



## General Purposes Committee

Anderson Room, City Hall  
6911 No. 3 Road

Monday, April 16, 2018  
4:00 p.m.

Pg. #      ITEM

### MINUTES

- GP-3**      *Motion to adopt the **minutes** of the meetings of the General Purposes Committee held on April 3, 2018.*



### ENGINEERING AND PUBLIC WORKS DIVISION

1.      **PHOENIX NET LOFT PRESERVATION**  
(File Ref. No. 06-2052-25-BHSY1) (REDMS No. 5698772 v. 11)

**GP-18**

**See Page GP-18 for full report**

*Designated Speaker: Jim Young*

### STAFF RECOMMENDATION

*That staff be authorized to proceed with Phoenix Net Loft Preservation construction as described in the staff report titled "Phoenix Net Loft Preservation," dated March 29, 2018, from the Director, Engineering.*



PLANNING AND DEVELOPMENT DIVISION

2. **RIVER ROAD – PROPOSED IMPLEMENTATION OF SELECTED ROAD SAFETY MEASURES**

(File Ref. No. 10-6450-09-01) (REDMS No. 5783853 v. 6)

GP-30

See Page GP-30 for full report

*Designated Speaker: Victor Wei*

STAFF RECOMMENDATION

*That the proposed road safety measures on River Road between No. 6 Road and Westminster Highway as outlined in the staff report titled “River Road – Proposed Implementation of Selected Road Safety Measures”, dated April 3, 2018 from the Director, Transportation be endorsed for implementation prior to Fall 2018.*

☐

ADJOURNMENT

☐



## General Purposes Committee

Date: Tuesday, April 3, 2018

Place: Anderson Room  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Chak Au  
Councillor Derek Dang  
Councillor Carol Day  
Councillor Ken Johnston  
Councillor Alexa Loo (entered at 4:03 p.m.)  
Councillor Bill McNulty  
Councillor Linda McPhail  
Councillor Harold Steves

Call to Order: The Chair called the meeting to order at 4:02 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the General Purposes Committee held on March 19, 2018, be adopted as circulated.*

**CARRIED**

*Cllr. Loo entered the meeting (4:03 p.m.).*

### COMMUNITY SERVICES DIVISION

- 1. PROPOSED AMENDMENT TO PUBLIC HEALTH PROTECTION BYLAW NO. 6989 REGARDING SMOKING AND VAPOUR PRODUCT USE**

(File Ref. No. 12-8060-20-009830) (REDMS No. 5548809 v. 26)

## General Purposes Committee

### Tuesday, April 3, 2018

---

Serena Lusk, General Manager, Community Services, commented that the proposed amendments would introduce three key changes: (i) ban smoking in public parks and school grounds, which would include public beaches, the dyke, public plazas, playgrounds and sports fields, community centre grounds, and parking lots, (ii) extend the no smoking buffer from the current six metres to nine metres, and (iii) expand the definition where smoking is currently prohibited to include vaping and cannabis use.

In response to queries from Committee, Ms. Lusk advised that (i) a program to renew signage in parks is underway and “no smoking” signs, will be updated to be more clear, (ii) new “no smoking” sign designs will be circulated to Council, (iii) public engagement and education will be focused on and staff are not recommending targeted enforcement at this time, (iv) the amended bylaw would be enforced through the existing contract with Vancouver Coastal Health, (v) further information regarding the collection of fines as a result of enforcement could be provided, (vi) print materials will be available at schools and community centres, as well as through community organizations, and (vii) staff will continue to monitor the public education initiatives and will come back to Council to request any additional services should the need arise.

It was moved and seconded

- (1) *That Public Health Protection Bylaw No. 6989, Amendment Bylaw No. 9830, be introduced and given first, second, and third readings, as detailed in the staff report titled “Proposed Amendment to Public Health Protection Bylaw No. 6989 Regarding Smoking and Vapour Product Use,” dated March 16, 2018, from the General Manager, Community Services;*
- (2) *That \$25,000 be approved from the Council Community Initiatives Account for the creation and production of public educational materials to inform the public and organizations on the changes to Richmond’s smoking prohibitions, as detailed in the staff report titled “Proposed Amendment to Public Health Protection Bylaw No. 6989 Regarding Smoking and Vapour Product Use,” dated March 16, 2018, from the General Manager, Community Services;*

## General Purposes Committee

Tuesday, April 3, 2018

---

- (3) *That the 5 Year Financial Plan (2018-2022) be amended accordingly to reflect the foregoing recommendations, as detailed in the staff report titled "Proposed Amendment to Public Health Protection Bylaw No. 6989 Regarding Smoking and Vapour Product Use," dated March 16, 2018, from the General Manager, Community Services;*
- (4) *That all affiliated community organizations that use public parks and school grounds be informed by letter of the foregoing recommendations, as detailed in the staff report titled "Proposed Amendment to Public Health Protection Bylaw No. 6989 Regarding Smoking and Vapour Product Use," dated March 16, 2018, from the General Manager, Community Services; and*
- (5) *That Richmond School District No. 38 be informed by letter of the foregoing recommendations, as detailed in the staff report titled "Proposed Amendment to Public Health Protection Bylaw No. 6989 Regarding Smoking and Vapour Product Use," dated March 16, 2018, from the General Manager, Community Services.*

**CARRIED**

## COMMUNITY SAFETY DIVISION

### 2. **SISTER CITY ADVISORY COMMITTEE 2017 YEAR IN REVIEW** (File Ref. No. 01-0100-30-SCIT1-01) (REDMS No. 5766452 v. 2)

In response to question from Committee, Mike Romas, Program Manager and staff liaison to the Sister City Advisory Committee (SCAC), advised that (i) the SCAC has elected a new chair, (ii) the Sister/Friendship City anniversary milestone commemoration budget is under review, (iii) mutual recognition is received for the annual city-to-city recognition exchange, (iv) Sister City Pierrefonds in Quebec has advised that the Sister City relationship with Richmond will be recognized in some capacity as part of their library expansion project, and (v) staff will bring forward a report outlining the SCAC's 2019-2022 activities.

It was moved and seconded

*That the staff report titled "Sister City Advisory Committee 2017 Year in Review", dated March 5, 2018, from the Intergovernmental Relations and Protocol Unit, be received for information.*

**CARRIED**

## PLANNING AND DEVELOPMENT DIVISION

3.

**General Purposes Committee**  
**Tuesday, April 3, 2018**

---

3. **APPLICATION BY ONNI DEVELOPMENT (IMPERIAL LANDING) CORP. FOR A ZONING TEXT AMENDMENT AT 4020, 4080, 4100, 4180, 4280 AND 4300 BAYVIEW STREET (FORMERLY 4300 BAYVIEW STREET) TO AMEND THE “STEVESTON MARITIME MIXED USE (ZMU12)” ZONE AND THE “STEVESTON MARITIME (ZC21)” ZONE**

(File Ref. No. RZ 13-633927, 12-8060-20-009062/9063) (REDMS No. 5770905 v. 2)

Wayne Craig, Director, Development, distributed and reviewed a detailed site map of the subject site with current and proposed permitted uses (Page 16 of the Supplemental Materials titled “Supplemental GP – ONNI – Attachment 5 (Part 1 of 3)”). Mr. Craig highlighted that the Applicant has agreed to increase the community amenity contribution to \$5.5 million, and further information on the operation of the proposed hotel may be found in correspondence by the Applicant dated March 7, 2018.

In response to questions from Committee, Mr. Craig advised that (i) a legal agreement for required onsite supervision for the proposed hotel could be pursued, (ii) the potential for a permanent apartment on the hotel site can be examined, however this would need to be specified prior to Public Hearing, (iii) the zoning would allow for Maritime Mixed Use (MMU) and the hotel would need to be operated out of buildings 5 and 6, (iv) the Applicant has advised that hotel guest registration packages would include contact information should any issues arise, and (v) the RCMP and Community Bylaws would respond to any noise complaints or disturbances.

Correspondence from residents regarding the proposed hotel was distributed to Committee (attached to and forming part of these minutes as Schedule 1.)

Chris Evans, Executive Vice-President, Onni Group, provided further clarification on the onsite supervision for the proposed hotel as noted in their letter dated March 7, 2018 (Attachment 2 of the staff report). He noted that a dedicated property caretaker is staffed 24-hours a day, Monday to Saturday for the existing rental properties on the subject site and remarked that this role could be expanded to include the proposed hotel operations; however, he also noted that the proposed hotel would provide guests with an emergency phone line, which would be available at all times. Mr. Evans then stated that a covenant or legal notice on title is not desirable as this could hinder the flexibility of the business.



**General Purposes Committee**  
**Tuesday, April 3, 2018**

---

In response to queries from Committee, Mr. Evans commented that (i) additional details regarding the operation of the hotel will need to be finalized, including the possibility of a dedicated office for check-ins, (ii) every available avenue will be utilized to advertise available bookings in the proposed hotel, including the use of online hotel booking services, (iii) Onni believes that a market for a small hotel operation in Steveston exists, and (iv) Onni is unable to agree to any legal restrictions on title requiring continuous onsite supervision, however additional correspondence detailing onsite supervision could be provided.

It was moved and seconded

- (1) *That the additional information identified in the staff report dated March 12, 2018, titled "Application by Onni Development (Imperial Landing) Corp. for a Zoning Text Amendment at 4020, 4080, 4100, 4180, 4280 and 4300 Bayview Street (formerly 4300 Bayview Street) to Amend the "Steveston Maritime Mixed Use (ZMU12)" Zone and the "Steveston Maritime (ZC21)" Zone" from the Director of Development be received for information; and*
- (2) *That the Application by Onni Development (Imperial Landing) Corp. for a Zoning Text Amendment at 4020, 4080, 4100, 4180, 4280 and 4300 Bayview Street (formerly 4300 Bayview Street) to amend the "Steveston Maritime Mixed Use (ZMU12)" Zone and the "Steveston Maritime (ZC21)" Zone be considered at the May 22, 2018 Public Hearing.*

The question on the motion was not called as the following **amendment motions** were introduced:

It was moved and seconded

*That the \$5.5 million amenity contribution be directed to be used for the Steveston Community Centre as provided in Rezoning Consideration #6.*

**CARRIED**

It was moved and seconded

*That the Applicant is to agree to provide onsite supervision for the hotel in the form acceptable by Council.*

The question on the amendment motion was not called as an **amendment** to the main amendment motion was introduced:

It was moved and seconded

*That the provision to provide onsite supervision for the hotel be in the form of a registered covenant.*

The question on the amendment motion was not called as discussion took place on the appropriate form of assurance for the provision of an onsite supervisor for the hotel.

## General Purposes Committee

### Tuesday, April 3, 2018

---

The question on the amendment motion was then called and it was **CARRIED** with Cllrs. Johnston, Loo, McNulty, and McPhail opposed.

The question on the main amendment motion, which now reads,

*That the Applicant is to agree to provide onsite supervision for the hotel in the form of a registered covenant.*

was not called as discussion further took place on various forms of assurance for the provision of an onsite supervisor for the hotel. As a result, the following **referral motion** was introduced:

*That the form of assurance for the provision of an onsite supervisor for the hotel be referred to staff to identify options and report back as soon as possible.*

**CARRIED**

Materials regarding the proposal for a moorage from the BC Packers proposed development plan were distributed (attached to and forming part of these minutes as Schedule 2).

The question on the main motion, as amended, which now reads,

- (1) *That the additional information identified in the staff report dated March 12, 2018, titled "Application by Onni Development (Imperial Landing) Corp. for a Zoning Text Amendment at 4020, 4080, 4100, 4180, 4280 and 4300 Bayview Street (formerly 4300 Bayview Street) to Amend the "Steveston Maritime Mixed Use (ZMU12)" Zone and the "Steveston Maritime (ZC21)" Zone" from the Director of Development be received for information; and*
- (2) *That the Application by Onni Development (Imperial Landing) Corp. for a Zoning Text Amendment at 4020, 4080, 4100, 4180, 4280 and 4300 Bayview Street (formerly 4300 Bayview Street) to amend the "Steveston Maritime Mixed Use (ZMU12)" Zone and the "Steveston Maritime (ZC21)" Zone be considered at the May 22, 2018 Public Hearing provided that the \$5.5 million amenity contribution be directed to be used for the Steveston Community Centre as provided in Rezoning Consideration #6.*

was then called and it was **CARRIED** with Cllrs. Day and Steves opposed.

## ADJOURNMENT

It was moved and seconded

*That the meeting adjourn (5:09 p.m.).*

**CARRIED**



**General Purposes Committee**  
**Tuesday, April 3, 2018**

---

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Tuesday, April 3, 2018.

---

Mayor Malcolm D. Brodie  
Chair

---

Amanda Welby  
Legislative Services Coordinator

TO COUNCIL TEAM

I SENT THIS QUESTION OUT TO RICHMOND CITIZENS AND RECEIVED INTERESTING RESPONSES I  
THOUGHT I WOULD SHARE WITH YOU

THANKS CAROL DAY

---

Hi There

Happy Easter Monday .

FYI Tomorrow at the General purposes Committee 4:00 pm Council will decide if they should send the newest **Onni Proposal** to Public Hearing.

Onni wants to build a 32 unit Hotel in the existing building. the key issue is

---

" Staff have had numerous discussions with the applicant, but ONNI has not agreed to enter into a legal agreement to secure business operation details regarding :

- \* An Assurance that the hotel would be constructed and operated: and
  - \* Requiring on- site hotel staff during business hours as indicated in the letter.
- 

Many people have trust issues with the ONNI group and my concern is that without clear and legally binding agreements then the purpose of the hotel could change and that worries me.

What do you think ?

*Best regards,*

**Carol Day**  
Richmond City Councillor

---

## RESPONSES:

Hello Carol,

I attended a council meeting awhile ago (last fall?) when Chris Evans tried to convince council to approve Onni's latest proposal. Never in my years of attending public meetings have I been in a meeting where it felt that NO ONE in the room believed the project's proponent.

Richmond council should be very careful with Onni. Remember Mr. Evans' statement that the hotel would be run as an Airbnb - it sounded like the company will say and do anything to get what they want.

At that meeting, the woman sitting beside me said that she lives across the street from the development. She and her friend were very concerned that their neighbourhood would be ruined by a hotel. She also said that the Starbucks on the corner was supposed to pay into the building's condo reserve fund, but Onni forced the condo owners to forgo Starbucks' debt which was something like \$60,000.

Marion

---

Hello

I am assuming that the building is on the boardwalk in Steveston

Which building is this?

Sounds like it will be run like an AIRB&B...GHOST OWNER..NO FRONT DESK ETC.

Everything is done on line & the only people who actually visit the units would be the cleaning staff.

Thanks for the info  
Vicki

---

Hi Carol,

Happy Easter to you.

This is not an acceptable proposal:

1. The lack of on site staff 24-7 is going to be a deal breaker in this neighbourhood. Loud drunken parties late at night is the concern. Everyone in the neighbourhood is not going to keep the Onni phone number to call if that happens. They will call the police. Onni is shifting their cost for 24-7 staff to the city by having all of us pay for our police to do what Onni should be doing. Even then, response time to a problem situation is going to be much slower than it should be with on site staff.
2. This is not a B&B with 3 rooms. It is 32 rooms which is large enough for them to afford 24-7 staffing. If Onni is trying to maximize its profit then it's simply a matter of a small increase (under \$10) in the room rental rate.
3. One purpose of an agreement with Onni is to get rid of the empty buildings problem and make sure it doesn't come back. It was the hotel idea that sold the new zoning for the entire site as a solution to the problem. Without a written commitment to build the hotel, there is every possibility that buildings 5 and 6 will remain empty for several years. Onni can then come back and say a hotel isn't feasible and they want the buildings rezoned for general commercial. We will then be back to opposition from the Steveston merchants and the mess we have had.
4. It is the fact that Onni is not getting any commercial revenue from the entire site that gives the city a lever with Onni. It would be a serious mistake to leave any aspect of the rezoning up in the air and have it come back at a time when there is less incentive for Onni to cooperate.

John

---

Hello Kerry, Carol & Don

I share the sentiments. I don't believe or trust any assurances unless they are willing to put it in writing. City staff and elected officials have a fiduciary duty to Richmond residents first and foremost to hold Onni and any other party accountable and the minimum standard is by written agreement without loopholes.

End of story.

Ken

---

Hi,

Without a formal legally-binding agreement, ONNI is free to do as they wish.

The current ONNI conditions are:

- to amend the rezoning conditions so that the community amenity contribution is \$5.5 Million.
- on site staff during business hours and an emergency phone line available 24 hours a day. (Business hours are considered

Monday - Friday from 9AM - 5PM and Saturday/Sunday from 10AM - 4PM.)

- other services such as night staffing, drycleaning, laundry, restaurant services, room service or food delivery service. will be contracted out, or off-site thereby increasing local traffic issues.
- primary booking methods will be via online platforms or by telephone.

This is a condo operating as an Air B&B, and not a conventional hotel with staff & services. As such, it could be easily converted to condos in the future. The is minimal employment opportunities associated with ONNI's set of conditions (see attachment).

Happy Easter Monday .

D

---

yes ..... what Don said !!

---

I am sure you no my feelings about Onni's business practices. I urge you to be ensure that you have legally binding agreements for everything. Onni will take advantage pf any loopholes.

I have another concern about the hotel. The existing building contains only 16 rental units. Does Onni plan to convert the lower floor to rental units or is the plan to add two more floors on top of the existing building?

---

I believe Onni already ripped off the provincial government with money that was to be used for affordable housing and some how got away with it because of something in the fine print being missed. I would be very careful with this company.

---

They must commit in writing so they can be held to their promises.

Thanks for asking

Sandi

---

Agree with you completely. Don't have to learn the same lesson twice with this group. Best, Lisa

---

Carol,

I will not be able to make it. Will there be another opportunity to speak on this ?

Thanks for the heads up.

Jim

---

I am still away.  
If I were there I would support your concerns 100%.

---

Carol,

I absolutely agree with you. Onni is clearly not to be trusted, as proven by their deceptive development plan that started this whole mess in the first place. What can we do to help?  
J

---

Hi Councillor Day,

I think a legally binding agreement should be mandatory.

Overall I am not in favor of a waterfront hotel at all: How many hotels does Richmond need?

There are hotels in farmhouse mansions, hotels in single family homes and now short term rental hotels on the waterfront or a property that was zoned maritime before construction: As far as my opinion is concerned any change in zoning should only happen if the general public feels OMNI has done their due share towards public amenities, it should not be given to them otherwise.

Is this meeting open to the public and to speakers from the public?

Thanks, N

---

Hi Carol,

I've texted you the same:

1. This is NOT a hotel. It's a block of managed STRs. The precedent is troubling. I would hate for this to be the new hotel model in Richmond.
2. I would not proceed with anything with Onni without a legally binding agreement. They are shady and have difficulty with ethics.

That's my two cents!

Kelly

---

February 6, 2018

- 4 -

### Referral Response

#### *1. Sheet Piling Beside the Imperial Landing Pier*

#### **Sheet pile wall conceptual estimate: \$1.5M – \$2M**

Construction of a sheet pile wall along a portion of the north property line of the City-owned water covered Lot H could provide the potential for additional moorage space, provided the City receives approval from the Ministry for the use of their water lot to construct additional floating docks. Prior to 2002, as part of the former B.C. Packer's waterfront infrastructure, there were two floating docks (approximately 5m wide x 60m long) located along this stretch of Imperial Landing, supporting the moorage of fishing vessels for the canneries. These two finger docks were situated parallel to a concrete pier along the west side of the water lot (Attachment 1).

Through the years, both the age and decay of the timber structures, the erosion of the foreshore, and the sedimentation carried down the Fraser River took its toll on these structures. The floating docks and piles had to be removed, and concrete rip-rap was placed along this stretch of dike to minimize further erosion. Consequently, sediment has now accumulated to the point that moorage is no longer possible in this area, unless significant dredging is completed.

Based on comments from the November 27, 2017, PRCS Committee meeting, to recreate a moorage opportunity similar to what previously existed, a sheet pile wall constructed along a portion of Lot H (approximately 125 lineal metres) could provide the necessary stabilization of the foreshore (Attachment 2). This would allow dredging to be done as close to the dike as possible, with depths as deep as the secondary navigational channel, which is approximately -3.5 to -4.0 metres.

The recent sheet pile wall construction occurring at the Steveston Harbour Authority's operations serves as a guide to the estimated costs for the sheet pile wall, along with conceptual estimates provided by a Marine Engineering Consultant in 2012. The estimated costs range from \$10,000 to \$15,000 per lineal metre of sheet pile wall, depending on the size, material, and structural engineering of the wall required. Additional geotechnical, environmental, and marine structural engineering investigation would be required to confirm the size, layout, and type of wall for this location.

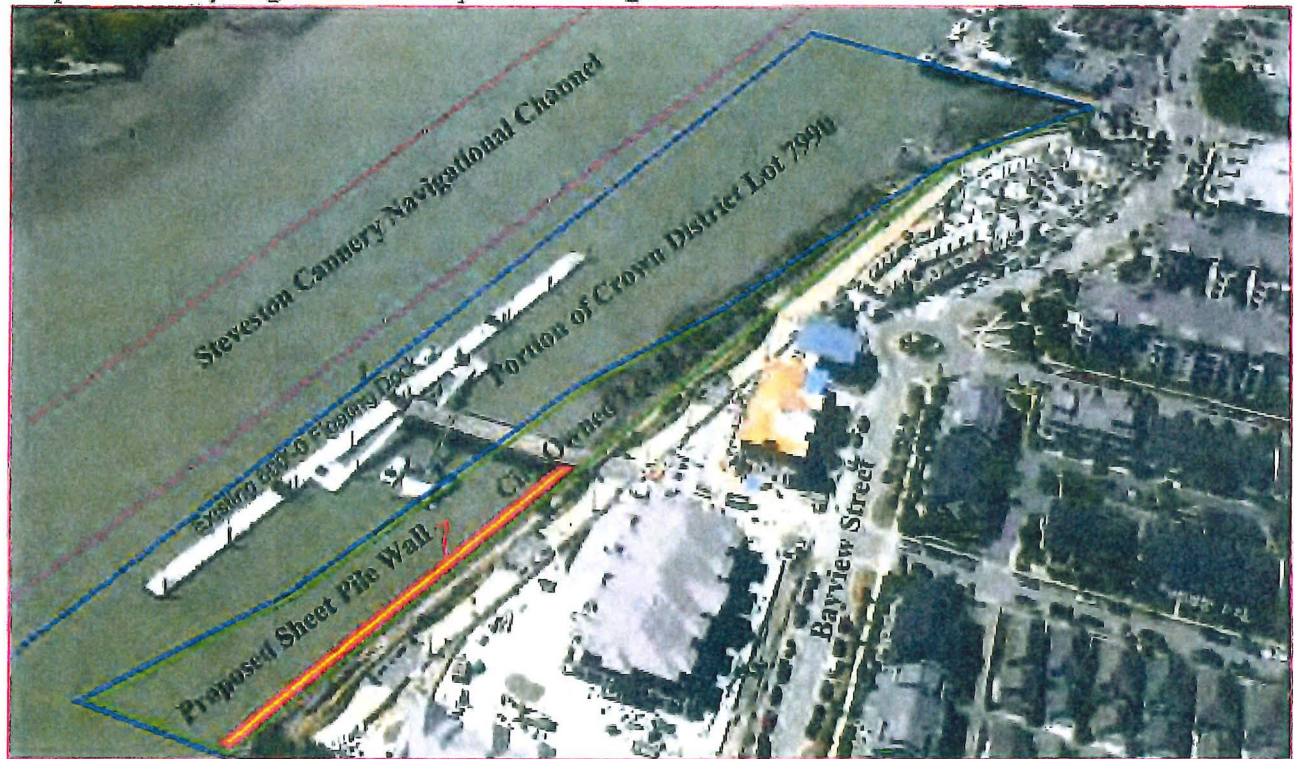
Should Council wish to consider reinstating what previously existed as shown in Attachment 1, this will require the reconstruction of the "finger docks," the piles to secure them, and dredging of the subject area.

Costs associated with the reconstruction of the finger docks and dredging operations are not included in this report. A comprehensive engineering, environmental, and permitting investigation are required to determine an order of magnitude costs for these items.

	Description	Cost
1	Sheet Piling Beside the Imperial Landing Pier.	\$1.5M to \$2M



Proposed sheet piling beside the Imperial Landing Pier





RESIDENTIAL CLUSTER -  
 SETBACK FROM POND +  
 RINTERS ELEGANT - CANNERY  
 STYLE ARCHITECTURE

PHOENIX POND  
 + OUTDOOR  
 EXHIBIT

GP - 16

HISTORIC NET LOFT  
 BLDG. RETAINED FOR  
 CONTINUED INDUSTRIAL  
 USE

EXISTING  
 HOUSING

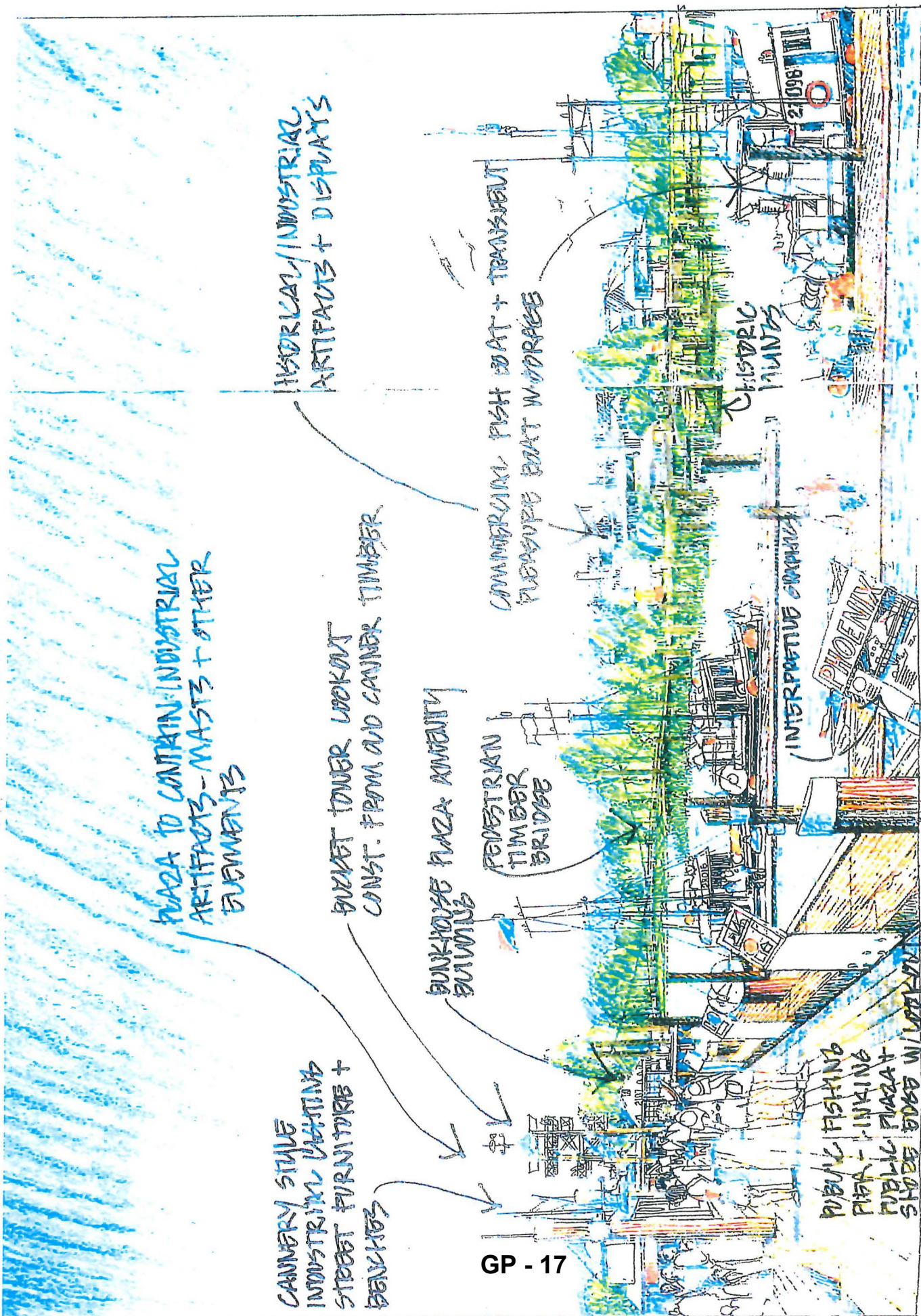
SHED  
 TANK

WORKING EXHIBIT -  
 FISH BOAT OR  
 HISTORIC  
 DISPLAY

PHOENIX MARSH SHORELINE  
 + FIELDS -  
 NATURAL  
 WALKWAY

BC Packers ~ The Steveston Properties





GP - 17

PROPOSED DEVELOPMENT PLAN

BC Packers



# City of Richmond

## Report to Committee

**To:** General Purposes Committee  
**From:** John Irving, P. Eng., MPA  
Director, Engineering  
**Re:** Phoenix Net Loft Preservation

**Date:** March 29, 2018  
**File:** 06-2052-25-  
BHSY1/Vol 01

### Staff Recommendation

That staff be authorized to proceed with Phoenix Net Loft Preservation construction as described in the report titled "Phoenix Net Loft Preservation," dated March 29, 2018, from the Director, Engineering.

John Irving, P. Eng., MPA  
Director, Engineering  
(604-276-4140)

Att: 5

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 



## Staff Report

### Origin

Council approved \$11.5M to complete Phoenix Net Loft Preservation as part of the 2018 Capital Program. Staff advised Council during the capital approval process that the details of the preservation work would be reported prior to proceeding with the work.

The purpose of this report is to provide Council the details associated with preservation of the Phoenix Net Loft and to seek authorization to proceed with construction to mitigate the ongoing risk of structure loss due to the advanced state of deterioration. Programming and building use options will be the subject of subsequent reports and capital requests.

This report supports Council's 2014-2018 Term Goal #2: A Vibrant, Active and Connected City:

*Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.*

2.4. *Vibrant arts, culture and heritage opportunities.*

This report supports Council's 2014-2018 Term Goal #6: Quality Infrastructure Networks:

*Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.*

6.1. *Safe and sustainable infrastructure.*

### Background

The heritage value of the Phoenix Net Loft is found in its historical association to the canning and fishing industries in Steveston. The Phoenix Cannery was built by Marshall English in 1882, and the Net Loft was constructed circa 1943, later than the original cannery buildings.

The Net Loft is one of the last surviving structures associated with the Phoenix Cannery. The use, repair and storage of fishing nets was an integral part of the fishing industry, and the Net Loft has aesthetic value as a good example of a structure constructed solely as a net mending and storage facility. Its massive size, large internal space, and wood piling foundation as a response to its location on the riverfront represent its use as a net loft. It operated as a net storage and repair facility until the early 2000's when the City acquired the building from BC Packers as part of the rezoning considerations.

The Phoenix Net Loft is located on a water lot leased from the province for a 30-year period, effective as of 2017.

## **Analysis**

### **Phoenix Net Loft Current Condition**

The Phoenix Net Loft is comprised of two floors with areas of approximately 10,300 ft<sup>2</sup> (lower floor) and 6,900 ft<sup>2</sup> (upper floor). This facility is currently used for artifact storage and is not open to the general public.

The decks attached and adjacent to the Phoenix Net Loft have deteriorated to a point where they have collapsed.

In 2017 staff completed a comprehensive Phoenix Net Loft building condition assessment and cost estimate with the assistance of specialist heritage architects, structural engineers and heritage contractors. This assessment confirmed the building condition to be in an advanced state of deterioration.

- Approximately 90% of the 110 piles supporting the structure are rotten and require replacement.
- Significant structural members including beams, floor joists and other structural elements have rotted and require replacement.
- The roof has completely deteriorated and requires replacement.

### **Phoenix Net Loft Preservation**

Staff worked with heritage restoration contractors to identify and explore several construction strategies to preserve the Phoenix Net Loft. Given the advanced state of deterioration, all reasonably available options are risky from a constructability perspective and present varying levels of worker and public safety risk. These options are:

- Option 1 - Leave the building in place, temporarily brace the structure and replace the rotten piles and associated rotted structural members by opening sections (holes) in the roof and floor systems.
- Option 2 - Remove the entire building system off the piles and temporarily locate on a barge (or land) while pile replacement is completed.
- Option 3 - Remove sections of the building structure in their entirety (i.e. removal of halves or thirds or at gridlines) and replace piles.
- Option 4 (recommended) - Completely deconstruct the building and store the salvaged materials on-site. The rotted piles would then be replaced followed by building reconstruction of the building in place, using as many of the original building materials as possible.



Option 4 (Recommended) is considered to be the best way to complete preservation of the Phoenix Net Loft for the following reasons:

- Moving the building in its entirety or in sections is extremely risky, expensive and complicated given the building is situated over water. Building moving specialists (Nickel Bros) were contacted and it was confirmed that the option to move the building is not a prudent course of action as it puts undue risk of causing structural failure during the moving process, it is very expensive and its location over water makes it complicated and risky to worker safety.
- Option 4 is the safest way to complete the work while Options 1, 2 and 3 represent the highest risk of structural collapse over water, and the associated worker safety exposure.
- Restoration of existing materials and prefabrication work can all be completed at ground level, at a safe location such as in the adjacent parking lot (Attachment 5).
- This option represents the least amount of risk of causing permanent damage during construction, the least amount of environmental impact and the least amount of temporary works that would have to be put in place.

#### Option 4 (Deconstruction/Reconstruction) Implementation Logistics

It is anticipated that the deconstruction/reconstruction process will take up to two years to complete following the contractor procurement process.

If approved, staff will request an Option 4 (Deconstruction/Reconstruction) construction implementation plan from the successful contractor following the construction tendering and award process.

Contractors bidding on the project will be required to deconstruct the Phoenix Net Loft and store salvaged materials on site for use during reconstruction. The successful bidder will be directed to store salvaged materials in the parking lot adjacent to the First Nations Bunkhouse (Attachment 5). This will impact special event layout and public parking availability. Alternate parking sites may have to be considered for Britannia's ongoing operations and during public events.

The deconstruction process will require water access with heavy construction equipment, extensive scaffolding and temporary platforms flanking the building.

As with other projects completed in the past at the Britannia site, staff will coordinate construction activities with public access throughout the entirety of the construction period. In particular, for major events such as the Maritime Festival for example, the contractor will be required to shutdown construction activities for the duration of the event and secure/clean the areas impacted prior to the opening.

*Workspace Area* (Attachment 5) – The parking lot adjacent to the First Nations Bunkhouse has been identified as the proposed workspace area. The contractor will use this space for storage of equipment as well as a laydown area to assess and refurbish (if necessary) building components (such as siding) removed during the deconstruction process. The laydown area will be secured with temporary fencing and there will project information and interpretive signage posted in key areas surrounding the site.

*Materials Salvage* - Throughout the process of deconstruction, each building component will be carefully removed and evaluated for reuse. While there is a substantial portion of the superstructure that shows a significant state of deterioration, it is anticipated that 40% to 70% of the existing building can be salvaged. Sections of the structure that are not deemed suitable for reuse, will be replaced with like materials that can be easily sourced from domestic providers and endorsed by the Steveston Historic Sites Building Committee prior to installation.

*Parking* – The parking lot adjacent to the First Nations Bunkhouse (Attachment 5) will be required for the contractor's work space area and for storage/refurbishment of salvaged materials. This will result in a loss of approximately 42 parking spaces for the approximate 2 year construction program.

Staff will review possibilities for alternate parking sites during the construction period including:

- Replace parallel parking with angle parking on Westwater Drive;
- Removal of street parking restrictions on Westwater Drive and Railway Avenue;
- Temporary expansion of the gravel parking lot on Westwater Drive adjacent to the Richmond Boat Builders building;
- Parking on the Homma School field during non-school days and/or non-wet weather times;
- Other possibilities for temporary parking that may be identified at a later date.

*Permits* – A provincial Forest, Lands Natural Resource Operations and Rural Development permit (FLNRO) and Heritage Alteration Permit (HAP) will be required.

- FLNRO Permit – FLNRO is a provincially issued permit that will be required for the Phoenix Net Loft preservation project given its proximity to the Fraser River. The intent of this permit is to provide broad environmental oversight with particular attention to the interaction of the proposed construction with the wetted environment. The FLNRO permit typically takes 6 months to acquire.
- HAP Permit – The City's Heritage Bylaw 8400 requires a permit to be issued for proposed exterior alterations to heritage buildings. In the case of the Phoenix Net Loft, that exterior alterations to heritage buildings will require a permit as directed by Council and may also require a prior recommendation from the Advisory Design Panel.

### Phoenix Net Loft Preservation Opportunities

Implementation of Option 4 (Deconstruction) presents building configuration opportunities through the reconstruction process. The following items are recommended and are described in more detail below.

*Building Elevation* – Pile replacement presents the opportunity to raise the building to protect against flooding and sea level rise. Currently, the first floor elevation is at 2.6 metres and is prone to experience flooding during high tide/storm surge events. Staff reviewed the options of raising the building by 0.4 metre and 0.9 metre as depicted on Attachment 1.

It is recommended that the building be raised by approximately 0.9 metre which will result in a new first floor building elevation of 3.5 metres and a significantly improved level of flood protection.

*2<sup>nd</sup> Floor Area* – Reconstruction of the building presents an opportunity to reconstruct the 2<sup>nd</sup> floor at a lower elevation, thereby increasing the usable 2<sup>nd</sup> floor area from approximately 6,900ft<sup>2</sup> to approximately 10,300ft<sup>2</sup>. A rendering showing the current and proposed 2<sup>nd</sup> floor orientation is included as Attachment 2. The option to build the 2<sup>nd</sup> floor at a lower elevation to increase the floor area is recommended.

*Roof Replacement* – The Phoenix Net Loft roof is not original and has deteriorated to a point where it cannot be salvaged and must be replaced during the reconstruction process. Three roof replacement material options were reviewed (standing seam zinc, corrugated tin and transite panels). A corrugated tin roof, which is the same as the Shipyards Building, is recommended. A rendering showing the roof material options is included as Attachment 3.

*Future Use* – There is an opportunity to select different material to replace the existing rotted wood piles. Replacement with wood piles will facilitate preservation of the Phoenix Net Loft to a condition similar to the Seine Net Loft, but lacks robustness compared to other pile systems if future uses such as a restaurant are contemplated. Use of other piles types such as concrete or steel will preserve the flexibility to convert the Phoenix Net Loft to other uses and facilitate the ability to meet current building code seismic standards. Concrete or steel piles are recommended.

Renderings of different pile types for use at the Phoenix Net Loft are included as Attachment 4.

### Next Steps

Should Council support the staff recommendation, staff will proceed with a pre-qualification process to shortlist highly qualified heritage contractors (three preferred) and then proceed with formal construction tendering. Only contractors who have specific experience with restoration of heritage buildings will be considered and approval from Council will be sought prior to contractor selection. Staff will provide regular reporting to Council throughout the deconstruction/reconstruction process.

Preservation work is proposed to bring the Phoenix Net Loft to a similar condition to that of the recently preserved Seine Net Loft and in particular, it will have full public occupancy.

The construction process, as proposed, enables staff to present the program to Council for consideration.

With Council's direction, staff will explore and evaluate a variety of program options for the Phoenix Net Loft for Council's consideration that will be consistent with the forthcoming Britannia Shipyards National Historic Site Strategic Development Plan. Given the Phoenix Net Loft's heritage value and location along the South Dyke immediately adjacent to the Britannia Shipyards, possible options include additional exhibit and/or program space for Britannia Shipyards, arts and/or creative programming space, "maker lab" spaces, or other concepts to be explored. Program options are anticipated to be the subject of future reports and funding requests to Council, once building preservation work is underway.

Britannia Shipyards is launching a visitor survey that will be delivered throughout 2018. This survey will help gather valuable data about what residents and other visitors enjoy about their visit, and what they would like to see more of that can inform the planning process.

### **Financial Impact**

Council approved \$11.5M funding to complete preservation of the Phoenix Net Loft as part of the 2018 Capital Program. The recommended construction plan can be completed within this budget.

### **Conclusion**

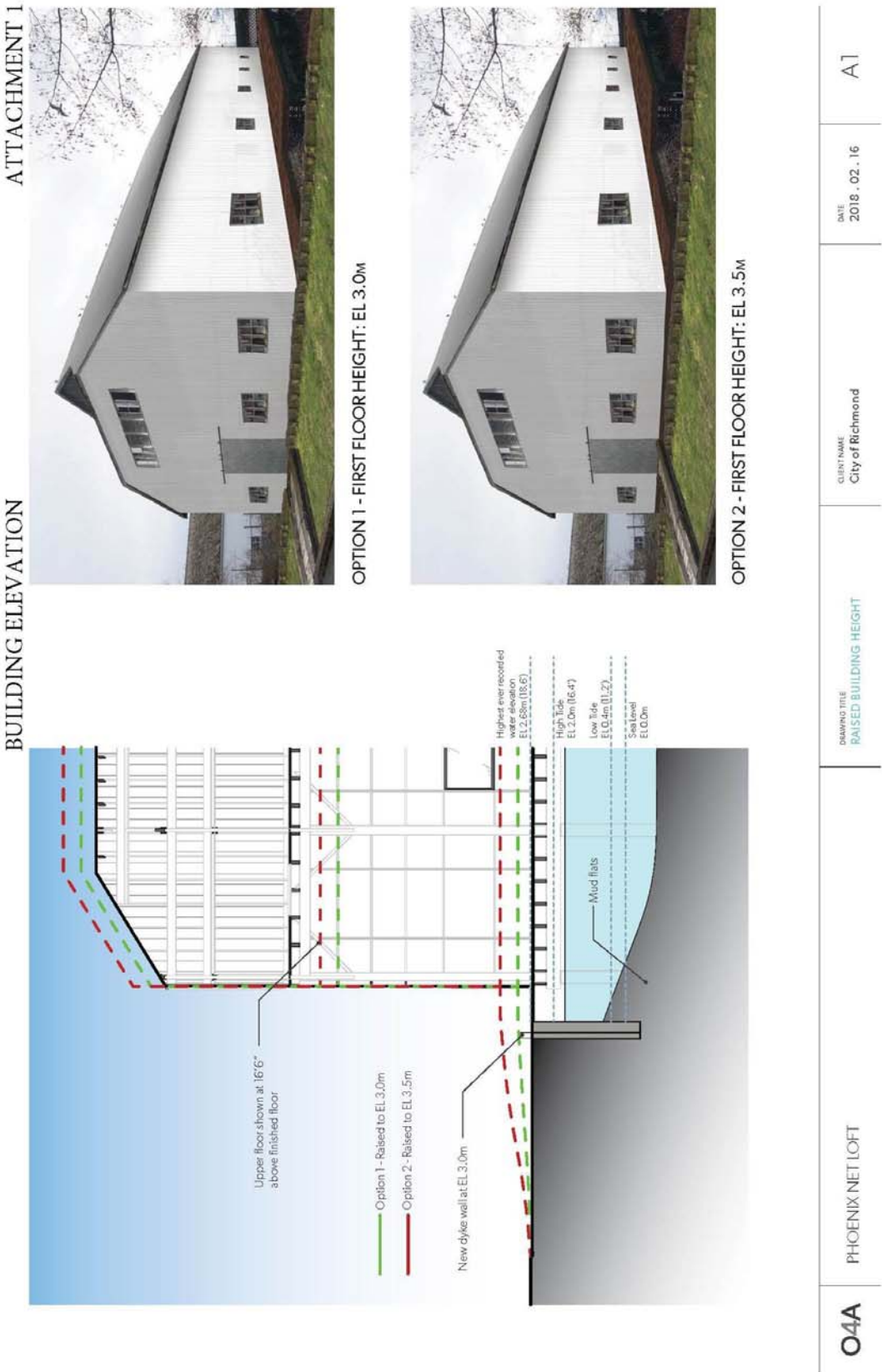
The Phoenix Net Loft is in an advanced state of disrepair and it is necessary to complete significant works to ensure its preservation. Preservation works will require deconstruction of the existing building and onsite storage of salvaged materials for use during reconstruction. There are several opportunities during the reconstruction process that can be implemented to ensure other future uses of this facility.



Jim V. Young, P. Eng.  
Senior Manager, Capital Buildings Project Development  
(604-247-4610)

- Att. 1: Building Elevation  
2: Second Floor Area  
3: Roof Replacement  
4: Future Use (Piles)  
5: Materials Storage Area

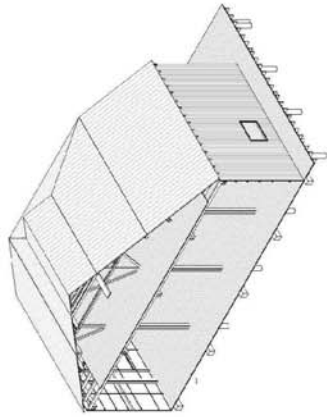




# SECOND FLOOR AREA

## ATTACHMENT 2

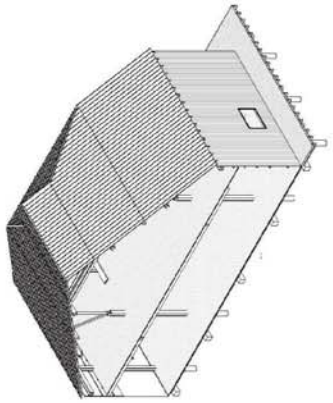
### EXISTING



#### Available floor area

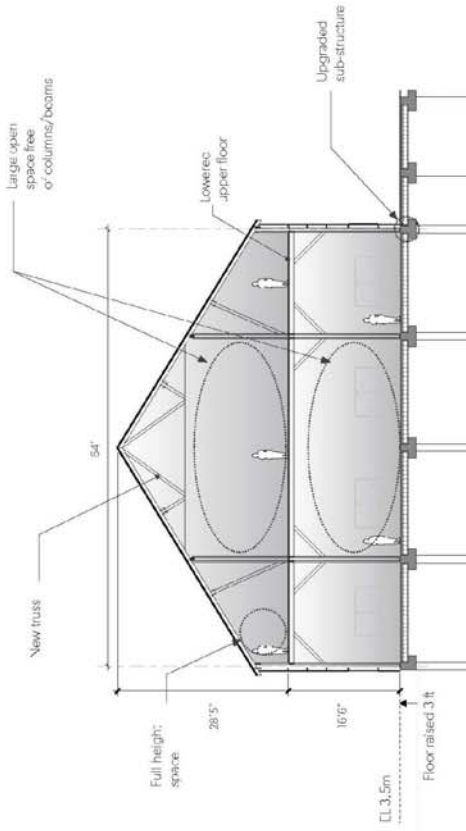
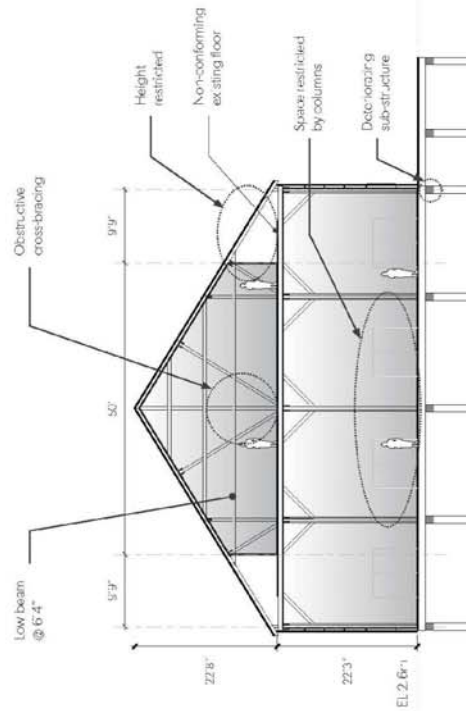
Lower	10,300 sf
Upper	6,900 sf
<b>Total</b>	<b>17,200 sf</b>

### PROPOSED



#### Available floor area

Lower	10,300 sf
Upper	10,300 sf
<b>Total</b>	<b>20,600 sf</b>



O4A PHOENIX NET LOFT

DRAWING TITLE  
LOWERED SECOND FLOOR

CLIENT NAME  
City of Richmond

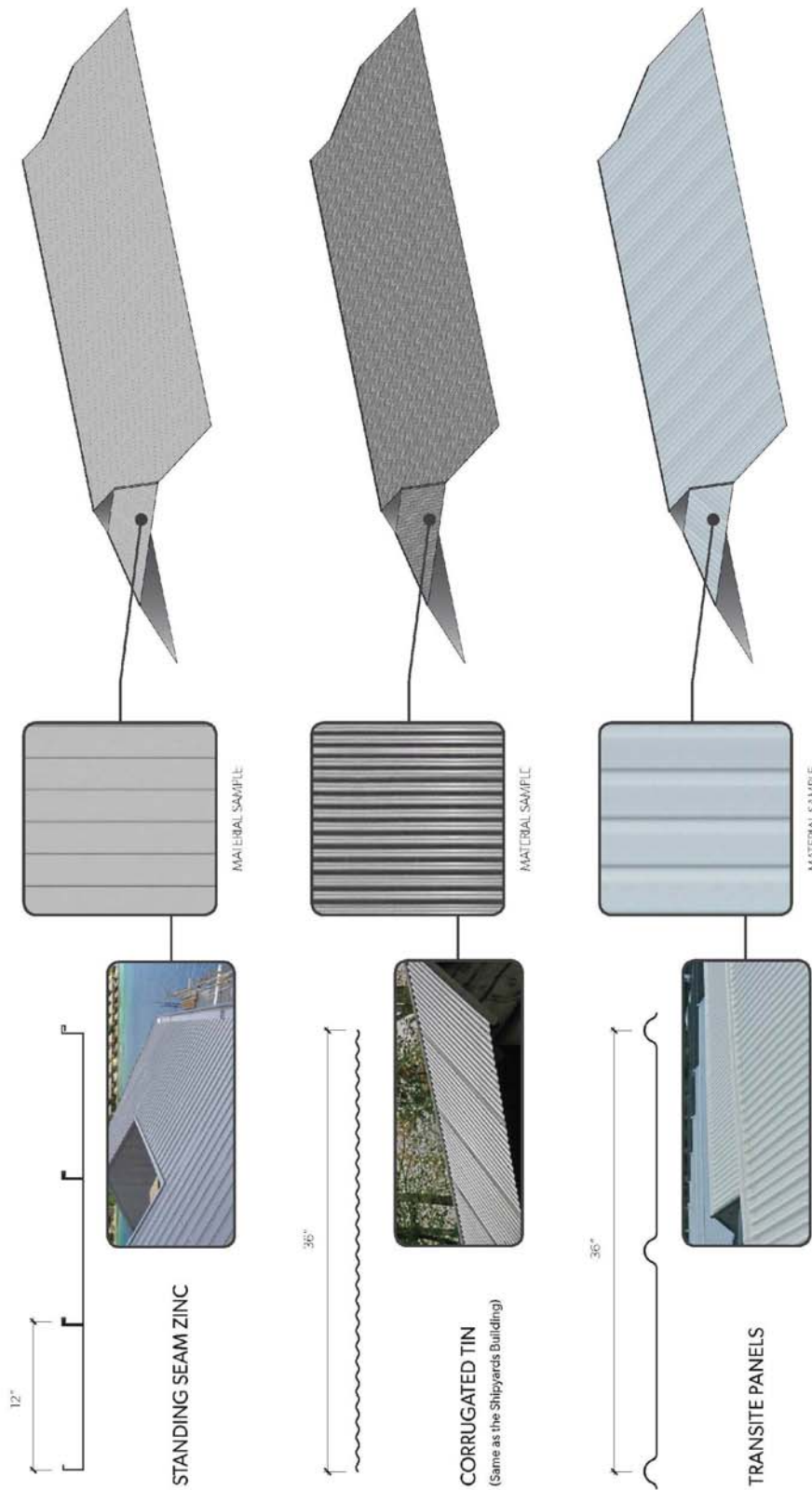
DATE  
2018 . 02 . 16

A2



ATTACHMENT 3

ROOF REPLACEMENT



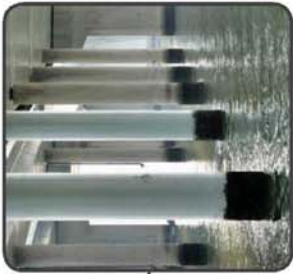
FUTURE USE (PILES)



WOOD PIERS

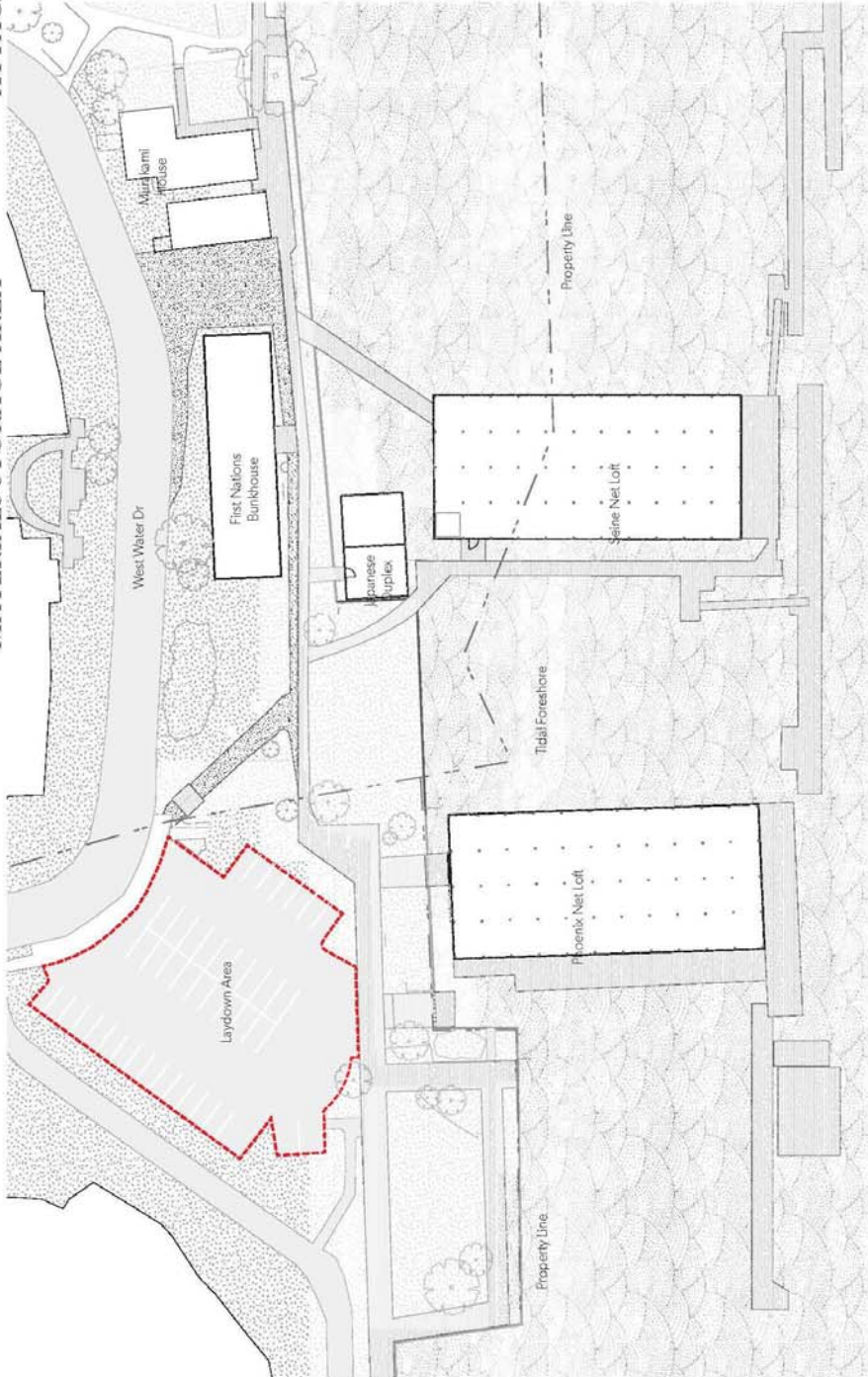


CONCRETE PIERS



O4A	PHOENIX NET LOFT	DRAWING TITLE PIER MATERIAL OPTIONS	CLIENT NAME City of Richmond	DATE 2018 . 02 . 16	A4
-----	------------------	--	---------------------------------	------------------------	----

MATERIALS STORAGE AREA ATTACHMENT 5



O4A	PHOENIX NET LOFT	DRAWING TITLE SITE PLAN & LAYDOWN AREA	CLIENT NAME City of Richmond	DATE 2018 - 02 - 16	A5
-----	------------------	---	---------------------------------	------------------------	----



# City of Richmond

## Report to Committee

**To:** General Purposes Committee

**Date:** April 3, 2018

**From:** Victor Wei, P. Eng.  
Director, Transportation

**File:** 10-6450-09-01/2018-  
Vol 01

**Re:** River Road – Proposed Implementation of Selected Road Safety Measures

### Staff Recommendation

That the proposed road safety measures on River Road between No. 6 Road and Westminster Highway as outlined in the staff report titled “River Road – Proposed Implementation of Selected Road Safety Measures”, dated April 3, 2018 from the Director, Transportation be endorsed for implementation prior to Fall 2018.

Victor Wei, P. Eng.  
Director, Transportation  
(604-276-4131)

Att. 2

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Engineering Roads Finance Fire Rescue RCMP	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
<b>REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 



## Staff Report

### Origin

At the March 21, 2018 Public Works and Transportation Committee meeting, discussion occurred regarding the implementation in the near term of potential road safety measures along River Road between No. 6 Road and Westminster Highway. As a result, the following referral was carried:

*That staff provide a report back on the feasibility of implementing the various traffic safety enhancements on River Road, with the exception of speed humps, prior to RCMP reporting back on its enforcement efforts in Fall of this year.*

This report responds to the referral.

This report supports Council's 2014-2018 Term Goal #1 A Safe Community:

*Maintain emphasis on community safety to ensure Richmond continues to be a safe community.*

### Analysis

#### Proposed Implementation of Selected Road Safety Measures

In response to the March 21, 2018 referral, staff first compiled a full list of potential road safety measures on River Road east of No. 6 Road that could be implemented in the short-term comprised of:

- (1) measures identified by staff and approved by Council at its June 26, 2017 meeting;
- (2) proposed short-term measures identified by the independent consultant as listed in the staff report presented at the February 21, 2018 Public Works and Transportation Committee meeting; and
- (3) measures suggested by delegations to the March 14, 2018 Community Safety Community meeting and the March 21, 2018 Public Works and Transportation Committee meeting.



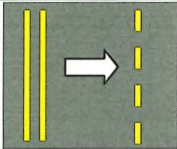


Staff then met with eight area residents and property owners on March 26, 2018 to obtain their feedback on each of the potential measures. Attachment 1 identifies each measure and summarizes the comments from the residents and staff's resulting recommendation and rationale. Proposed measures that have mutual support include:

- reduce the number and increase the size of some of the cycling-related signs including relocation of some of the signs;
- install speed reader boards;
- retrofit the centreline at appropriate locations;
- install shoulder-mounted reflective delineators at selected locations; and
- increase roadway maintenance.


Based on the area residents' feedback and staff's analysis, Table 1 summarizes staff's recommendations regarding a sub-set of the road safety measures proposed to be implemented

prior to staff reporting back in Fall 2018 on the outcome of increased RCMP enforcement, which include proposed revisions to road safety measures already installed (i.e., “single file” and “caution” cycling-related signage). These recommendations are generally consistent with the suggestions made by the eight area residents at the meeting which are intended to improve the safety of all road users and not exclusively residents or cyclists.

Table 1: Recommended Road Safety Measures to be Implemented

Proposed Road Safety Measure	Status	Staff Recommendation and Rationale	Example
Reduce the number of “Single File” signage	Installed (24 signs in each direction)	<ul style="list-style-type: none"> <li>Reduce to 8 signs in each direction (1 at each end, 1 at No. 7 Road, 1 at No. 8 Road, and remaining 4 spaced accordingly), as warning signs can be placed at longer spacing intervals</li> <li>Increase sign size and font size of text (top portion of sign) at gateway locations at each end (No. 6 Road and Westminster Hwy) to enhance visibility and legibility</li> <li>Where feasible, co-locate near hydro poles to minimize new stand-alone installations</li> </ul>	
Revise and reduce the number of “Caution” signage	Installed (8 signs in each direction)	<ul style="list-style-type: none"> <li>Revise shape from square to diamond (warning sign)</li> <li>Reduce to 4 signs in each direction (1 at each end, 1 at No. 7 Road, 1 near CN Rail bridge), as warning signs can be placed at longer spacing intervals</li> <li>Revise text from “High Cycling Activity on Weekends” to “Watch for Cyclists” to enhance legibility and be inclusive of all cycling activity (not just on weekends)</li> <li>Where feasible, co-locate near hydro poles to minimize new stand-alone installations</li> </ul>	
Convert solid double yellow centreline to dashed single yellow centreline	Not yet implemented	<ul style="list-style-type: none"> <li>Implement at 6 locations where it is safe for motorists to change lanes safely to pass</li> <li>Will allow motorists to legally change lanes to pass vehicles or cyclists</li> </ul>	
Remove raised pavement markers (RPMs) and install shoulder-mounted reflective delineator posts at selected locations	Not yet implemented	<ul style="list-style-type: none"> <li>Install delineator posts at transitions to No. 6 Road and Westminster Hwy to help highlight the curves and edge of the roadway particularly during periods with poor visibility (e.g., foggy conditions) at selected locations such as curved sections</li> <li>Remove RPMs where delineator posts are installed</li> <li>Retain all other remaining RPMs only if they do not pose a safety concern for road users including cyclists</li> </ul>	
Install 4 movable speed reader boards	Not yet implemented	<ul style="list-style-type: none"> <li>At this time, install 2 movable speed reader boards (one in each direction) near No. 6 Road (at Valmont Way) where the installations would not impact the Riparian Management Area (RMA) on the south side nor the dike core on the north side</li> <li>Should Council approve the staff recommendation, initiate provincial permit process to conduct works in the RMA and dike in order to establish additional 4 locations (2 in each direction with one near Westminster Hwy and one in the middle)</li> <li>When all locations are established, rotate the 4 movable speed reader boards amongst the 6 sites</li> </ul>	



Proposed Road Safety Measure	Status	Staff Recommendation and Rationale	Example
Relocate "Bike Route" sign on westbound Westminster Hwy	Installed	<ul style="list-style-type: none"> <li>Relocate sign further westbound on Westminster Hwy (past River Road) to clarify that Westminster Hwy is a designated bike route (i.e., has cycling-specific facilities such as bike lanes or off-street multi-use pathway)</li> </ul>	

Attachment 2 displays a map that indicates the locations of each of the road safety measures proposed for installation and/or revision.

#### Additional Suggested Measures to Improve Road Safety

At staff's meeting with area residents and property owners, other road safety concerns and suggested measures were identified. Staff provide the following comments on these items.

##### *Increase Enforcement of Trucks and Truck Weight Limit*

Residents identified continued concerns with truck operations on River Road, particularly turning trucks (drivers may cross the centreline) or drivers apparently failing to respect the posted load limit signage. They emphasized the importance of increased enforcement to address what, in their opinion, is the primary road safety concern.

There is a 9-tonne load limit in effect on River Road between No. 7 Road and Westminster Highway. Richmond RCMP advise that joint enforcement operations are regularly conducted with Community Bylaws staff, who have primary responsibility for enforcement of trucks on weight-limited roads. Most recently, Richmond RCMP conducted a joint operation with Community Bylaws on March 16, 2018 where City bylaw officers issued 18 bylaw infraction municipal tickets to 15 separate truck drivers on River Road, in addition to 24 RCMP-issued speeding tickets to other vehicle drivers. Richmond RCMP and Community Bylaws will continue to regularly conduct joint operations.

##### *Widen Roadway and Provide Cycling and Pedestrian Facilities*

For the long term, residents indicated a desire to widen the road to an arterial standard with separate provision for cyclists and pedestrians. Staff note that the majority of River Road between No. 6 Road and Westminster Highway sits on top of the dike. This section of dike will be reviewed in Phase 4 of the Dike Master Plan process, which is scheduled to begin in 2018 following the completion of Phases 2 and 3. The review process will develop long term options for the complete reconstruction of River Road to further improve road safety and facilitate dike raising over the 30-year time frame.

#### **Financial Impact**

Table 2 outlines the estimated cost and funding source for each of the proposed road safety measures. All funding sources have been previously approved by Council as part of past annual capital budgets. If approved for implementation, staff would also submit the proposed measures

to ICBC's 2018 *Road Improvement Program* for funding contributions. Should any submitted measures receive funding from ICBC, the City's portion of the total capital cost would be reduced accordingly.

Table 2: Estimated Cost and Funding Source for Recommended Road Safety Measures

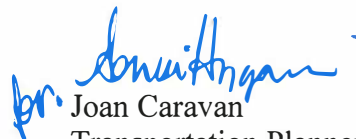
Proposed Road Safety Measure	Estimated Cost	Funding Source
Revise "Single File" signage	\$17,000	Approved Traffic Calming Program
Revise "Caution" signage		
Convert solid double yellow centreline to dashed single yellow centreline at 6 locations	\$21,600	
Remove raised pavement markers (RPMs) and install shoulder-mounted reflective delineator posts along curves at each end	\$10,500	
Purchase 4 and install 2 movable speed reader boards	\$38,500	
Relocate "Bike Route" sign on westbound Westminster Hwy	\$200	
<b>Total</b>	<b>\$87,800</b>	

### Conclusion

As directed by the Public Works and Transportation Committee, staff have developed a package of road safety measures (excluding speed humps) proposed for immediate implementation on River Road east of No. 6 Road prior to staff reporting back in Fall 2018 on the outcome of increased Richmond RCMP enforcement during Summer 2018. The recommended measures reflect staff's consideration of feedback from area residents regarding each of the measures and are intended to improve the safety of all road users, not exclusively residents or cyclists.



Bill Dhaliwal  
Supervisor Traffic  
(604-276.4210)




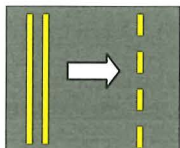


Joan Caravan  
Transportation Planner  
(604-276-4035)






Att. 1: Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018

Att. 2: Approximate Location of Recommended Road Safety Measures to be Implemented Prior to Fall 2018

## Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018





Potential Road Safety Measure	Status	Resident Comments <sup>(1)</sup>	Staff Comments and Rationale
<p>"Single File" signage</p> 	Approved by Council: Installation Complete	<ul style="list-style-type: none"> <li>Too many signs, which is distracting</li> <li>Too much text and difficult to comprehend at 50 km/h</li> <li>Suggest retain only 2 signs (1 at each end)</li> <li>Suggest retain only 2 signs (1 in each direction) at location where delineator posts are mounted in centreline</li> </ul>	<ul style="list-style-type: none"> <li>Retain signage as it is appropriate for a lane width less than 4.0 m per national Transportation Association of Canada guidelines</li> <li>Reduce number from 24 to 8 in each direction, as warning signs can be placed at longer spacing intervals</li> <li>Increase size of signs at gateway locations at each end (No. 6 Road and Westminster Hwy) to enhance visibility</li> <li>Increase font size of text (tab portion of sign) to enhance legibility</li> <li>Where feasible, co-locate near hydro poles to minimize new stand-alone installations</li> </ul>
<p>"Caution" signage</p> 	Approved by Council: Installation Complete	<ul style="list-style-type: none"> <li>Text ignores weekday commuter cyclists</li> <li>Deploy fewer signs (1 at either end plus 1 at No. 7 Road or rail bridge)</li> <li>Deploy 4 signs only on a temporary basis for duration of special events</li> </ul>	<ul style="list-style-type: none"> <li>Retain signage</li> <li>Revise text from "High Cycling Activity on Weekends" to "Watch for Cyclists" to enhance legibility and be inclusive of all cycling activity (not just on weekends)</li> <li>Revise shape from square to diamond (i.e., warning sign)</li> <li>Reduce number from 8 to 4 in each direction, as warning signs can be placed at longer spacing intervals</li> <li>Where feasible, co-locate near hydro poles to minimize new stand-alone installations</li> </ul>
<p>"Sharrows" pavement markings</p> 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> <li>Do not implement</li> <li>Would be distracting for motorists</li> <li>If placed in centre of lane, suggest it would be contradictory to Motor Vehicle Act</li> </ul>	<ul style="list-style-type: none"> <li>Considered complementary to "Single File" signage</li> <li>Do not implement at this time to allow assessment and confirmation of location of "Single File" signage</li> <li>Consider implementation next to "Single File" signage (8 in each direction) as part of report back in Fall 2018</li> </ul>
<p>Convert solid double yellow centreline to dashed single yellow centreline</p> 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> <li>Implement at selected locations where safe to pass</li> </ul>	<ul style="list-style-type: none"> <li>Implement at 6 locations where it is safe for motorists to change lanes safely to pass</li> <li>Will allow motorists to legally change lanes to pass cyclists</li> </ul>

## Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018

Potential Road Safety Measure	Status	Resident Comments <sup>(1)</sup>	Staff Comments and Rationale
Remove remaining raised pavement markers (RPMs) 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> <li>Do not remove</li> <li>Reinstate all missing RPMs</li> <li>Consider flush-mounted RPMs</li> <li>Consider RPMs that alert drivers to presence of black ice</li> </ul>	<ul style="list-style-type: none"> <li>Remove RPMs at selected locations where shoulder-mounted reflective delineator posts are installed</li> <li>Retain all other remaining RPMs only if they do not pose a safety concern for cyclists</li> </ul>
Install shoulder-mounted reflective delineator posts 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> <li>Do not install in place of RPMs</li> <li>Install in addition to RPMs where hydro poles are close to pavement edge and at train bridge</li> </ul>	<ul style="list-style-type: none"> <li>Install delineator posts at transitions to No. 6 Road and Westminster Hwy to help highlight the curves and edge of the roadway particularly during periods with poor visibility (e.g., foggy conditions)</li> </ul>
Install 4 movable speed reader boards 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> <li>Install at permanent locations</li> <li>Consider signs that can be programmed with messages</li> <li>Install traffic radar data collection units</li> </ul>	<ul style="list-style-type: none"> <li>At this time, install 2 movable speed reader boards (one in each direction) near No. 6 Road (at Valmont Way) where the installations would not impact the Riparian Management Area (RMA) on the south side nor the dike core on the north side</li> <li>Should Council approve the staff recommendation, initiate permit process to establish additional 4 locations (2 in each direction with one near Westminster Hwy and one in the middle), as these would impact RMA and dike</li> <li>When all locations are established, rotate the 4 movable speed reader boards amongst the 6 sites</li> </ul>
Install signage treatments at 90° curves including chevron warning signs (potential LED) 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> <li>Unnecessary</li> <li>Existing signage is sufficient</li> </ul>	<ul style="list-style-type: none"> <li>Do not implement in 2018 due to insufficient funding</li> <li>Consider as part of report back in Fall 2018</li> </ul>
Apply anti-skid pavement treatments at 90° curves 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> <li>Unnecessary</li> <li>Likely not effective</li> </ul>	<ul style="list-style-type: none"> <li>Do not implement in 2018 due to insufficient funding</li> <li>Consider as part of report back in Fall 2018</li> </ul>

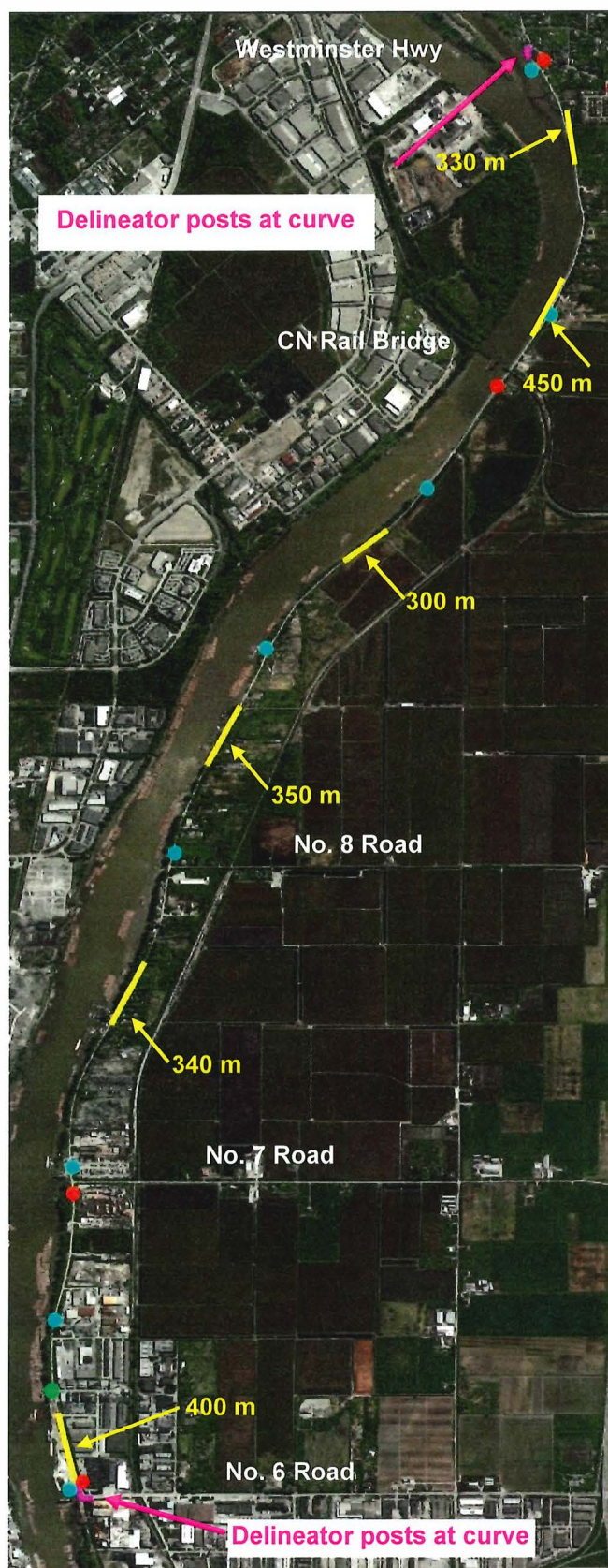


## Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018


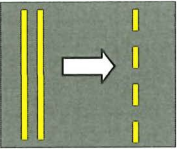







Potential Road Safety Measure	Status	Resident Comments <sup>(1)</sup>	Staff Comments and Rationale
Increase road cleaning and refreshing of pavement markings 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> <li>Implement</li> <li>Undertake on an on-going basis as required (including washing of signs)</li> </ul>	<ul style="list-style-type: none"> <li>Do not implement in 2018 as the incremental increased maintenance costs (\$15,000) cannot be absorbed as part of current operating budget cycle</li> <li>The additional Operating Budget Impact can be proposed for Council's consideration as part of the 2019 Operating Budget</li> </ul>
Replace single file signage with side-by-side signage 	Request of Delegation	<ul style="list-style-type: none"> <li>Implement</li> <li>Conveys that cyclists must ride as far to the right as practicable</li> </ul>	<ul style="list-style-type: none"> <li>Do not implement</li> <li>Requested signage not appropriate for lane width less than 4.0 m per national Transportation Association of Canada guidelines</li> <li>Retain reduced number of existing "Single File" signage</li> </ul>
Bury sign post concrete bases 	Request of Delegation	<ul style="list-style-type: none"> <li>Existing bases are too numerous and too close to the edge of the road</li> <li>Burying concrete base will lower signage, which is currently too high for line of sight of motorists</li> <li>Place next to hydro poles where there is typically a wider shoulder</li> </ul>	<ul style="list-style-type: none"> <li>Retain existing installation method</li> <li>On the south side, required installation depth would compromise ability of road shoulder to support a sign post</li> <li>On the north side, required installation depth would impact and may compromise dike core, and require permits from provincial dike inspector</li> <li>Co-locate signage and bases next to hydro poles where feasible to minimize new stand-alone installations</li> </ul>
Relocate Bike Route sign on westbound Westminster Hwy 	Request of Delegation	<ul style="list-style-type: none"> <li>Remove sign or add arrow to direct cyclists straight ahead (i.e., remain on Westminster Highway)</li> </ul>	<ul style="list-style-type: none"> <li>Relocate sign further westbound on Westminster Hwy (past River Road) to clarify that Westminster Hwy is a designated bike route (i.e., has cycling-specific facilities such as bike lanes or off-street multi-use pathway)</li> </ul>

(1) Includes delegations to March 14, 2018 Community Safety Community meeting and March 21, 2018 Public Works and Transportation Committee meeting.

# **Approximate Locations of Road Safety Measures Recommended to be Implemented Prior to Fall 2018**



## **LEGEND**

	Conversion of double yellow centreline to single dashed centreline	
	Installation of shoulder-mounted delineator posts along curve	
	"Single File" Signage (8 signs in each direction)	
	"Caution" Signage (4 signs in each direction)	
	2 Speed Reader Boards (1 in each direction at Valmont Way)	