

## Approximate Scope of Design Work

### MED-42-0310L (SFN 5200962)

- Plan sheets delineating remaining removals from bridge
  - Deck/parapet/beams 1 and 2 in spans 1 and 3
  - Crossframes in bays 1 and 2 in spans 1 and 3
    - Grind flush the crossframe connections to beam 3 web
  - Remove remaining stubs of crossframes angles still attached to beam 3 web in span 2 and grind attachments flush
  - Determine the cut line and deck removal limits in spans 1 and 3 considering the required lap length/mechanical connection length of the transverse bars
  - Determine careful removal limits of span 2 deck cantilever off beam 3 to provide sufficient lap length or mechanical connection length for transverse deck reinforcing steel.
  - Detail end joint removals, including partial backwall.
  - Detail as-needed the removal of all bridge bearings. They display varying degrees of damage from the accident.
- Design the rebuilding of the west half of the bridge, replacing the two beam lines, reinforced concrete deck and parapet.
  - Properly splice new transverse reinforcing steel with existing.
  - Parapet – Replace existing with current 42” single slope standard. Account for the new barrier in deck /beam design.
  - Parapet ends – Transition the ends of new bridge parapet down to match the existing parapet on the abutment. Remove the abutment parapet blocks as needed to facilitate installation of the new expansion joint. This may require complete reconstruction of the blocks at which point they should be investigated to see if they can be made integral with the new parapet transitions on the approach slabs.
  - New deck joints spliced to the remaining existing. Replace strip seal to provide full-length, uncut seal.
  - Design new bridge beams – assumed to match existing dimensions.

- Provide field splices near the points of contraflexure instead of splicing over piers as done with the remaining existing beams.
      - Maintain the minimum vertical clearance over SR 421. This may require field splices to be in spans 1 and 3 only.
    - Deck thickness to match existing total thickness.
    - Investigate the adequacy of replacing the removed deck reinforcing steel with new in the same arrangement. If this is inadequate, provide new reinforcement in accordance with current design standards.
    - Determine the need for scuppers and install new if needed.
    - Seal joint between existing deck and new with high molecular weight methacrylate
- Replace all bridge bearings with new bearings.
  - Elastomeric preferred – assuming overall depth can be designed comparable to existing. No adjustments to the existing substructure seat elevations.
- Maintain the existing profile grade and match the existing deck elevations
  - Gather survey as needed at site to facilitate this
    - The District has a scan and point cloud of the bridge which may be of use.
- Stripe the new bridge deck edge line
- Prepare a load rating for the reconstructed bridge.
- Add a note that the contractor should coordinate and deliver all existing PCB, traffic control devices and fencing on the project to the ODOT Ashland Headquarters. (This does not include any traffic control devices furnished by the reconstruction contractor.)
- Include details to repair and seal damage to existing deck from portable concrete barrier anchors.