EXIT 10
RENOVATIONS
PRESENTATION SUMMARY

1. About the Indiana Toll Road
2. Project Location and Information
3. Scope of Work
4. Bridge Inspection and Design
5. Project Delivery Method
6. Construction
7. Acknowledgements
ABOUT THE INDIANA TOLL ROAD

- 157-mile system across Northern Indiana from Ohio to Illinois border
- Have provided over $600 million of improvements since 2016
- User-fee system
  - Only customers who use the Toll Road pay for the Toll Road
  - No state or federal tax dollars used for maintenance and operations
PROJECT LOCATION AND INFORMATION

- Gary
- Interchange with SR 12
PROJECT LOCATION AND INFORMATION

Adjacent Areas
PROJECT LOCATION AND INFORMATION
Mainline and Ramp Structures
PROJECT LOCATION AND INFORMATION
Gary Road Structures
Inspection

- Hands on Inspection
Inspection

- Hands on Inspection
Inspection

- Hands on Inspection
Inspection

- GPR Survey
Inspection

- GPR Survey
Inspection

- GPR Survey
SCOPE OF WORK

- Bridge Evaluation
- Scope of Work Recommendation
  - Bridge Deck Scarification/Overlay
  - Bridge Deck Patching
  - Conversion to Semi-Integral Abutments
  - Approach Slab Replacements
  - Beam Painting
  - Steel Repairs
  - Link Slabs to Eliminate Joints
  - Lighting Upgrades
- Cost Estimate Preparation
- Decision on Path Forward
Design Plans-Bridge Deck Patching

6. The measurement of bridge deck patching concrete for partial depth cavities and surface irregularities created by hydrodemolition are based on the total area quantity determined by multiplying the area of assumed partial depth patching by an assumed average depth of 2", and converting to cubic yards. The following quantities shall not be paid for separately but shall be used as a basis for calculation of the pay item Bridge Deck Overlay, Budget:
*Bridge Deck Overlay, Additional = 13.7 CY
*Bridge Deck Overlay, Additional Surface Preparation = 1.027 LFT
Design Plans-Semi-Integral Conversions
Design Plans-Semi-Integral Conversions
Design Plans-Link Slab Design
Design Plans-Link Slab Design
MAINTENANCE OF TRAFFIC

Stage Construction:
Bridges 7-5 EB/WB, 10-06ML EB/WB, 10-07RR EB/WB, 10-01RR EB/WB

Full Closures/Traffic Detoured:
Bridges 10-02, 10-03, 10-04, 10-05
MAINTENANCE OF TRAFFIC

Mainline Stage Construction:

I-90-45-007-S;
I-90-45-10-(06) ML
(LINE "T" OVER E&W RR & RAMP "D")

I-90-45-007-S;
I-90-45-10-(06) ML
(LINE "T" OVER E&W RR & RAMP "D")
MAINTENANCE OF TRAFFIC

Gary Road Stage Construction:
MAINTENANCE OF TRAFFIC

Eastbound I-90 Ramp Detour:
MAINTENANCE OF TRAFFIC

Westbound I-90 Ramp Detour:
Procurement Process-CM/GC

- 30% plans prepared-4/15/2022
- 60% plans prepared-6/20/2022
- Early Contractor Notice-Reached out to 7 Contractors
- Contractor RFP Meeting-7/6/2022
  - Met with 4 different Contractors separately
- 95% plans prepared-8/3/2022
- Follow up meetings with Contractors-8/11/2022
- Bid notice-9/9/2022
- Bid opening-9/29/2022
  - 3 bids
- 100% plans delivered-1/13/2023
Initial Schedule

With so many moving parts, we knew our summer was going to be a busy one for our inspection team!
Accelerated Schedule

We weren’t busy enough, so we added another bridge to the mix a month early to keep us on our toes.

On the other hand, electrical work was on hold.
Initial Schedules are just a Suggestion Anyway...

With electrical still on hold, the two remaining full closure structures were moved up.

Workers were moving like ants to keep up, but all structures were opened ahead of the original schedule!
Wash-Rinse-Repeat

- 12 Bridge Structures
  - 4 Full Closures
  - 8 Staged Construction
- 10 Overlay Bridge Decks
- 6 Semi-Integral Abutment Conversions
- 10 SS Joints
Access Needs and Proper Communication

- Who gets to go where?
- When can they be there?
- How do they need to access it?
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Access Needs and Proper Communication

You want to get people where!?
Railroad Safety is NO JOKE!

Railroad Coordination and safety near the railroad is taken very seriously.

The flagger has the authority to remove a person and/or a company from the jobsite if they fail to follow proper safety measures or adhere to railroad related communications.

Railroad issues can lead to delays, delays and more delays.
Research Opportunity with the University of Notre Dame

Stress-strain gauges were installed along some of the rebar within the link slab that would allow monitoring post construction from below using a computer from the University of Notre Dame.
Stress-strain gauges were also installed within the overlay concrete with cables placed in drilled holes through the deck to monitor post construction as well.
Project Team

- Ciorba Group (Engineer of Record)
- Subconsultants
  - Primera
  - Metric Environmental
  - Collins Engineers
  - Infrasense
- Rieth Riley - General Contractor
- Construction Cost (Estimated): $24M
QUESTIONS?
Contact Information

Will Deuter, PE

Jim Earl, PE