



MEMO

DATE: July 7, 2017
PROJECT NO: 6171-02
PROJECT: **Johnson Street Gateway**
SUBJECT: **Transportation Review V04**

TO: Crosstown Properties

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REVIEWED BY: Jason Potter, PTP

1. INTRODUCTION

Reliance Properties is proposing the development of the Johnson Street Gateway. The subject site is located to the south of the new Johnson Street Bridge, on the downtown side of the Victoria Inner Harbour. Johnson Street will border the site's north edge; Wharf Street borders the east edge of the site. Reeson Park is located to the south of the site.

The development will comprise of 121 residential units and approximately 22,500 square feet of commercial space at ground-level. The commercial space is envisioned to include restaurant and retail tenants. The site plan as of June 27, 2017 is provided in **Exhibit 1.1**.

The development plan includes 127 bicycle parking spaces and 51 vehicle parking spaces which will be accessed from Wharf Street at the southern end of the site next to Reeson Park. The proposed location of the site access is along the site's only frontage that can service vehicles and is located as far from the adjacent Johnson Street and Wharf Street intersection as possible.

The City of Victoria (City) is currently implementing its long term bike network. The long term bike network includes a two-way protected bike lane on the west side of Wharf Street fronting the development site which will be built to AAA (All Ages and Abilities) guidelines. As of the date of this memo, the City intends on consulting on the design concept in the summer/fall of 2017 with construction during the fall of 2018.

Reliance retained Bunt & Associates to complete a transportation review for the Johnson Street development project which is presented herein. The primary purpose of this memo is to review site

access for loading vehicles that recognizes and incorporates City plans for the AAA cycling network adjacent to the site on Wharf Street.

2. DEVELOPMENT CONTEXT

The site is located on the west side of downtown Victoria, fronting the Inner Harbour. The site is extremely accessible by foot, bicycle and transit. The majority of trips to/from the site are expected to be completed by these transportation modes. A bus stop on Wharf Street is located immediately south of the site in front of Reeson Park.

The City is currently replacing the Johnson Street Bridge. The new bridge will be located north of the existing bridge and is anticipated to be operational by March 2018. A plaza is envisioned for the space between the proposed development and the new Johnson Street Bridge. The plaza highlights the importance of pedestrian and cycling connectivity along the edges of the development site.

A conceptual design of an AAA bike route on Wharf Street was completed in 2016 as part of the long term bike network planning process. Although there are minimal formal guidelines on AAA bike routes, one description which is used is “AAA bike routes should be safe, comfortable and fun for people aged 8 to 80 of all cycling abilities”. The conceptual design includes a two-way protected bike lane on the west side of Wharf Street from Belleville Street to Yates Street. The two-way bike lane is 3.2 metres wide for the majority of its length. The bike route that fronts the proposed development will connect to the City’s cycling network on Johnson Street, over the bridge to the Galloping Goose regional trail and into the City’s ongoing proposed downtown AAA cycling route grid.

The City is also implementing the David Foster Harbour Pathway which will extend over five kilometres from Rock Bay to Ogden Point along the Inner Harbour. As part of the proposed development, the developer will be constructing the pathway segment fronting the development property.

3. SITE DESIGN - LOADING

3.1 Loading Vehicles

Various loading configurations for a SU9 design vehicle and garbage/ recycling recovery vehicles were tested. Initially the inner courtyard area was tested for loading vehicle turnaround however it quickly became apparent that loading activity in this area would dominate the space and would not allow it to be the pedestrian place it was intended to be. Likewise attempts to turn loading vehicles and garbage/ recycling recovery vehicles around on the parkade access ramp proved impossible given the grade differentials of the ramp and required locations of the heritage buildings. Attempts to create a turnaround area at the top of the ramp were deemed unfavorable due to height restrictions and the consequence of having loading vehicles backing into pedestrian areas.

The proposed on-street (on Wharf Street) loading location is a product of not being able to find an on-site loading option for this site. This location is also preferred as loading vehicles do not need to cross the cycling route or pedestrian crosswalk/ plaza areas and the site's anticipated modest loading activity will be separated from regular vehicle vehicular access. The on-street loading arrangement is similar to Victoria Regent Hotel's loading arrangement which is approximately 90 m south of the Johnson Street Bridge Gateway site, also on Wharf Street.

3.2 Fire Truck Access

A fire truck would have access to the loading space located on Wharf Street and the parkade ramp, however both of these locations are beyond the required 15m distance from the site's main building entrance. To achieve a 15m distance from the building entrance a fire truck could use the channelized right turn lane at the Wharf Street and Johnson Street intersection and be within 15m of the building entrance. This is illustrated in **Exhibit 3.1**.

Discussion regarding this corner of the Wharf Street and Johnson Street intersection is provided in Section 4, where a normalized corner (no channelized right turn lane) option is presented. With a normalized right turn movement a fire truck could use the corner's curb let down to access the Plaza area. This emergency fire truck access arrangement is shown in **Exhibit 3.2**. This area of the Plaza would need to be clear of potential impediments.

4. PROPOSED WHARF STREET CONCEPTUAL DESIGN

Bunt worked with Reliance Properties and the DIALOG (project architect) to develop a conceptual design for Wharf Street between Yates Street and Johnson Street. The design goals were to provide a sidewalk fronting the site with a minimum width of 4.0 metres, a two-way protected bike lane adjacent to the sidewalk and due to on-site restrictions and a loading space suitable for vehicles up to 9.1 metres long.

Bunt developed two conceptual designs based on these design goals which are shown in **Exhibit 4.1** and **4.2**. Exhibit 4.1 illustrates a channelized eastbound right turn from the Johnson Street Bridge to Wharf Street, as is the current configuration. The alternative design (Exhibit 4.2) includes a normalized (not channelized) eastbound right turn from the Johnson Street Bridge to Wharf Street.

The normalized right-turn option has the benefit of potential lower vehicle speeds, it prioritizes pedestrians and presents a simplified bike route crossing. The normalized right-turn option also uses less land, thus providing the opportunity to create a larger and higher quality pedestrian realm.

If the channelized right-turn is preferred by the City, Bunt recommends the City thoroughly review opportunities to improve safety where the channelized right-turn meets the crosswalk and bike route using traffic control and/or speed control devices.

Both designs feature:

- A sidewalk with a minimum width of 4.0 metres;
- A protected bike lane with a minimum width of 3.2 metres, widening towards Johnson Street to facilitate the northbound left, through and right-turn movements for cyclists. It is recommended that the bike lane be raised (to sidewalk height) from the bus stop in front of Reeson Park through the site access and the on-street loading area (this will create better visual lines between the cyclists on the route and motorists or those crossing the cycling route from the loading area without making cyclist navigate various vertical grade changes);
- A raised crosswalk between the site and Reeson Park (across the parkade access);
- A loading space able to accommodate a 9.1 metre long single-unit truck along with a 0.8 metre concrete median to accommodate loading activities; and,
- Maintain the southbound Wharf Street bus stop located south of the site, in front of Reeson Park.

5. PARKING

There are no parking requirements for the development site in the City's Zoning Bylaw. The development proposes to supply 51 vehicle parking spaces within the parkade structure including 4 accessible spaces.

The development proposes to supply 127 Class 1 bicycle parking spaces divided into three bicycle storage rooms in the underground parkade. Class 2 bicycle parking spaces for will be provided at the entrances to the site.

6. SUMMARY

We believe the proposed site plan and conceptual configuration of adjacent Wharf Street adequately prioritizes the pedestrian and cyclist realms at this important location. The site plan prioritizes both the future AAA cycling route and David Foster Harbour Pathway integration.

Alterations to the Johnson Street and Wharf Street intersection and in particular the normalization of the eastbound Johnson Street to southbound Wharf Street right turn corner (as shown in Exhibit 4.2) should be considered from a traffic operation perspective by the City during their ongoing cycling route design process. The normalized right turn configuration will impact vehicle operations for this movement as will the channelized configuration where right turning vehicle speeds would need to be considered as they approach and cross the Wharf Street AAA cycling route.

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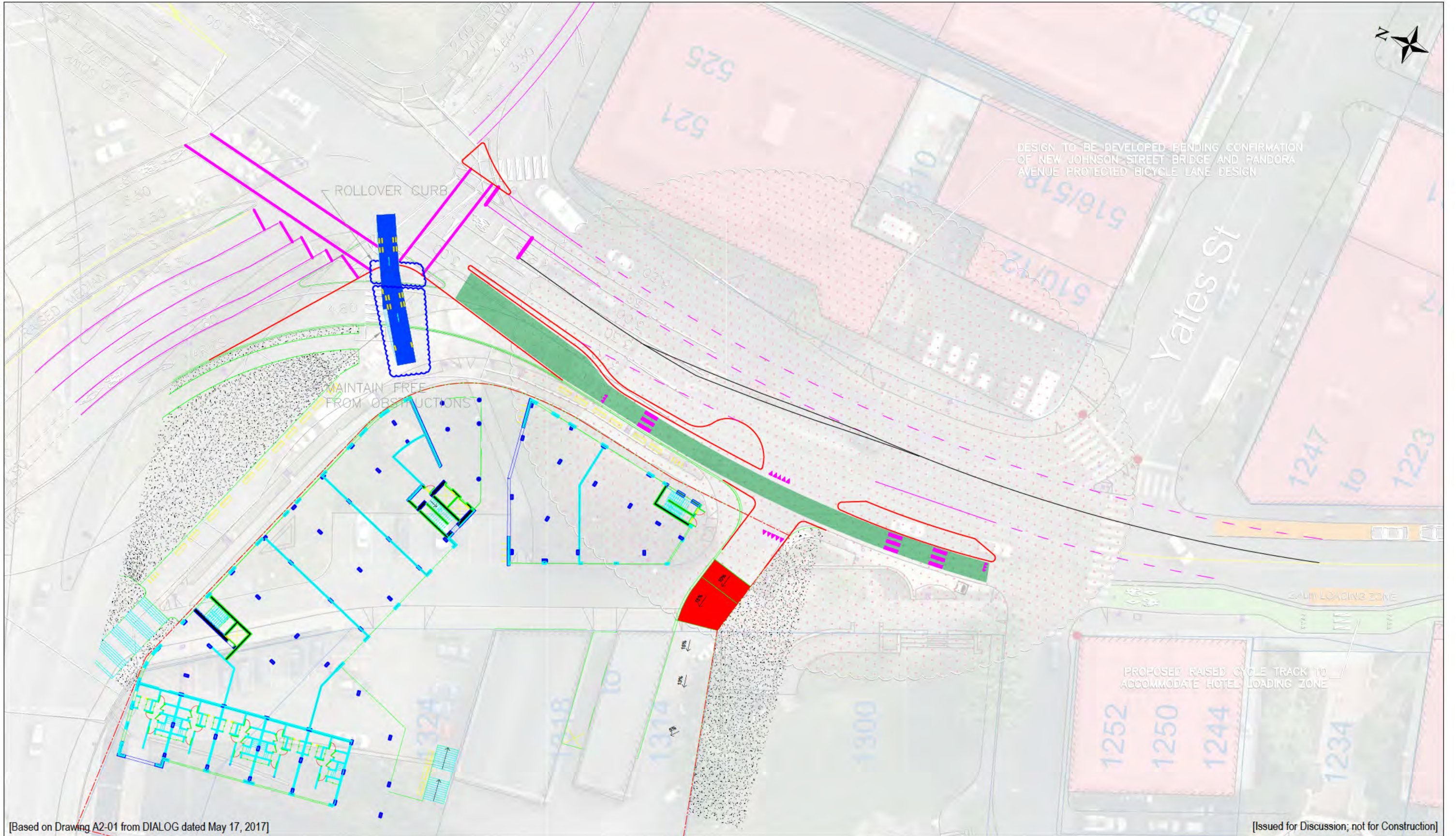


Exhibit 3.2
Wharf Street Conceptual Design:
Normalized Johnson St Right-turn - Firetruck Access

Johnson Street Gateway
6171.02 May 2017 Scale Custom on Ledger Prepared by SB



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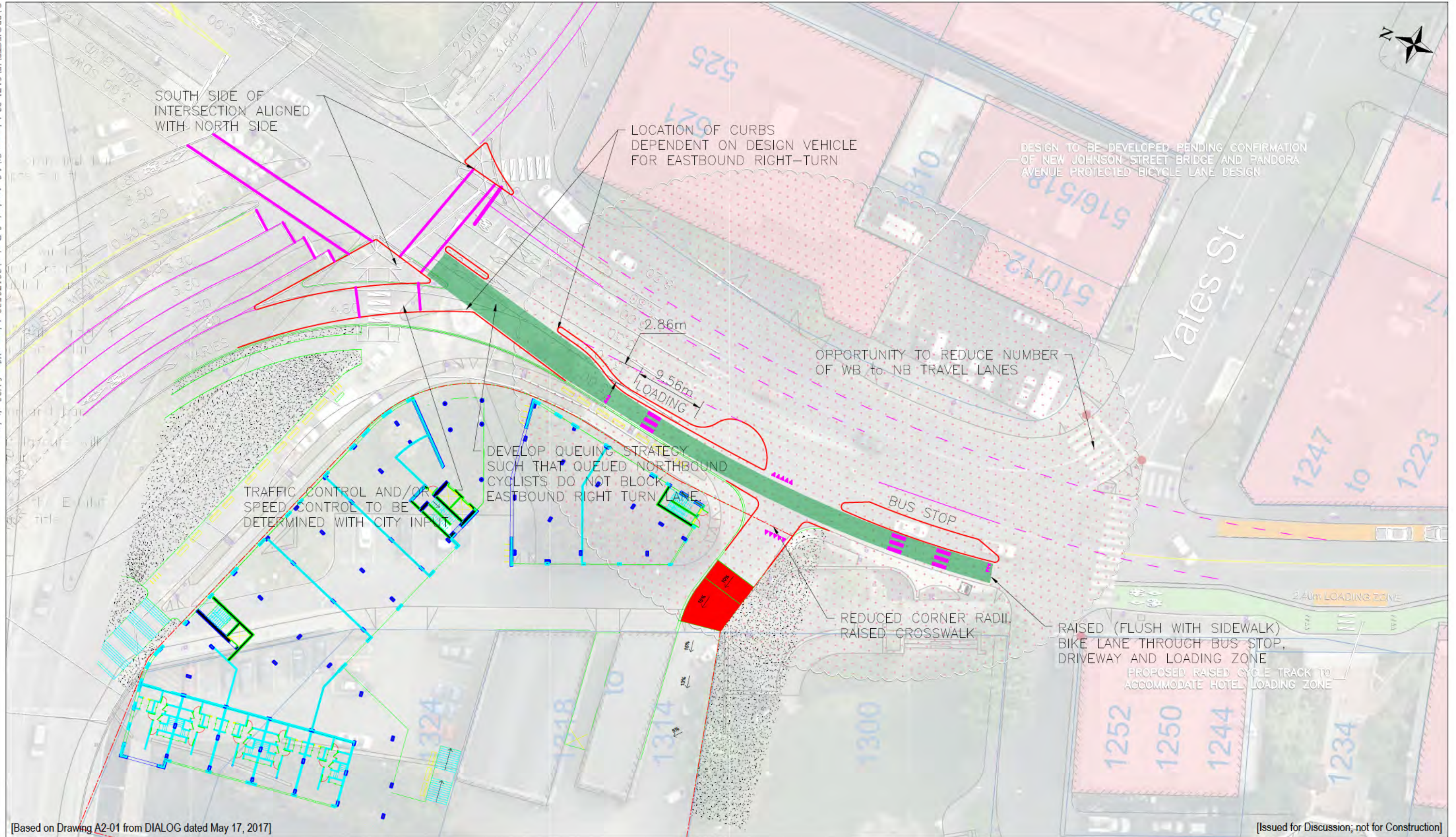


Exhibit 4.1
Wharf Street Conceptual Design:
Channelized Johnson St Right-turn

Johnson Street Gateway
6171.02 May 2017 Scale Custom on Ledger Prepared by SB



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