

RI-01 ROUTE 60 (SEMMES AVENUE) Phase II – Preferred Alternative FROM COWARDIN AVENUE TO ROANOKE STREET



Project Description

- The Rte. 60 corridor improvement project focuses on safety issues and pedestrian/cyclist access along the corridor.
- Concept 1 – Convert the Rte. 60 (W Roanoke Street) and Forest Hill Avenue intersection from a conventional signalized intersection to a hybrid roundabout.
 - Concept 2 – Add a pedestrian hybrid beacon (PHB) at the Rte. 60 intersection with W 31st Street, across the east leg.
 - Concept 3 – Convert the southbound channelized right turn to a signalized right turn at the Rte. 60 and Cowardin Ave. intersection. Add protected Bike lanes along the Rte. 60 approaches to Cowardin Ave.
 - Concept 4 – Convert the Rte. 60 cross section to include one shared bike/transit lane per direction, wider sidewalks, and a center turn lane. **No cost estimate or project schedule is presented for Concept 4. It is not currently recommended for Smart Scale and anticipated as a longer-term project concept.*

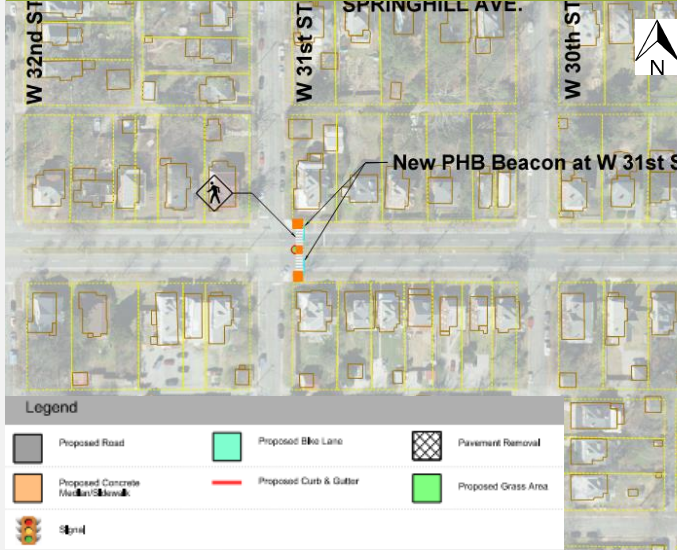
Concept 1 (Rte. 60 & Forest Hill Ave.)



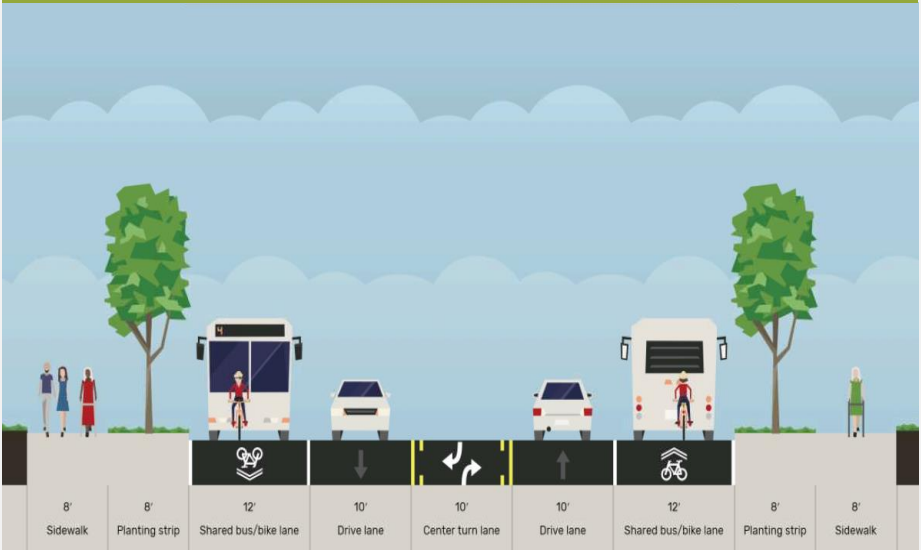
Concept 3 (Rte. 60 & Cowardin Ave.)



Concept 2 (Rte. 60 & W 31st St.)



Concept 4 (Rte. 60 Corridor)



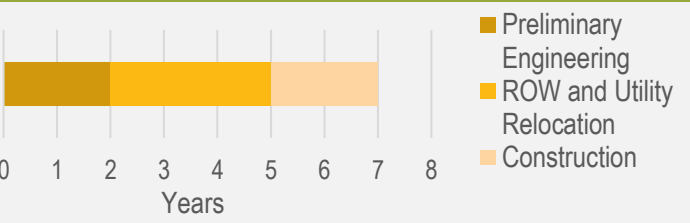
Project Location



Planning Level Cost Estimate – FY 2022

Concept	Concept		
	1	2	3
Preliminary Engineering	\$ 765 k	\$ 456 k	\$ 964 k
ROW and Utility Relocation	\$ 1.2 m	\$ 56 k	\$ 129 k
Construction	\$ 2.2 m	\$ 814 k	\$ 3.4 m
Total Cost	\$ 4.2 m	\$ 1.3 m	\$ 4.4 m

Sample Project Schedule



Note 1: Project schedules and cost estimates were developed based on information available at the time of study and should be reassessed prior to submitting funding applications.
Note 2: Total cost estimates are a summation of all concepts.

Traffic Operations Benefits

- Concept 1 – The proposed roundabout at Forest Hill Ave. / Roanoke St. is an operationally viable option.
- Concept 3 – The proposed upgrades would enhance bicycle network connectivity and works within the existing intersection footprint.
- Concept 4 – Reducing to one lane per direction is expected to cause capacity constraints during peak periods (volume to capacity ratios at intersections are expected to range from 1.08 to 1.13). However, there is a possibility for vehicular traffic to utilize parallel facilities such as Bainbridge Rd. and Midlothian Tpk.

Traffic Safety Benefits

- Concept 1 – The proposed roundabout at Forest Hill Ave. / Roanoke St. would reduce crashes and manage vehicular speeds at the intersection.
- Concept 2 – The proposed PHB at W 31st Str. across Rte. 60 would reduce Ped Crossing Worst Case Spacing from ~2200 linear foot to ~1100 linear foot, therefore increasing pedestrian safety.
- Concept 3 – The proposed upgrades would enhance vulnerable users' safety by shortening crossing distances and providing protected areas for pedestrians/cyclists.
- Concept 4 – This proposed road diet would increase safety. The center left-turn lane provides reduced risk for rear-end crashes associated with the existing shared left-turn/through lane.



PHASE 2 – PREFERRED ALTERNATIVE

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PROJECT BENEFITS



Safety Improvement



Pedestrian and Bicycle Access

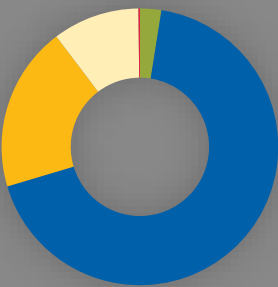


Travel Demand Management

- The proposed improvements at the corridor intersections with Roanoke St./Forest Hill Ave., W 31st St., and Cowardin Ave. would increase roadway safety for vehicles, pedestrians, and cyclists.
- The proposed new and enhanced crosswalks at the corridor intersections with Roanoke St./Forest Hill Ave., W 31st St., and Cowardin Ave. would increase pedestrians access in the area.
- The proposed protected bike lanes at along the corridor at the proximity of Cowardin Ave. would increase bicycle access and safety.
- The proposed road diet (one vehicular lane and one bike/transit shared-use-path per direction) would increase bicycle and transit access. The center turn lane in the proposed road diet would reduce the number of rear-end crashes as mainline left-turn movements would use an exclusive lane at intersections.

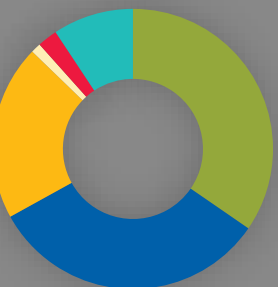
PUBLIC SURVEY

Travel Method



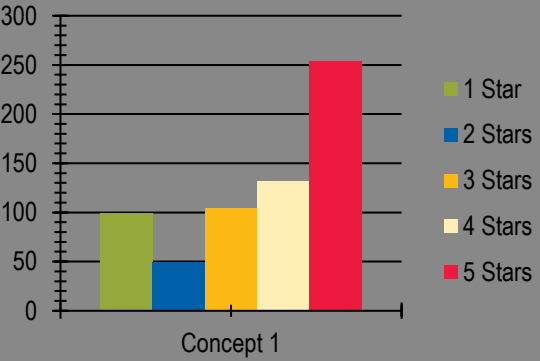
- Public Transit
- Driving Personal Vehicle
- Biking
- Walking
- Carpool/Shared Ride

Other Preferred Method



- Walking
- Biking
- Transit
- Carpool/Vanpool
- Taxi/Ride Service
- Prefer to Drive

Route 60 (W. Roanoke Street) at Forest Hill Avenue Roundabout

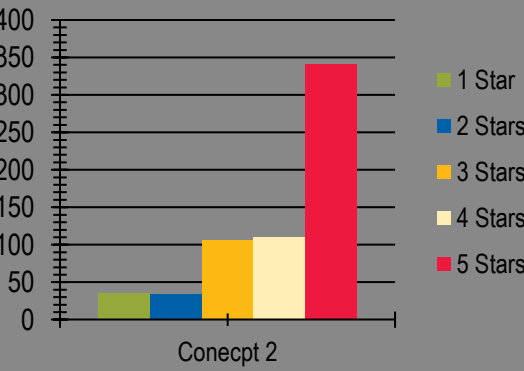


Survey Respondents rated this concept an average of 3.62 out of 5

Please rate this scenario



Route 60 at W 31st Street PHB

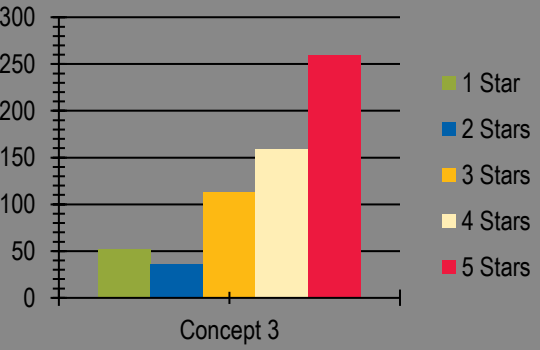


Survey Respondents rated this concept an average of 4.10 out of 5

Please rate this scenario



Route 60 at Cowardin Avenue Improvements

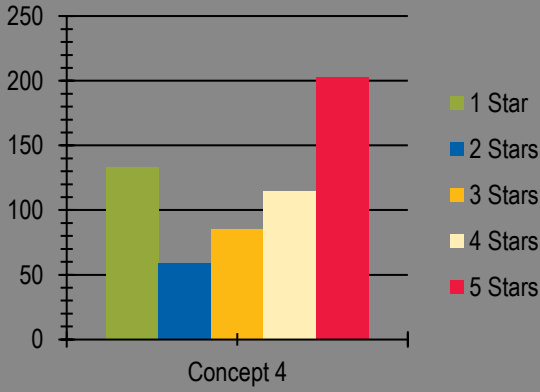


Survey Respondents rated this concept an average of 3.9 out of 5

Please rate this scenario



Rte. 60 Road Diet



Survey Respondents rated this concept an average of 3.3 out of 5

Please rate this scenario

