



Michigan Infrastructure & Transportation Association

January 20, 2021

Director Paul C. Ajegba, P.E.
Chief Operations Officer Tony Kratofil, P.E.

Today's Topics

- 2020 Historic Year
- 2020 Project Lettings/Rebuilding Michigan
- Midland Flooding

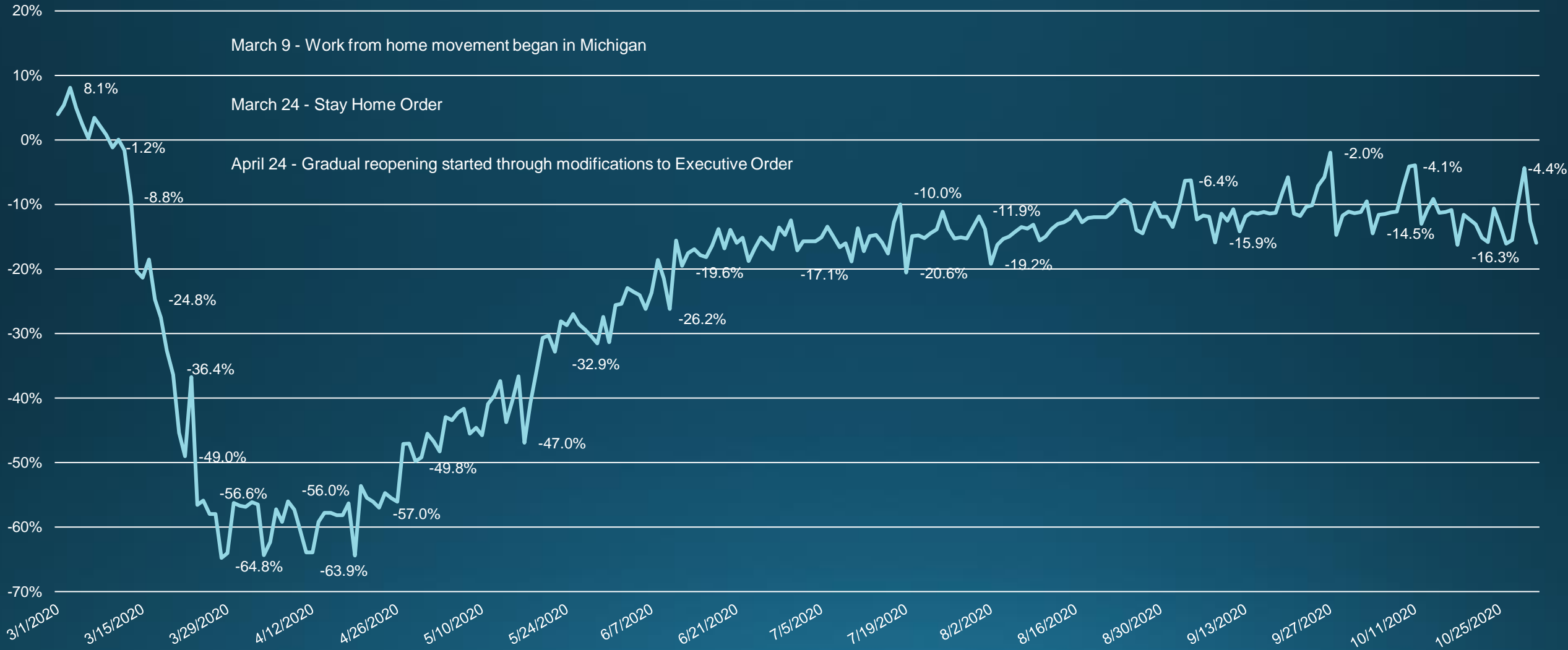
A microscopic view of cells and coronavirus particles. The cells are shown in shades of blue and green, with some appearing as clusters and others as individual cells. The coronavirus particles are spherical with a distinct outer shell and a darker core, scattered throughout the field of view.

COVID-19

CORONAVIRUS DISEASE

Change in Statewide Daily Traffic Volumes

2019 to 2020



Source: MDOT Bureau of Transportation Planning - data from 108 continuous count stations around Michigan

Michigan State Police ticket driver going 180 mph on I-75 in Monroe County

-Detroit Free Press

Michigan State Police ticketed a driver for going **110 mph over the speed limit.**

Police stopped the driver on southbound I-75 — a 70 mph highway — about 11:45 p.m. April 19 near Sigler Road in Monroe County's Berlin Township, said MSP First District Lt. Brian Oleksyk.

It's just one example of an increase in high-speed driving amid the novel coronavirus pandemic, Oleksyk said. Though police are limiting traffic stops right now out of concern for the spread of COVID-19, troopers are forced to make a stop when someone goes that fast, Oleksyk said.

The driver puts themselves, everybody else on the road, and the officer trying to make the stop in danger, he said.

"If there was a crash, to me, there's only one outcome at that high of speeds, and that's death," he said.

2020 Work Zone Worker Fatalities

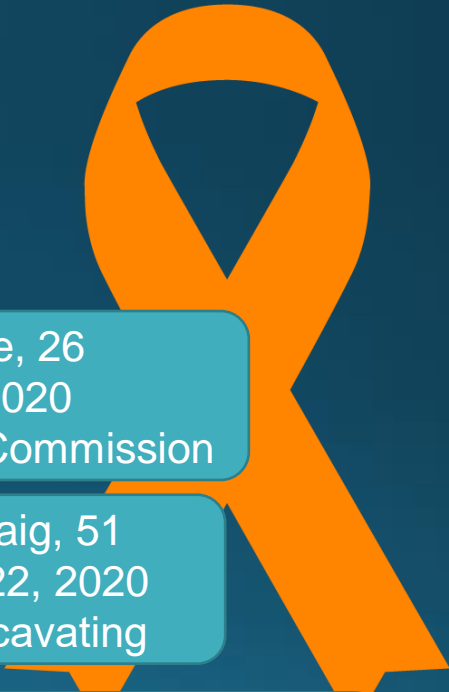


Jeremy Zeitz, 40
September 24, 2020
Anlaan

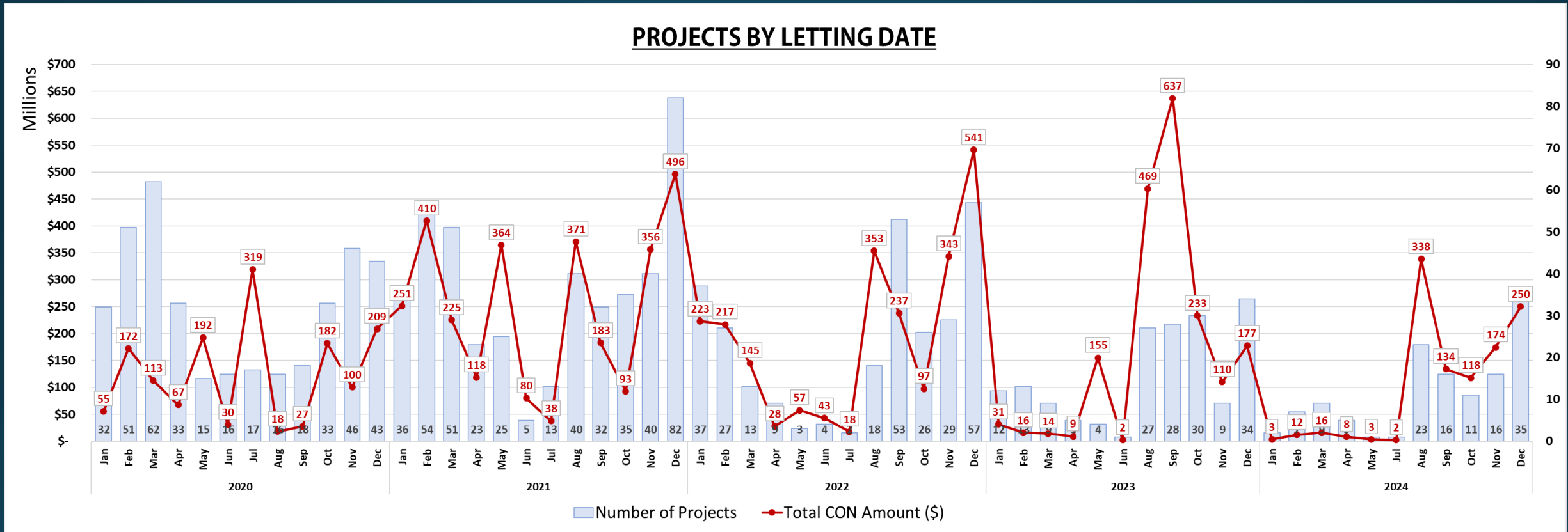
Zachary Morisette, 26
September 21, 2020
Macomb County Road Commission

Allen Craig, 51
October 22, 2020
Dan's Excavating

Nicholas Andres Sada, 23
Davyon Desmon-Aereailes Rose, 23
November 7, 2020
CD Hughes



Balanced Lettings



2021 Projected Lettings

07-Jan-21

| Letting Month | Projects* | Construction Costs (\$ Millions)* |
|-----------------|------------|--------------------------------------|
| July, 2020 | 18 | \$270.75 |
| August, 2020 | 18 | \$16.63 |
| September, 2020 | 19 | \$24.81 |
| October, 2020 | 35 | \$157.48 |
| November, 2020 | 46 | \$121.80 |
| December, 2020 | 38 | \$174.37 |
| January, 2021 | 31 | \$202.50 |
| February, 2021 | 43 | \$324.13 |
| March, 2021 | 53 | \$200.70 |
| April, 2021 | 20 | \$107.28 |
| May, 2021 | 24 | \$321.89 |
| June, 2021 | 5 | \$71.43 |
| Total | 350 | \$1,993.77 |

** This information represents the total number of projects and dollars scheduled to be let in a given month. Therefore the sum of values will not directly correlate to program year budgets, and this information is always subject to change.*

Lettings by Region

(values in millions)

| Trunkline By Region | FY 2017 | FY 2018 * | FY 2019 | FY 2020 | 2021** | Region Total | Five Year Ave. |
|----------------------|-----------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|
| Bay | \$99.13 | \$149.43 | \$127.72 | \$137.98 | \$291.63 | \$805.89 | \$161.18 |
| Grand | \$95.68 | \$125.15 | \$115.99 | \$107.96 | \$204.80 | \$649.58 | \$129.92 |
| Metro | \$387.81 | \$450.73 | \$240.92 | \$151.55 | \$583.90 | \$1,814.91 | \$362.98 |
| North | \$59.55 | \$55.15 | \$82.86 | \$109.50 | \$106.33 | \$413.39 | \$82.68 |
| Southwest | \$46.83 | \$61.77 | \$120.46 | \$402.49 | \$255.45 | \$887.00 | \$177.40 |
| Superior | \$69.30 | \$78.39 | \$84.34 | \$111.14 | \$102.20 | \$445.37 | \$89.07 |
| University | \$152.90 | \$171.20 | \$191.13 | \$96.81 | \$449.45 | \$1,061.49 | \$212.30 |
| Program Total | \$911.20 | \$1,091.82 | \$963.42 | \$1,117.43 | \$1,993.77 | \$6,077.64 | \$1,215.53 |

**I-75 Design-Build jobs includes JN 201437 (\$281.9M), but not the DBFOM Job (201438)*

*** Please note - 2021 Amounts are Programmed Values to Date. The year encompasses data from July of 2020 to June of 2021 to align with Construction year emphasis.*

Quantity Values

| Item | 2021 | 2022 |
|------------------------------|-------------|-------------|
| HMA (Tons) | 2,298,129 | 2,553,010 |
| Concrete (SYDs) | 3,652,641 | 1,466,690 |
| \$ of Bridge Work (Millions) | \$282.10 | \$268.15 |

This information is draft & may change as program is developed.

I-75

State Line to Erie, Monroe County

- Rebuilding of 5.06 miles of I-75 from the Ohio State line north to Erie Road, including bridge replacements, geometric improvements, median concrete barrier, and drainage improvements.
- Total Cost: \$115 million
- Work Completed in 2019:
NB pavement, new structures, part width build of large box culverts



I-75 Segment 2

- Design-Build Project: 8.6 mi of design and build involving rebuilding and realignment of I-75 mainline and ramps including building a future High Occupancy Vehicle lane, replacement of (10) structures and rehabilitation of (1) structure, (2) Diverging Diamond Interchanges (DDI) and High Friction Surface Treatment in the cities of Troy and Madison Heights, Oakland County.
- Current Contract Amount: \$235,024,525.42
- Substantial Completion: April 2021



I-196

- Rebuild I-196 between Maryland Avenue and M-44 (East Beltline Avenue) and build two new bridges to reconfigure the I-96/I-196/M-44 interchange. The new configuration will create dedicated exit lanes from eastbound I-96 and I-196 to East Beltline Avenue.
- Total Cost: Approximately \$44 Million





MODERNIZATION PROJECT

Second Avenue over I-94 Bridge Build

- Network Arch Bridge
- Cost: \$25.6 Million
- 245 ft long by 96.5 ft wide by 44.5 ft tall
- Bridge will include 2 driving lanes with bike lanes, sidewalks, lighting, and planter boxes
- Currently being built off-site (WSU Parking Lot) Will be moved later into place (SPMT) in Spring 2021
- Target Completion in Fall 2021





MODERNIZATION PROJECT

East Grand Boulevard over I-94 Bridge Replacement

Cost: \$18 Million

Bridge will include 4 driving lanes with center median island, sidewalk, lighting, and planter boxes



Mt. Elliot Avenue over I-94 Bridge Replacement

- Cost: \$23 Million
- Bridge will include 4 driving lanes and 2 center turn lanes with sidewalks and lighting

Milwaukee Avenue over I-75 Bridge Replacement

- Cost: \$8 Million
- Bridge will include 2 driving lanes, sidewalks, and lighting



Success Stories

Contract 77023-80912: I-69; 11.04 miles of concrete pavement, St. Clair County

Design Consultants: MDOT Metro Region Design (Road) and MDOT Central Office Design (Bridge)

Contractor: Dan's Excavating

Original Contract Value: \$47,365,476.87

Final Contract Value: \$45,595,248.73

Savings: 3.74 percent

Contract 65041-125856: I-75, Design-Build Project, 6.81 Miles of pavement, Ogemaw County

Design Consultants: Ajax Paving and Bergmann Associates

Contract Dev't: AECOM (Owner's Rep) and MDOT

Original Contract Value: \$21,837,388.38

Final Contract Value: \$21,465,021.32

Savings: 1.71 percent

Success Stories

Contract 63174-115576-2: I-75, Phase 1, Design-Build Project, 3.08 miles pf pavement, Oakland County

Design Contractors: Dan's Excavating and AECOM

Contract Dev't.: WSP (Owner's Rep) and MDOT

Original Contract Value: \$90,870,500.00

Final Contract Value: \$88,739,727.89

Savings: 2.34 percent

Contract 41133-119012: US-131, 3.64 miles HMA reconstruction and bridge work, Kent County

Design Contractor: Benesch

Contractor: DJ McQuestion & Sons, Inc.

Original Contract Value: \$21,706,135.32

Final Contract Value: \$21,342,036.66

Savings: 1.68 percent

Success Stories

Contract 58152-110616: I-75, 5.6 miles of concrete pavement, Monroe County

Design Contractors: HNTB Road Lead, Bergmann Associates Bridge Lead

Contractor: Dan's Excavating

Original Contract Value: \$101,790,104.57

Final Contract Value: \$99,428,293.17

Savings: 2.32 percent

Contract 73111-106858: I-75, 3.75 miles of concrete pavement, Saginaw County

Design Contractors: MDOT Bay Region Design (Road) and Tetra Tech (Bridge)

Contractor: Ajax Paving

Original Contract Value: \$45,970,244.59

Final Contract Value: \$45,576,853.52

Savings: 0.86 percent

Success Stories

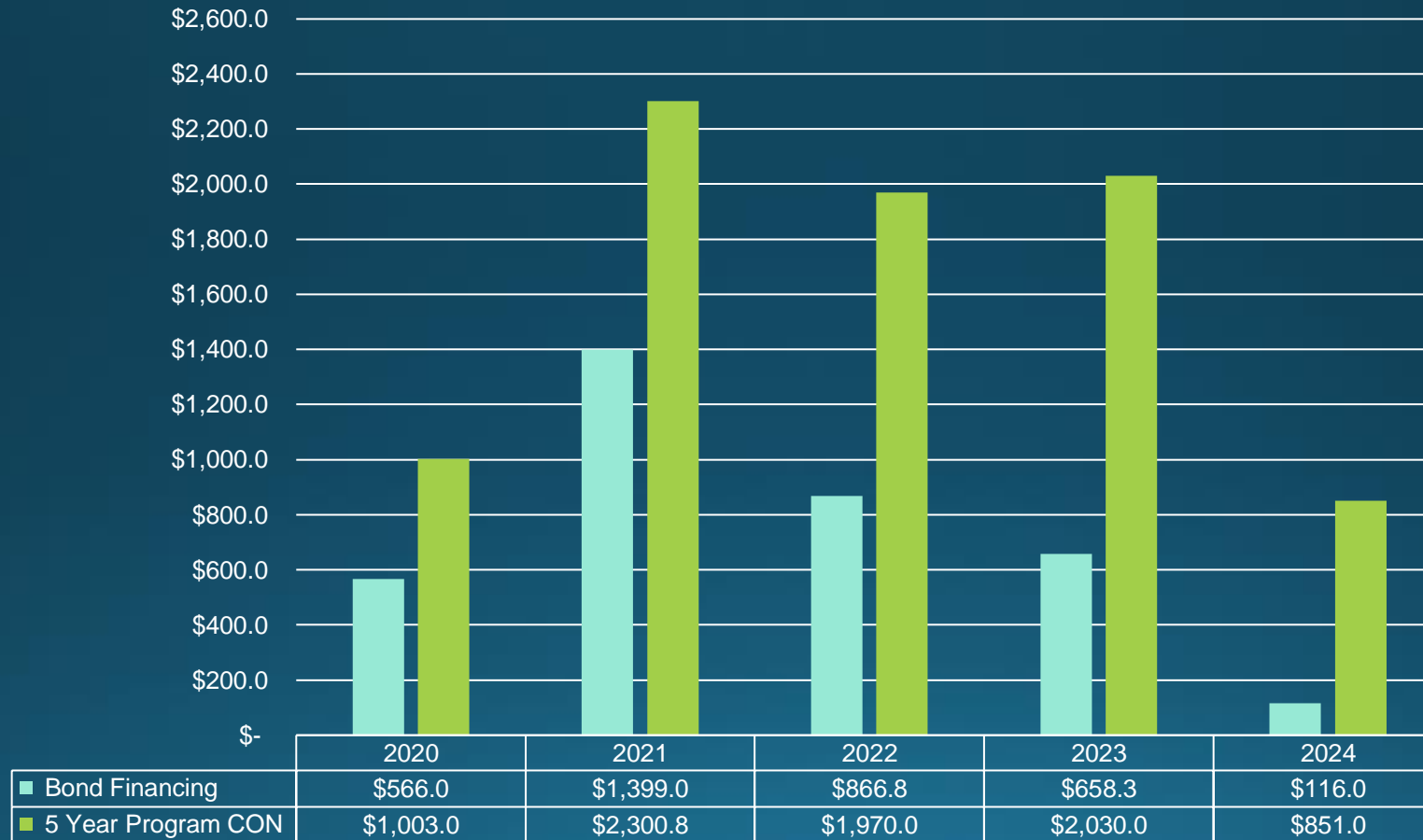
Contract 23081-130052, I-496 Design – Bid – Build, 5.5 mile reconstruction
Design: Internal MDOT Design (road) RS Engineering (bridge) Fishbeck (culvert)
Contractors: D.J. McQuestion & Sons
Original Contract Value: \$52,232,908.33
Final Contract Value: \$47,817,642.22
Savings: 8.45 percent

Contract 82024-113553, I-94 Design – Bid – Build, Bridge reconstruction and rehab,
Cass Ave, Grand River and Third Street over I-94
Design: Cass Ave – AECOM, Grand River – Tetra Tech, Third St– In House
Contractors: Toebe Construction
Original Contract Value: \$32,858,656.28
Final Contract Value: \$29,862,539.01
Savings: 9.12 percent

Rebuilding Michigan Bond Financing & Five-Year Highway Program Construction



By Fiscal Year

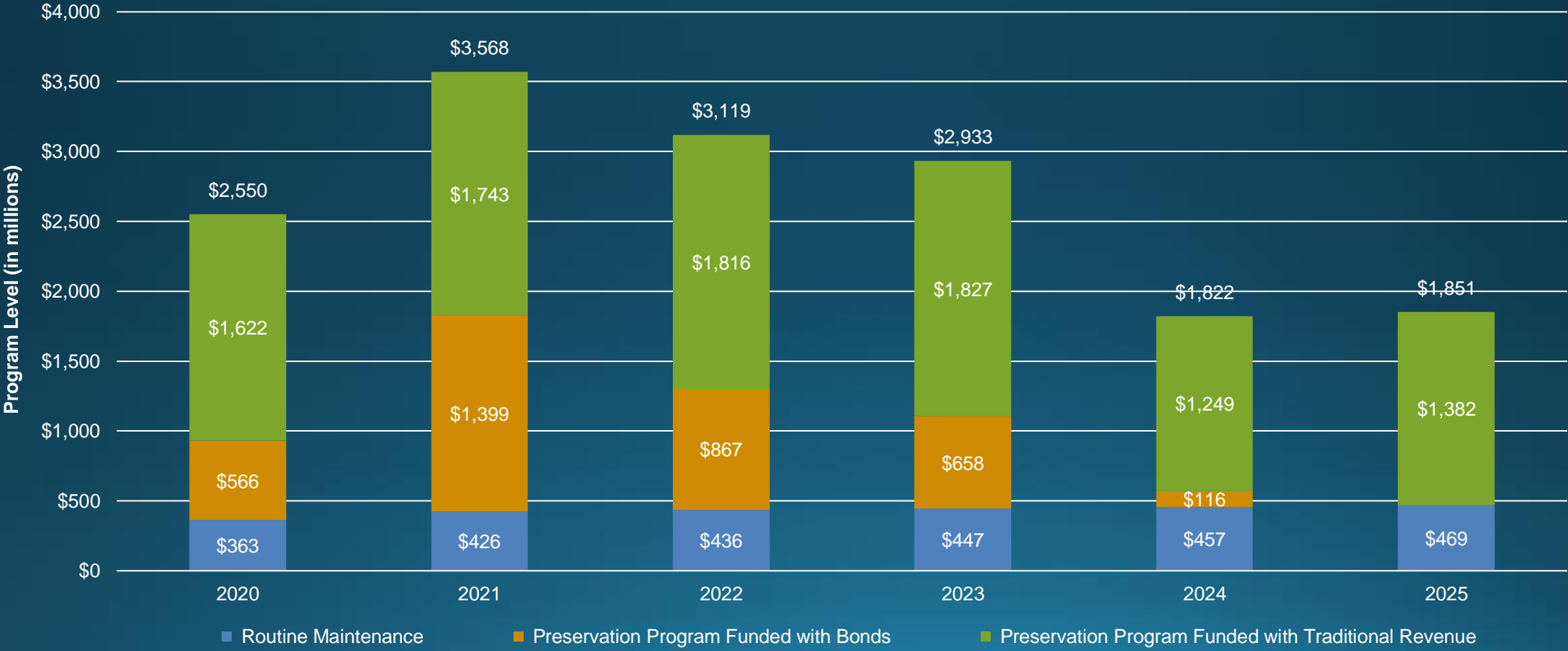


■ Bond Financing ■ 5 Year Program CON

Rebuilding Michigan

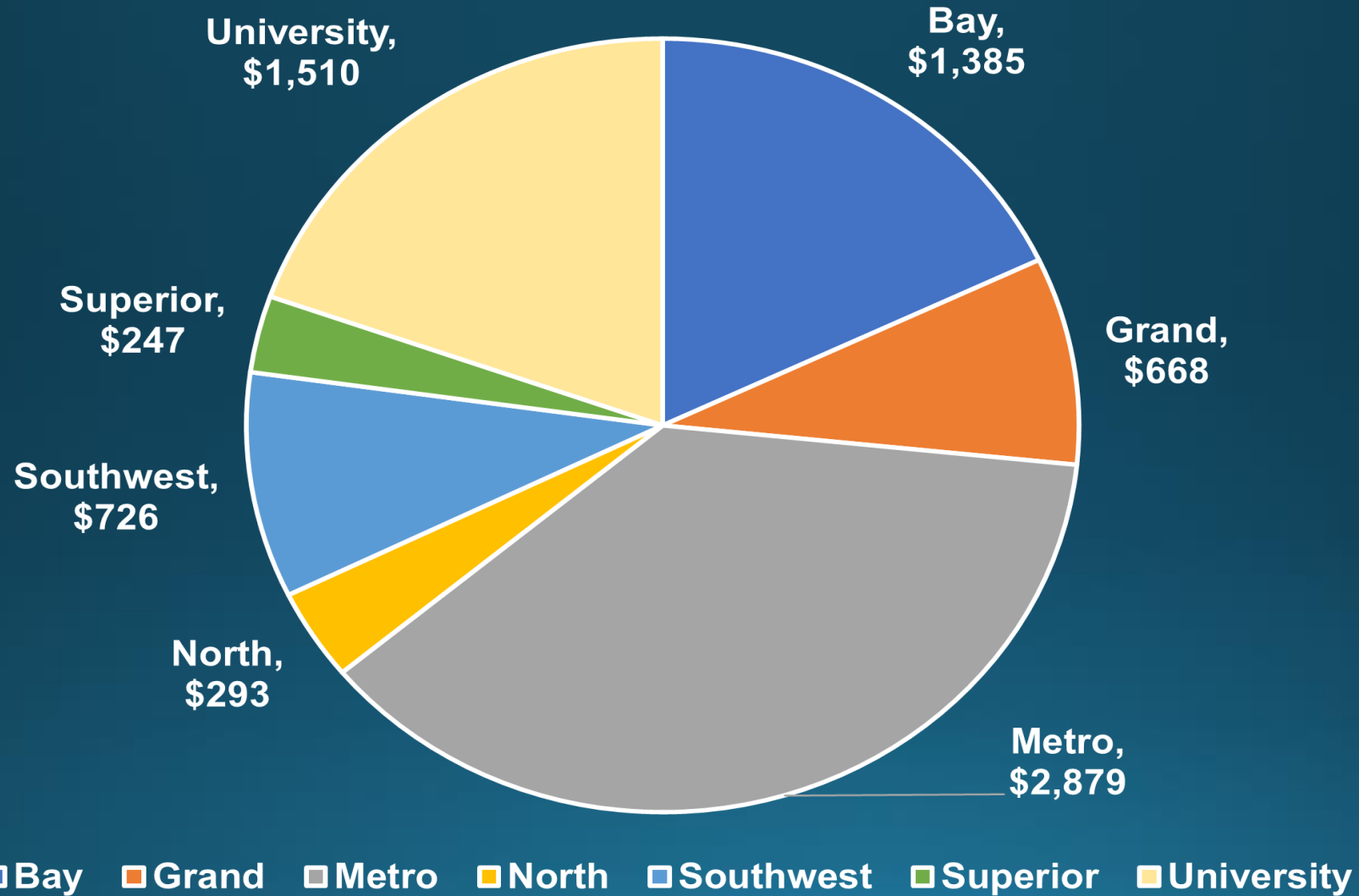


Highway Program Investment FY2020-2025 (in millions)

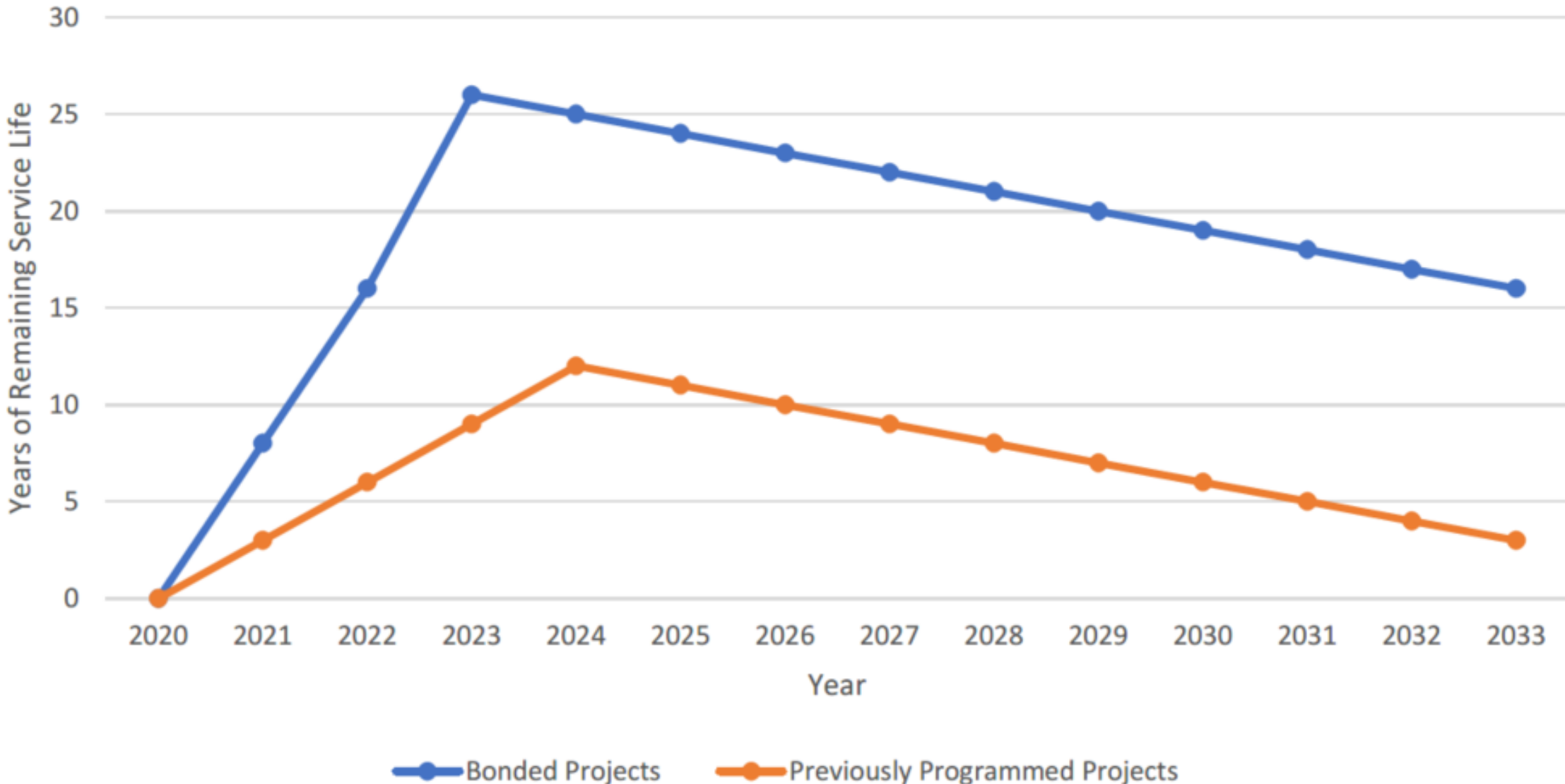


*This slide shows investment by obligation year while the previous slide shows construction phase investment only

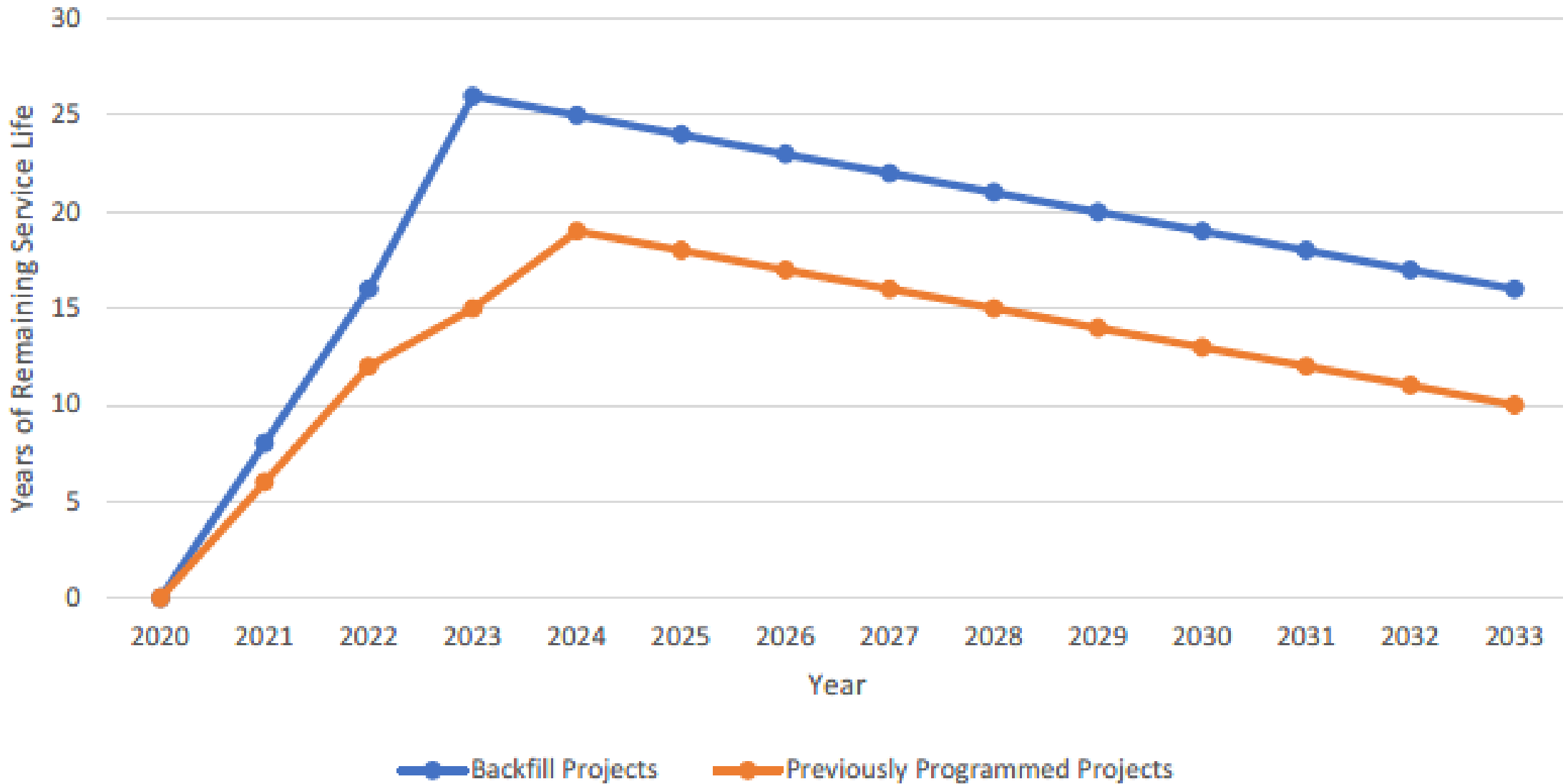
Total 2021-2025 Five Year Construction Plan \$7.70B



Pavement Life Cycle Comparison Rebuilding Bonded Projects vs Previously Programmed Projects 2020-2033



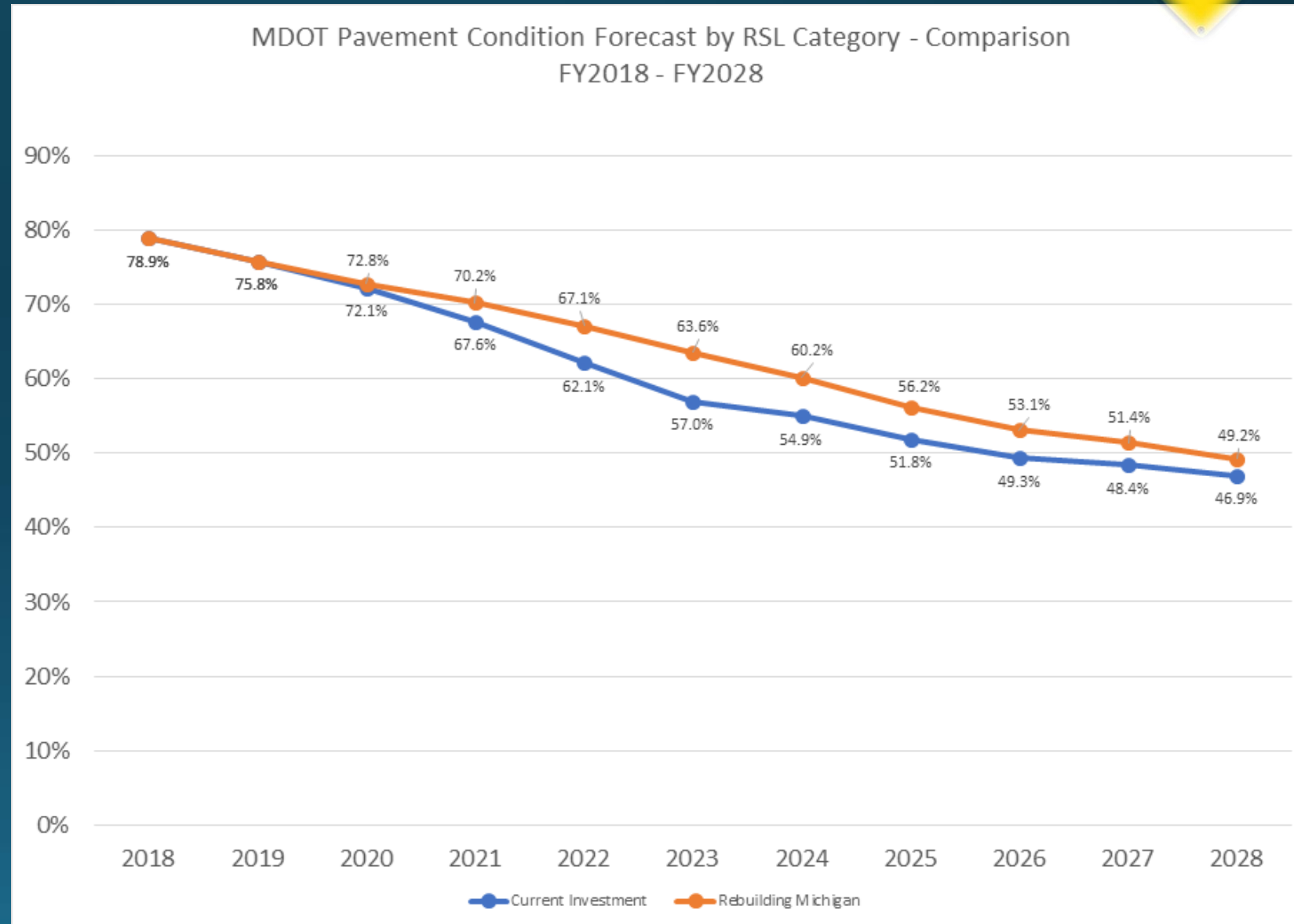
Pavement Life Cycle Comparison Rebuilding Backfill Projects vs Previously Programmed Projects 2020-2033



Rebuilding Michigan



- The revised plan forecast is over 6.5% better than current investment
- With bonding, MDOT will rebuild 569 more lane miles than currently planned
- The bond financed projects, both rebuilds and rehabilitations, will address just over 1,000 lane miles
 - Impacting over 62,000 vehicles per day per project or approximately 3 million vehicles per day





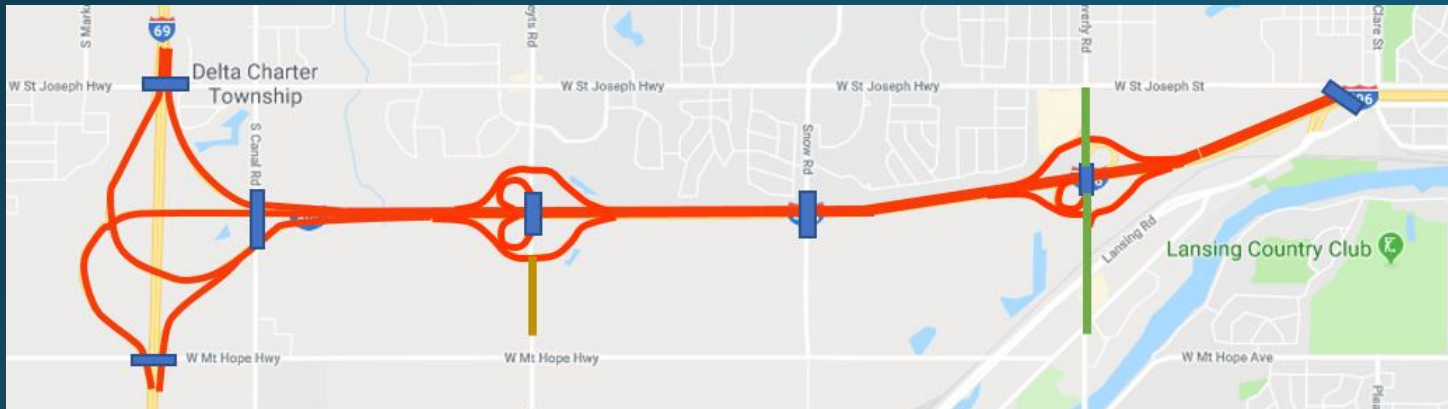
FY20 Projects Utilizing Bond Funds

| Job # or package name | Region | Major Route (Report) | Location (Report) | Engineer Estimate | Low Bid | Savings* | Percentage |
|-----------------------|------------|----------------------|----------------------|-------------------|-----------------------|------------------|------------|
| 130052 | University | I-496 | I-96 to Lansing Road | \$52,232,908.33 | \$47,817,642.22 | -\$4,415,266.11 | -8.45% |
| DB I-69 | SW/Uni. | I-69 | I-69 Corridor | \$214,129,045.00 | \$210,180,169.69 | -\$3,948,875.31 | -1.84% |
| I-94/US-31 | Southwest | I-94 & US-31 | Berrien County | \$133,130,299.00 | \$121,483,900.00 | -\$11,646,399.00 | -8.75% |
| I-94 Jackson | University | I-94 | I-94 Near Jackson | \$97,350,893.92 | \$117,137,913.01 | \$19,787,019.09 | 20.33% |
| | | | | | Total Savings* | -\$223,521.33 | |

* Savings relates to all JNs within the contract, not just bond savings

I-496

- 7.2 miles of full depth rebuilding of the roadway (includes ramps) with preventative maintenance bridge work on 14 bridges and completing operational improvements to the interchanges.
- Total cost: \$60 Million
- Open to traffic on November 11, 2020



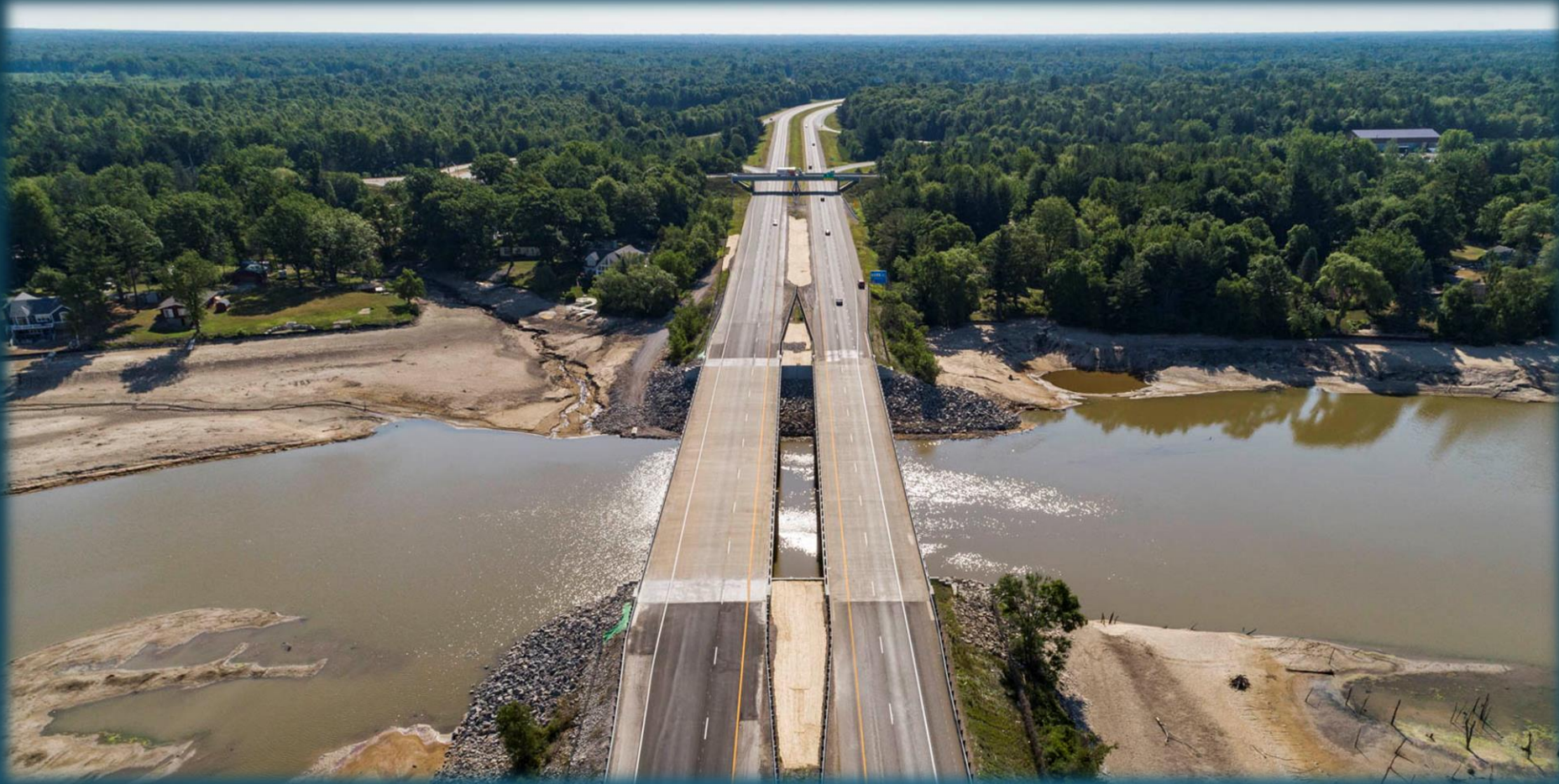
Midland County Dam Failures and Flooding



M-30 at Edenville



US-10 Completion



"Following this historic flooding, I asked MDOT to make reopening roads and bridges a top priority," said Governor Gretchen Whitmer. "Given the importance of US-10 to the region's economic vitality, I want to thank Director Paul Ajegba, his team and the workers who repaired the bridge so quickly."

Midland Contractors

Cleared Debris

Contractor: Fisher Contracting

Duration: 5 weeks

Cost: \$1,419,043 (at Tittabawassee River and Wixom Lake)

US-10 at Sanford Lake

Contractor: Fisher Contracting

Duration: 5 weeks (8.5 weeks for weir portion only)

Cost: \$2,185,301 (includes sheeting weir for headcutting mitigation)

M-30 at Tittabawassee River

Contractor: Fisher Contracting

Duration: 7 weeks

Cost: \$1,139,555



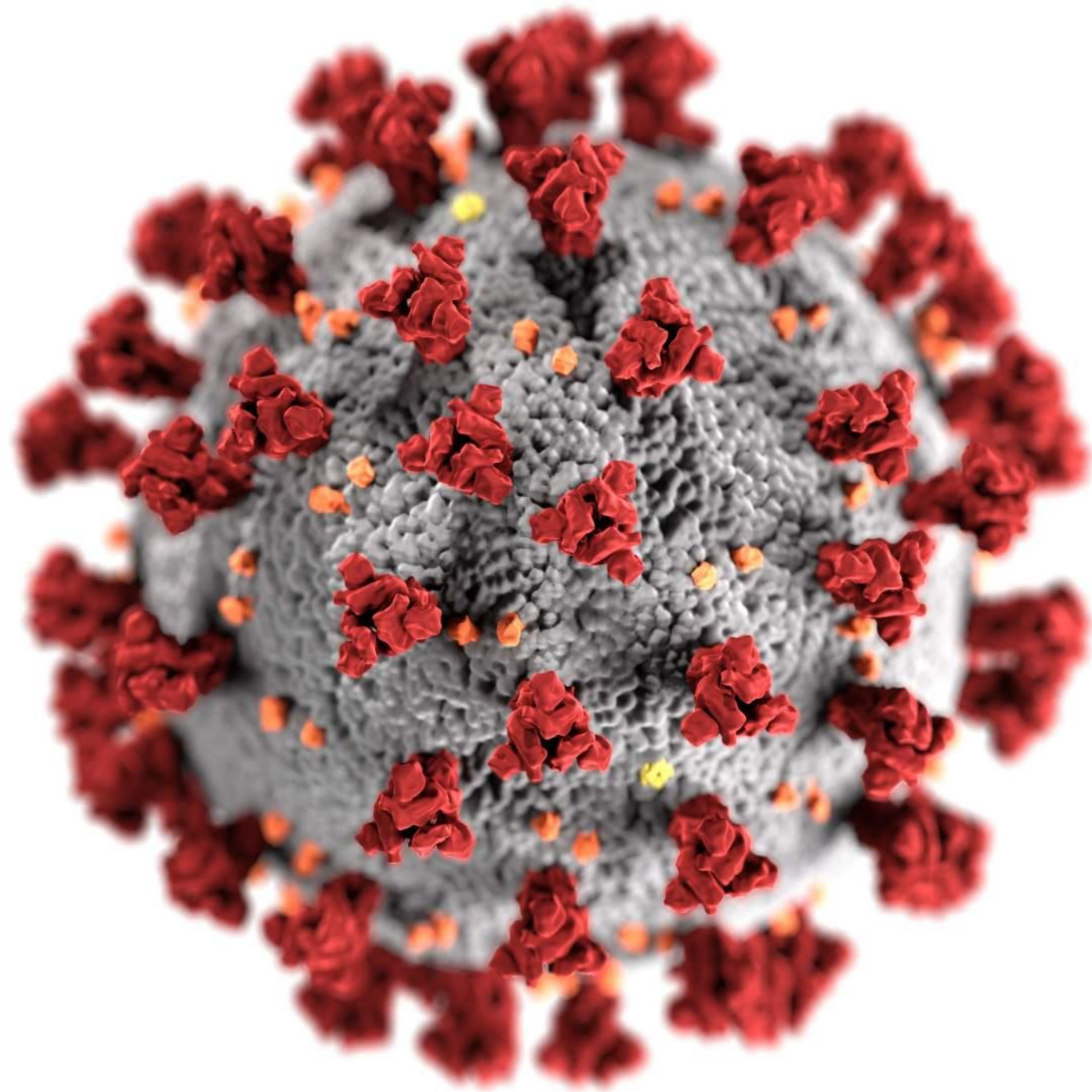
Working With Industry to Rebuild Michigan Safely

MITA ANNUAL MEETING

JANUARY 20, 2021

TONY KRATOFIL, PE

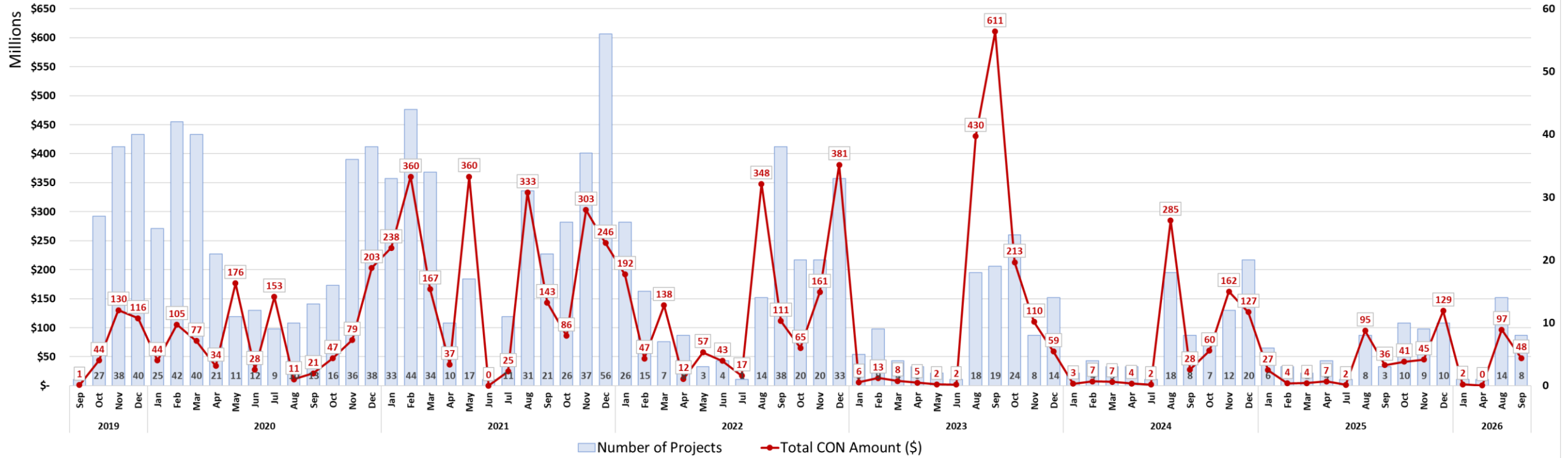
CHIEF OPERATING OFFICER & CHIEF ENGINEER





- Current 5YTP
 - Road
 - Bridge
- Revised Revenue Program
 - Road
 - Bridge
- Bonded Revenue Program
 - Road
 - Bridge

PROJECTS BY LETTING DATE



Rebuilding
Michigan
doubled the
program

Accelerated
letting
schedule
Aug -> Dec

Addressing
Work Zone
Safety



COVID-19
Pandemic
telework
furloughs
hiring freeze

Unpredictable
revenue,
budget &
spending
restrictions

DBE Goal
Attainment
Challenges

2021 Significant Projects
07-Jan-21

| Major CS | Route | Location | Major Work Description | HMA (Tons) | Conc (Syds) | Region | Letting |
|----------|------------|---|---|------------|-------------|------------|----------|
| 39022 | I-94 | East of Lovers Lane to East of Portage Road | 210-Addition Of One Or More Lanes Over 0.5 Mi | 19,397 | 107,085 | Southwest | 2/5/2021 |
| 39022 | I-94 | Portage Road to Sprinkle Road | 210-Addition Of One Or More Lanes Over 0.5 Mi | 0 | 76,500 | Southwest | 2/5/2021 |
| 03034 | I-196 S | From 130th Avenue north to US-31 | 160-Reconstruction | 111,728 | 211,485 | Grand | 2/5/2021 |
| 52042 | US-41/M-28 | from Front St to County Rd HQ | 684-Mill and Two Course HMA Overlay | 35,808 | 0 | Superior | 3/5/2021 |
| 31051 | US-41 | from Macinnes Drive to Isle Royal St. | 164-Asphalt Reconstruction | 10,949 | 0 | Superior | 3/5/2021 |
| 25084 | I-69 | Fenton Road to M-54 | 160-Reconstruction | 20,836 | 196,985 | Bay | 3/5/2021 |
| 82293 | I-275 S | S. of M-153 to 5 Mile Road | 160-Reconstruction | 124,472 | 20,642 | Metro | 5/7/2021 |
| 82292 | I-275 S | Northline Road (S. of I-94) to M-153 | 160-Reconstruction | 1,410 | 653,839 | Metro | 5/7/2021 |
| 82293 | I-275 S | 5 Mile Road & Six Mile Road over I-275 & SB to EB I-96 over I-275 | 424-Overlay - Deep | 0 | 600 | Metro | 5/7/2021 |
| 82102 | M-14 E | 13 structures on I-275 from 5 Mile to Ford Rd. | 418-Overlay - Epoxy | 0 | 0 | Metro | 5/7/2021 |
| 82293 | I-275 S | I-275 NB & Collector over M-14, I-275 SB over Schoolcraft | 130-Deck Replacement | 0 | 0 | Metro | 5/7/2021 |
| 82293 | I-275 N | 3 Railroad structures carrying I-275 over CSX RR | 424-Overlay - Deep | 0 | 0 | Metro | 5/7/2021 |
| 33044 | I-496 E | Lansing Road to the Grand River | 160-Reconstruction | 0 | 0 | University | 6/4/2021 |

Note: Information as of 07-Jan-2021; subject to change.
Projects represent approximately \$943.70 million of work.

2021 Quantity Report 07-Jan-21

This information is draft and may change as the program continues to be developed. This is developed from a listing of job numbers.

| Type | 2020 | | | | | | 2021 | | | | | | YEAR TOTAL |
|-------------------|---------|--------|--------|---------|---------|-----------|-----------|-----------|---------|---------|-----------|--------|------------|
| | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | |
| HMA (tons) | 234,250 | 37,018 | 76,036 | 89,012 | 257,554 | 358,238 | 330,322 | 471,969 | 251,877 | 52,689 | 139,164 | | 2,298,129 |
| Concrete (SYDS) | 466,378 | | 1,336 | 17,341 | 31,841 | 30,411 | 1,666,734 | 398,368 | 313,211 | 19,639 | 707,382 | | 3,652,641 |
| Bridge work (\$M) | \$16.46 | \$2.07 | \$3.95 | \$23.41 | \$19.08 | \$62.44 | \$16.38 | \$59.05 | \$44.09 | \$11.60 | \$16.58 | \$7.00 | \$282.10 |
| Beams Steel (LBS) | | | | | 240,130 | 2,420,500 | | 2,646,454 | | | | | 5,307,084 |
| Beams Conc (LFT) | | | | 408 | 6,174 | 4,997 | | 4,075 | 1,146 | | | | 16,800 |
| Aggregate (TONS) | 870 | 5,437 | 11,276 | 25,674 | 127,369 | 8,522 | 27,922 | 16,125 | 8,048 | | | | 231,243 |
| Aggregate (SYDS) | 569,378 | 967 | 1,023 | 62,829 | 131,606 | 376,367 | 412,649 | 517,431 | 313,659 | 3,991 | 1,425,418 | | 3,815,318 |
| Aggregate (CYDS) | 100 | 4 | | 636 | 2,283 | 1,177 | 1,001 | 23,059 | 17,896 | | | | 46,156 |
| Subbase (CYDS) | 248,750 | | 402 | 19,318 | 95,613 | 172,561 | 284,592 | 199,897 | 164,506 | 25,685 | 8,471 | | 1,219,795 |



Progress & Immediate Look Ahead

| Route | Location | Work Type | Letting |
|--------|---|----------------------------|-----------|
| I-496 | I-96 to Lansing Road | Reconstruct | 2020 Feb |
| I-94 | At US-31 | Reconstruct (Design/Build) | 2020 Jun |
| I-69 | I-94 to Island Hwy | Reconstruct | 2020 July |
| I-94 | At Elm, Lansing Rd, and West Ave | Reconstruct (Design/Build) | 2020 Oct |
| I-69 | Cox Doty Drain to M-19 | Reconstruct | 2021 Jan |
| I-196 | From 130th Avenue north to US-31 | Reconstruct | 2021 Feb |
| M-59 | Romeo Plank to I-94 | Reconstruct | 2021 Feb |
| I-69 | Fenton Road to M-54 & I-475 Interchange | Reconstruct | 2021 Mar |
| I-69 | I-96 to Airport Road | Reconstruct | 2021 Apr |
| I-275 | Northline Road (S/I-94) to 5 Mile Road (N/M-14) | Reconstruct | 2021 May |
| I-69 | M-24 to Lake George Road | Reconstruct | 2021 Aug |
| I-96 | I-275 to Kent Lake Road | Reconstruct & Flex Route | 2021 Aug |
| I-496 | Lansing Road to the Grand River | Reconstruct (Design/Build) | 2021 Aug |
| I-75 | Newport Road over I-75, Monroe County | Bridge Replacement | 2021 Aug |
| US-31 | From I-196 north to Central Avenue | Reconstruct | 2021 Sept |
| I-75 | M-15 to Oakland County Line | Rehab & Resurface | 2021 Sept |
| I-696 | I-275 to Lahser | Reconstruct | 2021 Nov |
| US-127 | Ingham/Jackson County Line to M-36 | Rehab & Resurface | 2021 Nov |
| I-196 | From Byron Road east to 32nd Avenue | Reconstruct | 2021 Dec |
| I-94 | Michigan Avenue to M-60 | Reconstruct | 2021 Dec |
| I-75 | Erie Rd to Otter Creek | Reconstruct | 2022 Feb |
| I-94 | I-94 BL (Exit 23) to the St. Joseph River | Reconstruct | 2022 Mar |
| US-131 | M-216 north to U Avenue | Major Rehab | 2022 May |

www.michigan.gov/mdot

Projects & Programs >> Strategic Planning >> Five Year Transportation Program

A hand holding a crystal ball that reflects a landscape with trees and a path. The background is a blurred field of yellow and green flowers.

COVID-19 Relief

Federal Stimulus

Federal
Reauthorization

State Infrastructure
Initiatives

- Final draft posted for use:

www.michigan.gov/mdot Publications

- Printed copies expected early summer 2021
- Effective with August 2021 lettings





February Webinar Series

- | | |
|-------------------------------------|---|
| February 10 th , 9:00 am | MDOT Innovative Contracting Session Speakers - Ryan Mitchell, James Ranger, Dharmesh Valsadia and Mark Dubay |
| February 17 th , 9:00 am | MDOT Bridge Update Session Speakers - Bradley Wagner, Rick Liptak, and Marcia Yockey |
| February 24 th , 9:00 am | MDOT Work Zone Session Speakers - Chris Brooks, Lindsey Renner, others TBD |

>>> For more information, contact MITA <<<



Michigan STIC Members:

| | |
|------|---|
| FHWA | MDOT |
| MITA | County Road Association |
| MCA | Michigan Municipal League |
| APAM | Michigan Planning Association |
| MRPA | Michigan Legislature Members |
| MAA | Michigan Association of Counties |
| ACEC | Michigan Association of Drain Commissioners |

STIC Highlights Workshop
March 17, 2021 9:30-11:30 am
*Series of 15 Minute Presentations on
Innovative Products and Practices*
Open to everyone



Technology



Enforcement



Balancing Mobility & Safety



Culture



Flexibility to Implement Safety



Marketing



Education

Significant 2019-20 Accomplishments

- ✓ Established dialogue & relationship with Prosecutors' Association
- ✓ Improvements to MDOT Work Zone Safety & Mobility Manual & plan development process
- ✓ Expanded use of Alternate Technical Concepts (ATC) for Maintenance of Traffic
- ✓ **Proposed concept for Safety Contingency Fund to be piloted in 2021**
- ✓ Completed first and second industry-wide Work Zone Safety Perception Survey
- ✓ **Developed “use statements” for high value safety technology/devices**
- ✓ **Proposed process of early industry review on constructability & safety to be piloted in 2020**
- ✓ Initiated design & procurement of Work Zone Safety awareness trailer for education efforts
- ✓ Established social media presence & **#WorkZoneWednesday** industry-wide messages
- ✓ **Held first-ever industry-wide work zone safety technology forum**
- ✓ Encouraged safety moments in all project meetings





Modified Approach



- ✓ Vet ideas earlier and more thoroughly to avoid the frustration of going down a path that has pitfalls.
- ✓ Get more senior MDOT leaders buy-in and sponsorship of ideas to expedite and help navigate them to implementation.

Kim Webb – Aaron Johnson
Gregg Brunner – Brad Wieferich
Matt Chynoweth

Higher Urgency on Key Themes



Positive Protection



Night Work



High Risk Operations
(e.g. Set-ups & Stage Changes)



Enforcement



Temporary Rumble Strips



Truck Mounted Attenuators



Worker Training



Paul C. Ajegba, PE
State Transportation Director

Tony Kratofil, PE
MDOT Chief Operating Officer

Please type your questions
into the Zoom Q&A Box.