

County Engineers Workshop MDOT Update February 9, 2021

Director Paul C. Ajegba, P.E.
Michigan Department of Transportation



Today's Topics

- 2020 Historic Year
- Work Zone Safety
- County Road Association Update
- Partnership Success Stories
- Bridge Bundling
- Monroe Garage Update
- Midland Flooding

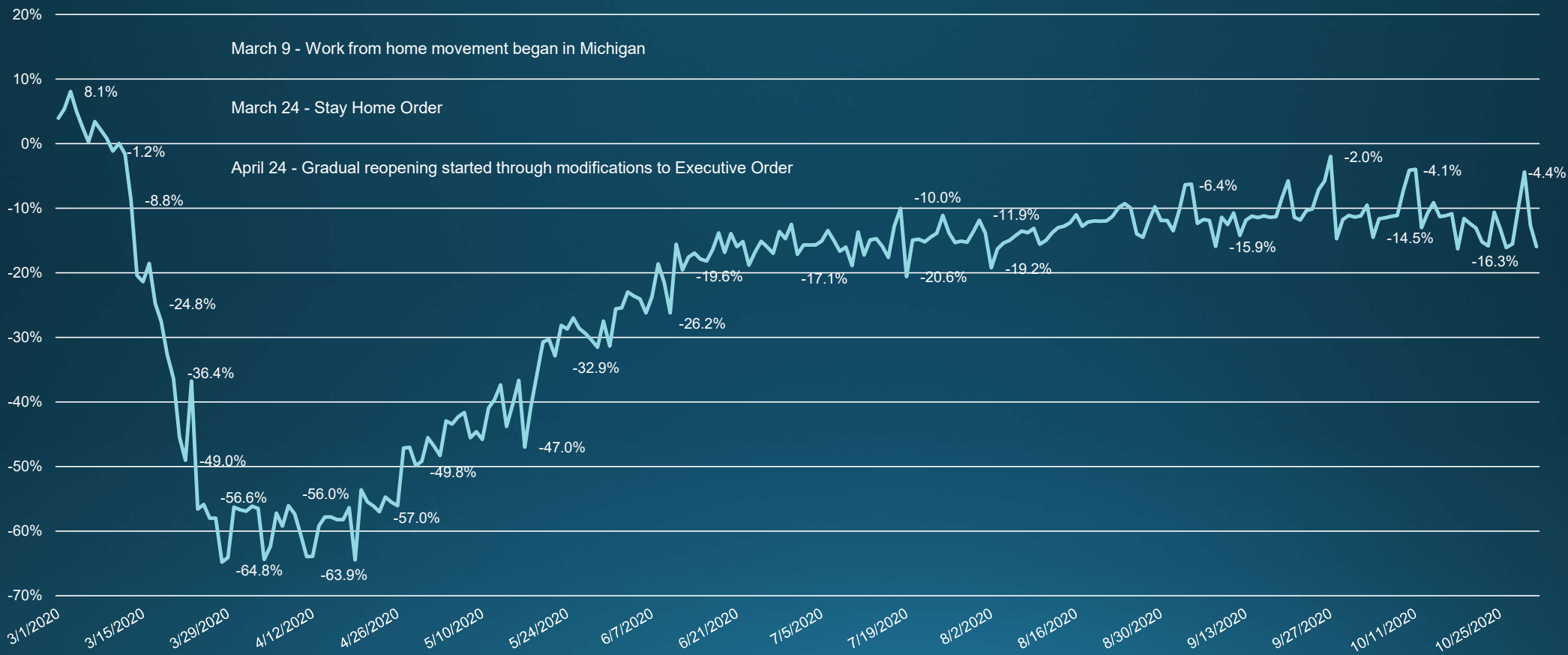
A microscopic illustration of COVID-19 virus particles and host cells. The background is a deep blue. On the left, there is a large, irregular cluster of cells with a yellowish-green glow. Several spherical virus particles are scattered throughout the scene. These particles have a distinct outer layer of red, crown-like spikes and a yellowish-green core. One large virus particle is in the lower-left, another is in the upper-right, and several smaller ones are in the center and bottom-right. The text 'COVID-19' is written in large, white, sans-serif capital letters, with a white L-shaped bracket to its left. Below it, 'CORONAVIRUS DISEASE' is written in smaller, white, sans-serif capital letters, with a white L-shaped bracket to its right.

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

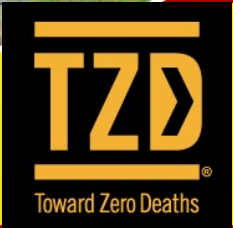


TODAY'S TRAFFIC CHALLENGES



36,120
FATAL MOTOR VEHICLE
CRASHES IN THE
UNITED STATES (2019)

COORDINATION WITH
LAW ENFORCEMENT
&
TRAFFIC OFFICIALS



4
TRAFFIC OPERATION CENTERS
MANAGING TRAFFIC
INCIDENTS STATEWIDE

4,564
FATAL CRASHES
INVOLVING LARGES
TRUCKS & BUSES IN
THE UNITED STATES
(2017)

974
FATAL CRASHES
IN MICHIGAN
(2019)

1
WORK ZONE
CRASH OCCURS
EVERY 5.4 MINUTES

INVESTED IN SMART MOBILITY



Technology



Enforcement



Balancing
Mobility & Safety



Culture



Flexibility to
Implement
Safety



Marketing



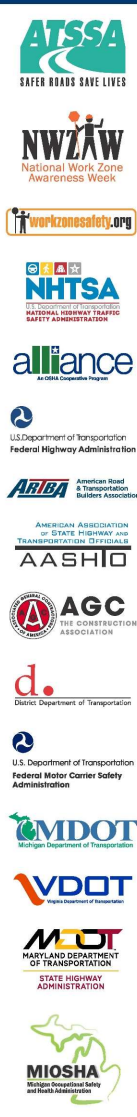
Education

National Work Zone Safety Awareness Week

April 26-30, 2021



- ✓ April 26: National Safety Stand Down Day
- ✓ April 27: National Media Event, *location to be determined*
- ✓ April 28: National Go Orange Day



2021 National Work Zone Awareness Week

**Drive Safe.
Work Safe.
Save Lives.**

www.nwzaw.org

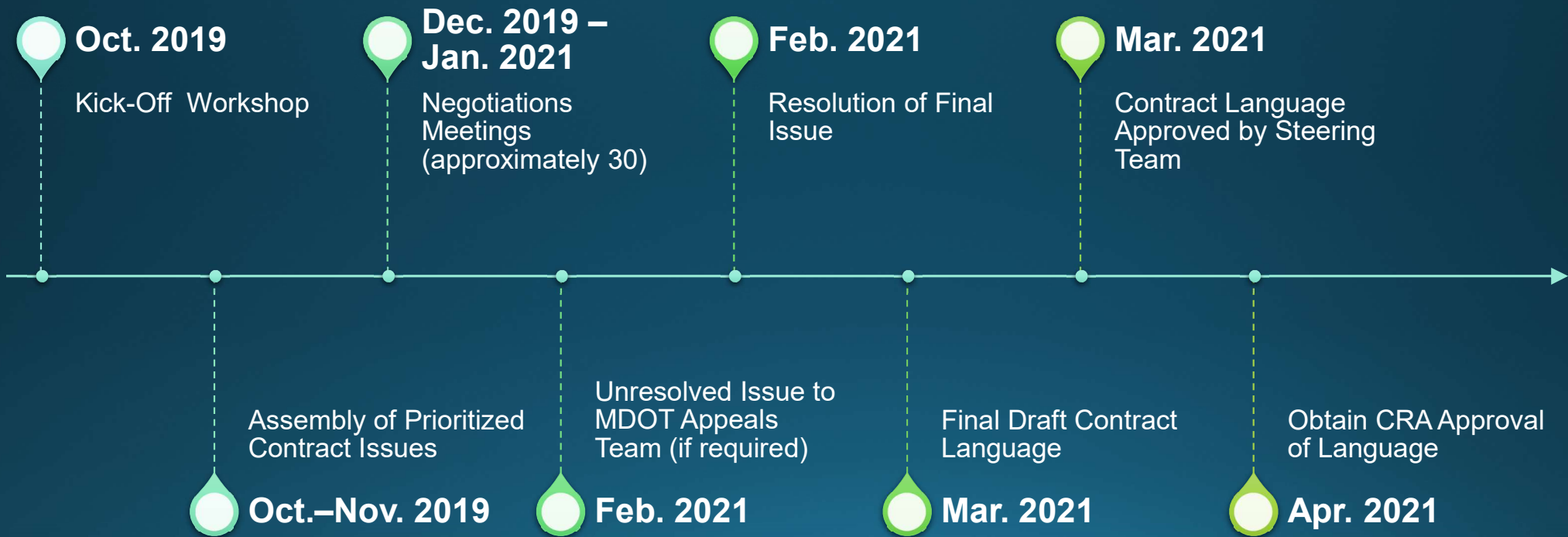
CRA / MDOT Contract Negotiations

- Negotiations 99% Complete
- Collaborative effort between:
 - DTMB facilitators
 - MDOT Leadership and Negotiations Team
 - CRA Leadership and Negotiations Team
 - Office of Commission Audit
 - Attorney General and CRA Legal Counsel

CRA / MDOT Contract Negotiations

- Sponsor Expectations:
 - Identify Issues with the Current Contract
 - Generate Ideas, Build Consensus Around Solutions
 - Be Bold and Innovative by Negotiating in a Collaborative Partnership
- There are about 100 changes to the new contract including language clarification, elimination of redundancies and a thorough legal review.
- Every section of the contract was collaboratively reviewed by the negotiations team for relevance and legal accuracy.

Negotiations Schedule and Milestones



Negotiations Schedule and Milestones



100 Street over US-131 Kent County, Grand Region

- The existing bridge experienced several high load hits (13) in the past few years.
- As a result of engagement with FHWA in completing a Planning and Environmental Linkages (PEL) document, the bridge project was advanced for construction in 2020.



100 Street over US-131 Kent County, Grand Region

- Traffic Impact: Full detour of 100th Street for one construction season (April 2020 to Sept 2020)
- Original bridge constructed in 1957, 26' clear roadway (36'6" total width), 30WF116 beams, length 168'10", main spans 53'9"
- New bridge: 27" prestressed Concrete Box beams, Length 129'2", span 64'7", width 86'4.5", conventional footings and full height abutment walls



100 Street over US-131

Kent County, Grand Region

- Project Cost : \$10.8 million
- Contractor:
 - Kamminga & Roodvoets, Inc., Prime
 - Anlaan Corporation, Sub (Bridge)
- Bridge Replacement, Ramp Improvements, Traffic Signals, 100th Street Improvements, Non-motorized facility
- Under clearance improved from 13'11" to 16'3"



Local Agency Bridge Conditions

Structure Condition Dashboard

Jurisdiction LA Statewide ▾

Display

Structure Inventory Summary

Total No. of Structures	7,323
Highway (NBI) Structures greater than 20'	6,684
Highway Structures less than 20'	315
Rail Road Structures (X)	250
Pedestrian Structures (P)	66
Other Non-Highway Structures (V, Plaza)	8

Additional Bridge Inventory Information

Posted Structures	1,051
Closed Structures	72
Fracture Critical Structures	61
Scour Critical Structures	1,186
Scheduled/Under Construction (S, G)	7

Structure Condition Summary	Count
Good/Fair (5 or Greater)	6,202
Highway included in NBI	5,763
Non NBI Structures (<20, RR, Ped, etc.)	439
Poor (4)	623
Highway included in NBI	520
Non NBI Structures (<20, RR, Ped, etc.)	103
Serious/Critical (3 or less)	484
Highway included in NBI	400
Non NBI Structures (<20, RR, Ped, etc.)	84
Unrated Structures	14
Highway included in NBI	1
Non NBI Structures (<20, RR, Ped, etc.)	13

SD/FO Summary	Count
*Structurally Deficient	920
*Functionally Obsolete	647
*Non-Deficient Structures	5,074
*No Current SD/FO Rating	3,676
NBI Condition - Goals Summary	Pct.
*Good/Fair (5 or Greater)	86.2%
Freeway	0.0%
Non-Freeway	86.2%
*Poor/Serious/Critical (4 or Less)	13.8%
Freeway	0.0%
Non-Freeway	13.8%
*Good NHS Deck Area	33.5%
*Fair NHS Deck Area	53.0%
*Poor NHS Deck Area	13.5%

Bridge Bundling

RFQ
June
2020

Shortlisting
of
Proposers
August
2020

RFP
November
2020

One-on-one
meetings
December/January

Proposals
Due
February
2021

Contract
Award
March
2021

Contract
Award
March
2021

Meetings
with Local
Agencies

Final
Design
Work

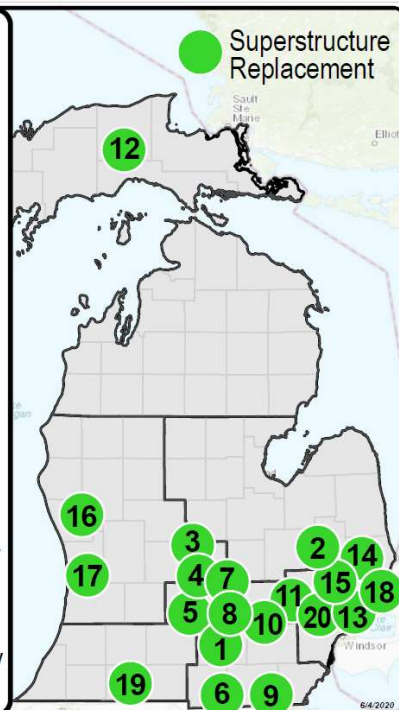
Construction
Phase

Final
Acceptance

Open to
Traffic

Summer 2021 to Fall 2023

1. City of Jackson
2. City of Lapeer
3. Clinton County
4. Clinton County
5. Eaton County
6. Hillsdale County
7. Ingham County
8. Ingham County
9. Lenawee County
10. Livingston County
11. Livingston County
12. Luce County
13. Macomb County
14. Macomb County
15. Macomb County
16. Muskegon County
17. Ottawa County
18. St. Clair County
19. St. Joseph County
20. Wayne County

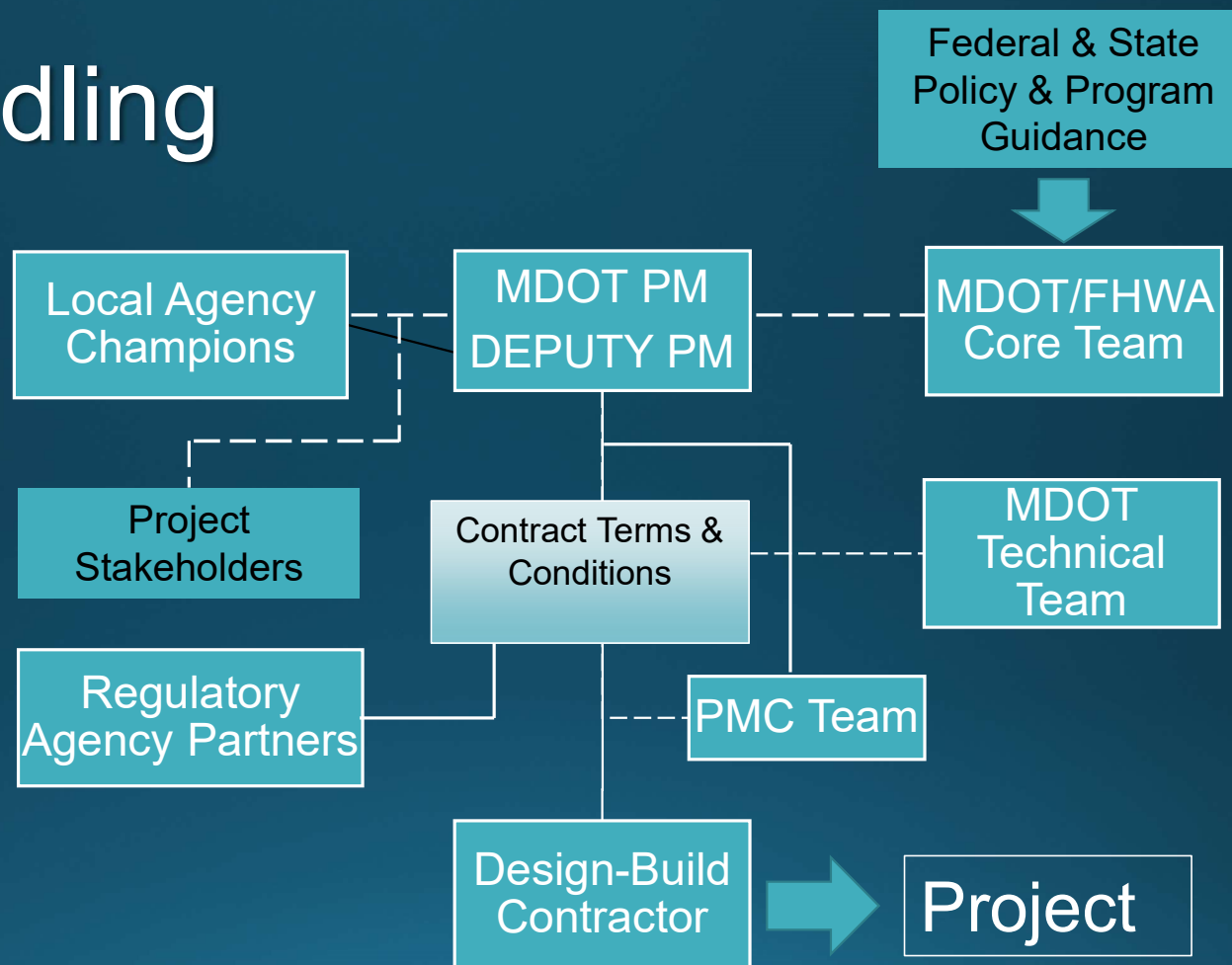


Bridge Bundling

Bridge Bundling Project Organizational Chart

Decision Path

Advisory Path



Monroe County Maintenance Contract

ferrovial
services



- Ferroval Services (3 Year Contract)
 - Effective Start Date: October 1, 2019
 - Expiration Date: September 30, 2022
- Total value of 3-year contract is approximately \$9,030,000 million
 - 3 one-year extensions are available
 - Services cover approximately 600.00 lane miles

Monroe County Next Steps



Architectural design work ongoing
and nearing completion

Site investigation ongoing

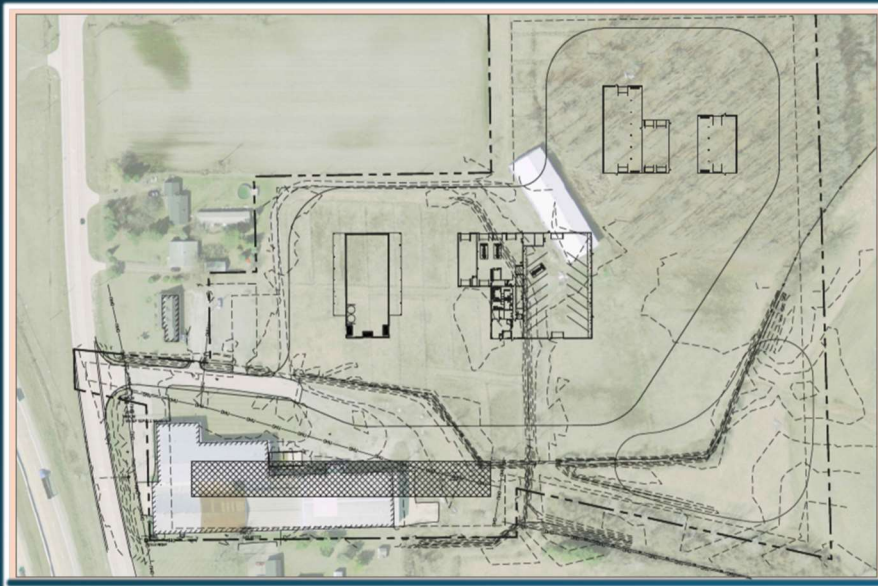
Construction start:
Summer of 2021

Construction completion:
Summer of 2022

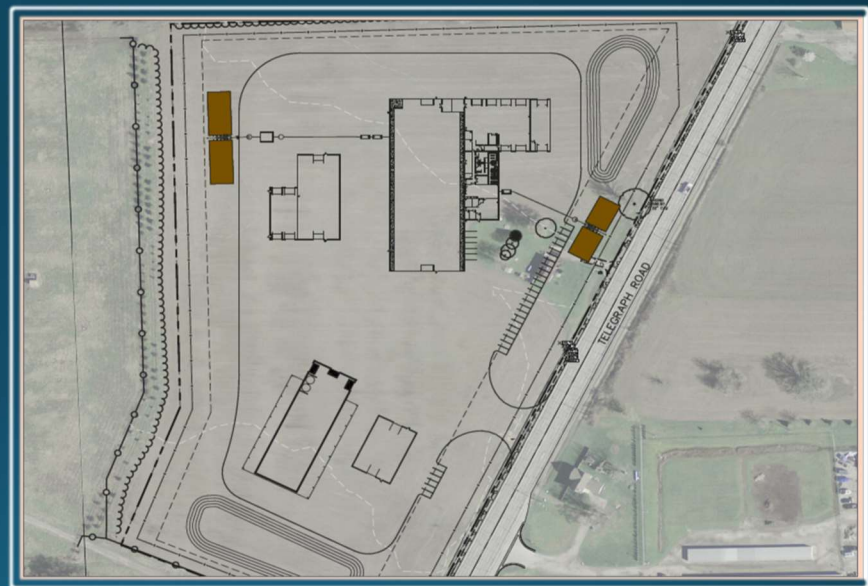
Monroe County Future Garages

OPTION 1

West Site Full Build Out



East Site Full Build Out

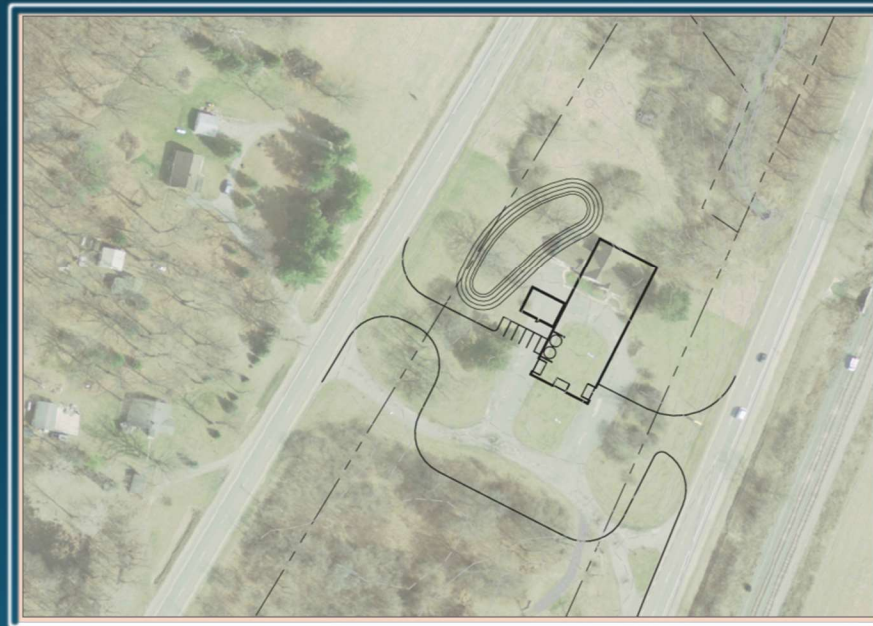


- Monroe East and West will have 4 buildings each (a Main Building, Warm Storage, Cold Storage, Salt Barn)
- West site garage is located near US-23 Dundee area
- East site is located near the US-24 (Telegraph Road) and I-275 area

Monroe County Future Garages

OPTION 1

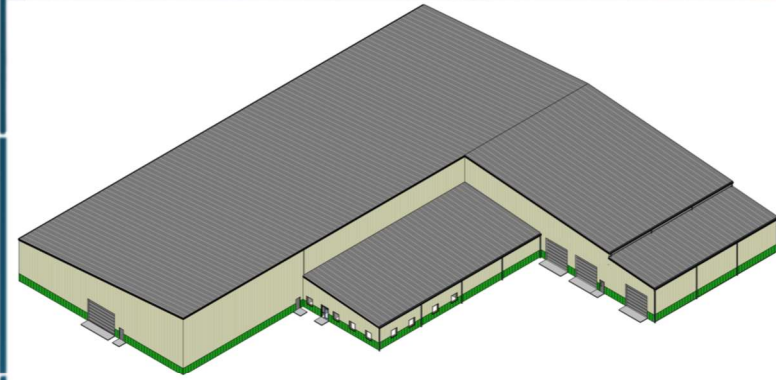
South Site Full Build Out

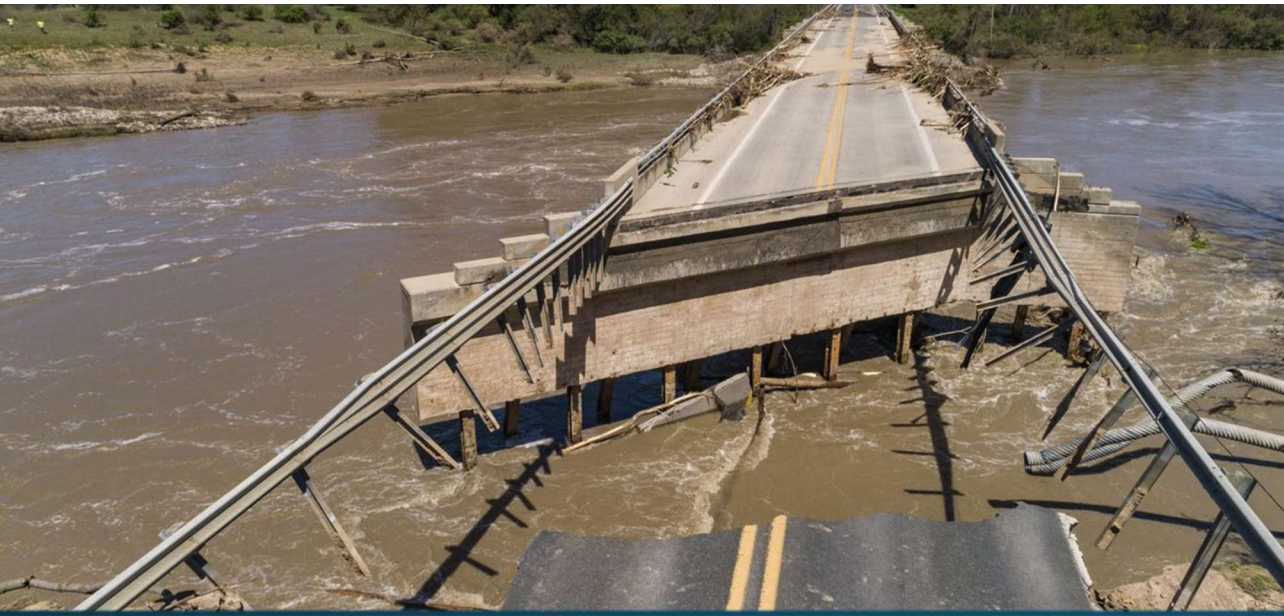


- Monroe South will have 1 building only (a Salt Barn)
- South site salt building is near the southern end of US-24 (Telegraph Road - near the abandoned police post)

Monroe County Garages - Concept

- Buildings will be Pre-engineered Metal Buildings (PEMB)
- Rendering is a Concept; colors have not been decided
- Pictures to the right are of a similar type building constructed for the Ohio DOT





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



Curtis Road

Midland County, Bay Region

- Repairs designed by AECOM and OHM utilizing as-needed MDOT's PMC consultant contract
- Let via Emergency Contract with 5 contractors submitting bids
- Fisher Contracting was the low bid at just under \$1.2M
- Mobilized on October 7th and open to traffic on November 12th





Curtis Road

Midland County, Bay Region

- Top photo shows significant scour and exposed piles at the west abutment.
- Bottom photo shows the aftermath of the dam breach looking southwest. The entire west approach and nearly 600 feet of roadway were washed away.
- Note the blue watermain that was exposed and moved by the force of the water. It should run in an east-west direction.

Curtis Road

Midland County, Bay Region

Construction was completed in 5 weeks.

- Significant quantities:
- 8500 Cyd of Embankment
- 2000 Cyd of Structure Embankment
- 3400 Tons of Riprap
- 900 Feet of Storm Sewer
- 4400 Syds of Slope Restoration



Questions?

