Overview of the Project
On January 10, 2017, a mobile car crusher destroyed the southernmost four prestressed beams over the northbound lanes of I-465, bringing traffic to a halt. GAI was on site within four hours to assess the damage and determine a plan of action. GAI worked with INDOT and the contractor to develop final bridge construction plans within five weeks of the incident, and produced a six-phase maintenance of traffic plan that minimized traffic disruptions and commerce on this heavily traveled corridor. INDOT’s on-call contract program allowed GAI and the contractor to collaborate efficiently and produce plans as needed, resulting in a two-month accelerated schedule. The bridge reopened on May 1, 2017, two months ahead of schedule and four months before predicted.
On-Call & IDIQ Contract

- Emergency Bridge On-Call Agreement
- IDIQ Contract
Plan Development
Timeline
The First Day

- Bridge hit 8:00 am
- GAI called by INDOT 9:00 am
- GAI on site 10:00 am
- Rieth-Riley already dismantling railing
- Commissioner’s second day at INDOT
Damage
Damage
Damage
Damage
Damage
Bridge Geometrics
Bridge Geometrics

Damaged Beams
What do we do now?
CR 450E over I-69

- December 2015 a backhoe struck the bridge breaking the strands on the northmost beam.
- Also a 2-span prestressed beam bridge with integral end bents.
Repair Sequence
Repair Sequence
Special Beam Procurement

Speed of reconstruction was paramount

- Checked 2005 design.
- INDOT ordered beams from original plans.
- Saved detailing time and effort.
- Other Plans developed as RR needed them.
MOT Plan Development

Worked with all partners

- Due to IDIQ contract all intermediate phases were detailed.
  - Included crane positioning and temporary removals.
- 6 Phases + short term detour on I-465
- Rockville Road
Construction
Bridge Demolition

Duration 36 Hours

- Mobilized demo equipment and half a dozen subs/suppliers, Demo personal mobilized from Michigan and locally
- Setup permanent traffic control at 3 major interchanges and US-36 to relieve INDOT personal and Police
- Prepped the remaining structure for night demo
- The damaged section of the bridge was on the ground by the following morning
- All lanes of NB I-465 were opened by the evening rush hour
Bridge Rehab

Duration 91 Days

- Finished remaining demo to facilitate the installed of the new beams
- Beams, deck pans, and overhangs were placed at night utilizing 20 minute restrictions
- The start and end of the deck pour was hand placed due to the existing architectural piers
- Beams were set utilizing a double crane lift (350T and 550T) due to the tight constraints of the remaining structure
- Crews worked night and day shifts in an effort to accelerate the project and meet the teams deadlines
Celebration
“The best in people is often on display in the case of unforeseen circumstances, and that was certainly true in response to the damage to the Rockville Road bridge over I-465,” INDOT Commissioner Joe McGuinness said. “INDOT and our partners at Rieth-Riley Construction have been working long hours to make repairs as quickly as possible. To rebuild a bridge - a project that might otherwise take as long as six months – in about six weeks is extraordinary. I’m thrilled to be able to fully reopen this major thoroughfare to west side motorists – just in time for a busy month of May!”
Questions

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