

# Grosse Ile Parkway Bridge Underwater Pier Repairs



# A Message from Wayne County

Wayne County continues with progress toward the overall rehabilitation of the bridge, which is essential for safe, efficient commuting for Grosse Ile residents. We have had regular discussions with Grosse Ile Township and MDOT officials about this project, and they are supportive of the County's plan for the bridge repairs. Improving infrastructure remains our top priority.

Sincerely,

Beverly J. Watts, Director

Wayne County Department of Public Services



# Purpose

- Background information
- Overview of underwater pier repair project and scope of work
- Discuss underwater pier repair timeline
- Answer FAQs

# Background

- Wayne County Department of Public Services closed the bridge to traffic in May 2020 to allow for rehabilitation and maintenance of the bridge's superstructure.
- A County engineering consultant conducted a routine inspection of the underwater bridge piers last fall and discovered accelerated deterioration of the bridge's footings, requiring all work to be stopped in November.
- The Wayne County Commission unanimously approved a contract with J. F. Brennan in February 2021 to perform underwater pier restoration work.

# Who is J.F. Brennan?

- J. F. Brennan specializes in heavy civil marine construction, both above and below water, as well as environmental remediation.
- It is a 4th generation family owned company currently in its 102nd year.
- The firm is on the Michigan Department of Transportation's pre-approved vendors list.

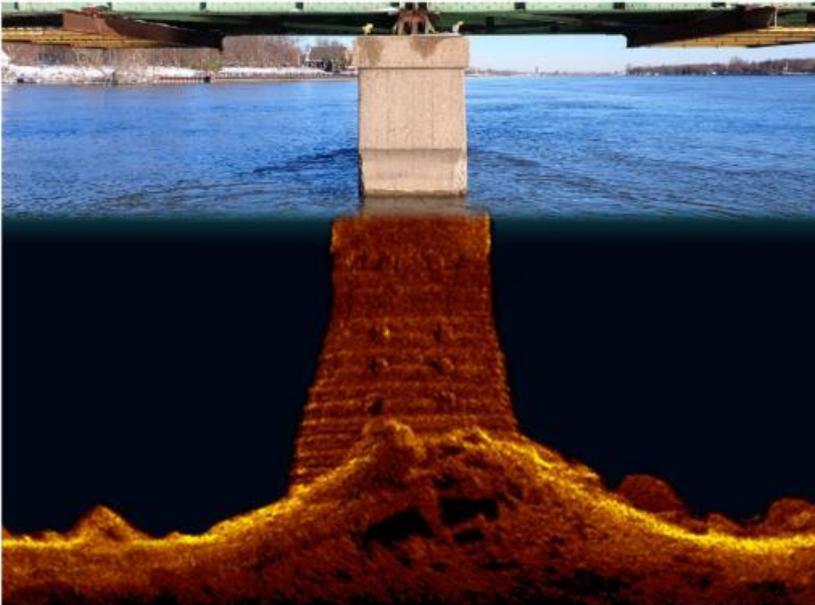
# Scope of Work

- Rehabilitation of six (6) rock-filled timber crib structures that serve as the foundations for piers 2, 4, 6, 8, 9 (center of swing span), and 10.
- Repairs to some above water spalled areas of missing concrete on the concrete cap (the part that is visible out of the water).
- Install a temporary flow deflector system just upstream of each pier where we are actively working.
- There will be a heavy marine presence on the upstream and downstream sides of the bridge, as well as the Elizabeth Park Boat Launch.
- There will be a number of navigation notices issued by the Coast Guard along with an abundance of lights, and signage on the water to alert boaters of hazards.

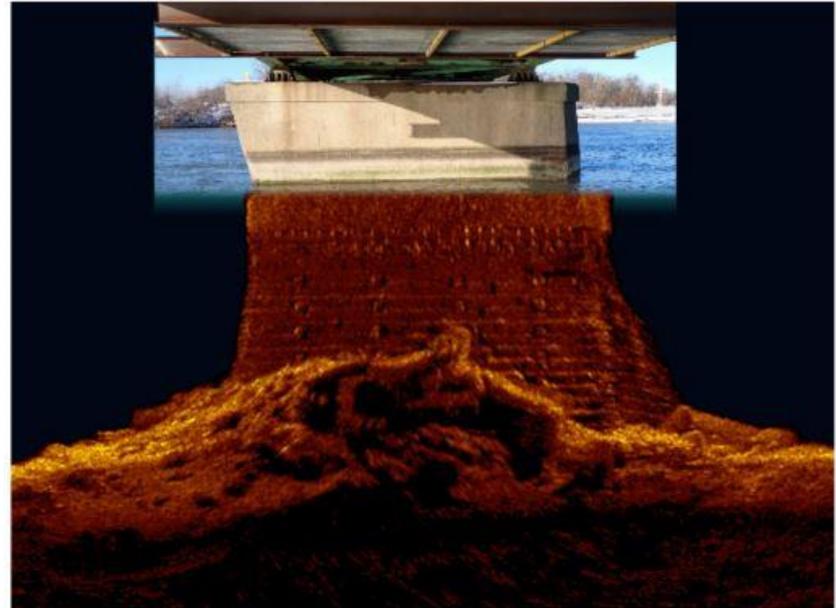
# Scope of Work

- Commercial divers will be in the water on each pier where active work is being performed and submerged cables will be present to anchor barges and flow deflectors in place; please do not approach the work areas.
- No boat traffic will be allowed to navigate under the bridge on the east side at all during construction on piers 8, 9, and 10, and will have to stay on the west side. Conversely, during construction on the west side on piers 2, 4, and 6, boat traffic will only be permitted to navigate under the bridge on the east side.
- When work is being performed on the west side of the bridge, the southern-most exit from the Elizabeth Park Boat Launch will be inaccessible. It is best to avoid this area of the river this season, if possible.

# Planned Construction



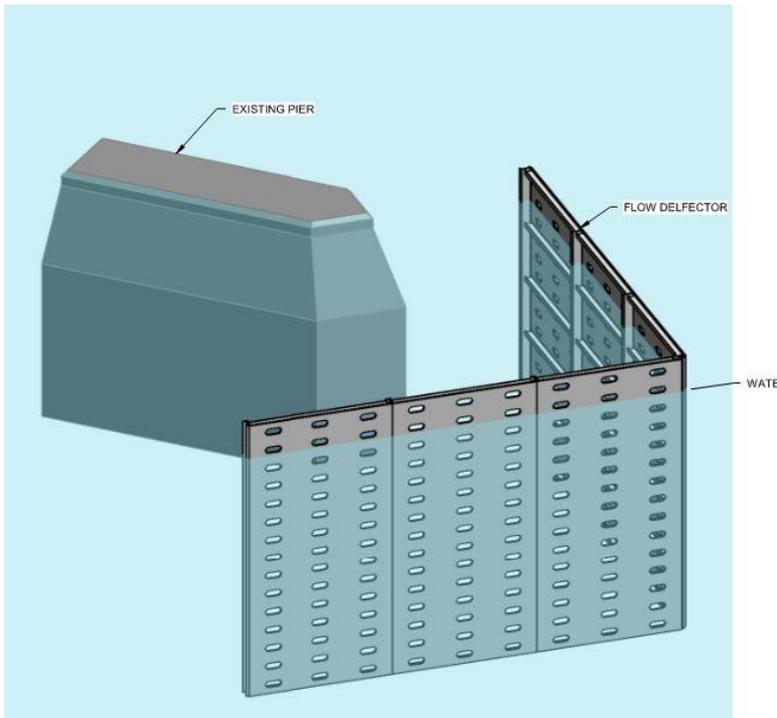
Photograph 8: Pier 4 Downstream Face, Looking North.



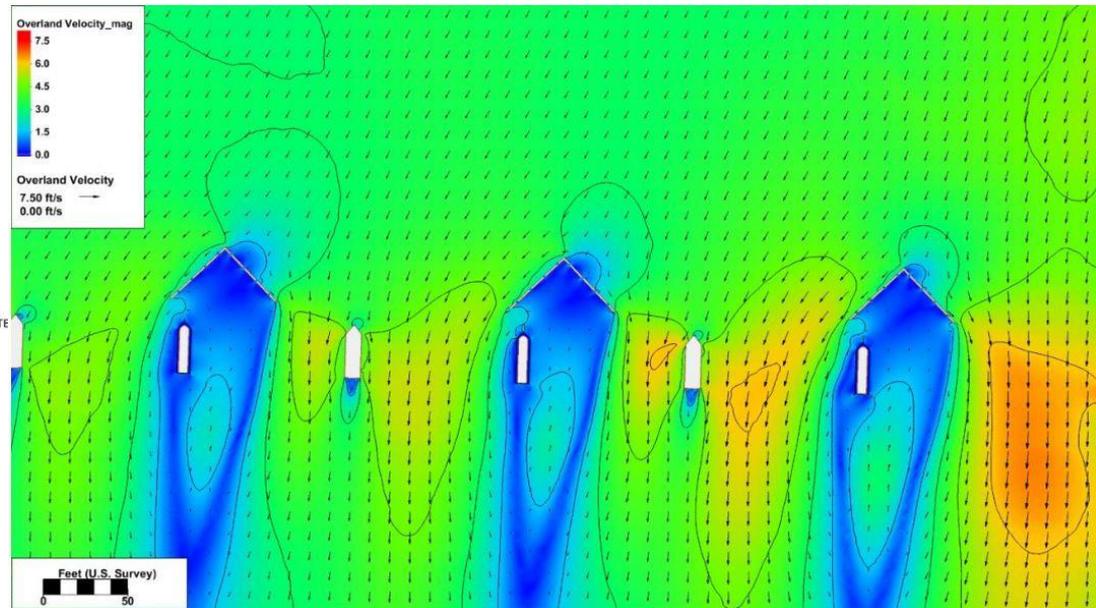
Photograph 5: Pier 4 East Face, Looking West.

## Current Pier Conditions

# Planned Construction



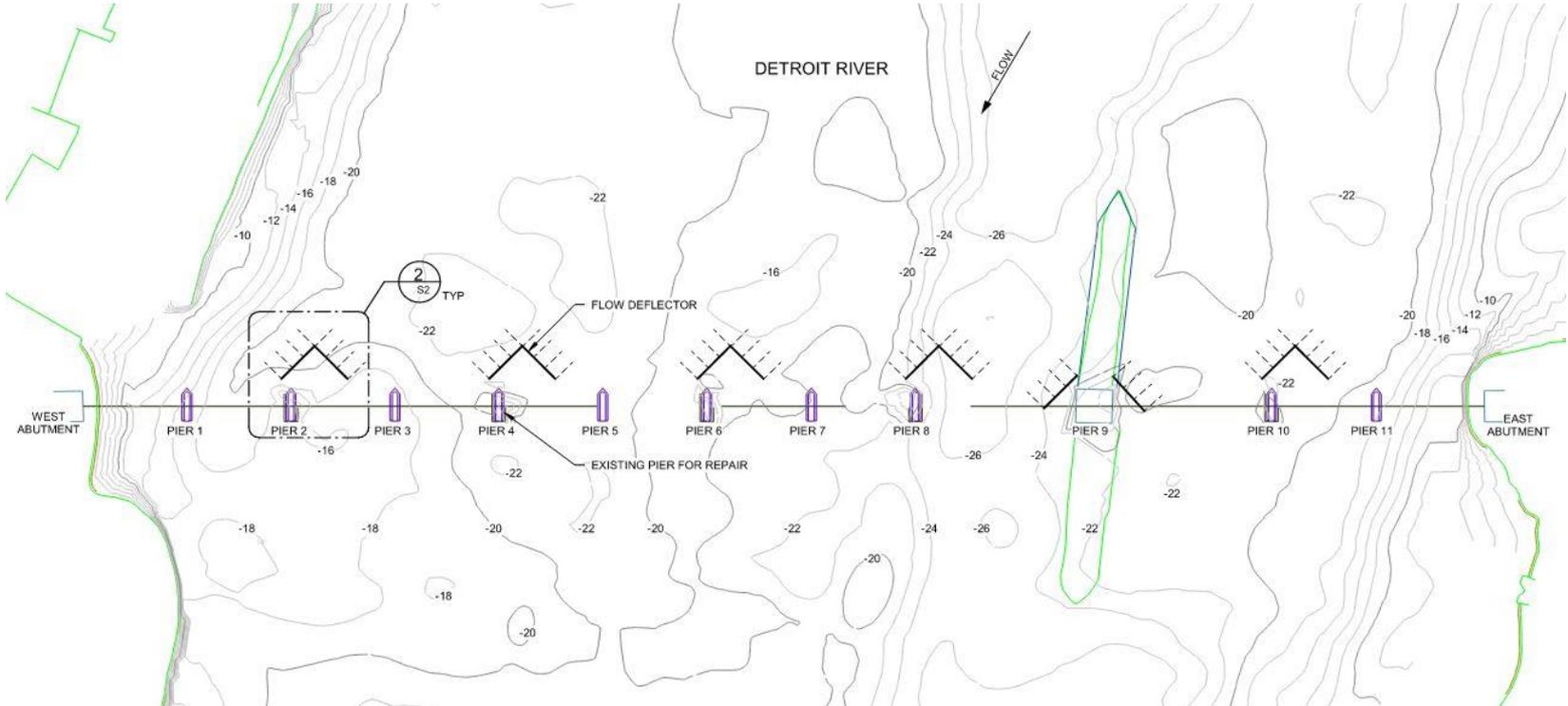
**Flow Deflector Concept**



**Figure 8 AdH model results (velocity magnitude) for 86,000 cfs in the Trenton Channel with the flow deflector in front of piers 4, 6, and 8**

**Flow Velocity Model**

# Planned Construction



**Flow Deflector Locations**

# Tentative Timeline

Depending on permitting approvals, mobilization is scheduled to begin in late April 2021 with construction beginning in May. Work is anticipated to be completed by fall of 2021. Upon completion, MDOT will review the consultant's inspection report for both superstructure and underwater pier repairs, and grant final approval to open the bridge.

# Questions

The following are some frequently asked questions provided to Wayne County by Grosse Ile Township residents.



# Questions

**Q. Will marine traffic be restricted while this work is being done?**

**A. Yes. We will certainly attempt to maintain marine traffic with the least disruption as possible; however, with divers in the water on two piers, there will be some change to marine traffic (e.g., reduced speeds and transiting through the area on the opposite side of the bridge when we are working on the other side). All marine traffic should be reduced to No-Wake speeds with the proper authorities enforcing these rules to maintain both public and contractor safety throughout the construction phase.**

# Questions

**Q. Are only selected piers receiving repairs or are all piers receiving repairs?**

**A. Piers 2, 4, 6, 8, 9, and 10 will receive this repair. These piers are concrete from the bottom of the bridge to just below the water surface where they sit on aggregate -filled wooden timber cribbing foundations, which sit on the river bottom. Piers 1, 3, 5, 7, and 11 are solid concrete from the bottom of the bridge to the river bottom; a plan is being developed to address the last 5 piers.**

# Questions

**Q. Why was the above water work conducted prior to the underwater work being done?**

**A. The work below the water was scheduled to be performed first but due to the complexity of the pier repairs, a new approach to the repairs had to be investigated.**

# Questions

**Q. How long will the repairs extend the usable life of the bridge by?**

**A. Per our consultant, both repair projects (pier and superstructure) are expected to extend the service life of the bridge by 20-30 years.**

# Questions

**Q. The original bridge opening date was the end of calendar year 2020. What happened that caused the bridge opening date to be pushed back until fall 2021?**

**A. A County engineering consultant conducted a routine inspection of the underwater bridge piers last fall and discovered accelerated deterioration of the bridge's footings, requiring all work to be stopped in November.**

# Questions

**Q. What restrictions (weight or otherwise) will exist when the bridge reopens?**

**A. When the bridge reopens, it will be able to carry Class A Truck traffic which is the highest load allowable in Michigan. There will be no posted weight restrictions.**

# Questions

**Q. How do we know the bridge will be safe once opened and will remain safe and what is the inspection frequency moving forward?**

**A. Upon completion of all repairs, the bridge will be re-inspected by a County consultant prior to opening. Wayne County will follow Federal Highway Administration guidelines of routine inspections every two years.**

# Questions

**Q. Who will be performing the scheduled inspections moving forward? Will the inspections be done internally or with an external contractor?**

**A. The County will continue to use MDOT pre-qualified certified consultants.**

# Questions

**Q. Will the County be reimbursing Grosse Ile residents for their tolls?**

**A. No, Wayne County does not provide a subsidy.**

# Questions

**Q. Will the bridge be passable for a public safety or civil emergency situation during repairs?**

**A. No, the bridge will not be passable for public or civil emergencies.**

# Questions

**Q. What is the response plan if something bad happens at the toll bridge which prevents emergency (and other) vehicle crossing?**

**A. Grosse Ile Township has an emergency access plan that was updated in winter 2020-2021.**

# Questions

**Q. Will the bridge be able to allow sailboat and construction barge traffic?**

**A. No, the bridge cannot be swung open for boat traffic.**

# Questions

**Q. Is Wayne County making funding plans to replace the bridge, as discussed, at the end of the 20-30 year term?**

**A. Yes, we are working with our consultant to develop an Asset Management Plan which will include identifying options to replace the Grosse Ile Bridge.**

# Questions

**Q. In 2020, Wayne County issued a bid package for repairs to the Grosse Ile Parkway Bridge. What was the amount of funding allocated for this bid package? How many contractors responded and what were the amounts of the bids? Why did Wayne County not make a bid award in 2020?**

**A. Procurement of services was in accordance with Wayne County's Procurement Ordinance and Wayne County reserves the right to accept or reject any or all bids or proposals for any reason. A solicitation does not guarantee the award of contract. If the County elects to award a contract, terms are finalized during the contract negotiation phase and contract terms, including costs, are approved by the Wayne County Commission.**

# Questions

**Q. How does the bid package approved in 2021 by Wayne County for repairs to the Grosse Ile Bridge compare and differ from the bid package issued in 2020? How much funding did Wayne County allocate for the 2021 bid package that was approved? How many contractors responded to the bid package approved in 2021, and what were the bid amounts?**

**A. See the answer to previous question.**

# Questions

**Q. A regular inspection of the Grosse Ile Parkway Bridge in 2017 found “widespread coating failures” of steel components on the span. Is there a plan to repaint the bridge to address these coating failures? If so, when will the bridge be repainted?**

**A. A plan is being formulated for future repairs.**

# Questions

**Q. What is the plan to communicate to the Township work progress, scheduling, etc.?**

**A. We plan to continue to communicate via County and Township website updates as well as press releases.**

# Stay Connected

A copy of this full presentation can be found on our webpage by visiting:

<https://www.waynecounty.com/departments/publicservices/home.aspx>

Residents and visitors can now subscribe to email notifications of bridge updates, construction and maintenance updates and news in their communities via waynecounty.com

(<https://www.waynecounty.com/departments/publicservices/roads/road-construction-updates.aspx>)



Thanks for  
watching!