Trevor's Big Day out -Equitable access across the Auckland Harbour Bridge LINK TO VIDEO



Richard Young



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Traffic Volumes and Flows

- Peak Period flows have reduced since 2016.
- Current flows consistently below pre-COVID levels.
- Even if one lane is used of walking and cycling there is still spare capacity.



Waka Kotahi provided capacities and 15-minute traffic counts NB 3-7pm





Traffic Volumes and Flows

- Bridge Traffic 101
 - Currently 5+3 arrangement at peak periods.
 - Propose 4+3+1 Active lane arrangement.









A Smidge of the Bridge



4m









Gradient of Path



Auckland Harbour Bridge has a maximum gradient of 5% (1:20)

- Not actually steep.
- Waka Kotahi proposing this bridge for walking and cycling by around 2045.
- Not steep or long compared to other paths.
- Any speedy cyclists/scooters regulated by volume of users, peer pressure, signage, Bylaws and Bridge Wardens.



Te Ahu a Turanga	2780m	+222m
Grafton Gully	700m,	+46m
Ngā Ūranga Gorge	1,070m	+103m
Wainuiomata Hill	1,190m	+136m
Auckland Harbour	900m	+45m





Vehicle Barriers

- Protection of people from vehicles
 - Off the shelf CSP approved steel barriers
 - No heavier than a line of utes.
 - If hit by a full bus movement is under 0.75m
 - Unlikely anyone would be close to a barrier.
 - Remember many 80km/h roads have no protection.









Width of the Active Mode Path

Proposed path width is 4m

- Same width as considered by Waka Kotahi
- Proposed shared path can take 600 bicycles and 200 pedestrians per hour.
- Waka Kotahi usage prediction 850 bicycles and 100 pedestrians per <u>day</u>



1 lane shared path cross-section (permanent)









Anti-Climb Provision

- Deterrent people climbing.
 - Barriers reduce climbing by 50%.
 - A 2.1m high fence is shown to be effective on high bridges.
 - Other provisions would be trained staff, monitored CCTV, and other soft provisions.
 - Retains the view.
 - Lower mesh fence on traffic side (1.6m) to catch objects and provide some visual screening.







Wind and Weather Events

- The path will be closed on occasions due to weather (as the bridge does now).
 - Most strong winds are from the west* (path on east).
 - Unexpected crosswind gusts are not as likely as Waka Kotahi have stated.*
 - Path to remains open at wind speeds <75km/h
 - Closures up to 5 times a year appear necessary.
 - If it is windy, cyclists can walk self-selection.
 - People approaching the bridge can make informed decisions.
 - Bridge staff can assist to close the bridge.



*OIA 10638 provided all available wind data 83% of winds from west.





Clip-On Sway Issue

Media coverage that the bridge sways side-to-side.

- Large numbers (1,000+ simultaneously) of walkers on a Clip-ons can cause it to sway.*
- The structure is safe but hazardous gaps appears.*
- Waka Kotahi have a lightweight solution designed to prevent this.*
- A single lane shared path is remote from any gap.
- Forecast pedestrian usage is too low to cause swaying.
- Sway should be resolved.



*Official Information Act Requests (12397,12821)



50mm Gap opens / closes when 100's of walkers present





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