HANOVER STREET CORRIDOR STUDY

includes the Vietnam Veterans Memorial Bridge

Public Advisory Committee Meeting

9/6/17
Tonight’s Presentation

- Study Overview
- Project Goals
- Process & Schedule
- Work Completed to Date
- Design Opportunities
- Next Steps
- Your Input
Study Overview

- **Purpose**: Identify improvements to the Vietnam Veterans Memorial Bridge and Hanover Street corridor to address accessibility, connectivity, and safety for multiple modes:
  - Bicycle
  - Pedestrian
  - Transit
  - Automobiles
  - Freight

- **Funding**: US DOT $1.1 M TIGER Grant and a $700,000 match from Baltimore City

- **Study Limits**: Wells Street to Reedbird Avenue (a distance of 1.4 miles)
Adjacent Projects

- Hanover St Corridor Study Area
- I-95 Access Improvement Study
- Port Covington (Sagamore)
- Port Covington (Under Armour)
At the end of this process, the team will produce a PLAN to upgrade and enhance the Hanover Street corridor and Vietnam Veterans Memorial bridge by:

- Providing the surrounding communities with safe and reliable access to key quality of life resources
- Maintaining a critical link between existing and planned bicycle and pedestrian infrastructure
- Improving access for local and regional motorists
- Maintaining freight access to and from the Port of Baltimore
- Promoting better connectivity between local bus and light rail services
Develop Corridor Plan and Guiding Principles

- Develop corridor plan
- Create guiding principles
- Outline recommendations in Project Plan
- Determine costs
- Identify key factors needed to advance project

Identify Design Opportunities and Constraints
- Identify growth opportunities
- Identify design opportunities and constraints
- Compare concepts to study area needs
- Evaluate constructability challenges

Study Existing Transportation Network
- Identify potential barriers to multi-modalism
- Review existing pedestrian and bicycle facilities
- Identify transit facilities and assess operations
- Conduct safety assessment

Conduct Economic Market Analysis
- Assess current economic climate
- Identify future potential development opportunities and challenges

Assess Existing Conditions & Collect Data
- Review area master plans
- Collect regional and community demographic data
- Assess existing and proposed land uses
- Review current traffic data
- Review bridge inspection reports

Solicit Public and Agency Feedback

Process & Schedule

<table>
<thead>
<tr>
<th>Summer 2016</th>
<th>Winter 2017</th>
<th>Summer 2017</th>
<th>Winter 2018</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
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Work Completed to Date

• Conducted Public Outreach
  ▪ Interagency Advisory Group (IAG)
  ▪ Community Advisory Panel (CAP)
  ▪ Public Meetings – September 2016, January 2017, May 2017

• Collected Existing Conditions Data
  ▪ Review of available data and previous plans, studies, and inspection reports
  ▪ Field visits to verify existing conditions

• Conducted Economic Market Analysis
  ▪ Review of previous economic and master plans
  ▪ Analysis of demographic, economic, and real estate data
  ▪ Stakeholder interviews
  ▪ Documentation of economic strengths and weaknesses

• Analyzed Existing Transportation Network
  ▪ Investigation of existing demand
  ▪ Review of safety and capacity of existing facilities
Existing Conditions: Multimodal Safety, Connectivity, and Accessibility
Intersection safety is critical to intermodal connectivity.
Pedestrians feel unprotected

Crosswalks not adequately visible

Multimodal Safety, Connectivity, and Accessibility
Crosswalks not adequately visible

Free right turn can create conflicts between pedestrians and truck traffic

Signage not supporting pedestrian safety, comfort or convenience

Multimodal Safety, Connectivity, and Accessibility
Unmet demand for pedestrian facilities

Street lighting designed for vehicles rather than pedestrians

Multimodal Safety, Connectivity, and Accessibility
Narrow, unprotected sidewalk space creates intimidating situation for pedestrians

Lack of accessible crossing at bascule span creates barrier

Lack of pedestrian scaled lighting reduces perceived safety

Insufficient bicycle facilities and high-speed traffic can create intimidating condition for bicyclists

Narrow, unprotected sidewalk space creates intimidating situation for pedestrians

Multimodal Safety, Connectivity, and Accessibility
Summary of Corridor Conditions

- Sidewalks adjacent to trucks and high speed traffic
- Lack of accessibility to bus stops (no sidewalks or obstructed sidewalks)
- Lack of pedestrian type lighting
- Some pedestrian signals and curb ramps not in compliance with current ADA design standards
- Crosswalks in need of maintenance
- No bike facilities
- Poor bridge deck and pavement conditions
- Movable span operating system that creates challenges with maritime access
What We’ve Heard from Stakeholders

Key areas of focus for the project team to consider:

• Safety and comfort for pedestrians and cyclists
• Improving traffic signalization and signage
• Future construction impacts to community
• Neighborhood beautification (landscaping, community signage, etc.)
• Maintaining historic view into Baltimore
• Vehicular riding surface on bridge
• Speeding in corridor
• Poor transit access to downtown (jobs)
• Commercial vehicle travel
• Consistency with area master plans and ongoing development
Design Opportunities
Potential Bridge Typical Sections

**Option A**
No-Build (maintain existing bridge)

**Option B**
Maintain existing bridge, improve roadway approaches

**Option C**
Rehabilitate bridge within existing footprint

**Option D**
Rehabilitate existing bridge (Option C), build new adjacent pedestrian/bike bridge

**Option E**
Build new bridge, demolish existing bridge
Option A: No-Build (maintain existing bridge)
Potential Bridge Typical Sections

Option B: Maintain existing bridge, improve roadway approaches
Potential Bridge Typical Sections

Option C: Rehabilitate bridge within existing footprint

Option C₁

- Reduce travel lanes to four lanes
- Add median barrier
- Add two barrier-separated pedestrian/bike paths
Potential Bridge Typical Sections

Option C: Rehabilitate bridge within existing footprint

Option C2

- Reduce travel lanes to four lanes
- Add median barrier
- Add two 5’ bike lanes with 2’ buffer

Existing Bridge

Middle Branch Marina
Port Covington (Future Development)
Docks
Maryland Vietnam Veterans Memorial
Hospital

w 400' 800'

70'
Potential Bridge Typical Sections

Option C: Rehabilitate bridge within existing footprint

Option C₃

- Reduce travel lanes to four lanes
- Add median barrier
- Add barrier between roadway and existing 5’ sidewalk
- Add barrier-separated 12’ pedestrian/bike path

Existing Bridge
Potential Bridge Typical Sections

Option D: Rehabilitate existing bridge, build new adjacent pedestrian/bike bridge

Note:
All Option C typical sections could be considered for Option D
Potential Bridge Typical Sections

Option E: Build new bridge, demolish existing bridge

- Future travel forecasting analysis will determine the sizing of the new bridge
- New bridge would be designed to accommodate all modes of travel (including transit, freight, and ped/bike)
Next Steps

• Identify design opportunities and constraints
  ▪ Evaluate future demand and traffic conditions on Hanover Street, including the effect of new development at Port Covington and other area growth
  ▪ Continue to investigate other potential options to accommodate traffic patterns
  ▪ Continue to develop typical sections and concepts to improve safety, connectivity, and accessibility
  ▪ Refine potential bridge typical sections
  ▪ Develop overall aesthetic plan for the corridor – lighting, sidewalks/paths, crosswalk treatments, trees/shrubs, street furniture, bus stops, etc.
    ▪ Determine costs and impacts of the various concepts

• Continue robust public outreach program