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## **McFARLAND JOHNSON**

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# CONFERENCE REPORT

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**PROJECT:** Dover-Somersworth-Rochester 29604      **DATE OF MEETING:** March 5, 2020  
(MJ Project No: 18288.00)

**LOCATION:** Strafford RPC Offices      **TIME:** 1:30 PM

**SUBJECT:** Working Group Meeting #3

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### **ATTENDED BY:**

NHDOT:      W. Johnson      T. Reynolds      T. Zanes

COAST:      M. Williams

Dover:      G. Young      C. Parker

Rochester:      M. Bezanson      S.Creighton

Somersworth:      S. Saunders      M. Bobinsky      G. Lemay

SRPC:      C. Lentz      J. Burdin

MJ:      G. McCarthy      J. Zorn      S. Ozana      S. Lister

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### **PROJECT DESCRIPTION:**

This project involves the study of improvements to NH Route 108 from the vicinity of the intersection with Indian Brook Drive in Dover extending north to the vicinity of the intersection with Innovation Drive in Rochester, a distance of approximately 5 miles. The objective of the project is to develop an alternative that will improve the safety and mobility of all users by applying 'Complete Street' principles with the central goal of achieving an appropriate balance between the needs of non-motorized, transit, and motorized users of the corridor.

### **NOTES ON MEETING:**

G. McCarthy gave a PowerPoint presentation to the group to update them on project progress as well as to receive feedback from the Working Group. The following topics were presented, please see the attached presentation.

- Purpose and Need
- Traffic Information
- Right-of-Way

- Alternatives Development
- Miscellaneous/Open Discussion

#### Purpose and Need Statement

- G. McCarthy stated that the language regarding “quality of life” was not added to the purpose statement as it is subjective. He reiterated that the core of the project is a Complete Street and didn’t want that to get lost during design.
- S. Saunders emphasized that pavement cannot be the only part of this project and the landscaping, streetscaping, furniture, etc. needs to be incorporated. G. McCarthy assured that these concerns would be addressed.
- All facilities should be designed with maintenance (plowing, stormwater, landscaping, etc.) and longevity considerations in mind.
- C. Parker and G. Young expressed concerns regarding the lack of quality of life inclusion in the purpose statement and expressed the desire to balance lane width and vehicle capacity with pedestrian friendly design. Stating that Complete Streets are designed to the lowest common denominator – the pedestrian.
  - Quality of Life will be added to Need, as opposed to Purpose.
- M. Williams requested an explanation regarding the lack of bus stop structures included in the project. NHDOT clarified that they cannot purchase items for private companies but could include bus pull-offs into the project. M. Williams clarified that pull-offs are not a transit amenity, stating that pull-offs are for cars, not buses. M. Williams specified that safe crossings for pedestrians was a priority for COAST.
- Discussion turned to the Purpose statement language regarding active and mass transit. The decision was made to change the Purpose statement language from “accommodate” to “is designed for” with pedestrian, bicycle and public transit use prioritized before trucks and cars.
- G. McCarthy noted that the community response was primarily related to congestion along the corridor which is a state highway. It is important to balance what the public wants, functioning as a highway and Working Group concerns to create a Complete Street.
  - It was noted by the group that residents with mobility issues may not have been able to attend the public listening sessions to voice their opinions – leading to an auto centric bias in public response.
  - It was noted by the group that the project should also be sustainable with limited maintenance and salt tolerant landscaping.
- W. Johnson asked the group if a new bullet point under Need was warranted to address maintainable facilities. The discussion that followed concluded that language should be added to the purpose to consider future maintenance.

#### Traffic Information

- G. McCarthy gave an update to the traffic analyses including, the microsimulation model, vehicle classification, pedestrian counts, existing and future conditions.
- The microsimulations indicate that a 3-lane typical section with signal improvements at Blackwater Road and adding a signal at Haven Hill Road will address community concerns regarding congestion.
- Vehicle classification volumes from the subconsultant’s traffic counts were presented. Pedestrian and motorcycle counts were very low due to the dates the counts were performed (November 2018). It was noted that this is not indicative of the corridor during the warmer months, anecdotally. The count date was requested to be added to the slide.
- Traffic simulations were viewed at the end of the meeting.

#### Right-of-Way

- G. McCarthy reviewed the Right-of-Way (ROW) impacts anticipated with the project. Due to the narrow width of the existing ROW, any improvement to the corridor is likely to impact the ROW. Stormwater management will have additional ROW impacts.

- G. McCarthy noted that there is a need for additional work with the municipalities to address some existing ROW inconsistencies that have been identified.

#### Alternatives

- G. McCarthy led a discussion of the Alternatives Development, beginning with an explanation of the corridor segments; 7 distinct segments define the corridor, 1 in Dover, 5 in Somersworth, and 1 in Rochester.
- Concepts A through G were reviewed for the number of lanes and sidewalks included.
- A 3-lane typical section (5'-11'-12'-11'-5') was determined to handle the roadway capacity but that the number and location of sidewalks have yet to be determined.
  - It was stated that to fit within the ROW a 12' Two Way Left Turning Lane (TWLTL) would be used in lieu of the typical 14'-16'.
  - M. Bobinsky asked the design speed of the project. The design speed is based on the posted speed limit of 35 mph through the majority of the corridor which changes to 40 mph in the northern end of Somersworth. It was noted that the project would not be changing the speed limit.
  - G. McCarthy mentioned that the intent is to calm traffic and not to create an environment which encourages drivers to speed.
- Concept A has a 3-lane section with sidewalks on both sides. This concept is broken into two similar typical sections. A1 has 5' grass strips between the shoulders and the 5' sidewalks whereas A2 has no grass strip and 6' sidewalks.
  - It is more likely that the typical section with the grass strip will be the standard typical and will be narrowed in locations of sensitive resources such as cemeteries.
  - The typical section with the grass panel also allows for more sustainable maintenance as there is room for snow storage.
- Concept B incorporates the 3-lane section with a single sidewalk; B1 with a 5' grass strip and 5' sidewalk while B2 has no grass strip and 6' sidewalk.
- Concept C has the 3-lane section with a 5' grass strip and a 10' multi-use path on one side.
- Concept D has the same typical section as Concept C with the addition of a sidewalk on the opposite side of the road.
  - C. Parker inquired as to the inclusion of the bike shoulder with the 10' multi-use path. This was maintained in part because the shoulder would already be there and to accommodate cyclists of all levels (avid and timid).
- Concept E shows a 3-lane section with no sidewalks.
- Concept F shows a two-lane section with no central turning lane and no sidewalks with 12' lanes.
- Concept G shows two 12' lanes with a 5' grass strip and a 5' sidewalk on one side.
- A matrix describing where the concepts are anticipated to be used and the ROW/Property Impacts was reviewed.
  - Concepts F and G were developed with the intent that they be applied to corridor segment 7 in Rochester where it was previously stated that sidewalks were not desired by the City.
- It was stated that sidewalks would impact parcels along the corridor, but the impacts would not be substantial enough to require full acquisitions. MJ advocated for sidewalks on both side of the corridor from the southern end until the intersection with Whitehouse Road and NH Route 236 with a single sidewalk extending from there until Innovation Drive at the end of the corridor.
- Somersworth would like practical/scientific justification for sidewalks on both sides – citing maintenance concerns and City policy.
  - COAST will collaborate to find a reasonable solution.
  - Discontinuity of sidewalks along the corridor was discussed and determined to be detrimental for pedestrians and maintenance.

- Good quality, safe crosswalks for bus users is the biggest concern for COAST. Bus stops are about 1/4 mile apart (which is farther than desired). NHDOT will not approve a mid-block crosswalk without a safe landing which meets ADA requirements, which will need to be maintained.
  - S. Saunders noted that the City had previously requested mid-block crossings, but was not successful. It was noted that mid-block crosswalks are not typically approved.
  - **Pedestrian Hybrid Beacons (PHB)** are a possibility for mid-block crosswalks.
- M. Bobinski stated multi-use paths could be beneficial from a maintenance perspective. Be thoughtful of seed choice in grass strip to reduce mowing demand.
  - A graphic showing sidewalk on one side with points of conflict/opportunity shown where mid-block crossings could be beneficial was requested.
  - It was discussed that there needed to be sidewalk on both sides of the road to have a crosswalk.
  - It was discussed that sidewalk maintenance was the responsibility of the municipality.
- There was a lot of discussion that sidewalk on both sides of the roadway would be preferred, given that this is a complete streets project; however, a lot of the decision making would come down to maintenance costs and the budgets to accommodate maintenance.
- G. Lemay raised concerns regarding vehicle drift towards bicyclists when a vehicle is in the Two Way Left Turn Lane (TWLTL). He asked if the narrow width of the TWLTL was a concern. It was noted that the standard width for the TWLTL is 12'-14', so this is not an uncommon width.
- Granite curbing is proposed throughout the corridor for stormwater collection. Stormwater maintenance outside of the Urban Compact falls under the management of NHDOT.
  - Rain gardens (tree box filters) will not be maintained by NHDOT
- An image of US Route 1 in Hampton was shown on the screen as an example of what a 3-lane roadway with sidewalks and grass strips could possibly look like. Members of the group expressed concern with the example and noted that it does not represent a Complete Street and is not what they envision for this corridor.
- G. McCarthy reviewed the existing and proposed improvements at the intersection with Blackwater Road.
  - The southeast corner (Todd's Touch) will be impacted by any typical section with widening, regardless of sidewalk inclusion.
  - 3-lane section will be a worse Level of Service (LOS) in 2045 than existing is currently.
  - 5-lane section is marginally better than the 3-lane section but with significant ROW impacts.
  - 2-lane roundabout offers the best traffic operations but has significant ROW impacts.
    - It was noted that a single-lane roundabout returned a LOS F in 2045
  - Concerns noted for bus stop location to the north of Blackwater Road. Pull-outs near signals can be beneficial for transit. A follow-up meeting with COAST will be set up to determine bus stop/pull-off locations along the corridor. M. Williams noted the following:
    - Bus pull offs are for the benefit of the motorist, not the bus drivers, getting back into traffic can cause issue, causing delays to reenter traffic and slowing the bus route.
    - Buses stop along this corridor about one per hour (per stop)
    - Bus pull offs are typically preferred on the far side of the intersection.
  - The owner of the vacant lot to the northwest of the intersection has some development plans and is currently shopping for tenants.
  - C. Lentz inquired on the LOS for pedestrians within the project corridor.
  - M. Bobinski liked the idea of a roundabout along the corridor but realizes they are expensive with extensive property impacts.
- G. McCarthy reviewed the existing and proposed improvements at the intersection with Whitehouse Road.
  - The existing condition functions acceptably in 2045
  - Proposed 3-lane and 5-lane sections function slightly better than existing
  - A good location for a roundabout.

- A hybrid roundabout functions quite well, reduces pavement footprint and benefits pedestrians with two-stage crossing.
- Locations to add roundabouts along the corridor were briefly discussed.
  - Willand Drive was identified as a potential location to re-route traffic to Somersworth and away from Blackwater Road.
  - Central Fence & Deck, on the corner of Brenda Ave across from Willand Drive, has potential historic structure status but may be moving locations as the business grows. A roundabout alternative here should be investigated. The City noted that it would be preferred to avoid impacts to Hill Top Fun Center.
- Locations were identified with the potential to impact parking lot (ROW) conflicts with a 3-lane section; the fencing company and the former antique shop near Wolfs Lane in Somersworth. City staff felt confident that these two locations would not present complications moving forward.
- Dover raised concerns about new sidewalk construction in a location which was recently constructed (2007) using federal funding; Congestion Mitigation and Air Quality (CMAQ) funds.
- Microsimulations completed for the 2045 No Build and 2045 3-lane section were shown to demonstrate the traffic analysis of the corridor and to show projected queue lengths.

Next Actions:

- NHDOT and MJ will meet with Somersworth only to discuss sidewalk alternatives.
- There is potential for a sewer expansion in Somersworth near Willand Drive on the southbound side of NH Route 108. Need to coordinate this with M. Bobinski.
- Need to look at the signal phasing at Blackwater Road, the City would prefer to have this as split phasing, although this will negatively impact the NH route 108 traffic.

Action Items

1. MJ to provide the City of Somersworth a graphic showing potential locations for mid-block crosswalks in Somersworth.
2. MJ to draft roundabout alternatives at Whitehouse Road and Willand Road/ Brenda Avenue and identify other potential locations for roundabouts along the corridor.
3. City of Somersworth to provide information regarding the upcoming sewer improvements from Willand Drive southbound to the Dover town line.
4. MJ to follow-up with NHDOT before meeting with the City of Somersworth to go over City-specific details.

Submitted by:



Scott Ozana, P.E.  
McFarland Johnson, Inc.

Attachments:  
Presentation

***NH Route 108 Complete Streets Improvements  
Dover-Somersworth-Rochester 29604***

**Working Group Meeting**

**March 5, 2020**

# Agenda

1. Purpose and Need
- 2. *Alternatives Development***
3. Project Schedule
4. Miscellaneous/Open Discussion
5. Adjourn

# Purpose and Need

## Purpose

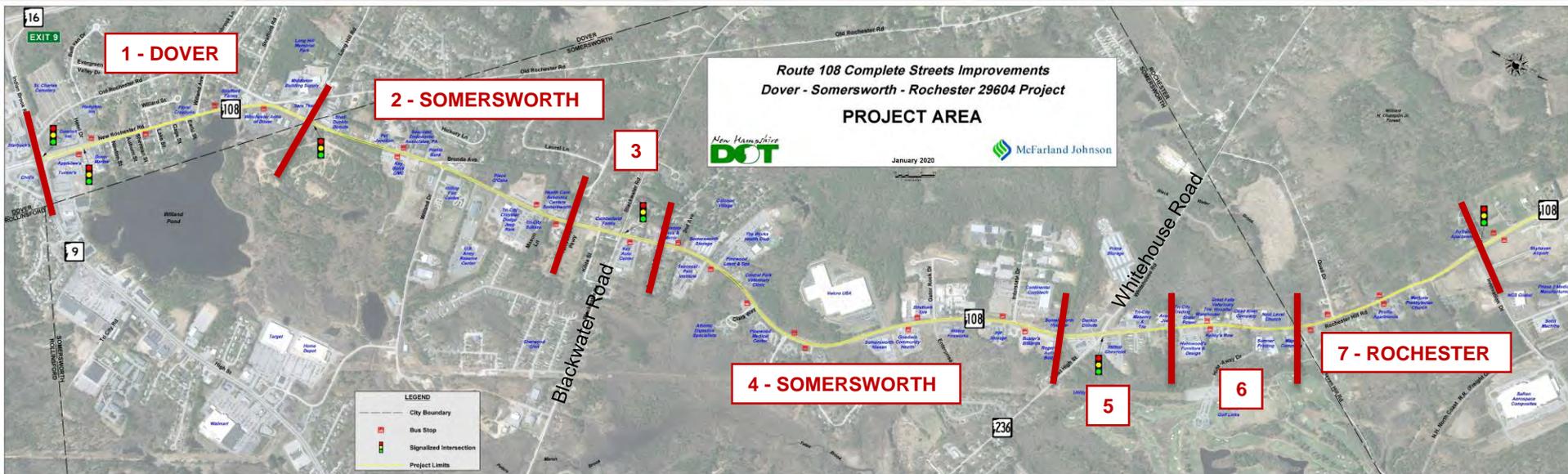
The purpose of the NH Route 108 Complete Streets Improvements project is to provide a corridor that accommodates various modes of travel including cars, trucks, **public transit**, bicycles and pedestrians that incorporates safety improvements, while addressing daily congestion issues along the five-mile corridor in Dover, Somersworth and Rochester.

# Purpose and Need

## Need

- Peak period traffic demand causes queuing and delays at key signalized intersections.
- Vehicles regularly travel at speeds above the posted limit throughout the corridor.
- Left turns from and to the corridor are difficult due to the high volume of traffic causing delays and safety concerns.
- Limited pedestrian facilities are present in the corridor.
- Formal Bicycle facilities are not present in the corridor.
- Buses stopping at the numerous bus stops along the corridor often block traffic, causing delays.
- Facilities for waiting passengers are not present at the majority of the bus stops.
- Streetscape and landscape elements are lacking along the corridor.

# Alternatives Development Corridor Segments

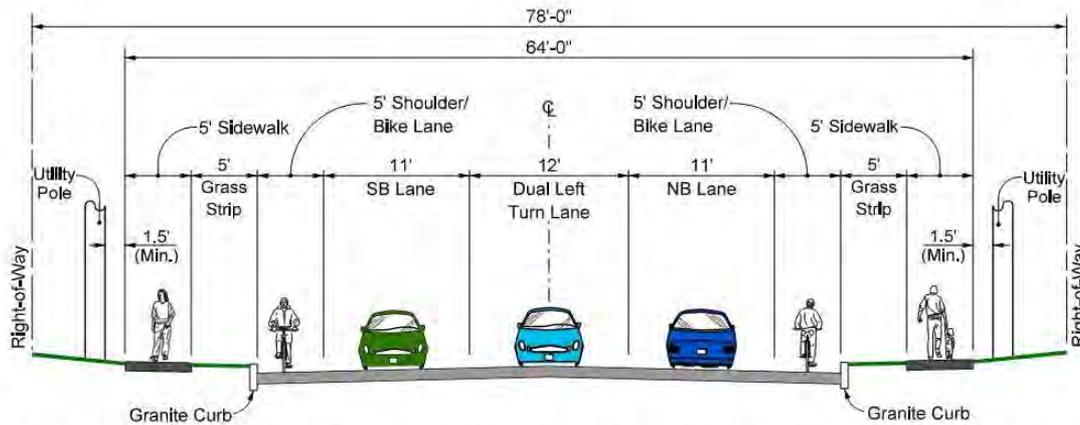


# Alternatives Development

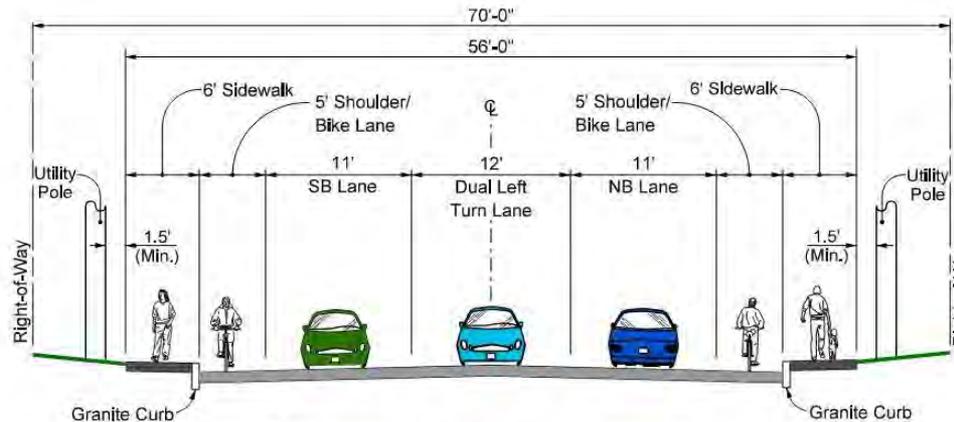
## *Concept Typical Sections*

Concept	Lanes	Sidewalks
A	3	2
B	3	1
C	3	1 (Multi-Use)
D	3	1 + 1 (Multi-Use)
E	3	-
F	2	-
G	2	1

# Alternatives Development Concept Typical Sections

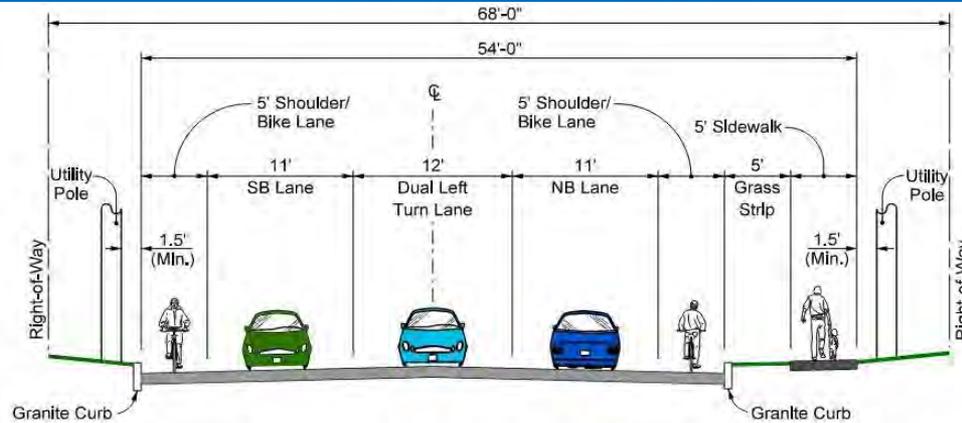


**Concept A (With Grass Strip):** Three Lanes with Dual Sidewalks

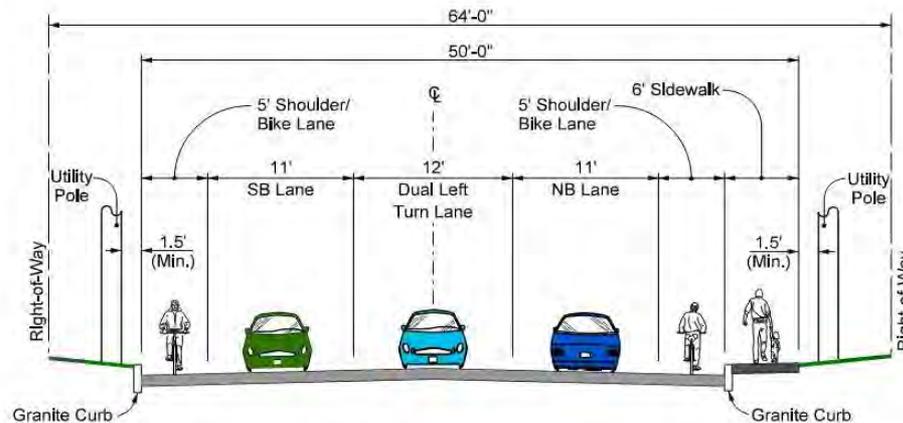


**Concept A (Without Grass Strip):** Three Lanes with Dual Sidewalks

# Alternatives Development Concept Typical Sections

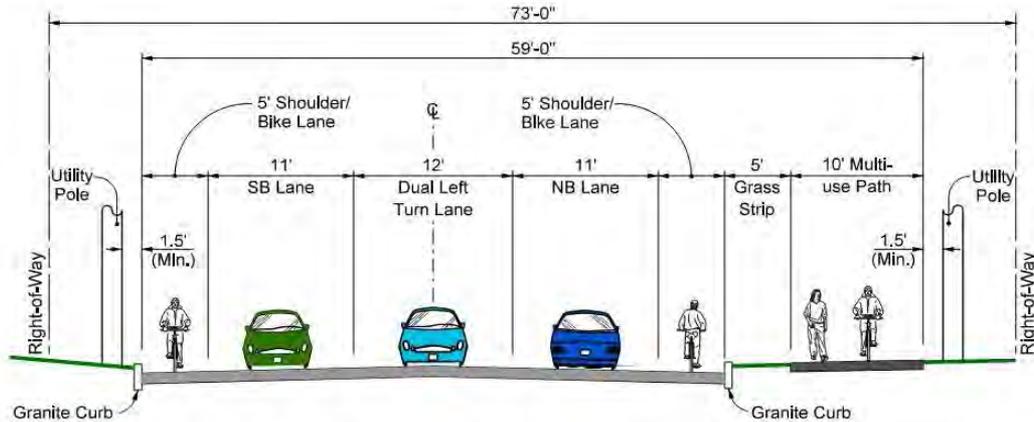


**Concept B (With Grass Strip) : Three Lanes with Single Sidewalk**

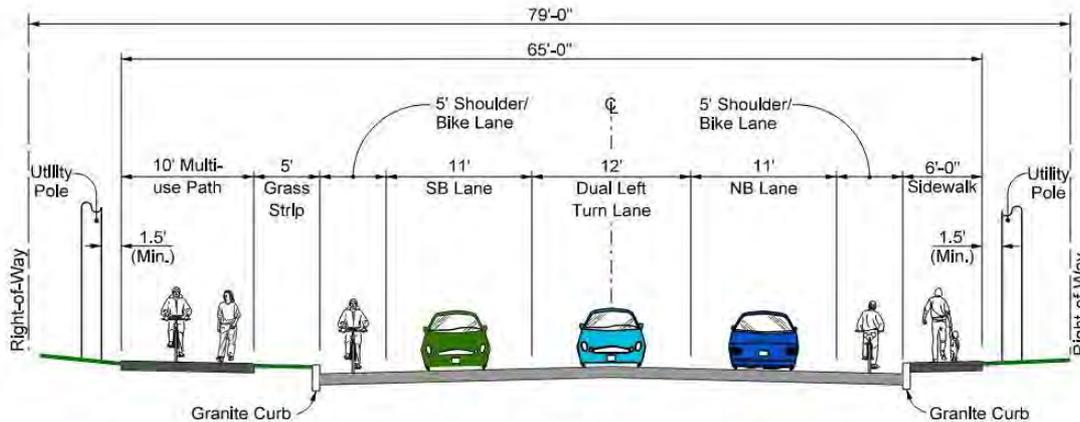


**Concept B (Without Grass Strip) : Three Lanes with Single Sidewalk**

# Alternatives Development Concept Typical Sections

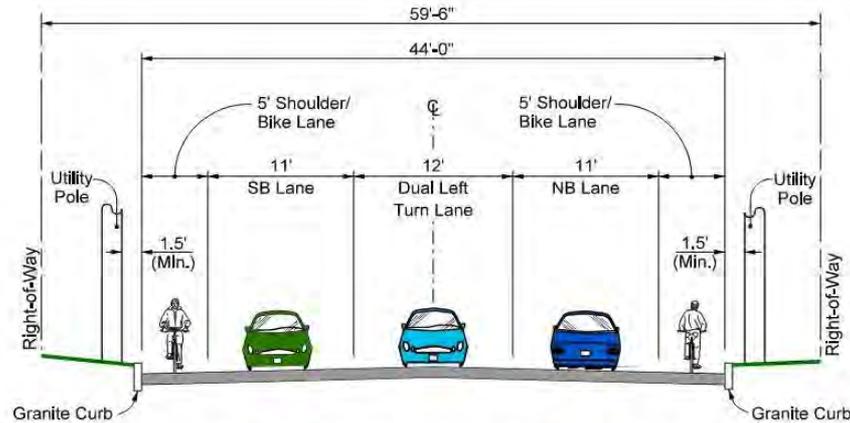


**Concept C : Three Lanes with Single Multi-Use Path**

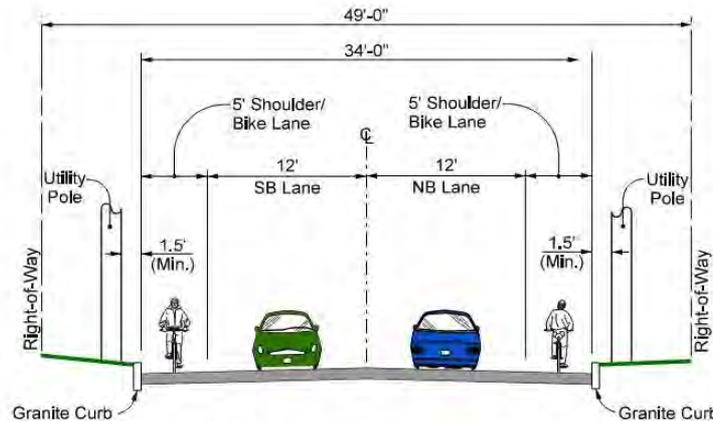


**Concept D : Three Lanes with Multi-Use Path & Sidewalk**

# Alternatives Development Concept Typical Sections

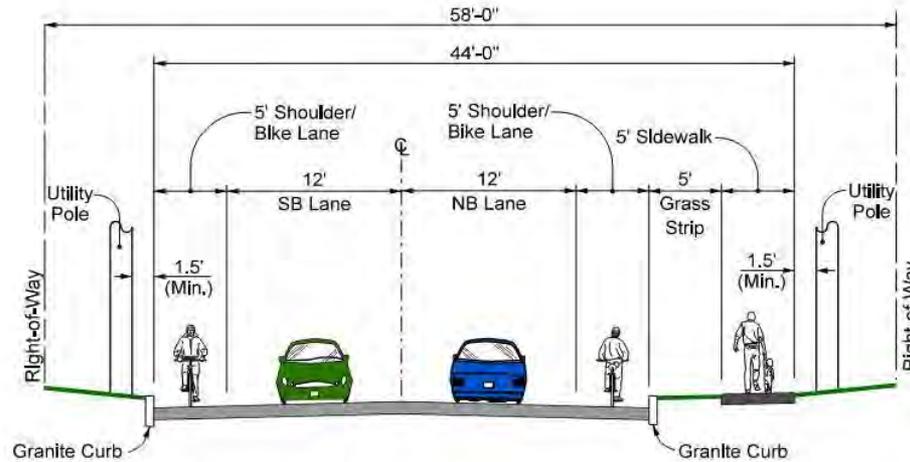


**Concept E : Three Lanes with No Sidewalk**



**Concept F : Two Lanes with No Sidewalk**

# Alternatives Development Concept Typical Sections



**Concept G : Two Lanes with Sidewalk**

# Alternatives Development

## Alternatives Matrix

Segment	Segment Description	Concept Section	Concept Description	ROW/Property Impacts
1 Dover	Hotel Road To Long Hill Road	A	Three Lane with Dual Sidewalk	Partial impacts to most parcels along the corridor
		B	Three Lane with Single Sidewalk	Fewer partial impacts than dual sidewalk option
		C	Three Lane with Single Multi-Use Path	Partial impacts to most parcels along the corridor
		D	Three lane with Multi-Use Path & Sidewalk	Partial impacts to most parcels along the corridor
2 Somersworth	Long Hill Road To Terrascape Parkway	A	Three Lane with Dual Sidewalk	<ul style="list-style-type: none"> <li>Partial impacts to most parcels along the corridor</li> <li>Impacts to pull in parking at pawn shop</li> <li>Impacts to pull in parking at Central Fence</li> </ul>
		B	Three Lane with Single Sidewalk	Fewer partial Impacts than dual sidewalk option
3 Somersworth	Terrascape Parkway To Greenfield Drive (Blackwater Intersection)	3-Lane	Three Lane with Dual Sidewalk	Partial impacts to most parcels along the corridor
			Three Lane with Single Sidewalk	Partial impacts to most parcels along the corridor
		5-Lane	Five Lane with Dual Sidewalk	Full acquisition of Todd's Touch and partials on the other three corners
		Roundabout	Roundabout with Dual Sidewalk	Full acquisition of Todd's Touch and partials on the other three corners
4 Somersworth	Greenfield Drive To Somersworth Hyundai	A	Three Lane with Dual Sidewalk	Partial impacts to most parcels along the corridor
		B	Three Lane with Single Sidewalk	Partial impacts to most parcels along the corridor
5 Somersworth	Somersworth Hyundai To Aroma Joe's (Whitehouse Intersection)	3-Lane	Three Lane with Dual Sidewalk	Partial impacts to most parcels along the corridor
		5-Lane	Five Lane with Dual Sidewalk	Partial impacts to most parcels along the corridor
6 Somersworth	Aroma Joe's To Haven Hill Road	B	Three Lane with Single Sidewalk	Minimal Impacts
		E	Three Lanes with No Sidewalk	Minimal Impacts
7 Rochester	Haven Hill Road To Innovation Drive	F	Two Lanes with No Sidewalk	Minimal Impacts
		G	Two Lanes with Single Sidewalk	Minimal Impacts

# Alternatives Development

## *Guiding Principles*

Accessibility

Safety

Bicycle Facilities

Access (Management)

Reduce Delay

Transit Upgrades



Aesthetics

Economic  
Development

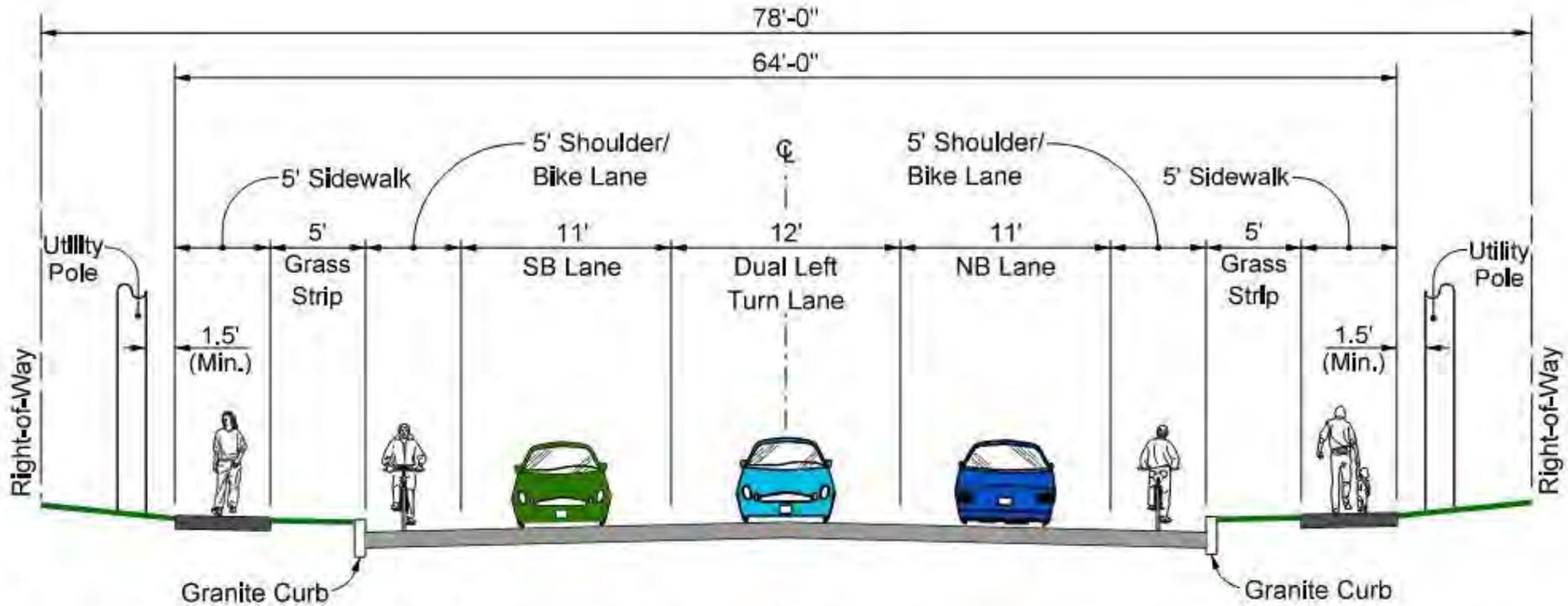
*Complete Street*

Traffic Calming

Pedestrian Accommodation

Stormwater

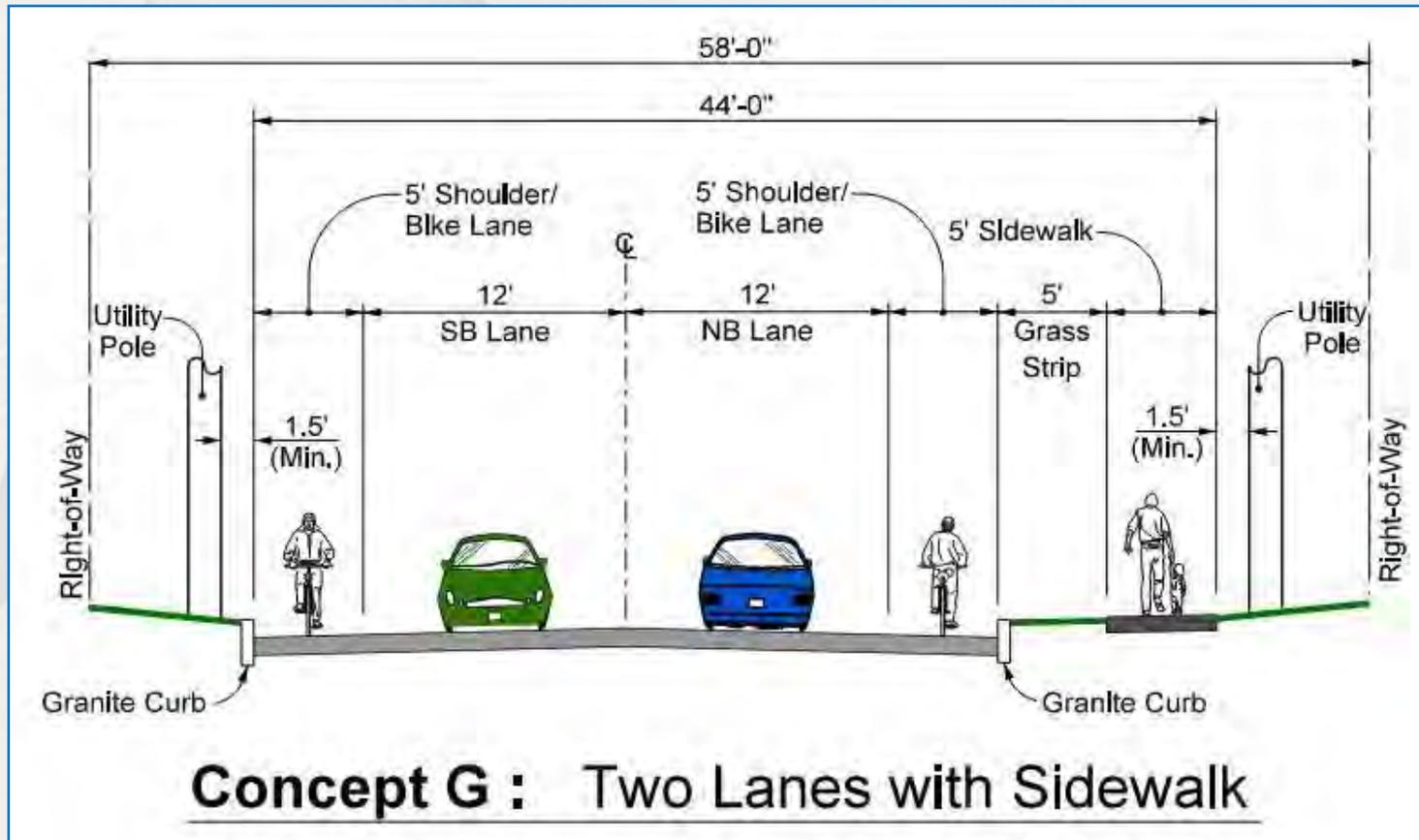
# Alternatives Development Proposal



**Concept A (With Grass Strip): Three Lanes with Dual Sidewalks**

**Segments 1 to 5 (Indian Brook to Whitehouse Road)**

# Alternatives Development Proposal

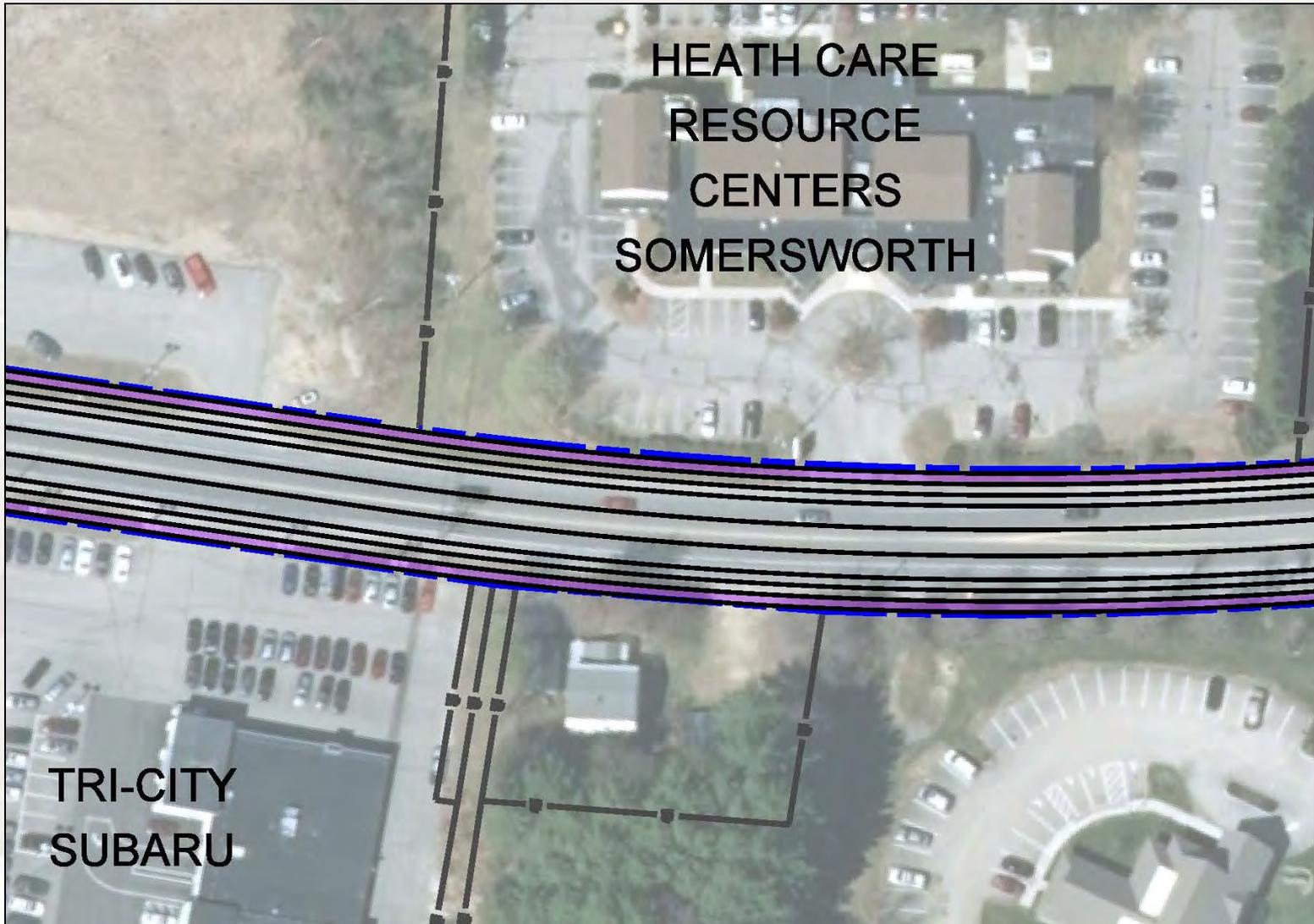


**Segments 5 to 7 (Whitehouse Road to Innovation Drive)**

# Alternatives Development



# Alternatives Development



# Alternatives Development



US Route 1 in Hampton

# Intersection Concepts

Route 108/Blackwater Road  
No Build

<b>2018</b>	<b>2045</b>
LOS C	LOS F
LOS D	LOS F



**LEGEND**

<b>2018</b>	<b>2045</b>
AM LOS	AM LOS
PM LOS	PM LOS

# Intersection Concepts

Route 108/Blackwater Road  
3 Lane Concept

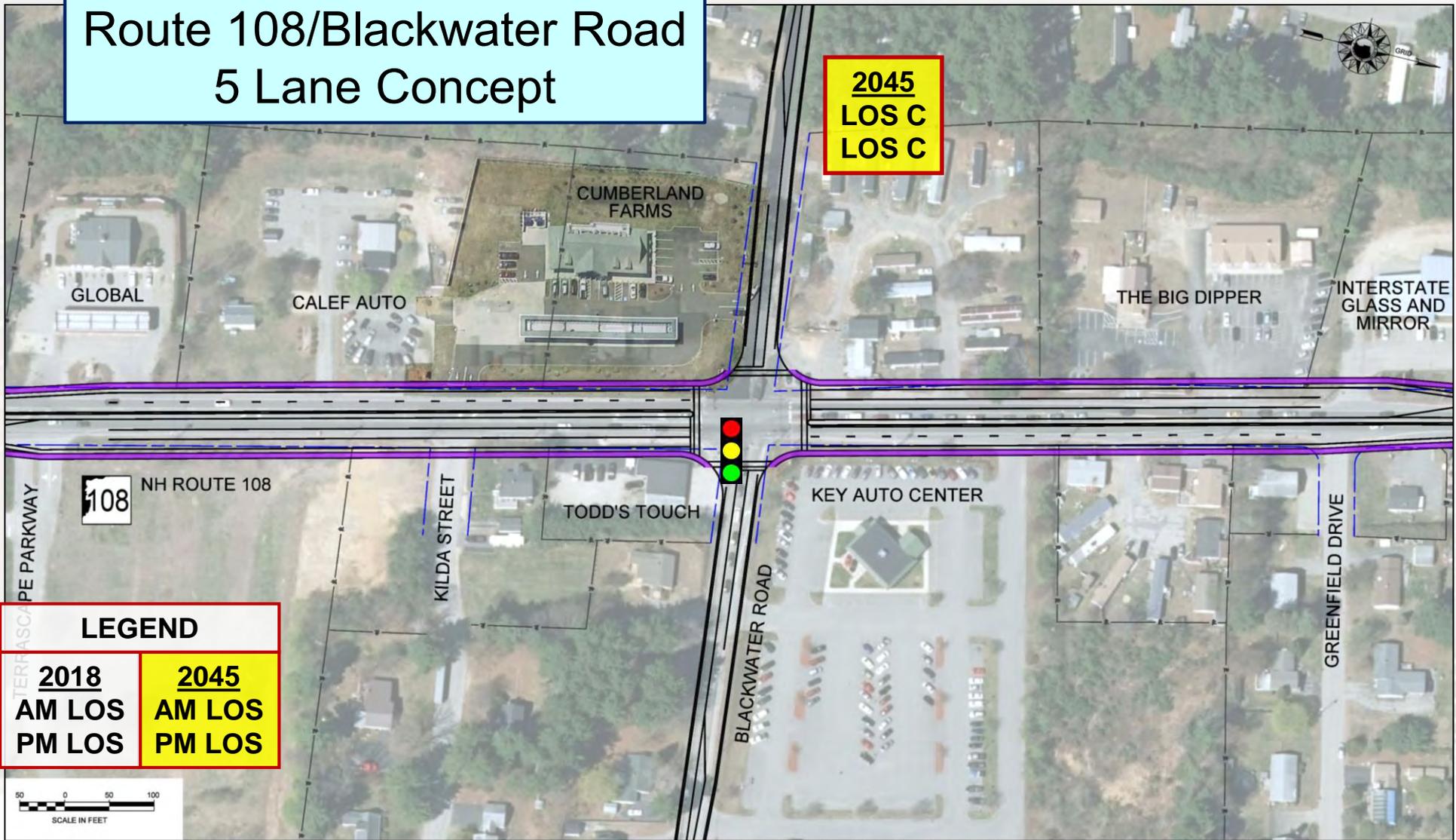
2045  
LOS D  
LOS D



# Intersection Concepts

Route 108/Blackwater Road  
5 Lane Concept

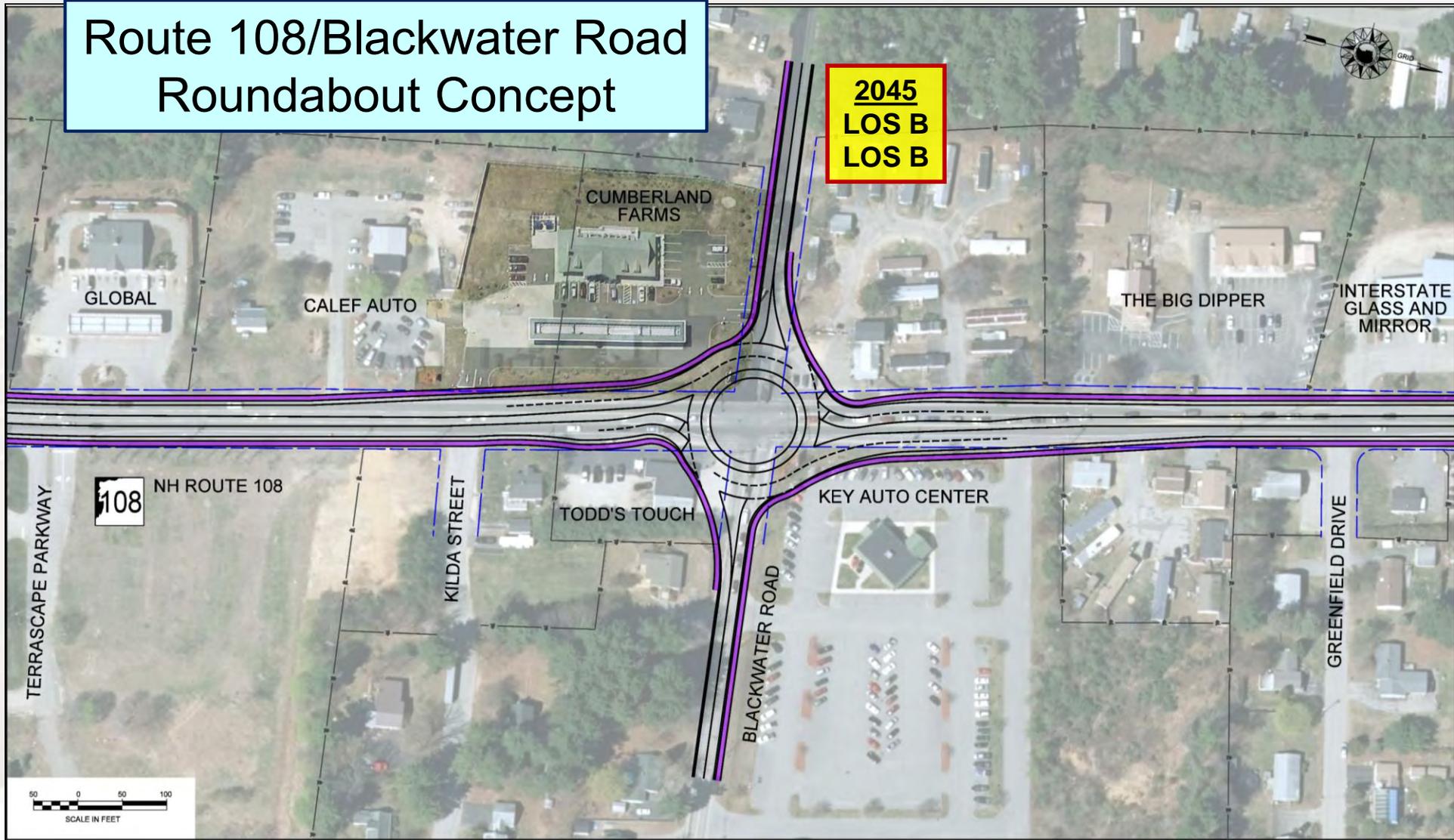
2045  
LOS C  
LOS C



# Intersection Concepts

Route 108/Blackwater Road  
Roundabout Concept

2045  
LOS B  
LOS B



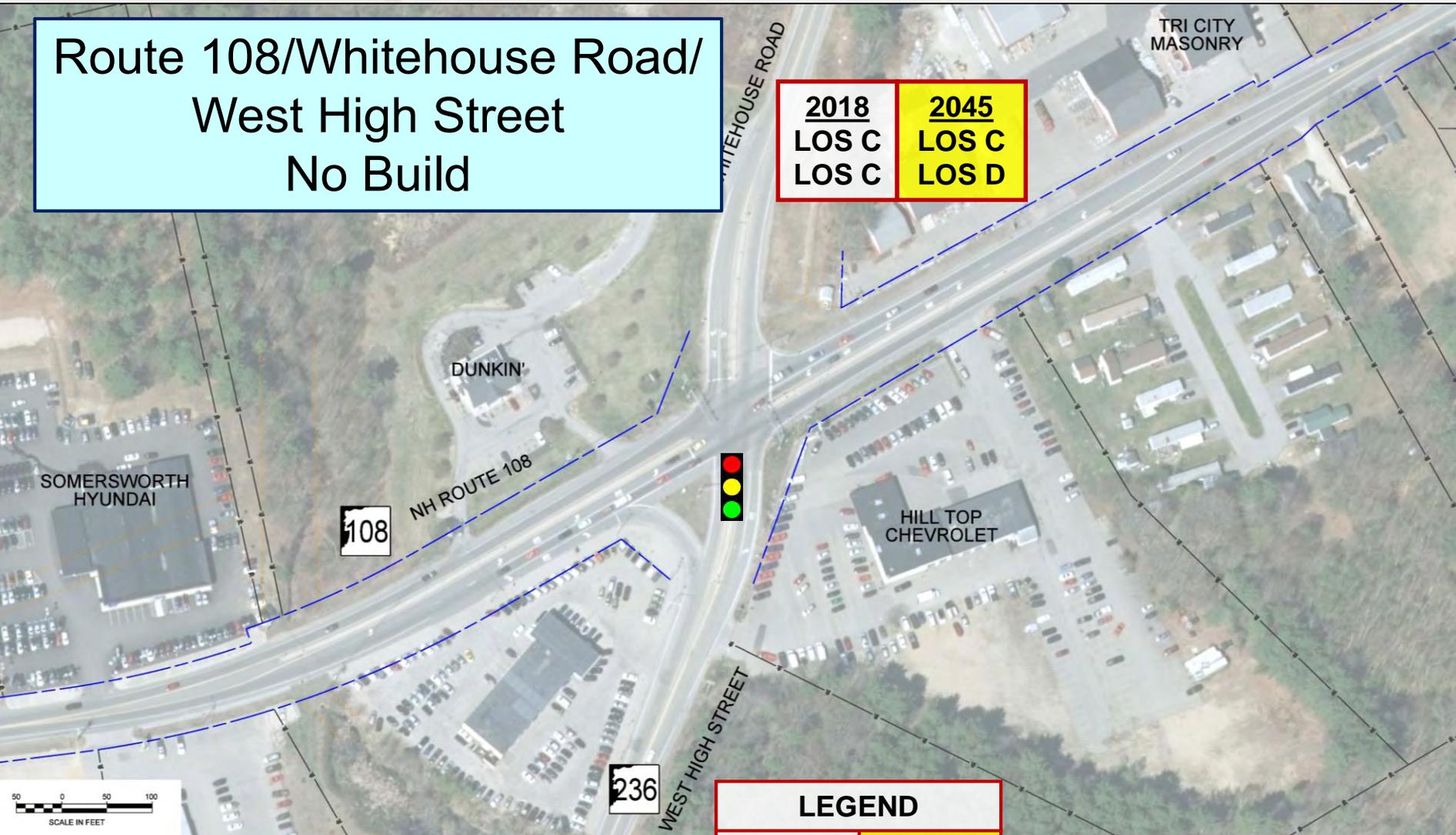
# Intersection Concepts

Route 108/Whitehouse Road/  
West High Street  
No Build

<b>2018</b>	<b>2045</b>
LOS C	LOS C
LOS C	LOS D



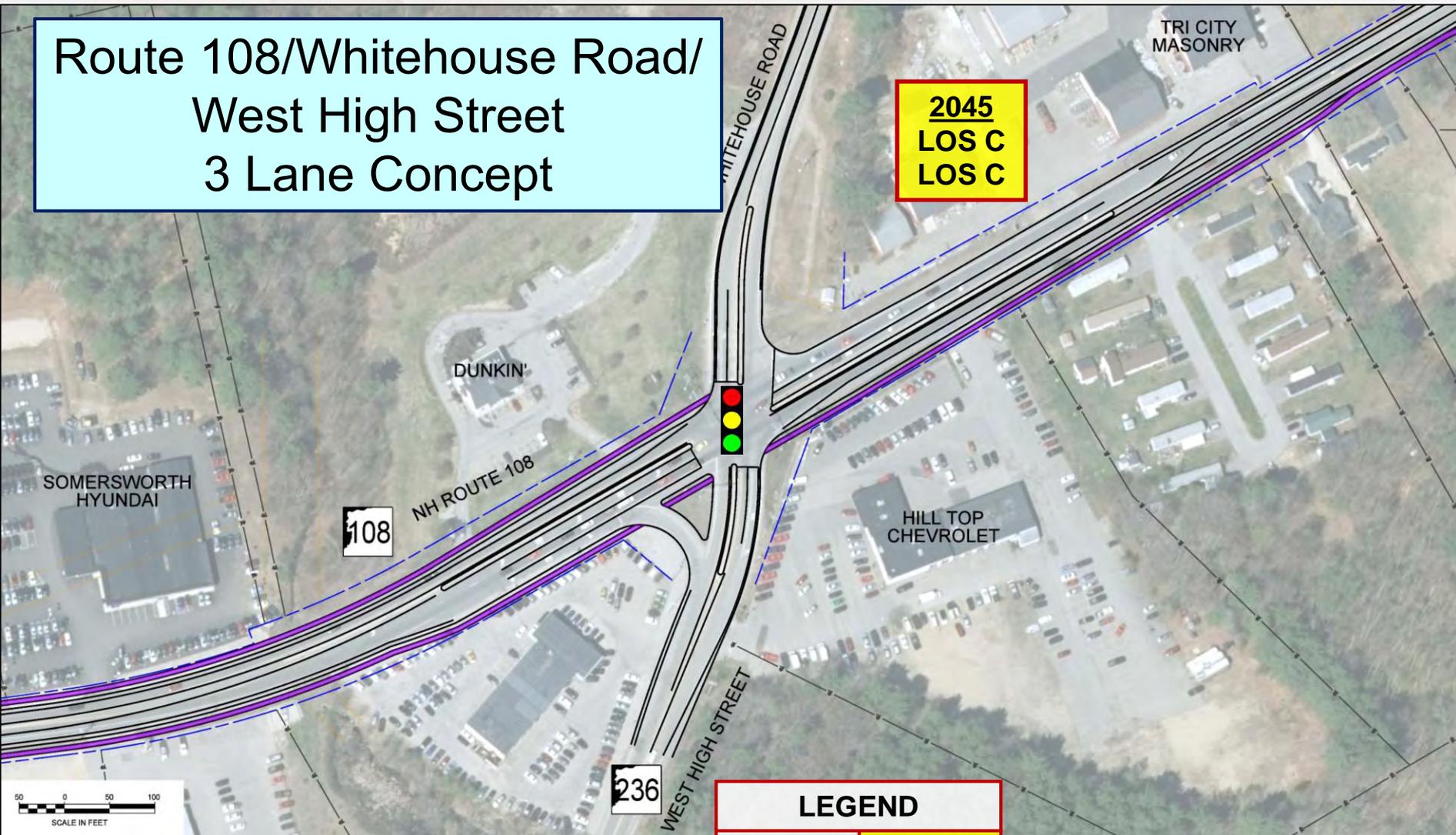
LEGEND	
<b>2018</b>	<b>2045</b>
AM LOS	AM LOS
PM LOS	PM LOS



# Intersection Concepts

Route 108/Whitehouse Road/  
West High Street  
3 Lane Concept

**2045**  
LOS C  
LOS C

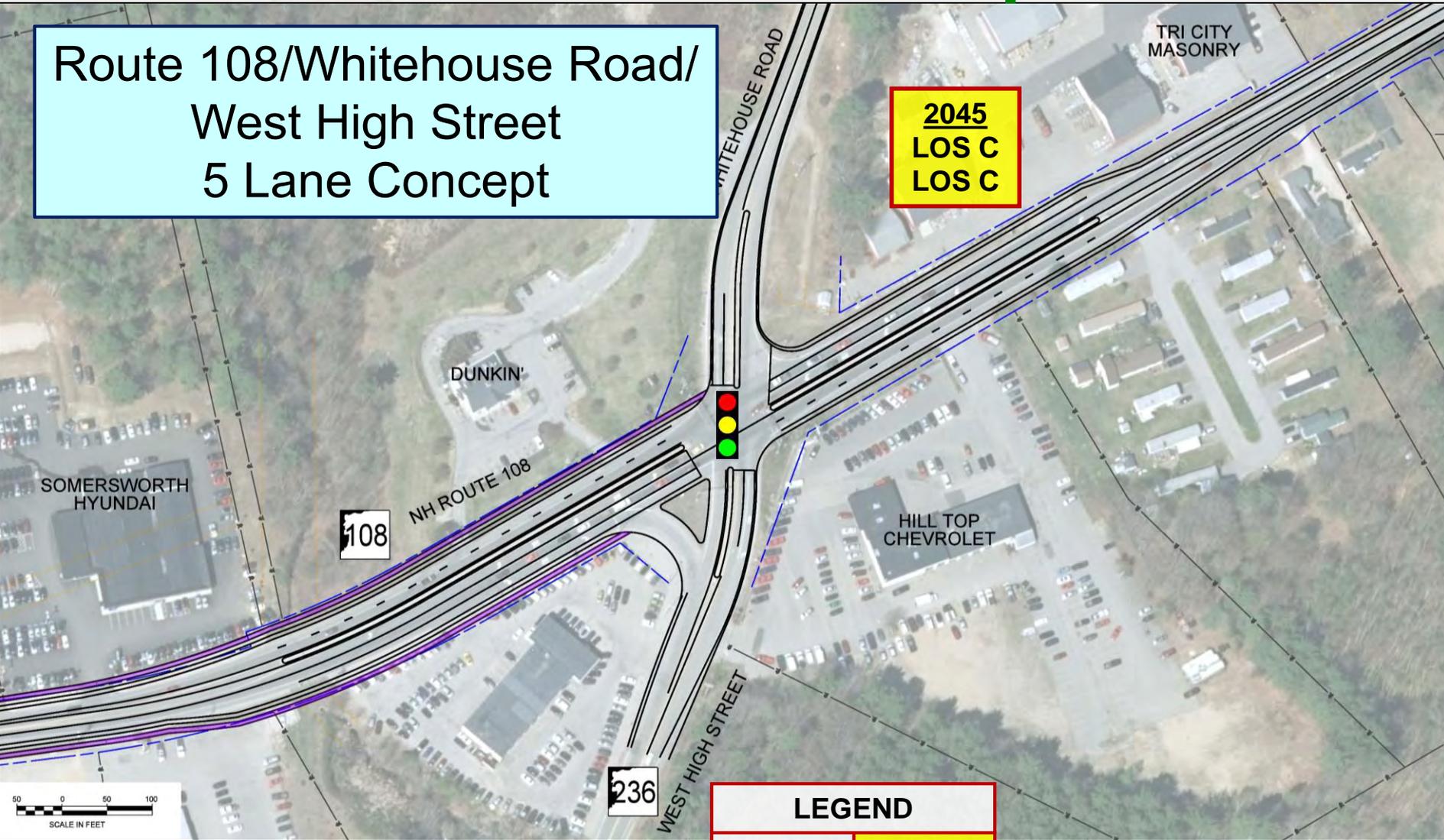


LEGEND	
<b>2018</b> AM LOS PM LOS	<b>2045</b> AM LOS PM LOS

# Intersection Concepts

Route 108/Whitehouse Road/  
West High Street  
5 Lane Concept

**2045**  
**LOS C**  
**LOS C**



## LEGEND

<b>2018</b>	<b>2045</b>
<b>AM LOS</b>	<b>AM LOS</b>
<b>PM LOS</b>	<b>PM LOS</b>

# Project Schedule

- Alternatives Development Spring 2020
- Public Informational Meeting June 2020
- Select Preferred Alternative Summer 2020
- Draft Environmental Document Fall 2020
- Circulate Draft Environmental Document Late Fall 2020
- Public Hearing Winter 2021
- Final Environmental Document Winter 2021

# Questions/Comments