

I-495 Express Lanes

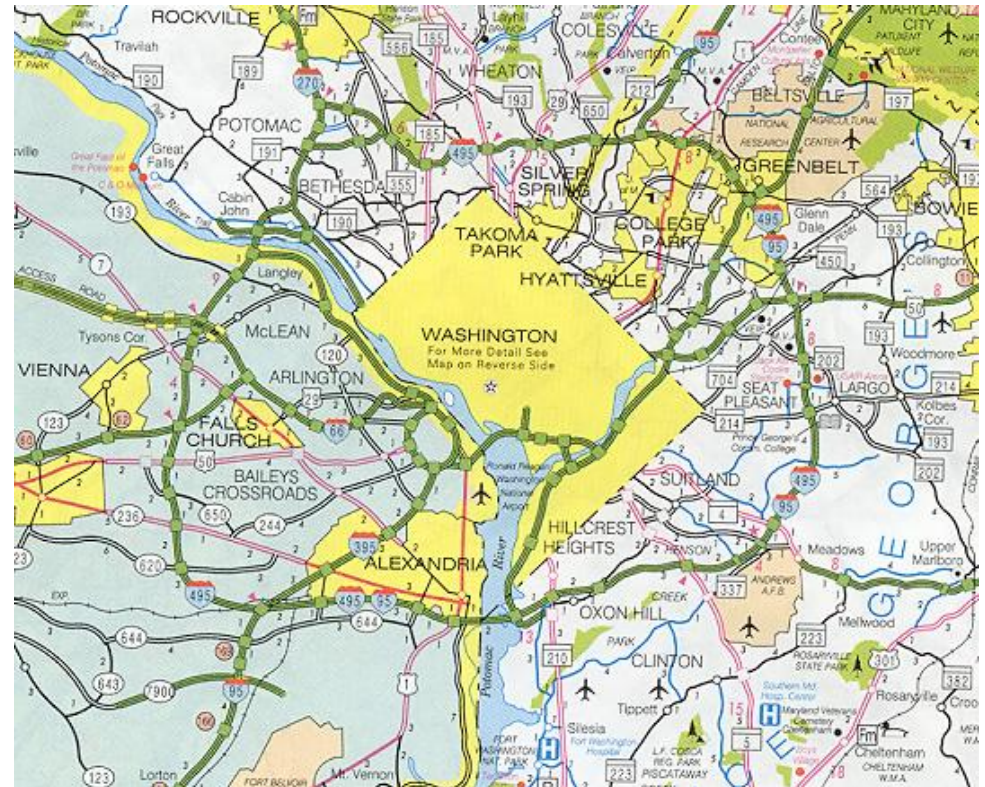
Northern Virginia, USA

One of “Virginia Mega-Projects”

- Owner: Virginia Department of Transportation
- Private partners: Fluor-Transurban
- Completion: December 2012
- Value: US\$1,481,038,625
- Delivery method: Design-Build

The Washington, DC “Beltway”

- Virginia’s busiest commuter routes, serving DC, Dulles Airport, Pentagon, Tysons Corner...
- 200,000+ daily commuters and residents



Virginia “HOT” Lanes



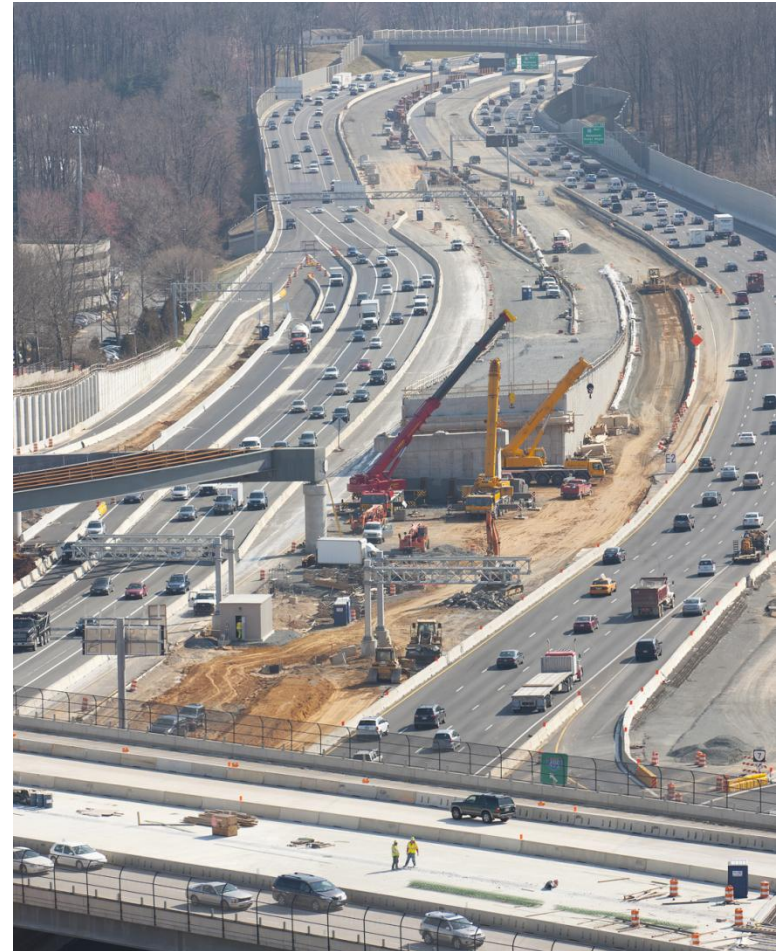
- 14-mile segment of Beltway
- “High Occupancy/Toll”
 - HOV, no toll
 - Other users, varying tolls depending on demand and trip distance
- Largest public-private toll road project in USA when approved

Project Dimensions

- Increased from 8 to 12 traffic lanes (two new lanes in each direction)
- Upgraded 11 interchanges
- Replaced \$260 million of aging infrastructure, including 58 new bridges
- 900,000 square feet of retaining walls
- 80,000 linear feet of sound walls
- 11,800 jobs

I-495/Metro System Interface

- Extension of DC metro rail to Dulles Airport in same area at same time
- Complex coordination and sequencing
- Rail line on surface and elevated (center)



Maintaining Traffic Flow

- All lanes kept open during peak times
- Only one lane closed during off-peak daytime hours
- Overnight: More than 300 road closures and detours to remove bridges, place new girders

“Outside-In” Work Scheduling



- Barriers on right shoulder to construct outer lanes, drainage, utilities, sound walls, etc.
- Shift to inner roadway to overlay new Express Lanes

Management Strategies



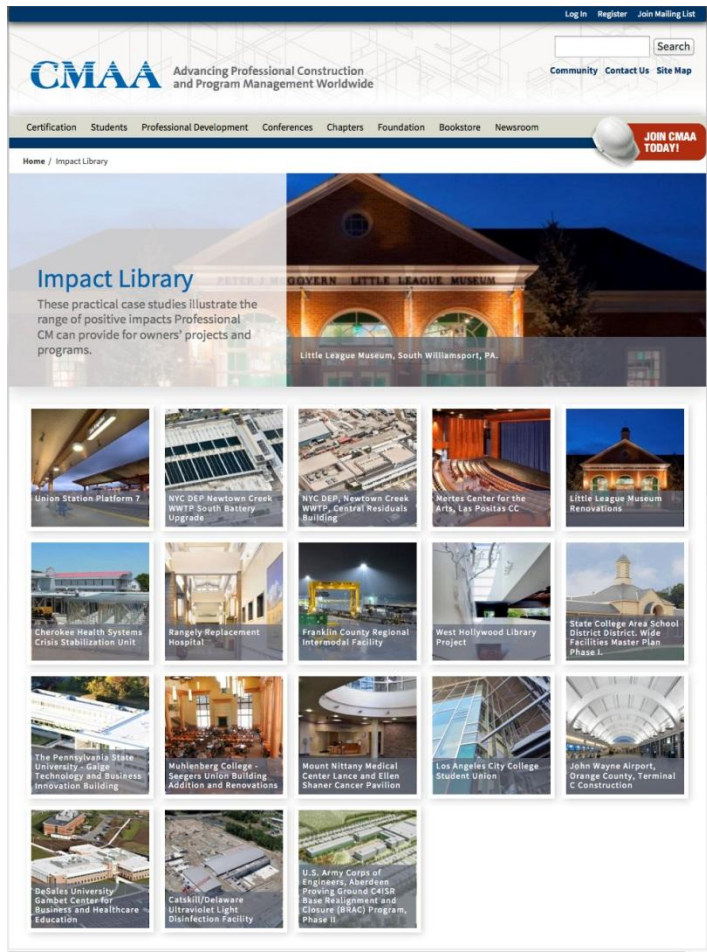
- Four construction areas
- D-B coordination meetings
- Electronic data management
- “Claims-free” project
- Safety emphasis
- Stakeholder communication
 - > 1,000 community meetings
- Finished 30+ days early!

Outstanding Safety Performance

- > 5 million work hours without a lost-time accident
- Total Recordable Incidence Rate (TRIR):
 - National average for roads, bridges: 4.6
 - For this project: 0.69
- Mandatory safety orientation, plus special attention to fall prevention, crane safety, hand injuries



For More Examples



- Online Impact Library with case studies of successful CM/PM
- Access at:
 - www.cmaanet.org/impact-library