

I-95 Corridor Study

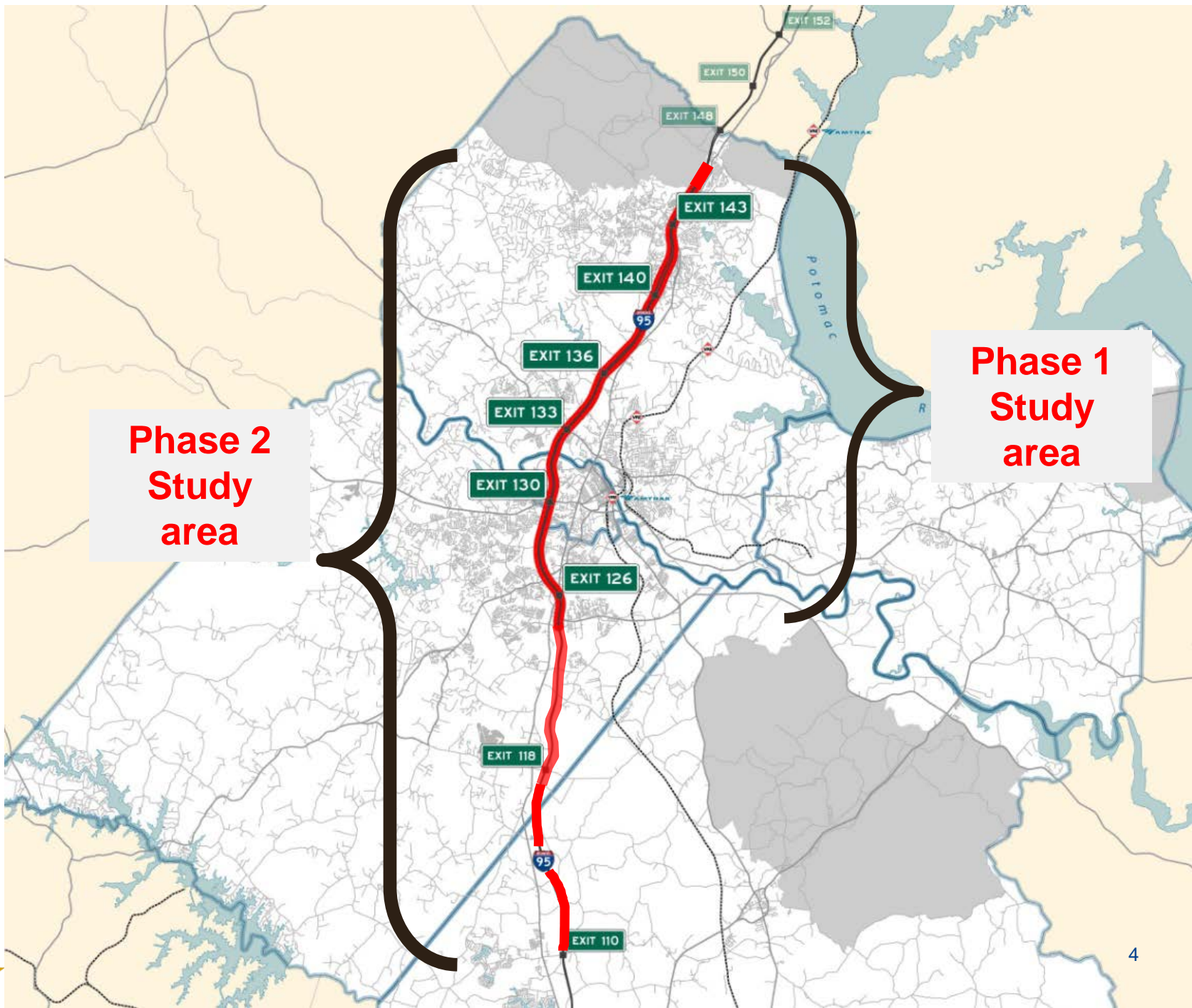
Phase 2

Policy Committee Briefing

March 20, 2017

Overview

1. Plan to conduct within framework of 2045 LRTP process
2. Build on Phase 1 Highway Work
3. Use results of State funded GWRC TDM study for Transit/TDM Work
4. Multimodal with two components:
 - Transit/TDM
 - Highway
5. Identify multimodal solutions to maximize throughput and decrease congestion along I-95 corridor



**Phase 2
Study
area**

**Phase 1
Study
area**

Phase 2 Transit/TDM Objective & Motivation

Not included in Phase 1 work

- Additional Transit/TDM opportunities from Atlantic Gateway program projects, e.g., "FRED EX"
- Additional Transit/TDM opportunities from 395 Express Lane toll revenues starting in 2019 for NOVA & FAMPO areas.
- Shortage of PNR Lot spaces in Garrisonville/Aquia Area
- Opportunity to rethink Transit/TDM options in light of several unsuccessful I-95 corridor Smart Scale applications
- Opportunity to use results of State funded GWRC TDM study for I-95 Phase 2 effort and FAMPO/GWRC LRTP efforts
 1. State Streetlight O/D Data Resource
 2. Long Distance Transit/TDM trips
 3. Short Distance Transit/TDM trips



Phase 2 Transit/TDM Analysis

Will include

- VRE/Amtrak
- Commuter Bus
- Local Bus
- TDM/PNR Lot improvements
 - Vanpooling
 - Carpooling
 - Slugging
 - Transit Network Companies (TNC)
 - e.g., Uber, Lyft, etc.



Phase 2 Highway Objective & Motivation

Significant developments since Phase 1 work

- Atlantic Gateway (Fred Ex) initiative moving forward
- Concern about 'new' southern tail congestion resulting from Express Lanes extension AND Southbound River Crossing Project
- Concern about northern tail congestion resulting from Northbound River Crossing Project
- Next steps after several unsuccessful Smart Scale applications
 - Northbound River Crossing project
 - Rte 610 Express Lane direct-connect ramp
 - Mine Road Park & Ride Lot
 - Harrison Road widening project



Phase 2 Highway Objective & Motivation

Phase 2 effort will focus on:

- 1) Strengthening case for I-95 projects for LRTP update and next round of Smart Scale
- 2) Developing phasing / implementation plan defining interim steps to fully build-out the I-95 master plan
- 3) Fully understanding the operational 'handshake' between Express Lanes extension & River Crossing Projects
- 4) Potential Express Lanes extension further south
- 5) Better-defining conceptual solutions south of River Crossing Projects



Phase 2 Highway Objective & Motivation

Strengthening case for I-95 projects for LRTP update and next round of Smart Scale

- 1) Utilize newest version of travel forecasting model to develop future traffic demand along I-95 and its interchanges
- 2) Highlight weekend operations and seasonal variations
- 3) Develop detailed VISSIM operational model of I-95 to clearly illustrate problem areas and success of proposed solutions
 - Mpt 145 to Mpt 142: Garrisonville/Aquia Area
 - Mpt 135 to Mpt 125: River Crossings & Massaponax
- 4) Prepare high-level documentation of economic benefits of proposed I-95 improvement projects



Depart from slideshow here to show example of VISSIM

Phase 2 Highway Objective & Motivation

Developing phasing / implementation plan defining interim steps to fully build-out the I-95 master plan

- 1) Apply travel demand model to determine 2030 demand
- 2) Utilize VISSIM operations tool to test performance of scenarios
- 3) Closely coordinate with parallel efforts on transit planning
- 4) Work with LRTP Advisory Committee throughout process

Phase 2 Highway Objective & Motivation

Fully understanding the operational 'handshake' between Northbound River Crossing project and Express Lanes extension

- 1) Will look at the likely scenario where the Express Lanes extension and Southbound River Crossing are open several years before the Northbound River Crossing project
- 2) Will analyze weaves, merges, diverges, mainline capacity
- 3) Utilize VISSIM operations tool to test performance of scenarios and avoid potential for 'wall' or recurring congestion

Phase 2 Highway Objective & Motivation

Potential Express Lanes extension further south

- 1) Revisit potential Express Lanes extension to Rte 3 area from Phase 1 Study effort
- 2) Potential extension into Spotsylvania?
 - a. To south of Rte 3?
 - b. To Harrison Rd?
 - c. To Courthouse Rd?
 - d. To Massaponax?
- 3) Will work with LRTP Advisory Committee throughout
- 4) Conceptual level of detail

Phase 2 Highway Objective & Motivation

Better-defining conceptual solutions south of River Crossing Projects

- 1) Will revisit options based on any and all new information:
 - a. Potential new interchange at Harrison Road?
 - b. Improved interchange operations at US 1 (Exit 126)?
 - c. Potential new access point between Exit 126 & Thornburg?
 - d. Possible improvements at Thornburg?
- 2) Will work with LRTP Advisory Committee throughout
- 3) Conceptual level of detail

Study Budget

Budget for Phase 1 was \$280K

Budget for Phase 2 is \$480K

- Highway = \$400K
- Transit/TDM = \$80K

Next Steps

- FAMPO Action requested on \$80K Transit/TDM work
- Highway component will be revised based on input from FAMPO committee tonight and presented for action at April meeting on 4/17