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Mr. Khalil A. Zaied,
Director,
Baltimore City Department of Transportation
7 E. Redwood Street
Baltimore, Maryland 21202

RE: Baltimore City Project No. TR-11309
Replacement of the Fort Avenue Bridge over CSXT Railroad

SUBJECT: Evaluation of the Alternative Construction Options

Dear Mr. Zaied:

This letter represents AECOM's retrospective of continuing discussions of the construction options to be implemented during replacement of the Fort Avenue Bridge over CSXT Railroad. Since the beginning of this project, the City of Baltimore and AECOM were considering two broad alternatives:

- Replace the bridge under traffic (staged construction), or
- Replace the bridge providing temporary detour and closing Fort Avenue to traffic in the vicinity of the bridge.

AECOM discussed these options with the City as well as conducted three community meetings on April 8, 2009, September 22, 2010 and October 13, 2010. We also met with the elected officials and local business representatives during a meeting held on June 3, 2009. During these meetings, the concept of complete bridge closure was presented and explained.

In November 2010, AECOM was asked to evaluate bridge construction options and their impact on the construction schedule. We also were directed to modify the bridge replacement design to allow for maintaining pedestrian traffic across the construction area during bridge replacement. The current plans are revised to show the pedestrian crossing being maintained on one side of the bridge throughout the construction duration.

Below is a brief summary of concepts that were discussed and considered for the bridge construction staging. Each option discusses advantages and disadvantages.

Option 1 – Complete Bridge Closure (Construction Duration 10-12 Months)

Advantages:

- The project will be completed in 10-12 months without adding incentive cost to the contract.
- Maintains access for pedestrian traffic.
- MOT cost covers detour set up and proper signage.
- Temporary support of excavation is required for abutment construction only.
- The existing utilities will remain in service while the new utilities are installed.

- Since the existing structure is in a poor condition, stability of the bridge during demolition is a concern. Proposed staging will demolish the bridge in two phases with no vehicles allowed on the structure.

Disadvantages:

- Disrupts vehicular traffic.

Option 2 – Staged Construction (Construction Duration 20-24 Months)

Advantages:

- Maintains access for vehicular and pedestrian traffic.

Disadvantages:

- Staged construction will limit vehicular traffic to single lane requiring traffic signals at each end of the bridge. This assumption is based on maintaining 11' lane width. The existing bridge configuration does not allow for the use of the sidewalk for additional lane width.
- The additional support of excavation will be required along the roadway, which will impact underground utilities and adjacent residential properties.
- This Option will make relocation of existing utilities more complex requiring additional stages to shift utilities within the roadway.
- The disruption to the residents and traffic will continue for the longer period of time.
- Safety of the patrons driving over the bridge is a concern. Stability of the bridge with vehicles imposing additional loads and impacts on the structure during demolition will be jeopardized.
- This Option will require a substantial redesign of the current project documents.

In our opinion, maintaining traffic on the bridge during construction presents a safety risk due to redistribution of forces on already deteriorated structure during demolition and makes the bridge more vulnerable to vehicular impacts. AECOM would be happy to meet with the City and discuss the options described above. Please bear in mind that any revision will require additional time and effort not only for designers, but for the reviewing agencies as well (environmental, SHA, SWM, etc.).

As always, I am available to answer any questions at 410-637-1754.

Sincerely,
AECOM

Mikhail Lozovatsky, PE
Project Manager