An integrated urban design, land use, and transportation plan designed to propel an aging suburban corridor into an urban, mixed-use community that supports multimodal investments.
Traveler breakdown (2015)
- 51,000 average daily trips
- 11,000 daily bus riders

Issues
- Discontinuous 4 and 6 lane sections
- Congestion
- Intermittent service drives
- Transit dependency
- Inconsistent pedestrian facilities/crossings
- Inadequate bicycle facilities

Development Patterns and Environment
- Residential, strip commercial, Fort Belvoir
- Historic, community, and environmental assets
What is a CBC?

CBCs or Community Business Centers are historically older commercial centers that are planned to redevelop as mixed-use pedestrian-oriented places.

There are 6 CBCs on the Richmond Highway corridor.
County Initiated **Embark** after a 2015 Virginia Department of Rail and Public Transportation Study was completed

Embark has three parts:

- Comprehensive Urban Design and Land Use Plan
- Widening/Multimodal Improvements/dedication for BRT
- Median-running BRT from Metro to Fort Belvoir (future extension of Metro)
1. Use guiding planning principles created by the community as the basis for decision-making

2. Concentrate redevelopment potential and transportation improvements in the CBCs

3. Rebalance land uses for a mix of residential and non-residential to support BRT

4. Provide a resilient transportation system that does not exclusively rely on Richmond Highway or the single-occupant vehicle

5. Establish a unique identity for each CBC based on the area's historic and/or environmental assets. Integrate this identity into public spaces, urban design, and transportation improvements
planning principles

Promote Revitalization

Provide for the health and leisure needs of residents, visitors, and employees

Offer safe, reliable and interconnected transportation modes

Encourage high-quality urban design

Support the corridor's economic success

Maintain the residential nature of communities surrounding the CBCs

Preserve, enhance, and restore the environment

Accept responsibility for the stewardship of historic resources
Promote Revitalization

Penn Daw CBC (existing)

New MF Housing
Future Mixed Use
S Kings Highway
Walmart
Future MF Housing

Future Mixed Use
Richmond Highway
Mobile Home Community
**CONCEPT**
- High intensity transit-oriented development node and transportation hub.
- Potential BRT station at the intersection of Richmond Highway and Kings Highway.
- New multimodal connections and public spaces link both sides of the Community Business Center (CBC) and enhance pedestrian realms.
- A new civic plaza at the planned BRT station will be created through the planned separation of North and South Kings Highways from Richmond Highway.
- A new east-west connection between South Kings Highway and Richmond Highway will be constructed to the south of the potential BRT station.

**GRID OF STREETS**
- Multimodal grid of streets on the east side of the CBC will include a livability spine running parallel to Richmond Highway.
- Livability spine will function as a main street and feature a linear park.

**LAND USE/DESIGN**
- Tallest buildings close to the potential BRT station, up to 15 stories.
- Buildings taper to 12 stories adjacent to the livability spine and down to 3-4 stories adjacent to the neighborhood.
- Up to 915,000 gross square feet (85,682 m²) of non-residential uses and up to 2,910 residential dwelling units are proposed.

**Promote Revitalization**

**New MF Housing**

**Future Mixed Use**
Rebalanced for residential (elimination of office)
Transportation Goals

Provide reliable, effective, interconnected modes that:

• Reserve exclusive right-of-way for BRT and re-purpose service drives

• Provide infrastructure that reduces SOVs and encourages public transit use, walking, and bicycling for all ages and abilities

• Provide complete street network (grids of streets) within CBCs and connect to adjacent neighborhoods

• Consolidate entrances, reduce curb cuts, improve access and enhance signage
Multimodal Analysis

- Traffic and ridership forecasts for BRT-supportive land uses

- Link capacity and intersection level analyses

- Automobile & BRT travel times and speeds

- BRT ridership estimates
BRT Destinations

[Map showing BRT destinations including Penn Daw, Beacon Hill, Lockheed Blvd, Hybla Valley, Gam Springs, South County Center, Woodlawn, and Fort Belvoir.]
BRT Destinations DC Core
Ridership Estimates

![Ridership Estimates Chart]

- **Daily Riders**
  - 2015: 3,340
  - 2040 Without BRT: 5,160
  - 2040 with BRT: 14,700
  - 2040 Alternative Land Use: 15,230
  - 2040 Alternative Total: 18,200
  - 2040 Alternative: 18,500

**Legend**
- **REX**
- **BRT**
- **Transit Total**
BRT
Huntington Metrorail Station to Fort Belvoir
Nine potential stations
Two phases

Metrorail
Future extension with two stations

Transit Program Status
Federal grant application filed
Input and coordination in multiple tiers
- Staff/Consultant team
- Executive Committee
- Community Advisory Group
A Multimodal Future

- Continuous 6 lanes for general purpose trips
- Exclusive Transitway within wide median
- Wide sidewalks
- Continuous separated bicycle lanes
- Landscape panels, street trees, and amenities
- VDRPT "Transit Boulevard" designation
Promote Revitalization

Existing Beacon Groveton Shopping Center

Proposed Beacon Groveton Concept

Illustrative image of a complete street designed for walking, biking & vehicles
What is the role of the street in the planning process?

challenges + solutions

to move vehicles and accommodate walking+biking

modes =

place-making

organize land use

connect neighborhoods

Embark

open space

storm-water

habitat restoration
Livability Spine Street
Penn Daw

Aggregates open space provided by development along the street to create a linear park amenity

Provides community with social space and pedestrian-oriented main street

Developers can gain credit for open space requirement within public ROW
Community gains green space and visual amenity

Developers can gain credit for stormwater, LEED/sustainable development, open space
About the FTA TOD Planning Pilot Program

Development of new or expanded mass transit systems
Comprehensive Planning efforts that:
• Improves economic development and ridership
• Fosters multimodal connectivity and accessibility
• Improves transit access for pedestrian and bicycle traffic
• Engages the private sector
• Identifies infrastructure needs
• Enable mixed-use development near transit stations

www.transit.dot.gov/TODPilot
(Annual allocation is dependent on funding)
Transit Boulevard vs. Regional Thoroughfare

US Route 1

- FHWA National Highway System (NHS)
- Provides the Washington, DC Metro with connectivity to/from points southwest, including historic sites, Fort Belvoir, Marine Corp Base Quantico, City of Richmond
- Carries 50,000+ daily trips today
Transit Boulevard vs. Regional Thoroughfare

Embark Richmond Highway

• re-prioritizes modal preferences for the corridor, with less importance on regional flow
• provides a true multimodal cross section
• re-visions US Route 1 as a “Main Street,” designated as a “Transit Boulevard,” to provide connections to the revitalized activity centers and BRT
Super-Street Option

- Eliminates left turns from side streets
- Hinders efficient movement to adjacent properties
- Provides better levels of service and maximizes throughput
Transit Boulevard vs. Regional Thoroughfare

Traditional Intersection Option

- Four-way signalized intersection
- Consistent with urban character, more convenient pedestrian crossings, fewer traffic signals, more efficient BRT operations
- Lesser level of service and throughput
Project was jointly developed by the Fairfax County Departments of Planning and Zoning, Transportation, Housing and Community Development, and Revitalization, and the Park Authority. Partnered with Virginia Department of Transportation and the Southeast Fairfax Development Corporation.