

Samira Ghadimi (AT)

From: Manoj Nathoo (AT)
Sent: Wednesday, 30 April 2025 9:37 am
To: Siobhan O'Donovan (AT)
Subject: FW: Cross St/East St/Canada IFC

From: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>
Sent: Wednesday, 12 March 2025 12:41 pm
To: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>
Cc: Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>; Jason Budd (AT) <Jason.Budd@at.govt.nz>; Ian Kingston (AT) <Ian.Kingston@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Hi Manoj,

Yes, you'll still need to have line marking. In terms of tightening the left turn, the additional concrete cycle separator will be the key treatment. The kerb build-out is more for shortening the crossing distance and providing new waiting space between the build-out.



Cheers
Putri

From: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>
Sent: Wednesday, 12 March 2025 11:48 am

To: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>
Cc: Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>; Jason Budd (AT) <Jason.Budd@at.govt.nz>; Ian Kingston (AT) <Ian.Kingston@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Hi Putri,

Thank you for invaluable feedback for the project and the proposed changes.

Re point 5: to clarify, we did not have a proposed kerb-build for this area as part of the project, but rather some ground surface treatment which includes paintwork and some mana whenua design artwork. This treatment will indicate a change into a slower speed environment. In this case, can the planters be replaced by line marking to constrict the entrance to Cross St?

Kind regards,

Ngā mihi,

**Manoj Nathoo | Principal Project Manager – Network Integration
Rail Delivery & Transport Investment | Infrastructure & Place**

Auckland Transport

20 Viaduct Harbour Avenue, Auckland 1010

M: [REDACTED]

manoj.nathoo@at.govt.nz | www.at.govt.nz



From: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>

Sent: Tuesday, 11 March 2025 2:11 pm

To: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>; Jason Budd (AT) <Jason.Budd@at.govt.nz>; Ian Kingston (AT) <Ian.Kingston@at.govt.nz>

Subject: RE: Cross St/East St/Canada IFC

Hi Sophia,

Thank you for summarizing the comments and actions regarding the design changes on Cross St. I wanted to share my thoughts and confirm the acceptance of certain changes.

It seems that the intention is to remove all traffic calming and street furniture, including planting, which will leave the street without any improvements for walking, cycling, and general street functionality.

This will leave the street without any improvement in terms of walking/cycling and street furniture, this will leave AT with no 'place' function.

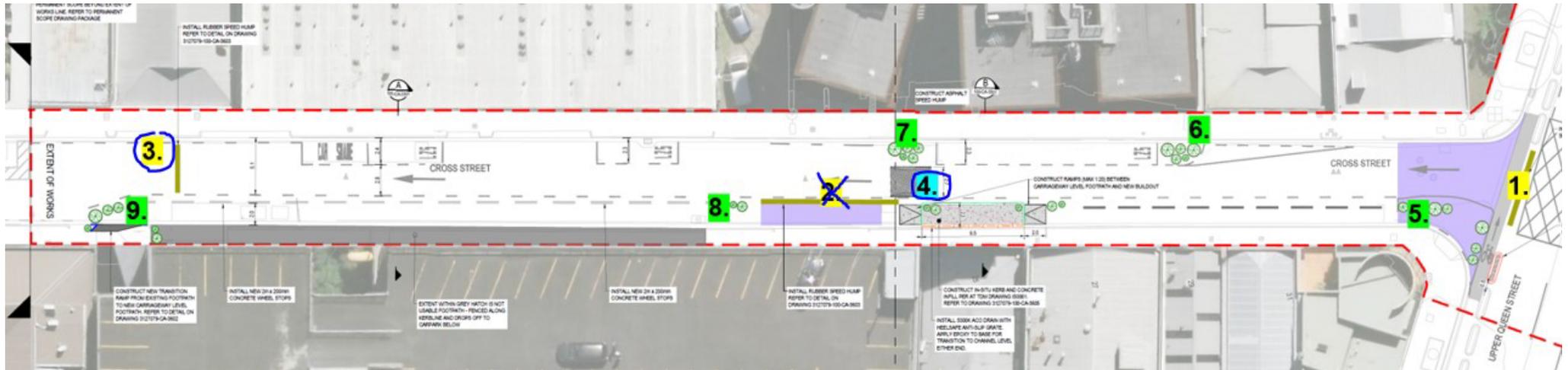


- the current speed limit and the designed operational speed on Cross St is 30km/h. **Action:** PK to confirm the acceptance of the removal of #3 and #4.

I can confirm that the removal of vertical traffic calming measures #3 and #4 is acceptable based on this existing operating speed. However, an SSA is strongly recommended to ensure safety.

- if no planter boxes #6 and 7 at the corner of Upper Queen St intersection, the removal of speed hump #1 is still acceptable? **Action:** PK to confirm.

I would highly recommend retaining the kerb-build out approach at the Cross St-Upper Queen St intersection (#5). This will help reduce the crossing distance, provide space for a pram ramp, and tighten the kerb turning maneuver, along with the proposed additional cycle concrete separator.

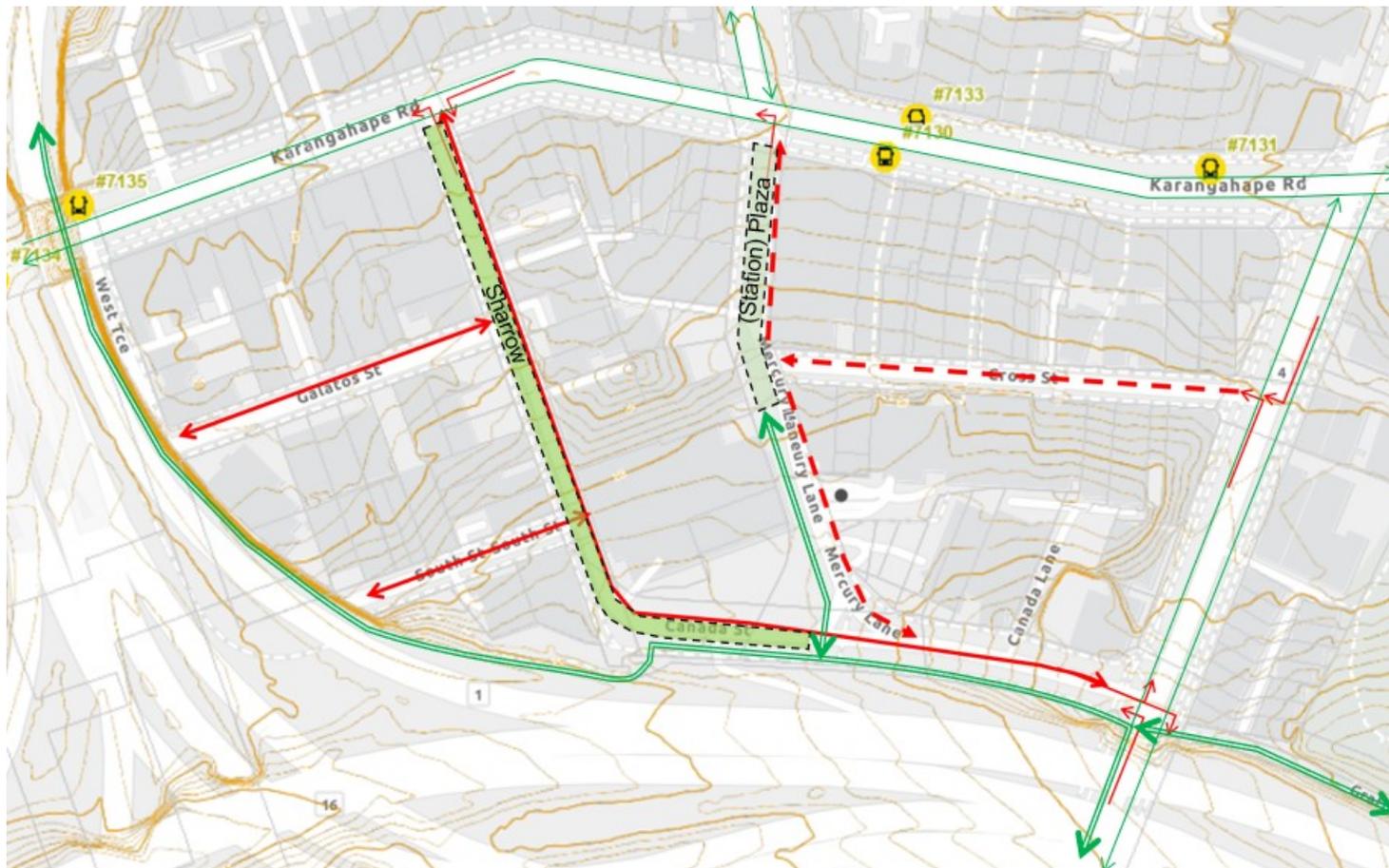


As for the southern side, which will be changed into a paid parking area and loading zone, please ensure that the existing footpath and the proposed parking/loading space are sufficient for loading and safe walking. Accessibility parking is one of the main requests from the CPAG meeting therefore designer to ensure that the parking space is designed to allow easy movement.

Future movement: active and non-active modes

Lastly, I have a quick sketch on the current movement proposal. Is Cross St expected to serve as a kiss-and-ride facility?

Given its proximity to the station entrance, it has the potential to be a multi-modal street, catering to both active and non-active modes of transportation..



-  One-way cycle movement
-  Two-way cycle movement
-  Mixed Traffic/Sharrow
-  Shared Space
-  One-way vehicle movement
-  Two-way vehicle movement

Thank you for considering these points. Please let me know if you have any further questions or need additional input.

Ngā mihi,
Putri Kusumawardhani | Senior Specialist – Active Modes Design
Design & Engineering | Infrastructure & Place
 20 Viaduct Harbour Avenue, Auckland 1010
 M [REDACTED]
www.at.govt.nz | Putri.Kusumawardhani@at.govt.nz



From: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>
Sent: Tuesday, 11 March 2025 10:16 am
To: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>
Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>; Jason Budd (AT) <Jason.Budd@at.govt.nz>; Ian Kingston (AT) <Ian.Kingston@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Hi Putri

The project team is hosting a PCG meeting tomorrow, we would like to keen to confirm whether you are comfortable with the highlighted two items below. your confirmation by mid-day today would be much appreciated.

Thanks and sorry for chasing up.

Cheers
Sophia

From: Sophia Wang (AT)
Sent: Tuesday, 25 February 2025 9:46 am
To: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>
Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Thanks Putri and Vaughn for your valuable inputs on the design changes on Cross St. I summarised the comments/actions as listed below:

- VS – the main concern of the speed hump removal on Upper Queen St across Cross St is cycleway’s conspicuity. **Action:** the project team will review the road markings to enhance road users’ awareness of the cycleway.
- VS – the project team to also consider the maintenance factor relating to the speed hump.
- VS – suggested ongoing monitoring and an SSA addendum. **Action:** the project team to organise.
- PK – emphasised Cross St as a critical accessible path in the east-west direction in the area.
- PK – speed hump #2 can be removed.
- Note – the current speed limit and the designed operational speed on Cross St is 30km/h. **Action:** PK to confirm the acceptance of the removal of #3 and 4.

- Note – the initially proposed new footpath at ground level on the southern side, along with the build-out near the speed cushion #4, are now planned to be removed. It is mainly because: 1. the safety issue of the existing fence between the parking building and road reserve; 2. The loading space requirement on the southern side. The new design is looking to reinstate the parking and loading on the southern side, which can also function as horizontal deflection.
- Note – as a result of above, planters #8 and 9 are not needed. The local business owners are opposing planter boxes #6 and 7 as they are impeding the loading trucks' movement, they are also opposing #5 due to maintenance issue, and the planters normally ended as trash bins. Hence, no planter boxes are supported.
- Action - if no planter boxes #6 and 7 at the corner of Upper Queen St intersection, the removal of speed hump #1 is still acceptable? **Action:** PK to confirm.

Happy to discuss further over the phone if needed.

Cheers
Sophia

From: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>

Sent: Monday, 24 February 2025 1:53 pm

To: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>; Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>

Subject: RE: Cross St/East St/Canada IFC

Morning Sophia,

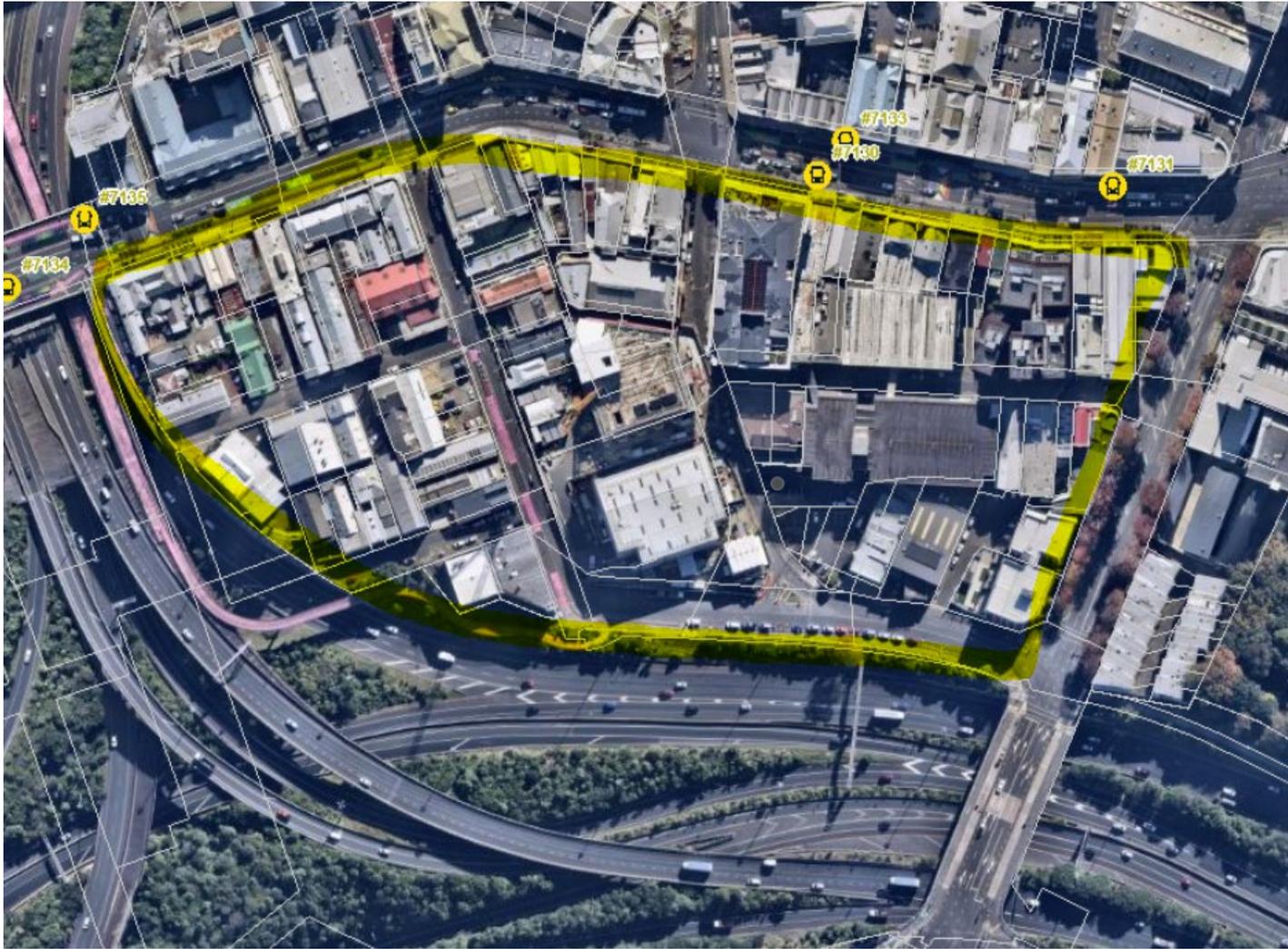
Cross St – Big Picture

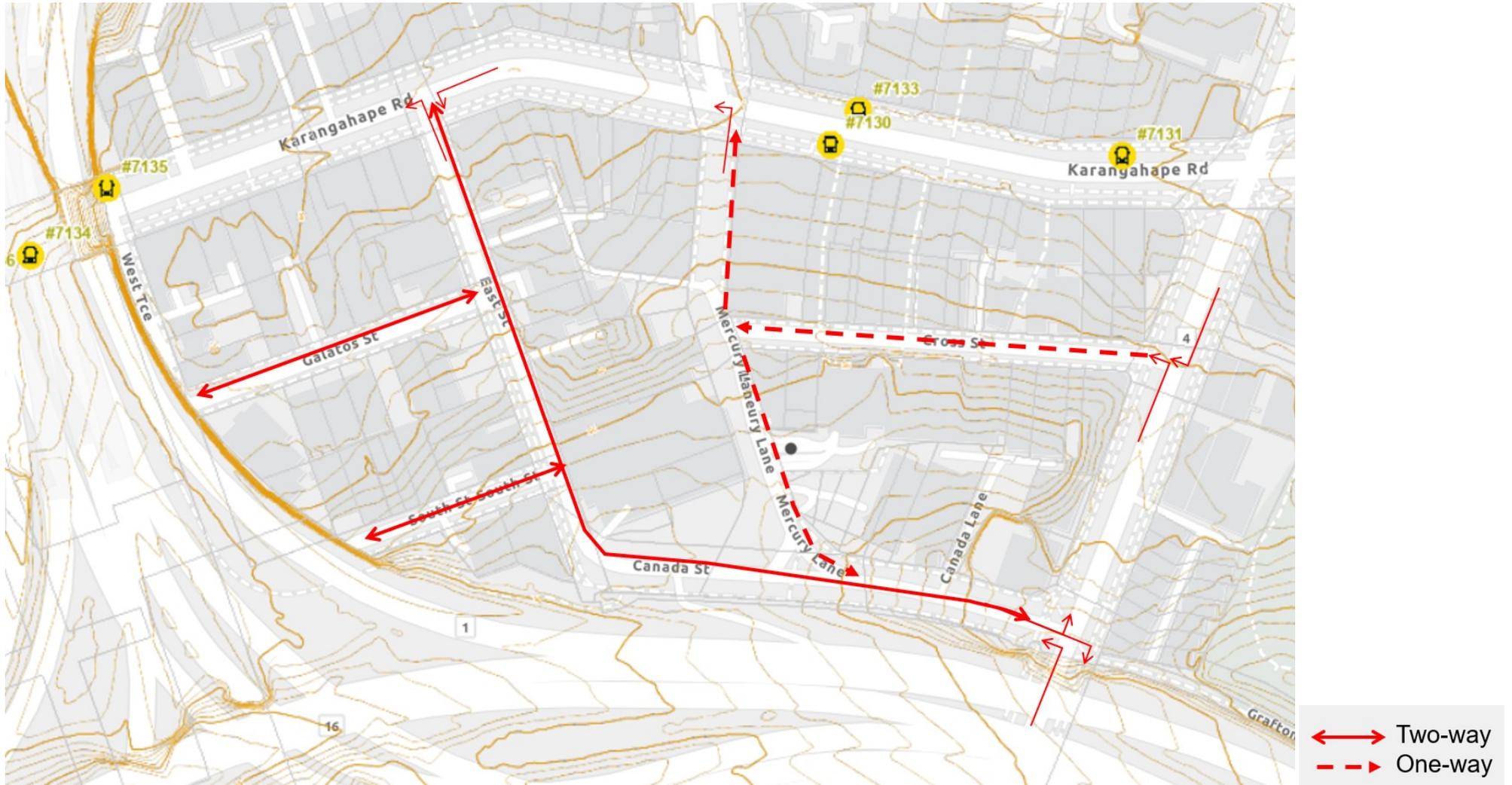
Before diving into the specifics of the design review, I would like to get a clearer understanding of the future network and current speed operating along Cross St. The recent comments from CPAG about the possibility of designating Cross St as a movement operation. While it's understandable that disabled travelers might be encouraged to head towards Beresford, given its more accessible drop and wait zone, it's important to keep in mind that Cross St holds unique significance in this area.

One crucial point to consider is that **Cross St serves as the only middle point with an accessible gradient**, thanks to its layout in the east-west direction. This makes it a vital area for travelers who require an accessible path.

Therefore, while Beresford may indeed better suit drop-off and pick-up by more active users, we should ensure that **Cross St remains accommodating for those who rely on its gradient for easier navigation**.

I believe it's essential to strike a balance between these considerations to ensure that our design is inclusive and caters to the needs of all users in the area.





Based on the contour it seems manageable to maintain the speed along Cross St because no downhill-uphill forces. Removing the vertical features such as the speed hump and speed cushion on Cross St is acceptable if the operating speed can achieve the targeted speed around the station, which is a local road station access.

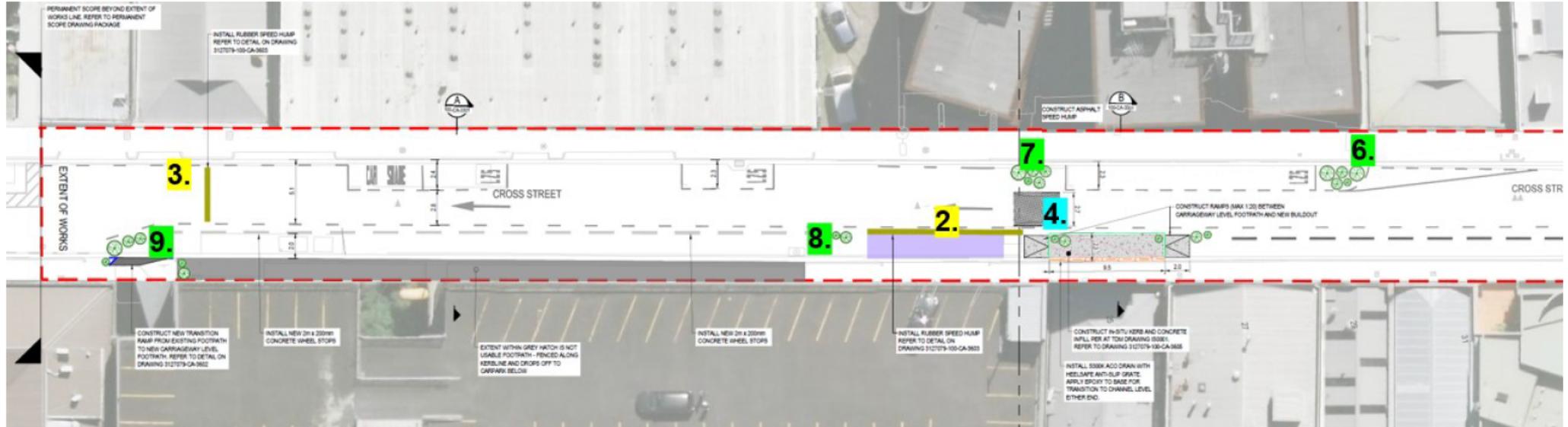
I would also like to point out that the **kerb build-out (horizontal features), still needs to be included on the design.**

It helps to create a clear delineation between the live traffic lane and the kerb-side loading or parking activity (when there is no loading/parking vehicle).

I don't recall what the target speed is - [@Sophia Wang \(AT\)](#) would you be able to inform me the latest design speed?

OVERVIEW DESIGN

Based on my understanding, there are three types of vertical traffic or speed calming measures in place, as per my sketch below. Each of these components interacts with other design elements in the Cross St, and it's essential to consider them from a holistic perspective. It won't be effective to remove or maintain one of these measures without assessing the broader impact on the overall system. Please refer to the table for a detailed explanation of each component.



Rubber speed hump

- 1 and 3: main vehicle movement
- 2: only for vehicle entering the car park building

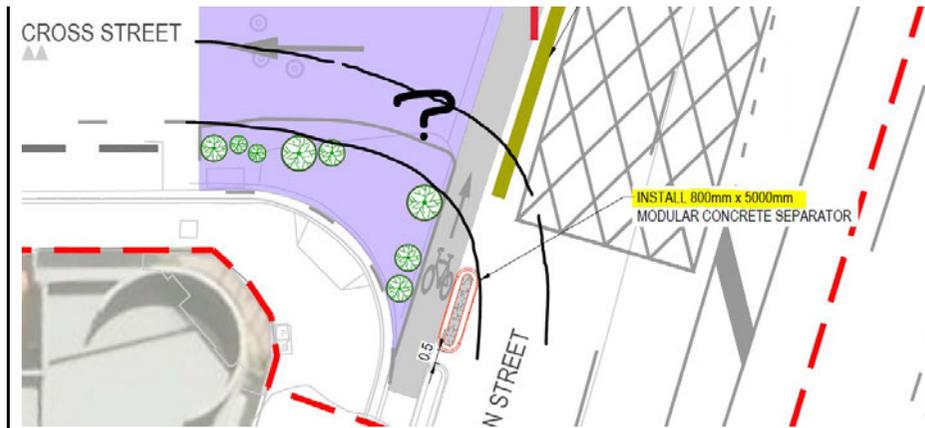
Notes

Rubber speed hump#1 – can be removed

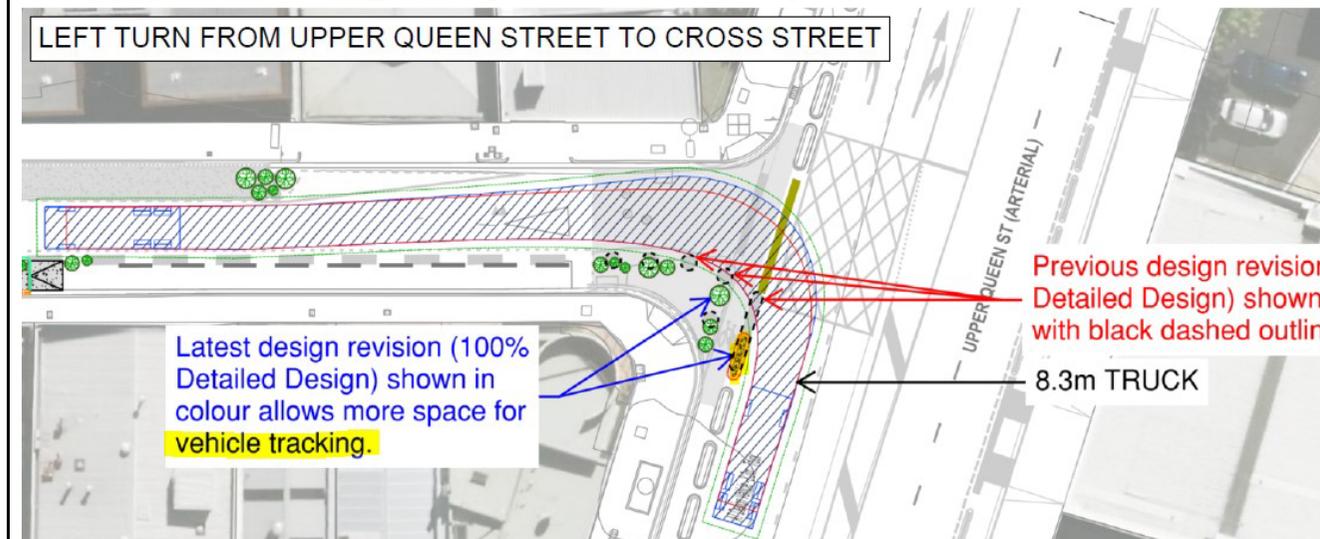
Located in the intersection, a tight turning radius has already helped reduce/manage the speed (retain the additional 800mm concrete separator and planter box #5).

Speed cushion

- 4 (only one between $\pm 55m$ and $\pm 65m$ distance to both of speed humps)
- Subject to operating speed (however tend to agree on managing speed in this area)
- also can be achieved by having kerbside activity (loading zone, a)

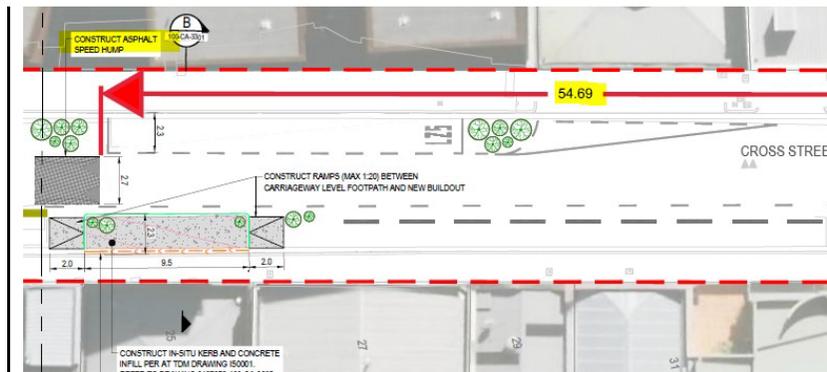


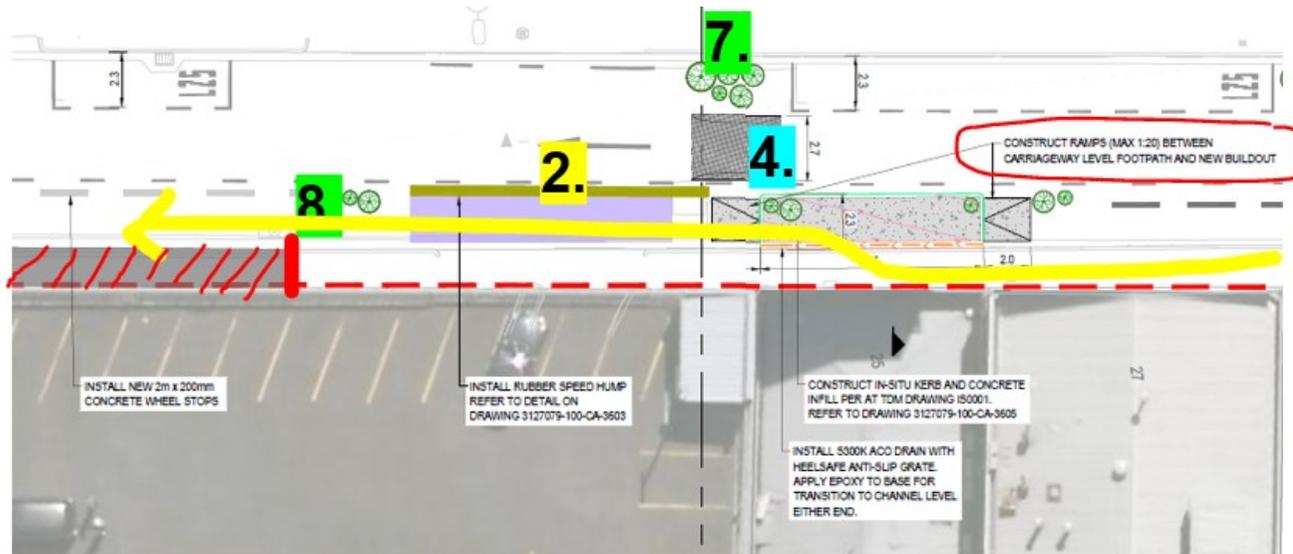
LEFT TURN FROM UPPER QUEEN STREET TO CROSS STREET



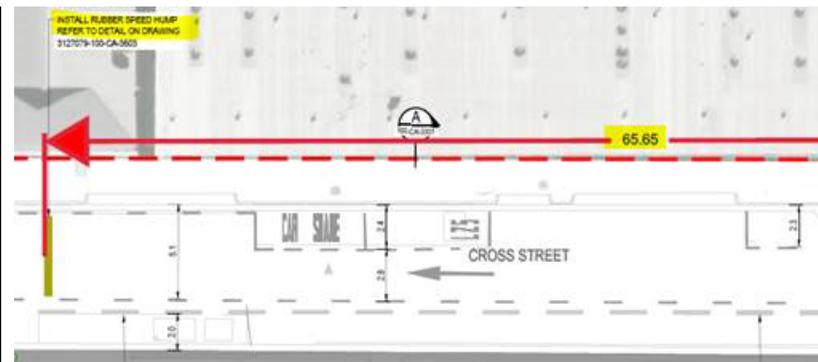
Rubber speed hump#2 – can be removed

Previously served the shifting of pedestrians from the kerb build-out (see yellow line), the rubber hump is an additional design treatment to ensure drivers slowly enter the car park building.





Rubber speed hump#3



MAXIMUM SPACING OF DEVICES FOR SPEED ENVIRONMENTS

Type	Device	Spacing for 30 km/h (m)	Spacing for 40 km/h (m)	Spacing for 50 km/h (m)	
Vertical	Speed humps (sinusoidal)	60	120	(2)	
	Raised tables	60	120	120 (3)	
	Raised Intersection	60	100	120 (3)	
Horizontal	Build-outs or side islands	(1)	(1)	40	
	Chicane (one lane raised)	100	120	(2)	
	Chicane (one lane flush)	60	100	120	When de at least 5 environm
	Chicane (two lane)	(1)	80	120	
	Traffic islands	(1)	(1)	120	
	Roundabouts	100 (4)	120 (4)	120 (4)	Distances roundab at least 1 environm

Notes: Spacing applies to distance from another calming device. Where different devices have the same speed environment, spacing should not exceed the average of the two distances.

1. Device not effective for this speed environment unless combined with other devices
2. Device not suitable for higher operating speeds
3. Using 1:20 ramps
4. For roundabouts only, spacing is to any adjoining device, as roundabouts have a greater zone

Vertical treatment to manage speed spacing every 60m for 30km/hr? **Subject to operating speed**
(however tend to agree more on managing the speed by narrowing the street using horizontal features such as planter boxes instead of vertical features - speed humps).

SSA might reveals safety matters – I am looking forward to read the assessment.
Thank you – let me know if you have further question.

Ngā mihi,
Putri Kusumawardhani | Senior Specialist – Active Modes Design
Design & Engineering | Infrastructure & Place
20 Viaduct Harbour Avenue, Auckland 1010
M [REDACTED]
www.at.govt.nz | Putri.Kusumawardhani@at.govt.nz



From: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>
Sent: Thursday, 20 February 2025 3:47 pm
To: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>
Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>; Road Safety Engineering (AT) <RoadSafetyEngineering@at.govt.nz>
Subject: RE: Cross St/East St/Canada IFC

Hi Sophia,

Not sure where 'vehicle damage' comes from if the hump treatment is as per guidelines; for example:



Separated cycleway treatment at commercial driveways (photo: Axel Wilke)

[Cycle route intersection and crossing treatments | NZ Transport Agency Waka Kotahi](#)

Suggest adopting NZTA guidelines for high frequent driveways and minor intersections. Main point here is with the conspicuity of the cycleway.

[High-use driveway treatment for cycle paths and shared paths - design guidance note](#)

With or without humps, I suspect the hump issue is more of a perception issue and a relatively high PR risk for AT at this time. There would be other considerations with durability of any hump also, so project team needs to consider all risks. Removing the hump probable okay in this road environment but may lessen the conspicuity of the cycle facility.

Your project requires a SSA audit and this will give a steer on the level of risk.

Suggest ongoing monitoring, as the issue of vehicles tuning over a cycleway may raise further concerns from the community (those using the cycleway). And post construction mitigation may be warranted.

Suggest you make your changes, align with best practice guides, and get the final design safety audited. This way you can explain to the community the reason for removing from the project and the related risk scores.

Noting this is a city centre road environment, low traffic speeds so the safety risks should be low – this needs independent review through SSA audit.

Ngā mihi | Thanks

Vaughn Scott | Senior Transportation Engineer
Road Safety Engineering Team
Auckland Transport
DDI 64 9 930 5001 ext 2801
Mobile [REDACTED]

From: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>

Sent: Thursday, 20 February 2025 3:18 pm

To: Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>; Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>; Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>; Suresh Patel (AT) <Suresh.Patel@at.govt.nz>

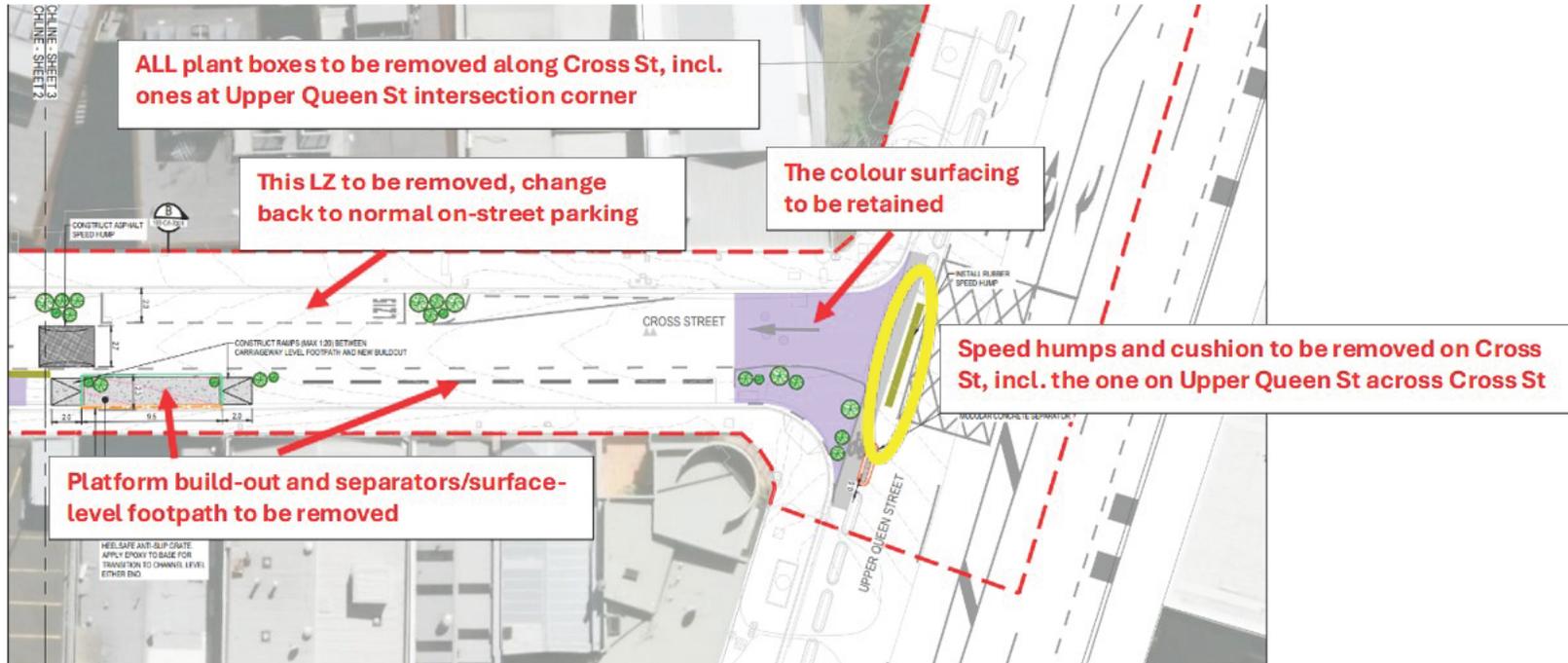
Subject: FW: Cross St/East St/Canada IFC

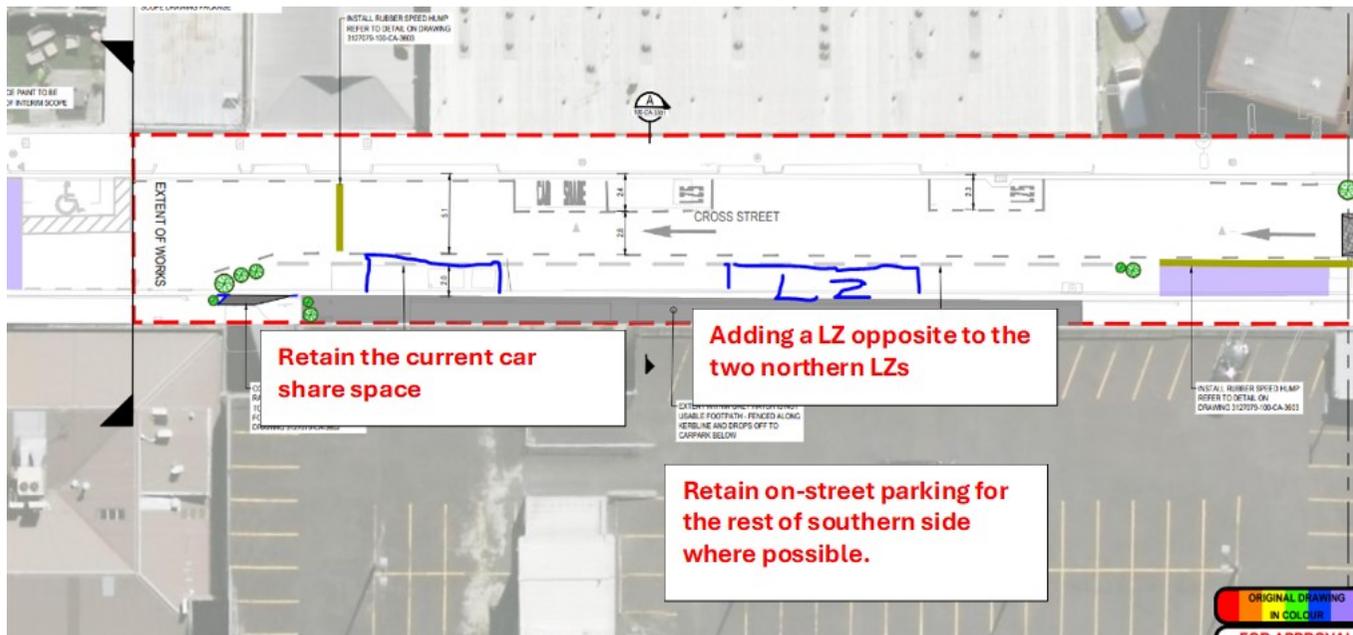
Importance: High

Hi Putri, Vaughn, and Matt

Another item the project team wish to draw your attention is that the speed hump across Cross Street at Upper Queen St intersection is to be removed (yellow circled in the snip below) along with other vertical devices along Cross Street, which was strongly suggested by Murray Burt due to the unpleasant experience and damage it may cause to the turning traffic, especially the delivery trucks. You can refer to pg. 6-7 in the Engineering Package attached for the original Cross St design, and the snips below showing the changes that were recommended and endorsed by Murray. The project team would like to check with you as the key SMEs to this particular item, if any of you have any major concern on the changes. If yes, please kindly provide us a strong justification for keeping any original proposal, for our further engagement with Murray Burt and project PCG.

Thanks
Sophia





From: Sophia Wang (AT)

Sent: Wednesday, 19 February 2025 3:21 pm

To: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>; Putri Kusumawardhani (AT) <Putri.Kusumawardhani@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>

Subject: RE: Cross St/East St/Canada IFC

Hi Vaughn and Putri

Just a quick follow up for this design review. Please let me know your thought once you two got a chance to discuss/conclude.

Thanks
Sophia

From: Sophia Wang (AT)

Sent: Monday, 10 February 2025 11:24 am

To: Vaughn Scott (AT) <Vaughn.Scott@at.govt.nz>

Cc: Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>

Subject: FW: Cross St/East St/Canada IFC

Hi Vaughn

As discussed over the phone, attached are the original and updated designs for East St. Please let me know any comments from safety perspective. Also, I enclosed the comments from our Traffic Engineering team (the attached email) for your information. As mentioned, I will talk to Putri about this change to get her view onboard too, before our design team proceed with finalising the design change.

You mentioned about a SSA audit addendum, the project team will consider that when the change is reviewed and accepted by our internal teams.

Cheers
Sophia

From: Sophia Wang (AT)
Sent: Tuesday, 4 February 2025 11:12 am
To: Mathew Rudez (AT) <Mathew.Rudez@at.govt.nz>
Subject: FW: Cross St/East St/Canada IFC

Hi Matt

Attached are the new (East St Optioneering) and the initial designs (pg. 9-11) of East St as part of Project K. As discussed, some early comments from your team would be helpful.

Thanks
Sophia

From: <[REDACTED]@beca.com>
Sent: Monday, 3 February 2025 2:36 pm
To: Sophia Wang (AT) <Sophia.Wang@at.govt.nz>; Manoj Nathoo (AT) <Manoj.Nathoo@at.govt.nz>
Cc: <[REDACTED]@beca.com>; <[REDACTED]@beca.com>
Subject: RE: Cross St/East St/Canada IFC

This Message Is From an External Sender

Looks suspicious? Please click the 'Report Suspicious' button for automatic analysis.

Report Suspicious

Hi Sophia,

Please find attached the sketch update of the discussed two-way arrangement with separate tracking sheets. Details of what has been changed are listed below:

- Sheet 1 has the possible locations for the kerb buildout on East St shown in the small Inset (in purple), no other changes from the previous issue.
 - The one on the left would result in the loss of one parking space,
 - The one on the right is 15m from the raised pedestrian zebra crossing and 6.3m from Galatos intersection.
- Sheet 2 is a mix of the old design with different traffic islands and separators. The vehicle tracking for this area is shown in the accompanying Sheet 2 images, 10.7m fire truck rotary ladder two-way, 10.7m truck mounted attenuator accessing SH1 (all run at 5kph)
 - The cycleway is shown along the southern kerb to the previous lightpath ramp. However, there is insufficient space to have a nice transition from the cycleway to the ramp. We would either have a tight turn as shown, or have to add an angled ramp to the east of the catchpit, which may result in similar issues as existing (ped/cycle conflict) at the lightpath interface.
 - The left turn SH1 entry is shown as per the IFC design. This results in a vehicle crossing the opposing traffic lane. This is expected to be infrequent and at low speed, therefore considered to be minimal risk
 - We have aligned the vehicle eastbound approach so that the pedestrian crossing island between the general traffic lanes and the two-way cycleway on the southern side, has the maximum space possible. The island width between cycleway and carriageway would be 2m. It is recommended the crossing alignment design be straightened (to 90degrees with the road) to maximise visibility in both directions and shorten the crossing distance.
 - The 2m island on the crossings between the carriageway and cycleway is slightly more than a minimum 1.8m wide traffic island, which allows for a cyclist, person with buggy and clear separation between the crossing of the road and the cycleway.
 - 4 parking spaces have been retained on the north side
- Sheet 3 is very similar to the IFC design
 - The tracking requires additional island space for removal, slightly more than previous design options.
 - No other change

Regards,

Senior Associate Transport Engineer
 Beca
 Phone: +64 9 300 9000
 Mob: [REDACTED]

www.beca.com | igniteyourthinking.beca.com



