

Route 15 Corridor Analysis

Smart's Mill Middle School

Leesburg, Virginia

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What we heard from residents

- Discourage any additional through-trips
- Leave the bottleneck at the north end
- Consider strategies other than adding capacity
- Build more bridges further east
- Do not solve a regional problem on this rural, historic corridor
- Improve safety for those who need access
- Accommodate bicycles

Additional Analysis

- Look at the demand on a 2-lane Route 15 with the other draft CTP improvements
- Assess the impact of adding capacity further south in the corridor
 - Improve local roads west of Lucketts to provide local alternative routes
 - Widen 15 to four lanes south of White's Ferry Rd
- Assess the impact of a bridge further east
 - White's Ferry area
 - Prior proposals in Eastern Loudoun

Corridor Demand and Capacity

- A two lane road approaches total gridlock at $\pm 30,000$ vehicles per day (vpd)
 - Very poor LOS, extensive delay - gridlock
- The total demand on Route 15 with all other CTP improvements is double that level
- If a new connection to Maryland is made, the demand on the new bridge and connecting routes jumps by about 100,000 vpd

Corridor Analysis

- Assume 2-lane Point of Rocks bridge limits “incoming” traffic to 30,000 vpd
- Additional demand from intersecting routes and land use along Rt 15 from Point of Rocks to Leesburg adds 15,000 vpd
- Any demand reduction strategy or capacity addition on Route 15 will create capacity for discretionary through-trips up to total demand of 60-75,000 vpd (not including local traffic)
- With a bridge further south/east, demand on northern Route 15 (2-lane) is still in the 40,000 range

2030 traffic levels are 30,000 to 45,000 vpd with additional demand for 30,000 more vpd

Corridor Analysis

1. In-Corridor Strategies
2. Countywide Strategies
3. Regional Strategies

In-Corridor Strategies

- Networking local streets in developed areas will both reduce local demand on Route 15 and provide increased local mobility.
 - Could accommodate up to 15,000 vpd in parallel sections
- Commuter bus service could reduce 2-5,000 vpd, but would be more effective in reducing demand in Loudoun if the service is based south of Point of Rocks
- Traffic Calming – not generally used at these volumes as the congestion will already slow traffic; also a concern with truck volumes. Would make more sense if there were a parallel route to which traffic could be diverted.

Traffic Levels:

30,000



+ 15,000



45,000

Point of Rocks

Route 15

Lucketts

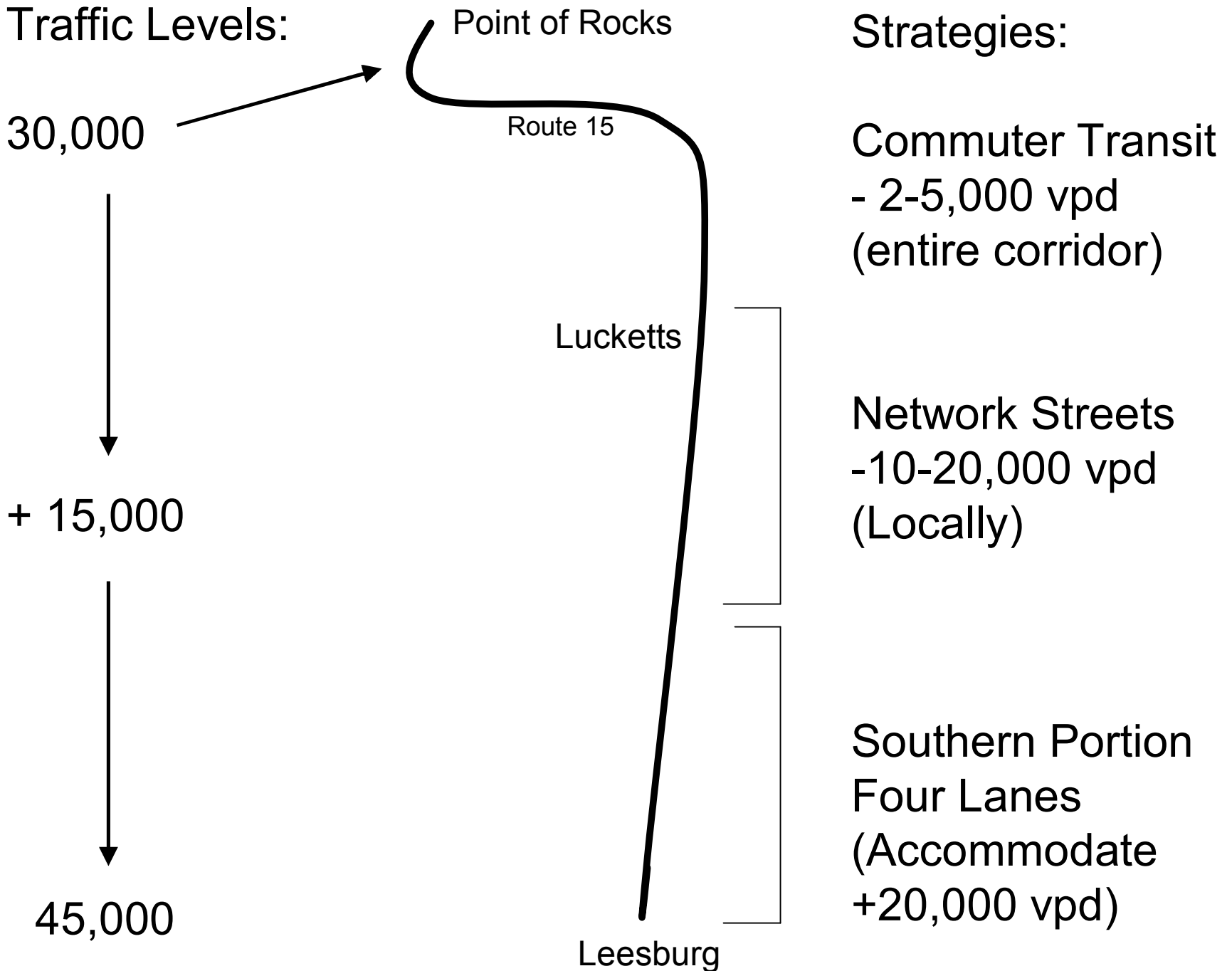
Leesburg

Strategies:

Commuter Transit
- 2-5,000 vpd
(entire corridor)

Network Streets
- 10-20,000 vpd
(Locally)

Southern Portion
Four Lanes
(Accommodate
+20,000 vpd)



Results

- Poor Level of Service (LOS) on 2-lane sections (intentional)
- Alternate routes for local traffic from Lucketts to White's Ferry Rd
- Increased capacity, reduced delay and likely improved LOS south of White's Ferry Rd
- No relief to other N-S routes in the area

County-Level Strategies

- Aggressive travel demand management in the employment areas of Loudoun could reduce a portion of the trips from outside Loudoun to these areas
- Policies to advance affordable housing would also reduce this type of demand, with similar results
- Potential outcome: 10-20% reduction in trips that make up 50% of traffic = 5-10% reduction in traffic (2-6,000 vpd)
 - *These trips might be replaced with latent demand for through-trips*

Regional Solutions

- In addition to transit and travel demand management, what about another corridor for regional trips to eastern Loudoun and nearby Fairfax/Prince William?
- Demand for one new corridor appears to be in the 100,000 vpd range
 - Increases as you move East
 - Guarantees that one new corridor will be controversial
 - Rural conservation areas would have to be crossed in Loudoun and/or Montgomery County if located at Route 28 or points west – out of context with 100,000 vpd facility?
- Even with a regional solution, Route 15 demand greatly exceeds 2-lane capacity (40,000 vpd)

Choices

1. Plan for the congestion on 2-lane Route 15 to minimize through-trips and add CTP recommendations to accommodate local traffic as well as possible
 - With only this strategy, we are planning for very poor LOS and high congestion on Route 15
2. Consider a new-capacity corridor north/west of Leesburg to provide relief to N/S routes including Route 15, ONLY if an environmentally acceptable alternative can be found
3. Additional regional solutions – still require some corridor strategies given base demand on Route 15

CTP Language

- Recommendations to provide the in-corridor and countywide strategies would include:
 - Provide as many local connections as possible between streets off of Route 15 from Lucketts to White's Ferry Road to provide mobility for corridor residents (Conduct a Small Area Plan)
 - Develop access points with signals on Route 15 to provide local access (Corridor Access Management)
 - Add four-lane capacity south of White's Ferry Road as a transition to the planned 6-lane bypass
 - Coordinate with Maryland on commuter transit services based at park-and-ride lots on both sides of the river
 - Aggressively pursue travel demand management strategies for Loudoun employers (Trip Reduction Ordinance)