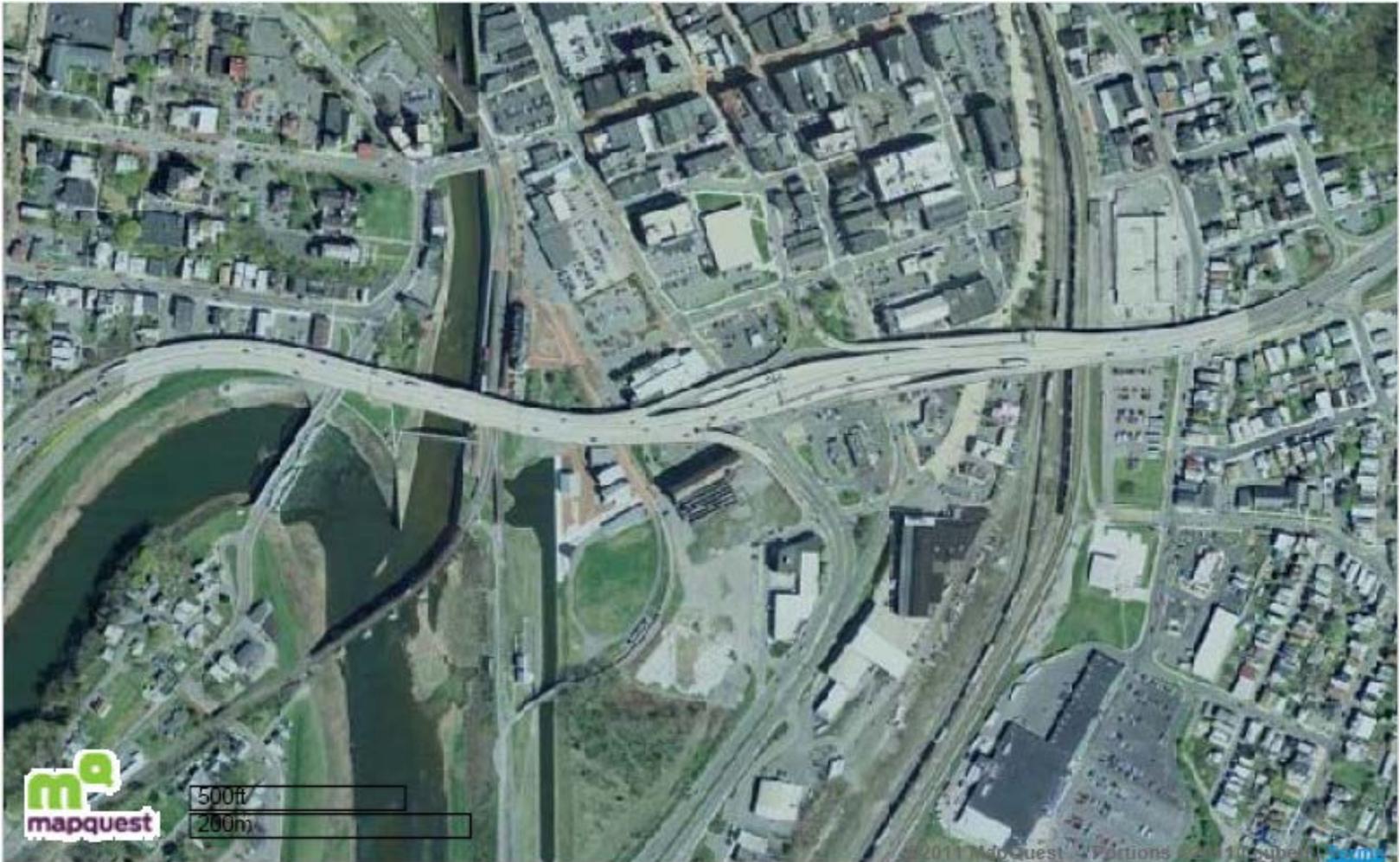


I-68 Cumberland Viaduct (Cross-town) Bridge Rehabilitation



Stephen A. Bucy
Maryland State Highway Administration (SHA)

MD 51 Bridge over CSX RR and Canal Parkway Rehabilitation



Stephen A. Bucy
Maryland State Highway Administration (SHA)

Overview

- Background
- Scope of Work
- Traffic Impacts



- Parking Impacts
- Public Safety Impacts
- Schedule



Background

- The structure was built in 1968
- It became an Interstate Route when US 48 changed to I-68
- It had its concrete deck overlaid and parapets replaced in 1976
- This well traveled structure has had many construction maintenance and remedial repairs over the years to include:
 - 1988 – Substructure Repairs
 - 1990, 1995, 1997 – Partial Clean and Paint
 - 1992, 1998 – Bearing Pedestal Repairs
 - 1999 – Drainage troughs added at all piers

Sand Blasting/Zone Painting Needed



Sand Blasting/Zone Painting Needed



Concrete Repairs Needed



Concrete Repairs Needed



Steel Repairs Needed



Steel Repairs Needed



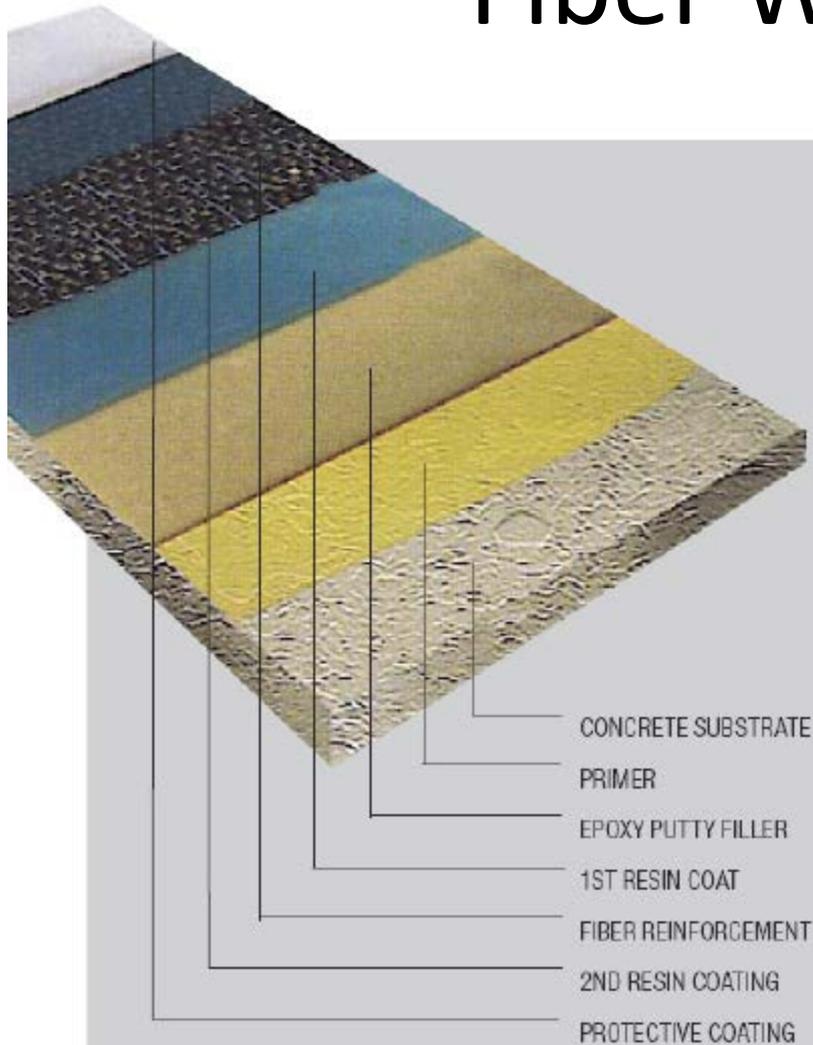
Concrete Repairs Needed



Plyboards and stainless steel bands keep concrete chunks from falling on tourist areas and parking below....



Sample Concrete Pier Fiber Wrap System



MBrace® Fabric System Components

MBrace® Primer

Low viscosity to penetrate concrete pore structure

MBrace® Putty

High viscosity epoxy paste for surface leveling

MBrace® Saturant

Low sag epoxy for encapsulating the fibers

MBrace® Fiber Reinforcements

Carbon, E-Glass, and Aramid fiber fabrics

MBrace® Topcoats

High viscosity epoxy paste for surface leveling

- **Topcoat ATX**

Latex topcoat with color/texture to match concrete

- **Topcoat FRL**

Fire-Resistant topcoat to improve burn characteristics

Drainage – Trough & Scupper Repairs Needed



Roadway Compression Seal Repairs Needed



Scope of Work

- Majority of the work will be below the bridge to include:
 - Steel/Concrete repairs
 - Painting all steel
- Some work will be on the bridge to include:
 - Replacing roadway compression/joint seals
 - Repairs of bridge deck pothole areas
 - Repairs of parapet walls and curbing
- New overhead lighting



Traffic Impacts



- Motorists should expect periodic single lane closures and traffic shifts on I-68 and streets under the bridge throughout construction
- Centre Street (between Wendy's and Harrison St) will also be temporarily closed during one stage of work
 - At the request of the City, this closure will coincide with a City of Cumberland waterline replacement project
 - Although the City's work has begun, some coordination may still be required

Parking Impacts



- The area below the bridge has been separated into 7 sections in the contract plans
 - This was done with parking in mind



Section 1



Areas of Direct Impact:

- Johnson St
- Parkview Discount Liquor
- Country Accents / Sheer Beauty Styling Salon
- The Pharma Care / US Post Office Satellite Unit
- Cumberland Optical
- Bridge St leading to Blue Bridge & Ridgely, WV
- Small part of George Washington House Park area

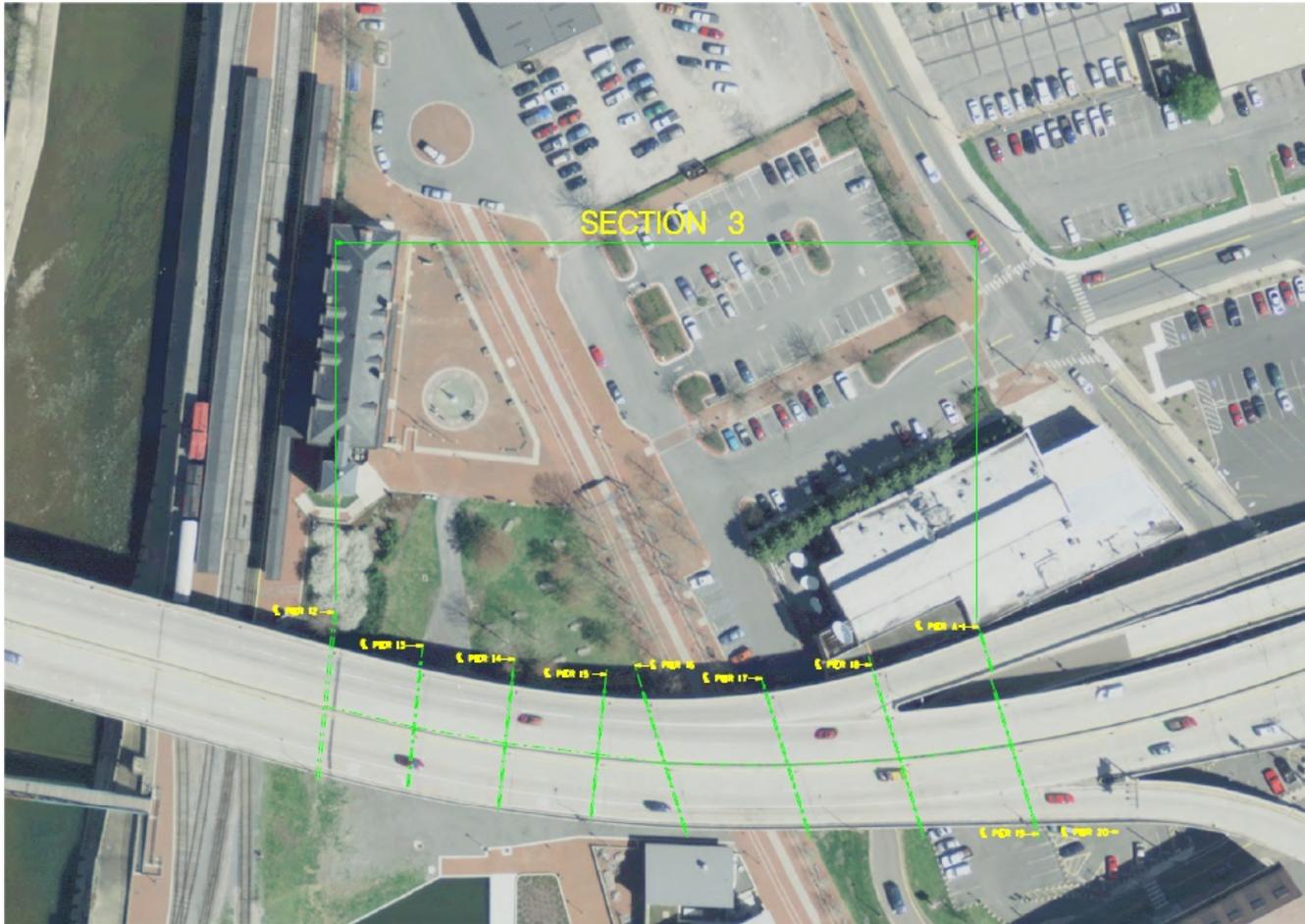
Section 2



Areas of Direct Impact:

- Part of George Washington House Park area
- Sidewalk for the Fort Cumberland Trail area
- Span over Wills Creek
- Western Maryland Scenic Railroad Track area

Section 3

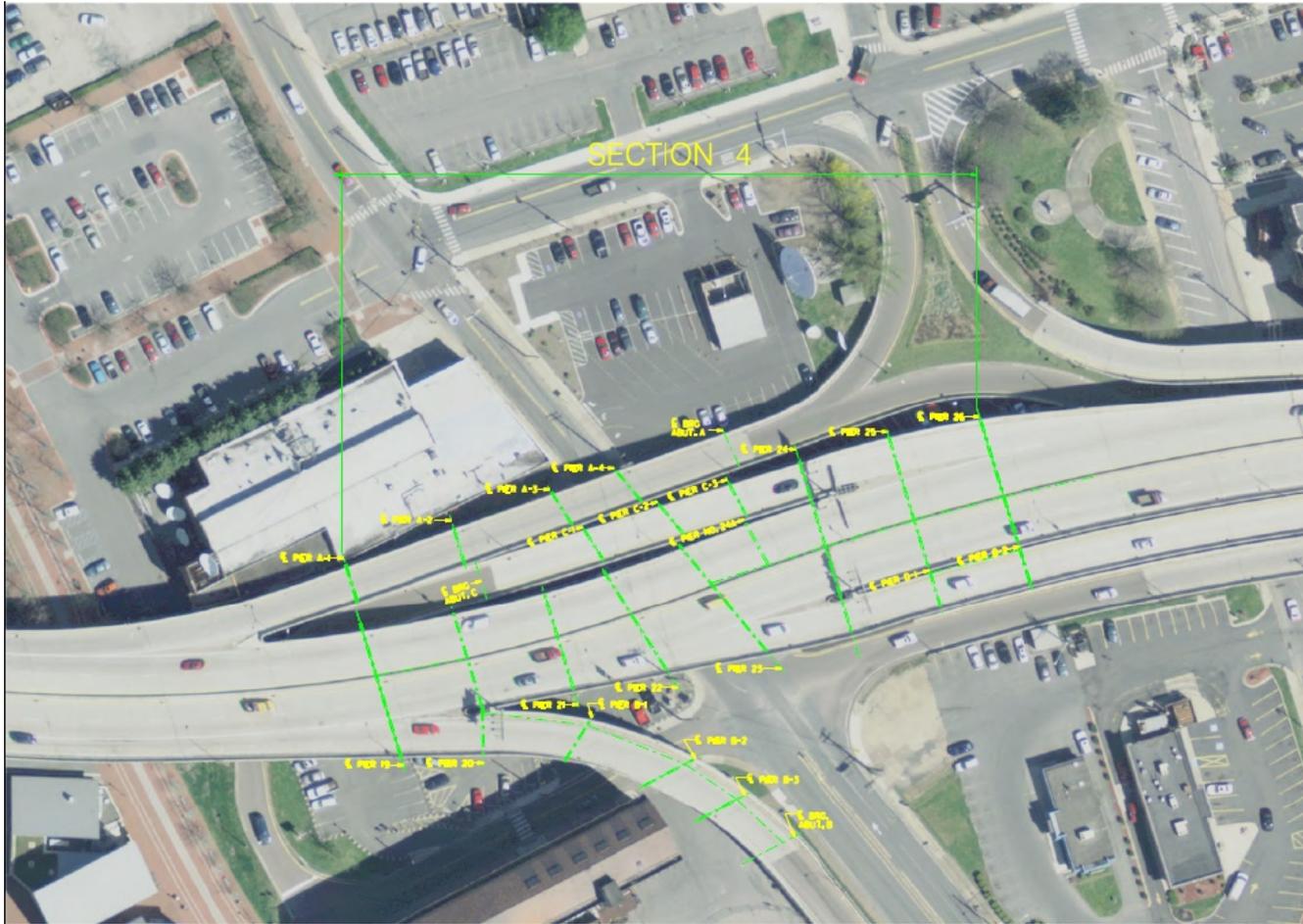


Areas of Direct Impact:

- Western Maryland Scenic Railroad / Canal Place Grounds and Picnic area
- Canal Place Businesses
- Atlantic Broadband

*Note: Modified to expand to Mechanic Street

Section 4



Areas of Direct Impact:

- Atlantic Broadband
- Canal Place Business Parking
- S. Mechanic St
- City of Cumberland Public Parking Area

*Note: Modified to remove area west of Mechanic Street and will could expand east to Centre Street.

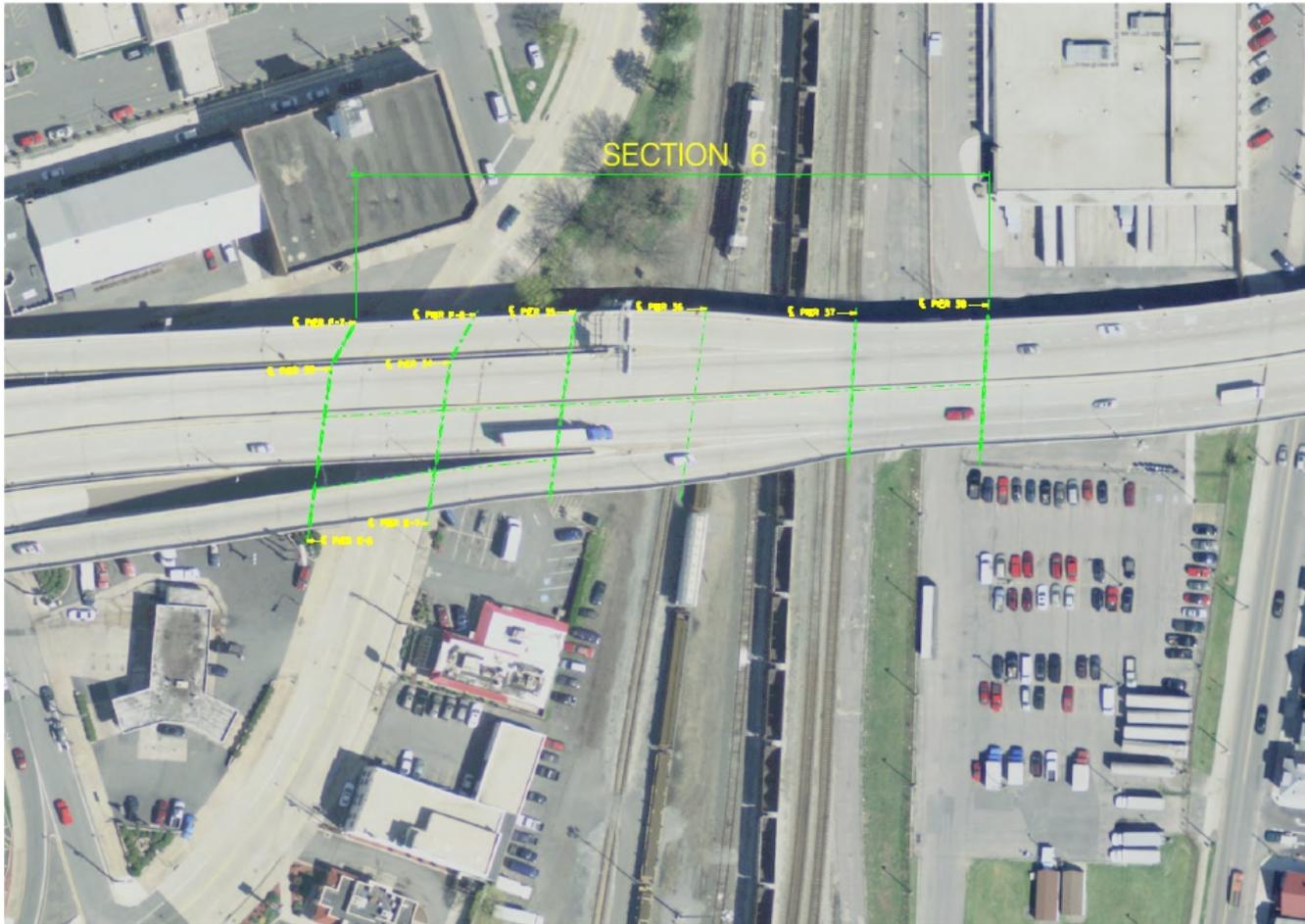
Section 5



Areas of Direct Impact:

- City of Cumberland Public Parking Area
- Centre St
 - Temporary Closure to assist City with installing new waterline
- Salem St
- Business in Vicinity:
 - Lab Corp
 - Wendy's
 - Wayne's Citgo (Gulf Station)
 - Pepper's

Section 6



Areas of Direct Impact:

- City of Cumberland Public Parking Area
- Salem St
- Queen City Drive
- Roy Rodgers
- Business in Vicinity:
 - Wayne's Citgo (Gulf Station)
 - Pepper's
- CSX / AMTRAK
- US Post Office

Section 7



Areas of Direct Impact:

- US Post Office
- Park St
- Emily St
- Central Ave area

Parking Impacts



- The contract contains specific language in relation to the sections:
 - “The contractor will be allowed where feasible to close each of the sections listed to perform repair, cleaning, and painting work.”
 - “Only 2 sections may be closed at a time and they may not be adjacent to each other.”

Parking Impacts



- Specific language continued:
 - “Work must be progressing in any section that is closed or the contractor will be required to open up any section where work is not progressing.”
 - “City streets within sections shall not be closed except for those with approved detour plans.”
- SHA is committed to individually work with those affected in each section to find the best solution to safely complete the work with the least possible impacts for those involved.

Public Safety Impacts

- The safety of everyone involved is SHA's top priority
 - Active work areas will have public access blocked off
 - Contractors were notified that a park, public buildings, businesses, residences, roads, railroads, as well as parking areas are below and around all of the structures in the contract
- Safety concerning paint removal
 - SHA will implement an extensive containment system to include a secondary containment tarp
 - Full-time hygienist staffed during paint operations
 - Continuous ambient air monitoring during all dust producing activities
 - Soil sampling at all locations

Containment System Example in Washington County



Containment System Example in Washington County



Project History/Schedule

- 2011-2012: Original Advertisement, Bids Rejected, Re-advertised
- Fall 2012: Project is Awarded to Titan
- Dec 11, 2012: Notice to Proceed
- 2013 - 2014: Under Phased Construction
 - Titan provided SHA with a detailed work schedule
 - This schedule is currently being revised for resubmittal
 - Updates will be provided regularly throughout the project
- Spring 2015: Project Completion

Project Schedule

- Tourism and Special Events were accounted for in the contract documents:
 - Western MD Scenic RR schedule was included
 - Website for Canal Place and Downtown Mall events were included
 - Specific verbiage built into contract:
 - “The contractor shall review the events and possible delays from events and factor them into their costs.”
 - “Delays from additional events, scheduled or unscheduled, will not be a reason for any additional compensation.”

Project “Partnering”

- SHA includes “Partnering” on every contract
 - Create a multi-participant team committed to a common purpose, goals, and work approach
 - Allow/Accommodate for differing authorities, interests, and objectives
 - Work together to complete a successful project
- Partners on this project include:
 - SHA, Titan, Federal Highway (FHWA), MDE, Allegany Co. 911 Center
 - Cumberland Police, Fire, Engineering, Street, Economic Development
 - Downtown Development Commission, Canal Place, Western MD Scenic RR, Cumberland Outdoor Club
 - CSX, US Post Office, Cumberland Times News
 - Downtown Business Assn, Allegany Arts Council also invited
- Partnership already paying dividends...

Proposed Project Schedule

- Work Begun:
 - Installing blasting/painting platforms in the Canal Place (Section 3) area
 - Emergency cold patch asphalt patching on the bridge



Photo Courtesy of Steve Bittner, Cumberland Times News

- Upcoming Work in Next Couple of Weeks:
 - Continue installing blasting/painting platforms west into Section 2 & 1
 - Begin taking soil/exterior surface and air monitoring samples
 - Continue bridge deck emergency cold patching through winter
 - Begin substructure concrete work on MD 51 Bridge

Proposed Project Schedule

- Upcoming Work in Next Couple of Months:
 - Begin Above Deck Patching/Compression Seal Replacement on I-68 WB
 - Move to I-68 EB and MD 51
 - Begin Sandblasting/Painting in Sections 3 → 2 → 1
 - Move platforms then operation to Sections 4 → 5 → 6 → 7 → MD 51 Bridge
 - Begin Steel Repairs following Sandblasting/Painting Operation
 - Sandblasting allows identification of all areas needing steel repair
 - After steel is repaired, primer and final paint is applied
 - Complete Substructure Concrete Repairs on MD 51 Bridge
 - Move to Crosstown Bridge from Section working west to Section 1

*Note Proposed schedule is subject to change. Impacted areas will be notified prior to starting work.

Proposed Project Schedule

- Upcoming Work in Next Couple of Months:

- Begin electrical/lighting work in summer of 2013

- Outside of the regular working area

- Begin fiber wrapping of piers

- Follows nearly all other repair work

- Final touch up work / punch list items

*Note: Some of these smaller items of work will not require shutdown of entire section. SHA and Titan will work together to close only what is necessary for safety.

SHA

State Highway
Administration

Maryland Department of Transportation

- For regular Crosstown Bridge / MD 51 Bridge project updates please visit: bit.ly/crosstownbridge
- OR for other project updates statewide, please visit www.roads.maryland.gov