



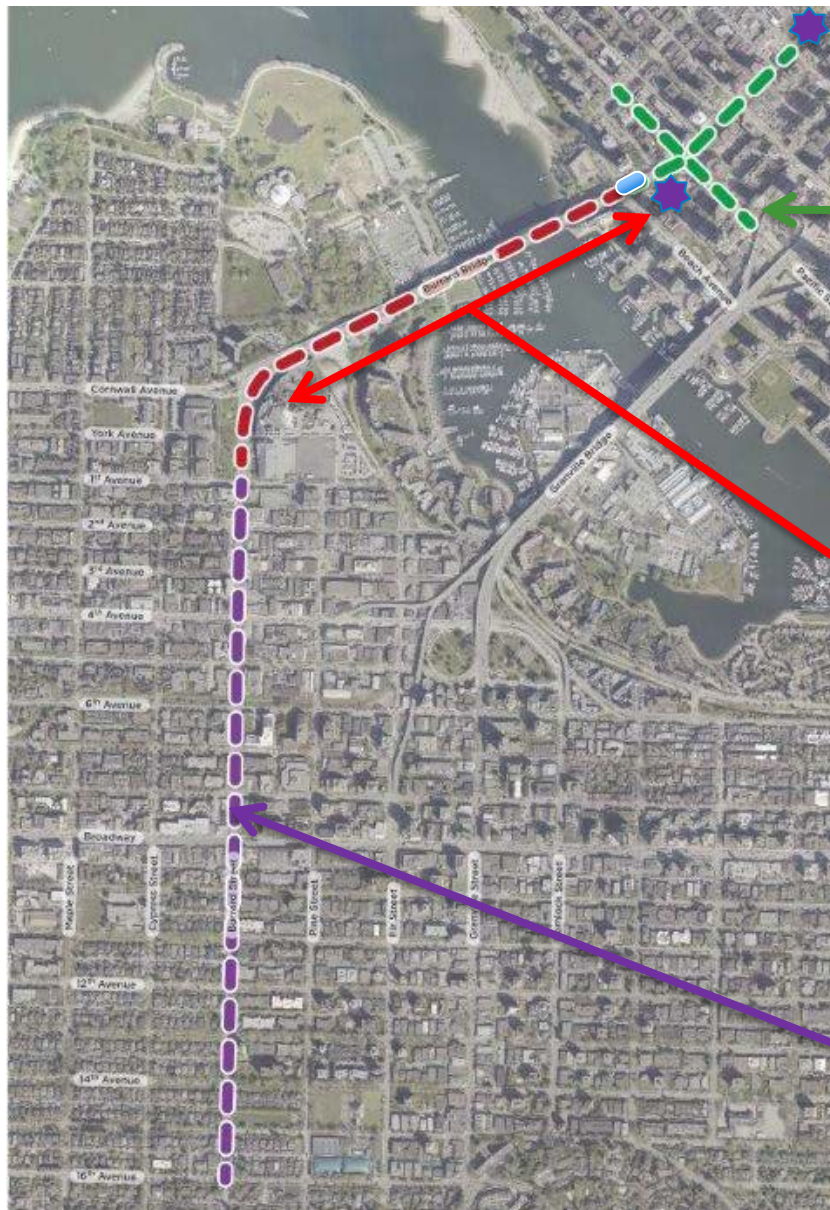
Burrard Bridge Rehabilitation and North Intersection Project

Burrard Bridge Tender Award

February 24, 2016

Policy and Strategic Priorities Committee

Project Overview – Overall Scope



North Intersection Project

- Safety improvements
- Active transportation connections
- Storm sewer ☆
- Water main ☆

Burrard Bridge Contract

- Bridge widening
- Bridge rehabilitation
- Means prevention fences
- Heritage style pedestrian lighting

Coordinated works ☆

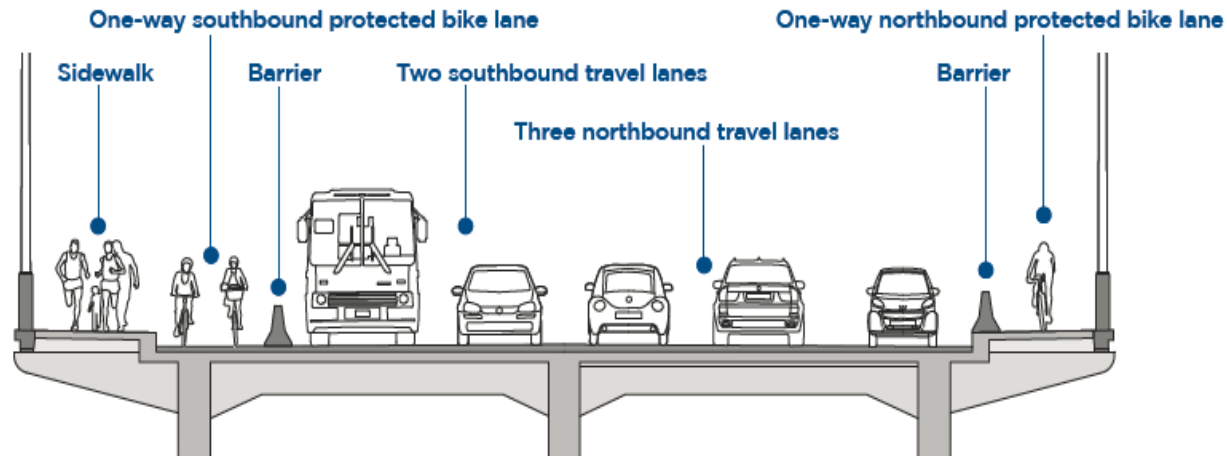
- Sewer separation
- Water main reconstruction
- Street reconstruction

Scope items recommended for Council approval:

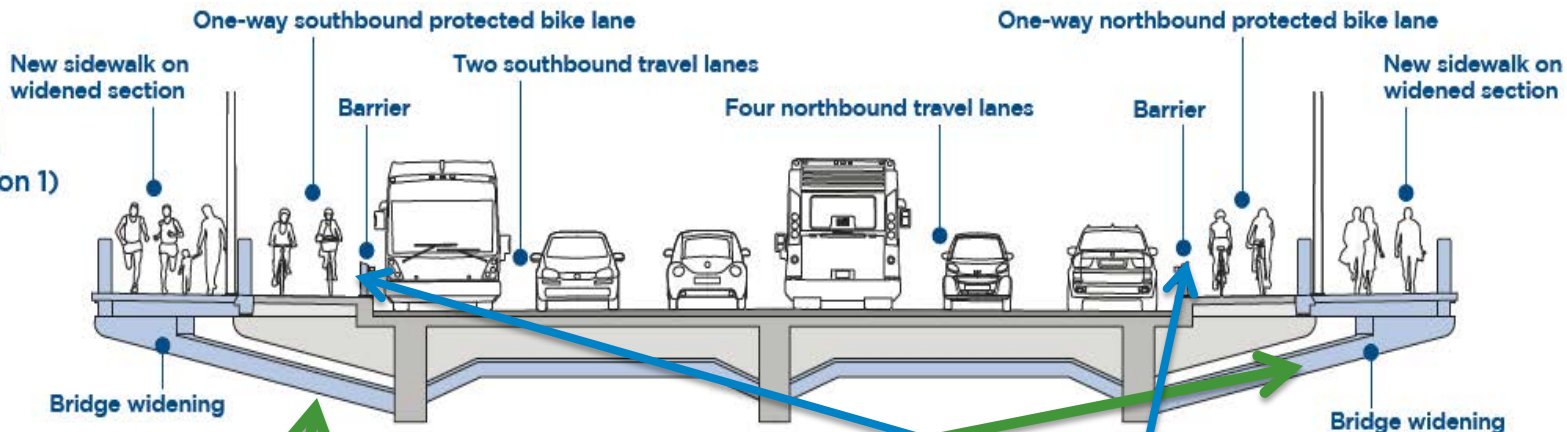
- North end widening
- Concrete fence replacement
- Street lighting & electrical replacement
- Sidewalk replacement
- Vehicle containment barriers (architectural concrete)
- Means prevention fences
- Heritage style pedestrian lighting

Bridge Widening at North End

Existing



Proposed (Existing as Section 1)



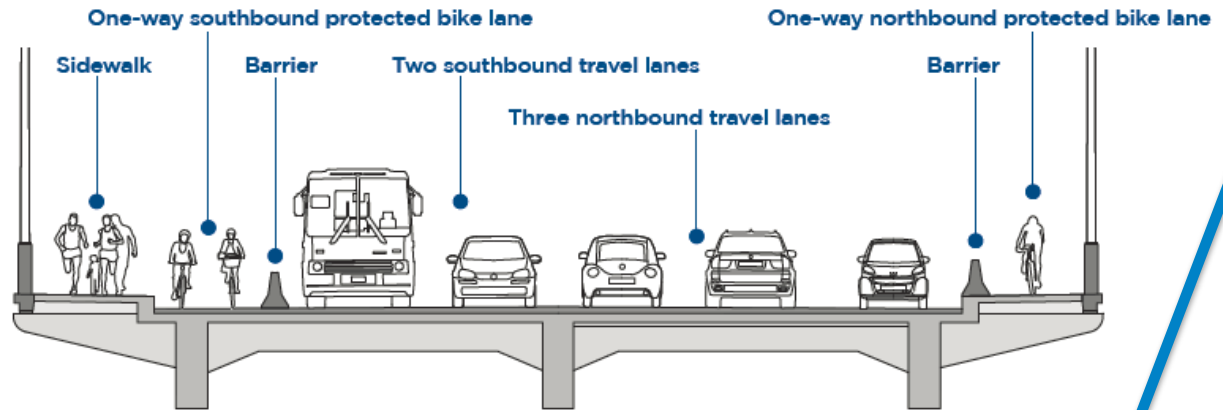
Cantilever new sidewalks

Install architectural concrete vehicle barriers

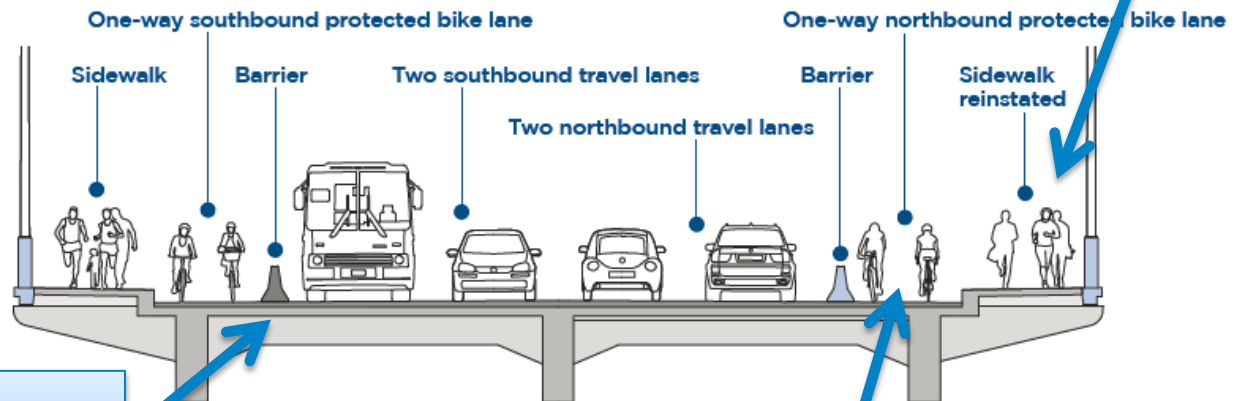
Main Span of Bridge – revised cross section

Reinstate pedestrians on east sidewalk

Existing



Proposed



Install architectural concrete vehicle barriers

Reallocate curb lane to cyclists

Posting and Evaluation of ITT

- ITT was posted on BC Bid and City of Vancouver website.
- ITT resulted in proposals from 4 prequalified vendors.
- After evaluation, Graham Infrastructure LP was identified as the tenderer who submitted the lowest-priced, compliant tender.
- Bid Committee approved Graham Infrastructure LP as the successful proponent.
- Report to Council for final approval on February 24, 2016.

Tenderer	Tender Price	Compliance
Graham Infrastructure LP	\$19,375,677.00	Compliant
Giffels Westpro Constructors Inc.	\$25,425,377.25	Compliant
Jacob Bros. Construction Inc.	\$25,745,888.00	Compliant
Peter Kiewit Infrastructure Co.	\$27,306,930.60	Compliant

Note: tender pricing includes provisional items.

Graham Infrastructure LP has the following key strengths:

1. Graham Infrastructure LP, a Canadian company headquartered out of Calgary, has been in business since 1929.
2. Graham Infrastructure LP has \$2B in annual revenues and over 1,300 employees.
3. Graham Infrastructure LP has completed several infrastructure projects for the City in the past, including works on Burrard Street Bridge.


Construction traffic management includes:

- Encourage use of Granville Bridge as alternative
- Coordinate bridge contractor works with City works
- Provide 3 vehicle lanes, 1 sidewalk, 2 bike lanes on bridge
- Coordinate development-related construction
- Accommodate major special events over the bridge
- Maintain pedestrian access to homes and businesses

Overall Construction Schedule – Burrard North

Milestone	Date
City starts road/utility construction west side of Burrard	Feb 29, 2016
Bridge contractor starts west side bridge construction	May 2, 2016
Trenchless sewer contractor starts on Burrard North	May 2, 2016
Bridge contractor switches to east side of bridge	Jan 3, 2017
City switches to road work on east side of Burrard North	Jan 3, 2017
Contractor completes bridge construction	July 28, 2017
City completes road/utility construction	July 28, 2017
City completes landscaping (trees)	Fall 2017

Council requested that staff continue engagement on the following items:

- Means prevention fencing
- Accessibility A white arrow with a black outline pointing downwards and to the right, positioned between the 'Accessibility' and 'Local lane access' items.
- Local lane access to/from Pacific (Hornby to Howe)
- Construction impacts in 1300 Block Burrard

Issue:

- Means prevention fencing added to the project scope
- Concern from stakeholders regarding design, heritage and other impacts

Process: included a series of 4 workshops with:

- Vancouver Heritage Commission
- Vancouver Heritage Society
- Vancouver Heritage Foundation
- Urban Design Panel
- Film Industry
- Active Transportation Policy Council
- BC Crisis Centre
- Vancouver Coastal Health

Outcome:

- Stakeholders supported a steel picket fence treatment as the best overall design solution
- Picket style fence design was modified to better fit with the heritage bridge design
- Project scope now includes heritage style pedestrian lighting to mitigate the impact of the means prevention fence on heritage values
- Means prevention fence designed to minimize impact on the north Brazier Towers

Project Scope – Means Prevention Fences



Issue:

- Council heard concerns about how accessibility is to be accommodated in the bridge and intersection improvements

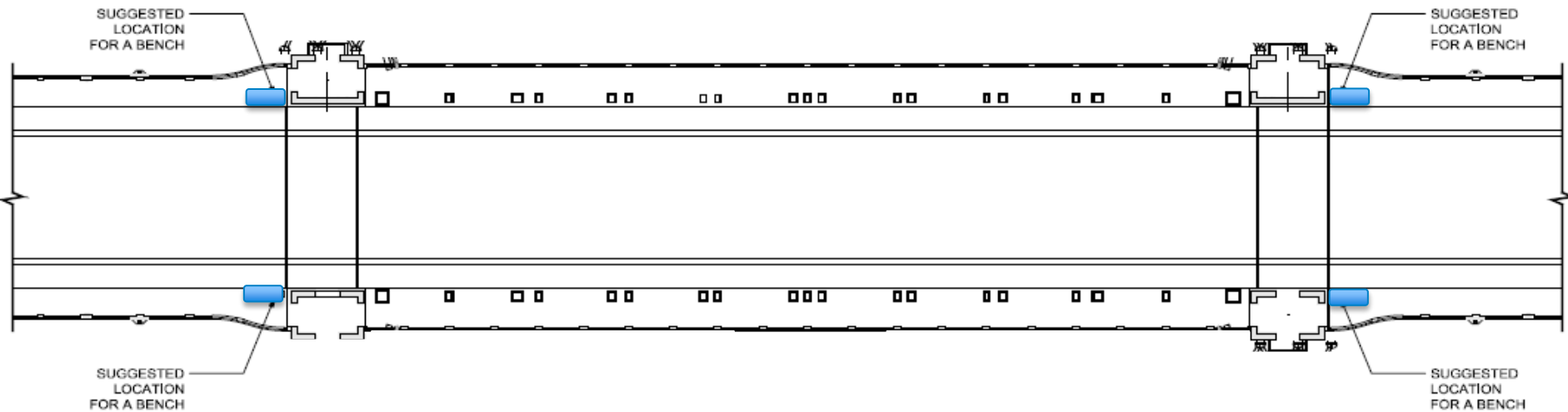
Process: included 2 meetings with representatives from:

- Persons with Disabilities Advisory Committee
- Seniors' Advisory Committee
- Accessibility consultants

Outcome:

- Provide additional places to rest (benches)
- Provide cues for visually impaired at 90 degree turns
- Improve the separation between walking and cycling
- Clarify the City's accessible traffic signal designs
- Improve intersection legibility for visually-impaired

Accessibility – additional opportunities for rest



Issue:

- Shown as “closed” at Pacific between Hornby and Howe in the engagement process
- Concern from residents about reduced access
- Concern about short-cutting through east-west lane

Process:

- Met with strata representatives
- Proposed one-way out northbound (for safety & operations)
- Letter sent to all building residents and owners advising of the recommended actions

Outcome:

- Lane not closed, provide “northbound only” access to Pacific
- Install speed humps and diverter to reduce short-cutting and speed in lane

Lane South of Pacific – Recommended Measures



Issue:

- Concern about construction-related impacts to parking/loading in 1300 block of Burrard

Process:

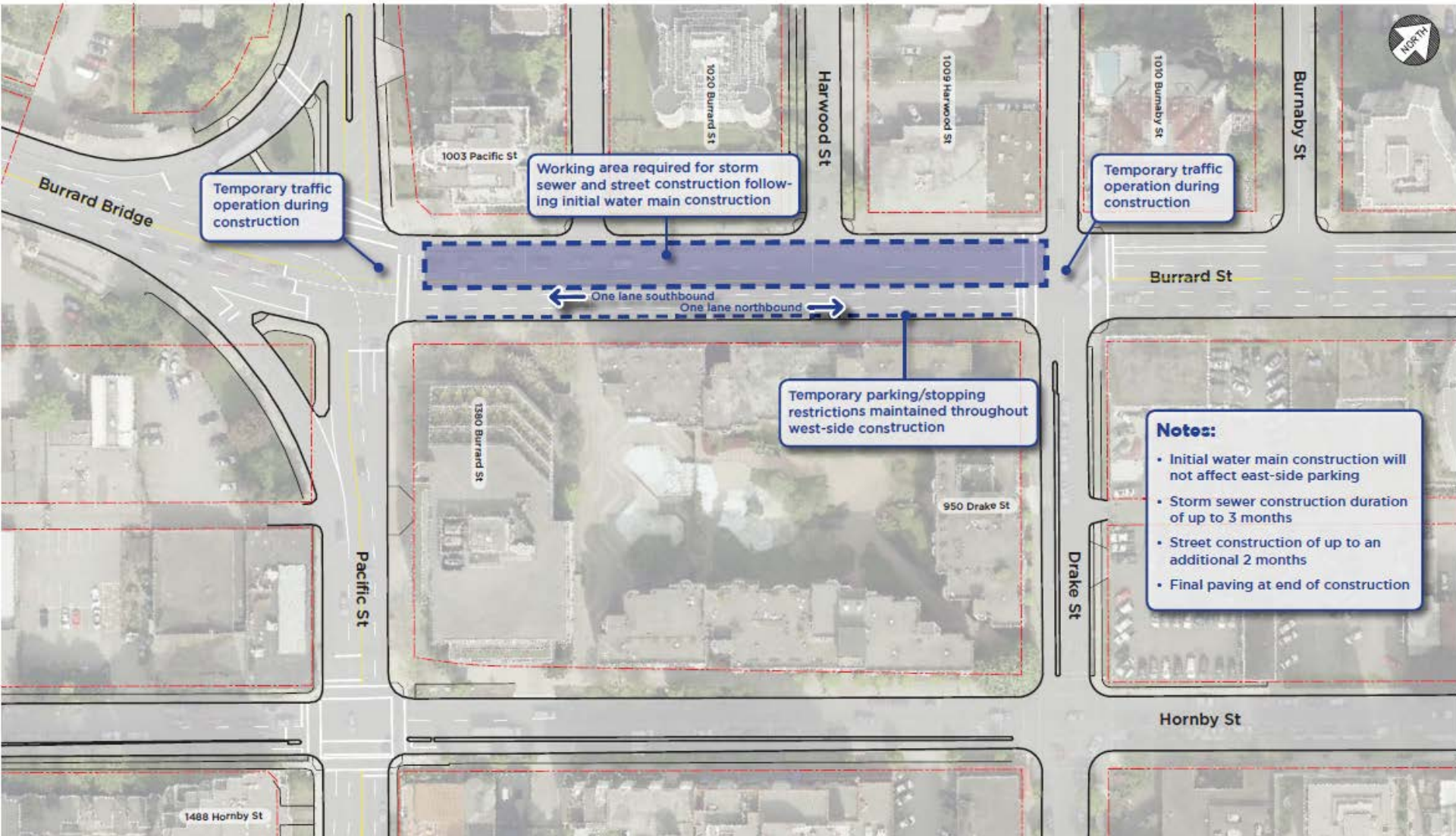
- Met with the directly affected businesses
- Provided a letter explaining the construction impacts, construction schedule and mitigation measures

Outcome:

- Support alternate loading on private site (from Hornby)
- Provide temporary loading zone on Drake
- Consider temporary parking/loading on Pacific
- Identified parking on other sites for Contractor and City staff

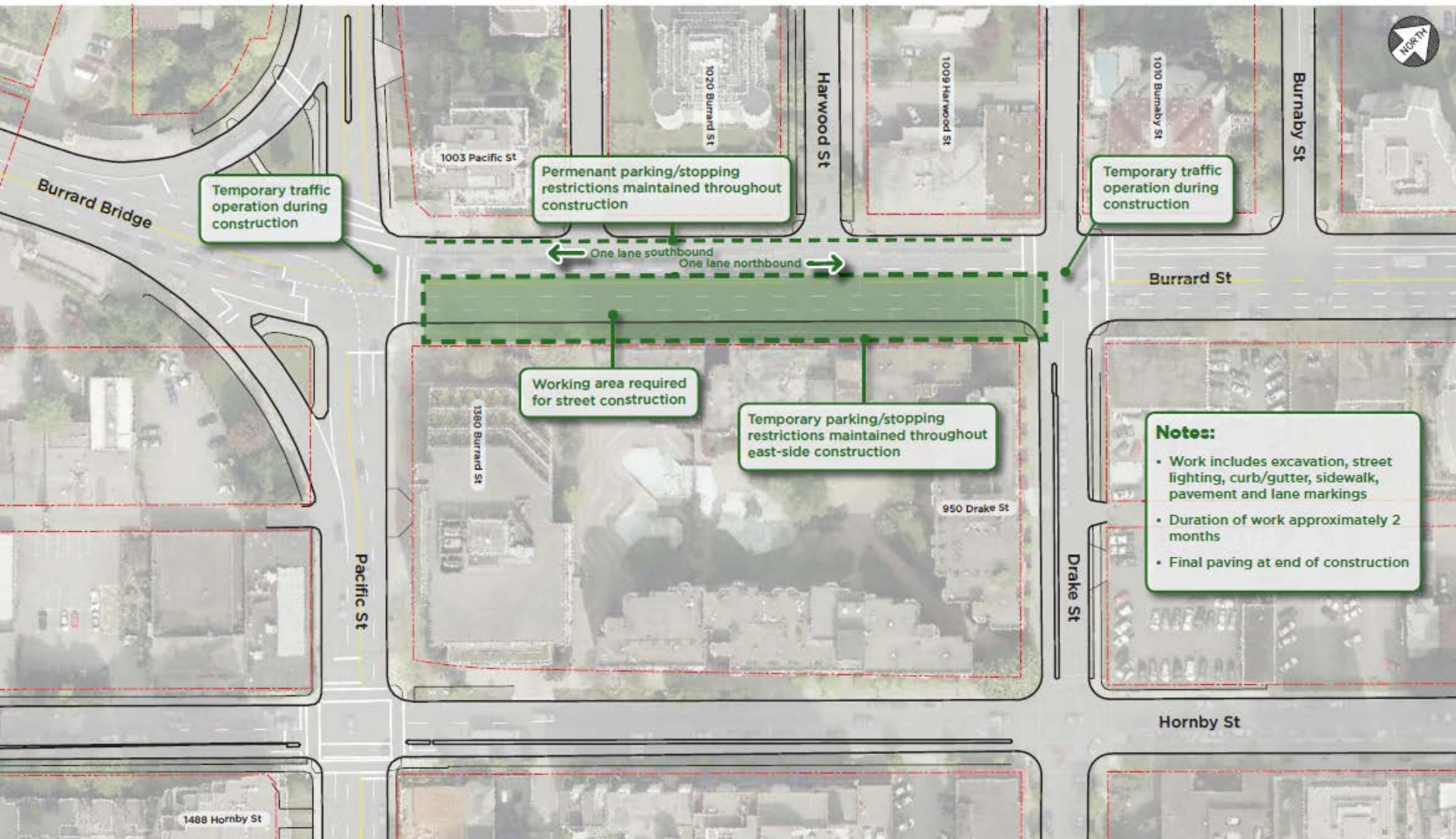
1300 Burrard Business Impacts

① Burrard Street - Pacific To Drake Summary of Construction Activity - West Side of Street



1300 Burrard Business Impacts

② Burrard Street - Pacific To Drake Summary of Construction Activity - East Side of Street



1300 Burrard Business Impacts

③ Burrard Street - Pacific To Drake Alternate Loading and Parking Locations during Construction

