2017 Transportation Summit

Route 7 East of Route 28 to Fairfax County Line

June 29, 2017
PURPOSE OF ITEM

• To provide Board with information to gauge Board’s interest in converting Route 7 east of Route 28 to Fairfax County line at Dranesville Road, or portion thereof, to a limited access facility or approaching limited access roadway conditions.
CURRENT STATUS OF CORRIDOR

- 4.07 miles
- 62,000 vehicles per day
- Six-lane divided (U6M) controlled access principal arterial
- Major gateway to County
- Commuter route with multiple access points to individual parcels
- CTP calls for increase in controlled access condition with individual parcel access to be eliminated
CURRENT STATUS OF CORRIDOR

- 2 interchanges
- 8 signalized intersections
- 1 un-signalized median crossover
- Approximately 27 individual or shared parcel access points, most of which are east of Potomac View Road
- Signals and parcel access combine to reduce road’s capacity and results in reoccurring congestion
RECENT COUNTY PROJECTS & ONGOING STUDIES

• Turn lane and signal improvements (2013) at:
  – Potomac View Road
  – Sterling Boulevard
  – Augusta Drive

• Studies responding to BMIs regarding:
  – Possible installation of pedestrian crossings along Route 7 at five locations
  – Safety concerns on Maple Leaf Terrace/Jennings Farm Drive (Route 7 North Collector Road) between Augusta Drive and Lakeland Drive
FAIRFAX COUNTY PLANS, STUDIES & IMPROVEMENTS

• Route 7 Widening and Additional Interchanges:
  – Currently six lanes east to Georgetown Pike
  – Endorsed design plans for six-lane widening for remainder of corridor to Tysons (completed by 2025)
  – Interchanges at Dranesville Road and at Baron Cameron Ave.

• Fairfax County Parkway Alternatives Analysis:
  – Possible improvements include transit, HOV lanes, additional expanded limited access, and additional interchanges
  – Study completion in 2019
ISSUES

• Additional traffic anticipated due to improvements on surrounding arterial network (Route 7 East and West, Fairfax County Parkway)

• Lack of parallel roadway network (as planned/in place along Route 7 west of Route 28, Route 28 and Route 50) funnels both local and regional traffic onto this segment of Route 7
ISSUES

• Existing business and residential activity plus right-of-way constraints would require any corridor study to examine:
  – Context sensitive improvements
  – Noise mitigation (near residential areas in particular)
  – Safety
  – Mobility
  – Access management

• Infrastructure investment could facilitate revitalization of certain older developments along the corridor which is a major gateway to the County
POTENTIAL SOLUTIONS

• Additional grade-separated interchanges
• Grade-separated overpasses with no access to Route 7
• At-grade improvements such as
  – Interparcel connections to reduce / consolidate Route 7 access points
  – Reconstruction of site frontages to remove service roads
• Use of alternative intersection design to accommodate heavy turning movements
ALTERNATIVE INTERSECTION DESIGN

Continuous Green-T Intersection (Leesburg)

Split Intersection (Fairfax)
ALTERNATIVE INTERSECTION DESIGN

Quadrant Intersection
(Front Royal)

Echelon Interchange
(Reston)
ALTERNATIVE INTERSECTION DESIGN

Grade Separated Intersection
With Underpass
(Charlottesville)

Grade Separated Intersection
With Overpass
(Springfield)
VDOT ARTERIAL PRESERVATION PROGRAM

- Anticipated to be initiated by Commonwealth Transportation Board (CTB) in near future
- Route 7 is included in proposed list of “Mobility Enhancement Highways”
- Evaluating Route 7 for conversion to limited access or approaching limited access conditions is consistent with this potential VDOT program
STAFF RECOMMENDATION

- Staff recommends completion of a study to evaluate the potential conversion of Route 7 east of Route 28 from its current limited access status to limited access or approaching limited access roadway conditions.
DISCUSSION

• Is it the Board’s desire to study and evaluate the potential conversion of Route 7 east of Route 28 from its current controlled access status to limited access or approaching limited access conditions?

• Does the Board have any specific concerns regarding any section of the Route 7 corridor east of Route 28?
DISCUSSION

• Are there any multimodal solutions the Board would like to see explored along Route 7 east of Route 28?

• Would the Board like for staff to work with Fairfax County to coordinate plans and recommendations specific to the area in the vicinity of Dranesville Road?
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