. Pleasant TSC, Traverse City TSC
- Design Services - Muskegon TSC
- Pere Marquette State Trail
- Statewide PASER
- M-72 Full Construction Engineering
- US-23 Harrisville Reconstruction – Alpena TSC
- US-12, West Village Limit to Edwardsburg to M-62
- Geospacial Utility Infrastructure Data Exchange (GUIDE) Initiative
- US-131 Road Scoping - Coon Hollow to Schoolcraft
- As-Needed Design and Scoping Projects, Muskegon TSC: Lake, Mason, Muskegon, Newaygo, Oceana, Osceola, and Ottawa Counties
- Easterday Avenue over I-75, Sault Ste. Marie
- I-475 Design-Build, Genesee County
- I-96 Concrete Freeway Reconstruction, Marne & Coopersville
- M-11 (28th St.) Concrete Reconstruction, City of Wyoming, Kent County
- M–102 (8 Mile) / M–1 (Woodward) Interchange, Cities of Ferndale and Detroit
- M-121 (Chicago Drive), Hudsonville, Zeeland, Jamestown & Georgetown Townships., Ottawa County
- M–222 Slope Stabilization Full Construction Engineering, Allegan
- M-26 Road Reconstruction, MSE Wall, and Pedestrian Tunnel, Houghton
- M-33 Passing Relief Lanes and Streetscape, Mio
- M–5, Detroit & Livonia
- M–59, Opdyke Road to Crooks Road, Oakland County
- M-65 Streetscape Enhancement, Hale
- M–85, Fort Street, Detroit, Wayne County
- M-65, Iosco County
- M-66 Concrete Reconstruction, Ionia
- Old US-31 over Pentwater River - Bridge Approach Design, Oceana County
- On-site Staff Engineer for Design Services - Grand Rapids Region Office
- US-127 BR Road Reconstruction/Safety Improvements, Harrison
- US-127, Ithaca

- US-131 SB - Preliminary Site Investigation (PSI), Grand Rapids
- US-131 SB, Ann Street, Concrete Freeway Reconstruction, Retaining Walls, and Floodplain Protection, Grand Rapids
- US-2/US-141 Segment 1, Iron Mountain
- US-223 Streetscape, Village of Blissfield
- US-23 ASCRL From Black River Road south to Everett Road, Alcona County
- US-27 BR, St. Louis
- US-31 at M-120, Loop Ramp Construction, Muskegon County
- US-31/M-72 Acme Intersection Early Preliminary Engineering Study, Grand Traverse County
- US-31/M-72 Acme Intersection Reconstruction and Streetscape, Grand Traverse County

As-Needed Engineering Services

- City of Cadillac, Ionia County Road Department, Lake CRC, Missaukee CRC, Lake Township, Roscommon CRC, Oceana CRC, Kalkaska CRC, Isabella CRC, Clare CRC, Osceola CRC, Wexford CRC

PASER, Asset Management, SAW & Planning

- **Canadian Lakes Property Owners Association:** Long Term Pavement Management Program, As-Needed Engineering Services & Pavement Assessment
- **City of Buchanan:** PASER Rating & Road Asset Management Plan, SAW Grant
- **City of Cadillac:** Stormwater, Asset Management Plan Development and & Wastewater Program Plan (SAW)
- **City of Douglas:** PASER, General Consulting & Roadway Asset Management Plan
- **City of Ferrysburg:** SAW Grant
- **City of Hastings:** Asset Management Plan, General Consulting
- **City of Hart:** PASER Rating & Road Asset Management Plan, Stormwater, Asset Management Plan Development and Wastewater (SAW)
- **City of Ionia:** SAW Grant
- **City of Greenville:** PASER Rating & Road Asset Management Plan, Stormwater, Asset Management Plan Development and Wastewater (SAW)
- **City of Harrison:** PASER Rating & Road Asset Management Plan
- **City of Muskegon:** Transportation Asset Management Plan, Stormwater/Wastewater Asset Management Plan (SAW), SRF Project Plan-Phase I Implementation
- **City of Norton Shores:** PASER Rating & Road Asset Management Plan, Seminole & Padelt SHPO, Transportation Asset Management Plan
- **City of North Muskegon:** PASER Rating & Transportation Asset Management Plan
- **City of Zilwaukee:** Asset Management Plan and Pavement Assessment
- **Crystal Mountain:** Asset Management
- **Georgetown Charter Township:** Complete Streets Master Plan Study
- **Kalkaska CRC:** Roadway Asset Management Plan
- **Parkview Hills Management Company:** Applegate Road Asset Management Plan
- **Saugatuck Township:** Roadway Asset Management Plan
- **Village of Kent City:** SAW Grant
  Village of Lakeview: PASER Rating & Roadway Asset Management Plan

Eric Seguin, PE
Senior Engineer

Eric has experience in designing roads, bridges, and drainage systems for a wide range of projects. His previous clients have included local agencies, MDOT, EGLE, and private industry.

He gained a strong foundation of experience by starting with construction oversight of major facility projects such as wastewater systems, sand recovery devices, and melt system devices. His diverse experience also includes maintenance of mechanical, air, and roofing systems, design of various structural and mechanical systems.

A typical project includes overseeing bidding process during projects, directing contractors and maintenance personnel, training other engineers and engineering interns, tracking budgets, overseeing crew inspecting wind turbine construction, reviewing and compiling daily reports, and holding progress meetings with clients.

Education

Bachelor of Science, Civil Engineering

Michigan Technological University, 2004

Registrations

Engineering Michigan, 2008

Professional Activities

American Water Works Association-Michigan Section

Professional History

Prein&Newhof, 2018-Present

18 years in Industry

Representative Projects

Roads & Streets

- **Alcona CRC:** Ritchie Road, Hubbard Lake Road
- **Barry CRC:** Finkbeiner Road and Thornapple River Bridge
- **City of Cadillac:** As Needed Engineering Services, Chestnut Street T & I, Chestnut Street, Crestview Street, Evart Street, Mason & Bremer Construction T & I, Potvin Industrial Park Streets/Site Readiness Grant, Roundabout @ Division & Crosby, Shelby Street, Stimson Street, Simons Street, Lester Street, Stimson Street
- **City of Mount Pleasant:** Brown Street Reconstruction
- **City of Muskegon Heights:** Sherman Boulevard Resurfacing, SRF Project Plan-Phase I Implementation
- **City of Norton Shores:** Henry Street Corridor Traffic Signal Improvements
- **City of West Branch:** North First Street Reconstruction
- **Clare CRC:** Keehn Road, Maple Grove Road from Lake Station Avenue to Hemlock Avenue, Clare Avenue/Surrey Road Intersection Reconstruction, Clare Avenue from Colonville Road to Beaverton Road, Maple Grove Road, Grant Avenue Reconstruction, Dover Road Reconstruction, Mannsiding Road from Old State Avenue to Harrison Avenue, Clare Avenue/Adams Road Intersection, Lincoln Township Fire Hall, Washington Avenue
- **Muskegon CRC:** Whitehall Road-River Road to Bard Road
- **Ionia County Road Department:** As Needed Services, Chip & Fog Seal
- **Isabella CRC:** Chip Seal LAP Projects, Summerton Road (Remus to Broadway), Jordan Road (US-127 to Isabella Road)
- **Kalkaska CRC:** Lake Valley Road, Ingersoll Road from Coster Road to Puffer Road, Plum Valley Road & Twin Lake Road
- **Lake CRC:** 76th Street, Old M-63 Reconstruction, Bass Lake Road and 11 Mile Road Intersection, W. Stevenson Road Repair, S Branch Road Repair
- **Mason CRC:** Hansen Road
- **Missaukee CRC:** Burkett Road, Lucas Drainage Study-Richland Twp, 8 Mile Road Improvements

- **Muskegon County:** Swanson Road
- **Otsego CRC:** Old 27 North from Winters Road to North County Line
- **Wexford CRC:** Chittenden Nursery Road/M-55 Upgrades, FFH-37 (Caberfae Road)

Bridges

- **Arenac CRC:** Arenac State Road Bridge over Rifle River, Arenac State Road Bridge over Pine River, Melita Road over Rifle River
- **Barry CRC:** Finkbeiner Road and Thornapple River Bridge
- **City of Sault Ste. Marie:** Easterday Avenue over I-75
- **City of Walker:** Walker Avenue Bridge Removal
- **Clare CRC:** Vandercar Road over Mill Creek Pond Dam, Muskegon Road Bridge at Muskegon River, Bailey Lake Road over Cedar River
- **Emmet CRC:** Munger Road and Reed Road over Carp River Crossings, Lake Shore Drive
- **Gladwin CRC:** Maple Point Road Culvert Replacement, Bensch Road over Titabawassee River
- **Isabella CRC:** Mission Road over TSB Railroad and US-127 BR
- **Kalkaska CRC:** Mecum Road over North Branch Manistee River, Aarwood Road over Rifle River, Tower Road NE Crossing
- **Lake CRC:** 7 Mile Road Bridges, 76th Street, Blood Creek Crossings, East 24th Street Crossing North Branch Cole Creek, South Broadway Street Crossing South Branch Cole Creek, Bass Lake Road over the Little Manistee River, Bass Lake Road and 11 Mile Road Intersection
- **Luce CRC:** CR 414 over Dawson Creek
- **Marquette CRC:** County Road 510 over Dead River
- **Midland CRC:** Castor Road over Salt Creek, Levely Road Bridge over Herner Drain
- **Missaukee CRC:** 7 Mile Road Bridge over Clam River
- **Osceola CRC:** One Mile Road over North Branch Chippewa River
- **St. Clare CRC:** Frith Road over Pine River
- **Village of Baldwin:** 8th Street Bridge Replacement
- **Village of Harrietta:** Gossman Street over Slagle Creek
- **Village of Hersey:** Main Street Bridge at Hersey River
- **Village of Northport:** Rose Street Culvert Replacement
- **Wexford CRC:** 30 Road Bridge

MDOT Projects

- Pere Marquette State Trail
- Statewide PASER
- US-23 Harrisville Reconstruction – Alpena TSC
- M-66 Concrete Reconstruction, Ionia
- M-85 Viaduct Reconstruction
- M-39 from I-94 to M-10
- I-475 Design Build
- Statewide Bridge Load Rating
- Hazardous Materials Flow Survey
- M-11 (28th St.) Concrete Reconstruction, City of Wyoming, Kent County
- US-23 ASCRL From Black River Road south to Everett Road, Alcona County
- US-31/M-72 Acme Intersection Early Preliminary Engineering Study, Grand Traverse County
- US-31/M-72 Acme Intersection Reconstruction and Streetscape, Grand Traverse County
- County Right-of-Way Mapping for MDOT Real Estate Division
- M-125 from Luna Pier Road to city limits of Monroe
- US-223 from Wellsville Highway to Rodesiler Highway
- Intelligent Transportation System Service - RWIS and DMS Design

As-Needed Engineering Services

- City of Cadillac, Ionia County Road Department, Lake CRC, Clare CRC, Missaukee CRC, Kalkaska CRC, Oceana CRC

Joshua Gottschall
Constructability Reviewer

Josh has over 24 years of experience on road and bridge, private, USNRC, and commercial construction projects serving as Office Tech, and Lead Observer/Tester. As a Project Manager, he has been responsible for various private client, local agency, and MDOT projects performed within Prein&Newhof's Construction Engineering group which includes water, sanitary sewer, storm sewer, street improvements, highway and bridge construction, site development, and drainage projects.

Josh is certified and experienced in MCA/ACI Concrete Level 1, ACI Concrete Strength Testing, MDOT Density Control, aggregate, bituminous quality assurance and testing, Troxler, Stormwater, SESC-C, FieldManager, and is an MDOT Office Technician. He is also familiar with the standards, specifications, and procedures from AASHTO, MMUTCD, MDOT, and MTM.

Representative Projects

Roads

- **City of Big Rapids:** DeKrafft Avenue Reconstruction, Michigan Avenue from Linden Street Northerly to Pine Street Streetscape Project, 4th Avenue from Madison Avenue to Baldwin Street; Bjornson Street from DeKrafft Avenue to Milton Avenue; Bronson Avenue from Maple Street to Milton Avenue, US–131 BR Michigan Avenue Streetscape & Roadway Reconstruction
- **City of Cadillac:** Cass Street Redesign, CE for Cobb & Division Streets Reconstruction, Chestnut Street T & I, Leeson Street Reconstruction, Mason & Bremer Construction T & I, Shelby Street, Holly Road, Wren Place, Vine Street, Heather Place, South Street, Ford Street, Smith Street, Wheeler Street, Garfield Street, Blodgett Street, Marble Street
- **City of Grand Rapids:** Sidewalk Improvements 3 Mile-Monroe to Coit, Sidewalk Improvements in Plainfield I-96 to 390' N of Salerno Drive
- **City of Hart:** Lincoln Street Reconstruction
- **City of Hastings:** E Woodlawn Avenue
- **City of Parchment:** G Ave from Everhard to Riverview

Education

Associates, Science

Northwestern Michigan College, 1999

Certifications & Training

Certified Aggregate Technician

Certified Storm Water Operator

Concrete Field Testing Technician

Field Manager Training, ACEC Materials Certification

MDOT Density Technology

MDOT Office Technician Program

MODT Prevailing Wage

MDOT Bridge Painting Inspection

MDOT Bridge Construction and Rehabilitation Field Inspection Training

Soil Erosion and Sedimentation Control

Storm Water Operator for Construction Sites

Troxler Nuclear Density Testing Certification

Professional History

Prein&Newhof, 2013-Present

23 years in Industry

- **City of Kentwood:** Engineer Services for Sparks Drive & Forest Hill Avenue Improvements, Green Acres
- **City of Midland:** North Saginaw Road-Perrine Road to Drake Street
- **City of Mount Pleasant:** Broadway Street-Design Services, Broadway-CE, Brown Street Reconstruction-Phase 1 &2
- **City of Muskegon:** Reconstruction of Muskegon & Webster Avenues

- **Clare CRC:** Arnold Lake & Rodgers, Farwell Small Urban, Overlay Projects, Finley Lake Avenue from Cedar Road to Mannsiding Road & Mannsiding Road from Finley Lake Avenue to Old State Avenue, Lake George Avenue Streetscape and Roadway Reconstruction, Clare Avenue and Adams Road Intersection, Harrison Avenue
- **Isabella CRC:** Blanchard, Rolland, Whiteville Paving, Coleman Road Guardrail, Deerfield Road, Chip Seal Projects, Winn Road, Isabella Road Intersection Improvements, LAP Chip Seal Projects, Broadway Road from US-127 easterly to east of Summerton Road
- **Kalkaska CRC:** Shore Road, Starvation Lake Road #2 CE, Ingersoll Road, Lake Valley Road
- **Lake CRC:** 3rd & Beech CE, 56th Street CE, Baldwin Road Crush & Shape, FY HSIP Projects, Gleason's Landing FLAP Grant, Hawkins Road Overlay, Hawkins Road-CE, 5 Mile Road CE, Old M-63 Construction & Safety Project, Pavement Marking, Star Lake Drain & Lake Control Structure CE, Bass Lake Road and 11 Mile Road
- **Manistee CRC:** Lap WCF, Locally Funded WCF, County Wide Paving, Springdale Road Resurfacing, Camp-Preuss & Heuer Hill Resurfacing, River Road Resurfacing, Lyman and Siegfried Roads Resurfacing, Glovers Lake Road Resurfacing, Hoxeyville Road Rehabilitation, Kott & Siuda Roads, Coates Highway, Manistee Paving, Merkey Road, Milarch Road Resurfacing, River & Hoxeyville Road CE, Seaman Road CE, Snyder Road Paving
- **Missaukee CRC:** Burkett Road CE, Jennings Road Improvements, Lucas Road, CPM Projects
- **Muskegon County:** Swanson Road
- **Oceana CRC:** Monroe Road Phases 1-4, 192nd Avenue Reconstruction
- **Osceola CRC:** US-10 Reconstruction E of Reed City
- **Otsego CRC:** Old 27 North
- **Roscommon CRC:** County Road 100
- **Wexford CRC:** Chittenden Nursery Road/M-55 Construction Engineering, Mackinaw Trail, FFH-37 (Caberfae Road), 29 Road Reconstruction, 37 Road Reconstruction, US-131 By-pass from No. 30 Road North to No. 6 Road – Manton By-Pass, US-131 By-Pass, N of M-115 to South of Boon Road, US-131 By-Pass, Boon Rd to N of Existing US-131

MDOT Projects

- Cadillac TSC As Needed I&T, Mt. Pleasant TSC As Needed I&T, Traverse City TSC As-Needed I&T
- M-72 Full Construction Engineering
- Muskegon TSC As Needed I&T
- As-Needed Density Testing and Inspection
- CPM – Crack Treatment
- CPM – Micro Surface
- US-131 BR Mitchell Street
- I-94 BL (Main St.) River St. -N. Fair Ave. (M-139), I-94 BL (Main St.) River St.-North Fair Ave. (M-139)
- I-94 Business Loop, Benton Harbor(River St-M-39)
- M-15, M-20, M-13, M-57, US-23, US-127, US-127BR, M-83, M-65, M-81, US-10BR, US-127, US-127BR, M-20 and M-46 at various locations
- M-18/M-61 over the Cedar Creek
- M-20 (East Pickard Road)
- US-10 between M-30 and M-18,
- US-10 / Sanford Lake
- US-10 Reconstruction, Osceola Co (East of Evart)
- Highway Preventive Maintenance Project- Chip Sealing,
- Microsurfacing, HMA Crack Treatment, Hot Mix Asphalt Crack Treatment Projects
- M-18 from M-61 to 1st Street
- US-127BR from Tobacco River to US-127
- M-20 from the Midland County line to Geneva Road
- 53 Bridges Bay Region
- Final Estimate Reviews for the Grand Region
- US-131 By-pass from No. 30 Rd North to No. 6 Road – Manton By-Pass
- US-131 By-Pass, North of M-115 to South of Boon Road
- US-131 By-Pass, Boon Road to North of Existing US-131
- US-10 Reconstruction east of Reed City
- M-222 Slope Stabilization

As-Needed Engineering Services

- City of Cadillac, Ionia County Road Department, Lake CRC, Missaukee CRC, Lake Township, Roscommon CRC, Oceana CRC, Kalkaska CRC, Isabella CRC, Clare CRC, Osceola CRC, Wexford CRC

Scott Tezak, PE
Traffic Engineer

Scott is experienced as a Transportation Engineer and has extensive experience with traffic engineering studies, impact analyses, design of traffic signals, ITS systems, roadway lighting, maintenance-of-traffic plans, signage plans, and pavement marking plans.

Scott has designed projects involving signing and pavement markings design, traffic control and construction phasing design, traffic signal, ITS/ interconnect, High Intensity Activated Crosswalks (HAWK), bicycle and pedestrian crossings, and roadway lighting. He has also been involved with access control analysis and signing and striping rehabilitation projects, and is well-versed in resolving circulation issues for public schools and private developments. Scott is well versed in the analysis of intersection and arterial design using a wide variety of software, including HCS and Synchro.

Representative Projects

Traffic Signals

- **Caledonia Township:** Cherry Valley and 92nd Street Pedestrian Signal, Non-Motorized Pathway Phase 1B
- **City of Grand Rapids:** Sidewalk Improvements in Plainfield I-96 to Salerno Drive
- **City of Rockford:** 11 Mile / Wolverine Road (Courtland) Traffic Signal Improvements, Main and Bridge Street
- **Village of Vicksburg:** Capital Improvements (2 traffic signals)
- **Holland Charter Township:** Quincy Street Non-Motorized Pathway Traffic Signal Improvements

Signing / Pavement Marking

- **Little Eden Camp:** Little Eden Camp Project
- **Park Township:** Ottawa Beach Road Pedestrian Safety Improvements, RRFB Pedestrian Crossing
- **Zeeland Charter Township:** MDOT Rest Area Emergency Entrance

Education
Bachelor of Science, Civil Engineering
Michigan Technological University, 2006

Registrations
PE Michigan, 2018

Certifications & Training
Highway Capacity Software (HCS)
Michigan Traffic Sign Inventory System Training (MTSIS)
Synchro/Sim Traffic

Professional Activities
Institute of Transportation Engineers
American Society of Civil Engineers

Professional History
Prein&Newhof, 2018-Present
15 years in Industry

Maintenance of Traffic

- **City of Coopersville:** 60th and Lake Michigan Drive Booster Station Upgrades, Walk Thru Park Site Improvements
- **City of Muskegon:** SRF Project Plan - Phase 1 Implementation
- **Holland Charter Township:** Pump Station No. 16 Improvements, Lakewood Boulevard Water Main Improvements-River Avenue to Beeline Road
- **Van Buren County Drain Commissioner:** Bob-O-Link Estates

Traffic Studies

- **City of Parchment:** Riverview Drive Traffic Signal Warrant Study
- **Xavier High School**: Circulation Study
- **City of Douglas:** General Consulting, Speed Studies

Lighting

- **City of Cadillac:** Roundabout at Crosby and Division
- **City of South Haven:** Phoenix Street Improvements
- **City of Vicksburg:** 2019-2020 Capital Improvements
- **City of Whitehall:** North Mears Parking Lot and Pavilion, Parking Lot Lighting

Safety Applications

- **City of Allegan:** SR2S Grant
- **City of Harrison:** Harrison Nature Trail
- **City of Hastings:** Asset Management Plan, Sidewalk Inventory
- **City of Kentwood:** 32nd Street Reconstruction
- **City of Mount Pleasant:** Brown Street Reconstruction
- **City of Muskegon Heights:** Sherman Boulevard Resurfacing
- **City of Muskegon:** Peck Street Reconstruction-Merrill to Laketon
- **City of Norton Shores:** Broadway Avenue Restoration
- **City of Rockford:** Pedestrian Safety Improvements
- **East Bay Charter Township:** SRTS
- **Laketown Township:** Blue Star Highway Non-Motorized Path

As-Needed Engineering/Road Commissions/ Municipal

- **City of Cadillac:** As-Needed Engineering, Cadillac Culvert Pilot, Cadillac Farmers Market (CE), Cass Street Redesign, **Roundabout @ Division & Crosby**, Shelby Street - Cass Street to Chapin St. & Sidewalks. US-131 BR, Mitchell Street
- **City of Grand Rapids:** Reconstruction of Fulton Street, Resurfacing of Hall Street from Division Avenue to Jefferson Avenue
- **City of Walker:** Miscellaneous Engineering, Fruit Ridge Avenue (1 traffic signal) & North Ridge Drive Intersection Improvements, Kinney Avenue & Trail Connector, Remembrance Road & Kinney Avenue Intersection (1 traffic signal), Walker Avenue Bridge Removal
- **Clare CRC:** As-Needed Engineering Services, 2019 Overlay Projects, FY 2020 Chip Seal & Fog Seal, Colonville Road, Signing Recommendations
- **Emmet CRC:** Carp River Crossings - Munger Road and Reed Road
- **Grand Haven Charter Township:** Lakeshore Drive NMP Repairs: Ferris Street to Hayes Street, Mid-Block Crosswalk Study
- **Kalkaska CRC:** As-Needed Engineering Services, Plum Valley Road & Twin Lake Road FY 2020 Project, Rapid River Crossings, Roadway Asset Management Plan
- **Kent County Fiscal Services:** City of Rockford CDBG Courtland Drive Sidewalk-Phase 2
- **Lake CRC:** As-Needed Consulting Engineering, 2021 Safety Applications, 8 Mile Road, Culvert Pilot Inventory, 2018 LAP Chip Seal Projects, Safety Projects, 3rd and Beech Construction Engineering, 2019 HSIP Project, 2018 Culvert Inventory, Evergreen & 8th Street/James Road Safety Project, FY 2022 Safety Project Administration, Advance Curve Signing, Curve Improvement

Chris Cruickshank, PE
Environmental & Geotechnical Engineer

Chris serves as Prein&Newhof's Technical Services Team Leader specializing in three areas of practice:

Geotechnical: Chris's geotechnical and construction materials experience includes airports, high-rise buildings, regional shopping centers, transmission towers, retaining walls, bridges, roadways, sewage treatment facilities, water storage tanks, and utility installations involving both open cuts and tunnels.

Environmental: Chris's experience includes environmental assessment of properties (Phase I & II ESAs and BEAs) for real estate transactions, as well as remediation of underground storage tank sites, oil wells, automobile salvage yards, and other contaminated sites. He also prepares SPCC and SWPP plans for industrial sites.

Structural: Chris's structural expertise includes rehabilitation designs for concrete sewers and wastewater tanks. He also performs safety inspections, prepares emergency action plans, and provides forensic engineering for dams.

Representative Projects

Roads & Streets

- Cascade Hills Condo Association: Cascade Hills Condo, Road Reconstruction
- City of Walker: Lake Michigan Drive Tunnel-as Part of Fred Meijer Standale Trail, Leonard Street Improvements
- Kalamazoo Public Schools: KPS Transportation Facility-ravine Road

Environmental Consulting

- Bronson Healthcare Group: Ph I ESA 401 S Burdick St Kalamazoo Mi, Phase I ESA – South Campus Parcels
- Bronson Properties Corporation: 9th Street Environmental
- CCM Properties, LLC: Environmental Consulting Former Fox River Paper Mill, 300 W Highway St Vicksburg
- Charlotte Fornino: Environmental Evaluation of Fornino Residence
- City of Stanton: PFAS Environmental Investigation - Landfill Facility

Education

Master of Science, Civil Engineering
University of Detroit, 1991
Bachelor of Science, Civil Engineering
Michigan Technological University, 1984

Registrations

Engineering Indiana, 2010
Engineering Michigan, 1990
Engineering Nevada, 2020

Certifications & Training

40-Hour HAZWOPER Training
ASFE Loss Prevention
ASTM Risk-Based Corrective Action
Confined Space Training
Design & Construction Using Geosynthetics
Fundamentals of Deep Foundation Design
Structural Condition Assessment of Existing Structures

Professional Activities

American Society of Civil Engineers-Michigan Section
Michigan Society of Professional Engineers
National Society of Professional Engineers

Professional History

Prein&Newhof, 2006-Present
39 years in Industry

- City of Walker: Walkerview Environmental Review
- Erhardt Construction: Hydrolake Pole Plant Building Reconstruction
- Kalamazoo Community Mental Health Services: Phase I ESA - 209 E Stockbridge
- Kalamazoo Valley Community College: Food Innovation Center O & M Plan
- Kellogg USA INC.: SPCC Update at Kellogg Snack-Louisville KY
- Viking Energy of McBain: Update of SPCC & PIPP Plan
- BeeneGarter LLP: Geotechnical Consulting & Building Condition Survey
- Bronson Healthcare Group: Geotechnical Investigation for Proposed Surgery Center
- Bronson Properties Corporation: Bronson Battle Creek Family Health Center, Geotechnical Investigation for Bronson Hospital Office Building, Geotechnical Investigation-vine & John Streets, Kalamazoo, Mi
- Consumers Energy: Consumers Energy Fletcher Substation Harbor Springs Mi, Consumers MSU 138kv Ug Line - Geotech Investigation, Ludington Pumped Storage Plant, Interior Ramp Replacement-CQA Services
- CSM Group: KVCC HFC - Overall Site Testing, Inspection & Staking, Walnut Street Parking Lot Testing
- Envirologic Technologies, Inc.: Geotechnical Investigation for Abv Pro Services in Portage, Mi, Geotechnical Investigation for Ziegler Motor Sports
- Granger Energy: Geotechnical Consultation for Exhaust Stack Renovations
- Homes by Jeff Dekoning: Geotechnical Investigation for Residential Addition at 519 Edgemere
- Hospital Hospitality House: Geotechnical Investigation for HHH Building, Kalamazoo MI
- JJ Shotcrete: Geotechnical Investigation for Swimming Pool at 4217 Michigan Street
- Kalamazoo Valley Community College: Geotechnical Investigation for KVCC Cell Phone Tower
- Kenneth & Hattie Van Haaften: 2973 Thorncrest Dr Se-slope Evaluation & Remediation
- Mueller Industries: Mueller Industries Geotechnical Investigation (6700 S. Sprinkle Rd)
- Northern Properties: Soil Investigation at Northern Estates & Woodland Mobile Home Parks, Soil Testing at Northern Estates Mobile Home Park, Soil Testing at Northland Estates-south
- Pennock Health Services: Geotechnical Investigation for Medical Office Building
- Pine Rest Christian Mental Health Services: Van Andel C Pod Sinkhole Investigation
- Robert Mellema: Geotechnical Investigation
- Waterford Condominium Association: Waterford Condominiums Shoreline Stabilization Design, Plainfield Twp, Mi
- Wiss, Janney, Elstner Associates, Inc.: Foundation & Earthwork Evaluation

Structural Engineering

- American Legion Boat & Canoe Club: American Legion Structural Condition Survey
- Blandford Nature Center: Slope Stabilization at Blandford Nature Center
- City of Walker: Walker Avenue Bridge Removal
- Dickinson Wright PLLC: Engineering Consulting on Water Damage to the Plaza Tower
- Robert & Sandy Navis: Slope Evaluation & Structural Consultation Navis Residence Grand Rapids

Tom Hall, PS
Lead Surveyor

Tom has over 42 years of survey experience. His responsibilities include data collection, staking, computations, data reduction, CAiCE, Civil 3D, and Geopak data processing, GPS processing and preparation of deliverables associated with the survey work. He creates an integration of field and office data prepared by other team members into one seamless project when needed.

Education

Bachelor of Science, Survey Engineering, Science of Surveying

Ferris State University, 1991

Registrations

Land Surveyor Michigan, 1995

Certifications & Training

Genesee & Wyoming Roadway Work Protection Training for Railroad Contractors

ACI Concrete Field Testing Technician - Level 1

Concrete Construction Inspector

CPR

Density Technology

First Aid

MCA Concrete Field Testing Technician - Level 1

Nuclear Gauge Safety

Professional Activities

Michigan Society of Professional Surveyors

Professional History

Prein&Newhof, 2014-Present

32 years in Industry

Representative Projects

Roads & Streets

- **City of Big Rapids:** US-131 BR Streetscape & Roadway Reconstruction, DeKraft Avenue Reconstruction
- **City of Cadillac:** Aldrich Street from Bond to Linden, Cass Street Redesign, Cobb & Division, Chestnut Street, Evart Street, Carmel Street, Crippen Street from Mitchell to Hemlock, Leeson Street Reconstruction, Roundabout@ Division & Crosby, Potvin Industrial Park Streets/Site Readiness Grant, Simons Street-Pine to Bremer, Shelby Street, Mason & Bremer Construction T & I, Stimson Street, Marble Street; Holly Road, Vine Street, Heather Place, Wren Place, South Street; Garfield and Blodgett Streets
- **City of Harrison:** Topo Survey-City of Harrison-new Municipal Building (Sullivan Drive & Spruce Street)
- **City of Hart:** Lincoln Street Reconstruction
- **City of Mount Pleasant:** Brown Street Reconstruction – Phases 1 & 2
- **Clare CRC:** Chip & Seal Projects, Overlay Projects, Colonville Road, Stockwell Road, Keehn Road, Grant Avenue, Dover Road, Adams Road, Mannsiding Road, Beaverton Road Paving, Lake George Avenue Streetscape and Roadway Reconstruction, Harrison Avenue, Gladwin–Clarence, Clare Avenue, from north of Colonville Road to Beaverton Road
- **Emmet CRC:** Lake Shore Drive
- **Georgetown Charter Township:** 14th Avenue & 48th Avenue Sidewalk
- **Hayes Township:** Southwood Drive
- **Isabella CRC:** Winn Road, Whiteville Road from Wing Road to Broomfield Road, Jordan Road, Summerton Road
- **Kalkaska CRC:** Starvation Lake Road from 571 to West of Sunset Trail, Starvation Lake Road #2 CE, Ingersoll Road

- **Lake CRC:** Beech Street & 3rd Street, Astor Road & 32nd St Intersection Improvements, Gleason's Landing FLAP Grant, Star Lake Road, Storm Event-South Branch Road, 76th Street Lake County, 3rd & Beech Construction Engineering, South Branch Road Repair, Wolf Lake Dam, Old 63 Safety Project, Bass Lake Road, 11 Mile Road
- **Lake Township:** Green Road Design
- **Manistee CRC:** Kott & Siuda Roads, Coates Highway, Red Bridge-Coates Highway, Seaman Road CE
- **Mason CRC:** Hansen Road, West Forest Trail
- **Missaukee CRC:** Burkett Road-CE, Burkett Road, Jennings Road Improvements, Prosper Road
- **Muskegon County:** Swanson Road
- **Muskegon CRC:** Ellis Road Resurfacing, Maple Island to Ravenna Road
- **Oceana CRC:** Lakeview Road Design in Pentwater Township, Monroe Road Phases 1-4, 192nd Avenue
- **Osceola CRC:** Mackinaw Trail & 18 Mile Road
- **Marquette CRC:** County Road 510 over Dead River
- **Village of Sparta:** Elm Street Reconstruction
- **Wexford CRC:** Chittenden Nursery Road/M-55 Construction Engineering & Upgrades, Lake Street Parking Lot, Mackinaw Trail from M-115 to US-131 BR, Old M-42 (16 Mile Road) from 31 Road to 41 ½ Road, Ultra Thin (48 Road from 45 Road to Seeley Road and On 16 Road to 41 ½ Road, County Paving

Bridges

- **Antrim CRC and CRA:** Jordan River Access Site Survey, Old State Road & Cokirs Creek Construction Assistance, Chestonia Bridge Boat Access Site CE, Cokirs Creek Crossing Design
- **Barry CRC & CRA:** Finkbeiner Road and Thornapple River Bridge Project
- **Benzie CRC:** Burnt Mill Road Crossing Woodcock Creek & Nessen Rd Crossing Little Betsie River
- **Clare CRC:** Vandecar Road/Mill Creek Pond Dam, Muskegon Road Bridge over Muskegon River
- **Emmet CRC:** Munger Road and Reed Road over Carp River Crossings
- **Gladwin CRC:** Maple Point Road Culvert Replacement, McNamara Road Over North Branch Tobacco River, Peterson Road Bridge, Estey Road, Peterson Bridge over the Pine River
- **Huron Pines:** West Karen Lake Road over East Branch Au Sable Road Crossing
- **Isabella CRC:** Isabella Road Bridge, Shepherd Road Bridge
- **Kalkaska CRC:** Rapid River Crossings, West Sharon Road Bridge over the Manistee River
- **Lake CRC:** E 24th Street Crossing N Branch Cole Creek, Star Lake Drain & Lake Control Structure Phase I, Sanborn Creek Crossings, Star Lake Drain & Lake Control Structure Phase 2, Dam Inspections, Star Lake Drain & Lake Control Structure CE, Storm Event-South Branch Road, 7 Mile Road Bridges, 8 Mile to Brooks Road – Safety Project South Broadway Street Crossing South Branch Cole Creek, Utter Road Crossing, Wolf Lake Dam
- **Manistee CRC:** Bridge and Culvert Replacement
- **Mason CRC:** Hawley Road Bridge
- **Missaukee CRC:** Lucas Drainage Study-Richland Township, Vandermeulen Road over Clam River, Star City Road over West Branch Muskegon River, Lucas Road Bridge over Hopkins Creek
- **RS Engineering, LLC:** M–63 over Higman Park Road, Berrien County
- **Village of Muir:** Prairie Street over the Maple River
- **Wexford CRC:** 14 Road over Cole Creek

As-Needed Engineering Services

- City of Cadillac, Ionia County Road Department, Lake CRC, Missaukee CRC, Lake Township, Kalkaska CRC, Isabella CRC, Clare CRC, Wexford CRC

Gerald Morton
CADD Technician

Gerald has served as both CADD Technician and testing technician performing both design in the office and materials testing in the field. Gerald has used the FieldBook component of the FieldManager program, and is certified and experienced in MCA/ACI concrete Level 1 and MDOT density control. Gerald is responsible for technical aspects of design, plan and specification preparation on a variety of transportation/civil projects, streetscapes, trails and other enhancement grant projects.

Education

Technical Diploma, Civil Engineering
Sault College, 1999

Certifications & Training

ACI and MCA Concrete Field Testing Technician - Grade 1
Advanced GeoPak Training
Density Technology
MDOT Certified in Density Technology
Troxler Nuclear Density Testing Equipment Certified

Professional History

Prein&Newhof, 2013-Present
22 years in Industry

Representative Projects

Roads

- **Arenac County:** Worth Road
- **Caledonia Township:** Kraft Avenue Reconstruction
- **Calhoun CRC:** Wattles Road Bike Lanes
- **City of Big Rapids:** US-131 BR Michigan Avenue, Downtown Streetscape and Roadway Reconstruction, 4th Avenue, Bjornson Street, Bronson Avenue, Monroe Avenue Street Improvements, Sherman Street Reconstruction, Maple Street and DeKraft Avenue Reconstruction
- **City of Cadillac:** Cobb and Division Streets Reconstruction, Ford Street, Smith Street, Wheeler Street, Garfield Street, Blodgett Street, Marble Street, South Street, Holly Road, Wren Place, Vine Street, Heather Place, Cass Street Redesign, Chestnut Street, Evart Street, Leeson Street Reconstruction, Potvin Industrial Park Streets/Site Readiness Grant, **Roundabout @ Division & Crosby,** Shelby Street-Cass Street to Chapin Street & Sidewalks, Simons Street, Stimson Street, Colfax Street, Mason & Bremer Construction, The Shay
- **City of Ferrysburg:** Piney Point Street Improvements
- **City of Grand Rapids:** Resurfacing of Hall Street from Division Avenue to Jefferson Avenue
- **City of Hastings:** E. Woodlawn Avenue
- **City of Kentwood:** 32nd Street Reconstruction
- **Isabella CRC:** Chip Seal Projects, Vernon Road, Summerton Road, Jordan Road, Mission Road, Winn
- **City of Montague:** Industrial Park Drive & Wilcox Street Resurfacing
- **City of Mount Pleasant:** Broadway Street, Brown Street Reconstruction (2 Phases)
- **City of Muskegon:** Reconstruction of Muskegon & Webster Avenues
- **City of Muskegon Heights:** Sherman Boulevard Resurfacing
- **City of North Muskegon:** Holton Road Utility Design
- **City of Roosevelt Park:** Broadway Avenue Resurfacing, Glenside to Maple Grove
- **City of Walker:** Remembrance Road & Kinney Avenue Intersection, Walker Avenue Corridor Improvements
- **INDOT:** SR120 & SR327 Orland Roundabout
- **Kalamazoo Charter Township:** US-131 BR Interchange Study

Road-All 3 Phases, Whiteville Road, Drew Road, Deerfield Road, Rosebush Road, Coleman Road, Weidman Road, Winn Road Paving, Blanchard Road Paving, Broadway Road, Enterprise Drive

- **Lake CRC:** Chip Seal Projects, Old 63 Safety Project, 56th Street -from the West County Line to East of South Branch Road, 76th Street, Astor Road & 32nd Street Intersection Improvements, Baldwin Road Crush & Shape, Beech Street & 3rd Street, Evergreen & 8th Street/James Road-Safety Project, Gleason's Landing FLAP Grant, Hawkins Road Overlay, Old M-63 Bridge, Star Lake Road, Bass Lake Road
- **Lake Township:** Green Road Design
- **Manistee CRC:** Kott & Siuda Roads
- **Muskegon County:** Swanson Road
- **Muskegon CRC:** Ellis Road Resurfacing, Maple Island to Ravenna Road
- **Village of Fruitport:** Third Avenue Improvements
- **Village of Pewamo:** State Street Projects
- **Village of Schoolcraft:** Angell Street Roadway Improvements
- **Village of Shelby:** State Street Reconstruction - Second to 450 North of Sixth
- **Village of Sparta:** Union & Silver Creek Intersection
- **Village of Vicksburg:** E. Highway Street, 2019-20 Capital Improvements

MDOT Projects

- Pere Marquette State Trail
- US-23 Harrisville Reconstruction – Alpena TSC
- M-72 Full Construction, Kalkaska County, Traverse City
- As-Needed Inspection & Testing Services-Cadillac TSC and Mt. Pleasant TSC
- US-12, West Village Limit to Edwardsburg to M-62
- US-10 East of Lake Station Avenue, Clare County
- US-131 Road Scoping - Coon Hollow to Schoolcraft
- Muskegon TSC: As Needed Design Services for CPM Projects & Scoping: Lake, Mason, Muskegon, Newaygo, Oceana, Osceola, and Ottawa Counties
- US-131, Osceola and Mecosta Counties
- Old US-131, Wexford County
- I-94 Business Loop, Benton Harbor
- US-127, from US-127 BR (Washington Road) Ithaca, Gratiot County
- US-10, Old State, Harrison & Grant Roads, Clare County
- M-222 Slope Stabilization Full Construction Engineering, Allegan
- M-43 (Saginaw Street over Grand River, Ingham County
- M-66 Concrete Reconstruction, Ionia
- US-223 Streetscape, Village of Blissfield
- M-121 (Chicago Drive), Hudsonville, Zeeland, Jamestown & Georgetown Townships., Ottawa County
- M-119 Harbor Springs, Emmet County
- US-23, Black River Road, Alcona County, Alpena
- M-11 (28th St.) Concrete Reconstruction, City of Wyoming, Kent County
- Old US-31 over Pentwater River, Oceana County
- M–59, Opdyke Road to Crooks Road, Oakland County
- M–85, Fort Street, Detroit, Wayne County
- US-31/M-72 Acme Intersection Reconstruction and Streetscape, Grand Traverse County
- M–102 (8 Mile) / M–1 (Woodward) Interchange, Cities of Ferndale and Detroit
- M-24, Brauer Road, Lapeer County
- US-127, Bagley Road to US-127BR, Ithaca, Gratiot Co
- US-131 SB, Ann Street, Grand Rapids
- US-131 SB, Preliminary Site Investigation, Kent County
- Acme Intersection EPE Study M-72/US-31, Traverse City
- M-33 Passing Relief Lanes and Streetscape, Mio
- M-65 Streetscape Enhancement, Hale
- I-96 Concrete Freeway Reconstruction, Marne & Coopersville
- US-127 BR Townline Road, Clare County
- M-26 Road Reconstruction, MSE Wall, and Pedestrian Tunnel, Houghton
- US-27 BR, Lincoln Road to M-46, Gratiot County
- M-5, Marne Street to M-102, Wayne County
- US-2/US-141, Dickinson County
- US-31 at M-120 Loop Ramp Construction, Muskegon
- Right-of-Way Map Upgrades, Kent County
- Right-of-Way Upgrades, Allegan County
- US-10, Osceola County
- M-94, Marquette County

As-Needed Engineering Services

- City of Cadillac, Clare CRC, Isabella CRC, Kalkaska CRC, Missaukee CRC, Oceana CRC, Roscommon CRC, Ionia County Road Department, Lake CRC, Laketon Township, Wexford CRC

Floyd Morris
CADD Technician

With over 30 years of experience, Floyd is responsible for technical aspects of design, plan and specification preparation on a variety of transportation/civil projects, streetscapes, trails, and other enhancement grant projects.

Representative Projects

Roads

- **Alcona CRC:** Ritchie Road, Hubbard Lake Road
- **Caledonia Township:** Kraft Avenue Reconstruction
- **City of Big Rapids:** US-131 BR Michigan Avenue, Downtown Streetscape and Roadway Reconstruction, 4th Avenue, Bjornson Street, Bronson Avenue, Monroe Avenue Street Improvements, Sherman Street Reconstruction, Maple Street and DeKraft Avenue Reconstruction
- **City of Cadillac:** Cobb and Division Streets Reconstruction, Ford Street, Smith Street, Wheeler Street, Garfield Street, Blodgett Street, Marble Street, South Street, Holly Road, Wren Place, Vine Street, Heather Place, Cass Street Redesign, Chestnut Street, Evart Street, Leeson Street Reconstruction, Potvin Industrial Park Streets/Site Readiness Grant, **Roundabout @ Division & Crosby**, Shelby Street, Simons Street, Stimson Street
- **City of Mt. Pleasant:** Broadway Street Reconstruction, Brown Street Reconstruction (2 Phases)
- **City of Muskegon Heights:** Sherman Boulevard Resurfacing, Peck Street Reconstruction-Merrill to Laketon
- **City of Muskegon:** Reconstruction of Muskegon & Webster Avenues
- **City of North Muskegon:** Holton Road Utility Design
- **City of Parchment:** Traffic Signal Warrant Study - Riverview Drive
- **City of Sault Ste. Marie:** Meridian Street, Parnell Street, 3 Mile Road
- **City of West Branch:** North First Street Improvements
- **Emmet CRC:** Lake Shore Drive
- **Grand Traverse CRC:** South Airport Road Project
- **City of Walker:** Fruit Ridge Avenue & North Ridge Drive Intersection Improvements, Remembrance Road & Kinney Avenue Intersection, Walker Avenue Corridor Improvements
- **Clare CRC:** Chip Seal & Fog Seal Projects, Colonville Road, Keehn Road, Stockwell Road, Clare Avenue, Lake George Avenue Streetscape and Roadway Reconstruction, Harrison Avenue, Gladwin-Clarence, Clare Avenue / Surrey Road Intersection Reconstruction, Clare Avenue, Maple Grove Road, Clare Avenue, Arnold Lake Road
- **Isabella CRC:** Chip Seal Projects, Vernon Road, Summerton Road, Jordan Road, Mission Road, Winn Road-All 3 Phases, Whiteville Road

Education

High School Diploma,
Lake City High School, 1993

Registrations

Certifications & Training

Advanced GeoPak Training
Advanced Microstation Training
InRoads Training
Introduction to Roadside Design/Safety

Professional Activities

Professional History

Prein&Newhof, 2013-Present
22 years in Industry

- **Kalamazoo Charter Township:** US-131BR Interchange
- **Kalkaska CRC:** Plum Valley Road & Twin Lake Road, Shippy Road Reconstruction, Innis Road, Ingersoll Road, Rapid City Road, M-72, Safety Project Applications, Manistee Lake Road, Starvation Lake Road
- **Lake CRC:** Old M-63 Reconstruction, Pavement Marking-James Road & Baldwin Roads, Brooks Road, Five Mile Road, 3rd & Beech Construction Engineering, Safety Applications, 56th Street, 8 Mile to Brooks Road-Safety Project, Astor Road & 32nd Street Intersection Improvements, Beech Street & 3rd Street, Evergreen & 8th Street/James Road-Safety Project, FY 2019 HSIP Project, Gleason's Landing FLAP Grant, Hawkins Road Overlay, As-Needed Services, Storm Event-South Branch Road, South Branch Road Repair
- **Lake Township:** Green Road-Road Design
- **Missaukee CRC:** Prosper Road, Burkett Road, Finkle Road-Call Road to Mc Gee Road, Jennings Road Improvements
- **Muskegon County:** Swanson Road
- **Muskegon CRC:** Ellis Road Resurfacing, Maple Island to Ravenna Road
- **Oceana CRC:** 192nd Avenue Safety Project, Monroe Road (All 4 Phases), Lakeview Road Design, Oceana Drive
- **Otsego CRC:** Winters Road, Old 27 North
- **Roscommon CRC:** As-Needed Consulting Engineering, Albermarle Boulevard, Long Point Drive, Eighth Street, 2017 Safety Signing Upgrades
- **Village of Fruitport:** Third Avenue Improvements

MDOT Projects

- Pere Marquette State Trail
- US-23 Harrisville Reconstruction – Alpena TSC
- US-12, West Village Limit to Edwardsburg to M-62
- Geospacial Utility Infrastructure Data Exchange (GUIDE) Initiative
- US-131 Road Scoping - Coon Hollow to Schoolcraft
- Muskegon TSC: As Needed Design Services for CPM Projects & Scoping: Lake, Mason, Muskegon, Newaygo, Oceana, Osceola, and Ottawa Counties
- Right-of-Way Map Upgrades, Kent County
- Right-of-Way Upgrades, Allegan County
- I-94 Business Loop, Benton Harbor
- I-96 Concrete Freeway Reconstruction, Marne & Coopersville
- M-11 (28th St.) Concrete Reconstruction, City of Wyoming, Kent County
- M–102 (8 Mile) / M–1 (Woodward) Interchange, Cities of Ferndale and Detroit
- M-121 (Chicago Drive), Hudsonville, Zeeland, Jamestown & Georgetown Townships., Ottawa County
- M-5, Marne Street to M-102, Wayne County
- M-119 Harbor Springs, Emmet County
- M-222 Slope Stabilization Full Construction Engineering, Allegan
- M-24, Brauer Road, Lapeer County
- M-26 Road Reconstruction, MSE Wall, and Pedestrian Tunnel, Houghton
- M-33 Passing Relief Lanes and Streetscape, Mio
- M-45, Ottawa County
- M-46 over Sugar Creek & US-127 over Pine River, Mt. Pleasant
- M–5, Detroit & Livonia
- M-51 Slope Stabilization, Berrien County
- M–59, Opdyke Road to Crooks Road, Oakland County
- M-65 Streetscape Enhancement, Hale
- M-65 over North Branch of Thunder Bay River, Alpena
- M-66 Concrete Reconstruction, Ionia
- M–85, Fort Street, Detroit, Wayne County
- M-88, Bellaire
- Easterday Avenue over I-75, Sault Ste. Marie
- US-2/US-141, Dickinson County
- US-10, Osceola County
- US-31/M-72 Acme Intersection Reconstruction and Streetscape, Grand Traverse County
- Acme Intersection EPE Study M-72/US-31, Traverse City
- US-127, Bagley Road to US-127BR, Ithaca, Gratiot County
- US-127 BR Townline Road, Clare County
- US-131 SB, Ann Street, Grand Rapids
- US-131 SB, Preliminary Site Investigation, Kent County
- US-223 Streetscape, Village of Blissfield
- US-23, Black River Road, Alcona County, Alpena
- US-27 BR, Lincoln Road to M-46, Gratiot County
- US-31 at M-120 Loop Ramp Construction, Muskegon

Robert Ouwinga

Senior Construction Observer

Bob has served as Lead Observer/Tester on a wide variety of construction projects for MDOT and local agency projects. He has performed materials testing on many MDOT, Local Agency, private, USNRC, and commercial construction projects throughout the State. Bob is also proficient with the FieldBook component of the FieldManager program. He is certified in MCA/ACI concrete Level 1, MDOT density control, Michigan certified aggregate technician, Troxler user, FieldManager, Stormwater, and SESC-C. Bob has been involved in all phases of technical well drilling, including installation of monitor wells, observations wells, soil borings, and utilization of HydroPunch and Geo-Probe soil sampling equipment.

Roads

- **Antrim CRC:** Central Lake Garage
- **City of Big Rapids:** US-131 BR Michigan Avenue Streetscape & Roadway Reconstruction
- **City of Cadillac:** Cobb & Division, Construction Engineering-Heritage Plaza, SAW Grant
- **City of Harrison:** Harrison Dig Grant, SR2S-Construction Engineering
- **City of Mt. Pleasant:** Broadway Street Reconstruction
- **City of Muskegon:** Reconstruction of Muskegon & Webster Avenues
- **Clare CRC:** As-Needed Services, Mannsiding Road, Eight Point Lake Road, Rock Road, Cook Avenue Reconstruction, Clare Avenue, Arnold Lake Road, Mannsiding Road, Surrey Road/Ludington Road, Chip and Seal Projects
- **Gladwin CRC:** Knox Road

  Isabella CRC: As-Needed Inspection & Testing, Whiteville Road, Leaton Road, East Deerfield Road, Drew Road, Winn Road, Summerton Road Reconstruction, Deerfield Road, Rosebush Road, Coleman Road, Weidman Road, Blanchard Road Paving, Broadway Road, Enterprise Drive, Venture Way, Parkway Drive
- **Kalkaska CRC:** As-Needed Services, Starvation Lake Road , Rapid City Road, 2017 Safety Project Applications, Manistee Lake Road, Rapid City Road, Spencer Road
- **Kent CRC:** 36th Street Extension
- **Lake CRC:** 56th Street

Education

Diploma, Northern Michigan Christian High School

Certifications & Training

Qualified Concrete Technician – MCA and ACI Level I, Michigan Certified Aggregate Technician, Certified in use of Troxler Nuclear Density Testing Equipment, Stormwater Operator for Construction Sites-MDNR, Soil Erosion and Sedimentation Control-MDEQ, MDOT Certified in Density Technology, 40 hr Hazwoper Certified, FieldManager, CPR and First Aid-American Red Cross.

Professional History

Prein&Newhof, 2013-Present
30 years in Industry

- **Manistee CRC:** Manistee Coates Highway, Milarch Road Resurfacing, Seaman Road, Stronach Road Resurfacing
- **Missaukee CRC:** As-Needed Engineering, Prosper Road, Moorestown Road, Falmouth Road / Forward Road Reconstruction, Lucas Road Paving, South Morey Road
- **Oceana CRC:** Monroe Road Reconstruction from 88th Avenue to 96th Avenue, 192nd Avenue
- **Osceola CRC:** 80th Avenue, 20 Mile Road
- **Otsego CRC:** Old 27 North
- **Wexford CRC:** As-Needed Services, FFH-37 (Caberfae Road), 13 Road, 13th Street, North 47 Road, Boon Road, Mackinaw Trail, Old M-42 (16 Mile Road)

Bridges

- **Barry CRC:** Finkbeiner Road and Thornapple River Bridge Project
- **Clare CRC:** Pine Road Bridge over Muskegon River, Muskegon Road Bridge, Haskel Lake Road Bridge Rehabilitation, Pine Road over Muskegon River
- **Gladwin CRC:** Estey Road Bridge-Emergency Repairs, McNamara Bridge, Peterson Road Bridge
- **Isabella CRC:** Battle Road Bridge, Beal City Road Bridges, Isabella Road Bridge, Lincoln Road Bridge, Loomis Box at Welnack Drain, Loomis Road Bridge, Meridian Road Bridge, Pickard Road over Chippewa River, Remus & Loomis Roads over Onion Creek, Rolland Road over Chippewa River, Rosebush Road Bridge, Shepherd Road Bridge, Weidman Road Bridge, Wise Road Bridge, Coleman Road Bridge, West Jordan Road over Coldwater River, Chippewa Road Bridge at Little Salt River, Winn Road over South Branch Chippewa River, Leaton Road over Lewis Drain and Spring Creek
- **Kalkaska CRC:** Aarwood Road over Rapid River, Kniss Road over North Branch Manistee River, West Sharon Road Bridge over Manistee River
- **Missaukee CRC:** Vandermeulen, Lucas, and Star City Road Bridges, LaChance Road Bridge, Brinks Road over Clam River
- **Roscommon CRC:** Old US-27 Bridge over Muskegon River
- **Saginaw CRC:** Freeland Road Over Tittabawassee River
- **Village of Muir:** New Twin Rivers Bridge
- **Wexford CRC:** 14 Road over Cole Creek

MDOT

- Various As Needed Inspection & Testing Projects - Mt. Pleasant TSC

Ethan Bancroft
Construction Observer

Ethan is an Observer/Testing Technician responsible for aggregate, density, and concrete testing and project inspection and documentation. for Prein&Newhof road projects. He worked three construction seasons with MDOT in which he performed quality assurance materials testing and assisted Lead Construction Observers with project oversight. He also assisted and served as a member of the survey crew and did construction staking for several projects. Ethan has conducted testing on mainly state and local agency road and bridge projects. He is versed in AASHTO, MMUTCD, MDOT, and MTM standards, specifications, and procedures.

Representative Projects

Roads, Streets & Bridges

- **Benzie CRC:** Burnt Mill Road Crossing Woodcock Creek & Nessen Road Crossing Little Betsie River
- **City of Cadillac:** CE for Cobb & Division, Mason & Bremer Construction T & I, Chestnut Street T & I - Colfax to Leeson, Roundabout at Division & Crosby, Division Street - Linden to Leeson, Chestnut Street - Linden to Leeson, Carmel Street from Cobbs to Stimson, Leeson Street Reconstruction, Shelby Street - Cass St. to Chapin St. & Sidewalks, Construction Engineering Cadillac Commons, Aldrich Street from Bond to Linden, Potvin Industrial Park Streets/Site Readiness Grant, Simons Street - Pine to Bremer, Crippen Street from Mitchell to Hemlock, Evart Street - Cedar to Lester, As Needed Inspection & Testing 2017
- **City of Harrison:** Harrison SR2S - Construction Engineering, Harrison Band Shell
- **City of Mount Pleasant:** Brown Street Reconstruction Phase 2-2022, Brown Street Reconstruction
- **Clare CRC:** Farwell Small Urban
- **Emmet CRC:** Lake Shore Drive
- **Gladwin CRC:** Peterson Road Bridge, Estey Road Bridge, Mc Namara Bridge, Knox Road Ce-2016
- **Isabella CRC:** Woodruff Road Bridge, Mission Road - Local, Lincoln Road, Box Culvert - Loomis Road at Mckay Drain, 2020 Chip Seal Lap Project, Chip Seal 2020 CE, Loomis Road Bridge, Lap Chip Seal, As Needed 2014, Winn Road, Beal

Education

Bachelor of Science, Construction Management

Ferris State University, 2013

Certifications & Training

Concrete Field Testing Technician

MDOT Density Technology

Michigan Aggregate Technician

Soil Erosion and Sedimentation Control

Storm Water Operator for Construction Sites

Troxler Nuclear Density Testing Certification

Professional History

Prein&Newhof, 2014-Present

12 years in Industry

City Bridges, Meridian Road Bridge, Remus & Loomis Roads over Onion Creek, Wise Road Bridge, Lincoln Road Bridge 2017, Shepherd Road Bridge-LAP, Rosebush Road Bridge 2017, Battle Road Bridge, As Needed 2021, Coleman Road Guardrail, Loomis Box at Welnack Drain, Isabella Road Bridge 2018, Blanchard Road Culvert Replacement, Isabella Road Bridge, Rolland Road over Chippewa River, Winn Road 2018, Bridge Rehabilitation - Four Locations, Blanchard, Rolland, Whiteville Paving, As Requested 2016, Wise Road 2017, Mission Road Resurfacing, 2017 As Needed, Isabella Road Intersection Improvements, Whiteville Road 2017, Pickard Road over Chippewa River

- **Kalkaska CRC:** Starvation Lake Road #2 CE, 2014 Biennial Bridge Inspections, As Needed Engineering Services for 2014
- **Lake CRC:** W. Stevenson Road Repair, 56th Street CE, As Needed 20172018, Hawkins Road CE, 5 Mile Road CE, 8 Mile to Brooks Road-Safety Project, Old M-63 from M-37 to Spruce, Old M-63 Bridge, FY 2019 HSIP Project, Old M-63 Construction JN 130493, Gleason's Landing Flap Grant
- **Link Engineering Services:** 70th Ave - Osceola CRC
- **Manistee CRC:** Snyder Road Paving 2019, Glovers Lake 2021, South Countyline - 2021 - Manistee, Kott & Siuda Roads, Hoxeyville Road Rehabilitation, Glovers Lake Road 2022 CE, County Wide Paving 2018, Manistee Paving 2019
- **Mason CRC:** Fountain & Tuttle Bridges, Hawley Road Bridge
- **Michigan Department of Transportation:** Pere Marquette State Trail, JN 208527, GUIDE (Geospatial Utility Infrastructure Data Exchange), Cadillac TSC As Needed 2014-2015, Traverse City TSC As Needed 2021-2023, Mt. Pleasant TSC As Needed 2015-2022, M-72 Full Construction Engineering, Muskegon TSC As Needed - 2020-2021
- **Missaukee CRC:** Lucas Road, CE for Three Bridges, 8 Mile Road Improvements, Burkett Road 2018, Burkett Road- CE 2020
- **Oceana CRC:** Monroe Road Reconstruction 2017, Monroe Road Construction Engineering, Monroe Road Reconstruction from 88th Avenue to 96th Avenue Construction Engineering
- **Wexford CRC:** As Needed 2020-2021, 16 Rd/Old M-42, 34/Boon Road

Don Hiltz
Construction Observer

Education
Lake Superior State University, 2015

Registrations

Certifications & Training

Professional Activities

Professional History
Prein&Newhof, 2017-Present

Representative Projects

Roads & Streets

- **City of Cadillac:** As-Needed Road Engineering, Chestnut Street T & I, Potvin Industrial Park Streets/Site Readiness Grant, Roundabout at Division & Crosby, Burlingame Street, Cass Street Redesign, Evart Street, Carmel Street, Leeson Street Reconstruction, Cadillac Farmers Market-CE, Mason & Bremer Construction Testing & Inspection, Crippen Street, Marble Street; Holly Road, Vine Street, Healther Place, Wren Place, South Street; Garfield and Blodgett Streets
- **City of Hart:** Lincoln Street Reconstruction, SAW Grant
- **City of Mount Pleasant:** Brown Street Reconstruction Phase Phases1 & 2
- **Clare CRC:** Farwell Small Urban
- **Emmet CRC:** Lake Shore Drive
- **Ionia County Road Department:** As Needed Services
- **Isabella CRC:** As-Needed Services, Winn Road, Isabella Road Intersection Improvements, Isabella Chip Seal, Blanchard-Rolland-Whiteville Paving, Lap Chip Seal
- **Lake CRC:** Gleason's Landing Flap Grant, Hawkins Road, 8 Mile to Brooks Roads-Safety Project, 3rd & Beech Construction Engineering, South Broadway Street Crossing South Branch Cole Creek
- **Link Engineering Services:** 70th Ave
- **Manistee CRC:** County Wide Paving , East Lake Resurfacing, Red Bridge-Coates Highway, Snyder Road Paving, LAP WCF, Locally Funded WCF, Yates Road Resurfacing, Glovers Lake Road, Glovers Lake, Lyman & Siegfried Roads, Springdale Road, River Road, Chief Road, Hoxeyville Road Rehabilitation
- **Michigan Department of Transportation:** M-72 Full Construction Engineering, Mt Pleasant - As Needed, Traverse City TSC As Needed
- **Missaukee CRC:** Burkett Road 2020, Jennings Road Improvements

- **Rowe Professional Services:** Mt. Pleasant As Needed 2022-2025, Rowe PSC - Mt Pleasant TSC 2021-2024
- **Wexford CRC:** As-Needed Services, Chittenden Nursery Road/M-55 Construction Engineering & Upgrades, Mackinaw Trail

Bridges

- **Clare CRC:** Vandecar Road/Mill Creek Pond Dam
- **Isabella CRC:** Shepherd Road Bridge-LAP, Battle Road Bridge, Beal City Bridges, Remus & Loomis Roads over Onion Creek, Isabella Road Bridge, Pickard Road over Chippewa River, Meridian Road Bridge, Weidman Road Bridge
- **Gladwin CRC:** Beaverton Bridges, Estey Road Bridge, 3 Bridge Rehabilitations
- **Kalkaska CRC:** Rapid River Crossing
- **Lake CRC:** South Broadway Street Crossing South Branch Cole Creek
- **Manistee CRC:** High Bridge over Big Manistee
- **Mason CRC:** Hawley Road Bridge

Non-Motorized Trails

- **City of Harrison:** Harrison Nature Trail
- **City of Traverse City:** West Boardman Lake Trail Final Design & Construction Engineering

Exhibit B

2023 Billing Rate Schedule

Prein&Newhof

Current Fee Schedule

Prein&Newhof bills for each hour spent on a project at the hourly rate of the employees assigned. Direct expenses and sub-consultant costs are billed at invoice plus a 10% handling charge.

Identified below are the hourly rates for various employee classifications:

Employee Classification	Hourly Billing Rate*
Project Manager, Senior Engineer III, Landscape Architect III, Senior Technician V	$155
Senior Engineer II, Surveyor IV, Geologist, Lab Manager, Senior Technician IV	$145
Senior Engineer, Landscape Architect II, Surveyor III, Senior Technician III	$136
Engineer II, Surveyor II, Senior Technician II, Senior Office Technician	$128
Engineer, Surveyor, Senior Construction Observer, Senior Technician	$118
Landscape Architect, Construction Observer II, Technician IV	$108
Construction Observer, Technician III, Lab Technician, Office Technician	$99
Technician II	$87
Technician	$74

*Hourly rates are typically adjusted yearly.

NOTE: Includes overhead, fringe benefits and profit; effective January, 2023.

Exhibit C

Project References
and
MDOT Prequalifications

Prein&Newhof

References

- **Ionia County Road Department** *
  170 E. Riverside Drive
  Ionia, MI 48846
  John Niemela – 231-745-4666

- **Lake County Road Commission** *
  1180 N. Michigan Avenue
  Baldwin, MI 49304
  Leroy Williams – 231-745-4666

- **Missaukee County Road Commission** *
  1199 N. Morey Road
  Lake City, MI 49651
  Brad Siddall – 231-839-4361

Other References

- **Michigan Dept. of Transportation - Traverse City TSC**
  2084 US-31 South, Suite B
  Traverse City, MI 49685
  Dan Wagner, P.E. – 231-941-1986

- **City of Cadillac** *
  200 N. Lake Street
  Cadillac, MI 49601
  Owen Roberts – 231-775-0181

- **Wexford County Road Commission**
  85 West M-115, P.O. Box 49
  Boon, MI 49618
  Karl Hanson, P.E. – 231-775-9731

- **City of Harrison**
  2015 Sullivan Drive
  Harrison, MI 48625
  Justin Cavanaugh – 989-539-7145

- **Clare County Road Commission** *
  3900 E. Mannsiding Road
  Harrison, MI 48625
  Dewayne Rogers – 989-539-2151

- **Michigan Dept. of Transportation – Mt. Pleasant TSC**
  1212 Corporate Drive
  Mt. Pleasant, MI 48858
  Jack Hofweber, P.E. – 989-773-7756

- **Isabella County Road Commission** *
  2261 E. Remus Road
  Mt. Pleasant, MI 48858
  Pat Gaffney, P.E. – 989-773-7131

- **Conservation Resource Alliance**
  108050 Traverse Highway, #1180
  Traverse City, MI 49684
  Kim Balke – 231-946-6817

- **Oceana County Road Commission**
  3501 West Polk Road, P.O. Box 112
  Hart, MI 49420
  Mark Timmer – 231-873-4226

* *Prein&Newhof has As-Needed contracts with these Road Commissions/Cities and provides their primary engineering, surveying, and construction services.*

Prein&Newhof

MDOT Design Prequalifications

- Design - Geotechnical
- Design - Geotechnical: Advanced
- Design - Hydraulics I
- Design - Hydraulics II
- Design - Roadway
- Design - Roadway: Intermediate
- Design - Traffic: Pavement Markings
- Design - Traffic: Work Zone Maintenance of Traffic
- Design - Utilities: Municipal
- Design - Landscape Architecture
- Surveying: Road Design

MDOT Construction Prequalifications

- Construction Engineering: Assistance
- Construction Engineering: Bridges & Ancillary Structures
- Construction Engineering: Roadway
- Construction Engineering: Roadway - Local Agency Program
- Construction Inspection: Bridge Painting
- Construction Inspection: Bridges & Ancillary Structures
- Construction Inspection: HMA Pavement
- Construction Inspection: Roadway
- Construction Inspection: Traffic and Safety
- Construction Services: Office Technician
- Construction Testing: Aggregates
- Construction Testing: Concrete
- Construction Testing: Density
- Surveying: Construction Staking

Exhibit D

Certificate of Insurance

Prein&Newhof

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
1/30/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Professional Underwriters, Inc 39475 13 Mile Road, Suite 106 Novi MI 48377	CONTACT NAME: Leah Fritch PHONE (A/C, No, Ext): 248-553-8300 FAX (A/C, No): 248-553-8305 E-MAIL ADDRESS:
INSURED PREIN-1 Prein & Newhof, Inc. 3355 Evergreen Drive, N.E. Grand Rapids MI 49525	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Berkley Insurance Company — 32603 INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 1917214307 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ PER STATUTE ☐ OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ (Mandatory in NH)	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Prof. Liability Claims Made Basis Pollution Liability			AEC-9058119-04	9/5/2022	9/5/2023	Per Claim Aggregate	$1,000,000 $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

"FOR PROPOSAL PURPOSES ONLY"
*
* * *

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

PREIN-1

OP ID: JF

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 11/30/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER 616-447-2777 Linkfield & Cross Agency 1600 E. Beltline NE, Suite 211 Grand Rapids, MI 49525 Kevin J Cross	CONTACT NAME: KEVIN CROSS PHONE (A/C, No, Ext): 616-447-2777 FAX (A/C, No): E-MAIL ADDRESS: KEVIN@LCDINS.COM
INSURED PREIN & NEWHOF, INC. 3355 EVERGREEN NE GRAND RAPIDS, MI 49525	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : MICHIGAN INSURANCE COMPANY — 10857 INSURER B : WEST BEND MUTUAL INS. CO. — 15350 INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:			CPJ9163216	12/31/2022	12/31/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 200,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY			CCJ9163216	12/31/2022	12/31/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $			CXJ9163216	12/31/2022	12/31/2023	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		A220942	12/31/2022	12/31/2023	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 500,000 $ 500,000 $ 500,000
A	PROPERTY CONTENTS			CPJ9163216	12/31/2022	12/31/2023	LIMIT	800,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

SAMPLE0

SAMPLE CERTIFICATE
For Proposal Purposes Only
SAMPLE STREET
SAMPLE CITY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Exhibit E

Construction Certifications and Training Table

Prein&Newhof

Training Expiration Dates

	MDOT Density Control	MCA Concrete Level 1	MDOT Aggregate Sampling	MDOT Aggregate Level 1	MDOT Aggregate Level 2	SE/SC Comprehensive	Storm water/ SESC-I/C	MDOT Office Technician	ACI Conc. Strength Testing	MDOT HMA Level 1	HMA Paving Operations	HMA Sampling	MDOT Bridge Paint	MDOT Bridge Rehab	HazMat	Haz Woper	1st Aid/CPR
	12127-0426			103651-0524		03241*	C-20824										
Brett E Hastings	4/30/2026	4/15/2025		5/31/2024		7/1/27	7/1/2024				2/28/2027				3/30/2025		2/14/2024
	11921-0123				103353-0124	02485*	C-19954										
Don M Hlitz	1/31/2028	4/15/2024			1/31/2027	7/1/2023	7/1/2023				3/31/2026		3/7/2019	3/7/2019	1/7/2024		2/14/2024
	31477-0123				102681-0626	01857*	C-17220										
Ethan J Bancroft	1/31/2026	4/15/2023			6/30/2026	7/1/2026	7/1/2025	4/15/2026			3/31/2026		3/10/2016		12/11/2025		2/14/2024
	12134-0424			103655-0524		*02766	C-20999										
Jake D VanderMate	4/30/2024	4/15/2025		5/31/2024		7/1/2025	7/1/2025				3/31/2026				3/30/2025		
	12137-0424			103657-0524		*02726	C-20883			102018-0225							
Jim D Powell	4/30/2024	4/15/2025		5/31/2024		7/1/2024	7/1/2024			2/28/2025	2/28/2027				3/14/2025		2/14/2024
	30032-0125			100691-0326		00831	C-03262		00037606*								
Josh A Gottschall	1/31/2025	4/15/2025		3/31/2026		7/1/2027	7/1/2027	1/21/2025	2/10/2027				3/6/2014	1/1/2004	12/15/2025		2/14/2024
	11271-0226			103215-1226		*03242	C-22331		01042329*								
Mark B Soper	2/28/2026	4/15/2025		12/31/2026		7/1/26	7/1/2026		4/16/2024		2/28/2027				4/8/2024		2/14/2024
	31149-1025				102497-0427	03240*	C-540										
Mitchell J Hastings	1/31/2025	4/15/2025			4/30/2027	7/1/27	7/1/2024	3/3/2026			2/14/2023		3/10/2016	4/6/2016	12/18/2025		
	10088-0125		100715-0226			00840	C-02261										
Robert (Bob) D Ouwinga	1/31/2025	4/15/2025	2/26/2026			7/1/2022	7/1/2025				3/31/2026				12/1/2022		2/14/2024
				101867-0527		13812											
Ted Thomson	1/31/2024			5/31/2027		7/1/2023		4/29/2026									
	11226-0125			102602-0524													
Gerald A Morton	1/31/2025	4/15/2025		5/1/2024											2/8/2023		2/14/2024
						03456	C-14643										
Eric E Seguin						7/1/2027	7/1/2024										2/14/2024
	11603-0125																
Tyler J Pullen	1/31/2025																2/14/2024
						02493	C-19942										
Connie S Houk, P.E.						7/1/2023	7/1/2023										

SOILS & STRUCTURES

COMPANY PROFILE:

Soils & Structures, Inc. is a Michigan based engineering consulting firm specializing in geotechnical and structural engineering, construction material testing, and geotechnical drilling. Founded in 1974, the company has expanded to three offices with over seventy staff professionals that include geotechnical and structural engineers, steel detailers, draftsmen, engineering technicians, and geotechnical drillers. Soils & Structures is involved in projects throughout Michigan.

COMPANY CONTACT:

Western Michigan Office – Corporate

ADDRESS: 6480 Grand Haven Road
Muskegon, Michigan 49441
PHONE: (800) 933-3959
E-MAIL: ctoth@soilsandstructures.com
WEB: www.soilsandstructures.com

Northern Michigan Office

ADDRESS: 1371 Trade Center Drive
Traverse City, Michigan 49696
PHONE: (800) 933-3959
E-MAIL: etourre@soilsandstructures.com

Eastern Michigan Office

ADDRESS: 3905 Varsity Drive
Ann Arbor, Michigan 48108
PHONE: (800) 933-3959
E-MAIL: jbissonette@soilsandstructures.com

Eastern Upper Peninsula Office

ADDRESS: 10804 M-48 Business Spur
Rudyard, MI 49780
PHONE: (800) 933-3959
E-MAIL: ddunkin@soilsandstructures.com

SOILS & STRUCTURES

CLIENT BASE:

Owners, Architects, Developers, Construction Management Companies, Surveyors and Engineering Consultants

ENGINEERING SERVICES:

Geotechnical Engineering

Geotechnical engineering involves investigating and understanding the conditions beneath the ground's surface. Our geotechnical engineers assess your site conditions in order to design appropriate foundations for structures of all sizes. We are a seasoned engineering group with experience throughout Michigan. Our influence can help improve the design of your foundation, make better use of your budget, and provide a higher degree of confidence that your project is being done right.

- Geotechnical Investigations & Reports
- Foundation Design
- Earth Retention Design & Evaluation
- Retaining Walls
- Pavement Design
- Drilling Services

Structural Engineering

Structural Engineering of buildings and foundations is provided for both industrial and architectural clients. We utilize a diversified range of information and experience to produce practical solutions. Structural evaluations of existing structures are also performed for manufacturing, commercial and historical projects.

- Design of New Buildings
- Foundation Design
- Pile, Retaining Wall & Cofferdam Design
- Steel Detailing
- Computer Aided Drafting

Steel Detailing

Whether it is a warehouse, industrial structure, theater, stair tower, or custom handrail, we have you covered. We are set up to excel at delivering a successful project from pre-bid to topping out. We have experienced in-house detailers, checkers, and structural engineers. We have the in-house ability to do all calculation packages for connections, stair, handrail, guardrail, and other elements. Our detailers and checkers are in constant contact with our engineering team regarding your project as a value-added service.

- Structural Framing
- Miscellaneous Framing
- Stairs
- Railings
- Ladders

SOILS & STRUCTURES

Construction Material Testing

Construction Material Testing is provided for both public and private projects using ASTM and MDOT procedures. Our ICC and state certified technicians provide testing and quality control with technologically advanced equipment. Soils & Structures operates an AMRL Accredited Laboratory.

- Concrete Testing
- Thermal Imaging
- Soil Density Testing
- Aggregate Testing
- Asphalt Testing
- Masonry Inspections
- Seismic Monitoring
- Non Destructive Testing
- Structural Steel Inspection
- Pile Inspection
- Reinforcing Steel Placement Inspection
- Concrete Maturity Testing

Construction Inspection

Construction Inspection Services are provided for road construction projects requiring conformity with the Michigan Department of Transportation and Federal Highway Administration.

- Construction Observation and Administration
- Quantity Tracking
- Inspectors Daily Report
- Field Manager
- Field Book

SOILS & STRUCTURES

February 6th, 2022

Otsego County Road Commission
669 West McCoy Road
PO Box 537
Gaylord, Michigan 49734

Attention: Kirk R. Harrier, Managing Director

Regarding: Otsego County Road Commission – 2023 EOR Services

Dear Mr. Harrier:

Soils & Structures, Inc. is pleased to present our proposal for the above-mentioned project. The scope will include providing Engineer of Record (EOR) services in accordance with the RFP provided by Otsego County Road Commission.

PROJECT DESCRIPTION

Otsego County Road Commission has requested proposals for EOR services for the 2023 construction season. These services include budgeting, planning, design and bidding for a variety of road rehabilitation projects planned for 2023. Full time construction inspection and material testing is also provided in this scope as well as construction observation, documentation, quantity tracking and punch listing of completed projects. Laboratory testing of construction materials is included in this scope and will include plastic testing of concrete samples, sieve analysis of soil and aggregates and extraction/gradation testing of bituminous pavement samples. Reporting will occur through a combination of field book and field manager as well as our internal reporting software.

Services will be provided on a time and materials basis based on the attached fee schedule and as described in the attached statement of qualifications. The fees outlined below are estimates based on ten-hour work days including equipment and typical laboratory testing requirements.

QUOTATION

The estimated fees for the above scope of services are:

• Engineer of Record per Otsego County RFP	$ 60,000.00
• Engineering Technician (110 days at $800 per day)	$ 88,000.00
• Sampling/Laboratory Testing	$ 12,000.00
Total	**$ 160,000.00**

Based on the above scope of services the estimated cost of our services is **One Hundred and Sixty Thousand Dollars ($160,000.00).**

ASSUMPTIONS

- Work will be performed from Monday to Saturday with limited overtime (2 hours per day).
- This proposal assumes contractor staking for the projects during construction. We have not included fees for staking. Please contact us if this service is required for a revised proposal.

We look forward to being of service to you on this project. Please feel free to contact our office with any questions you may have.

Soils & Structures, Inc.

Don R. Dunkin, PE
Staff Engineer

SOILS & STRUCTURES

CONFIRMATION OF AND AGREEMENT FOR THE PROVISION OF LIMITED PROFESSIONAL SERVICES
(Notice of Furnishing)

Design Professional Firm: Soils & Structures, Inc.
Client:

6480 Grand Haven Road
Muskegon, Michigan 49441

Otsego County Road Commission
PO Box 537
Gaylord MI 49734

Agreement Date: February 6, 2023

Project Name: 2023 Engineering Services

Project Location: Otsego County, Michigan

Scope and Limit of Services:

Engineering, Construction Testing and Inspection

Fee Arrangement: Work to be invoiced according to the proposal dated February 6, 2023

ESTIMATED COST OF TESTING = $ 160,000.00

Special Conditions: None

Prepared By:

David W. Hohmeyer, P.E. / President
(printed name/title)

The **Terms and Conditions** form is part of the Agreement.

Offered By:

Soils & Structures Inc.
(Professional Firm)

Don R. Dunkin, PE / Senior Staff Engineer
(printed name/title)

2/6/23
(signature) (date)

Accepted By* *:

(Client/Company)

(printed name/title)

(signature) (date)

SOILS & STRUCTURES

TERMS and CONDITIONS

Project: 2023 Engineering Services **Agreement Date:** February 6, 2023

The Firm shall perform the services outlined in this agreement for the stated fee arrangement.

Site Access:
Unless otherwise stated, the Firm will have access to the site for activities necessary for the performance of the services. The Firm will take precautions to minimize damage due to these activities, but have not included in the fee the cost of restoration of any resulting damage.

Dispute Resolution:
Any claims or disputes made during design, construction or post-construction between the Client and Firm shall be submitted to binding arbitration in accordance with the Construction Industry rules of the American Arbitration Association and any arbitration award so granted shall be specifically enforced by any Circuit Court in Michigan. Client and Firm agree to include a similar arbitration agreement with all contracts, subcontractors, sub-consultants, suppliers or fabricators, thereby providing for binding arbitration as the primary method for dispute resolution between all parties.

Billings & Payments:
Invoices for the Firm's services shall be submitted, at the Firm's option, either upon completion of such services or on a monthly basis. Invoices shall be payable within 15 days after the invoice date. If the invoice has not been paid within 15 days, the Firm may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, terminate the performance of the service. Retainers shall be credited on the final invoice.

Late Payments:
Accounts unpaid 30 days after the invoice date may be subject to a monthly service charge of 1.5% (or the legal rate) on the then unpaid balance. In the event any portion or all of an account remains unpaid 90 days after billing, the Client shall pay all costs of collection, including reasonable attorney's fees.

Indemnification:
The Client shall, to the fullest extent permitted by law, indemnify and hold harmless the Firm, his or her officers, directors, employees, agents and sub-consultants from and against all damage, liability and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance by any of the parties previously named of the services under this agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of the Firm.

Certification, Guarantees and Warranties:
The Firm shall not be required to execute any document that would result in their certifying, guaranteeing or warranting the existence of conditions whose existence the Firm cannot ascertain.

Limitation of Liability:
In recognition of the relative risks, rewards and benefits of the project to both the Client and the Firm, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the Firm's total liability to the Client for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement from any cause or causes, shall not exceed the lesser of 10 x Soils & Structure's fee or $10,000. Such causes include, but are not limited to; the Firm's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.

Termination of Services:
This agreement may be terminated by the Client or the Firm should the other fail to perform its obligations hereunder. In the event of termination, the Client shall pay the Firm for all services rendered to the date of termination, all reimbursable expenses, and reimbursable termination expenses.

Ownership of Documents:
All documents produced by the Firm under this agreement shall remain the property of the Firm and may not be used by the Client for any other endeavor without the written consent of the Firm. The Client grants the Firm the right to use images of the site or construction related to the Firm's work on the Firm's web page.

COMPANY PROFILE:

Soils & Structures, Inc. is a Michigan based engineering consulting firm specializing in geotechnical and structural engineering, construction material testing, and geotechnical drilling. Founded in 1974 by William E. Hohmeyer, P.E. the company has offices in Traverse City and Muskegon. The staff of fifty-six includes geotechnical and structural engineers, draftsmen, engineering technicians, and geotechnical drillers.

Soils & Structure's geotechnical field services include Standard Penetration Test (SPT) borings and Dutch Cone Penetration (CPT) Testing along with United States Army Corps of Engineers Dynamic Cone Penetrometer Testing. Soils & Structures maintains a fleet of four drilling rigs that include both truck and all terrain vehicle mounted rigs for performing these tests. Soils & Structures has performed test borings from barges for several water front structures. Based on the anticipated award date provided in the RFP and the schedule provided in our proposal, we have no concerns regarding our availability to perform the proposed work.

Soils & Structures testing capabilities include concrete, soil, asphalt, masonry, steel, seismic monitoring, pile inspection, reinforcing steel placement and concrete maturity testing. MDOT prequalification's include aggregate testing, density inspection & testing, geotechnical engineering services and Portland Cement concrete inspection.

PROJECT TEAM:

Should our team be selected for the Chippewa County Roads 2022 Paving Program we have assembled the following team to collaborate on ensuring success with the project. Individual Resumes are appended to this statement.

Don R. Dunkin, – Don will serve as the primary point of contact and lead Project Engineer at Soils and Structures for the Otsego County Roads 2022 program. He is a Michigan Tech graduate with eleven years of experience in civil engineering, materials testing and construction and has been working directly in support of pavements exploration, geotechnical engineering, pavements design, materials testing and construction administration for the last eight years. Don has specialized in pavement design and construction using the relevant conventional strategies including full reconstructions, partial and full depth mill and overlays, crush and shape type repairs and mechanical stabilization using geo-grids and geotextiles.

Don currently maintains the applicable soil erosion and sediment control (SESC) certifications and licensed stormwater operator (SWO) certifications requested in the RFP

Ryan Beering, EIT – Ryan will serve as coordinator and reviewer for this project. He is a graduate of Michigan Tech and has two years of direct experience with pavement evaluations, design, and construction.

Eric Tourre - Eric will serve as coordinator and project manager for this program. He has been employed in daily operations with Soils & Structures for 27 years.

Hannah Barton – Hannah will serve as laboratory manager for this program. She has been in construction materials testing for 6 years and currently manages Soils and Structures Traverse City Laboratory.

Matthew L McClendon – Matthew will serve as laboratory Quality Supervisor for this program. He has been in construction materials testing for 17 years and currently maintains Soils & Structures laboratory accreditation.

Parker Wilson - Parker will serve as a QA Inspector and QA technician/tester for this project. He has three years of experience working on federally funded county road projects working with concrete, aggregates and asphalt.

Western Michigan Office – Corporate

ADDRESS: 6480 Grand Haven Road
Muskegon, Michigan 49441
PHONE: (800) 933-3959
E-MAIL: ctoth@soilsandstructures.com
WEB: www.soilsandstructures.com

Northern Michigan Office

ADDRESS: 1371 Trade Center Drive
Traverse City, Michigan 49696
PHONE: (800) 933-3959
E-MAIL: etourre@soilsandstructures.com
WEB: www.soilsandstructures.com

Ann Arbor Office

ADDRESS: 6360 Jackson Road, Suite H
Ann Arbor, MI 48103
PHONE: (800) 933-3959
WEB: www.soilsandstructures.com

Eastern Upper Peninsula Office

ADDRESS: 10804 M-48 Business Spur
Rudyard, MI 49780
PHONE: (800) 933-3959
E-MAIL: ddunkin@soilsandstructures.com
WEB: www.soilsandstructures.com

OFFICERS:

David W. Hohmeyer, P.E., President
Stephen J. Hohmeyer, Vice President

CLIENT BASE:

Owners, Architects, Developers, Construction Companies, Surveyors and Engineering Consultants

REFERENCES:

Projects:

Chippewa County Road Commission – 2022 Roads 2022 – Chippewa County, Michigan
Soils and Structures provided construction inspection services for multiple road segments

Mrs. Stephanie Boileau, P.E.
Chippewa County Road Commission
(906) 635-5295
sboileau@chippewacountyroads.org
3949 South Mackinac Trail
Sault Ste Marie, MI 49783

Harvey Street - 2022
Muskegon County, Michigan
Soils and Structures provided construction inspection and testing services for multiple road segments

Mr. Paul Bauman, P.E.
Muskegon County Road Commission
(231) 788-2381
pbauman@muskegoncountyroads.org
7700 East Apple Avenue
Muskegon, MI 49442

Durant Street
November 2017 – East Grand Rapids, Michigan
Soils and Structures provided pavements exploration services in support of road rehabilitation.

Mr. David J. Kuipers, P.E.
(616) 957-4350
dkuipers@ommengineering.com
OMM Engineering
4665 44th St SE Suite A100
Grand Rapids, MI 49512

Bay County Road Commission - Multiple Projects
March 2018 – Bay County, Michigan

Soils and Structures provided pavements exploration and design recommendations in support of road rehabilitation along with inspection and testing during construction.

Mr. Cory Wale, P.E.
(989) 686-4610
cwale@baycoroad.org
2600 East Beaver Road
Kawkawlin, Michigan 48631

Smith Street
April 2018 – Bay City, Michigan
Soils and Structures provided pavements exploration services and design recommendations in support of road rehabilitation

Mr. Leigh Merrill
(248) 681-7800
lmerrill@ja-egr.com
Johnson & Anderson
4494 Elizabeth Lake Road
Waterford, Michigan 48328

Firms:

Architects
Paradigm Design
550 - 3 mile Road, NW
Grand Rapids, MI 49544
(616) 785-5656
Mr. Bill Brunner

GMB Architects – Engineers
85 East 8th Street
Suite 200
Holland, MI 49423
(616) 796-0200
Mr. Gernot Runschke

General Contractors
Dan Vos Construction
6160 E. Fulton
Ada, MI 49301
(616) 676-9169
Mr. John DeBlaay

Triangle Associates
3769 Three Mile Road, NW
Grand Rapids, MI 49534
(616) 453-3950
Mr. Jeff Scott

ASSOCIATIONS:

Masonry Institute of Michigan
Michigan Concrete Association
Michigan Chamber of Commerce
Mita [Michigan Infrastructure Transportation Assn.]

Don R. Dunkin, P.E.

ddunkin@soilsandstructures.com

POSITION: Pavements Services Department Manager

SPECIALIZATION: Geotechnical Engineering, Construction Inspection and Administration, Pavement Modeling and Design, Full Depth Reclamation, Cold-In-Place Recycling, Soil Stabilization, Forensic Pavement Investigation, Asset Management, Laboratory Services, Research and Development

QUALIFICATIONS: Professional Engineer: Michigan
Bachelor of Science Civil Engineering – 2013
Michigan Technological University

EXPERIENCE: 2018 to Present – Soils & Structures, Inc.
2011 to 2018 – SME

PROJECT EXPERIENCE:

Chippewa County Road Commission, 2022 Inspection
Construction Inspection, Materials Testing and Project Management
Chippewa County, MI

I-69, US-131 and 1-75 Subgrade Stabilization
Geotechnical Investigation, Laboratory Analysis and Mix Design
Flint, Rockford and Troy MI

Silver Lake Road & Airport Road Intersection
Geotechnical Investigation, Laboratory Analysis and Pavement Design
Traverse City, MI

Bay County Roads – 2016 through 2022 Geotechnical Engineering Services
Lead Project Engineer, Geotechnical Investigation, Pavement Design
Bay County (MI)

Norfolk Southern – Intermodal Rail Yards & Storage Lots
CSX/TDSI New Boston – Intermodal Storage Lot
Geotechnical Investigation, Pavement System Design Engineer, Construction Administration Services
Winston-Salem (NC), Atlanta (GA), St. Louis (MO) & Metro Detroit (MI)

AFFILIATIONS: **American Society of Civil Engineers (ASCE)**

Eric Tourre

etourre@soilsandstructures.com • soilsandstructures.com

POSITION: Field Manager

SPECIALIZATION: Construction Material Testing
Project Administration

QUALIFICATIONS: B.S. - Ferris State University
Construction Management

REGISTRATION: Michigan Concrete Association-Level I & II
ACI-Level I
ACI-Concrete Strength Testing Technician
M.D.O.T. Certified Aggregate Technician Level One
Troxler Certified-Nuclear Testing Equipment

EXPERIENCE: 2006 to Present – Soils & Structures, Inc.

PROJECT EXPERIENCE:

DENSITY INSPECTION

Dollar General
East Jordan

BP Station
Houghton Lake

Bay Harbor Treatment Facility
Bay Harbor

CONCRETE & REINFORCING INSPECTION

TC Commons
Traverse City

Voice GMC
Kalkaska

Clinch Park
Traverse City

DEEP FOUNDATIONS INSPECTION

Manton Elevated Water Storage Tank
Manton

Consumers Energy Pumped Storage
Ludington

Holiday Inn Express
Midland

Hanna Barton

hbarton@soilsandstructures.com

POSITION: Senior Staff Geologist

SPECIALIZATION: Geotechnical & Materials Laboratory Testing

QUALIFICATIONS:
Michigan Technological University
B.S. Geology
Minor in Geological Engineering

REGISTRATION:
Nuclear Gauge Operator
M.D.O.T. Certified Aggregate Technician
M.D.O.T. HMA Laboratory Technician-Level I

EXPERIENCE:
2020 to Present – Soils & Structures, Inc.
2018-2020 – Intertek-PSI
2015- American Engineering Testing Inc.

PROJECT EXPERIENCE:

GEOTECHNICAL INVESTIGATION & LABORATORY TESTING

Thirlby Field Synthetic Turf Replacement
Traverse City, Michigan

South Airport Road at Garfield Avenue
Traverse City, Michigan

City of Harrison – Water System Improvements
Harrison, Michigan

South Airport Road at Veterans Drive
Traverse City, Michigan

Daifuku – New Facility
Boyne City, Michigan

Cedar Run Booster Station
Traverse City, Michigan

Edge 72
Traverse City. Michigan

Stonecliffe Manor Septic Systems
Mackinac Island, Michigan

POSITION: Bituminous QA/QC Lab Technician

SPECIALIZATION: Pavement, HMA, Aggregate, Materials Laboratory Testing

QUALIFICATIONS: WCCT – Alpena Community College – 2006
Associates in Applied Sciences

REGISTRATION:
M.D.O.T. Certified HMA Hot Mix Sampling
M.D.O.T. Certified HMA QC/QA Technician
M.D.O.T. Certified Aggregate Level One
M.D.O.T. Certified Aggregate Level Two
Mix Design Technology Certified – Asphalt Institute
Michigan Superpave Mix Design Certified
ACI Aggregate Level 1

EXPERIENCE:
2019 to Present – Soils & Structures, Inc.
2015 to 2019 – Soils Materials Engineers
2013 to 2015 – Superior Asphalt Inc.
2008 to 2013 – Soils Materials Engineers
2006 to 2008 – Finfrock Precast
2004 to 2006 – Lafarge North America

PROJECT EXPERIENCE:

Client: Lakeland Asphalt
Project: M-96 Helmer to east of Tyler (13122-206667)
Description: 2.81 mi of hot mix asphalt cold milling and single course overlay, concrete sidewalk ramps and pavement markings
Location: Battle Creek, Michigan
Service Cost: $43,562.00
Role: Train contractor on proper Density Rolling Patterns, take Density Readings & Extract Cores
Firm Role: Construction Material Testing - Density & Coring Verification
Client Rep: Mr. Tom Carr
Phone: 269-209-6046

Client: OMM Engineering
Project: 10th St. Reconstruction (70000-206302)
Description: 1.21 mi of hot mix asphalt reconstruction, concrete curb and gutter, sidewalk, sidewalk ramps, drainage, sewer and pavement markings
Location: Holland, Michigan
Service Cost: $14,313.50
Role: QA HMA Extractions & Gradation
Firm Role: Construction Material Testing - QA HMA Laboratory Testing & QA Field Concrete Testing
Client Rep: Mr. Brian Holleman
Phone: 616-560-6142

PROJECT EXPERIENCE:

Client: Ottawa County Road Commission
Project: Adams Street 48th to 24th (70555-129687)
Description: 3.00 mi of hot mix asphalt cold milling and resurfacing, trenching, shoulder widening, bridge deck surfacing and pavement markings
Location: Holland, Michigan
Service Cost: $6,365.56
Role: Provide QA Sampling & Laboratory Extractions
Firm Role: Construction Material Testing - QA HMA Field Density, Sampling, & Laboratory Extractions
Client Rep: Jack Klein
Phone: 616-850-7229

Client: Williams & Works
Project: Alger Street, Madison to Kalamazoo Ave (41000-130607)
Description: 1.22 mi of hot mix asphalt reconstruction, storm sewer, concrete curb, gutter, sidewalk and ramps and pavement markings
Location: Grand Rapids, Michigan
Service Cost: $50,272.50
Role: Laboratory Aggregate Testing & HMA Testing, HMA Plant Sampling & Plant Inspections
Firm Role: Construction Material Testing - Provide QA Field Density on soils, Aggregate Base & HMA, QA Concrete Testing, Aggregate & HMA Sampling, Laboratory Aggregate Testing & Laboratory HMA Testing
Client Rep: Heath Brinker
Phone: 616-502-6007

Client: Bay County Road Commission
Project: Mackinaw Road from Townline 16 to Coty-Estey (09000-209418)
Description: 3.00 mi of hot mix asphalt base crushing, shaping, cold-in-place recycling and resurfacing, drainage, signing and pavement markings
Location: Bay County, Michigan
Service Cost: $9,315.00
Role: Design Cement Treated Base Mix Design & provide HMA Laboratory QA Testing
Firm Role: Construction Material Testing - Extract Borings prior to construction, provide Pavement Recommendation Report, provide Cement Treated Base Mix Design, provide Field & Laboratory HMA QA Testing
Client Rep: Cory Wale
Phone: 989-686-4610

Parker Wilson

pwilson@soilsandstructures.com • soilsandstructures.com

POSITION: Engineering Technician

SPECIALIZATION: Construction Material Testing

QUALIFICATIONS: Manufacturing Technology Academy

REGISTRATION: Michigan Concrete Association – Level I
ACI – Level I
M.D.O.T. Certified Density Technician

EXPERIENCE: 2021 to Present – Soils & Structures, Inc.
2020 to 2020 – All Weather Seal
2017 to 2020 – Star Cutter Company, Elk Rapids Engineering

PROJECT EXPERIENCE:

CONCRETE

Daifuku
Boyne City

Pines45 Apartments
Gaylord

Brimley State Park
Brimley

COMPACTION

Vipond Substation
Kalkaska

TCAPS – Montessori School
Traverse City

SOILS & STRUCTURES

Fee Schedule – January 2023

PERSONNEL CHARGES

Principal/Registered Engineer	$ 198.00/hour
Structural Engineer SE	$ 176.00/hour
Senior Geotechnical Engineer	$ 160.00/hour
Senior Structural Engineer	$ 160.00/hour
Geotechnical/Structural Engineer Level 2	$ 140.00/hour
Geotechnical/Structural Engineer Level 1	$ 125.00/hour
Structural Steel Detailing Checker	$ 90.00/hour
Structural Steel Detailer	$ 80.00/hour
Infrared Thermographer	$ 120.00/hour
CAD Technician	$ 80.00/hour
Field/Laboratory Supervisor	$ 95.00/hour
Engineering Technician	$ 78.00/hour
Overtime	$ 100.00/hour
Administrative Services	$ 60.00/hour

Minimum charge for field assignment is two hours per trip. Chargeable time includes travel, time on site, and required office time. Review of field and laboratory reports is mandatory practice. Review time will be charged at the appropriate level required.

INSPECTION RATES

AWS/CWI/ICC Steel Inspector	$ 100.00/hour
Pile Inspector	$ 100.00/hour
NDT Inspector	$ 100.00/hour
Masonry Inspector (ICC Certified)	$ 100.00/hour
Plant Inspector	$ 100.00/hour
EIFS Inspector	$ 100.00/hour

OTHER CHARGES

Mileage	$ 0.78/mile
Sample pickup	$ 78.00/hour
Shipping, special equipment rental, materials, and subcontract services	Quoted
Per diem – Lodging & Meals (overnight assignments)	$ 165.00/day
Bagged Materials (asphalt, bentonite, sand, concrete)	$ 28.00/bag
NRMCA Concrete Plant Certification	$ 825.00/plant (plus NRMCA Fees)

EQUIPMENT CHARGES

Core Machine	$ 85.00/day
Bit Depreciation	$ 4.00/inch
Generator	$ 45.00/day
Windsor Probe	$ 85.00/day
Windsor Probe Pin	$ 50.00/each
Blast Mate Seismograph (Vibration Monitoring)	$ 200.00/day
Concrete Maturity Probe	$ 200.00/probe
Elcometer Adhesion Meter	$ 50.00/dolly
Vapor Emission Test Kit	$ 100.00/each
Relative Humidity Probe	$ 80.00/probe
Crack Monitor Kit	$ 75.00/each
Arrow Board	$ 90.00/day
Pile Integrity Testing (PIT)	$ 350.00/day
Calibrated Jack & Pump (30, 60, 100 Ton)	$ 125.00/day

SOILS & STRUCTURES

LABORATORY RATES

AGGREGATES

Sieve Analysis (MDOT), C 136	$ 145.00/test
Unit Weight, C 29	$ 165.00/test
Specific Gravity & Absorption, C 127/128	$ 280.00/test
LA Abrasion, C 131/535	$ 450.00/test
Organic Impurities, C 40	$ 110.00/test
Clay Lumps & Friable (Soft Particles), C 142	$ 225.00/test
Lightweight Particles (Coal & Lignite or Chert), C 123	$ 225.00/test
Soundness, C 88	$1,100.00/test
Insoluble Residue, D 3042	$ 350.00/test
Concrete Aggregate Testing, C 33	$1,950.00/test
Flat & Elongated Particles, D 4791	$ 130.00/test
Sand Equivalent Value, D 2419	$ 130.00/test
Soil Resistivity, G 57/G 187	$ 130.00/test
MDOT Backfill Select (LOI, Resistivity, pH, Sulfates, Chlorides, PI, & Direct Shear)	$1,500.00/test
Fractured Particles (One Face or Two Face), D 5821	$ 130.00/test

CONCRETE

Concrete Compression, C 39	$ 18.00/cylinder
Contractor Made Concrete Compression (includes report)	$ 30.00/cylinder
Flexural Strength of Concrete, C 78	$ 55.00/beam
Core Compression (includes saw cut), C 42	$ 100.00/core
Shotcrete Cubes (includes saw cut), C 1140	$ 65.00/cube /core
ASR Testing, C 1260, C 1567 (accelerated test)	$ 900.00/test
C 1293 (12 month test)	$1,050.00/test
Shrinkage, C 157	$ 900.00/test
MDOT Admixture Testing (Local Cement)	Quoted
Ff/Fl Floor Profiling	$ 850.00/test
Air-Void System – Hardened Concrete, C 457	$ 600.00/test
Water-Soluble Chloride Ion, C 1218	$ 175.00/test

MASONRY

Mortar Compression, C 109	$ 18.00/cylinder/cube
Grout Compression, C 1019	$ 18.00/cylinder/prism
Complete Masonry Unit Testing, C 140	$ 500.00/set of 6
Block Compression, C 140	$ 265.00/set of 3
Block Prism Compression, C 140	$ 500.00/prism
Complete Clay Brick Testing, C 67	$ 550.00/set
Clay Brick Compression, C 67	$ 265.00/set of 5
Efflorescence, C 67	$ 265.00/set of 10

GEOTECHNICAL

Granular Proctor, D 1557, D 698	$ 250.00/test
Cohesive Proctor, D 1557, D 698	$ 275.00/test
Michigan One-Point Cone	$ 85.00/test
Michigan One-Point T-99, MTM 404	$ 85.00/test
Michigan One-Point T-180	$ 85.00/test
Atterberg Limits, D 4318	$ 225.00/test
Hydrometer Analysis, D 422	$ 250.00/test
Organic Content, D 2974	$ 110.00/test
California Bearing Ratio (Includes Proctor), D 1883	$ 550.00/test
Soil / Water pH, D 4972	$ 50.00/test
Natural Moisture, D 2216	$ 25.00/test
Unconfined Compression, D 2166	$ 55.00/test
Permeability-Constant Head, D 2434	$ 225.00/test
Permeability-Flex Wall, D 5084	$ 385.00/test
Direct Shear (Includes Proctor)	$1,200.00/test
Porosity	$ 125.00/test
Particle Size Analysis (Visual)	$ 55.00/test

For laboratory testing where a rate is not provided, fees will be based on an hourly rate of $100.00/hour.

SOILS & STRUCTURES

LABORATORY RATES

ASPHALT

Asphalt Extraction	$ 430.00/test
Asphalt Extraction (Hold – 2 Year Storage)	$ 25.00/sample
Theoretical Maximum Density (Rice), D 2041	$ 195.00/test
Bulk Specific Density, D 2726	$ 55.00/plug
Core Density	$ 55.00/core
Uncompacted Void Content, C 1252	$ 165.00/test
Gyratory Bulk Density, D 6925	$ 165.00/test
MDOT Asphalt Mix Design	$ 7,500.00/each

SUPPLIES

Cylinder Molds (6"x12" or 4"x8")	$ 70.00/case
Beam Mold – Plastic (6"x6"x21")	$ 140.00/each
Pressure Meter Reconditioning (Includes Gaskets & Calibration)	$ 225.00/each (plus parts)
Thermometer (Concrete)	$ 25.00/each
Thermometer (Minimum/Maximum)	$ 45.00/each
Hand Penetrometer	$ 165.00/each
Slump Rod	$ 25.00/each
Slump Cone	$ 75.00/each
Concrete Scoop	$ 25.00/each
Concrete Air Meter Calibration Canister (Plastic)	$ 75.00/each
Crack Monitor Kit	$ 75.00/each
Nuclear Density Gauge Car Charger	$ 25.00/each

CALIBRATIONS

Pressure Meter Calibration	$ 75.00/each (plus parts)
Sieve Calibration	$ 175.00/set
Scale Calibration	$ 100.00/each
Slump Cone Calibration	$ 25.00/each
Michigan One Point Cone Calibration	$ 75.00/each
T-99 / T-180 / Proctor Mold Calibration	$ 75.00/each
Thermometer Calibration	$ 25.00/each
Dial Indicator Calibration	$ 50.00/each
Jack Calibration (0 to 250 Ton)	$ 450.00/each
Jack Calibration (250 Ton to 500 Ton)	$ 775.00/each

For laboratory testing where a rate is not provided, fees will be based on an hourly rate of $100.00/hour.

SOILS & STRUCTURES

STRUCTURAL STEEL INSPECTION

PERSONNEL CHARGES

AWS/CWI/ICC Steel Inspector	$ 100.00/hour
NDT Inspector	$ 100.00/hour
EIFS Inspector	$ 100.00/hour
Field/Laboratory Supervisor	$ 95.00/hour
Administrative Services	$ 60.00/hour

Minimum charge for field assignment is two hours per trip. Chargeable time includes travel, time on site, and required office time. Review of field reports is mandatory practice. Review time will be charged at the appropriate level required.

CERTIFICATION of WELDER(S)

Welder Certifications	Quoted

EQUIPMENT / PROCEDURES CHARGES

3/8" plate with bevel and backing plate	$ 55.00/set
1" plate with bevel and backing plate	$ 80.00/set
Welding Procedures & Related Testing	$ 100.00/hour
UT Flaw Detector	$ 150.00/day
Skidmore Bolt Tension Calibrator	$ 80.00/day
Torque Wrench Calibrator	$ 80.00/day
Liquid Penetrant	Quoted
Magnetic Particle	Quoted

FIRE PROOFING INSPECTION

PERSONNEL CHARGES

Fire Proofing Inspector (ICC Certified)	$ 100.00/hour

OTHER CHARGES

Adhesion / Cohesion Testing	$ 55.00/test
Density Testing	$ 65.00/test

SOILS & STRUCTURES

GEOTECHNICAL DRILLING SERVICES

PERSONNEL CHARGES

Principal/Registered Engineer	$ 198.00/hour
Senior Geotechnical Engineer	$ 160.00/hour
Geotechnical Engineer Level 2	$ 140.00/hour
Geotechnical Engineer Level 1	$ 125.00/hour
Administrative Services	$ 60.00/hour

MOBILIZATION

Within 60 Mile Radius	$ 1,000.00
Outside 60 Mile Radius	Quoted

DRILLING CHARGES

Drilling with SPT Sampling (1 to 50 foot)	$ 17.00/foot
Drilling with SPT Sampling (50 to 75 foot)	$ 22.00/foot
Drilling with SPT Sampling (75 to 100 foot)	$ 28.00/foot
Drilling with SPT Sampling (over 100 foot)	Quoted
Drilling through Concrete	$125.00/foot
Rock Core Setup	$400.00
Rock Coring	$ 80.00/foot
CPT (Dutch Cone Penetration Testing)	$ 17.00/foot
Well / Piezometer Boring	Quoted

EQUIPMENT / SUPPLY CHARGES

Bagged Materials (asphalt, bentonite, sand, concrete)	$ 28.00/bag
Flush Joint Riser (5 foot section)	$ 28.00/each
Flush Joint Screen (5 foot section)	$ 33.00/each
Flush Joint Point	$ 16.00/each
Knock Out Plug	$ 16.00/each
Expandable Locking Plug	$ 25.00/each
Flush Mount Protective Cover (8"x12")	$ 150.00/each
Pro Cap Locking Protective Cover (4"x4"x5')	$ 220.00/each
Steam Cleaner	$ 150.00/day

OTHER CHARGES

Geotechnical Report	Quoted
Pile Design & Layout	Quoted
Pile Load Testing	Quoted
Shipping, special equipment rental, materials, and subcontract services	Quoted

OVERNIGHT ASSIGNMENTS

Per diem for two man crew – Lodging & Meals	$ 330.00/day

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/26/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Cyndi Armstrong	
Moore Insurance Services, Inc. 67 N. Howell P.O. Box 207 Hillsdale MI 49242	PHONE (A/C, No, Ext): (517) 439-9345	FAX (A/C, No): (517) 439-5536
	E-MAIL ADDRESS: carmstrong@mooreinsuranceservices.com	

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A :	The Travelers Indemnity Company of America	25666
INSURER B :	Auto-Owners Insurance Company	26638
INSURER C :	Travelers Property Casualty Company of America	25674
INSURER D :	The Phoenix Insurance Company	25623
INSURER E :	CNA	20443
INSURER F :		

INSURED
Soils and Structures, Inc.
DBA: Soils & Structures
6480 Grand Haven Rd
Muskegon MI 49441

COVERAGES **CERTIFICATE NUMBER:** CL2292603836 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC OTHER:	Y	Y	6806S914046	10/01/2022	10/01/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 1,000,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000
B	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY	Y	Y	5225498700	10/01/2022	10/01/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	[X] UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED [ ] RETENTION $	Y	Y	CUP7S474347	10/01/2022	10/01/2023	EACH OCCURRENCE AGGREGATE	$ 3,000,000 $ 3,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	UB7S475067	10/01/2022	10/01/2023	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
E	Professional Liability w/ Pollution Incident			MCH591952695	10/01/2022	10/01/2023	Per Claim Aggregate	$2,000,000 $4,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

FOR INFORMATIONAL PURPOSES ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Eric A Moore

Engineer of Record

OTSEGO COUNTY ROAD COMMISSION

FEBRUARY 7, 2023

WADE TRIM

Wade Trim, Inc.
4241 Old US 27 S, Suite 1 • PO Box 618 • Gaylord, MI 49734
989.732.3584 • www.wadetrim.com

February 7, 2023

Otsego County Road Commission
669 West McCoy Road
Gaylord, MI 49735

Re: Proposal for Engineer of Record

Dear Otsego County Road Commission:

The Otsego County Road Commission (OCRC) is seeking a qualified engineering firm to serve as Engineer of Record. Wade Trim has the willingness and capacity to provide the required services under this contract for its duration.

Wade Trim has been instrumental in improving roadways, stream crossings, and bridges in Michigan for municipalities, County Road Commissions, and MDOT for almost a century. Wade Trim is MDOT prequalified in a total of 42 classifications. Our project team has experience with County Road Commissions and MDOT road design, stream crossing replacement, Federal and State Aid project requirements, permitting, construction engineering and office technician services, materials testing, road construction layout, bridge inspection, asset management and capital improvement cost estimating and planning, mapping, advertising for annual materials and services, RoadSoft software, and PASER ratings for roads and more.

We look forward to the opportunity to further discuss our qualifications with you. Please contact us at 231.732.3584 if you need additional information or anytime that we may be of assistance.

Very truly yours,
Wade Trim

Paul Repasky, PE
Project Manager

Scott Butkovich
Construction Technician

WADE TRIM

During the development of this proposal, we maximized the use of recycled and recyclable materials to reduce waste.

CONTENTS

SECTION 1

WADE TRIM QUALIFICATIONS

Firm Overview

Wade Trim is a multi-disciplined engineering firm serving local and regional governments with solutions to infrastructure projects. Our firm has grown to nearly 600 professionals and support staff with 19 offices in 9 states. Our seasoned professionals have the expertise needed to plan, design, and manage projects to enhance communities and regions.

Disciplines provided include civil, transportation, structural, water resources, environmental, land development, and construction engineering as well as landscape architecture, planning, and surveying.

At Wade Trim, we are committed to maximizing the value of your infrastructure investment. For nearly a century, we've been solving complex engineering challenges to create stronger communities. Our work approach is customized to fit each client and project. We use a collaborative, friendly style—built on excellent communication before, during, and after your project—to deliver solutions you can stand behind.

At Wade Trim, we demand the highest integrity and commitment to our clients from our staff. Our staff responds with passion, innovation, and commitment to our projects, the profession, and the industry.

To efficiently serve the Otsego County Road Commission (OCRC), services will be primarily provided from our Gaylord office. Our primary Point of Contact with the OCRC will be Paul Repasky, PE, Client Representative, who will continue to work closely with the OCRC to provide the requested project services. The following is Paul's contact information:

Paul Repasky, PE
989.732.3584 (office)
989.619.3584 (cell)
prepasky@wadetrim.com

In addition to our strong resources in our Gaylord office, Paul will be supported by staff in our Traverse City, Bay City, and Flint offices. We have assembled some of the finest engineers in Michigan who provide excellent service to organizations like the OCRC. Detailed information about Wade Trim's project team is provided in Section 3, Key Personnel.

Related Experience

MDOT Experience

Wade Trim has been working with the Michigan Department of Transportation (MDOT) for 30 years. Our experience ranges from residential street design to urban and rural county road improvements, interstate/interchange reconstruction, as well as bridge design and inspection. In the area of traffic engineering, our work encompasses access management, safety problem identification and evaluation of operational improvements to reduce traffic congestion, traffic impact studies, traffic signal design, and signal optimization. Detailed analyses of existing and anticipated conditions and integration of township needs into the project makes Wade Trim a design leader.

Wade Trim will also provide the OCRC with skilled staff that has experience surveying and designing a wide array of road, culvert replacement, and bridge projects with varying complexities. We are prequalified in 42 MDOT categories and a list of our MDOT prequalifications can be found in **Exhibit 1** on the next page. Wade Trim has developed roadway plans for reconstruction and resurfacing projects, safety

WADE TRIM - BEST VALUE FOR THE OCRC

The following key factors demonstrate the ways that the Wade Trim team can bring the best value to the Otsego County Road Commission as their Engineer of Record.

Several Locations | Led by our Gaylord office with assistance from our Traverse City, Bay City, and Flint offices and from professionals located in four additional statewide locations, Wade Trim can provide responsive and cost-effective service for a wide range of engineering, surveying, traffic, planning, and construction administration and support services. This will provide an efficient benefit for field data collection, site visits, in-person meetings and eventually on-site inspections and over-site.

Expertise and Creativity | Licensed civil engineer designers offer practical knowledge to bring solutions to a project.

Innovative Technology | Surface and subsurface nautical drones are equipped with onboard GPS, sonar, and echosounding technology that allows for open drain survey, bathymetry, and mapping. Submersible drones enable efficient inspections in difficult, submerged conditions while limiting safety and operational risks.

Efficiency | We have assembled a team of highly proficient professionals that have the knowledge and background required to efficiently accomplish the work.

Relationships | Our existing relationship with OCRC and our strong reputation with regulatory agencies associated with OCRC staff gives us the ability to anticipate and deliver our work effectively.

Communication | Frequent and effective communications are important to the project partners and to the overall success of the project. We are committed to creating a strong team environment with our communication efforts.

Project Management | Tasks will be defined, clear direction will be provided for all work by sub-consultants or by disciplines within our firm, and timely completions will be required, allowing time for QA/QC. The Wade Trim Project Managers will be responsible for all work completed and will verify a very high level of quality.

MDOT PREQUALIFICATIONS

TRUSTED PROFESSIONALS DELIVERING AMERICA'S INFRASTRUCTURE SOLUTIONS

Wade Trim has been instrumental in improving roadways in Michigan for municipalities, counties, and MDOT for over 90 years. Our Transportation Services Design, Construction, and Survey Groups includes staff members firm-wide who can support every phase of a project. We value strong client relationships and work closely with our clients to become an extension of their staff. Our staff is skilled at providing solutions to problems faced by municipal agencies and incorporating transportation projects into the fabric of a community. With seven offices located in Michigan, Wade Trim is able to match engineering excellence with a high level of client attention.

Construction Services

Construction Engineering: Assistance
Construction Engineering: Bridges & Ancillary Structures
Construction Engineering: Roadway
Construction Engineering: Roadway: Local Agency Program
Construction Inspection: Bridges & Ancillary Structures
Construction Inspection: Bridge Painting
Construction Inspection: HMA Pavement
Construction Inspection: Roadway
Construction Inspection: Traffic and Safety
Construction Services: Office Technician
Construction Testing: Aggregate
Construction Testing: Concrete
Construction Testing: Density

Design Services

Design: Bridges
Design: Bridges: Load Rating
Design: Bridges: Railroad
Design: Bridges: Safety Inspection
Design: Bridges: Scoping
Design: Hydraulics I
Design: Hydraulics II
Design: Landscape Architecture
Design: Roadway
Design: Roadway: Complex
Design: Roadway: Intermediate
Design: Traffic: Capacity & Geometric Analysis
Design: Traffic: Pavement Markings
Design: Traffic: Safety Studies
Design: Traffic: Signal
Design: Traffic: Signal Operations
Design: Traffic: Signal Operations: Complex
Design: Traffic: Signing: Freeway
Design: Traffic: Signing: Non-Freeway
Design: Traffic: Work Zone Maintenance of Traffic
Design: Traffic: Work Zone Mobility & Safety
Design: Utilities: Municipal
Design: Utilities: Pump Stations
Design: Project Development Studies

Survey Services

Surveying: Construction Staking
Surveying: Hydraulics
Surveying: Right-of-Way
Surveying: Road Design
Surveying: Structure

WADE TRIM

improvements, widening projects, rural and urban projects, culvert and bridge projects, and completed the various traffic engineering and survey associated with these. Wade Trim has experience delivering end products in a wide variety of formats, from log plans to complete plan sets, with associated contract documents for local bidding and bidding through MDOT's Local Agency Program.

OCRC Experience

Wade Trim has been providing engineering, surveying, and materials testing services to the OCRC for over 30 years. Our most recent experience includes the following:

Special Services

- PASER Rating (every year) using Road Soft
- 5 year Capital Improvement Plan Updates (CIP) (every year)
- Drainage Reviews as requested
- Cost Estimating as requested
- Mapping: certification maps, seasonal road maps
- Advertising for Annual Materials and Services (dust control, aggregates, pavement markings)
- Permitting (EGLE, MDOT, MDNR)
- Bridge Inspection (every 2 years since 1996)
- Otsego Lake Dam Inspection
- Structural Design for bridges and abutment
- Hydraulic Design and analysis using HY8 and HECRAS flow modeling software
- Coordination of soil borings and geotechnical exploration
- Printing of plans and specifications

Surveying

- Topographic and construction staking Surveying
- Property Surveying

Materials Testing, Certified Laboratory in Gaylord

- Sieve analysis
- Concrete testing
- In-place density testing
- HMA lab testing

Construction Engineering

- Preconstruction meeting and minutes
- Construction Staking
- Contractor Payment Applications
- Change Orders
- Punch List and Project Closeout
- Certified Office Technicians
- Certified Storm Water Operators.
- On-site Inspection and Materials Testing
- Laboratory Materials Testing

OCRC Engineering Design

- Preparation of plans and specifications ready for a call for bids
- Tabulation of bids at bid opening, report same to the road commission, and assist in awarding Contracts for Construction
- General observation of the work by observation trips to the job site on a periodic basis, as agreed with the road commission
- Preparation and submittal of proposed contract change orders
- Preparation of payments to the Contractor
- Final review of the project by the Engineer
- Final acceptance of the project by the Engineer and recommendations according to the road commission
- Submission to the road commission of final quantities and costs
- Furnish a set of "record" drawings

Local Agency Programs (LAP) Engineering Design

To administer the projects through the MDOT LAP process, it is necessary to prepare contract documents in accordance with MDOT specifications and procedures. Projects of this type are submitted to the MDOT LAP office for review and administration. Plans are developed for bidding through the State that are Federally and State funded. Plans and specifications are required to meet all the necessary criteria of MDOT.

The MDOT "Local Agency Instructions for Preparing to Bid Federal Aid Projects through MDOT" document guides communities through the process. A clear

understanding of MDOT plan preparation techniques is critical to the design process so that plans are developed using MDOT pay items and specifications, and the following items are submitted at the GI plan submittal:

- Completed Program Application
- Crash Analysis
- Mobility Analysis
- Traffic Counting
- SHPO and Environmental Clearances
- Soil Boring/Pavement Coring Information (if needed)
- Pavement Design Calculation Worksheets
- Design Exception Requests (if needed)
- Plans 80% or more complete
- Progress Clause (for construction)
- Maintaining Traffic Special Provision
- HMA Application Estimate
- Engineer's Cost Estimate by Pay Item
- Special Provisions - OCRC - or design-developed
- Frequently Used Special Provisions & Supplemental Specifications
- Notices To Bidders
- Coordination Clause (if applicable)
- Utility Coordination Clause
- MDOT Standard Plans and Special Details
- Local Agency's Special Details

At the Final Plan phase, additional information including permits, signed and sealed title sheet, and cost estimate (entered into the MDOT cost estimating software MERL) are required.

Wade Trim has designed numerous projects for various agencies including the Otsego County Road Commission and Charlevoix County Road Commission for bidding that followed the LAP process. Our design process will follow a number of steps to make sure we achieve the goals of the Road Commission while meeting the MDOT requirements including:

- Meetings with stakeholders; meet with utility providers to mitigate conflicts with the proposed work; and meet with permitting agencies, as necessary, to facilitate permit approval
- Preparation of applications and permits
- Development of GI plans and associated materials
- Development of final plans, special provisions, and final estimate
- Project kick-off meeting with OCRC, define potential problems and solutions, review any areas of improvement to minimize maintenance activities, and assess OCRC's project expectations
- Contact utility companies to obtain information on their facilities in the construction areas; perform utility coordination to obtain MDOT project clearances
- Conduct fieldwork and obtain measurements including soil borings and field topographic survey work
- Design the roadway to the requirements of AASHTO, MDOT, and the OCRC
- Submit plans to the various permitting agencies such as MDOT and EGLE to secure the permits (if necessary)
- Prepare cost estimate
- Conduct a utility coordination meeting as necessary for any affected utilities
- Provide submittals as outlined above to OCRC
- Submit materials and attend the MDOT GI meeting and address any concerns
- Prepare final plans, final estimate, and special provisions for MDOT's use in bidding the Project
- Submit final plans and review the plans with the Road Commission to address any concerns
- Submit the final plan package to MDOT for bidding

Office Tech Certification

Construction project records shall be maintained by an MDOT Certified Office Technician on all federally funded and MDOT LAP projects. Our technician will maintain complete, current, and accurate contract records in FieldManager. Our technician will review inspectors' daily reports, SESC inspections, material usage, and verification of certifications and/or required testing. Our office technician will work with the Contractor to provide an end product that complies with the construction agreement. In addition, the Office Technician will work with the Contractor to expedite payment for work that has been successfully completed through

the life of the project. Payment will be contingent upon the work being completed in accordance with contract documents and all necessary submittals have been received and approved by the lead engineer.

Our technician understands the importance of Prevailing Wage compliance by the prime Contractor, as dictated by Michigan Law and the Davis-Bacon Act. It is recommended that LCP Tracker be utilized for payroll submittals and reviews.

The Wade Trim Team knows the importance of closing out projects on time. We are of the mind set that project closeout starts day one of the contract. Maintaining current documentation and proactively addressing and responding to field issues is key to swift project closeout once construction is complete.

Surveying

Our surveyors perform all aspects of surveying. From the simplest lot survey to large construction projects, all surveying services are performed under the supervision of a licensed land surveyor. Our licensed professional surveyors are prequalified to perform surveying for federal, state (MDOT), and county land surveys and have participated in the remonumentation efforts in several counties including Otsego County.

Using TDS or Trimble software, our surveyors can perform control or construction surveys for road, bridge and DOT contractor staking. Our surveying services include topographic, construction staking, boundary and control, drafting of legal descriptions and easement documents, plat preparation, establishing lot corners, and legal boundaries. Our staff can also assist with right-of-way and easement acquisitions. We provide construction staking and data file preparation for GPS-controlled staking or machine grading systems.

We invest in instrumentation and software, including laser scanning, to stay current with the industry. Laser scanning improves accuracy and safety during data acquisition, making it easier to collect as-built data for highways. Deliverables can be customized as AutoCAD 2D and 3D drawings, Digital Terrain Models, modeled elements, and a wide variety of ASCII formats.

Paser Rating and Road Soft Experience

Wade Trim has provided PASER evaluations for several communities during every rating season over the past three years. We have also performed PASER evaluations on more than 1,200 miles of Michigan roadway since 2013, developed map deliverables, and developed prioritized capital improvement programs (CIPs) with the data. We are currently working with Wayne County to prepare a Road and Bridge Asset Management Plan. This plan includes over 860 miles of roads and 310 bridges. Wade Trim is the lead consultant for PASER ratings and Roadsoft analysis. In this 5-year contract, Wade Trim will provide PASER ratings on over 2,100 miles of roads.

Our staff uses Roadsoft software to collect, store, and analyze the collected data. We have completed several PASER evaluations as part of asset management programs for municipalities where we provide continuing engineering services. In many cases, we have gone on to design and provide construction engineering services for CIP implementation. This local road evaluation expertise, combined with our experience with Wayne County and the Michigan Department of Transportation, provide the ideal skill set to support PASER Pavement Condition Rating Services for the OCRC.

SECTION 2

PROJECT EXPERIENCE

As a snapshot of our experience with similar projects, **Exhibit 2** on page 10 shows a list of projects we have completed for the Otsego County Road Commission. Project profiles are also provided starting on page 11.

References

Per the RFQ, we have listed three references from government clients that we have served of similiar size to OCRC. We also provided two letters of recommendation.

Jon Kramer, PE, Construction Engineer
MDOT, Gaylord TSC
KramerJ13@michigan.gov
989.484.2154

Jim Vanek, Staff Engineer
Charlevoix County Road Commission
engineer@chxroads.org
231.675.2440

Paul's timeliness, accuracy and quality of work is exceptional; we are pleased with his performance. He listens to our needs and incorporates them into our projects.

JIM VANEK
STAFF ENGINEER
CHARLEVOIX COUNTY ROAD COMMISSION

Amanda Swiss, Planning Director
Little Traverse Bay Bands of Odawa Indians
ASwiss@LTBBODAWA-NSN.GOV
231.242.1591

I cannot emphasize enough how positive this relationship has been for my department, or how happy we are with the work that Wade Trim has performed on our behalf.

AMANDA SWISS
PLANNING DIRECTOR
LITTLE TRAVERSE BAY BANDS OF ODAWA INDIANS

CHARLEVOIX COUNTY ROAD COMMISSION
Est. 1912

1251 Boyne Avenue • Boyne City, Michigan 49712
Phone 231-582-7330 • Fax 231-582-3110
www.charlevoixroads.org

Russell MaGee – Chairman • Patrick Klooster – Vice Chairman • Keith Ogden – Member
Pat Weeks, Manager • Frank D Wasylewski, Clerk • James G Vanek, Staff Engineer • Mike Lickfeldt, Purchasing

February 1, 2023

To Whom it May Concern:

The Charlevoix County Road Commission has used Paul Repasky (Wade-Trim Profession Engineer) for nearly five years for various road design and construction projects throughout Charlevoix County. Paul has designed for us MDOT Local Agency road projects, Bureau of Indian Affairs projects, and we have relied on his design and construction experience for other road commission projects (culvert replacements, wetland mitigation projects, etc.).

Paul's timeliness, accuracy and quality of work is exceptional; we are very pleased with his performance. He listens to our needs and incorporates them into our projects. From project design, construction and project close-out, Paul has always completed everything accurately, on time and within budget. He is always willing to meet on a road project site to review and discuss any concerns we may have.

I highly recommend Paul Repasky for your road commission transportation needs. If you would like to discuss our experience working with Paul further, please call me at (231) 582-7330.

Sincerely,

James G. Vanek
Staff Engineer
Charlevoix County Road Commission

Waganakising Odawak
Little Traverse Bay Bands of Odawa Indians
Planning Department
7500 Odawa Circle, Harbor Springs, Michigan 49740
Phone 231-242-1581 ● Fax 231-242-1585

02/01/2023

To whom it may concern,

Over the course of the last 10 years or so, Little Traverse Bay Bands of Odawa Indians has utilized the engineering services of Paul Repasky and Wade Trim for several large-scale construction projects as well as on demand engineering services for many smaller projects. During this 10-year relationship, we have utilized the firm and Paul's expertise for the civil design and oversight of a large parking lot expansion project at our administration building, civil design and project oversight at the Shops at Victories' Square, roads, site and infrastructure design for new apartment buildings at one of our housing sites, and several other smaller scale projects along the way. In addition to designing and overseeing the Tribe's Upper Bay Shore vertical realignment project, Paul was also a vital part of the grant planning team for the $750K safety grant that the Tribe received for the project. Based on our positive past history with Paul and Wade Trim, the Tribe recently selected Wade Trim to act as our "as needed" civil engineer for the next two years. Wade Trim was also selected through qualifications-based selection to complete the update to our long-range transportation plan and Road Safety Plan.

In closing, I cannot emphasize enough how positive this relationship has been for my department, or how happy we are with the work that Wade Trim has performed on our behalf. I hope that we are able to continue this working relationship well into the future and know that Paul would be an asset to your organization as well.

Regards,

Amanda Swiss- LTBB Tribal Planner

EXHIBIT 2 Otsego County Road Commission Projects

Project Name / Owner	Description	Year Complete	Construction Cost
Alba Road	1.5" HMA overlay	2023	$748,347.94
Gaylord West (Livingston Twp)	Crush and shape	2022	$459,452.50
Springay Road (Hayes Twp)	Crush and shape	2022	$394,366.30
Hallock Road (Elmira Twp)	Crush and shape	2022	$321,290.90
Lake Manuka Trail (Chester Twp)	Crush and shape	2022	$237,394.50
E Marlette Road (Old 27 to Sherman)	1.9 miles of crush and shape	2022	$999,355.69
Passenheim Road	2.8 miles of wedge and overlay	2021	$476,646.00
S Townline Safety Project	1.65 cold mill and overlay	2021	$346,498.65
Bagley Twp paving projects	1.5" HMA overlay	2021	$76,605.00
Krys Road (Charles Brink to Johnson)	2.5 miles of crush and shape	2021	$1,011,883.27
E Marlette Road (Sherman to Fantasy Dr)	3.2 miles of roadway rehabilitation	2020	$1,162,565.84
Hetherton Road	2.21 miles of road rehabilitation	2018	$967,728.00
Krys Road (McCoy to Johnson)	1 mile of crush and shape	2018	$655,776.00
Old US 27 South	5.0 miles of hot mix asphalt road resurfacing	2018	$622,037.00
Beckett Road	Local Bid, Vert Curve Corrections, 1.1 miles	2018	$634,553.00
Old US 27 North	0.86 miles of hot mix asphalt road resurfacing	2017	$234,796.00
Murner Road	2.21 miles of hot mix asphalt road rehabilitation	2017	$1,043,139.00
Camp Ten Road	3.7 miles of hot mix asphalt road rehabilitation	2017	$1,156,831.00
Meridian Line (Phase 2)	1.41 miles of hot mix asphalt road rehabilitation	2017	$553,227.00
Meridian Line Safety Project	0.25 miles Safety Project	2015	$359,072.00
Van Tyle Road	2 miles of crush and shape	2014	$811,056.00
Gingell Road	1 mile of road rehabilitation	2014	$644,627.00
Milbocker and McCoy Roads Rehabilitation	7.6 miles of hot mix asphalt road rehabilitation	2013	$2,949,000
Poquette and Nowak	0.4 miles of alignment corrections	2012	$314,746.95
Poquette Road	2.6 miles of hot mix asphalt road rehab and timber bridge	2011	$1,789,016.00
Mancelona Rd (Passenheim to W Otsego Lake)	0.75 miles of hot mix asphalt roadrehabilitation	2010	$616,842.00
Mancelona Rd (Hayes Tower to Passenheim)	0.76 miles road rehabilitation	2009	$919,427.00
Hayes Tower Rd	1.25 miles of crush and shape	2008	$445,000.00

PROJECT PROFILES

Poquette Road Rehabilitation, Otsego County Road Commission, MI. Rehabilitation of 2.6 miles of Poquette Road included trenching, HMA crushing and shaping, aggregate base, slope flattening, grading, HMA paving, intersection improvements and restoration. One section of road was raised approximately 6 feet and cut 2 feet to improve stopping sight distance. In addition, 800 feet of road was realigned for an intersection. A 10-foot-diameter steel culvert was removed and replaced with a 32-foot, single span timber bridge. Constructed over a State designated natural river, natural cobble stone riprap scour protection was provided along the banks for permanent stabilization and restoration. Wade Trim provided design and construction engineering services.

Milbocker and McCoy Roads Rehabilitation, Otsego County Road Commission, MI. Design and construction engineering was provided for 7.6 miles of roadway reconstruction and rehabilitation including trenching, HMA crushing and shaping, aggregate base, slope flattening, guardrail, HMA paving, intersection improvements and restoration. A quarter mile section of McCoy Road was raised approximately 7 feet and cut 6 feet to improve stopping sight distance at a major intersection. A new continuous curve and merge lane was constructed at a major intersection to allow safe and continuous movement. Other improvements include widening Milbocker Road for the addition of a new center turn lane and revising a vertical curve across an existing rail crossing to improve ride quality.

Krys Road Rehabilitation Project, Otsego County Road Commission, MI. Rehabilitation of 1.01 miles of roadway resurfacing of Krys Road between M-32 south to Johnson Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, vertical curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2018. The approximate total construction cost of $655,776.

Mancelona Road Rehabilitation, Otsego County Road Commission, MI. Mancelona Road was rehabilitated for 0.76 miles between Passenheim Road and Otsego Lake Drive. The project included horizontal and vertical realignment of a portion of the roadway to improve stopping sight distance and reduce the steep incline for safer passage. The roadway elevation was lowered up to 14 feet. Other improvements included superelevation modifications in the S-curves, widened paved shoulders with tipped-up curbs, and spillways cobble lined ditches with detention basins to control storm water along the steep grades. A passing flare, intersection improvements and centerline corrugations were also added. Wade Trim provided design and construction engineering services.

E. Marlette Road Rehabilitation Project, Otsego County Road Commission, MI. Rehabilitation of 3.2 miles of roadway rehabilitation of E. Marlette Road between Sherman Road and Fantasy Drive. The project includes trenching, aggregate base, HMA crushing and shaping, grading, horizontal curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was constructed in 2020. The approximate total construction cost of $1,162,565.

Old 27 North Road Resurfacing Project, Otsego County Road Commission, MI. Rehabilitation of 0.86 miles of roadway resurfacing of Old US 27 Road between Livingston Road Roundabout to Congdon Road. The project included milling the existing HMA surface, HMA paving, concrete curb and gutter replacement, aggregate shoulders, and restoration. The project was completed in 2017. The total construction cost of $234,796.

Old 27 South Road Resurfacing Project, Otsego County Road Commission, MI. Rehabilitation of 5.0 miles of roadway resurfacing of Old US-27 South between Mancelona Road and West Otsego Lake Road. The project included milling the existing HMA surface, HMA paving and restoration. The project will be completed in 2018. The total construction cost of $622,037.

Hetherton Road Rehabilitation Project, Otsego County Road Commission, MI. Rehabilitation of 2.15 miles of roadway resurfacing of Hetherton Road between M-32 to east of Waters Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, horizontal and vertical curve.

Murner Road Rehabilitation Project, Otsego County Road Commission, MI. Rehabilitation of 2.21 miles of roadway rehabilitation of Murner Road between Five Lakes Road and Parmater Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, horizontal and vertical curve corrections, embankment flattening, HMA paving, intersection improvements, and restoration. The project was completed in 2017. The approximate total construction cost of $234,796.00.

SECTION 3

KEY PERSONNEL

Wade Trim is offering a local team that has completed projects for the Otsego County Road Commission for more than 15 years and are familiar with the Commission's general standards and expectations.

Project Team Qualifications

Roadway planning, design, and construction engineering for County road agencies and municipalities is a key service of Wade Trim. We have an exceptionally strong Transportation Group that works closely with our Municipal Engineers to deliver successful projects. Much of our experience in recent years has been rehabilitation and reconstruction of urban and rural streets.

To deliver successful Design Engineering Services for the Otsego County Road Commission, Wade Trim has assembled a team of professionals who bring significant experience with municipal and MDOT projects. In this section you will find short bios and resumes for Key Personnel.

39 YEARS OF EXPERIENCE

Paul Repasky, PE
PROJECT MANAGER

EXPERIENCE: Paul brings 39 years of experience managing design and construction engineering projects for municipalities, as well as county and state agencies. His broad experience includes design, project management, and construction engineering throughout northern Michigan. His project experience includes roadways, bridges, non-motorized trails, dam control structures, dam rehabilitation, fish passages, and site plans, along with other infrastructure improvements. Paul is skilled in planning, schematic design, preparation of technical specification and contract documents, bidding assistance, and construction engineering and administration, geotechnical design, evaluation, and materials testing.

10 YEARS OF EXPERIENCE

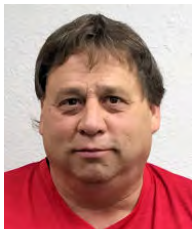
Quinn Ridley, PE
LEAD ENGINEER

EXPERIENCE: Quinn has 10 years of experience in conceptual design, grant application, design engineering, and bidding assistance. He serves as a design engineer for various types of projects including roadways, non-motorized trails, site plans, seawalls and retaining walls, and parks. Quinn also has a background in geotechnical engineering, including foundation analysis, slope stability, and subsurface investigation.

14 YEARS OF EXPERIENCE

Scott Butkovich
CONSTRUCTION TECHNICIAN

EXPERIENCE: Scott has 14 years of experience performing construction inspection and testing on a variety of projects including bridge replacement and roadway rehabilitation and reconstruction. Scott also brings a thorough understanding of the standard practices of MDOT, as well as Field Manager and is Proficient in the electronic documentation that is necessary for use in MDOT ProjectWise.



42 YEARS OF EXPERIENCE

Dave Ashenfelter
CONSTRUCTION TECHNICIAN

EXPERIENCE: David Ashenfelter has been in the construction engineering field for 42 years. He is responsible for making sure that the project is constructed in accordance with contract plans and specifications. Dave's duties and experiences include coordinating survey crews, on-site inspection and materials testing, structure layouts, and total inspection. Items of special concern include quality assurance, materials testing, coordination, and attention to all complaints and potential problems. Dave has had experience in the areas of site work, roadway construction, water and wastewater distribution, storm sewer improvements, and bridge construction.

26 YEARS OF EXPERIENCE

Jason Caverson, PS
SURVEY LEAD

EXPERIENCE: Jason is a Professional Surveyor with over 26 years of experience. He has completed GPS static and RTK control and digital leveling surveys, ALTA surveys, road design surveys, subdivision and site condominium layouts, water system projects, industrial park development, surveying for oil and gas well projects, mortgage reports, boundary surveys, construction staking, and topographic surveying. His experience includes project management and QA/QC management on MDOT design surveys. Jason is proficient with AutoCAD Civil 3D, Trimble Geomatics Office, Plus II, Softdesk, CAICE, and other computer software used routinely for estimating, correspondence, computations, and drawing production. Jason was elected to the Otsego County Board of Commissioners. He is also been an Otsego County resident since 1997 and is committed to helping improve his community.

Jennie Benford
MDOT CERTIFIED OFFICE TECHNICIAN

26 YEARS OF EXPERIENCE

EXPERIENCE: Jennie has experience as an MDOT Certified Office Technician and a Senior Document Controller for many large-scale transportation projects. She adeptly develops innovative methods of document control that provide easy tracking and retrieval, and is knowledgeable in quality assurance/quality control on contract documentation and project correspondence. Jennie is also proficient in several document control applications including Adobe Professional and Dbase, Microsoft Access, and SharePoint. Jennie is currently performing office tech duties on the two ongoing Van Born projects, Warren Road, and the reconstruction of Inkster Road projects for the County.

Brian Frisk
ASSET MANAGEMENT

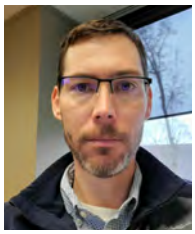
23 YEARS OF EXPERIENCE

EXPERIENCE: Brian Frisk is an experienced Design and Construction Engineer. He has prepared plans and cost estimates, bid packages, and drawing as-built plans for many road projects. His Construction Engineer responsibilities have included setting grade for a pipe crew and road graders, ensuring jobs were built according to plan and specification. Brian also handles preliminary layout of projects and staging of materials.

Lori Pawlik, **PE, PTOE**
TRAFFIC LEAD

23 YEARS OF EXPERIENCE

EXPERIENCE: Lori brings a wealth of experience addressing traffic challenges throughout the state of Michigan. With two decades of traffic engineering under her belt, she knows how to collect and interpret traffic data, design safety improvements, and develop effective maintenance of traffic plans. She is experienced in simulation modeling for traffic operations and safety investigations and has led traffic engineering work throughout the state.



17 YEARS OF EXPERIENCE

Joe Slonecki, PE
ENGINEER / DESIGN

EDUCATION: Joseph has over 17 years of experience in design and construction services on various projects that focus on roadway resurfacing/reconstruction, crush and shape treatment, signal improvements, water main replacements, sewer main repairs, and trails/boardwalks. He provides drainage design, utility coordination, curb and gutter replacement/installation, trench work, culvert replacements, and HMA additions. Joe has also completed right-of-way permitting review for several local agencies.

22 YEARS OF EXPERIENCE

Michael Nicolls, PE
BRIDGE INSPECTOR / STRUCTURAL ENGINEER

EXPERIENCE: Mike has 22 years of transportation-related structural engineering with a primary focus on the design, load ratings, and inspection of bridges, culverts, and retaining walls. He is also experienced in analysis, design, and development of plans, specifications, and estimates on structural projects ranging from simple span structures and retaining walls to multi-span interstate structures. Mike utilizes FHWA and AASHTO design, load ratings, and inspection specifications.

29 YEARS OF EXPERIENCE

Arthur Mullen
SHPO AND ENVIRONMENTAL DESIGN

EXPERIENCE: Arthur offers specialized educational and work experience that will support an innovative and purpose-built team uniquely suited for OCRC. Arthur's academic training and work experience in historic preservation, heritage development, and heritage tourism will guide the team in its engagement efforts with the steering committee and the general public. Arthur meets the federal requirements as a Historian and Architectural Historian. He has staffed historic district commissions, staffed and served on the board of historic preservation organizations, developed heritage tourism materials, and created heritage development programs. These broad preservation-based experiences will facilitate quality communication with the steering committee and the public while creating and managing a multi-faceted public engagement effort. Through his 29 years as an urban planner, he has extensive experience in managing public engagement efforts spanning from all of southeast and central Michigan to villages of less than 2,000 residents.

Paul Repasky, PE

PROJECT MANAGER

COMPANY

WADE TRIM

EDUCATION

- MS, Civil Engineering, Michigan State University
- BS, Civil Engineering, Michigan State University

REGISTRATION

Professional Engineer: MI

QUALIFICATIONS

- More than 39 years of experience managing design and construction engineering projects for municipalities, as well as county and state agencies. His broad experience includes design, project management, and construction engineering throughout northern Michigan.
- Various types of project experience including dam control structures, dam rehabilitation, fish passages, non-motorized trails, site plans, roadways and bridges, along with other infrastructure improvements
- Skilled in planning, schematic design, preparation of technical specification and contract documents

PROJECT EXPERIENCE

POQUETTE ROAD BRIDGE ROAD OVER STURGEON RIVER, OTSEGO COUNTY ROAD COMMISSION, MI | Project Engineer for the removal of an existing 10 foot diameter CMP culvert and replacement with a new 32 foot single span, timber superstructure over the Sturgeon River. The substructure includes timber piles with timber abutments. Natural cobble stone riprap scour protection was provided along the banks for permanent stabilization and restoration as required due to the project was located over a State designated natural river. The project was funded with a grant from Huron Pines RC&D to improve fish passage and reduce sediment loading.

EAST STURGEON VALLEY ROAD BRIDGE REPLACEMENT OVER THE PIGEON RIVER, OTSEGO COUNTY, MI | Project Engineer for the removal of existing bridge structure and abutments. Replacement with a 83-foot single span, pre-stressed, pre-cast concrete box beam superstructure and concrete deck over the Pigeon River. The substructure includes steel H-piles with concrete abutments and temporary cofferdam. The approach work includes subgrade undercutting; biaxial geogrid and separation fabric; embankment; guardrail; soil erosion control and restoration.

E. MARLETTE ROAD REHABILITATION (OLD US 27 TO SHERMAN), OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 1.9 miles of roadway rehabilitation of E. Marlette Road between Old US 27 South in Waters to Sherman Road. The project includes trenching, aggregate base, HMA crushing and shaping, grading, I-75 ramp approachs, embankment flattening, HMA paving, intersection improvements and restoration. The project was constructed in 2022 at a total construction cost of $999,355.

KRYS ROAD REHABILITATION (CHARLES BRINK TO JOHNSON), OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 1.01 miles of roadway resurfacing of Krys Road between M-32 south to Johnson Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, vertical curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2019 at a total construction cost of $1,011,883.

E. MARLETTE ROAD REHABILITATION (SHERMAN AND FANTASY DR), OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 3.2 miles of roadway rehabilitation of E. Marlette Road between Sherman Road and Fantasy Drive. The project includes trenching, aggregate base, HMA crushing and shaping, grading, horizontal curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2020 at a total construction cost of $1,162,565.

HEATHERTON ROAD REHABILITATION PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 2.15 miles of roadway resurfacing of Hetherton Road between M-32 to east of Waters Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, horizontal and vertical curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2018 at a total construction cost of $967,700.

KRYS ROAD REHABILITATION (MCCOY TO JOHNSON), OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 1.01 miles of roadway resurfacing of Krys Road between M-32 south to Johnson Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, vertical curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2018 at a total construction cost of $655,776.

OLD 27 SOUTH ROAD RESURFACING PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 5.0 miles of roadway resurfacing of Old US-27 South between Mancelona Road and West Otsego Lake Road. The project included milling the existing HMA surface, HMA paving and restoration. The project was completed in 2018 at a total construction cost of $622,000.

OLD 27 NORTH ROAD RESURFACING PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 0.86 miles of roadway resurfacing of Old US 27 Road between Livingston Road Roundabout to Congdon Road. The project included milling the existing HMA surface, HMA paving, concrete curb and gutter replacement, aggregate shoulders, and restoration. The project was completed in 2017 at a total construction cost of $234,800.

MURNER ROAD REHABILITATION PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 2.21 miles of roadway rehabilitation of Murner Road between Five Lakes Road and Parmater Road. The project included trenching, aggregate base, HMA crushing and shaping, grading, horizontal and vertical curve corrections, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2018 at a total construction cost of $1,043,100.

CAMP TEN ROAD REHABILITATION PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 3.7 miles of roadway rehabilitation of Camp Ten Road between M-32 and County Road. The project included widening including trenching, aggregate base, HMA crushing and shaping, grading, embankment flattening, HMA paving, intersection improvements and restoration. The project was completed in 2017 at a total construction cost of $1,156,800.

MERIDIAN LINE ROAD REHABILITATION PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 1.26 miles of roadway rehabilitation of Meridian Line Road between north of Briley Road to north of Beckett Road. The project included roadway widening including trenching, aggregate base, HMA crushing and shaping, grading, embankment flattening, vertical curve correction, HMA paving, intersection improvements and restoration. The project was completed in 2017 at a total construction cost of $553,200.

MERIDIAN LINE ROAD RECONSTRUCTION PROJECT (SAFETY), OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 0.25 miles of roadway rehabilitation of Meriidan Line Road Hetherton Road to north of Briley Road. The project included roadway widening including trenching, aggregate base, HMA crushing and shaping, grading, vertical curve corrections, embankment flattening, peat excavation, HMA paving, intersection improvements and restoration. The project was completed in 2015 at a total construction cost of $359,100.

HAYES TOWER ROAD REHABILITATION PROJECT, OTSEGO COUNTY, MI | Project Engineer for rehabilitation of 2.0 miles of roadway rehabilitation of Hayes Tower Road between S. Townline Road and Dickerson Road. The project included widening including trenching, aggregate base, HMA crushing and shaping, grading, embankment flattening, HMA paving, intersection improvements and restoration. The approximate total construction cost of $811,000.

GINGELL ROAD REHABILITATION PROJECT, OTSEGO COUNTY ROAD COMMISSION, MI | Project Engineer for rehabilitation of 1.0 miles of rehabilitation of Gingell Road between M-32 and approximately 1,000 feet north of Water Road. The project included horizontal and vertical realignment and corrections of a portion of the roadway to improve stopping sight distance and to reduce the steep incline for safer passage, especially in the winter months. Other improvements included widened paved shoulders with tipped-up curbs, spillways cobble lined ditches to control storm water along the steep grades and intersection improvements. The approximate total construction cost was $644,600.

MILBOCKER AND MCCOY ROAD REHABILITATION PROJECT, OTSEGO COUNTY ROAD COMMISSION, MI | Project Engineer for construction of 7.6 miles of roadway reconstruction and rehabilitation including trenching, HMA crushing and shaping, aggregate base, slope flattening, guardrail, HMA paving, intersection improvements and restoration. A quarter mile section of McCoy Road was raised approximately 7 feet and cut 6 feet to provide improved stopping sight distance at a major intersection. A new continuous curve and merge lane was constructed to allow safe and continuous movement at a major intersection. Other improvements include widening Milbocker Road for the addition of a new center turn lane and revising a vertical curve across an existing rail crossing to improve ride quality. The approximate total construction cost of $2,880,000.

POQUETTE ROAD REHABILITATION PROJECT, OTSEGO COUNTY ROAD COMMISSION, MI | Project Engineer for construction of 2.6 miles of roadway rehabilitation including trenching, HMA crushing and shaping, aggregate base, slope flattening, grading, HMA paving, intersection improvements and restoration. A section of Poquette road will be raised approximately 6 feet and cut 2 feet to provide improved stopping sight distance. Other improvements include removal of a 10 dia steel culvert and replacement with a 32 foot single span timber bridge and 800 feet of road realignment for an intersection road. The approximate total construction cost of $1,700,000.

MANCELONA ROAD REHABILITATION PROJECT, OTSEGO COUNTY ROAD COMMISSION, MI | Project Engineer for rehabilitation of 0.76 miles of rehabilitation of Mancelona Road between Passenheim Road and Otsego Lake Drive. The project included horizontal and vertical realignment of a portion of the roadway to improve stopping sight distance and to reduce the steep incline for safer passage, especially in the winter months. The elevation of the roadway was lowered up to 14 feet. Other improvements included superelevation modifications in the "S' curves, widened paved shoulders with tipped-up curbs, spillways cobble lined ditches with detention basins to control storm water along the steep grades. A passing flare, intersection improvements and centerline corrugations was also added. The approximate total construction cost was $625,000.

MANCELONA ROAD, OTSEGO COUNTY, MI | Project Engineer for construction of 2.6 miles of roadway reconstruction including HMA crushing and shaping, superelevation correction, grading, embankment flattening, HMA paving, intersection improvements and restoration. The approximate total construction cost of $1,100,000

MCCOY ROAD, OTSEGO COUNTY, MI | Project Engineer for construction of 1.5 miles of roadway reconstruction and widening including HMA crushing and shaping, superelevation correction, grading, embankment flattening, HMA paving, intersection improvements and restoration. The approximate total construction cost of $505,000.

CHARLES BRINK ROAD, OTSEGO COUNTY, MI | Project Engineer for construction of 1.4 miles of roadway reconstruction and new construction including HMA crushing and shaping, vertical and horizontal alignment correction, superelevation correction, grading, embankment flattening, HMA paving, intersection improvements and restoration. The approximate total construction cost of $575,000.

HAYES TOWER ROAD, OTSEGO COUNTY, MI | Project Engineer for construction of 1.3 miles of roadway including HMA crushing and shaping, vertical and horizontal alignment correction, superelevation correction, storm water control, grading, embankment flattening, HMA paving, intersection improvements and restoration. The approximate total construction cost of $445,000.

MT JACK ROAD, OTSEGO COUNTY, MI | Project Engineer for construction of 1.5 miles of roadway including HMA crushing and shaping, vertical alignment and superelevation correction, grading, embankment flattening, HMA paving, intersection improvements and restoration. The approximate total construction cost of $537,000.

Quinn Ridley, PE

LEAD ENGINEER

COMPANY

WADE TRIM

EDUCATION

- BS, Civil and Environmental Engineering, University of New Orleans

REGISTRATION

- Professional Engineer, MI

QUALIFICATIONS

- 10 years of experience in conceptual design, grant application, design engineering, and bidding assistance
- Serves as a design engineer for various types of projects including non-motorized trails, site plans, roadways, seawalls and retaining walls, and parks. Quinn also has a background in geotechnical engineering, including foundation analysis, slope stability, and subsurface investigation

PROJECT EXPERIENCE

SOUTH TOWNLINE ROAD RESURFACING , OTSEGO COUNTY ROAD COMMISSION, MI | Design Engineer for road milling and resurfacing project consisting of cold milling, new HMA pavement, pavement marking, and associated restoration. This was an MDOT TEDF Direct Grant project.

OLD 27 NORTH ROAD RESURFACING, LIVINGSTON TOWNSHIP, OTSEGO COUNTY ROAD COMMISSION, MI | Design Engineer for road milling and resurfacing project consisting of cold milling, new HMA pavement, new intersection approaches, and associated restoration. This was an MDOT LAP project.

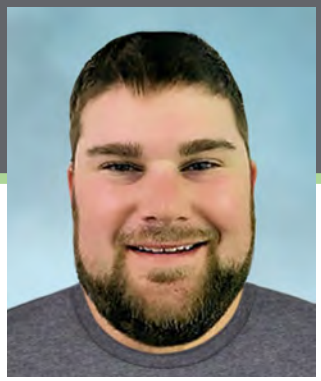
BIENNIAL BRIDGE INSPECTIONS, OTSEGO COUNTY, MI | Project Engineer and assistant to the Qualified Team Leader (QTL) to inspect seven bridges that are currently under the jurisdiction of the Otsego County Road Commission. Project responsibilities include submitting inspection reports and site photos into MiBRIDGE, and developing hydraulic sections and evaluating scour for bridges over stream crossings.

PASSENHEIM ROAD WEDGE AND OVERLAY, OTSEGO COUNTY, MI | Design Engineer for wedging and overlaying 2.8 miles of roadway between Mancelona Road and the railroad crossing in Waters. The project included trenching, aggregate base, aggregate shoulder, HMA wedging, HMA paving, ditching, properly abandoning an existing unsafe boating access drive and replacing with a riprap spillway, and site restoration. The project was completed in 2022.

CAMP PET-O-SEGA PEDESTRIAN BRIDGE, EMMET COUNTY, MI | Design Engineer for replacement of two bridges, pedestrian pathways constructed with natural materials, interpretive signs, a plaque, and benches.

STEPHENS ROAD BRIDGE OVER BIG SABLE RIVER, MASON COUNTY, MI | Design/ Geotechnical Engineer for the design of new single-span prestressed precast concrete box beam bridge. Responsible for on-site soils investigation, permitting (MDEQ/EGLE), steel H-pile analysis, and hydraulic analysis (HEC-RAS) of the proposed crossing.

CR 407 OVER LITTLE DAWSON CREEK CULVERT REPLACEMENT, LUCE COUNTY ROAD COMMISSION, MI | Project Engineer for design engineering services for replacement of 2 large diameter culverts with a single large diameter aluminum box culvert. The project included culvert removal, maintaining traffic plan, new 16'-4"x5'-11" aluminum box culvert, aggregate base, HMA paving, guardrail, pavement marking and restoration. This was an MDOT LAP project.



Scott Butkovich

CONSTRUCTION TECHNICIAN

COMPANY

WADE TRIM

EDUCATION

- BS, Construction Management, Central Michigan University

QUALIFICATIONS

- 14 years of inspection experience
- Served as the Lead Inspection Technician for the County of Roscommon under an as-needed inspection and testing contract.

PROJECT EXPERIENCE

ATHERTON ROAD AND DUPONT STREET CONSTRUCTION ENGINEERING SERVICES - TIGER GRANT, CITY OF FLINT, FLINT, MI | Provided construction inspection for the reconstruction of Dupont and Atherton Streets. The 4.75-mile, MDOT 4R road rehabilitation project also included 8-inch, 16-inch, and 24-inch water transmission main work to right-size the City's infrastructure.

M-37 RECONSTRUCTION/ ROUNDABOUTS, MDOT, GRAND TRAVERSE COUNTY, MI | Lead Inspection Technician for for 6.00 mi of hot mix asphalt reconstruction including two roundabouts, crushing and shaping, widening, lighting, drainage, signing, and pavement marking improvements on M-37 from Beitner Road southerly to M-113. This work is being performed under an as-needed inspection and testing contract for the Traverse City TSC.

US-31/ M-37 RECONSTRUCTION (DIVISION STREET), MDOT, CITY OF TRAVERSE CITY, MI | Lead Inspection Technician for 0.34 mi of hot mix asphalt widening for center turn lane, cold milling and hot mix asphalt resurfacing, median island and sidewalk construction, landscaping and minor drainage work on US-31/M-37 from Griffin Street Northerly to 10th Street. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

M-115 FROM SOUTH EAST OF 28 ROAD TO SOUTH OF M-37 ROUNDABOUT, MDOT, WEXFORD COUNTY, MI | Lead Inspection Technician for 8.68 miles of hot mix asphalt cold milling and resurfacing and pavement markings on M-115 from southeast of 28 Road to south of the M-37 roundabout. This work is being performed under an as-needed inspection and testing contract for the Traverse City TSC.

M-72 FROM EAST OF BIRCH STREET EASTERLY TO EAST OF WALNUT STREET, MDOT, KALKASKA COUNTY, MI | Lead Inspection Technician for 0.41 miles of hot mix asphalt cold mill and resurfacing, trenching of existing bitu-minous shoulders and construction of new pavement, and pavement markings in the Village of Kalkaska. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

HOT MIX ASPHALT CRACK TREATMENT – VARIOUS ROUTES, MDOT, GRAND TRAVERSE, LEELANAU AND MANISTEE COUNTIES, MI | Lead Inspection Technician for 42.14 miles of hot mix asphalt crack treatment at various locations on US-31, M-72 and US-31/M-72 in the City of Traverse City, Grand Traverse, Leelanau and Manistee Counties. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

US-131 FROM BOON ROAD TO OLD US-131, MDOT, WEXFORD COUNTY, MI | Lead Inspection Technician for 7.32 miles of hot mix asphalt cold milling and resurfacing, shoulder corrugations and pavement markings. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

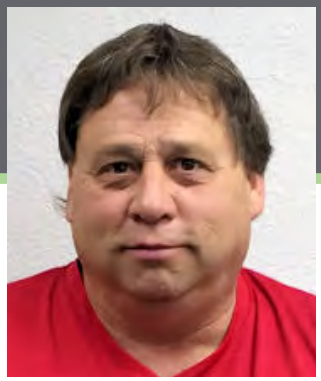
CURVE WARNING SIGN UPGRADES – VARIOUS ROUTES, MDOT, ANTRIM, CHARLEVOIX AND CHEBOYGAN COUNTIES, MI | Lead Inspection Technician for curve warning sign upgrades along various routes. This work was performed under an as-needed inspection and testing contract for the Gaylord TSC.

M-22 FROM NORTH OF US-31 TO SOUTH OF EIGHT MILE ROAD, MDOT, BENZIE COUNTY, MI | Lead Inspection Technician for 1.19 miles of hot mix asphalt cold milling and resurfacing, concrete ramps and pavement markings in the Village of Elberta and City of Frankfort. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

US-31/M-37 FROM GRIFFIN STREET TO 10TH STREET, MDOT, GRAND TRAVERSE COUNTY, MI | Lead Inspection Technician for 0.34 miles of hot mix asphalt widening for center turn lane, cold milling and hot mix asphalt resurfacing, median island and sidewalk construction, landscaping and minor drainage work in the City of Traverse City. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

DELINEATOR REMOVAL/INSTALLATION AND SIGNING ON M-22, MDOT, MANISTEE, BENZIE AND LEELANAU COUNTIES, MI | Inspection Technician for 75.90 miles of delineator removal and installation and signing on M-22 from US-31 to the Village of Empire and from the westernmost M-204 junction northerly to Northport and southerly to the east-ernmost M-204 junction. This work was performed under an as-needed inspection and testing contract for the Traverse City TSC.

FIFE LAKE ROUNDABOUT, MDOT, GRAND TRAVERSE COUNTY, MI | Assistant Inspection Technician for 0.32 miles of roundabout construction, hot mix asphalt reconstruction, con-crete curb, gutter and sidewalk, culvert, sewer, drainage, signing and pavement markings on US-131 at M-186 in the Village of Fife Lake. This work is being performed under an as-needed inspection and testing contract for the Traverse City TSC.



David Ashenfelter

CONSTRUCTION TECHNICIAN

COMPANY

WADE TRIM

QUALIFICATIONS

- Over 42 years of field construction engineering and inspection experience
- Responsible for making sure projects are constructed in accordance with contract plans and specifications
- Duties include coordinating survey crews, on-site inspection and materials testing, structure layouts, and total inspection. Items of special concern include quality assurance, materials testing, coordination, and attention to all complaints and potential problems
- Experienced in site work, roadway construction, water and wastewater distribution, storm sewer improvements, bridge construction, and various infrastructure improvements.

PROJECT EXPERIENCE

I-75 MILLING AND RESURFACING, OTSEGO COUNTY, MI. INSPECTION TECHNICIAN FOR 4.53 MILES OF HOT MIX ASPHALT COLD MILLING AND RESURFACING ON NORTHBOUND AND SOUTHBOUND I-75 FROM SOUTH OF CHARLES BRINK ROAD NORTHERLY TO M-32, OTSEGO COUNTY, MI | This project includes a 3-year materials and workmanship pavement warranty and was completed as part of the as-needed services contract for the Gaylord TSC.

MILBOCKER ROAD IMPROVEMENTS, CITY OF GAYLORD, OTSEGO COUNTY, MI | Inspector and Testing Technician for 7.62 miles of hot mix asphalt base crushing, shaping and resurfacing, widening, earth excavation, trenching, embankment, aggregate base, guardrail, and pavement markings on Milbocker Road from east of South Townline Road to east of Dickerson Road, on McCoy Road from Krys Road easterly to east of East Dixon Lake Road and from east of East Dixon Lake Road easterly to M-32. County. This was an MDOT LAP project through Otsego County.

I-75 BETWEEN MCCOY ROAD TO JUST SOUTH OF THE NORTH CENTRAL STATE TRAIL, OTSEGO AND CHEBOYGAN COUNTIES, MI | Inspection Technician for 23.37 miles of microsurfacing, overband crack filling, cape sealing, shoulder corrugations and pavement markings on I-75 at 3 locations between McCoy Road to just south of the North Central State Trail in the City of Gaylord. This work was performed under an as-needed inspection and testing contract for the Gaylord TSC.

LITTLE TRAVERSE WHEELWAY ALONG US-31 (ODEN ROAD) FROM M-119 TO POWERS ROAD, EMMET COUNTY, MI | Primary Inspector and Testing Technician for 6.89 miles of hot mix asphalt non-motorized trail, concrete curb, gutter, sidewalks and ramps, timber boardwalk, drainage, grading, slope restoration, and site furnishings.

I-75 FROM MAPLE VALLEY ROAD TO M-18, ROSCOMMON COUNTY, MI | Inspection Technician for 25.37 miles of microsurfacing, hot mix asphalt crack treatment, overband crack filling, shoulder corrugations and pavement markings on I-75 from west of Maple Valley Road to M-18. This work was performed under an as-needed inspection and testing contract for the Gaylord TSC.

WARRANTY CRACK SEAL WORK, LOCATIONS THROUGHOUT THE GAYLORD TSC AREA | Inspection Technician for warranty crack seal work at various locations. This project was completed as part of the as-needed services contract for the Gaylord TSC.

US-127 SB FROM THE ROSCOMMON/CLARE COUNTY LINE TO M-55 AND FROM THE MUSKEGON RIVER TO I-75, CRAWFORD AND ROSCOMMON COUNTIES, MI | Inspection Technician for 21.22 miles of culvert removal and replacements on US-127 southbound from the Roscommon/Clare county line to M-55 and from the Muskegon River to I-75. This work was performed under an as-needed inspection and testing contract for the Gaylord TSC.

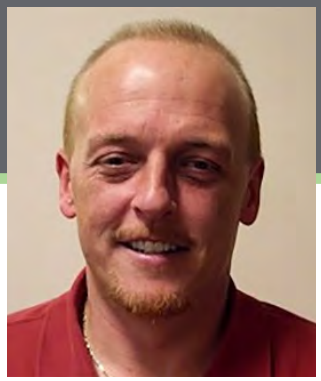
HOT MIX ASPHALT CRACK TREATMENT – VARIOUS TRUNKLINES, ROSCOMMON, CRAWFORD AND ANTRIM COUNTIES, MI | Inspection Technician for full construction engineering services for 158.52 lane miles of hot mix asphalt crack treatment on various state trunklines and freeways (US-131, M-88, I-75, US-127) in Roscommon, Crawford, and Antrim, Counties.

US-31 OVER PINE RIVER BRIDGE (B01 OF 15012), CHARLEVOIX, MI | Inspection Technician for bascule bridge rehabilitation, electrical, mechanical, structural improvements and bridge approach reconstruction on US-31 over the Pine River in Charlevoix County. This project was completed as part of the as-needed services contract for the Gaylord TSC.

PLEASANTVIEW ROAD RESURFACING, EMMET COUNTY, MI | Inspection Technician for 3.45 miles of resurfacing on Pleasantview Road, from West Stutsmanville Road to Robinson Road. This project was the first of its kind in Michigan, utilizing Cold-In-Place Recycling (CIR) Pavement with Asphalt Stabilizing Cement PG 58-28 mix.

US-23 OVER THE CHEBOYGAN RIVER (B03 OF 16081), CHEBOYGAN, MI | Inspection Technician for bascule bridge rehabilitation including mechanical, electrical and structural improvements, and maintaining traffic on US-23 over the Cheboygan River in Cheboygan County. This project was completed as part of the as-needed services contract for the Gaylord TSC.

US-31 MILLING AND RESURFACING, EMMET COUNTY, MI | Inspection Technician for 7.157 miles of hot mix asphalt cold milling and resurfacing, concrete pavement joint and crack repairs, corrugations and permanent pavement markings on US-31 from Milton Road northerly to Douglas Lake Road. This project was completed as part of the as-needed services contract for the Gaylord TSC.



Jason Caverson, PS

SURVEY LEAD

COMPANY

WADE TRIM

EDUCATION

- BS, Surveying and Civil Technology, Ferris State University

REGISTRATION

Professional Surveyor: MI

QUALIFICATIONS

- 26 years of experience in GPS static and RTK control and digital leveling surveys, road design surveys, subdivision and site condominium layouts, water system projects, industrial park development, surveying for oil and gas well projects, mortgage reports, boundary surveys, construction staking, and topographic surveying
- Proficient with Trimble Geomatics Office, AutoCAD, Plus II, Softdesk, CAICE, various Microsoft applications and other computer software, which is used routinely for estimating, correspondence, computations and drawing production

PROJECT EXPERIENCE

AS-NEEDED SERVICES 2017, OTSEGO COUNTY ROAD COMMISSION, GAYLORD, MI | Project Surveyor for as-needed surveying services including topographic and construction surveying for various road improvement projects, monument preservation, boundary surveys, volume determination for stored materials, legal description reviews, and right-of-way determination.

CAMP TEN ROAD REHABILITATION, OTSEGO COUNTY ROAD COMMISSION, GAYLORD, MI | Lead Construction Surveyor for 3.9 miles of hot mix asphalt crushing, shaping and resurfacing, embankment, aggregate base, trenching, shoulder widening, slope flattening, shoulder aggregate, and pavement marking on Van Tyle Road from South Townline Road east to Dickerson Road, Otsego County. Services provided were road design surveys and construction staking. Construction staking consisted of curb staking, culverts, slope staking, and clearing limits.

BUFFALO RIDGE TRAIL PHASE II, CHARTER TOWNSHIP OF GARFIELD, TRAVERSE CITY, MI | Project Surveyor for a 1-mile extension of the Buffalo Ridge Trail, a vital part of the vast trail system in and around Traverse City. This project included topographic survey, wetland mapping, easement preparation, and construction staking.

MARLETTE ROAD RECONSTRUCTION, OSTEGO COUNTY ROAD COMMISSION, GAYLORD, MI | Lead Surveyor for the design survey and construction staking for 3.2 miles of roadway rehabilitation and reconstruction. The project included roadway widening including trenching, aggregate base, vertical curve corrections, HMA crushing and shaping, embankment flattening, HMA paving, intersection improvements and restoration. Construction staking included slope staking, curb and intersections.

MURNER ROAD RECONSTRUCTION, OSTEGO COUNTY ROAD COMMISSION, GAYLORD, MI | Lead Surveyor for the design survey and construction staking for 2.0 miles of roadway rehabilitation and reconstruction. The project included roadway widening including trenching, aggregate base, vertical curve corrections, HMA crushing and shaping, embankment flattening, HMA paving, intersection improvements and restoration. Construction staking included slope staking, curb and intersections.

BECKETT ROAD RECONSTRUCTION, OSTEGO COUNTY ROAD COMMISSION, GAYLORD, MI | Lead Surveyor for the design survey and construction staking for 1.5 miles of roadway rehabilitation and reconstruction. The project included roadway widening including trenching, aggregate base and vertical curve corrections. Construction staking included slope staking, curb and intersections.

MERIDIAN LINE ROAD RECONSTRUCTION FROM HETHERTON TO NORTH OF BECKETT ROAD, OSTEGO COUNTY ROAD COMMISSION, GAYLORD, MI | Lead Surveyor for the design survey and construction staking for 1.41 miles of roadway rehabilitation and reconstruction. The project included roadway widening including trenching, aggregate base, vertical curve corrections, peat excavation and swamp backfill, HMA crushing and shaping, embankment flattening, HMA paving, intersection improvements and restoration.

THE SHOPS AT VICTORIES PETOSKEY, MI | Lead Surveyor for the design survey and construction staking for a new development including two restaurants and a Marriot Hotel. The project included staking for storm water, sanitary sewer, sidewalks, parking lots, curbing, build- ings and other utilities.

US-24 RECONSTRUCTION, GRAND RIVER TO 8 MILE (M-102) – ROAD DESIGN, ROW SURVEY, WAYNE COUNTY, MI | QA/QC Reviews and Certification for the road design and ROW survey for approximately 1.5 miles of US-24 from Grand River Avenue to 8 Mile Road (M-102). Wade Trim and SSI teamed to complete the survey tasks for this project. Wade Trim tasks included digital level loops through all control and Mobile LiDAR targets and least squares adjustment of all control data. Research and computation of legal ROW and alignment were computed using MDOT ROW maps, parcel tax descriptions, adjacent deeds as listed on the MDOT ROW sheets, record LCRC's, section corners, found corner monumentation, and observed evidence were utilized to compute the final alignment and ROW. All work was completed to the standards set forth in the MDOT survey standards 2014. All items required in the MDOT survey QA/QC checklist for alignment/ROW were reviewed and completed.

M-21 OVER CSX RAILROAD (ROAD DESIGN, ROW SURVEY), SAGINAW COUNTY, MI | QA/QC Reviews and Certification for the road design and ROW survey completed on M-21 over the CSX railroad located in St. Charles. Tasks included Fast Static GPS control networks with least squares adjustments (Trimble Business Center) to establish horizontal control and digital level loops with least squares adjustment (StarNet9) for vertical control. Mapping was complete using RTK and Total Station methods for the roadway and required hydraulic survey data. The legal alignment and ROW was computed using the following documentation: MDOT ROW map sheet 114 for M-21 (Wilcox 2003) 73031, landowner tax descriptions and deeds where attainable, adjacent plats as listed in the MDOT ROW sheets, found evidence and monumentation throughout the project limits. Extensive field evidence was recovered which aided in the establishment of the road ROW as well as the crossing railroad ROW. The final mapping and alignment/ROW dgn files were completed using the current version of Open Roads Designer (ORD) as required by MDOT standards of practice for as-needed survey contracts beginning March 1, 2020.

Jennie Benford

MDOT CERTIFIED OFFICE TECHNICIAN

COMPANY

WADE TRIM

EDUCATION

- Associate Paralegal Degree
- Associate Degree, Legal Secretary, Davenport University

CERTIFICATION

- MDOT Certified Office Technician
- MDOT FieldManager Certificate
- MDOT Materials Acceptance Process Certificate
- MDOT Prevailing Wage Certificate

QUALIFICATIONS

- 26 years of experience as a Senior Document Controller for large-scale transportation, water, and wastewater projects and adeptly develops innovative methods of document control that provide easy tracking and retrieval
- Provides Quality Assurance/ Quality Control on contract documentation and project correspondence
- Proficient in several document control software applications including Adobe Professional and Dbase, Microsoft Access, and SharePoint

PROJECT EXPERIENCE

KRYS ROAD FROM CHARLES BRINK ROAD NORTH TO JOHNSON ROAD, OTSEGO COUNTY ROAD COMMISSION, MI | MDOT Certified Office Technician for full construction engineering services for 2.50 miles of hot mix asphalt crushing, shaping and resurfacing, shoulder trenching along horizontal curves, shoulder aggregate, drainage and pavement markings. This was an MDOT Local Agency project.

MARLETTE ROAD FROM SHERMAN ROAD EAST TO FANTASY DRIVE, OTSEGO COUNTY ROAD COMMISSION, MI | MDOT Certified Office Technician for 3.20 miles of hot mix asphalt base crushing, shaping and resurfacing, aggregate base, drainage and pavement markings. This was an MDOT Local Agency project.

CLARION ROAD FROM US-131 EAST TO RIVER ROAD, OTSEGO COUNTY ROAD COMMISSION, MI | MDOT Certified Office Technician for full construction engineering services for 0.41 miles of hot mix asphalt base crushing, shaping and resurfacing, aggregate shoulders, guardrail and pavement markings. This is an MDOT Local Agency project.

M-68 FROM SOUTH STRAITS HIGHWAY TO I-75, MDOT, CHEBOYGAN COUNTY, MI | MDOT Certified Office Technician for 1.30 miles of hot mix asphalt micro-cold milling and ultra-thin overlay, pavement repairs and pavement markings. This work was performed under an as-needed inspection and testing contract for the Gaylord TSC.

I-75BL FROM I-75 NORTHBOUND OFF RAMP AND THE I-75 SOUTHBOUND ON RAMP TO NORTHERLY OF THE LAKE STATE RAILROAD, MDOT, CRAWFORD COUNTY, MI | MDOT Certified Office Technician for full construction engineering services for 0.90 mile of hot mix asphalt cold milling and resurfacing, sidewalk ramps, curb, gutter and driveway openings and pavement markings in the City of Grayling.

US-31 FROM WEST OF DIVISION STREET TO WEST OF ZAIGER ROAD, AND FROM EAST OF MANVEL ROAD TO SOUTH OF GRAHAM ROAD, MDOT, EMMET COUNTY, MI | MDOT Certified Office Technician for 5.77 miles of hot mix asphalt crack treatment, cape and chip seal and pavement markings. This work was performed under an as-needed inspection and testing contract for the Gaylord TSC.

ROBERT T. LONGWAY REHABILITATION, CITY OF FLINT, MI | MDOT Certified Office Technician for 0.28 miles of hot-mix asphalt cold milling and resurfacing, concrete pavement repair, water main, signing and pavement markings. This is an MDOT LAP project.

ATHERTON ROAD AND DUPONT STREET CONSTRUCTION ENGINEERING SERVICES — TIGER GRANT, CITY OF FLINT, MI | MDOT Certified Office Technician for the project that includes five miles of MDOT 4R HMA road reconstruction and 8-inch, 16-inch, and 24-inch water transmission, storm sewer replacement, and distribution main replacement. The $36M project includes the use of Federal TIGER funds, TIP funding for MDOT 4R, safety funding for 4- to 3-lane conversion and traffic signal modernization, and funding for full bridge replacement. Assisted the City with grant administration responsibilities.

OAKVILLE-WALTZ ROAD FROM SOUTH OF CLARK ROAD TO HAMILTON DRAIN, WAYNE COUNTY, MI | MDOT Certified Office Technician for 0.62 miles of hot-mix asphalt cold milling and resurfacing, concrete pavement reconstruction, ditch clean-out, aggregate shoulders, crack seal, joint repair and pavement markings. This is an MDOT LAP project.

DINGELL DRIVE IMPROVEMENTS, WAYNE COUNTY, MI | MDOT Certified Office Technician for full construction engineering services on Dingell Drive and associated ramps through Detroit Metropolitan Airport including bridge rehabilitation (two pre-cast concrete I-beam replacements and partial deck replacement, superstructure and substructure patching and approach pavement replacement), significant concrete removal and replacement, concrete patching, street lighting replacement, and wayward signing improvements.

NORMAN STREET OVER VETERANS MEMORIAL PARKWAY, CITY OF SAGINAW, MI | MDOT Certified Office Technician for bridge deck replacement, concrete approach pavement, curb and gutter, sidewalk, guardrail and pavement markings. This was an MDOT LAP project.

WEST WARREN ROAD FROM OUTER DRIVE WEST EASTERLY TO HEYDEN AVENUE,WAYNE COUNTY, MI | MDOT Certified Office Technician for full construction engineering services for 0.74 miles of hot mix asphalt cold milling and resurfacing, concrete pavement repair, sidewalk ramps, signing and pavement markings in the cities of Dearborn Heights and Detroit. This is an MDOT Local Agency project.

VAN BORN ROAD IMPROVEMENTS (VENOY TO 300' EAST OF MERRIMAN AND FROM INKSTER ROAD TO JANET STREET, WAYNE COUNTY, MI | MDOT Certified Office Technician for full construction engineering services for two separate contracts on Van Born Road: Venoy to 300' East of Merriman consisting of 0.8 Miles of HMA milling and resurfacing, and on Inkster to Beech Daly consisting of 1.104 miles of HMA milling and resurfacing. These projects are also anticipated to include ADA sidewalk ramp upgrades, curb patching, concrete pavement patching, concrete pavement, guardrail upgrades, drainage structure adjustments, reconstructing structures, ditching and ditch cleanout, conditioning existing pavement, signing and pavement markings.

Brian Frisk, PE

ASSET MANAGEMENT

COMPANY

WADE TRIM

EDUCATION

- BS, Civil Engineering, Lawrence Technological University

REGISTRATION

- Professional Engineer: MI

QUALIFICATIONS

- Experience as a Design and Construction Engineer for road and drainage improvements, private developments, and community infrastructure improvement programs
- Coordinated utilities with multiple agencies, prepared plans and cost estimates, prepared bid packages, and drawing as-built plans

PROJECT EXPERIENCE

CS-1701 REHABILITATION OF CENTRAL OFFLOAD FACILITY, GREAT LAKES WATER AUTHORITY (GLWA), DETROIT, MI | Engineer for design services during study and design of offload facility rehabilitation addressing sludge cake handling system, site drainage and facility plumbing. Project Plan efforts cover the project needs, authority service area economic, demographic and environmental characteristics, existing facilities, analysis of alternatives, alternatives estimating and technical considerations, economic and financial considerations, environmental impacts and leading public participation outreach.

RIVERVIEW DRIVE SANITARY SEWER AND WATER MAIN, CITY OF ANN ARBOR, MI | Roadway design for the Riverview Drive scenic, dead-end, residential roadway located west of Huron Parkway, between Geddes and the Huron River. Worked together to design new sanitary sewer and water main within the existing Riverview right-of-way to serve the residents that live on Riverview between Geddes and Address 485 Riverview. Project also included design of new water main on Dover Place and through the 505 Riverview property (via an easement) to provide a new connection of the new water main to the east through existing right of way to the existing water main on Geddes Ridge Avenue.

HOOVER, GREENE, HILL IMPROVEMENT PROJECT (DESIGN PHASE), CITY OF ANN ARBOR, MI | Civil/Site engineering assistance for the roadway and ADA ramp design on Hoover St. from Main Street to State Street, Greene Street from Keech Avenue to Hill Street.

ANNUAL INFRASTRUCTURE IMPROVEMENT PROGRAM, CITY OF PLYMOUTH, MI | Design Engineer for multiple streets in Plymouth involving reconstruction as well as resurfacing of residential roads. Included storm sewer, sanitary sewer and water main improvements and upgrades. ADA ramp design and upgrades were completed for all existing sidewalk ramps.

INFRASTRUCTURE PROGRAM DESIGN, CITY OF PLYMOUTH, MI | Provide design engineering services for the infrastructure improvements on North Harvey, Spring, and Jener Streets and for Rear Yard Water Main between Dewey and Main Streets.

BEECH DALY ROAD FROM WEST ROAD TO KING ROAD, BROWNSTOWN TOWNSHIP, MI | Civil/site services for the paving of a gravel road with ditch cleanout. The objective was to provide a paved surface with minimal changes to the existing conditions.

SHOOK ROAD SANITARY SEWER AND WATER MAIN DESIGN, HARRISON TOWNSHIP, MI | Design Engineer for Harrison Township sanitary sewer and watermain improvements. The project involved calculating a basis of design for the sanitary sewer. Designing approximately 1,800 linear feet of 21 inch sanitary sewer and 1,700 linear feet of 12 inch water main. The project included a drain crossing along with crossing both utilities under I-94. Duties included developing construction drawings and coordinating connecting proposed utilities in to existing.

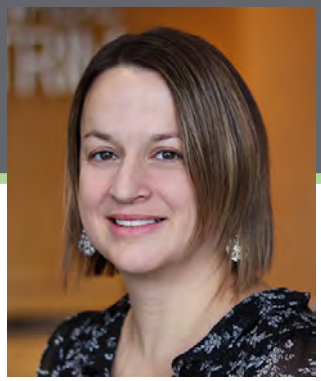
WAYNE COUNTY 10-YEAR ROAD AND BRIDGE ASSET MANAGEMENT PLAN, WAYNE COUNTY MI | Project Lead responsible for PASER data collection, Roadsoft analysis, preparing mix of fixes, deterioration curves and funding scenarios. Responsible for presentations to various County Boards and Commissions and public outreach. Wade Trim is a subconsultant for the asset management plan that covers over 860 miles of federal aid eligible roadways.

OAKWOOD SOUTHSHORE HOSPITAL, TRENTON, MI | Design engineer for the site improvements for the Oakwood Hospital. The project involved relocating existing utilities from under the footprint of a new building addition. Analyzing existing utilities and designing new utilities to support the 172,600 sq ft, five-story addition. The utilities included storm sewer, sanitary sewer and water main. Duties included design of site utilities, new park areas, modifying existing parking areas, a new entrance off of M-85, coordinating between architectural, structural, mechanical, and electrical trades.

TELEGRAPH ACRES SUBDIVISION, BROWNSTOWN TOWNSHIP, MI |Design Engineer for the road improvements of six gravel road within the Telegraph Acres Subdivision. The project involved designing horizontal and vertical alignments for six existing gravel roads for new asphalt pavement. It also included minor storm sewer and ditch improvements. Duties included designing new geometrics, developing construction plans, and cost estimates.

DDA INFRASTRUCTURE UPGRADE, CITY OF PLYMOUTH, MI | Project Engineer responsible for the design and upgrade for multiple streets, intersections, and crosswalks for the City of Plymouth DDA, MI. The purpose of these projects were to make the streets in the DDA jurisdiction have a uniform look and to improve safety by the implementation of ADA ramps and better defined cross walks. A decorative compass detail was incorporated into one of the intersections. Utility improvement and upgrades were done as needed in conjunction with the project.

ECORSE ROAD RECONSTRUCTION, VAN BUREN TOWNSHIP, MI | Design Engineer for the reconstruction of an existing two lane road. The project included new horizontal and vertical alignments, new drainage system, relocating a county drain. Duties include geometrics, preparing construction plans for the proposed boulevard, coordinate design of relocated county drain.



Lori Pawlik, PE, PTOE

TRAFFIC LEAD

COMPANY

WADE TRIM

EDUCATION

- MS, Civil Engineering, Wayne State University
- BS, Civil Engineering, Wayne State University

REGISTRATION

Professional Engineer: MI

QUALIFICATIONS

- 23 years of experience in conducting traffic engineering, highway design, multimodal network design and transportation planning projects
- Conducts traffic operational and geometric studies and highway capacity analyses using simulation modeling including Synchro and SimTraffic 10
- Conducts crash analyses and safety studies, economic analyses, traffic signal optimization studies, signal warrant studies, nonmotorized studies including pedestrian and bicycle network evaluation, and traffic impact site assessments
- Expertise in preparing maintenance of traffic, permanent non-freeway and freeway signing, and pavement marking plans

PROJECT EXPERIENCE

AS-NEEDED DESIGN SERVICES UNIVERSITY REGION (2 CONTRACTS - 2018 AND 2019), MDOT, LANSING, MI | Lead Traffic Engineer for development of maintaining traffic plans on five projects throughout the University Region: 14 miles of concrete pavement repairs on I-75; 4 miles of concrete pavement repairs on US-23; 9 miles of milling and resurfacing of I-94 between M-14 and US-23, including the I-94/US-23 interchange; 2 miles of HMA milling and re-surfacing of M-52 through downtown Chelsea; and 4 miles of a cape seal on M-59 in Howell. Detour plans were created for full closures of I-94, as well as the ramps at the I-94/US-23 interchange, developed the Transportation Management Plan (TMP) for I-94 using CO3 analysis, and developed the MOT Special Provision detailing traffic restrictions and time frames during construction. Transportation Management Plan was developed for M-52 using CO3 analysis for three scenarios, including flagging and full detours, for different days of the week with different time allowances. All TMPs developed also included a detailed crash analysis and included potential crash reduction strategies during construction.

BELLEVILLE ROAD RESURFACING AND SIGNALS UPGRADE, CHARTER TOWNSHIP OF VAN BUREN, VAN BUREN TOWNSHIP, MI | Traffic Engineer for the upgrade of six traffic signals along Belleville Road in the heart of Van Buren Township, the installation of a new traffic signal for a proposed development, and a new traffic generator. Signals were upgraded to box-span configurations using mast-arms and new controllers to synchronize and coordinate the system for better traffic progression along the corridor. A half-mile stretch of the 5-lane roadway at the interchange of Belleville Road and I-94 was also milled and resurfaced to improve rideability. Two traffic signals control the freeway entrance and exit ramps. Re-timing of the signals and their interconnection was used to increase safety, decrease traffic queues at the freeway exit ramps, and provide better progression through the interchange.

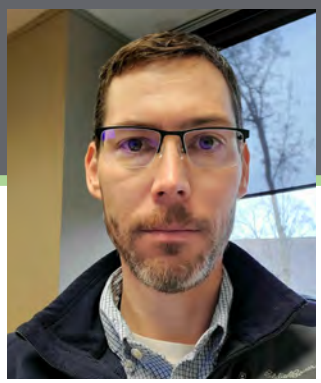
AS-NEEDED DESIGN SERVICES I-275 FROM WILL CARLETON ROAD TO M-153 (FORD ROAD), MDOT, LANSING, MI | Lead Traffic Engineer for as-needed design services for 17 miles of I-275 from Will Carleton Road to M-153 (Ford Road). The project is comprised of four job numbers with varying work tasks which include Capital Preventive Maintenance from Will Carleton Road to Northline Road and 4R reconstruction from north of Northline Road to M-153 (Ford Road). Wade Trim developed full maintenance of traffic plans for ten stages utilizing ProjectPDF for the 6-mile section of freeway from north of Northline Road to M-153 (Ford Road), and developed the MOT log plans, including work zone typicals, for the 8.5-mile section of freeway Capital Preventive Maintenance from Will Carleton Road to Northline Road. These

included preparing full maintenance of traffic plans for 35 bridges, part-width construction staging on the I-94 ramps for culvert work, detour plans for 32 ramp closures and bridge work, analyzed impacts to the Metro Trail, SignCad details for temporary signage, preparation of the special provisions and development of the Transportation Management Plan including a mobility analysis using CO3 analysis for MOT concept alternatives. Additionally, Wade Trim conducted all safety analyses for Design Exceptions, a traffic signal design and warrant study analysis at the Michigan Avenue northbound I-275 off ramp, and development of all overhead signing designs including all bridge signs and connection design, as well as design of 11 new cantilevers and 2 new trusses including foundation design.

HOOVER, GREENE, AND HILL STREETS IMPROVEMENT PROJECT, CITY OF ANN ARBOR, ANN ARBOR, MI | Traffic Engineer for developing maintenance of traffic plans for construction activities associated with water main upsizing, stormwater management enhancements, and roadway rehabilitation. Worked with stakeholders to develop staging and detour plans to maintain vehicular and pedestrian traffic for complex timings involved with the multifaceted project. Given the proximity to the University of Michigan, a focus of the improvements were on the pedestrian and bike facilities. Prepared the permanent signing and pavement marking plans, including evaluating, recommending and implementing midblock crossing treatments using City of Ann Arbor and NCHRP standards.

FIRST, ASHLEY, AND WILLIAM STREET CONVERSION, ANN ARBOR DOWNTOWN DEVELOPMENT AUTHORITY, ANN ARBOR, MI | Traffic Engineer for professional engineering services conducted to examine existing and future capacity of the roadway and provide guidance on roadway alternatives for the First and Ashley proposed conversion from a one-way couplet to a pair of two-way streets. Synchro models were developed for existing and proposed conditions for AM, PM, and Off-Peak periods. Proposed roadway geometry and traffic control were recommended, which include a cycle track on First Street. Traffic Engineer for two-way protected bike lane on William Street. Key elements included a mobility review of curb and gutter placement, parking, bike lane widths and turn movement adjustments, intersection control evaluation, and water main improvements consisting of interconnection and consolidation. Travel lanes were reconfigured in some locations to minimize confusion and optimize multimodal operations on William Street.

M-199 REHABILITATION FROM I-94 TO EATON STREET, MDOT, LANSING, MI | Lead Traffic Engineer for all traffic engineering elements for 4.04 miles of roadway HMA resurfacing, shoulder rehabilitation, minor drainage, and ADA ramp upgrades. Lori was responsible for pavement markings, non-freeway signing, maintenance of traffic, and crash analyses. ADA ramps were developed early in the design to determine any need for additional right-of-way. Storm water BMPs were also evaluated during the project as additional storm water runoff was calculated to determine if any storm water retention would be needed from the widening of non-permeable pavement shoulders.



Joseph Slonecki, PE

ENGINEER/DESIGN

COMPANY

WADE TRIM

EDUCATION

- BS, Civil Engineering, Michigan Technological University

REGISTRATION

Professional Engineer: MI

CERTIFICATIONS

- Certified Storm Water Inspector Construction/ Industrial
- 40-Hour HAZWOPER Training OSHA
- MDOT Computerized Office Technician
- MDOT Superpave Hot Mix Asphalt Certification

QUALIFICATIONS

- Has over 17 years of experience in design and construction services on various projects that focus on roadway resurfacing/ reconstruction, crush and shape treatment, and signal improvements
- Provides drainage design, utility coordination, curb and gutter replacement/ installation, trench work, culvert replacements, and HMA additions
- Has also completed right-of-way permitting review for several local agencies

PROJECT EXPERIENCE

BROWNSON AVENUE RECONSTRUCTION FROM M-113 SOUTH TO FENTON STREET, KINGSLEY, MI | Road Design Engineer for the reconstruction of South Brownson Avenue from M-113 to Fenton Street. Scope includes topographic survey, preliminary/final design phases, and MDOT LAP coordination. Project elements include 0.26 miles of hot mix asphalt surface reconstruction, concrete curb, gutter, sidewalk and ramps and pavement markings.

STATE AND HILL STREETS INFRASTRUCTURE IMPROVEMENT PROJECTS, ANN ARBOR, MI | Lead QA/QC Engineer for improvements on State and Hill Streets. The project included water main consolidation which required abandoning about 1,200 LF of 4- and 6-inch water mains. All existing service leads and connections will be reconnected to an existing 12-inch water main within State Street. State Street will be resurfaced (approximately 1,500 LF). Concrete curb and gutter will be spot repaired. All ADA ramps were evaluated for compliance and replaced as needed to meet current standards. All storm sewer drop inlets will be replaced with 2-foot-diameter inlet structures within the project limits along with the immediate adjacent curb and gutter to perform installation. On Hill Street, water main replacement consists of replacing approximately 1,600 LF of existing 6-inch water main with a new 12-inch water main from Fifth Avenue to State Street. Hill Street will also be resurfaced. Improvements along S. Hill Street will be funded with Highway Safety Improvements Program (HSIP), COVID Relief and City Capital Improvement Program (CIP) funds. State Street improvements will be funded through the Surface Transportation Program (STP). All federal funding for both Hill and State Street will be administered through MDOT's Local Agency Program.

WALTON ROAD FROM BLACKMAN ROAD TO M-113, GRAND TRAVERSE COUNTY, MI | Project Engineer responsible for trench work, crush and shape, slope flattening, guardrail installation, culvert replacements, the addition of HMA shoulders, and road resurfacing for 7 miles. The project completed in two phases over two years: Federal Funding Blackman to 100 feet west of Railroad Crossing (4.5 Miles)/100 feet west of Railroad Crossing to M-113 (2.5 Miles).

HAMMOND ROAD FROM LAFRANIER ROAD TO GARFIELD ROAD, GRAND TRAVERSE COUNTY, MI | Project Engineer responsible for the reconstruction of a 4-lane road to a 5-lane road, the addition of a center turn lane, new curb and gutter, drainage, 98-inch culvert replacement at Mitchel Creek, ADA improvements, and pavement markings.

GARFIELD ROAD FROM HAMMOND ROAD TO AIRPORT ROAD AND ON THREE MILE ROAD FROM AIRPORT ROAD TO PARSONS ROAD, GRAND TRAVERSE COUNTY, MI | Project Engineer responsible for providing design and construction oversite for 1.97 miles of hot mix asphalt cold milling and resurfacing, crack layer relief, ADA improvements, overlay, and pavement markings.

THREE MILE ROAD – GARFIELD ROAD TO SMITH ROAD, GRAND TRAVERSE COUNTY, MI | Inspection/Construction Administration responsible for 2 miles of hot mix asphalt resurfacing, tree removal, guardrail re-placement, and signing and pavement markings.

COUNTY WIDE HRRR SAFETY UPGRADES, GRAND TRAVERSE COUNTY, MI | Grant Writer/ Project Engineer responsible for 11.38 miles of hot mix asphalt shoulder paving, intermittent guardrail installa-tion, slope flattening, and tree removals on County Road 633 from Zue Road to north of Bartlett Lake Road and on Cedar Run Road from Cedar Valley Road to Cedar Street.

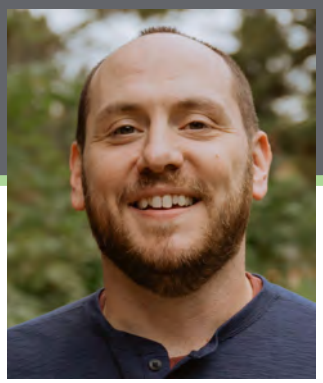
EAST LONG LAKE ROAD FROM SECOR ROAD NORTH TO NORTH LONG LAKE ROAD, GRAND TRAVERSE COUNTY, MI | Project Engineer responsible for 2.05 miles of hot mix asphalt ultra-thin overlay, base crushing and shaping, shoulder surfacing, HMA overlay, signing, and pavement marking.

BARLOW STREET FROM SOUTH AIRPORT ROAD NORTHERLY TO BOON STREET AND ON SOUTH AIRPORT ROAD FROM EAST OF LA FRAINIER ROAD, GRAND TRAVERSE COUNTY, MI | Project Engineer responsible for 1.13 miles of hot mix asphalt cold milling and resurfacing, ditching, drainage, ramps, wireless vehicle detection, and pavement markings.

BLACKMAN ROAD/FENTON STREET FROM SOUTH GRAND TRAVERSE COUNTY LINE NORTH TO FENTON STREET, GRAND TRAVERSE COUNTY, MI | Project Engineer responsible for 5.00 miles of hot mix asphalt base crushing, shaping and resurfacing, skip paving, chip and fog sealing, culvert replacement, permanent signing, and pavement marking.

GARFIELD ROAD - HAMMOND ROAD TO BIRMLEY ROAD, GRAND TRAVERSE COUNTY, MI | Inspection/Project Engineer responsible for hot mix asphalt base crushing, shaping and resurfacing, culvert, widening, pavement marking, and signing.

LAKESIDE DRIVE FROM WEALTHY STREET TO GREENWOOD AVENUE, EAST GRAND RAPIDS, MI | Project Engineer/Construction Engineer responsible for 0.25 miles of hot mix asphalt road reconstruction, storm sewer re-placement, water main replacement, curb and gutter, pedestrian facilities upgrades, decorative bench pads, street lighting, and decorative hanging basket irrigation repairs.



Michael Nicolls, PE

BRIDGE INSPECTION / STRUCTURAL ENGINEER

COMPANY

WADE TRIM

EDUCATION

- BS, Civil Engineering, Wayne State University

REGISTRATION

- Professional Engineer: MI, OH, TX, FL

QUALIFICATIONS

- 22 years of transportation-related structural engineering with a primary focus on the design, load ratings, and inspection of bridges, culverts, and retaining walls
- Experience in analysis, design, and development of plans, specifications, and estimates on structural projects ranging from simple span structures and retaining walls to multi-span interstate structures
- Experienced in utilizing FHWA and AASHTO design, load ratings, and inspection specifications.

PROJECT EXPERIENCE

BEECHER ROAD BRIDGE OVER MISTEGUAY CREEK, GENESEE COUNTY ROAD COMMISSION, MI | Project Engineer for the superstructure replacement of an existing bridge built in 1928 that was in poor condition and no longer met current design standards. The superstructure replacement met current AASHTO LRFD design specifications and LRFR load rating requirements. Abutment stems were partially removed and reconstructed to appropriate heights and sloped for the new adjacent box beam and concrete deck superstructure. Existing abutments and wingwalls were repaired with patching concrete and riprap added to the creek embankments. The bridge approaches were reconstructed with concrete and HMA.

DUFFIELD ROAD OVER JONES CREEK, STRUCTURE REPLACEMENT, GENESEE COUNTY ROAD COMMISSION (GCRC), GENESEE COUNTY, MI | Project Engineer responsible for analysis, design and plan preparation of the replacement design of a bridge in poor condition that no longer met current design standards. The replacement will meet current AASHTO LRFD design specifications as well as current LRFR load rating requirements. The new, single-span bridge (skewed 30 degrees) was lengthened and widened to meet current structure and hydraulic design standards. The replacement structure consists of adjacent box beams with a concrete deck, curtain wall abutments, and wingwalls on pile foundations and approach reconstruction.

LETTS ROAD CULVERT REPLACEMENT, MIDLAND COUNTY ROAD COMMISSION, MI | Lead Structural Engineer responsible for the replacement of an existing structurally deficient double box timber culvert (90-inch by 90-inch) with a precast, 16-foot by 9-foot, 3-sided culvert with precast concrete headwalls and wing walls. The entire structure was placed on cast-in-place concrete strip footings. The existing culvert was 45 feet long, while the proposed culvert was increased to 48 feet to improve the roadway cross-section.

LILLEY ROAD OVER LOWER HURON RIVER BRIDGE REPLACEMENT, WAYNE COUNTY DPS, MI | Lead Structural Engineer for the replacement of this 90-foot, single-span pony truss built in 1924. The replacement structure was lengthened (110 feet) and widened (47'-4" out-to-out) to meet current design standards. The superstructure consists of 48" x 49" Bulb-Tee Beams with cast-in-place concrete abutments with pile foundations. Additional work consisted of bridge approaches, guardrail replacement, and HMA roadway.

BRIDGE INSPECTION SERVICES, HURON-CLINTON METRO. AUTHORITY, MI | QTL for the inspection and documentation of 10 vehicular and 20 pedestrian bridges under the jurisdiction of the Huron-Clinton Metropark Authority. Scope of the work included an in-depth evaluation of the deck, approaches, guardrails, superstructure, substructure, slope surfaces, and surroundings, as well as determination of streambed cross sections and level 1 scour analyses. Deliverables include photographs, and reports with any repair recommendations.

BRIDGE SCOPING/INSPECTION - BIKE PATHS ALONG I-275, MDOT, MI | Scoping Engineer for delivering bridge scoping documents for 23 bridges along the I-275 bike path. Various structure types include side-by-side box beam, steel multi-girder composite, timber, and truss type thru and pony. Each structure and its surroundings will be completely inspected with detailed notes, sketches, and photos to sufficiently locate, identify and quantify each deficiency type. The scoping report deliverable will convey the physical condition of each structure, the areas in need of repair, surrounding appurtenances, and any known road projects that may play a role in the scope of work for these bridges.

EAST RIVER ROAD OVER NORTH HICKORY CANAL, MDOT, MI | East River Road over North Hickory Canal Bridge Replacement, Wayne County DPS, MI. Project Structural Engineer for the replacement of this 3 span reinforced concrete slab bridge constructed in 1945. The replacement structure was lengthened (65 feet) and widened (41'-2" out-to-out) to meet current design standards. The superstructure consists of 21-inch x 48-inch prestressed box beams with cast-in-place concrete abutments on spread foundations. The structure was built using part-width construction to allow residents onto Meso Island. Multi-celled cofferdams were utilized to construct the abutments and wingwalls due to very poor soil conditions encountered at the site. Additional work consisted of bridge approaches, HMA roadway and guardrail replacement.

EMERGENCY BRIDGE INSPECTIONS 28 BRIDGE, WAYNE COUNTY, MI | Emergency Bridge Inspections, Wayne County Department of Public Services, MI. Lead Inspector/QTL. Provided two inspection crews to assist in the inspections of 28 structures in a 2-week period. Followed the requirements of the National Bridge Inspection Program and MDOT. Inspection information was immediately uploaded to the MDOT MiBRIDGE website, so the bridges would again become compliant. Of 28 bridges inspected, 4 required RFA submittals to the County that identified significant structural or functional issues requiring follow-up.

Arthur Mullen, AICP

SHPO AND ENVIRONMENTAL CLEARANCES

COMPANY

WADE TRIM

EDUCATION

- BA, History, Hamilton College, 1990
- MS, Historic Preservation, Columbia University, 1993

REGISTRATION

- American Institute of Certified Planners (AICP)

QUALIFICATIONS

- Qualified as a Historian and Architectural Historian per the federal requirements found at 36 CFR 61
- Broad set of skills geared to assist communities in improving both economically and urbanistically
- Focused on attracting new investments to improve resident quality of life.
- Additional skills include grant writing, grants management, downtown district management, active transportation planning, historic preservation, heritage development, and heritage planning.

PROJECT EXPERIENCE

SAGINAW STREET REHABILITATION AND RECONSTRUCTION, CITY OF FLINT, MI | Provided planning services in support of the rehabilitation of six city blocks of Saginaw Street in Flint's downtown district. The brick road, listed on the state's Historic Register, is to be completely reconstructed, including curb and gutter, sidewalk, drainage, ADA-compliant sidewalk ramps, and landscaping improvements along the corridor. The project also includes a new 24-inch water transmission main with service lead replacements.

2045 MICHIGAN STATE LONG-RANGE TRANSPORTATION PLAN / MICHIGAN MOBILITY 2045, MDOT, LANSING, MI | Project Planner supporting the development of the Active Transportation section of the 2045 Michigan State Long Range Transportation Plan (SLRTP). Arthur's responsibilities have included: literature reviews of other state plans and development of recommendations for incorporation Michigan's plan; research regarding active transportation projects and programing taking place in Michigan and across the country and synthesized this information into reports to guide the development of the State's active transportation plan; completing the community nonmotorized case studies, which highlight seven communities and how they've translated their active transportation visions into reality; developing a comprehensive listing of potential plan objectives; analyzing last and first mile constraints and opportunities; describing impacts of land use and zoning on active transportation; describing emerging micromobility platforms and their future impacts on transportation net-works; outreach to stakeholders and folded their recommendations and guidance into the plan's development; developing recommendations regarding efforts at education/encouragement/equity; and providing policy and trends analysis.

VAN BORN ROAD CORRIDOR IMPROVEMENT PLAN, CITIES OF TAYLOR AND DEARBORN HEIGHTS, MI | Planning Lead for land use and land development codes for this multi-jurisdictional Corridor Improvement Plan. Assessed the land use and zoning issues that hinder the redevelopment of the Van Born Road commercial corridor. Developed suggested alternatives in six general planning categories that would create an environment that would leverage proposed public-sector streetscape investments. The planning concepts would create a conducive environment for significant private sector investment along the corridor.

OLD US-131 TRAFFIC OPERATIONS AND SAFETY STUDY, MDOT, BIG RAPIDS TOWNSHIP, CITY OF BIG RAPIDS, MECOSTA COUNTY, MI | Provided planning services to support the traffic operations and safety study on 1.6 miles of Old US-131 from Golfview Drive to north of Knollview Drive in Big Rapids Township and the City of Big Rapids in Mecosta County. This study provided MDOT with a corridor review of motorized and nonmotorized safety including capacity and geometric analyses for the Golfview Drive, 14 Mile Road, Gilbert Road, and Knollview Drive intersections, review of horse and buggy access, access management reviews, sight distance reviews, trip generation of new developments, and review of land uses in relation to pedestrian operations and connections to and from the FSU campus. The study recommendations included specific mitigation measures such as addition of left-turn lanes, a traffic signal for Gilbert Road where a large FSU student housing complex exists, and evaluated several other alternatives such as a roundabout, superstreet, Michigan Left-Turn boulevard, road diet, and appropriate treatments at a highly utilized FSU pedestrian crosswalk connecting both sides of FSU's campus across Old US-131.

SCOPING AND ASSET MANAGEMENT PLAN – I-275 METRO TRAIL BIKE PATH BETWEEN I-96 IN NOVI AND THE WAYNE-MONROE COUNTY LINE, MDOT'S METRO REGION, MI |Providing planning services for the scoping and assessment of more than 33 miles on the I-275 Metro Trail bike path to identify deficiencies and areas of improvement, as well as development of strategies for future investment and asset management of this facility including stakeholder engagement and funding collaboration. Key components of this project include field reviews including pavement condition assessment, utility conflicts, environmental conditions, wayfinding, access points, drainage concerns, safety concerns, CPTED strategies and improvement opportunities; safety reviews including operational review of each road crossing, sight distance, signals and operations and signing, along with crash analysis and countermeasures, appropriate crossing treatments, and recommendations for safety where non-motorized and vehicular traffic meet.

DRINKING WATER REVOLVING FUND (DWRF) AND WATER INFRASTRUCTURE IMPROVEMENTS FOR THE NATION (WIIN) APPLICATIONS, CITY OF BAY CITY, MI |Assisted in the preparation of plans and the submittal of applications to the Drinking Water Revolving Fund (DWRF) and Water Infrastructure Improvements for the Nation (WIIN) funding programs with regard to lead service abatement within the City of Bay City's water supply system.

CS-152 ROUTE EVALUATION, GREAT LAKES WATER AUTHORITY, DETROIT, MI | Provided planning services to support the execution and authoring of the Water Works Park to Northeast Transmission Main SRF Project Plan as well as the funding application to Michigan Department of Environment, Great Lakes, and Energy (EGLE) to potentially secure $133 million in low interest funding for design-build construction costs. Planning efforts covered the project needs, authority service area economic, demographic, and environmental characteristics, existing facilities, analysis of alternatives, alternatives estimating and technical considerations, economic and financial considerations, environmental impacts, and public participation outreach.

SECTION 4

FEE STRUCTURE

The following is a list of Key Personnel outlining their project role and Billing Rate.

EXHIBIT 3 Billing Rate

Project Team Member	Role	Billing Rate
Paul Repasky, PE	Client Representative, Road Design, Construction Engineer	$200.00
Quinn Ridley, PE	Lead Engineer, Bridge Inspection, Hydraulics, QA/QC	$145.00
Scott Butkovich	Construction Technician, Roadsoft/PASER, Mapping, Engineering Assistance	$130.00
Dave Ashenfelter	Construction Technician, Materials Testing	$130.00
Jason Caverson, PS	Survey Lead	$160.00
Jennie Benford	Certified Office Technician	$100.00
Brian Frisk, PE	Design Engineer, Asset Management, Roadsoft/PASER	$150.00
Lori Pawlik, PE, PTOE	Traffic Engineer Lead	$200.00
Joe Slonecki, PE	Design Engineer, QA/QC	$160.00
Mike Nicolls, PE	Bridge Inspection, Structural Engineer	$160.00
Arthur Mullen, AICP	SHPO and Environmental Design	$140.00

When requested we will provide a detailed outline of the scope of services for the project with an itemized budget per task, such as Surveying, Preliminary Design, Final Design, Permitting, Bidding Assistance, and a schedule for completion.

Wade Trim has the capacity and level of experience to provide the OCRC quality of service and in a timely fashion as we believe we have in the past 30 years. Wade Trim's size provides us the ability to add staff from other offices and disciplines as needed to ensure a timely response and quality service. This is especially important with our construction inspection and materials testing services.

PROOF OF LIABILITY INSURANCE

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 11/18/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Ames & Gough 8300 Greenboro Dr. Suite 980 McLean VA 22102	**CONTACT NAME:** **PHONE (A/C, No, Ext):** 703-827-2277 **FAX (A/C, No):** 703-827-2279 **E-MAIL ADDRESS:** admin@amesgough.com
INSURED WADETRI-01 Wade Trim Group, Inc., its subsidiaries & Wade Trim NY, PC 25251 Northline Road Taylor MI 48180	**INSURER(S) AFFORDING COVERAGE** — **NAIC #** **INSURER A :** Arch Insurance Company, A+ XV — 11150 **INSURER B :** Continental Insurance Company A(XV) — 35289 **INSURER C :** Travelers Property Casualty Company of America — 25674 **INSURER D :** Continental Casualty Company (CNA) A, XV — 20443 **INSURER E :** Travelers Casualty & Surety Co. of America A++, XV — 31194 **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 896021954 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:			ZAGLB1854400	10/1/2022	7/1/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 4,000,000 $ 4,000,000
A	**AUTOMOBILE LIABILITY** X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS			ZACAT1849700	10/1/2022	7/1/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 2,000,000 $ $ $
B	X **UMBRELLA LIAB** X OCCUR **EXCESS LIAB** CLAIMS-MADE DED X RETENTION $ 10,000			7034724218	10/1/2022	7/1/2023	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		ZAWCI1837800	10/1/2022	7/1/2023	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C D E	Excess Umbrella Prof. Liability (Incl Pollution) Excess Prof. Liability			EX-7S149981 AEH591913816 107711306	10/1/2022 10/1/2022 10/1/2022	7/1/2023 10/1/2023 10/1/2023	Occurrence/Aggregate Per Claim/Aggregate Per Claim/Aggregate	10,000,000 $5,000,000 $5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Workers Compensation (NY) Policy #ZAWCI1837900/ Company: Arch Insurance Company / Effective: October 1, 2022 - July 1, 2023
$1,000,000 Each Accident/ $1,000,000 Disease Each Employee / $1,000,000 Policy Limit

CERTIFICATE HOLDER

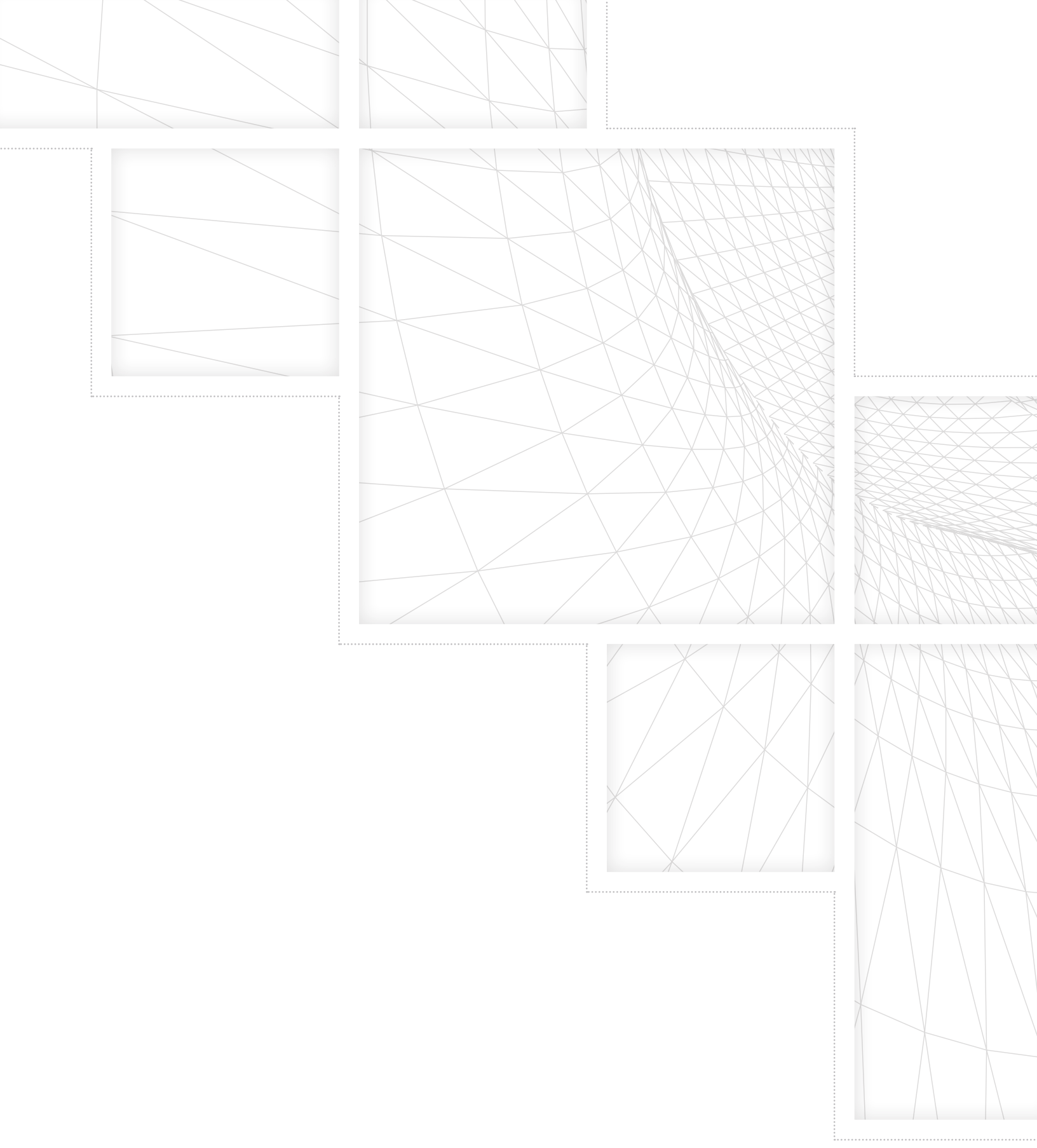
For Proposal Purposes Only
.
. . .

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Frances J Bailey



WADE TRIM ASSOCIATES, INC.
4241 Old US 27 S, Suite 1 • PO Box 618 • Gaylord, MI 49734
989.732.3584 • 800.482.2864 • www.wadetrim.com

FLORIDA • GEORGIA • MICHIGAN • NEBRASKA • NEW YORK • NORTH CAROLINA • OHIO • PENNSYLVANIA • TEXAS

Otsego County Road Commission
MTF COMPARISON (Includes Snow Funds Reimbursed Engineering Fees)
For Calendar Year Ending 12/31/2022

Month	2022	2021	2020	2019	2018	2017	2016	2015	2022 + (-)	% Change
January	$593,353.49	$574,401.56	$574,774.41	$538,379.39	$490,104.69	$390,160.67	$321,869.31	$310,243.81	$18,951.93	3.30%
February	$632,457.35	$570,732.78	$617,395.30	$510,402.80	$493,989.46	$455,570.44	$384,810.44	$381,737.86	$61,724.57	10.81%
March	$575,363.14	$539,585.23	$475,901.84	$526,923.30	$471,139.06	$411,992.14	$325,540.83	$299,959.85	$35,777.91	6.63%
April	$560,481.55	$575,876.65	$393,985.28	$450,756.80	$429,606.59	$406,411.01	$312,258.71	$317,903.60	-$15,395.10	-2.67%
May	$510,827.52	$512,183.97	$342,370.15	$508,546.35	$472,952.47	$427,827.98	$304,005.07	$265,617.04	-$1,356.45	-0.26%
June	$558,665.93	$558,305.39	$474,874.11	$475,931.51	$434,296.57	$425,976.07	$323,449.21	$319,366.83	$360.54	0.06%
July	$487,410.63	$481,649.26	$478,387.21	$439,213.70	$410,646.53	$384,860.23	$248,094.07	$280,730.05	$5,761.37	1.20%
August	$561,092.90	$593,695.30	$579,216.00	$482,547.69	$447,571.55	$427,215.93	$326,316.22	$326,612.70	-$32,602.40	-5.49%
September	$601,029.67	$604,028.14	$525,737.94	$511,558.85	$420,077.12	$434,196.76	$313,741.07	$317,455.60	-$2,998.47	-0.50%
October	$462,674.17	$427,576.86	$453,396.08	$444,876.52	$479,471.07	$390,449.79	$251,924.95	$285,580.76	$35,097.31	8.21%
November	$521,034.00	$427,576.86	$460,489.59	$449,835.16	$414,508.44	$375,345.55	$329,867.86	$292,065.21	$93,457.14	21.86%
December	$750,365.33	$680,865.37	$524,167.55	$538,568.32	$332,726.17	$398,345.79	$328,757.47	$288,929.63	$69,499.96	10.21%

Totals	$6,814,755.68	$6,546,477.37	$5,900,695.46	$5,877,540.39	$5,297,089.72	$4,928,352.36	$3,770,635.21	$3,686,202.94	$268,278.31	53.35%

Engineering Funds received in June/paid in August ($10,000)
Snow Funds received in October/paid in December

(2015 Snowfunds $229,195.07)
(2016 Snowfunds $238,533.88)
(2017 Snowfunds $241,593.93)
(2018 Snowfunds $315,151.81)
(2019 Snowfunds $347,614.46)
(2020 Snowfunds $368,691.80)
(2021 Snowfunds $387,431.27)
(2022 Snowfunds $418,096.13)

ITEM 10. A

Finance Summary Notes:

Township Contributions:

Bagley Township $199,965.00 – 2021 Projects (Krys Road & Redwood, Beechwood & Pioneer)

Otsego Lake Township $195,000.00 – 2021 Project (Passenheim Road)

MDOT:

State Trunkline Maintenance Advance $23,103.00

Other:

Pavement Solutions $8,967.19 – Modified Chipseal Labor Reimbursement

Payables:

Nothing of huge significance

Payroll:

Gross Wages payout into HCSP January 31

	January	February
Receipts		
MTF	521,034.00	750,365.33
Township	394,965.00	
Permits	943.04	
Oil & Gas	1,277.65	
MDOT	321,114.81	
Other	30,631.17	
Total Rev.	1,269,965.67	750,365.33
Expenditures		
Payables	373,289.26	
Payroll	250,047.84	
Total Exp.	623,337.10	-
NET Change	646,628.57	750,365.33

Kirk Harrier

From: Radulski, Matthew (MDOT) <RadulskiM@michigan.gov>
Sent: Thursday, February 2, 2023 11:22 AM
To: Hall, Rob (MDOT); ralphoaks@yahoo.com; Kirk Harrier
Cc: Gailitis, Jason (MDOT); Swanson, Bradley (MDOT)
Subject: 2024 I-75 Bridge Construction on Trowbridge and Webb Road - update

Good morning,

It was great to talk with you and your boards at the county board meetings a couple of weeks ago regarding the 2024 I-75 Bridge Construction on Trowbridge and Webb Road and the proposed Old 27 detour route. I brought the comments from the board meetings to the MDOT Gaylord TSC and North Region offices and we discussed your concerns.

After evaluating all your concerns, experiencing the snow after the CCRC board meeting, and watching the slow-moving platoons of vehicles, looking at I-75 traffic volumes and especially MDOT's third party consultant estimated durations of the project, we are going to switch back to our original plan of using the I-75 crossovers. The consultants estimated duration, to complete the bridges, were less time to complete each stage than originally anticipated. Here is the proposed schedule for Option 1 (Utilizing I-75 crossovers for work over Trowbridge Road):

- SB I-75 bridge deck over Trowbridge Road – Start March 25 and all lanes will be open to traffic before Memorial Day weekend.
- Webb Road bridges over I-75 will be closed – Start after Memorial Day weekend and end before Labor Day weekend.
    - Work below SB I-75 on Trowbridge Road
    - I-75 will utilize the ramps to Webb Road when needed
    - Webb Road will be detoured
    - Work below NB I-75 on Trowbridge Road
- NB I-75 bridge deck over Trowbridge Road – Start after Labor Day weekend we will have all lanes of traffic open before Nov 15.

Option 2 (Utilizing I-75 crossovers for work over Trowbridge Road):

- MDOT's consultant is looking into if it would be more cost effective to do NB Bridge over Trowbridge Road, in the spring of 2025, instead of the Fall of 2024,
- Our gut feeling is that it would be more expensive, and we will stick with Option 1.

Thank you for your time in considering the use of Old 27 and if you have any questions, please let us know.

Matt Radulski, P.E.
Operations Engineer
MDOT – Gaylord TSC
989-745-3783

Northern Michigan Road Millage Survey (February 2023)

COUNTY NAME	COUNTY WIDE ROAD MILLAGE	APPROX. DOLLARS GENERATED	INDIVIDUAL TWP. ROAD MILLAGE	NUMBER OF TWP's. LEVY INDIVIDUAL ROAD MILLAGE	APPROX. DOLLARS GENERATED	TOTAL ROAD MILLAGE DOLLARS
Grand Traverse	1 mill	$5,000,000	NO	0	$0	$5,000,000
Charlevoix	1 mill	$1,900,000	1 to 2 mills	11 of 15	$1,910,155	$3,810,155
Chippewa	1 mill	$850,000	1 to 2 mills	10 of 16	$2,000,000	$2,850,000
*Emmet	1 mill	$2,500,000	1 to 3 mills	3 of 16	$316,973	$2,816,973
Cheboygan	1 mill	$1,300,000	.50 to 2 mills	9 of 19	$631,994	$1,931,994
Antrim	NO	$0	.33 to 2 mills	15 of 15	$1,800,000	$1,800,000
Kalkaska	1 mill	$940,000	1 to 2 mills	6 of 12	$783,392	$1,723,392
Leelanau	.50 mill	$1,600,000	NO	0	$0	$1,600,000
Benzie	1 mill	$1,200,000	1 mill	1 of 12	$75,000	$1,275,000
Otsego	1 mill	$1,100,000	NO	0	$0	$1,100,000
Alcona	NO	$0	.75 to 2 mills	11 of 11	$850,000	$850,000
Montmorency	1 mill	$515,000	1 mill	3 of 8	$219,000	$734,000
Mackinac	NO	$0	1 to 3 mills	10 of 11	$700,000	$700,000
Crawford	1 mill	$550,000	1 mill	1 of 6	$100,665	$650,000
Presque Isle	NO`	$0	1 to 2 mills	6 of 14	$206,300	$206,300
Alpena	NO	$0	.50 to 1 mills	2 of 8	$100,188	$100,188
Oscoda	NO	$0	NO	0	$0	$0
Schoolcraft	NO	$0	NO	0	$0	$0
Luce	NO	$0	NO	0	$0	$0

**Emmet—15 out of the 16 townships levy up to 1 mill as part of their township operating millage for road work, i.e. it's not levied as a separate county wide road millage but is intended to be used for roads and is included in the table above as the 1 mill county wide millage. 3 of 16 townships have an additional road millage levy of 1 to 3 mills.*