



## Public Works and Transportation Committee

Date: Wednesday, February 21, 2018

Place: Anderson Room  
Richmond City Hall

Present: Councillor Chak Au, Chair  
Councillor Harold Steves  
Councillor Derek Dang  
Councillor Carol Day  
Councillor Alexa Loo

Call to Order: The Chair called the meeting to order at 4:00 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meetings of the Public Works and Transportation Committee held on November 22, 2017 and January 24, 2018, be adopted as circulated.*

**CARRIED**

### NEXT COMMITTEE MEETING DATE

March 21, 2018, (tentative date) at 4:00 p.m. in the Anderson Room

**Public Works & Transportation Committee**  
**Wednesday, February 21, 2018**

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**ENGINEERING AND PUBLIC WORKS DIVISION**

1. **FLOOD PROTECTION PROGRAMS UPDATE**

(File Ref. No. 10-6000-01) (REDMS No. 5722579 v.3)

In reply to queries from Committee, Lloyd Bie, Manager, Engineering Planning, advised that (i) the east side of Lulu Island is protected by New Westminster dikes, (ii) staff are in constant communication with New Westminster regarding the condition of the dikes and ensuring they are moving in the same direction as the City, and (iii) should they fall behind or staff have any concerns, the City would consider separating from them. Mr. Bie then noted that the microbe based soil stabilization process is a process from Holland whereby chemicals are integrated into the soil to stabilize it and prevent liquefaction.

John Irving, Director, Engineering advised that the current priority is the perimeter dike; however the existing flood management plan identifies a mid-island dike as a future strategy. Mr. Irving stated that there have been many changes since the plan was brought forward in 2008 and he was of the opinion that the mid-island dike will be achieved through current development.

It was moved and seconded

*That the process to update the 2008 – 2031 Richmond Flood Protection Management Strategy as identified in the report titled “Flood Protection Programs Update,” dated January 22, 2018, from the Director, Engineering, be endorsed.*

**CARRIED**

2. **2018 ECOLOGICAL NETWORK MANAGEMENT STRATEGY UPDATE**

(File Ref. No. 10-6125-11-01) (REDMS No. 5682075 v.3)

In reply to queries from Committee, Chad Paulin, Manager, Environment, advised that staff are working to manage the elodea plant invasion in Mariners Village while providing consistent updates to the Strata, and noted that staff will be providing Council with an update. Mr. Paulin stated that there is no current plan to ban the plant; however there are outreach programs to educate garden centres and pet stores on their products.

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Discussion took place on the Snow Goose Cover Crop Program, and in response to queries from Committee, Jamie Esko, Manager, Parks Planning, Design and Construction, advised that staff are working with YVR and the Farmers Trust to divert snow geese from the airport. She noted that the Nature Park Society has an outreach program to educate students and teachers on snow geese and that staff are working with the Richmond School District regarding the snow goose droppings on school grounds. Ms. Esko advised that more information regarding any monitoring measures can be provided to Committee.

Committee requested that the 2018 Ecological Network Management Strategy Update report be forwarded to the Council/School Board Liaison Committee.

It was moved and seconded

*That the staff report titled "2018 Ecological Network Management Strategy Update" dated January 25, 2018, from the Director, Engineering, be received for information.*

**CARRIED**

3. **RICHMOND CARBON MARKET AND CARBON NEUTRALITY UPDATE**

(File Ref. No. 10-6125-05-01) (REDMS No. 5724399 v.9)

In reply to queries from Committee, Levi Higgs, Corporate Energy Manager, advised that Pacific Gateway Hotels, Lafarge Canada and Paneva Services Ltd. came forward during the second call for projects. He noted that the Richmond Carbon Market Program posted a Notice of Opportunity on BC Bid, provided direct information to Richmond business through the City's Economic Development Office monthly newsletter and social media page, and solicited directly some of the participants that were involved in the City's original pilot program.

It was moved and seconded

(1) *That the staff report titled, "Richmond Carbon Market and Carbon Neutrality Update," from the Director of Engineering, dated January 26, 2018 be received for information; and*

(2) *That the Chief Administrative Officer and the General Manager, Engineering and Public Works be authorized to negotiate and execute agreements to purchase carbon credits to maintain the City's corporate carbon neutrality status.*

**CARRIED**

**Public Works & Transportation Committee**  
**Wednesday, February 21, 2018**

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**PLANNING AND DEVELOPMENT DIVISION**

4. **RICHMOND ACTIVE TRANSPORTATION COMMITTEE – PROPOSED 2018 INITIATIVES**

(File Ref. No. 01-0100-20-RCYC1) (REDMS No. 5673705 v.2)

Victor Wei, Director, Transportation, introduced Derek Williams, Co-Chair, Richmond Active Transportation Committee (RATC). Mr. Williams thanked Council and staff for their support, noting that the Committee is made up of enthusiastic and dedicated people. Mr. Williams remarked that the bike share program will be a great addition and beneficial to the City.

In reply to queries from Committee, Mr. Wei advised that the pocketsize trail and cycling maps can be found at City Hall, and Richmond community centres, libraries, arenas and ice rinks. It was noted that maps can be distributed to the Richmond Oval.

Lynda Parsons, 2491 No. 8 Road, expressed concern regarding cyclists along River Road. She noted that the Richmond Active Transportation Committee should be aware of all factors when considering road safety options on River Road. She advised that scientific studies state that, speed humps increase fuel consumption and emissions, and does not coincide with the City's emission reduction plans.

It was moved and seconded

- (1) *That the proposed 2018 initiatives of the Richmond Active Transportation Committee, as outlined in the staff report titled "Richmond Active Transportation Committee - Proposed 2018 Initiatives" dated January 24, 2018 from the Director, Transportation, be endorsed; and*
- (2) *That a copy of the report titled "Richmond Active Transportation Committee – Proposed 2018 Initiatives" be forwarded to the Richmond Council-School Board Liaison Committee for information.*

**CARRIED**

5. **RIVER ROAD – REVIEW OF PROPOSED ALTERNATIVE ROAD SAFETY ENHANCEMENT MEASURES**

(File Ref. No. 10-6450-09-01) (REDMS No. 5746643 v.2)

Correspondence regarding Proposed River Road Safety Enhancement Measures was distributed (attached to and forming part of these Minutes as Schedule 1).

Fred Lin, Senior Transportation Engineer, distributed materials (attached to and forming part of these Minutes as Schedule 2), and introduced Tom Baumgartner, Transportation Engineer, Watts Consulting Group.

**Public Works & Transportation Committee**  
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In reply to queries from Committee, Mr. Wei advised that there are currently no speed cushions, which provide a softer vertical deflection compared to speed humps, installed in the City; however he noted that fire trucks are able to easily manoeuvre over speed humps along Gilbert Road, which are more abrupt than the speed cushions proposed for River Road. Mr. Lin noted that there are various types of speed humps, depending on the designated speed, and advised that the proposed speed cushions for River Road are designated for a speed of 50km/h. He then stated that the recommended 20 speed cushions would be along the entire stretch of River Road. Mr. Lin noted that the public consultation would take place in April with two open houses and that all options would be considered.

Discussion took place regarding the removal of speed cushions when dike improvements occur, and in response to queries from Committee, Mr. Lin advised that the speed humps are a short term measure and when dike upgrades occur, the speed humps would need to be removed. Mr. Irving further advised that the average life span of a paved asphalt road is 15 years, and as the raising of dikes would be within that time frame, road improvements would also be required.

Trudy Haywood, 22160 River Road, read from her submission (attached to and forming part of these Minutes as Schedule 3), and expressed concern regarding the (i) misleading and excessive signage along River Road, (ii) installment of speed cushions, and (iii) unsafe cycling on River Road.

Dave Haywood, River Road resident, suggested limiting cyclists from riding on River Road. He noted that since RCMP Officers have been present, traffic has changed immeasurably and was of the opinion that speed cushions would not be necessary.

Arline Trividic, 22600 River road, read from her submission (attached to and forming part of these Minutes as Schedule 4), and expressed concern with regard to cyclists disobeying cycling regulations along River Road and provided some suggestions for increasing road safety along River Road.

Joanne Fisher, 2420 No. 8 Road, read from her submission (attached to and forming part of these Minutes as Schedule 5), and expressed concern regarding speed humps hindering emergency vehicle access in other municipalities.

Lynda Parsons, 2491 No. 8 Road, read from her submission (attached to and forming part of these Minutes as Schedule 6), and expressed concern with regard to the integrity of the consultant's report and requested that a public consultation not be endorsed and that speed cushions not be installed along River Road.

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Michael Hedigan, 21340 River Road, expressed concern with the proposed 76 speed cushions, noting that it would increase his travel time significantly. He was of the opinion that speed cushions would increase the traffic along River Road due to vehicles slowing down to travel over the speed cushions. He was of the opinion that (i) installing speed cushions will increase vehicle fuel consumption and mileage, and (ii) speed reduction will only occur with police presence. Mr. Hedigan suggested installing one bike lane along River Road for cyclists.

Kelly Savage, 2571 No. 8 Road, commented on the proposed installation of speed cushions along River Road, noting that it would increase her travel time significantly each day and effect the farming business by hindering the tractors and trucks from travelling over speed cushions. Ms. Savage was of the opinion that only particular cyclists needed to be addressed regarding cycling protocol and that it could be achieved through more police enforcement in the area.

Yves Trividic, 22600 River Road, read from his submission (attached to and forming part of these Minutes as Schedule 7), and expressed concern with the (i) statistics in the consultant's report, (ii) misleading signage, (iii) operating speeds, (iv) and improper cycling protocol. He was of the opinion that should speed cushions be installed, emergency response time would be hindered. Mr. Trividic was of the opinion that education and police enforcement is important.

In reply to queries from Committee, Superintendent Ng, OIC, Richmond RCMP advised that RCMP officers have conducted four operations on River Road since February 12<sup>th</sup>. He noted that 35 tickets of speeding violations were issued, one vehicle seizure for excessive speed, one ticket for use of electronic device, and three other violation tickets. He advised that Speed Watch volunteers have been out on River Road for three days since February 12<sup>th</sup>, and have checked 200 licences and issued 30 warning letters. Superintendent Ng noted that the Integrated Road Safety Unit conducted enforcement on February 16<sup>th</sup> and issued 6 violation tickets. He then advised that the Richmond RCMP bike squad volunteers have met with the cycling community and begun their education campaign. He noted that the Integrated Road Safety Unit has been tasked with sustaining pressure on River Road.

Discussion took place on cyclists on River Road, and in response to queries from Committee, Superintendent Ng noted that he believes there is a particular cycling group responsible for the unsafe riding practices and that efforts are being made to educate them on proper cycling protocol.

In reply to queries from Committee, Mr. Wei noted that staff considered installing pavement signs; however concluded that they would not be appropriate for River Road as the road is too narrow.

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In reply to queries from Committee, regarding sustainability of enforcement on River Road through the summer months, Superintendent Ng advised that as the weather becomes warmer, RCMP Officers will be busier with numerous events however sustained enforcement along River Road will continue. He noted that a privacy assessment is underway for the 175 Closed Circuit Television cameras approved by Council, and once all aspects have been approved by the Office of the Information and Privacy Commissioner, staff can examine the potential of installing cameras along River Road. In the interim, staff can explore the potential of a photo radar device to apprehend speeding vehicles when officers are not available.

Committee noted that residents have expressed their concerns with regard to installing speed cushions along River Road and the negative impacts they may have on day to day operations for local business owners and residents of the area.

As a result of the discussion the following **referral** motion was introduced:

It was moved and seconded

- (1) *That consideration of public consultation on road safety measures on River Road between No. 6 Road and Westminster Highway be deferred pending police enforcement through the end of the summer and staff report back on its effectiveness; and*
- (2) *That staff further examine safety measures other than speed cushions with funding options and report back.*

**CARRIED**

**6. MANAGER'S REPORT**

*Snowfall Update*

Tom Stewart, Director, Public Works Operations, provided an update on snow preparations, noting that the City's primary and secondary roads have been primed. He remarked that due to the cold the roads will be slippery in the morning; therefore there will be a full crew out tonight to ensure commuter traffic can safely operate in the morning. He advised that the long-term forecast is cold; however no more snow is expected after this weekend.

In reply to queries from Committee, Mr. Stewart advised that staff can ensure that all the community centres parking lots and ramps are properly attended to.

**Public Works & Transportation Committee**  
**Wednesday, February 21, 2018**

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**ADJOURNMENT**

It was moved and seconded

*That the meeting adjourn (5:50 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Wednesday, February 21, 2018.

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Councillor Chak Au  
Chair

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Sarah Kurian  
Legislative Services Coordinator



## ON TABLE ITEM

Date: February 21, 2018  
Meeting: Public Works + Transportation  
Item: 5 - River Road

Schedule 1 to the Minutes of the Public Works & Transportation Committee meeting of Richmond City Council held on Wednesday, February 21, 2018.

### Mayor and Councillors

**From:** Mayor and Councillors  
**Sent:** Monday, 19 February 2018 15:17  
**To:** Wei, Victor  
**Cc:** Powell, Jo Anne  
**Subject:** FW: Public Works and Transportation Committee Meeting - Feb, 21, 2018  
**Attachments:** SpeedHumps\_toMayor\_Councillors3\_Feb21.docx

**Categories:** - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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**From:** Mayor and Councillors  
**Sent:** Monday, 19 February 2018 15:17  
**To:** Lynda Parsons ([Parsons606@hotmail.com](mailto:Parsons606@hotmail.com))  
**Subject:** FW: Public Works and Transportation Committee Meeting - Feb, 21, 2018

Good afternoon Ms. Parsons,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, copies will be available at the Wednesday, February 21<sup>st</sup> Public Works and Transportation Committee meeting.

Thank you again for taking the time to share your concerns with Richmond City Council.

Hanieh Berg | Legislative Services Coordinator  
City Clerk's Office | City of Richmond  
6911 No. 3 Road, Richmond, BC V6Y 2C1

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**From:** Lynda Parsons [<mailto:Parsons606@hotmail.com>]  
**Sent:** Monday, 19 February 2018 14:36  
**To:** Loo, Alexa; McNulty, Bill; Day, Carol; Au, Chak; Dang, Derek; Steves, Harold; Johnston, Ken; McPhail, Linda; Brodie, Malcolm; Mayor and Councillors  
**Subject:** Public Works and Transportation Committee Meeting - Feb, 21, 2018

Dear Mayor Brodie and Council Members,

Please find enclosed details that I will present in a summarized form at the Meeting on Wednesday afternoon. I am sending this to you individually as well as through the City Clerk's office to ensure that you receive it, as this is a serious and important issue to the residents of this neighbourhood.

Because of the serious consequences to us, it is our hope that we will see many of you at this meeting

Thank you.

Sincerely,

Lynda Parsons

I would like to begin by stating that to date I have not received notification from Victor Wei, Director of Transportation that a report will be presented at the Public Works and Transportation Committee Meeting on February 21, 2018 as he was asked to do at the January 29, 2018 City Council Meeting. I located the report on the City of Richmond website, reviewed the report and offer the following:

**Observations and requests following review of the report:**

1. There is no actual report – there is an “executive summary” with no indication as to who composed the report and performed the analyses. We would like this determined.
2. There is no hard data – the only actual number in the summary is that 8 cyclists were involved in accidents. We want to see the detailed data relating to the accident analysis – when, where, type of vehicle involved, cause of the accident, time of day etc.
3. There is no information on where they obtained the data on speed or traffic volume – we want to know when the data was collected, time period, number of vehicles, type of vehicles, speed of vehicles, time of day when speed was an issue etc.
4. There is no information on how installing speed humps would or would not affect our safety. We want to see their analysis on the impact of speed humps to the resident’s safety.
5. We want to see the analysis on the impact to response times of emergency responders that speed humps would create.
6. We want to see where they recommend changing the double solid line configuration.
7. We would like to know why cyclists appear to be the main focus.
8. **We are requesting that we receive a copy of the full report.**

We have continuously stated that our safety – personal and that of our property - and how installing speed humps on River Road will impact our safety is our issue, yet the opening paragraph of the “Executive Summary” states:

*WATT Consulting Group was retained by the City of Richmond to undertake an independent traffic operations and safety review of the River Road corridor from No.6 Road to Westminster Highway. The study was commissioned in response to safety concerns raised by the public, **particularly related to off-road crashes and to crashes involving cyclists.***

Speed hump installation and how this will impact our safety, was not the focus, rather cyclists were the main focus once again. In the Executive Summary by WATT Consulting Group, the word “cyclist or cyclists” appears 19 times “resident or residents” appears 0 times and “business or businesses” 0.

Our concern, which resulted in the referral to Staff at the December 11, 2017 City Council Meeting, is the impact that the installation of speed humps will have on our safety. This has not even been considered by the independent traffic safety consultant, based on the summary that we received.

A Proposal to spend \$1,147,000.000 to \$1,430,000.00 of the City of Richmond’s tax money to appease recreational cycling groups and put the residents’ and business employees’ safety at risk is unacceptable. To not even consider residents or business employees is deplorable

**In addition to receiving a copy of the full report produced by WATT Consulting Group, the following action from the City of Richmond Mayor and Council is requested:**

1. That the Report to Committee from Victor Wei, P.Eng. Director of Transportation dated February 9, 2018 is NOT endorsed.

This entire fiasco began with the referral to staff at the November 7, 2016 General Purpose Committee Meeting to ***“to examine the circumstances and the area around the accident that occurred on River Road on November 6, 2016 and report back”***.

Report June 6, 2017:

***“The Richmond RCMP investigation of the November 6, 2016 crash on River Road is substantially completed. The investigation concluded that roadway design did not play a factor in the crash and the likely cause is driver error.”***

This should have concluded the referral, but Staff grasped this opportunity to turn the only access to our property into an oversized cycling lane.

When this report was presented had Staff been advised that the report that they presented went beyond the scope of the referral, and that if cycling groups wish to turn River Road into a cycling lane by having speed humps installed then they would have to present this to Council, we would not be here time and again fighting for our right to be safe.

Please, do not let this happen again by endorsing this report.

2. That any public consultation with respect to safety enhancements on River Road **NOT** be led by any of the current Transportation Department Staff, as they have shown that they are not able to accept our opinions as has been demonstrated in the past.
3. That the public consultation with respect to safety enhancements on River Road be spearheaded by one of our elected officials.
4. Acknowledge that the primary purpose of River Road is for residents and business employees to access their properties. Any non-resident traffic – either 2 or 4 wheel is using this road by choice. The residents and business employees are using River Road by necessity – it is the only access that we have to our property.
5. Ensure that ALL of the affected residents and Businesses are included in any discussions with respect to changes to River Road.
6. Place a moratorium on the installation of speed humps, speed cushions or other obstructions on River Road.
7. Deem the dangerous concrete sign bases unsafe and order that they be removed from River Road. There is already documented proof that these are indeed in an area where they can be hit.

These sign bases are a danger to all who use River Road. They have been installed in excess and in a place where they can be hit. It is of utmost urgency that these dangerous concrete sign bases are

removed immediately. Two of the concrete bases and signs were struck between February 14 and February 18, 2018 which clearly indicates the necessity for the immediate removal.

8. Install only enough signs as are necessary and required to give notice to the users of the road.

In accordance with the Manual of Standard Traffic Signs and Pavement markings – *It is also most important to recognize that improper or excessive use of signs leads to disrespect and non-compliance of the sign.*

9. Repeal the June 26, 2017 resolution that approved “safety measures” on River Road which was:

- Replace existing “Share the Road” signs with “Single File” signs at more frequent intervals
- Paint the road with “Sharrow” markings which is a white bicycle with arrows
- Install “Caution” signs to advise motorists to expect cyclists
- Remove the remaining “cat’s eye” road markers and replace with delineator posts mounted in the gravel shoulder
- Conversion of the existing double solid centerline to a dashed single centerline at select locations

More frequent intervals of signs is unnecessary and contrary to the requirements set out by the Province.

The “sharrow” road markings would be a distraction for drivers and another total waste of taxpayers’ money.

“Caution” signs to alert motorists of cyclists is a waste of money – the cycling signs indicating “share the road” already advise that there are cyclists on the road.

Removing the “cat’s eye” road markers is the exact opposite of a safety enhancement – we need these to remain or to be replaced with another type of in-road marker. Delineator posts mounted in the gravel shoulder at the side of the road would be unacceptable, as these would be hit by vehicles, knocked down and rendered useless.

We do want the centerline markings converted as indicated below.

10. Approve changing of the double solid centerline to a broken centerline on areas of River Road where it is safe for vehicles to pass.

For years River Road had areas where there were broken centerline markings. It is unclear when and why these were converted to double solid lines.

11. Pass a by-law that promotes safe cycling through enforcement of the law and licencing of bicycles within the city.

When I have lived in other Cities or Towns across Canada, every bicycle was required to have a licence issued by the City or Town. This was an actual licence plate with a unique number (like a miniature automobile licence plate). This made enforcement possible. The by-law could make it a requirement that, in order to ride a bicycle in the City of Richmond the bicycle must display a licence issued by and registered in the City of Richmond or registered with another jurisdiction that issues

bicycle licences. If the cyclist resides outside of Richmond and their home City does not issue bicycle licences they must register with Richmond and receive a licence prior to cycling in Richmond. Of course, latitude would be afforded to cyclists from outside of the GVRD. Fees for the licence should be minimal or free, however, the fine for not licencing the bicycle can be determined to cover the cost of enforcement. Having a licence on a bicycle also helps in returning lost/stolen bicycles to the owner.

My initial thoughts on the cycling by-law was considered too harsh by some, but I would like to share it with you regardless:

As River Road has clearly been identified by cyclists as unsafe, and this view is supported by the Department of Transportation, the residents of this neighbourhood are requesting:

**That the City of Richmond pass a by-law that restricts cycling on River Road by non-resident cycling groups.**

Our tax dollars have paid for multiple cycling lanes and these groups are welcome to use these, providing that they do so safely and with respect to Richmond residents. As the non-resident cycling groups have continually demonstrated that they are unwilling to be respectful in our neighbourhood they should not be welcome. This is a road that we require to access our properties – this is not a cycling lane.

Cost to the taxpayers \$0.00. Relief for neighbourhood taxpayers – priceless!

12. Ensure that RCMP Officers are present to enforce the motor vehicle act, including issuing tickets for illegal cycling as necessary - including on weekends.
13. Ensure that By-law Enforcement Officers are present to enforce City By-laws as necessary, and assist RCMP with enforcement - including on weekends
14. Monitor Staff to ensure that they are doing what is asked of them and not delving into projects that go beyond the scope of the referrals that lead to wasting of our tax dollars.

Of course Staff members taking initiative and bringing forth ideas that enrich the City should be encouraged, however, these ideas should not be allowed to be slipped into reports and convoluted into the information that is to be approved by Council.

15. Listen to and act for the Voting Public.

60% of those allowed to participate opposed the installation of speed humps - to ignore this is unacceptable – why was the voting public's will dismissed? Canada is a democratic country and when we vote in our representatives, we expect that they will be our voice and not be swayed by the personal agenda of Staff members,

60% were against the installation of speed humps and had their concerns reduced to "perceptions" by City of Richmond Staff. For Staff to call their concerns perceptions in order to push through their personal agenda of speed humps is insulting and just wrong. Why are Staff allowed to waste our tax dollars to go against the will of the people who vote in this City?

# ON TABLE ITEM

## MayorandCouncillors

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Date: February 21, 2018  
Meeting: Public Works + Transportation  
Item: 5-River Road

**From:** MayorandCouncillors  
**Sent:** Tuesday, 20 February 2018 07:13  
**To:** Wei,Victor  
**Cc:** Powell,Jo Anne  
**Subject:** FW: Public Works and Transportation Committee meeting on February 21, 2018

**Categories:** - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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**From:** MayorandCouncillors  
**Sent:** Tuesday, 20 February 2018 07:13  
**To:** 'Steve Dee'  
**Subject:** RE: Public Works and Transportation Committee meeting on February 21, 2018

Good morning Mr. Dee,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, copies will be available at the Wednesday, February 21<sup>st</sup> Public Works and Transportation Committee meeting.

Thank you again for taking the time to share your views with Richmond City Council.

Hanieh Berg | Legislative Services Coordinator  
City Clerk's Office | City of Richmond  
6911 No. 3 Road, Richmond, BC V6Y 2C1

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**From:** Steve Dee [<mailto:stephen@dee.ca>]  
**Sent:** Monday, 19 February 2018 22:12  
**To:** MayorandCouncillors  
**Cc:** [Parsons606@hotmail.com](mailto:Parsons606@hotmail.com)  
**Subject:** Public Works and Transportation Committee meeting on February 21, 2018

Dear Mr. Mayor and Councilors:

I am unable to attend this meeting in person and request that this email be read into the minutes of the meeting.

I live on our agricultural property on River Road where I operate a nursery for ornamental plants. I also lease another property on the road where we operate another farm. As part of our growing operation we use the road to make numerous trips between our 2 locations as well as deliveries. The installation of speed bumps would seriously inhibit our operations.

I was under the impression that it was a priority for the city to preserve agricultural land and promote local agriculture. I agree with the importance of safety but I do not agree with hindering the intended use of the road for the sake of

recreation. It is too long to be restricted by speed bumps. I believe the current dyke reinforcing and widening which is happening will help make the road safer.

Thank you for your consideration,

Stephen Dee,  
21200 River Road.



## ON TABLE ITEM

Date: February 21, 2018  
Meeting: Public Works + Transportation  
Item: 5 - River Road

### MayorandCouncillors

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**From:** MayorandCouncillors  
**Sent:** Tuesday, 20 February 2018 07:11  
**To:** Wei,Victor  
**Cc:** Powell,Jo Anne  
**Subject:** FW: River Road speed humps proposal  
**Attachments:** River Road speed humps.docx

**Categories:** - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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**From:** MayorandCouncillors  
**Sent:** Tuesday, 20 February 2018 07:11  
**To:** 'andyhobbs@shaw.ca'  
**Subject:** FW: River Road speed humps proposal

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Good morning Mr. Hobbs,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, copies will be available at the Wednesday, February 21<sup>st</sup> Public Works and Transportation Committee meeting.

Thank you again for taking the time to share your concerns with Richmond City Council.

**Hanieh Berg | Legislative Services Coordinator**  
City Clerk's Office | City of Richmond  
6911 No. 3 Road, Richmond, BC V6Y 2C1

**From:** Andy Hobbs [<mailto:andyhobbs@shaw.ca>]  
**Sent:** Monday, 19 February 2018 20:54  
**To:** MayorandCouncillors  
**Subject:** River Road speed humps proposal

Good evening,

Please find my comments regarding the speed humps on River Road attached.

Thank you,

Andy Hobbs

Dear Mayor & Council:

Re: River Road Speed Hump Plan

Recently, I became aware of a plan to install about 54 speed humps along River Road between #6 Road and Westminster Hwy.

I can not attend the meeting this Wednesday due to a previous commitment so I am forwarding an email to express my opposition to this plan.

As a retired police officer, I've attended countless tragedies & numerous sudden death scenes including many gruesome traffic fatalities. I understand that River Road has been the location of some fatalities lately and, as a retired officer who had to investigate and notify family members, I'm more than familiar with the carnage and the human cost involved.

I have also been the officer in charge of a 90 member traffic section responsible for enforcement, education and engineering initiatives from a policing point of view and for working in close collaboration with our City and Provincial counterparts in improving road safety. In that role, I also served as the vice-chair of the B.C. Chiefs of Police Traffic Safety Committee.

I very much support road safety in our community.

However, it seems that this proposal places too much emphasis on the effectiveness of speed humps and that the City is listening to one particular interest group's agenda over all others.

First, the City seems to have a fixation with speed humps and seems to be willing to plunk them down on roads, in the middle of a neighbourhood, where they remain for decades. Once done, they will be there, effectively, forever.

Speed humps are not a panacea. They are a blunt, simplistic solution. Some concerns include:

- Speed humps are frequently too high & not deep enough (front to back). In my neighbourhood (Homma), the City installed two and if you slow down below 30 k, they are manageable. However, the speed limit is actually 50 kmh other than when school is in session. Although most people drive less than 50 k in the neighbourhood, even at 35 k or 40 k, a car gets rocked driving over them. They are too high and not deep enough. A speed bump is a different traffic device than a speed hump. Richmond tends to build big speed bumps and they are not desirable.

- Likewise, along #3 Rd south of Steveston Hwy leading to the south arm, the speed limit is 50 k, except for a short school zone, 30 k school days. The point is, you can't drive 50 k comfortably over those humps because they are too high & not deep enough.
- Speed humps affect large and shorter vehicles differently. Farm equipment, trailers, bins, motorcycles and short axles all react differently.
- Speed humps don't address the issue of congestion on River Road which is narrow and a necessary route for commercial vehicles including trucks, cars and cyclists and other road users. Primarily though, it is not a cycling route and the speed hump solution seems to be designed, almost exclusively, to address concerns of the cycling community.
- Speed humps are a 24/7 blunt instrument that do not account for times of the day and days of the week where it's predictably busy. They are not an intelligence based solution.
- Speed humps can aggravate congestion if there are too many and if they are too high. That is a likely outcome with this proposal.
- This plan has far too many and Richmond has demonstrated that they make them too high & not deep enough. This can negatively impact the efficient flow of traffic.

Importantly, speed humps don't address distracted driving and driver inattention.

Generally, it's agreed that road traffic safety is improved through engineering, enforcement and education.

**Engineering:** There are many options. Although, on this stretch of road, there are limitations since it's a narrow road with not much room for affordable changes like widening. It's an area with a very mixed road use of commercial, agricultural, residential as well as being a minor commuter route.

One (engineering) technology solution would require the Province to allow for "radar" speed enforcement. Set the threshold at a reasonable limit and the minority of irresponsible drivers would be penalized and change their behaviour. This isn't in the City's ability to change but the City could advocate through the Union of BC Municipalities (UBCM). High tech enforcement of traffic laws is widely used throughout the world and B.C. is lagging behind. The City should lead the municipal charge to have the Province make the legislative changes required for speed on green, new versions of photo radar, and far greater red light intersection enforcement.

**Education** is important through the use of media, social media and signage.

Education is a constant. It can be timed to seasons like the spring & summer when cycling increases or the fall when it's darker and the weather worsens. Clearly, it applies to all roads as well but it can be focussed on a particular road locations too. Australia has some of the best road safety education awareness programs.

**Enforcement** is a key. Road users including drivers and cyclists have to believe that there's a reasonable chance that violations of the rules will have consequences. This doesn't mean police have to be there 24/7. This can be intelligence based and focused on days of the week, hours of the day and weather when the predictive analysis maximizes the impact of enforcement. Behaviour can be changed. Outliers will exist but you can change the norms. Richmond has a very hard working Traffic Enforcement Unit.

Enforcement can be augmented by volunteer speed watch members and the Integrated Road Safety Unit (IRSU).

### **Other Solutions & Options**

Rather than 54(?) speed humps, engineering solutions could include less permanent, less intrusive and more affordable options including:

- Appropriate signs, alerting road users to the speed limit, share the road, pass when safe etc.
- Electronic speed warning signs.
- Better street lighting.
- Rumble strips patterns (small bumps, in patterns, that alert drivers at key locations) that are easier to travel over with bikes, trailers etc. These can include speed limit changes. These are very effective tools.
- Road/lane delineators (plastic dividers) at key spots (driveways, curves).
- Road reflectors.

To reiterate the speed limit issue, I do not support the proposal to lower the speed limit to 30 k, 24/7.

Perhaps, trucks could be **40 k** and cars could be 50 k.

There is no justification to have cars restricted to 30 k on a 24/7 basis. It's important to remember that laws (rules) should be seen to be legitimate and 30 k, 24/7, along the entire road, is not legitimate. It's overkill and enforcing it 24/7 would put police officers in unnecessary potential conflicts with the public who

would not see receiving a ticket for going 53 k in a 30 k speed zone, at 9 pm, on a nice summer evening, as legitimate or fair.

50 k in a car is a completely safe, reasonable and legitimate speed limit on City Streets, including River Road.

A very limited use of speed humps, done properly (not too high and deep enough), can be effective but they seem to be the flavour of the day in Richmond. Speed humps seem like a solution and give the impression of having done something but this proposal is overkill.

This plan is extremely expensive and very permanent.

Speed humps are not magic bullets and I encourage Council to listen to Richmond residents who live in the area and to not proceed with this plan.

Thank you,

Andy Hobbs

# ON TABLE ITEM

Date: Feb. 21, 2018  
Meeting: Public Works + Transportation  
Item: 5-River Road

## MayorandCouncillors

**From:** MayorandCouncillors  
**Sent:** Wednesday, 21 February 2018 08:37  
**To:** 'Alec Herrmann'  
**Subject:** RE: Richmond Public Works and Transportation Committee meeting on February 21, 2018

**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE, - DISTRIBUTED ON TABLE

Good morning Mr. Herrmann,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, copies will be available at the Wednesday, February 21<sup>st</sup> Public Works and Transportation Committee meeting.

Thank you again for taking the time to share your views with Richmond City Council.

Regards,  
Claudia

**Claudia Jesson**  
**Manager, Legislative Services**  
**City Clerk's Office**  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)

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FEB 20 2018

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**From:** Alec Herrmann [<mailto:alech@shaw.ca>]  
**Sent:** Tuesday, 20 February 2018 23:05  
**To:** MayorandCouncillors  
**Cc:** Wallie Sohl; [Parsons606@hotmail.com](mailto:Parsons606@hotmail.com)  
**Subject:** Richmond Public Works and Transportation Committee meeting on February 21, 2018

To the City of Richmond,

I am unable to attend the meeting in person and I request this email be read into the minutes of the meeting (in subject line).

I currently live at 23280 River Road (5 years) and previously lived at 23220 River Road (10 years).

23220 River Road just so happens to be the exact address where a fatal bicycle – car collision occurred on 2016 November 6 – the very incident that is prompting the city to install up to 76 speed humps on River Road.

In the several months after this terrible incident I was in agreement with a small number speed humps and even answered a city-issued questionnaire with that opinion. Now, after thinking about it more, and hearing

that there may be up to 76 speed humps installed, and realizing the various implications speed humps will have, I have changed my stance and am now very much OPPOSED to speed humps on River Road.

Speed humps will not only affect the cars driving on River Road - they will also affect the very bicycle riders we are trying to protect.

Much better to have a dedicated bicycle lane on River Road than speed humps.

Speed humps will slow down the response time of emergency vehicles that are trying to get to residents on River Road. I hear a fire engine go by my house at least 6 times a year and that is just during evening hours and weekends.

Speed humps will greatly annoy drivers who already have to put up with frequent long lines on River Road during rush hour traffic.

If you want to reduce the speeds on River Road, making the road harder to drive at higher velocities is not a good answer and this is a road that is already considered to be a narrow road with only 2 lanes. River Road is already somewhat difficult to drive in various sections, and even more so during inclement weather, so we do not want to make it worse for drivers. A better answer is proper enforcement of a speed limit. Maybe even consider bringing back speed cameras as a possible enforcement method for River Road?

Thank you for your time in listening to my opinion.

Alec Herrmann  
23280 River Road  
Richmond V6V1M4

# ON TABLE ITEM

Date: Feb. 21, 2018  
Meeting: Public Works + Transportation  
Item: S-River Road

## MayorandCouncillors

**From:** MayorandCouncillors  
**Sent:** Wednesday, 21 February 2018 08:40  
**To:** 'Avtar Thandi'  
**Subject:** RE: Presentation on Feb 21 Transportation Committee

**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE, - DISTRIBUTED ON TABLE

Good morning Mr. Thandi,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, copies will be available at the Wednesday, February 21<sup>st</sup> Public Works and Transportation Committee meeting.

Thank you again for taking the time to share your views with Richmond City Council.

Regards,  
Claudia

**Claudia Jesson**  
**Manager, Legislative Services**  
**City Clerk's Office**  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)

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FEB 20 2018

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**From:** Avtar Thandi [<mailto:avthandi@live.ca>]  
**Sent:** Tuesday, 20 February 2018 16:00  
**To:** MayorandCouncillors  
**Subject:** FW: Presentation on Feb 21 Transportation Committee

To all,

I do have concerns that the speed bumps will cause further accidents especially drivers that are not familiar with river road.

The bumps must be engineered properly so cars do not get out of control especially in wet and snow conditions... that saying it will further cause serious accidents then help relieve the problem.

I will not be able to make the meeting but will forward this message to mayor and council and hopefully someone will read my email and my concerns

Avtar Thandi



Schedule 2 to the Minutes of the  
Public Works & Transportation  
Committee meeting of Richmond  
City Council held on Wednesday,  
February 21, 2018.



## **RIVER ROAD (NO. 6 TO WESTMINSTER HIGHWAY) CITY OF RICHMOND**

### **Traffic Operations Safety Review**

Prepared for: City of Richmond  
Prepared by: **Watt Consulting Group**  
Our File: 2331.B01  
Date: February 20, 2018

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Appendix A: Full Roster Of Suggested Countermeasures

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## EXECUTIVE SUMMARY

The following Executive Summary is updated from the February 6, 2018 version and Addendum No. 1.

### Study Purpose and Background

Watt Consulting Group was retained by the City of Richmond to undertake an independent traffic operations and safety review of the River Road corridor from No. 6 Road to Westminster Highway. The study was commissioned in response to safety concerns raised by the public, particularly related to off-road crashes and to crashes involving cyclists. The study is also supported by ICBC, who may contribute funding to the implementation of the proposed options.

### Method Used

The review generally followed the method recommended in the Transportation Association of Canada's *Canadian Guide to In-service Road Safety Reviews*. This method clearly identifies a problem statement then identifies countermeasures to address the issues identified.

Site visits were conducted on January 17 and 18, 2018 – both at night and in the daytime and by bike riding the corridor and driving the corridor. Crash records from the Insurance Corporation of British Columbia were reviewed for the six years between 2011 and 2016 (inclusive). The predominant crash types were identified along with the higher-crash locations. Actual vehicle operational speed profiles were also reviewed.

This study considered a broad range of countermeasures to address the identified collision issues, including countermeasures previously proposed by City staff, ICBC staff, as well as several proposed by members of the public. Additional collision-reduction countermeasures were proposed by WATT, resulting in the evaluation of a total of 29 measures.

### Findings

On average, 20 crashes were recorded annually along the corridor. The crash data indicated the highest number of crashes are at the following locations:

- No. 6 Road and River Road (22 percent of total collisions), and
- River Road and Westminster Highway curve and intersection (21 percent of total collisions).

Of known collision configuration types, 33 percent were single vehicle off-road crashes, 9 percent were single vehicle – damage by debris, 31 percent were side impact or side-swipe crashes, and eight crashes involved cyclists (11 percent). The remainder were rear-end (13 percent) or head-on (3 percent).

In terms of severity, 37 percent of the crashes were injury collisions and one percent were fatal collisions, which is typical for urban two-lane arterial roads when compared to the British Columbia average. One fatal collision occurred in 2016 involving a cyclist, and a second fatal collision occurred more recently outside the crash record period, involving a single vehicle going off-road.

The analysis indicates that most of the crashes were occurring on weekdays in the daytime, with very few collisions at night. Seasonal patterns for collisions were not evident.

The roadway design consists generally narrow lanes of variable width. There is also limited or no road-side shoulder in most areas. There is a steep drop-off to a ditch on the south side of the road in many areas which would be non-recoverable should a vehicle leave the roadway. There are utility poles, fire hydrants, trees, and fences close to the road in many areas.

Cyclist “Single File” signage was clear and implemented at a high frequency, however the additional messaging sign to drivers to change lanes to pass are difficult to read and comprehend at-speed and are contradictory to the double yellow centreline used along most of the corridor. Staff has a plan to revise the double yellow centreline to single broken lines at select locations to allow passing where safe.

Speed data was reviewed and generally the 85<sup>th</sup> percentile of the speeds measured was over 70 kilometers per hour. These travel speeds are considered high as the posted speed is 50 kilometres per hour (or 30 kilometres per hour for trucks) and the geometry of the road is not well-able to accommodate such high speeds. The rural nature of the road and area nonetheless may encourage some motorists to drive faster than is safe for conditions. A significant contributing cause of the crashes (both frequency and severity) is likely that drivers are traveling driving faster than the speed best-suited for the physical conditions. The road has an Average Annual Daily Traffic volume (AADT) of approximately 3,000 vehicles per day.

The corridor was found to be well-lit at night even in wet and rainy conditions, with most pavement markings being quite visible.

### **Problem Statement**

The review of crash records identified four distinct collision patterns. After discussion with staff, it was confirmed that these four collision patterns are the issues that should be addressed with any safety countermeasures:

- **single vehicle crashes – off-road;**
- **single vehicle crashes – damage from debris;**
- **side impact and sideswipe crashes; and**
- **cyclist-involved crashes.**

In addition, the high travel speeds along the corridor are a concern given the characteristics of the roadway.

## Proposed Countermeasures

The proposed countermeasures were evaluated to assess whether they addressed the identified collision issues described above. In general, the proposed measures include:

- a package of sign and pavement marking improvements that provide consistent messages to drivers and cyclists;
- improved maintenance, particularly to remove debris;
- improvements to reduce off-road crashes such as increasing the pavement friction (to help motorists maintain control) at the two 90 degree curves;
- measures to guide drivers through the two 90-degree turns.

To reduce the frequency and severity of all of the four identified collision issues, solutions are proposed to better align the operating speeds with the road conditions. Changes would either:

- improve the road conditions to accommodate the actual vehicles operating speeds, or
- reduce operating speeds to a more appropriate level relative to the road conditions.

## Improving Road Conditions

The road is classified as a secondary arterial which suggests that the road surface should be widened to standard, shoulders installed, and roadside hazards located sufficiently far from the edge of road or protected. As well, given the nature of the road adjacent the River and the recreational use it attracts, pedestrian and cycling facilities (and possibly equestrian facilities) should be considered. It is acknowledged that these improvements would come at a high cost and likely be done when the dyke is re-built and therefore an interim option should be considered.

## Reducing Operating Speeds

Reducing the vehicle operating speeds through traffic calming, regulation, and enforcement can be a cost-effective option which can be implemented relatively quickly. Reducing speeds can be achieved through physical measures that require vehicles to slow down, but may also include other traffic control elements that better reflect conditions.

Speed humps are a proven effective means of maintaining a lower operational speed whilst other speed calming measures and techniques do not have reliable results. Speed humps are appropriate on local roads however the modification of speed humps to create a “speed cushion” are more appropriate on collector and arterial roads such as River Road, particularly to accommodate emergency vehicles such as fire and ambulance. Cushions provide a softer vertical deflection compared to speed humps, and are typically installed with gaps to allow wider wheelbase emergency vehicles more easy passage while still requiring passenger vehicles to ride over the hump. Cyclists are not typically bothered by speed humps or cushions and this is evident by the existing installation of speed humps on the corridor. With cyclists “taking the lane” by driving single file in the middle of the lane they will have the option of driving over the speed hump or using the gap in the cushion without adversely affecting other traffic.

Speed reader boards can also be effective in reducing speeds and alerting drivers they are going too fast for conditions. However, their effectiveness is more when first installed and gradually reduces over time, suggesting that movable devices be installed and their location be changed from time to time.

### Recommendations

It is recommended that the City develop a long-term plan to widen River Road to a 50 km/h design speed and to provide for shoulders, and separate recreational users from general traffic (cyclists, pedestrians, equestrians).

In the interim, it is recommended that the City implement measures to reduce operating speeds and mitigate the occurrence of the four key collision types. Proposed measures include the installation of a series of speed cushions to minimize excessive speeds and keep motorists within an appropriate speed to share the road single file with cyclists (40 km/h or less). Speeds should be reduced further at the No. 6 Road and the Westminster Highway 90-degree curves. The speed cushions should be accompanied with appropriate speed hump warning signs, regulatory 30 km/h signs for all (including trucks), 20 km/h advisory speeds should be posted on 90 degree curve ahead signs at the two 90 degree curves. Speed reader boards should be installed, and should be movable so that different areas along the corridor can be benefited. Additional measures listed below should also be implemented as part of the short term and/or interim approach.

ICBC is a project partner, and funding from ICBC is likely available for many of the recommended measures.

**TABLE ES-1: Summary of Proposed Countermeasures**

| Proposed Countermeasure   | Justification and Benefit   | Time Frame | Estimated Cost        |
|---|---|------------|-----------------------|
| <u>Sign and Pavement Marking Updates</u> (including conversion to single broken yellow centreline, addition of sharrow stencils, and signage improvements). High end estimate assumed conversion of up to 7000m of double yellow to single broken markings, sharrows spaced at 75m for the entire corridor, and up to 40 new signs. | To clarify shared use motorist-cyclist nature of the road and to create clear and consistent messaging along the corridor. Narrow (shared) road and high motorists speeds create speed differential and safety risk.<br><br><b>Target:</b> Reduce cyclist collisions. | Short Term | \$67,000 to \$180,000 |

| Proposed Countermeasure  | Justification and Benefit  | Time Frame        | Estimated Cost                |
|--|--|-------------------|-------------------------------|
| <p><u>Speed Reader Boards</u> (assuming four boards). Recommend that the boards be movable, to reduce driver complacency and allow for flexibility in application at areas of concern.</p> | <p>Speed reader boards provide direct feedback to drivers vis-à-vis posted speed limit and road conditions and can reduce speeds. Observed speeds are currently faster than are safe for road conditions.</p> <p><b>Target:</b> Reduce speed-related collisions.</p> | <p>Short Term</p> | <p>\$50,000 to \$60,000</p>   |
| <p><u>Curve Treatments</u>, including chevron warning signs (possible LED enhancements). These would be installed at the 90 degree curves.</p>   | <p>Provide enhanced warning and guidance through sharp curves where collision frequency is higher. Sharp curves may be unexpected after long, relatively straight and unimpeded approach.</p> <p><b>Target:</b> Reduce off-road collisions.</p>                      | <p>Short Term</p> | <p>\$15,000 to \$50,000</p>   |
| <p><u>Pavement Treatments – to increase friction</u> (assumed 800 lane-metres of application; assumed 200m length per lane at each curve)</p>  | <p>Provide increased driver control through sharp curves where collision frequency is higher. Sharp curves may be unexpected after a long, relatively straight and unimpeded approach.</p> <p><b>Target:</b> Reduce off-road collisions.</p>                         | <p>Short Term</p> | <p>\$425,000 to \$500,000</p> |
| <p><u>Education</u> (for both drivers and cyclists, regarding shared roads and single file operations. Could include informational material or presentations to cycling groups.)</p>       | <p>May increase driver understanding and behaviour toward cyclists, and cyclists understanding towards driver behaviour, regarding desirable single file and passing behaviour.</p> <p><b>Target:</b> Reduce cyclist collisions</p>                                  | <p>Short Term</p> | <p>Not estimated</p>          |



| Proposed Countermeasure   | Justification and Benefit  | Time Frame | Estimated Cost  |
|---|--|------------|---|
| <p><u>Increase Maintenance</u> (more frequent debris clearing / street sweeping, and/or re-striping of pavement markings).</p>  | <p>Reduce potential for collisions involving debris, or off-road collisions in areas where markings may be faded or obscured. Debris was a noted factor in some single vehicle collisions.</p> <p><b>Target:</b> Reduce debris-related and off-road collisions.</p>  | Short Term | Not estimated   |
| <p><u>Traffic Calming – Speed Cushions</u></p> <p>Reduce posted speed limit to 30 km/h for all vehicles with traffic calming comprising 43 speed cushions:</p> <ul style="list-style-type: none"> <li>• 13 sets of 3 speed cushions spaced at 100 m between the curves with a minimum of 400 m between each set</li> <li>• 1 set of 3 speed cushions on No. 6 Road approaching River Road, and</li> <li>• 1 speed cushion on River Road approaching Westminster Highway.</li> </ul> <p>If the above speed cushions do not achieve 40 km/h operating speeds, then 11 additional sets of 3 speed cushions (33) can be installed between the gaps for a combined total of 76 speed cushions.</p> | <p>This design will minimize excessive speeds and keep motorists within an appropriate speed to share the road with cyclists. Speed cushions have lesser response time impacts to emergency vehicles than speed humps. Narrow (shared) road and high motorists speeds create speed differential and safety risk for cyclists. Observed motorist speeds are currently faster than are safe for road conditions.</p> <p><b>Target:</b> Reduce cyclist collisions, reduce off-road collisions, and reduce sideswipe collisions.</p> | Interim    | <p>\$325,000 to \$350,000 for initial installation of 43 speed cushions.</p> <p>\$250,000 to \$275,000 for Phase 2 installation of 33 speed cushions (if required).</p> |
| <p><u>Re-Build Dyke and Road</u></p>  | <p>Design would match the secondary arterial roadway classification, and accommodate all road users.</p> <p><b>Target:</b> Reduce all collisions.</p>  | Long Term  | Not estimated   |

| Proposed Countermeasure | Justification and Benefit   | Time Frame          | Estimated Cost |
|-------------------------|---|---------------------|----------------|
| <u>Enforcement</u>      | <p>Enforcing vehicle speeds and other rules of the road (e.g. passing behaviour) can improve safety. The benefits, however, lessen over time unless enforcement is frequent or continual (which may be prohibitive).</p> <p><b>Target:</b> Reduce all collisions.</p> | Short and Long Term | Not estimated  |

## 1.0 INTRODUCTION

Watt Consulting Group was retained by the City of Richmond to conduct a traffic operations safety review (TOSR) for the section of River Road between No. 6 Road and Westminster Highway. The study was commissioned in response to safety concerns raised by the public, particularly related to off-road crashes and to crashes involving cyclists. The study is also supported by ICBC, who may contribute funding to the implementation of the proposed options.

A traffic operations safety review is a structured review of existing road facilities that analyzes collision history, traffic operations, geometric characteristics, and an assessment of human factors, through in-field and analytical reviews. The TOSR is multi-modal in scope, and considers all road users, travel modes and the interactions between users. Based on the review of these categories, several countermeasures are proposed which may lower safety risk, and a recommendation is made regarding countermeasure implementation.

### 1.1 STUDY APPROACH

The TAC *Canadian Guide to In-service Road Safety Reviews* was used as the basis for the study approach. This was complimented with consideration of other relevant guides, such as:

- FHWA Bikeway Safety Guide
- TAC Geometric Design Guide for Canadian Roads
- TAC Manual of Uniform Traffic Control Guidelines for Canada

The assessment considered four key areas: collision analysis, operations analysis, geometric analysis, and human factors analysis. Included within these areas were considerations for asset condition / maintenance as related to road safety. The study process included input and general direction from City staff, including meetings, data provision, and feedback at key stages. This study considered a broad range of countermeasures to address the identified collision issues, including countermeasures previously proposed by City staff, ICBC staff, and members of the public, as well as additional collision-reduction countermeasures proposed by WATT.

## 2.0 STUDY AREA OVERVIEW

The study area is shown in **Figure 1**. River Road is a two-lane secondary arterial road on a dyke bordering the Fraser River. It is rural in design and adjacent land uses, with no curbs or sidewalks. The posted speed limit is generally 50 km/h, except 30 km/h for trucks, although there is also section in the middle of the corridor that currently has speed humps installed, and in this area the posted speed limit is 30 km/h for all users. The road serves area residents and businesses (including commercial/industrial land uses along the western portion of River Road). The road also serves as a popular touring cyclist route on weekends. It is designated as an informal cycling route - shared lane facility per the City's Recreational Trails & Cycling Map. It is

also identified as an on-street connector segment for several of the City's scenic routes and trails (for cyclists and motorists alike)<sup>1</sup>.



**Figure 1: Study Area**

## 2.1 BACKGROUND TRAFFIC CONDITIONS

Traffic volumes and speeds were reviewed for the corridor. Data was provided by the City for two locations along the corridor (19000 block and 21000 block of River Road).

The road has an Average Annual Daily Traffic volume (AADT) of approximately 3,000 vehicles per day at both locations. This volume is in the range of a typical rural collector road per the Transportation Association of Canada (5,000 vehicles/day or less for rural collector roads). Classification data was not readily available from the traffic count data. Anecdotally there was a high volume of trucks near the west end of River Road, near No. 6 Road. To the east there is a truck weight limit of 9 tonnes, which should restrict the number of heavy vehicles on this segment of road.

In terms of vehicle speeds, the 85th percentile of the speeds measured were generally over 70 kilometers per hour. These travel speeds are considered high as the posted speed is 50 kilometres per hour (or 30 kilometres per hour for trucks) and the geometry of the road is not well-able to accommodate such high speeds (see Section 4.1). The rural nature of the road and area nonetheless may encourage some motorists to drive faster than is safe for conditions. A

<sup>1</sup> <https://www.richmond.ca/parks/trails/highlights/exploring.htm>

significant contributing cause of the crashes (both frequency and severity) is likely that drivers are traveling driving faster than the speed best-suited for the physical conditions. In particular some vehicles were observed to drive and pass other motorists at excessive speeds during the site visits in the east portion of River Road.

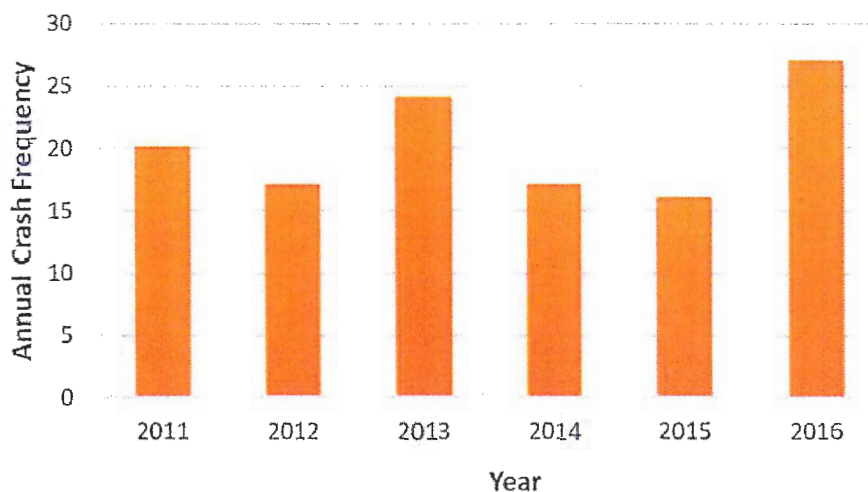
This review did not focus on the capacity performance of the road nor its intersections, as volumes are relatively low and delay was not considered to be a relevant issue by the City.

### 3.0 COLLISION ANALYSIS

Collision data for the study area were obtained via City of Richmond staff, and are based on ICBC-reported collisions, for the six-year period from 2011 to 2016. The dataset includes a number attributes that can be used to investigate characteristics, possible contributing factors, and trends.

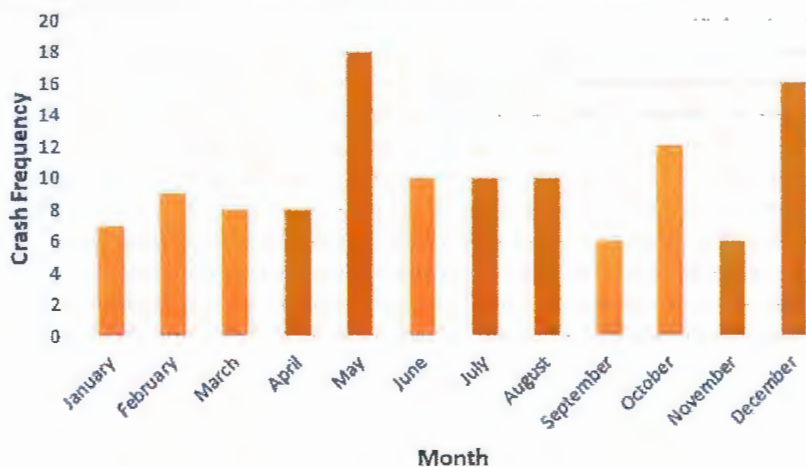
#### 3.1 COLLISION DISTRIBUTION

The 2011-2016 annual collision distribution is shown in **Figure 2**. On average, 20 collisions per year were recorded for the study area over the six-year period (121 collisions in total over 6 years). Although the number varies each year, no discernable trend is apparent.



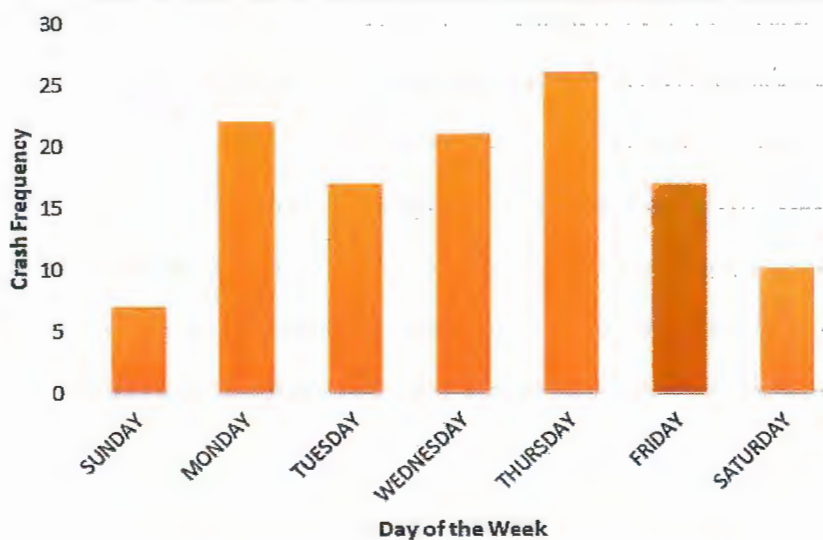
**Figure 2: 2011-2016 Annual Collision Distribution**

The 2011-2016 monthly collision distribution is shown in **Figure 3**. The highest number of crashes occurred in May, followed by December. The higher frequency for December crashes may be due to icy or snowy conditions.



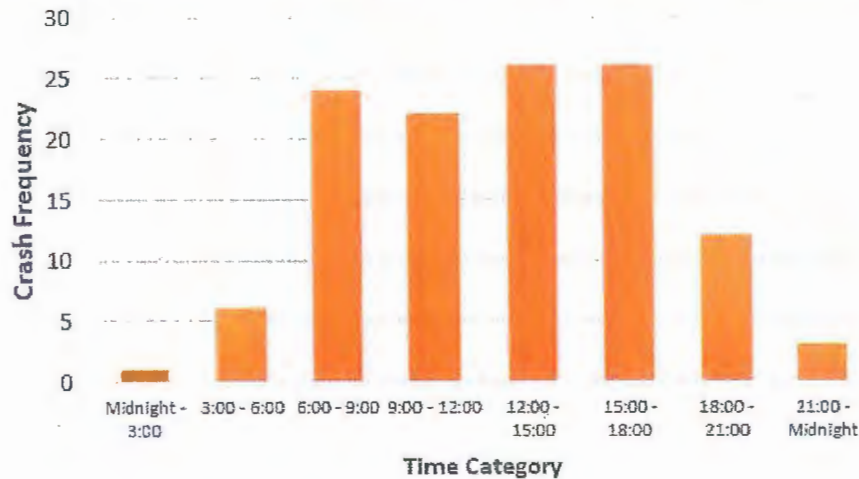
**Figure 3: 2011-2016 Monthly Collision Distribution**

The 2011-2016 daily collision distribution is shown in **Figure 4**. The data indicates that the weekdays experienced the highest numbers of crashes.



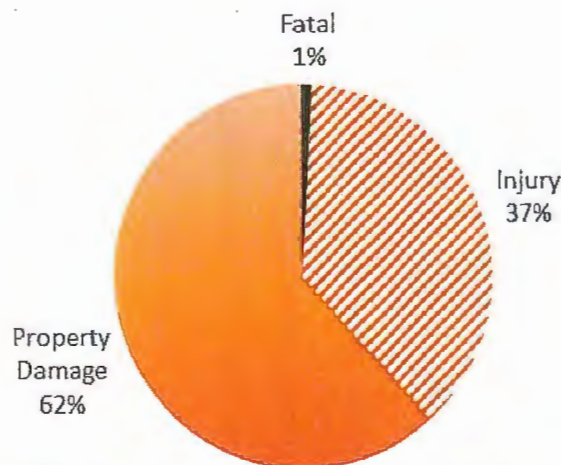
**Figure 4: 2011-2016 Daily Collision Distribution**

The 2011-2016 time-of-day distribution of the recorded collisions is shown in **Figure 5**. Higher collision frequencies occurred during the daytime, generally between 6:00 am and 6:00 pm.



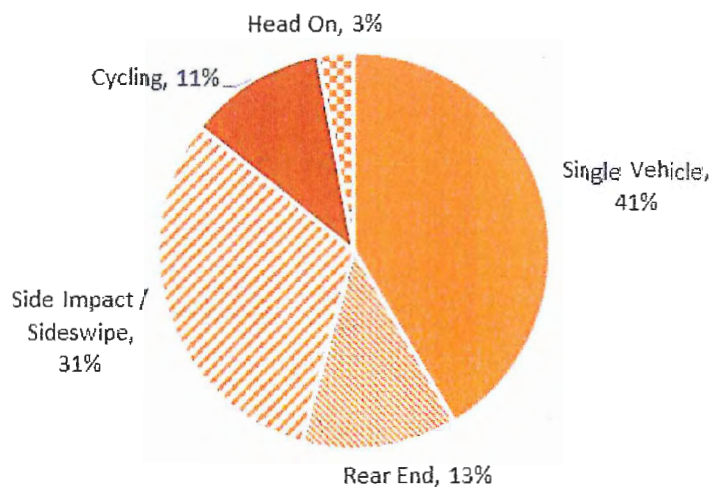
**Figure 5: 2011-2016 Time-of-Day Collision Distribution**

The 2011-2016 collision severity of the recorded crashes is illustrated in **Figure 6**. Slightly more than one-third of the crashes were injury or fatal collisions. This is consistent with the provincial average for similar roads (urban two-lane roads with AADT between 0 and 5,000 vehicles/day) and so collisions on River Road are not considered more severe than elsewhere in British Columbia. The data included one fatal collision that occurred in 2016 involving a cyclist. A second fatal collision occurred more recently outside the crash record period, involving a single vehicle going off-road.



**Figure 6: 2011-2016 Collision Severity Distribution**

The configuration of crashes as assessed by ICBC for the 2011-2016 collision dataset is illustrated in **Figure 7**. There were 51 collision records omitted from this analysis where the configuration was unclear and/or the reports of the reporting parties conflicted.



**Figure 7: Collision Configuration Distribution**

Of known collision configuration types, the greatest proportion (41 percent) of crashes were single vehicle collisions. Approximately one-fifth of these were caused when a vehicle was damaged when driving over a rock or a concrete. The remaining were caused by a vehicle leaving the road (in some cases due to weather-related surface conditions, some due to debris such as sand that contributed to the vehicle departing the roadway).

The next-highest group of crashes involved a side impact or side-swipe configuration (31 percent). Several rear-end crashes occurred (13 percent), although this is a relatively low percentage when compared to a typical roadway, and many of these were side-street rear-ends at River Road (as opposed to rear-ends along River Road). Cyclists were involved in 11 percent of crashes where the configuration was known.

Heavy vehicles were involved in 17 percent of corridor crashes (of which 20 percent were injury collisions).

### Summary

The analysis of the collision distributions indicates that most of the crashes occurred on weekdays in the daytime, with few collisions at night. Seasonal patterns for collisions were not evident. The severity of the collisions was found to be typical when compared to other provincial roads. The critical collision patterns were found to be:

- single vehicle crashes – off-road;
- single vehicle crashes – damage from debris;
- side impact and sideswipe crashes; and
- cyclist-involved crashes.



### 3.2 COLLISION MAP

Key collision locations are summarized below in terms of total collisions in six years and the collision frequency (collisions/year). Collision rate (collisions per million entering vehicles) was not estimated as complete intersection traffic data was unavailable.

**Figure 8** shows the collision diagram.

In the study corridor, the locations with the highest frequency of collisions are:

- No. 6 Road and River Road (22 percent of total collisions), and
- River Road and Westminster Highway curve and intersection (21 percent of total collisions).

Other than the curve locations, there are in general no other specific locations that are notably higher in collision frequency than others. There are, however, more collisions in the western half of the corridor than the eastern half.

Cyclist collisions occur at locations along the corridor, although there are more cyclist collisions in the vicinity of the curve at Westminster Highway than other areas of the corridor (two at or near the curve, as well as one at Westminster Highway itself).

# Frequency of Reported Collisions, 2011-2016

River Road (No. 6 Road to Westminster Highway), Richmond



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 Vancouver, BC, V6C 1H2  
 (250) 388 - 9877  
 www.wattconsultinggroup.com



City of Richmond  
 River Road Traffic Safety and Operational Review  
 Project No: 2331 | Date: February 14, 2018 | Drawn By: VN

## 4.0 MULTI-MODAL SAFETY ANALYSIS

The operational, geometric, and human factor elements were considered for the corridor and key intersections for all travel modes. This was done via site visits, aerial photos and mapping, and data and reports as received from the City. For the site visits, daytime conditions were observed by vehicle on January 17 and 18, 2018, and by bicycle on January 18, 2018. Evening conditions were observed by vehicle on January 17, 2018. Due to the time of year it was not possible to observe peak weekend cycling activity and conditions.

### 4.1 GEOMETRY

The roadway design is a two-lane rural road cross-section, with generally narrow lanes of variable width. There is also limited or no road-side shoulder in most areas. There is a steep drop-off to a ditch on the south side of the road in many areas which would be non-recoverable should a vehicle leave the roadway. There are utility poles, fire hydrants, trees, and fences close to the road in many areas (less than one metre away from edge of pavement in some cases).



River Road Looking East (west of No. 7 Road). Narrow Road, Minimal Shoulder, Steep Ditch to the Right. Fence near Road to the Left



River Road Looking East (near No. 6 Road). Utility pole close to edge of road.

The rural road cross section (with no sidewalks or curbs) along with rural and undeveloped nature of the area (particularly east of No. 7 Road) can inherently promote higher speeds, in particular as there is no traffic control to stop vehicles along the length of the 8.3km corridor nor are there many intersections. The speeds that result are, however, in excess of what is safe for motorists given the roadside hazards, and are in excess of what is safe for a single-file shared roadway with cyclists.

The geometry at the curves at No. 6 Road and near Westminster Highway is abrupt and sharp. These curves have Advisory Warning Speeds of 20 km/h which is appropriate given the sharp curve geometry. In consideration of a roadway designation of secondary arterial it is not desirable to have such sharp curves, however land acquisition would be required to provide larger radius curves with design speeds closer to that to the majority of the corridor. In addition, the abrupt curves can serve as a “gateway” transition onto the rural River Road from the more urban approach roads at either end of the corridor.

The geometry of specific intersections was not identified or apparent as a concern, and generally typical for rural intersections in Richmond and the lower mainland.

## 4.2 OPERATIONS

### 4.2.1 OPERATING SPEEDS

As noted in Section 2.1, 85<sup>th</sup> percentile speed are in excess of the posted speed limit for general vehicles (50km/h) and even moreso for the 30 km/h speed limit for trucks. The speed differential between high-speed motorists and cyclists is likely greater than between motorists-motorists or motorist-trucks. This speed differential can contribute not only to the occurrence of collisions but to the severity as well.

### 4.2.2 SIGNAGE

#### Cycling Signage

The City has recently installed Share the Road – Single File signage at frequent intervals along the corridor. The sign is the TAC version of the sign, and is appropriate given the lane widths of the road. In addition, the signs are accompanied with additional warning signs: one identifies “Single File – Change Lanes to Pass When Safe”, and the other “Caution – High Cycling Activity on Weekends”. The intent of these signs is to appropriately warn motorists and cyclists of proper roadway operations, however there are some potential safety concerns based on the current signage design:

- The text is small and difficult to read, and the messages are long. This can make it very difficult for motorists to interpret the message while driving by at speed. This is exacerbated by combining multiple messages on the same pole.
- The message to change lanes to pass when safe does not match the majority of the pavement markings along the corridor, which are (in most areas) double yellow. This prohibits lane changing, which is contradictory to the warning signage message.

It should also be noted that there are some curved areas of the road where passing sight distance may not be met at 50 km/h. Further work is necessary to identify all of these locations.



Cycling Single File Signage – Text Difficult to Read and Interpret At-speed



Signage Instructing to Change Lanes to Pass when Safe, but Double Yellow Marking Contradicts This

In terms of cycling comfort, during the site visit ride-through, motorists were generally respectful when approaching and passing cyclists.

### Truck Speed Limit Signage

The truck speed limit signs were used in some locations but not consistently throughout the corridor. In particular they were not noticed at either end when entering the corridor

### Other Signage

Additional signage observations were noted that may not have a major safety implication but nonetheless be inconsistent or have impacts on driver comprehension and safety to some degree, as follows:

- Horse Crossing warning signage; one isolated instance observed, and not particularly obvious why or to what extent this warning signage is applicable for.
- Truck signage near No. 7 Rd (westbound) was confusing (overloaded pole included a green permitted truck sign, a turn restriction sign, and a weight restriction 9T sign), which is intended to restrict westbound trucks from using No.7 Rd.
- A few relic “share the road – side by side” signs still installed. These appear to be lower reflectivity than the single file signs.



### 4.2.3 NIGHT CONDITIONS / LIGHTING

During the evening visit, the road surface was wet, and there were periods of rain during the evening site visit. Key observations include:

- Signage was very reflective (specifically the Single File and Posted Speed Limit signs)
- Centreline markings, edge line markings, and raised reflectors very visible for majority of corridor. There were a few pockets nearer to the west end where edgeline was not present or visible, or where centreline marking was worn.

- Lighting was good and frequent for entire corridor. Approximately 5 lights were out (should be addressed) but the overall frequency and intensity of lighting provided coverage even in those locations.
- The short section of centreline pickets – these pickets were not visible or reflective; did not see or notice until almost right beside them

Therefore, the corridor was found to be well-lit at night even in wet and rainy conditions, with most pavement markings being quite visible.

## 5.0 COUNTERMEASURES

### 5.1 COUNTERMEASURE TARGETS

To reduce the frequency and severity of all of the four identified collision issues, solutions should better align the operating speeds with the road conditions. Changes would either:

- improve the road conditions to accommodate the actual vehicles operating speeds, or
- reduce operating speeds to a more appropriate level relative to the road conditions.

#### Improving Road Conditions

The road is classified as a secondary arterial which suggests that the road surface should be widened to standard, shoulders installed, and roadside hazards located sufficiently far from the edge of road or protected. As well, given the nature of the road adjacent the river and the recreational use it attracts, pedestrian and cycling facilities (and possibly equestrian facilities) should be considered. It is acknowledged that these improvements would come at a high cost and likely be done when the dyke is re-built and therefore an interim option should be considered.

#### Reducing Operating Speeds

Reducing the vehicle operating speeds through traffic calming, regulation, and enforcement can be a cost-effective option which can be implemented relatively quickly. Reducing speeds can be achieved through physical measures that require vehicles to slow down, but may also include other traffic control elements that better reflect conditions and elicit appropriate driving speeds and behaviours.

Speed humps are a proven effective means of maintaining a lower operational speed whilst other speed calming measures and techniques do not have reliable results. Speed humps are appropriate on local roads however the modification of speed humps to create a “speed cushion” are more appropriate on collector and arterial roads such as River Road, particularly to accommodate emergency vehicles such as fire and ambulance. Cushions provide a softer vertical deflection compared to speed humps, and are typically installed with gaps to allow wider wheelbase emergency vehicles more easy passage while still requiring passenger vehicles to ride over the hump. Cyclists are not typically bothered by speed humps or cushions and this is

evident by the existing installation of speed humps on the corridor. With cyclists “taking the lane” by driving single file in the middle of the lane they will have the option of driving over the speed hump or using the gap in the cushion without adversely affecting other traffic.

Speed reader boards can also be effective in reducing speeds and alerting drivers they are going too fast for conditions. However, their effectiveness is more when first installed and gradually reduces over time, suggesting that movable devices be installed and their location be changed from time to time.

## 5.2 EVALUATION OF FULL COUNTERMEASURE ROSTER

The countermeasures that were proposed by the various groups were evaluated to assess whether they addressed the identified four major collision issues identified in this review. An explanation was also provided as to why a measure may have been proposed or not. Based on this preliminary screening, a list of proposed measures is proposed. See **Appendix A** for the full list of countermeasures and evaluation results.

## 5.3 PROPOSED COUNTERMEASURES

The proposed measures are summarized in **Table 1** and shown conceptually in **Figure 9 – Proposed Countermeasures**. In general, the proposed measures include:

- a package of sign and pavement marking improvements that provide consistent messages to drivers and cyclists;
- improved maintenance, particularly to remove debris;
- improvements to reduce off-road crashes such as increasing the pavement friction (to help motorists maintain control) at the two 90 degree curves;
- measures to guide drivers through the two 90-degree turns.

The summary table includes the general application details of the countermeasure, the justification and benefit of the countermeasure, the applicable implementation timeframe, and cost estimate.

**TABLE 1: SUMMARY OF PROPOSED COUNTERMEASURES**

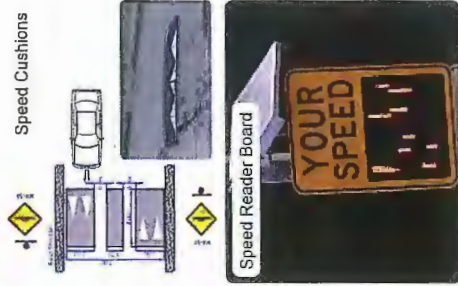
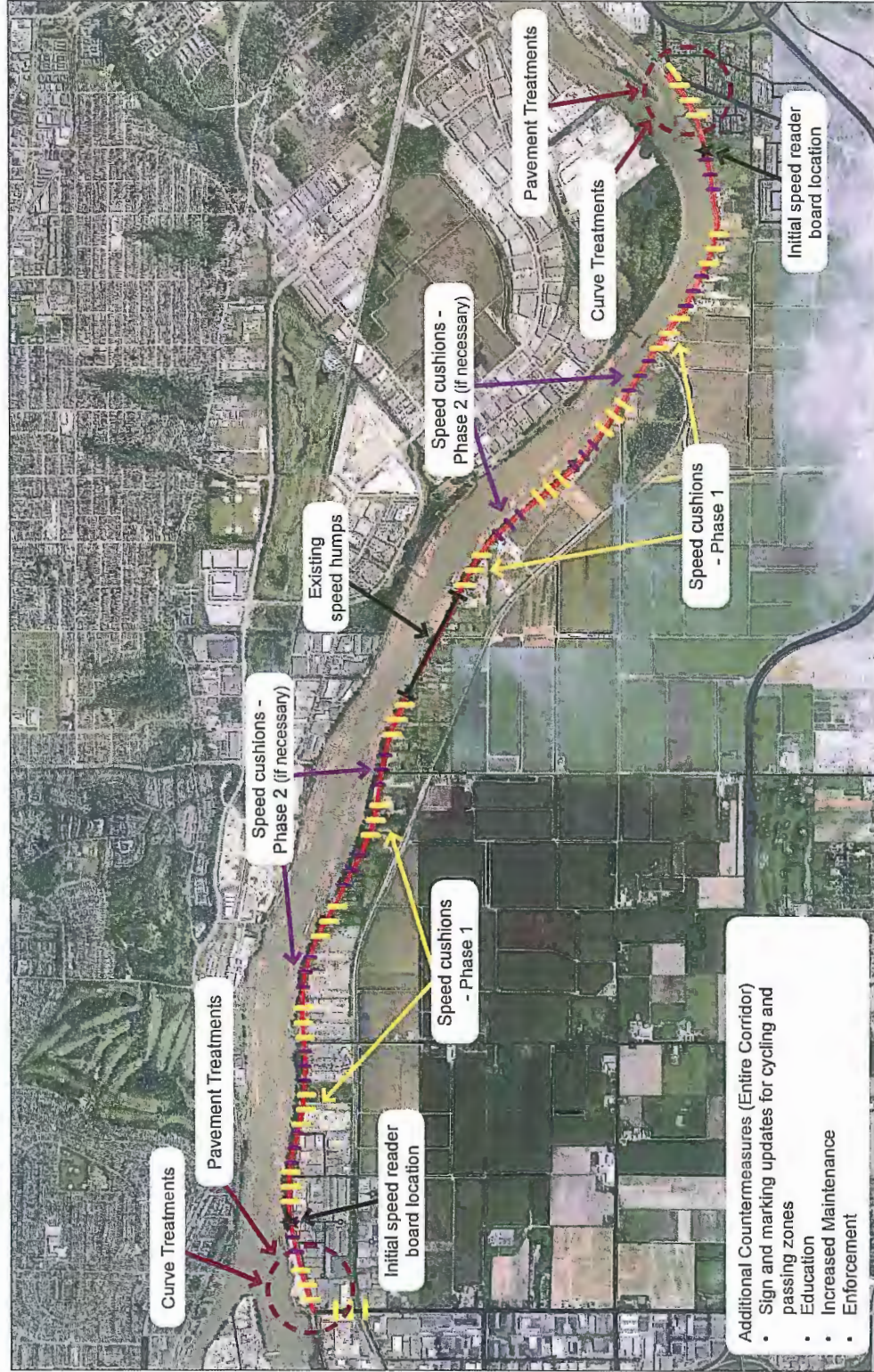
| Proposed Countermeasure   | Justification and Benefit   | Time Frame | Estimated Cost         |
|---|---|------------|------------------------|
| <u>Sign and Pavement Marking Updates</u> (including conversion to single broken yellow centreline, addition of sharrow stencils, and signage improvements). High end estimate assumed conversion of up to 7000m of double yellow to single broken markings, sharrows spaced at 75m for the entire corridor, and up to 40 new signs. | To clarify shared use motorist-cyclist nature of the road and to create clear and consistent messaging along the corridor. Narrow (shared) road and high motorists speeds create speed differential and safety risk.<br><br><b>Target:</b> Reduce cyclist collisions. | Short Term | \$67,000 to \$180,000  |
| <u>Speed Reader Boards</u> (assuming four boards). Recommend that the boards be movable, to reduce driver complacency and allow for flexibility in application at areas of concern.   | Speed reader boards provide direct feedback to drivers vis-à-vis posted speed limit and road conditions and can reduce speeds. Observed speeds are currently faster than are safe for road conditions.<br><br><b>Target:</b> Reduce speed-related collisions.         | Short Term | \$50,000 to \$60,000   |
| <u>Curve Treatments</u> , including chevron warning signs (possible LED enhancements). These would be installed at the 90 degree curves.  | Provide enhanced warning and guidance through sharp curves where collision frequency is higher. Sharp curves may be unexpected after long, relatively straight and unimpeded approach.<br><br><b>Target:</b> Reduce off-road collisions.                              | Short Term | \$15,000 to \$50,000   |
| <u>Pavement Treatments – to increase friction</u> (assumed 800 lane-metres of application; assumed 200m length per lane at each curve)  | Provide increased driver control through sharp curves where collision frequency is higher. Sharp curves may be unexpected after a long, relatively straight and unimpeded approach.<br><br><b>Target:</b> Reduce off-road collisions.                                 | Short Term | \$425,000 to \$500,000 |



| Proposed Countermeasure   | Justification and Benefit   | Time Frame | Estimated Cost  |
|---|---|------------|---|
| <p><u>Education</u> (for both drivers and cyclists, regarding shared roads and single file operations. Could include informational material or presentations to cycling groups.)</p>  | <p>May increase driver understanding and behaviour toward cyclists, and cyclists understanding towards driver behaviour, regarding desirable single file and passing behaviour.</p> <p><b>Target:</b> Reduce cyclist collisions</p>   | Short Term | Not estimated   |
| <p><u>Increase Maintenance</u> (more frequent debris clearing / street sweeping, and/or re-striping of pavement markings).</p>  | <p>Reduce potential for collisions involving debris, or off-road collisions in areas where markings may be faded or obscured. Debris was a noted factor in some single vehicle collisions.</p> <p><b>Target:</b> Reduce debris-related and off-road collisions.</p>   | Short Term | Not estimated   |
| <p><u>Traffic Calming – Speed Cushions</u></p> <p>Reduce posted speed limit to 30 km/h for all vehicles with traffic calming comprising 43 speed cushions:</p> <ul style="list-style-type: none"> <li>• 13 sets of 3 speed cushions spaced at 100 m between the curves with a minimum of 400 m between each set</li> <li>• 1 set of 3 speed cushions on No. 6 Road approaching River Road, and</li> <li>• 1 speed cushion on River Road approaching Westminster Highway.</li> </ul> <p>If the above speed cushions do not achieve 40 km/h operating speeds, then 11 additional sets of 3 speed cushions (33) can be installed between the gaps for a combined total of 76 speed cushions.</p> | <p>This design will minimize excessive speeds and keep motorists within an appropriate speed to share the road with cyclists. Speed cushions have lesser response time impacts to emergency vehicles than speed humps. Narrow (shared) road and high motorist speeds create speed differential and safety risk for cyclists. Observed motorist speeds are currently faster than are safe for road conditions.</p> <p><b>Target:</b> Reduce cyclist collisions, reduce off-road collisions, and reduce sideswipe collisions.</p> | Interim    | <p>\$325,000 to \$350,000 for initial installation of 43 speed cushions.</p> <p>\$250,000 to \$275,000 for Phase 2 installation of 33 speed cushions (if required).</p> |

| Proposed Countermeasure       | Justification and Benefit  | Time Frame          | Estimated Cost |
|-------------------------------|--|---------------------|----------------|
| <u>Re-Build Dyke and Road</u> | Design would match the secondary arterial roadway classification, and accommodate all road users.<br><br><b>Target:</b> Reduce all collisions.   | Long Term           | Not estimated  |
| <u>Enforcement</u>            | Enforcing vehicle speeds and other rules of the road (e.g. passing behaviour) can improve safety. The benefits, however, lessen over time unless enforcement is frequent or continual (which may be prohibitive).<br><br><b>Target:</b> Reduce all collisions. | Short and Long Term | Not estimated  |

# River Road Traffic Operations Safety Review - City of Richmond Proposed Countermeasures



## 6.0 RECOMMENDATION

It is recommended that the City develop a long-term plan to widen River Road to a 50 km/h per hour design speed and to provide for shoulders, and separate recreational users from general traffic (cyclists, pedestrians, equestrians).

In the interim, it is recommended that the City implement measures to reduce operating speeds and mitigate the occurrence of the four key collision types. Proposed measures include the installation of a series of speed cushions to minimize excessive speeds and keep motorists within an appropriate speed to share the road single file with cyclists (40 km/h or less). Speeds should be reduced further at the No. 6 Road and the Westminster Highway 90-degree curves. The speed cushions should be accompanied with appropriate speed hump warning signs, regulatory 30 km/h hour signs for all (including trucks), 20 km/h advisory speeds should be posted on 90 degree curve ahead signs at the two 90 degree curves. Speed reader boards should be installed, and should be movable so that different areas along the corridor can be benefited. Additional measures listed in the table above should also be implemented as part of the short term and/or interim approach.

ICBC is a project partner, and funding from ICBC is likely available for many of the recommended measures.

## APPENDIX A: FULL ROSTER OF SUGGESTED COUNTERMEASURES

## LIST OF COUNTERMEASURES FOR EVALUATION

River Road Traffic Operations and Safety Review, No. 6 Road to Westminster Highway

| #        | Countermeasure  | Proposed By      | Collision Issue                       |                |   |             | Proposed for further consideration<br>(safety review report short list) |  |
|----------|---|------------------|---------------------------------------|----------------|---|-------------|---|--|
|          |   |                  | √ = if the countermeasure may address |                |   |             | Proposed  | Explanation  |
|          |   |                  | Cyclist Involved                      | Single Vehicle |   | Side Impact |   |  |
| Off-Road | Debris  |                  |                                       |                |   |             |   |  |
| 1        | Speed Humps and/or Cushions                                 | City Staff, ICBC | √                                     | √              |   | √           | Yes   | Cost-effective approach to lower speeds, helps all collisions, reduces severity. |
| 2        | "Single File" Signs   | City Staff       | √                                     |                |   | √           | Yes   | Low cost.  |
| 3        | "Sharrow" Pavement Markings                                 | City Staff       | √                                     |                |   |             | Yes   | Relatively low cost.   |
| 4        | Dashed Single Yellow Centreline                             | City Staff       | √                                     |                |   | √           | Yes   | Permits passing in designated locations.   |
| 5        | "Expect Cyclist" Signs                                      | City Staff       | √                                     |                |   |             | No  | Limited impact, redundant, non-standard signage.                                 |
| 6        | Remove Raised Pavement Markers (Cat's Eyes)                 | City Staff       | √                                     |                |   |             | Maybe   | Minimal effect.  |
| 7        | Shoulder Delineator Posts                                   | City Staff, ICBC |                                       | √              |   |             | Yes   | Being installed by City now on curves.   |
| 8        | Guard Rails on Curves                                       | Resident         |                                       | √              |   |             | No  | Expect insufficient space.   |
| 9        | Solarlite Edge Markers                                      | Resident         |                                       | √              |   |             | Maybe   | Further research required, may be limited in winter.                             |
| 10       | Reflective Markers on Roadside Objects                      | Resident         |                                       | √              |   |             | Yes   | Low cost.  |
| 11       | Increase Speed Limit to 60 kph, with exceptions             | Resident         |                                       |                |   |             | No  | No expected safety benefit.  |
| 12       | Reduce Speed Limit to 30 kph at Shipyard                    | Resident         | √                                     | √              |   | √           | Yes   | Will require measures to encourage compliance.                                   |
| 13       | Flashing Caution Signs at Shipyard                          | Resident         |                                       |                |   |             | No  | Low cost, but does not address issues.   |
| 14       | Speed Reader Board(s)                                       | Resident         | √                                     | √              |   | √           | Yes   | Relatively low cost. Lower speeds helps all collision types.                     |
| 15       | Police Enforcement  | Resident         |                                       | √              |   |             | Yes   | Provides short-term benefit, but ineffective when police not present.            |
| 16       | "No Shoulder" Signs   | Resident         | √                                     |                |   |             | No  | Adds to sign clutter. Limited impact.  |
| 17       | Educate Cyclists and Motorists                              | Resident         | √                                     |                |   |             | Yes   | Assumed by others, but expect limited effect.                                    |
| 18       | Encourage Other Cycling Routes                              | Resident         | √                                     |                |   |             | No  | Expect limited effect.   |
| 19       | "Local Traffic Only" signs                                  | Resident         |                                       | √              |   |             | No  | Changes role of road (minor arterial).   |
| 20       | Encourage Other Driving Routes                              | Resident         |                                       | √              |   |             | No  | Expect limited effect.   |
| 21       | Visual Narrowing with Pavement Markings                     | City Staff       |                                       |                |   |             | No  | Already narrow.  |
| 22       | LED Chevron Curve Warning Signs                             | City Staff       |                                       | √              |   | √           | Yes   | Particularly for curve near Westminster Highway.                                 |
| 23       | Improve Lighting  | ICBC             |                                       | √              | √ |             | No  | Roadway currently well lit.  |
| 24       | Non-skid Pavement Treatment                                 | Watt             |                                       | √              |   | √           | Yes   | Consider on curves when re-paving.   |
| 25       | Consistent & Standard Signs                                 | Watt             | √                                     |                |   | √           | Yes   | Low cost.  |
| 26       | Re-Build Dyke and Road to Guidelines, with cycling facility | All              | √                                     | √              | √ | √           | Yes   | Very expensive option, consider when dyke re-built.                              |
| 27       | Reduce posted speed to 30 kph all corridor                  | Watt             | √                                     | √              |   | √           | Yes   | Include measures to encourage compliance.  |
| 28       | Increase Maintenance: sweeping to remove debris, trim brush | Watt             | √                                     | √              | √ |             | Yes   |  |
| 29       | Disconnect east and western sections                        | Resident         |                                       | √              | √ |             | No  | May consider if other measures ineffective.                                      |

## ADDENDUM

**To:** Fred Lin – City of Richmond  
**From:** Tom Baumgartner, M.Sc., P.Eng.  
**Our File #:** 2331.B01  
**Project:** River Road TOSR  
**Date:** February 19, 2018  
**RE:** Executive Summary Addendum No.1

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The following addendum provides a correction for the *River Road Traffic Operations Safety Review Executive Summary* dated February 6, 2018. Collision frequencies were incorrectly calculated for the period from 2012-2016 and have now been updated for the analyzed collision data period of 2011-2016. Changes to the report are as follows:

1. CHANGE FROM:

**Method Used**

Crash records from the Insurance Corporation of British Columbia were reviewed for the **five** years between **2012** and 2016 (inclusive).

CHANGE TO:

**Method Used**

Crash records from the Insurance Corporation of British Columbia were reviewed for the six years between 2011 and 2016 (inclusive).

2. CHANGE FROM:

**Findings**

On average, **24** crashes were recorded annually along the corridor.

CHANGE TO:

**Findings**

On average, 20 crashes were recorded annually along the corridor.

Public Works and Transportation Committee  
Wednesday, February 21, 2018

My name is Trudy Haywood and I live at 22160 River Road.

Let me make this clear – I live on River Road full time, I drive the road every day, I pay tax to Richmond, which in turn pays your salary. I am not just a visitor to the road who in turn makes recommendations.

First of all I would like a yes or no answer to this question:  
Was it in the plans to put speed cushions on River Road before the cyclist was killed? If so, could you please advise me where I can read the minutes about the discussion.

Regarding the 44 signs along River Road which read  
Caution high cycling activity on weekends  
with a sign underneath which reads  
Single file change lanes to pass when safe  
and then a picture of a cyclist in front of a car

Those signs are incorrect. We saw only one cyclist go down our road last Sunday. On the Saturday there was two riding side by side on our road which is illegal under the Motor Vehicle Act. Large volumes of cyclists do not go down our road every weekend – it is sporadic. Most of these cyclists don't even live in Richmond so they don't pay taxes like we do. I feel that you listen to them (Hub Cycling, B.C Cycling, Velo Vets) and not the area residents.

1 fatal cyclist accident in the 40 years that I have lived on River Road should not change how we live on River Road. That accident was caused by driver inattention not speed.

Furthermore – I think everyone who has passed the B.C. drivers test knows to change lanes when safe - it's common sense. When you see signs that say change lanes when safe and the road is primarily double lines it makes you wonder who would have okayed putting these signs up? Even the consultant who did the report questioned the mixed message saying they were difficult to read and they are contradictory. Would it have not made more sense to first of all convert the



solid double yellow centreline to a dashed single yellow centreline at select locations before you put these signs up?

Regarding the speed cushions.

I asked Victor Wei where I could experience driving over speed cushions as he said they will be comfortable to go over. He is wrong. You can call them speed cushions, speed humps, speed bumps whatever you want but they are still big bumps on the road that are very uncomfortable to drive over especially for people with back problems, seniors, and anyone for that matter. I would like you all to experience what it is like. Please try driving over just 9 cushions on Gilbert Road south of Steveston Highway. Imagine going over up to 76 of these everyday of your life and that is just one way and then back over them all again to return home.

The independent consultant said speed cushions are deemed appropriate to accommodate emergency vehicles. He said that they are typically installed with gaps to allow wider wheelbase emergency vehicles more easy passage while still requiring passenger vehicles to ride over the hump. It was also stated that cyclists are not typically bothered by speed humps. With cyclists so called "taking the lane" by driving single file in the middle of the lane they will have the option of driving over the speed hump or using the gap in the cushion without adversely affecting other traffic. I think "taking the lane" on a narrow road with no shoulder is not safe. Furthermore if cyclists are going to be taking over our roads we need to incorporate a bike tax. Did the consultant even mention how the humps will affect the area residents?? No – we're peons.

The consultant's report regarding crash statistics said In terms of severity, 37% were injury collisions and 1% were fatal which is typical for urban 2 lane arterial roads. I ask if this is typical then why speed cushions? Did anyone do a crash analysis comparing ICBC crash data for River Road with other areas of Richmond? Before we spend all this money we need this analysis done.

Regarding signs along River Road.

I counted well over 102 signs along River Road between Westminster Highway and No 6 Road. Do we really need 44 new signs in cement blocks? River Road was such a beautiful stretch of road to drive along and now it is visual pollution. It is

ineffective. I think if there is less signs then there is a greater chance that people will read them (both cyclists and motorists) and the road will be safer. If speed cushions go in then we will have up to 76 more signs going up . This is absolutely crazy. Having a possible count of at least 178 signs for a 7 kilometer stretch of road is ridiculous. Not to mention the noise pollution on top of the sign pollution when the residents hear the constant thump of cars going over them.

Get rid of the visual pollution – we don't need all those signs (most of us have common sense and I would hope you see my point) Like, Sydney, Australia, I declare war on unnecessary road signs. Sydney wants to restore visual amenity to their streets in the form of “legally required signage” to make their streets look nice, driving would be easier and the cost of maintenance reduced. I request we do the same.

I suggest we:

Eliminate the cyclists from our road and that will in turn reduce 11% of the accidents. Instead channel the cyclists to Westminster Highway which is a safe designated cycling route – River Road is not.

22% of the accidents were at No 6 Road and River

21% of the accidents were at River and Westminster Highway

This means that 43% of the accidents are at either end of River Road so why do we need speed cushions installed all along the road?

9% were damage by debris so cleaning up the debris efficiently will lower that rate – again speed cushions wouldn't help in this case

13% were rear enders which shouldn't be caused by speed but rather driver inattention.

24% were other (some from snowy, icy roads) so do we really need all these costly speed cushions? No!

Remember 60% surveyed were against speed humps.

Put in moveable speed reader boards to make drivers aware of their speed instead.

We already deal with a road that has a narrow shoulder with utility poles, fire hydrants, trees and fences close by and then in the name of safety Richmond adds 44 cement blocks with cyclist signs for cars to launch off of - either into the ditch or river. Have we lost our common sense?

Please listen to those of us that are area residents and will be living this nightmare if speed cushions go through. We do not want them! Nor do we want all those signs!

Sincerely,

Trudy Haywood

## ON TABLE ITEM

Date: Feb. 21, 2018  
Meeting: Public Works + Transportation  
Item: 5- RIVER ROAD

### Mayor and Councillors

Schedule 4 to the Minutes of the Public Works & Transportation Committee meeting of Richmond City Council held on Wednesday, February 21, 2018.

**From:** Mayor and Councillors  
**Sent:** Wednesday, 21 February 2018 13:50  
**To:** Wei, Victor  
**Subject:** FW: Public Works and Transportation Committee Meeting feb 21 2018  
**Attachments:** transportation meeting feb 21 2018 speech.docx

**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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**From:** Mayor and Councillors  
**Sent:** Wednesday, 21 February 2018 13:49  
**To:** 'arline@smellthis.ca'  
**Subject:** RE: Public Works and Transportation Committee Meeting feb 21 2018

Good Afternoon Ms. Trividic,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, copies will be available at today's Public Works and Transportation Committee meeting.

Thank you again for taking the time to share your concerns with Richmond City Council.

Regards,  
Claudia

**Claudia Jesson**  
Manager, Legislative Services  
City Clerk's Office  
City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1  
Phone: 604-276-4006 | Email: [cjesson@richmond.ca](mailto:cjesson@richmond.ca)



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**From:** [arline@smellthis.ca](mailto:arline@smellthis.ca) [mailto:[arline@smellthis.ca](mailto:arline@smellthis.ca)]  
**Sent:** Wednesday, 21 February 2018 13:43  
**To:** Mayor and Councillors  
**Subject:** RE: Public Works and Transportation Committee Meeting feb 21 2018  
**Importance:** High

Please find attached a copy of my speaking notes for today's meeting – I apologize for it being all in CAPS but it makes it easier for me to read

Thank you so very much for your attention in this matter

Cheers

## Arline

PLEASE LIKE US ON FACEBOOK AT:  
[HTTP://WWW.FACEBOOK.COM/SMELLTHISAROMATHERAPY](http://www.facebook.com/smellthisaromatherapy)

FOLLOW OUR BLOG : <http://smellthis101.tumblr.com/>

ARLINE TRIVIDIC RA  
PRESIDENT TRI NATURAL MFG. (SMELL THIS! AROMATHERAPY)  
#130-15100 KNOX WAY  
RICHMOND BC V6V 3A6  
PHONE: 604-957-9984  
FAX: 604-957-9875

TRANSPORTATION MEETING WEDNESDAY FEB 21 2018 4PM ANDERSON ROOM

I AM SHOCKED AND APPALLED WITH THE LACK OF CONCERN SHOWN BY THE TRANSPORTATION STAFF FOR THE VOICE OF OUR NEIGHBOURHOOD.

MY PERCEPTION IS THAT THE STAFF IS TAKING THE SIDE OF A GROUP ROGUE CYCLISTS WHO DO NOT LIVE OR WORK ON OR NEAR RIVER ROAD. THEY ARE ONLY LISTENING TO A SPECIAL INTEREST GROUP WHO ONLY USES THE ROAD 15% OF THE TIME INSTEAD OF LISTENING TO US THE RESIDENTS WHO LIVE AND WORK HERE. 60% OF US SAID NO ..SO WHY WEREN'T WE HEARD !!!! AND LISTENED TO!

I OWN A BUSINESS JUST OFF RIVER ROAD AND SAVAGE ROAD .... I HAVE BEEN AT THIS LOCATION FOR 12 YEARS AND IN THE LAST 4 YEARS NOW LIVE ON RIVER ROAD AS WELL.

AT THE JAN 29 COUNSEL MEETING I PRESENTED THE VIDEO "CYCLIST BEHAVING BADLY" IT SHOWED YOU THE KIND OF DANGEROUS BEHAVIOUR AND DISREGARD FOR THE RULES OF THE ROAD THESE ROGUE CYCLIST PRESENT EVERY WEEKEND. FYI... THIS VIDEO WAS TAKEN 2 YEARS AGO.. WHAT'S SAD AND APPALLING ABOUT THIS ... NOTHING HAS CHANGED ... THEY STILL EXHIBIT THE SAME DANGEROUS BEHAVIOUR AND DISRESPECT TODAY.

SO LETS LOOK AT SOME FACTS

- MEDIA ATTENTION (NO CHANGE IN THEIR BEHAVIOUR)
- 38 NEW SIGNS –A LITTLE EXCESSIVE (NO CHANGE IN THEIR BE BEHAVIOUR) – JUST AS A SIDE NOTE THERE ARE ONLY 8 SPEED LIMIT SIGNS IN THE SAME STRETCH OF ROAD

BUT MOST IMPORTANTLY STILL NO RESPECT OR CONSIDERATION FOR OUR NEIGHBOURHOOD BY THIS GROUP OF ROGUE CYCLIST

WHAT MORE AS A NEIGHBOURHOOD DO WE HAVE TO DO TO GET YOUR ATTENTION IN THIS SERIOUS MATTER ... WE HAVE PRESENTED YOU WITH :

- A VIDEO
- PICTURES
- HARD FACTS

BUT OUR CONCERNS AND OPINIONS ALONG WITH OUR QUESTIONS HAVE NOT BEEN LISTENED TO, ANSWERED OR GIVEN ANY CONSIDERATION

WE REQUESTED MORE POLICE PRESENCE AND WE HAVE SEEN SOME ACTIVITY OVER THE LAST FEW WEEKS ...BUT !!! I HAVE ONLY WITNESSED THEM TARGETING MOTORISTS .. I HAVE NOT

SEEN THEIR PRESENCE ON THE WEEKENDS BETWEEN 8 AM AND 4PM WHEN THAT GROUP OF ROGUE CYCLIST TERRORIZES OUR NEIGHBOURHOOD.

I HAVE A FEW SOLUTIONS TO OFFER:

FIRST

- AGAIN I STATE MORE POLICE PRESENCE - BUT LET ME EMPHASIZE THIS POINT – I WANT TO SEE FAIR AND EQUAL TICKETING BY THE RCMP FOR BOTH CYCLIST AND MOTORISTS
- (WHEN WE USE ANY ROADWAY WHETHER IT IS 2 OR 4 WHEELED ...ARE WE NOT ALL !!!!! ACCOUNTABLE TO FOLLOW THE RULES OF THE ROAD AS STATED IN THE MOTOR VEHICLE ACT ... I THINK SO !!!

OUR NEIGHBOURHOOD WANTS AND NEEDS A SAFE SHARED ROAD

SECOND

- CYCLISTS LICENSING AND EDUCATION :
- IT WOULD CREATE A VALUABLE DATABASE FOR OUR CITY (WHO, FROM WHERE, AND HOW MANY CYCLE HERE)
- ACCOUNTIBLTY FOR THE ROGUE CYCLIST WHO WISH TO VISIT OUR CITY WILL KNOW THAT BAD AND DANGEROUS BEHAVIOUR IS NOT ACCEPTABLE HERE  
AND BE HELPFUL FOR ENFORCEMENT

IN CLOSING LET ME JUST SAY "THE CYCLISTS NEED TO MADE ACCOUNTABLE FOR THEIR BEHAVOUR IN OUR NEIGHOURHOOD AND OUR CITY" – DON'T YOU AGREE ! THIS PICTURE SAYS IT ALL

**A BAD ATTITUDE IS LIKE A  
FLAT TIRE... YOU CAN'T GO  
ANYWHERE UNTIL YOU  
CHANGE IT.**





## Richmond Transportation Committee

I've read the Review of Proposed Alternative Road Safety Enhancement Measures and am left even more concerned about the speed hump proposal for River Road.

This project, when first proposed to council, assured it would go forward with the condition of agreement from residents. The majority were opposed. Had the survey been inclusive all all directly affected, I believe the results would have been even more conclusively against this project.

I have spent some time researching other jurisdictions in which speed humps were under consideration. All that I have found required community consensus, and none involved a remotely comparable number of speed humps.

This process has taken on an unnecessarily divisive dimension, polarizing residents against visiting weekend cyclists. This conflict has been driven in part by the exclusion of residents, but the inclusion of cyclists, at the developmental stages. This set the stage for the problem we now have.

The way in which this matter has been handled, and the tensions it has generated, should be reason enough to pause and reconsider this entire project.

I have written to one of the visiting cycling groups, the Gastown group, the group that lost a member in the terrible, non-speed related accident on River Road that set this entire scenario into motion. I asked, in good will, if they would consider engaging with us to find solutions mutually. I have yet to receive a reply. Just as we've seen that the road routinely isn't being shared, as evidenced by Arline Trividec's video, nor is the process that has gotten us into this mess.

This process should have never favoured the interests of one group over another.

Let's compare how this issue compares to how speed humps are handled in other local jurisdictions:

Vancouver: The city policy states directly "We don't install speed humps on streets that are emergency response routes, or used by trucks in industrial areas. I would like to say that River Road is frequently the route taken by emergency vehicles, and is frequently the only point of access, depending on the location of the emergency. Unlike other parts of the city, we do not have a myriad of roads connecting to this street. Everyone has to travel for miles to find another through street.

In addition, parts of River Road are zoned industrial and well used by trucks, thanks to the last major decision made for our community, namely truck parks.

When a citizen or group in Vancouver requests speed humps, it is a requirement that at least 30% of notified residents respond, with at least 50% support... Consensus is key.

Abbotsford: In October 2016, City Council approved speed humps on three city streets, a process that saw the approval of residents and the up front inclusion of emergency services. As a result. 2 streets now have 5 speed humps, a third has 2.

Here in Richmond, the majority of residents reject the proposal for an additional 20 speed humps, on top of the existing 6, for total of 26. The most recent report, despite the knowledge that residents are opposed, ignores concerns as well as alternatives and recommends increasing the number to 76 or more, depending on how you interpret the report which in my view was poorly prepared. It also suggests decreasing the speed limit to 30km. As

racing bikes can exceed this speed, would the proposed speed reduction apply to cyclists, and if so, how would it be enforced? This is just one of the numerous oversights of this report.

Please tell me if or where there is a precedent for the placement of 76 or more speed humps on any road in this province?

I previously submitted a letter from the B.C. Ambulance Service that confirmed response times are affected by speed humps. Let's compare how this fact is dealt with in other jurisdictions.

In July of last year, the City of Nanaimo, with the support of residents, moved to install speed humps along Ross Road to curb an area with a confirmed speeding problem.

However, when the city consulted with emergency services, they determined that Ross Road was a priority response route and concern was immediately raised that response times could be adversely affected.

The City of Nanaimo then decided to do a pilot with emergency services in order to determine if response times could be, as they stated, significantly affected.

Nanaimo's City Transportation Manager, Jamie Rose stated that "It's not a bad thing to trial traffic calming in any situation, but in this one in particular, it's even more warranted just to figure out what the impact on emergency services operations is."

What a contrast in comparison to the approach being taken on River Road, given that the Nanaimo project involves 2 speed humps in comparison to the now-suggested of 76 or more for our community.

The report that was recently released is appalling in its vague generalizations, simply stating that yes, ambulances may have to travel at a lower rate of speed, but providing neither any studies or hard data to measure the delay being created by this project, not even so far as a comparison between 6, 26, 76, or more speed humps.

How can 2 speed humps be a point of concern for one community, but the quantities under consideration for our community be acceptable? Exactly how much time will be lost with the varying number of speed humps proposed? What specific tests or measurements are planned or have been performed?

In closing, the most recent report is not an examination of alternatives as it is so self-titled, but rather, a document lacking critical analysis in favour of simply reinforcing the option preselected for us, against the will of the majority of residents.

Surely, we can do better. Thank you.

# ON TABLE ITEM

Date: Feb. 21, 2018  
Meeting: Public Works + Transportation  
Item: S-River Road

Schedule 6 to the Minutes of the Public Works & Transportation Committee meeting of Richmond City Council held on Wednesday, February 21, 2018.

Good Afternoon – my name is Lynda Parsons. I live at 2491 No. 8 Road.

December 11, 2017 City Council Meeting referral to staff - *That staff review the potential solutions to traffic calming measures along River Road prior to the installation of speed humps.*

January 29, 2018 City Council Meeting 5 delegates spoke and expressed concerns regarding the installation of speed humps and how this would impact safety and emergency response. Cyclists' behaviour was also discussed and Staff asked to address.

Mayor Brodie noted that a staff report on the matter is anticipated to be presented at the February 21, 2018 Public Works and Transportation Committee meeting and that area residents and business be notified of this.

In response to queries from Council, staff noted that all options, to improve traffic safety along River Road including enforcement, will be examined and that staff will communicate with cycling groups to encourage safe cycling.

The Report to Committee dated February 9, 2018 is stated to address the December 11, 2017 referral as well as the concerns raised January 29, 2018, and contain the report that Mayor Brodie noted.

Subsequent to reviewing the report we offer the following observations and requests:

1. Where is the report from WATT Consulting Group? We are requesting that we receive a copy of the full report. The "Executive Summary" is not a report.
2. We would like to know who actually performed the analyses and wrote the report.
3. We want to see the detailed data relating to the accident analysis – when, where, type of vehicle involved, cause of the accident, time of day etc.
4. We want specifics on speed and traffic volume - when the data was collected, time period, number of vehicles, type of vehicles, speed of vehicles, time of day when speed was an issue etc.
5. We want to see the analysis on the impact that speed humps would have to the resident's safety.
6. We want to see the analysis on the impact that speed humps would have on response times of emergency responders.
7. We would like to know where the cyclist behaviour has been addressed. Driving or riding a bicycle down the road on a Wednesday (January 17) or a Thursday (January 18) cannot possibly give any information on the weekend cyclist activity.



Staff is obviously aware that cycling volumes are noted on weekends as indicated by the signs, and so why was this time of the week not investigated?

8. Where is the review of potential solutions – Staff attended the December 11, 2017 City Council Meeting and knows that the discussion leading to the referral was to look at alternate methods to speed humps – not to hire a company that would promote more.
9. We want to see what options to improve safety have actually been examined following the January 29, 2018 City Council Meeting where Staff advised that all options would be examined.
10. If this report is endorsed potentially 102 speed humps could appear on River Road between No.6 Road and Westminster Highway – 6 existing + 20 approved by council + 43 phase 1 + 33 phase 2 = 102. (Staff Report page PWT – 67)
11. We are requesting that the Report to Committee from Victor Wei, P. Eng. Director, Transportation dated February 9, 2018 and accompanying “Executive Summary” of WATT Consulting Group is NOT endorsed. It is incomplete and does not address the issue tasked which was: *That staff review the potential solutions to traffic calming measures along River Road prior to the installation of speed humps.* This report does nothing more than focus on Staff’s original agenda of installing speed humps - 20 additional speed humps were approved by Council contrary to the majority of residents, please do not endorse an additional 76.
12. We are requesting that any public consultation with respect to safety enhancements on River Road be spearheaded by one of our elected officials and NOT be led by any of the current Transportation Department Staff, as they have demonstrated in the past that they are unwilling to accept our opinions.
13. We request that any public consultation begin first with the residents and business employees who must use River Road to access our properties.
14. That the installation of speed humps, speed cushions or other obstructions be prohibited on River Road. These road treatments are a safety concern for the residents and are scientifically proven to increase fuel consumption and emissions, and so go against the City of Richmond’s sustainability goal to reduce greenhouse gas emissions by 33% by the year 2020.

**We propose the following safety enhancements:**

1. Install Radar Speed Signs or a similar type of speed reader signs. Depending on the type of sign a lot of information can be gathered, and users of the road alerted to changing road conditions as well as speed.
2. Enforcement of the Motor Vehicle Act on all users of the road including cyclists
3. Remove the excessive and dangerous signs and concrete bases, and replace with only the number of signs required to alert the users of the road, mounted safely into the gravel shoulder
4. Discontinue the removal of "cat's eye" road markers, and replace those already removed, or replace all with another form of in road markers.
5. Do not proceed with the placement of the "sharrow" road markers.
6. Remove the double solid line and replace with a broken line in areas where passing is safe.

**ON TABLE ITEM**

Date: Feb. 21, 2018  
Meeting: Public Works + Transportation  
Item: S-River

Schedule 7 to the Minutes of the Public Works & Transportation Committee meeting of Richmond City Council held on Wednesday, February 21, 2018.

**MayorandCouncillors**

**From:** arline <arline@smellthis.ca>  
**Sent:** Wednesday, 21 February 2018 15:00  
**To:** MayorandCouncillors  
**Cc:** arline@smellthis.ca; Maddog  
**Subject:** Public works and transportation committee meeting Feb 21 2018 notes from Yves Trividic  
**Attachments:** 20180221\_144427.jpg; 20180221\_142846.jpg; 20180221\_142839.jpg; 20180221\_145254.jpg  
**Categories:** - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE, - DISTRIBUTED ON TABLE

Hello please find attached speaking notes for Yves Trividic for today's meeting ...we apologize for it being hand written we will submit a typed one tomorrow via email  
Thank you  
Cheers Arline

Sent from my Samsung Galaxy smartphone.





MY NAME IS YVEL TRIVIDIC  
I RESIDE AT 22600 RIVER ROAD.

LISTED BELOW ARE MY COMMENTS AND CONCERNS

- WHY WERE THE PARAMETERS OF THE PROPOSAL CHANGED

ORIGINALLY REQUEST WAS FOR SPEED HUMPS FROM #7 ROAD TO WESTMINSTER HWY.

CHANGING THE SCOPE FROM #7 ROAD TO FURTHER 60 EAST TO #6 ROAD

THIS SEEMS TO HAVE RESULTED IN BEING ABLE

STATE THAT 24 CRASHES ON AVERAGE PER YEAR OCCUR.

IF THEY HAD STAYED WITH THE ORIGINAL SCOPE

#7 TO WESTMINSTER HWY THE ACTUAL NUMBER OF CRASHES WOULD HAVE BEEN 8 CRASHES ON AVERAGE PER YEAR

SO IT LOOKS LIKE CRASH COUNT BECAME HIGHER BY 16

WHEN #6 ROAD IS INCLUDED. IN OTHER WORDS THE CRASH COUNT WAS SKewed BY AN ADDITIONAL 66%.

REGARDLESS EVEN USING THE REPORTS CRASH COUNT OF 24 THIS INDICATES THAT RIVER ROAD IS ONLY ACCOUNTABLE FOR LESS THAN 1/2% OF TOTAL CRASHES IN RICHMOND.

BY COMPARISON STEVESTON HWY IS 7.2% - 94% MORE THAN RIVER RD

WILLIAMS ROAD IS 2.6% - 85%

BLUNDVILL IS 5.7% - 92%

FRANCIS IS 2.1% - 81%

#6 ROAD IS 2.7% - 85%

WHY DO WE NEED 44 SPEED HUMPS ON A ROAD WHICH HAS BEEN SHOWN TO BE ONE OF THE SAFEST IN RICHMOND.

SIGNAGE - THE SIGNAGE THAT IS BEEN PUT IN PLACE SHOWS A CYCLIST DEAD CENTRE IN THE LANE. THIS IS IN DIRECT CONTRAVENTION OF THE MOTOR VEHICLE ACT WHICH STATES CYCLIST MUST RIDE AS FAR TO THE RIGHT OF THE LANE AS POSSIBLE.

THIS SIGNAGE IS NOTHING MORE THAN AN ATTEMPT AT CARRYING THE PERCEPTION OF ALL A CYCLIST SHOULD ACT ON THE ROAD. CITY STAFF IS NOT ONLY UNCOUAGING BUT ALSO PROMOTING IGNORING THE MOTOR VEHICLE ACT. IT ALSO CREATES A BUILT IN IMMUNITY FOR CYCLIST SINCE THEY CAN SIMPLY POINT TO THE SIGN WHEN ARE MADE AWARE THAT THEY ARE IN CONTRAVENTION OF THE MOTOR VEHICLE ACT.

THESE SIGNS NEED TO COME DOWN AS SOON POSSIBLE. THERE ARE NUMEROUS ~~AND~~ PROPOSED MEASURES STATING EDUCATION WILL BE DONE FOR CYCLIST AND MOTORIST. BUT IN REALITY THE CYCLING COMMUNITY IS PRESENTLY BEING MISC-EDUCATED BY THE USE OF THIS SIGNAGE. IS THIS BEING DONE ON PURPOSE AND WILL IT CONTINUE.

~~THESE SIGNS NEED TO COME DOWN AS SOON POSSIBLE. THERE ARE NUMEROUS AND PROPOSED MEASURES STATING EDUCATION WILL BE DONE FOR CYCLIST AND MOTORIST. BUT IN REALITY THE CYCLING COMMUNITY IS PRESENTLY BEING MISC-EDUCATED BY THE USE OF THIS SIGNAGE. IS THIS BEING DONE ON PURPOSE AND WILL IT CONTINUE.~~

PWT 74 - NONE OF THE DELACTIONS EVER INDICATED THEY WANTED MORE PASSING SECTION. WE SIMPLY STATED THAT THERE IS ONLY ONE SECTION OF THE ROAD WHERE IT IS SAFE TO PASS (NOT SINGLE <sup>BROKEN</sup> ~~DOUBLE~~ MARKINGS). CITY STAFF IS MAKING AN ASSUMPTION ON THIS MATTER. THE PROPOSAL IS FOR 700M OF RIVER ROAD TO BE CONVERTED TO SINGLE BROKEN MARKINGS. DOUBLE YELLOW LINES INDICATE IT IS UNSAFE TO PASS. IF TODAY IT IS UNSAFE TO PASS ALONG MOST OF THE ROAD. WHY SHOULD THE MARKINGS ON THE ROAD BE CHANGED. IF IT IS NOT SAFE TODAY WHY WILL IT BE SAFE TOMORROW OR IN THE

FUTURE SINCE THE ROAD WON'T HAVE CHANGED.  
 IS CITY STAFF SO EAGER TO PERSUADE RESIDENTS THAT  
 THEY ARE WILLING TO PLAY FAST AND LOOSE WITH  
 SAFETY.

PWT 72 REDUCING OPERATING SPEEDS PARAGRAPH 2 LINE 9 TO 11

"WITH CYCLISTS "TAKING THE LANE" BY DRIVING  
 SINGLE FILE IN THE MIDDLE OF THE LANE THEY WILL  
 HAVE THE OPTION OF DRIVING OVER THE SPEED HUMP  
 OR USING THE GAP IN THE CUSHION WITHOUT ADVERSELY  
 AFFECTING OTHER TRAFFIC II

WHAT WE SEE HERE IS CITY STAFF WILLING TO  
 SPEND A LOT OF TAXPAYERS MONEY IN AN ATTEMPT  
 TO CHANGE THE CONVERSATION FROM  
 "SHARING THE ROAD" (THOSE SIGNS WERE REMOVED) TO  
 "TAKING THE LANE" (WHICH IS IN DIRECT CONTRAVENTION  
 TO THE MOTOR VEHICLE ACT

WHAT WE SEE HERE IS ACTUALLY THE HIDDEN  
 AGENDA SPECIAL INTEREST GROUPS (CYCLIST) ARE  
 TRYING TO ACHIEVE. THE MOTOR VEHICLE ACT IS CLEAR  
 IN THE CONCEPT OF SHARING THE ROAD AS CYCLIST ARE  
 OBLIGATED TO RIDE ON THE RIGHT SIDE OF THE ROAD AND  
 NOT IN THE MIDDLE OF THE LANE.

CITY STAFF HAVE DEFINITELY SHOWN THEIR BIAS TOWARD  
 CYCLIST THROUGHOUT THIS ONGOING ISSUE

THEY IGNORED THE RESULTS OF A SURVEY SHOWING  
 60% OPPOSITION TO SPEED HUMP.

INSTEAD THEY HAVE ~~BEEN~~ SPENT A CONSIDERABLE SUM OF  
 MONEY ON SIGNAGE WHICH IS MISLEADING AND GOES AGAINST  
 THE MOTOR ~~AND~~ VEHICLE ACT. THIS IS ALL BEING DONE  
 AT THE BEQUEST OF SPECIAL INTEREST GROUPS (CYCLIST)

BEAR IN MIND THAT THESE SPECIAL INTEREST GROUPS ONLY USE THE ROAD 15% OF THE TIME THEY ARE NOT TO BE ALLOWED TO SO GREATLY IMPACT DECISIONS THAT COUNCIL AND ACHHEIND CITIZENS SHOULD BE MAKING.

SINCE CITY STAFF HAS SHOWN A WILLINGNESS TO ONLY SUPPORT THE SPECIAL INTEREST GROUP ON THIS ISSUE AND ALSO SHOWN A WILLINGNESS TO IGNORE THE MOTOR VEHICLE ACT, NOT ONLY THEMSELVES BUT ALSO SUPPORTING AND PROMOTING CYCLIST TO IGNORE THE ACT AS WELL.

IN MY VIEW THIS REPORT HAS NO CREDIBILITY AND ALSO NO VALIDITY SINCE IT PROMOTES IGNORING CURRENT STATUTES (MOTOR VEHICLE ACT)

I PLEAD WITH COUNCIL AND THE MAYOR TO NEITHER ENDORSE NOR ACCEPT THIS REPORT FROM CITY STAFF

THANK-YOU.