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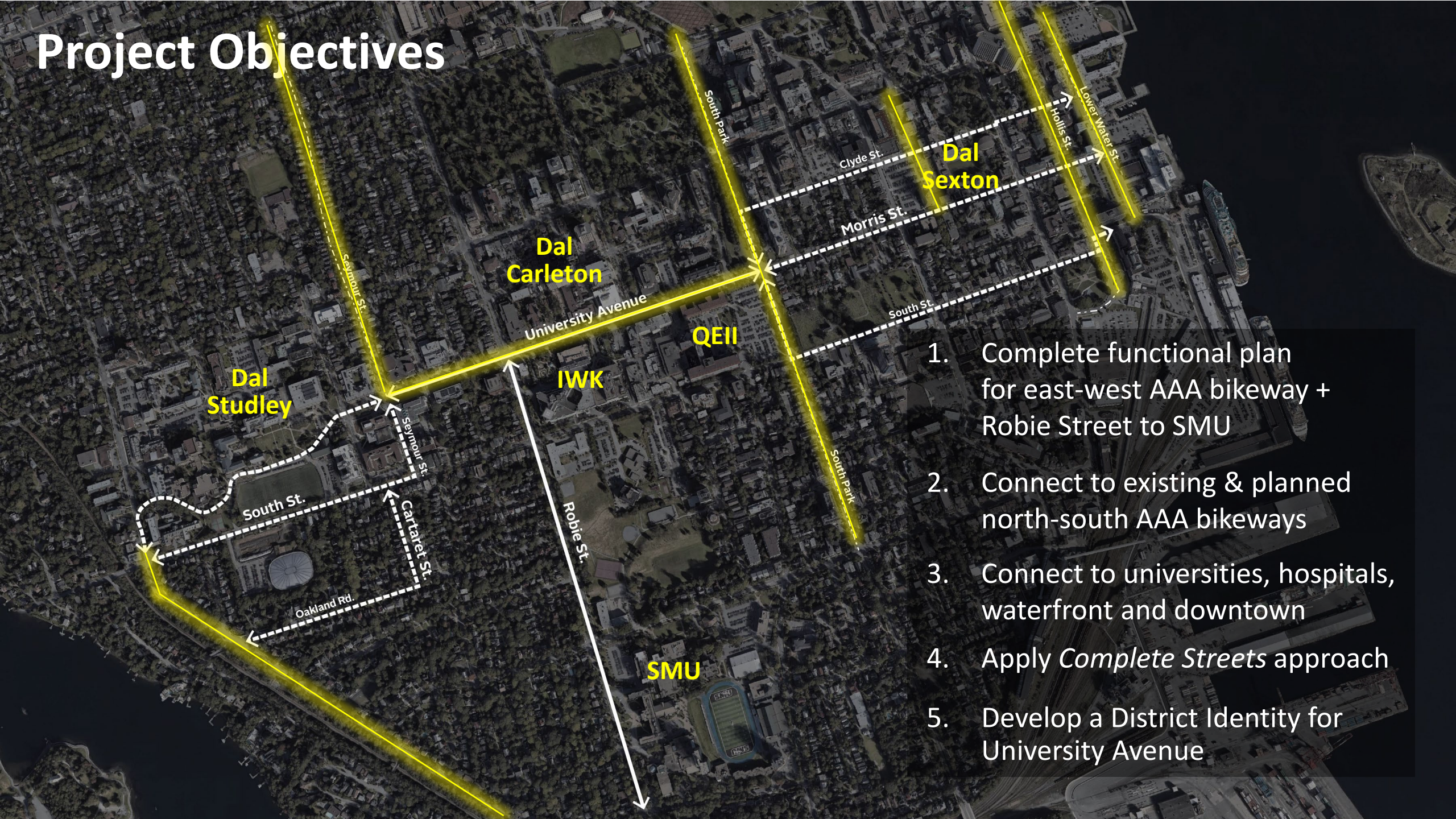
Implementation of Peninsula South Complete Streets: University Avenue, West, and East Connections

Transportation Standing Committee

August 29, 2024

Project Objectives



1. Complete functional plan for east-west AAA bikeway + Robie Street to SMU
2. Connect to existing & planned north-south AAA bikeways
3. Connect to universities, hospitals, waterfront and downtown
4. Apply *Complete Streets* approach
5. Develop a District Identity for University Avenue

Policy Rationale

- Action 72 of the IMP identifies University Avenue and Morris Street as AAA bicycle connections

- Action 31 of the IMP provides direction to adopt a complete streets approach

- AT Priorities Plan (2014) identifies University Avenue, Morris Street, and Robie Street (south of University Ave) as candidate bicycle routes

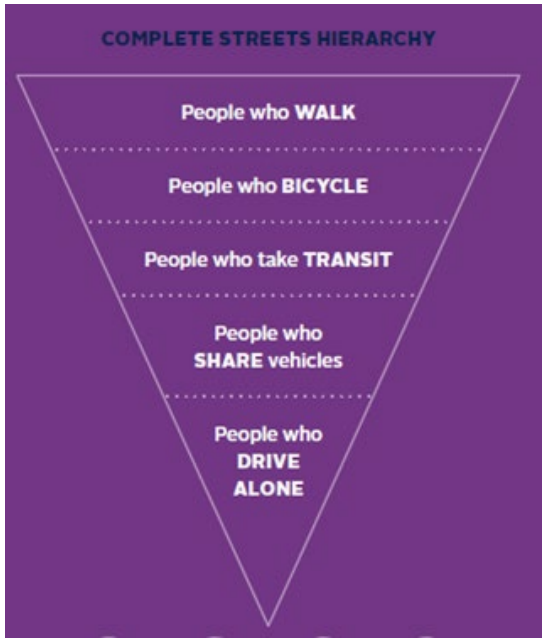
- The project objectives also support other HRM policies, including:
  - Regional Plan
  - Strategic Road Safety Framework
  - HalifACT
  - Local Street Bikeway Admin Order
  - Halifax Common Master Plan

Planning Process

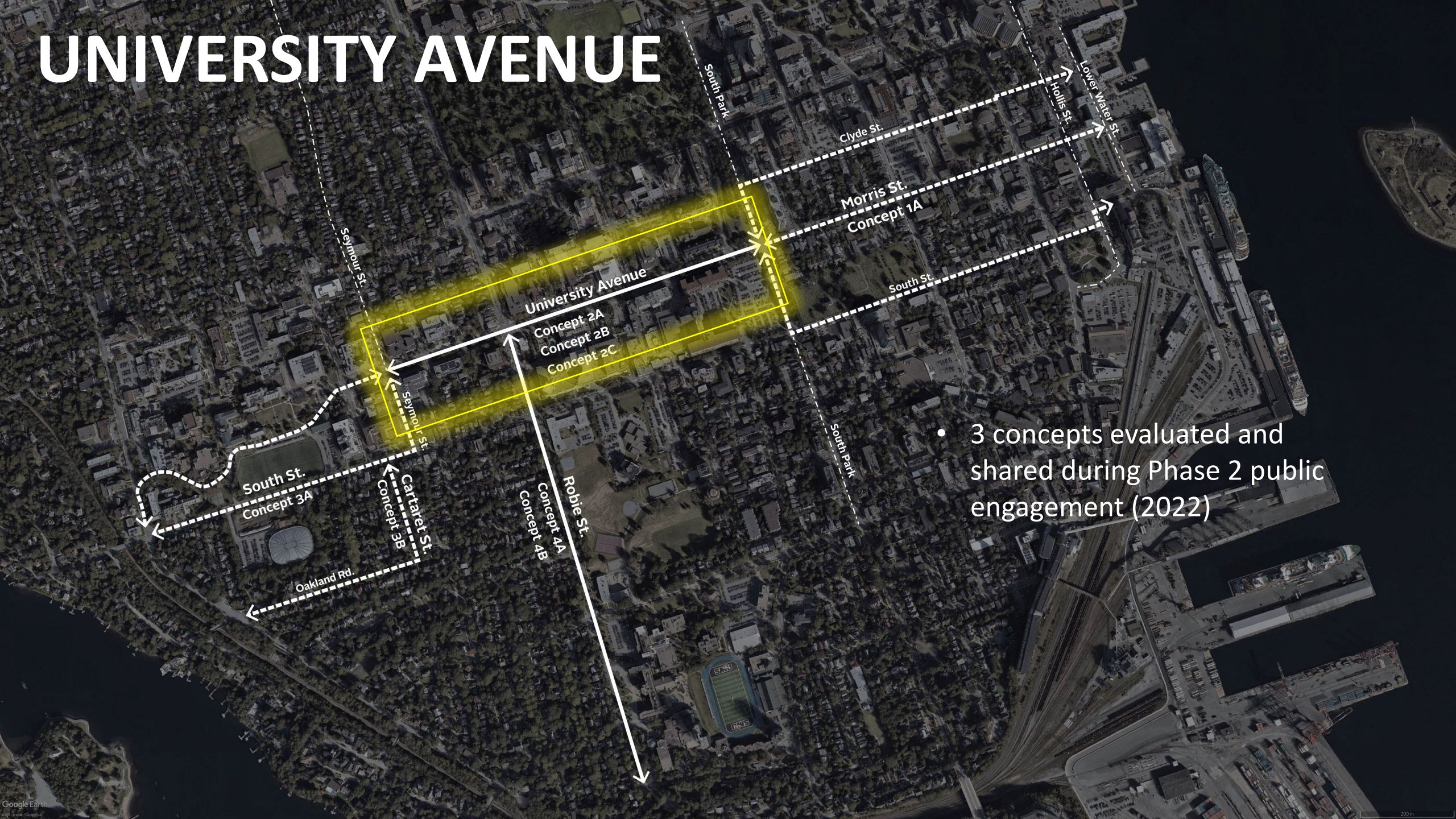
- Functional planning process initiated in 2019
- Phase 1 public engagement in fall 2019
- Phase 2 public engagement in summer 2022
- *What We Heard* summary reports and links to interactive map and 4 short videos available at: www.shapeyourcityhalifax.ca/peninsula-south-complete-streets
- Extensive internal and external stakeholder engagement

Concept Evaluation

- Evaluation framework created to inform decision making
- Criteria weights informed by IMP Complete Street hierarchy
- Criteria included:
  - Pedestrian Movement and Safety
  - Bicycle Movement and Safety
  - Transit Service Accommodation
  - Vehicular and Truck Traffic Infrastructure Provisions
  - Parking Supply
  - Loading Requirements
  - Trees and Greenspace
  - Fire and Emergency Services
  - Property Requirements
  - Cost estimate
  - Phase 2 Public and Stakeholder Feedback
  - Project Complexity & Constructability



UNIVERSITY AVENUE

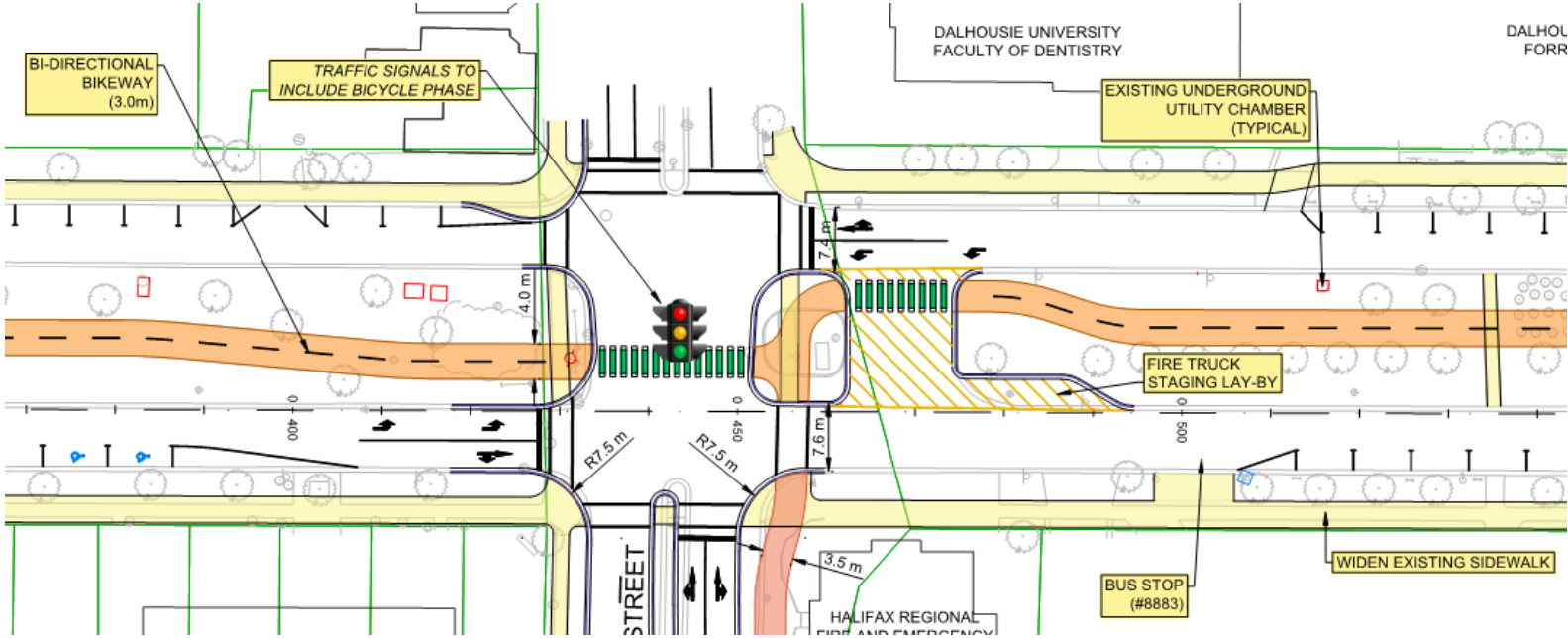


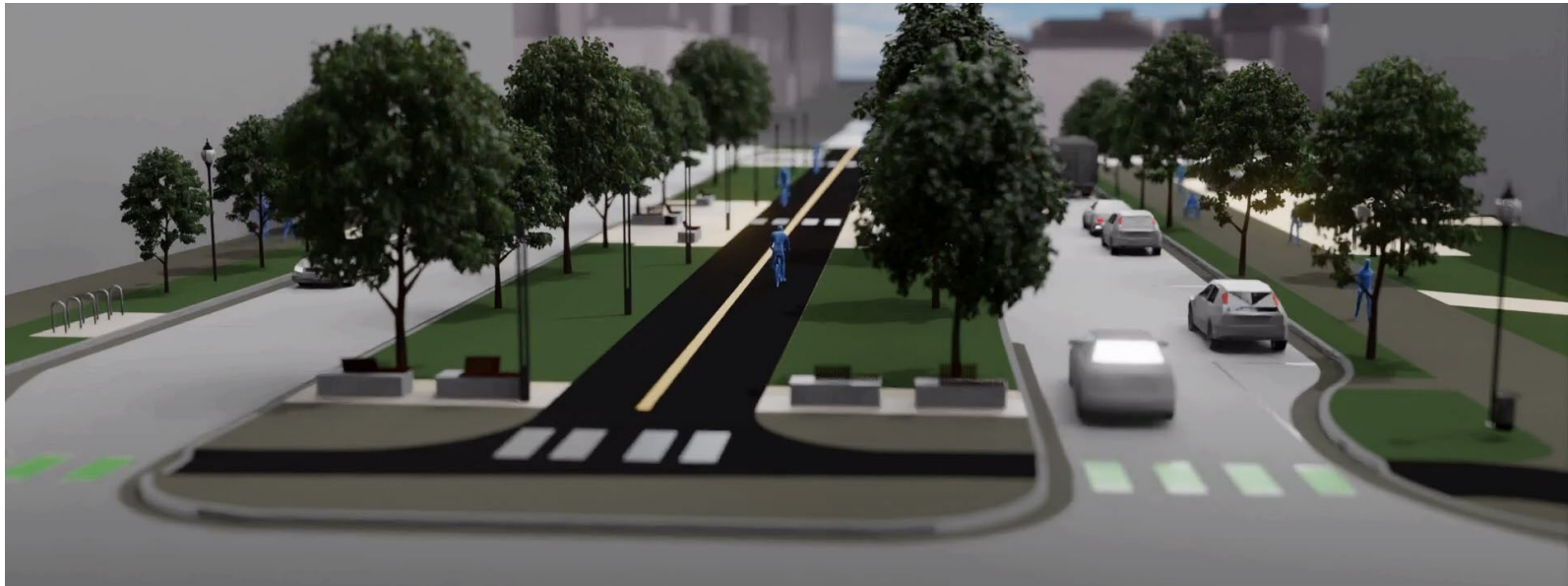
- 3 concepts evaluated and shared during Phase 2 public engagement (2022)

University Ave Recommended Concept

Concept 2B Overview

- 3.0m two-way bikeway in the center median
- Changes at Seymour Street, Henry Street, and Edward Street to restrict vehicle movements across the median
- Existing on-street parking is maintained
- Removal of approximately 23 of 326 trees
- Bicycle signals added to signalized intersections where appropriate
- New public spaces and placemaking integrated during design phase
- Cost estimate with 35% contingency: $8.6 million





University Ave Two-Way Bikeway in Median (Concept 2B)

Benefits of Recommended Concept 2B

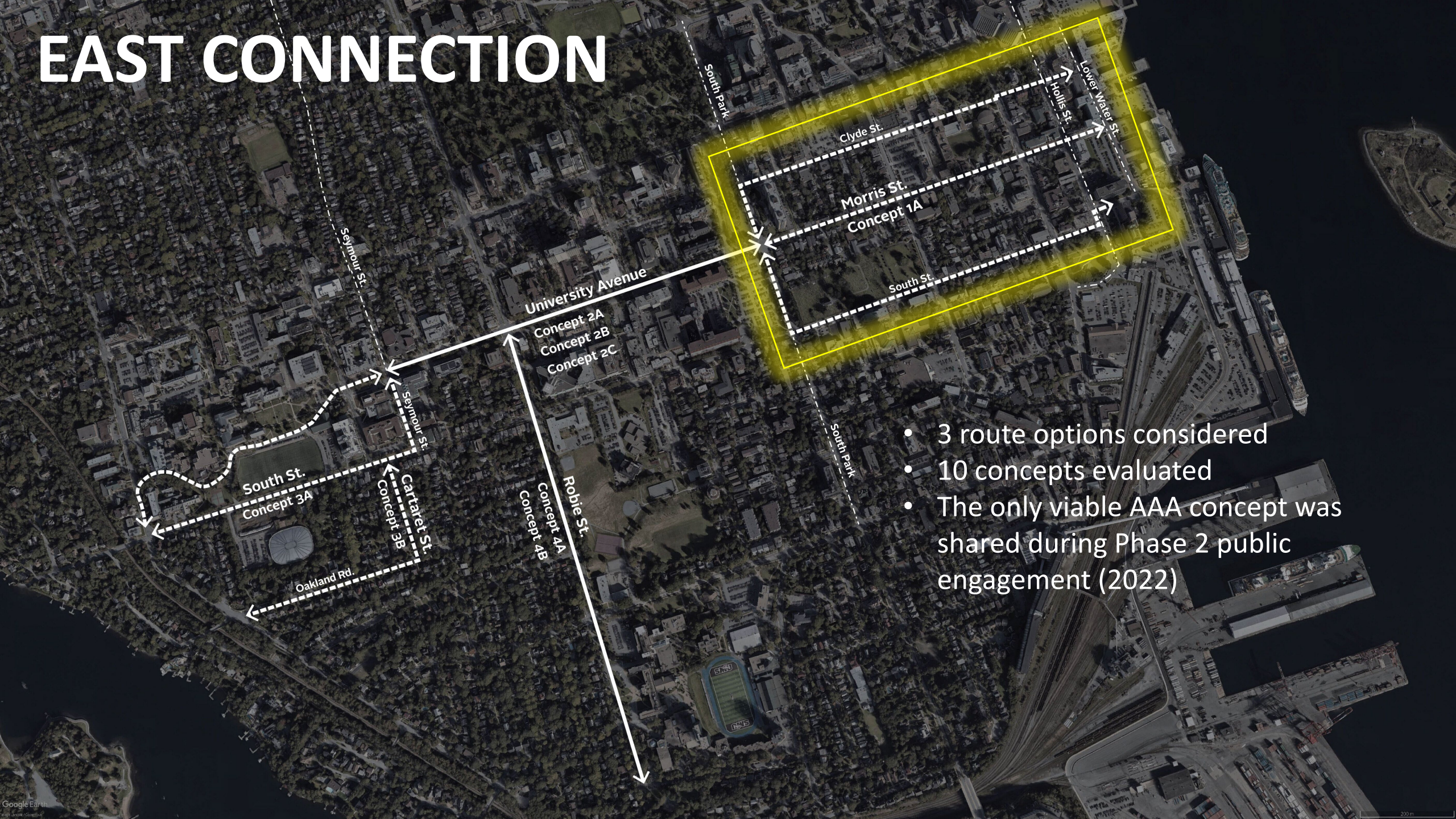
- Widened sidewalks
- Avoids conflicts with curbside loading and driveway access
- Wide buffer between bikeway and adjacent vehicle traffic
- Minimal impacts to transit, emergency services, and on-street parking
- Lowest cost and complexity of the three concepts

University Ave Two-Way Bikeway in Median (Concept 2B)

Key Implications of Recommended Concept 2B

- *Bicycle Level of Service*
  - People cycling would have to cross vehicle lanes from the median to start/end their trip on University Ave
  - Potential conflicts with cyclists if people walk and roll in the median bikeway
- *Impacts to the Urban Forest and Greenspace*
  - Removal and replacement of approximately 23 of 236 street trees
  - Greenspace within the center median would be reduced
  - Potential for conflicts with cyclists and people using the space for leisure recreation
- *Proposed University Avenue Median Restrictions*
  - Would increase u-turning traffic at LeMarchant Street and Robie Street
  - Reduced access for general traffic and Dalhousie service vehicles resulting in longer, less direct trips

EAST CONNECTION

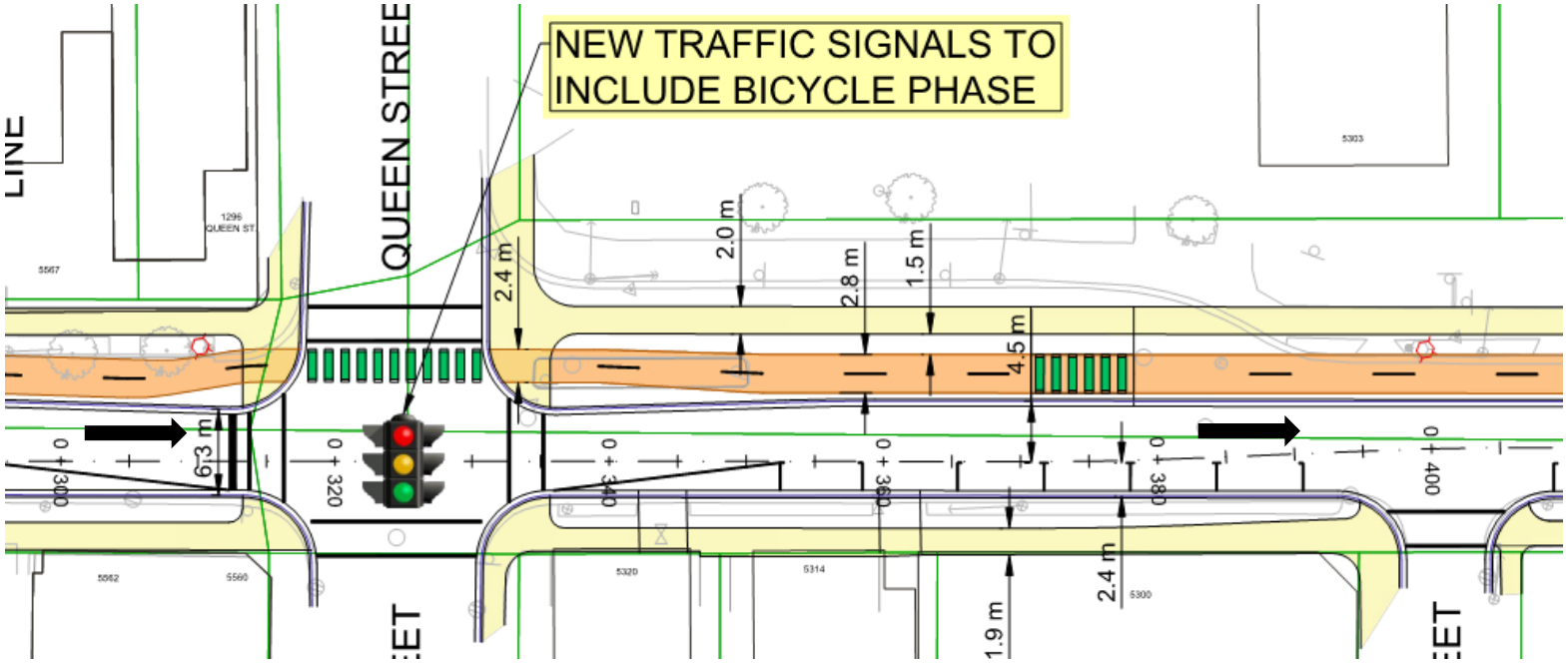


- 3 route options considered
- 10 concepts evaluated
- The only viable AAA concept was shared during Phase 2 public engagement (2022)

East Connection Recommended Concept

Morris Street Concept 1A Overview

- 1.8m sidewalks widened to 2.0m where space permits
- 3.0m two-way raised bikeway on north side
- Conversion to one-way eastbound for motor vehicle traffic
- All existing and planned Transit routes would likely be moved off Morris Street
- Up to 4 of 55 trees would be removed and replaced
- Parking retained on south side with a net loss of 5 spaces
- No stopping on north side except for approx. 6 spaces near South Park Street
- Cost estimate with 35% contingency: $5.1 million



Morris Street Two-way Raised Bikeway and One-way Traffic

Benefits of Recommended Concept 1A

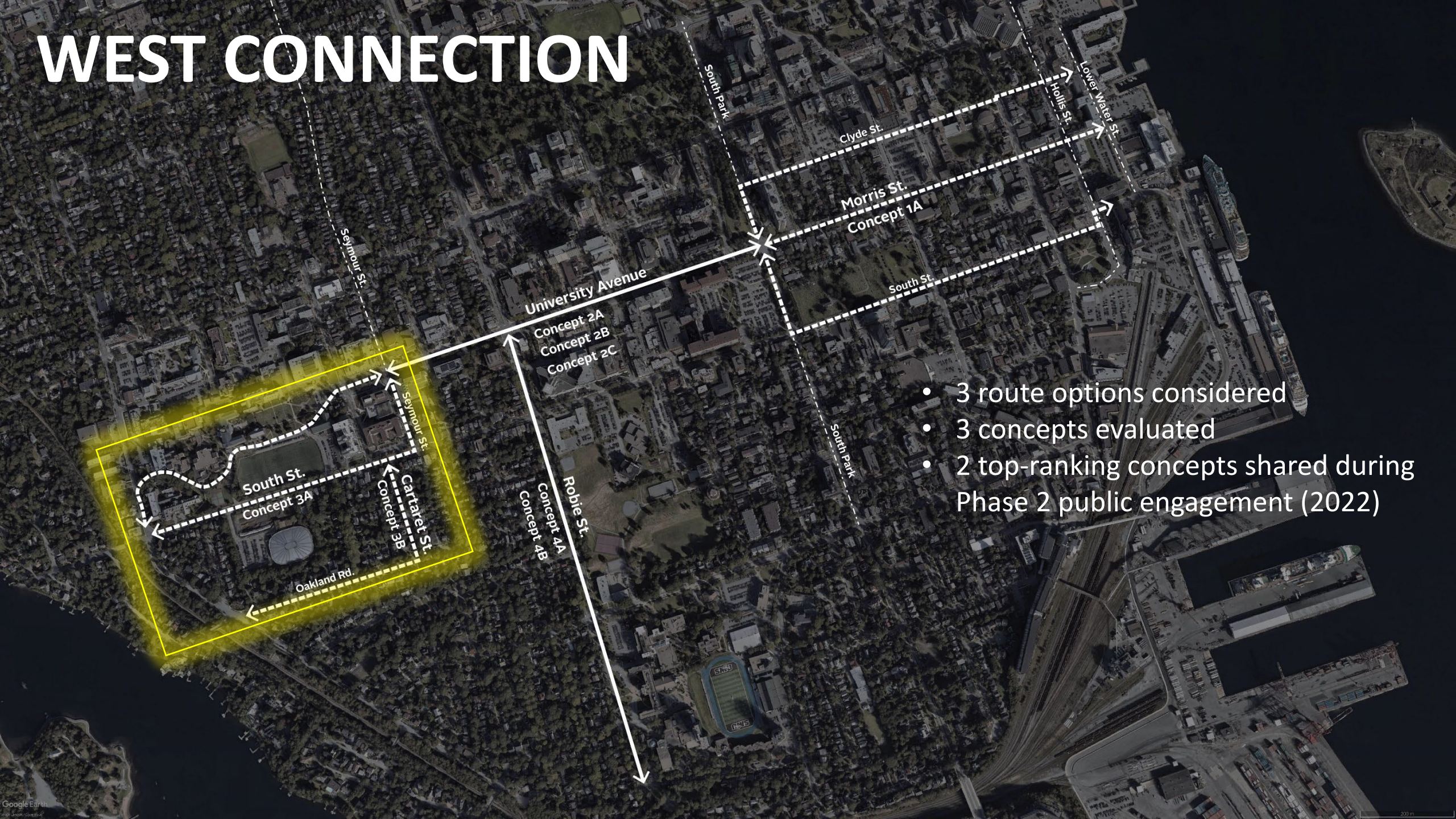
- Achieves a direct and continuous (with University Avenue) bicycle route with average grades of 5% or less
- Bicycle-vehicle conflicts with the two-way bikeway are reduced with conversion to one-way vehicle traffic
- A wide treed and grass buffer separates the bikeway from the sidewalk
- Removal of the right turn channel at Queen Street shortens the pedestrian crossing distance and reallocates space to the pedestrian realm and off-street bikeway
- Maintains existing location of south side curb to minimize impacts to mature trees
- Most on-street parking and three loading zones are maintained

Morris Street Two-way Raised Bikeway and One-way Traffic

Key Implications of Recommended Concept 1A

- *Impacts to Transit Service*
  - Halifax Transit routes in the area would be re-examined with public consultation to determine routing changes
  - Significant changes to local Transit network would be likely, with possible impacts to broader transit network
  - All transit service on Morris Street would likely be removed
- *Impacts to Truck Routes*
  - An alternative truck route to replace Morris Street as a westbound secondary daytime truck route required
  - Inglis Street (currently a daytime truck route) is the recommended alternative outbound truck route
- *Impacts to Traffic Capacity and Network*
  - One-way eastbound Morris Street would be a significant change to the vehicular street network
  - Would result in diversion of traffic to adjacent streets
  - One-way eastbound on Morris Street is acceptable for Halifax Fire and EHS
  - Traffic analyses concluded there is sufficient capacity along alternate routes to allow for Morris Street conversion

WEST CONNECTION

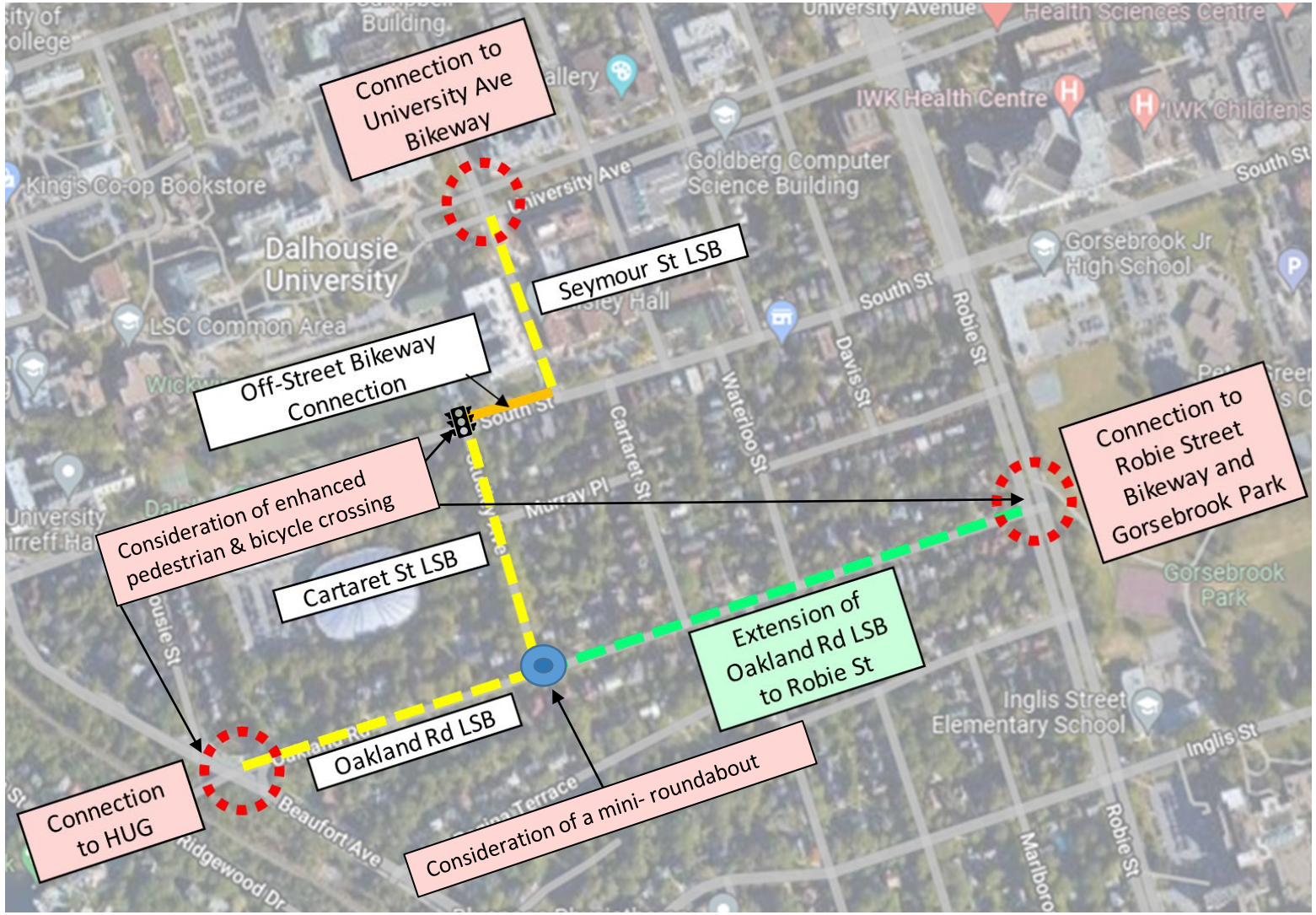


- 3 route options considered
- 3 concepts evaluated
- 2 top-ranking concepts shared during Phase 2 public engagement (2022)

West Connection Recommended Concept

Concept 3A Overview

- Local Street Bikeway (shared lanes) on Seymour Street, Cartaret Street, and Oakland Road
- Short section of protected two-way bikeway on South Street to connect Seymour Street to Cartaret Street
- Wayfinding and pavement markings to identify the route
- Traffic calming measures would be considered during preliminary design
- Additional crossing treatments to prioritize people walking and cycling would be considered
- Cost estimate with 35% contingency: $1.2 million



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Cartaret Street and Oakland Road Local Street Bikeway

Benefits of Recommended Concept 3B

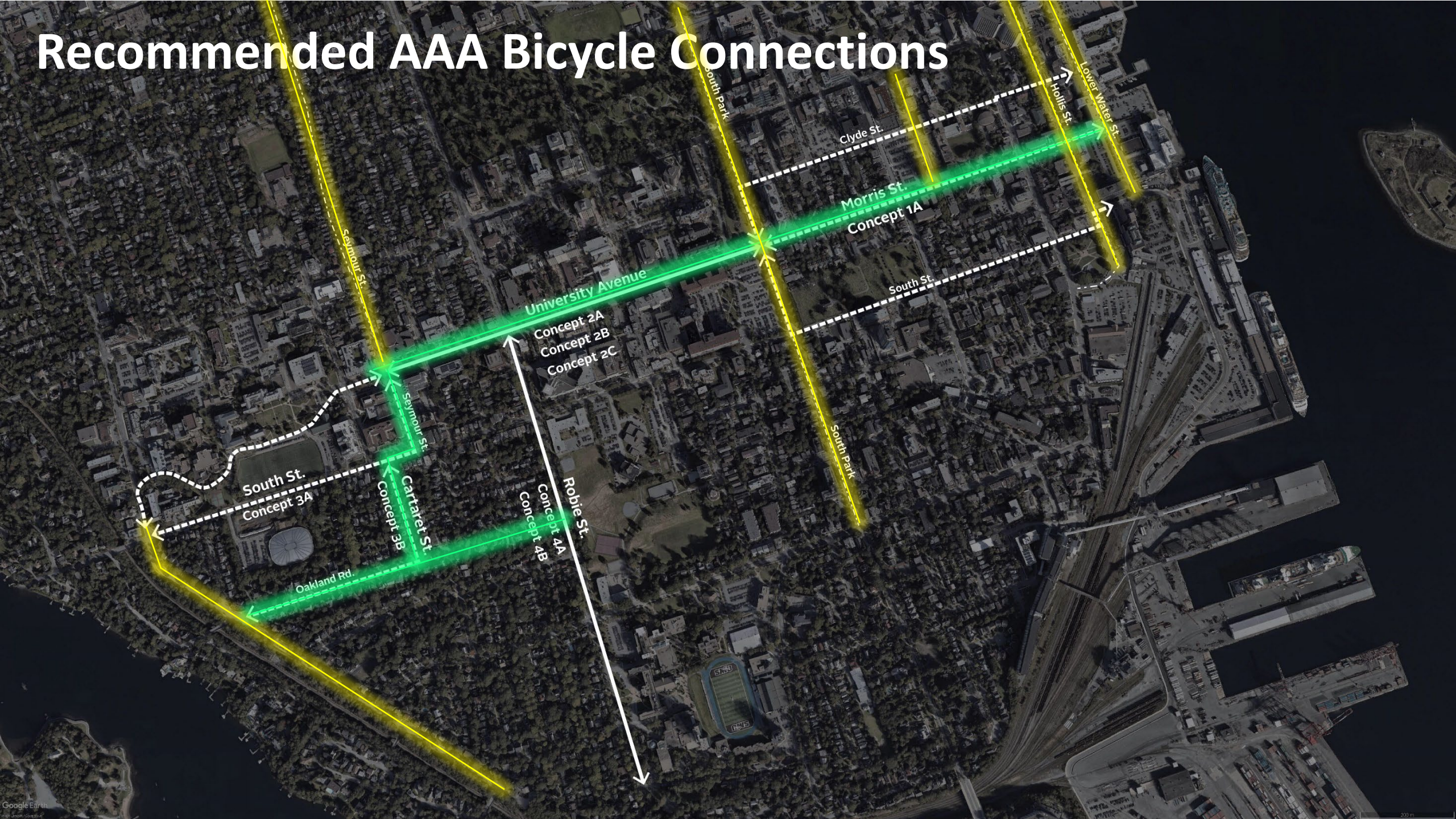
- AAA bicycle route connecting to the existing Halifax Urban Greenway would be achieved with minimal impacts to trees, transit service, vehicle traffic, and on-street parking
- Grades along the route are favourable for cycling and traffic volumes are low
- Traffic calming measures are already in place on Oakland Road
- Extending the proposed Oakland Road Local Street Bikeway to Robie Street would connect to the planned cycling facility on Robie Street and the planned gateway entrance to Gorsebrook Park at Robie Street/Oakland Road

Cartaret Street and Oakland Road Local Street Bikeway

Key Implications of Recommended Concept 3B

- *Bicycle Level of Service*
  - The route does not provide direct access to DalPlex and other Dalhousie campus destinations
  - Would be less direct for cyclists arriving from/travelling to the north (compared to a facility on South Street)
- *Other*
  - No impacts to trees or traffic capacity are expected
  - Existing South Street bus stop at Cartaret Street would be relocated to the south
  - Minimal, if any, impacts to parking expected

Recommended AAA Bicycle Connections



Implementation

- Pending TSC and Regional Council approval, recommended options would proceed to preliminary and detailed design
- Addition of proposed bicycle infrastructure would be integrated with planned recapitalization of University Avenue/Morris Street corridor
- Construction on University Avenue/Morris Street would be completed in phases over 2-3 years
- Target to complete construction: 2028

Questions/Discussion

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Thank you