BEFORE THE GREATER WELLINGTON REGIONAL COUNCIL AND HUTT CITY COUNCIL

EASTERN BAYS SHARED PATH PROJECT

Under	the Resource Management Act 1991
In the matter	of applications for resource consents by Hutt City Council under section 88 of the Act, to carry out the Eastern Bays Shared Path Project

STATEMENT OF EVIDENCE OF JAMIE JOSEPH POVALL (TRANSPORT AND SAFETY) ON BEHALF OF THE APPLICANT

30 November 2020

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QUALIFICATIONS AND EXPERIENCE

1. My full name is **Jamie Joseph Povall**. I am the Director of Major Projects, Transportation New Zealand at Stantec.

2. My evidence is given on behalf of Hutt City Council ("**HCC**") in relation to its applications under section 88 of the Resource Management Act 1991 ("**RMA**") for resource consents for the Eastern Bays Shared Path Project (the "**Project**").

3. My qualifications and experience are as set out in my brief of evidence on Project Design.

4. I confirm that I have read the 'Code of Conduct' for expert witnesses contained in the Environment Court Practice Note 2014. My evidence has been prepared in compliance with that Code. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

BACKGROUND AND ROLE

5. I am familiar with the Eastern Bays from Point Howard to Sunshine Bay and including Windy Point (the "**Project area**"), and the local roading network in the vicinity of the Project.

6. In preparing my evidence I have reviewed the:

   (a) Indicative Business Case Eastern Bays Shared Path ("**IBC**"); Stantec; December, 2016;

   (b) Detailed Business Case Eastern Bays Shared Path ("**DBC**"); Stantec; October, 2017;

   (c) Eastern Bays Shared Path Resource Consent Applications and Assessment of Effects on the Environment ("**AEE**"); Stantec; April, 2019;

   (d) Strategic Business Case report.

7. I have also reviewed the *Alternatives Assessment Report* (Appendix G to the AEE) and the *Transport Assessment Report* (Appendix L to the AEE). I prepared the *Design Features Report* dated April 2018 in Appendix J to the AEE and have led the development of the Project's *Preliminary Design Plans* (Appendix N to the AEE).

8. I was involved in preparing the IBC and the DBC and reviewing the Strategic Business Case report in earlier stages of the Project development. I have also authored or reviewed multiple other technical reports since the commencement of the IBC in 2016 such as the Design Philosophy Statement, The Project Cost Analysis Report, and the Landward Side Design Assessment.

9. I have also reviewed the draft evidence of the 13 other witnesses for HCC.[1]:

10. In preparing my evidence I have:

    (a) undertaken multiple site visits including drive-overs, walk-overs and cycling the full length of the Project (having been the Project Team Lead and or Design Lead since 2016); and

    (b) attended consultation and engagement events including individual bay consultation evenings and public events used to explain the Project options and seek feedback to shape the proposed design. I have also presented to a number community meetings, and Community Board meetings since 2016.

SCOPE OF EVIDENCE

11. The purpose of my evidence is to describe and address the transport and safety effects of the Project.

12. My evidence addresses:

    (a) the existing environment as relevant to my evidence, and the strategic importance of Marine Drive;

    (b) the vulnerabilities of the existing road and seawall structures, and related safety impacts;

    (c) the direct traffic, transport and safety effects of the Project;

    (d) temporary traffic and transport effects during the construction of the Project and proposed avoidance and minimisation measures included in the conditions; and

    (e) responses to submissions and the section 42A report.

EXECUTIVE SUMMARY

13. The Project aims to develop a safe and integrated walking and cycling facility along Marine Drive to connect communities along Hutt City's Eastern Bays, and to provide links to other parts of the cycle and pedestrian network for commuting, recreation and tourism purposes. Approximately 5,000 people live along the Eastern Bays and in Eastbourne. Marine Drive provides the only road access from Petone/Lower Hutt to the pockets of residential land use in the Eastern Bays area.

14. Generally, Marine Drive has a trafficable road width of approximately 3.5m, but this can fluctuate to approximately 4.5m wide and can also narrow down to around 3m in places, particularly around the curves in the road. Marine Drive has a posted speed limit of 50km/h at Point Howard, Sorrento Bay,

[1] Shelley McMurtrie, Julia Williams, Dr Michael Allis, Richard Reinen-Hamill, Robert Greenaway, Caroline van Halderen, John Cockrem, Dr Fleur Matheson, Ihakara Puketapu-Dentice, Dr Alex James, Michael Copeland, Simon Cager and Morris Love.

Lowry/Whiorau Bay, Days Bay and Windy Point. York Bay, Mahina Bay and Sunshine Bay all have a higher posted speed limit of 70km/h.

15. Marine Drive is currently vulnerable to closure, and/or reduced operation, in part due to wave overtopping (which in turn is, to some extent, due to the current degraded state of the coastal edge or absence of redirecting seawall). Key infrastructure services for the Eastern Bays, including the main outfall sewer pipeline, are located within the road corridor. Around 33% of the seawall was identified in 2016 as having less than 15-20 years remaining life, with over 20% of the length considered to be at risk of imminent failure (less than five years remaining life). Combined with more regular severe storm events it is likely that sea level rise will considerably increase temporary closures of, and potentially result in the compromise of, ever larger sections of Marine Drive; resulting in an increasingly marginal level of service into the future.

16. Marine Drive provides few safe facilities for pedestrians and cyclists. Generally, cyclists are not accommodated for and are mostly expected to use the very narrow road shoulder, or, share the live traffic lane. At a small number of locations, short sections of shared paths are available along the seaward side. These shared paths are predominantly located in areas where new seawalls have been constructed therefore allowing provision of this type of facility (such as at York Bay), or where considerable width already exists.

17. The Project forms a key part of the Great Harbour Way / Te Aranui o Pōneke around Te Whanganui-a-Tara / Wellington Harbour, providing a vital connection to the wider existing or planned walking and cycling network around the Wellington region.

18. It is likely that many pedestrians are avoiding walking along Marine Drive due to the lack of existing infrastructure to allow them to do so. I expect there is also supressed cyclist demand. That outcome is supported by responses provided to the Eastbourne community survey in 2014. A perceived unsafe environment along Marine Drive is justified in my opinion due to the narrow lane widths, and frequent lack of or very small shoulder widths, along Marine Drive as set out in my Project design evidence.

19. From a transport perspective the Project will result in:

    (a) an increase in active transport (local, commuter and recreational) with associated health benefits;

    (b) improved active transport connectivity;

    (c) a safer active transport environment; and

    (d) improved resilience to Marine Drive from storm events (and sea level rise) and reduced closures (in the short term) due to storms.

METHODOLOGY

20. In preparing my evidence I have:

(a) undertaken multiple site visits including drive-overs, walk-overs and cycling the full length of the Project;

(b) attended consultation and engagement events including individual bay consultation evenings and public events used to explain the Project options and seek feedback to shape the proposed design;

(c) reviewed the Project documentation since 2016, and reviewed previous technical documentation prior to the involvement of Stantec before 2016;

(d) contributed to, and reviewed, the *Transport Assessment* (Appendix L to the AEE);

(e) reviewed national and local design standards and guidelines for cycleway and shared path projects; and

(f) reviewed national and local design standards for coastal edge treatments including the design of seawalls.

EXISTING ENVIRONMENT AND STRATEGIC IMPORTANCE OF MARINE DRIVE

21. The Project aims to develop a safe and integrated walking and cycling facility along Marine Drive to connect communities along Hutt City's Eastern Bays, and to provide links to other parts of the cycle and pedestrian network for commuting, recreation and tourism purposes.

22. Marine Drive is classified as a 'Primary Collector' under the One Network Road Classification[2] ("**ONRC**") with traffic volumes of between 6,000 to 8,000[3] vehicles per day. Marine Drive is a coastal road winding its way around several headlands, and the Eastern Bays are located along the eastern perimeter of Te Whanganui-a-Tara / Wellington Harbour between Point Howard in the north and Eastbourne in the south. Approximately 5,000 people live along the Eastern Bays and in Eastbourne. Marine Drive provides the only road access from Petone/Lower Hutt to the pockets of residential land use in the Eastern Bays area.

23. Marine Drive is used by public transport (buses) and also provides access to the Days Bay ferry terminal. The *Transport Assessment* (Appendix L to the AEE) identified that there are 95 bus movements on the corridor each weekday. The Days Bay ferry services run throughout the week and weekend with services most frequent during morning and evening peak periods on weekdays with two services per hour.

24. Generally, Marine Drive has a trafficable road width of approximately 3.5m, but this can fluctuate to approximately 4.5m wide and can also narrow down

[2] The ONRC is a classification system, which divides New Zealand's roads into six categories based on how busy they are, whether they connect to important destinations, or are the only route available: https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/projects/onrc

[3] The higher volumes are recorded closer toward Seaview, with reductions closer to Eastbourne, most likely relating to some traffic having origins or destinations within the Eastern Bays communities as opposed to travelling the full extent of Seaview to Eastbourne.

to around 3m in places, particularly around the curves in the road. Marine Drive has a posted speed limit of 50km/h at Point Howard, Sorrento Bay, Lowry/Whiorau Bay, Days Bay and Windy Point. York Bay, Mahina Bay and Sunshine Bay all have a higher posted speed limit of 70km/h.

25. The road is currently vulnerable to closure, and/or reduced operation, in part due to wave overtopping (which in turn is, to some extent, due to the current degraded state of the coastal edge or absence of redirecting seawall). The DBC identified increasing the availability of the route as a key desired outcome. That is, reducing the periods of full road closure and reducing the annual hourly requirements for emergency sweeping required when storm debris is deposited onto the road.

26. Key infrastructure services, including the main outfall sewer pipeline ("**MOP**"), are located within the road corridor. The MOP is an 18km long pipeline that conveys secondary treated wastewater from the Seaview Wastewater Treatment Plant (which services 146,000 residents and a large number of local industries) to the outfall at Bluff Point, near Pencarrow Head. The MOP and Marine Drive itself are regionally significant infrastructure,[4] and along with the road access are important lifeline utilities for the wider community.

27. Other key services located within the Marine Drive road corridor include telecommunications[5] (Chorus, Spark and Vodafone), gas (PowerCo), electricity (Wellington Electricity), as well as water, waste and stormwater infrastructure (HCC). These services are critical to the approximately 5,000 people who live in the Eastern Bays.

28. Marine Drive provides few safe facilities for pedestrians and cyclists. Generally, cyclists are not accommodated for and are mostly expected to use the very narrow road shoulder, or, share the live traffic lane. At a small number of locations, short sections of shared paths are available along the seaward side. These shared paths are predominantly located in areas where new seawalls have been constructed therefore allowing provision of this type of facility (such as at York Bay), or where considerable width already exists.

29. The Project forms a key part of the Great Harbour Way / Te Aranui o Pōneke around Te Whanganui-a-Tara / Wellington Harbour, providing a vital connection to the wider existing or planned walking and cycling network around the Wellington region. Connectivity to the wider network and associated effects are addressed in the evidence of **Mr Cager, Mr Copeland** and **Mr Greenaway**. **Figure 1** below provides a schematic diagram of the context of the Project and wider network.

[4] As defined in the Regional Policy Statement for the Wellington Region and the Proposed Natural Resources Plan.
[5] Also Regionally Significant Infrastructure.

Figure 1 – Eastern Bays Shared Path Project and wider context of walking and cycling facilities

EXISTING ENVIRONMENT, CURRENT VULNERABILITIES AND SAFETY IMPACTS

Vulnerability of Marine Drive

30. From a seawall condition assessment undertaken in 2016[6], it has been identified that the existing Eastern Bays seawall is, in places, assessed as having a limited residual life. Around 33% of the seawall was identified, at that time, as having less than 15-20 years remaining life, with over 20% of the length considered to be at risk of imminent failure (less than five years remaining life).

31. In addition, only a limited proportion of the entire seawall is currently of a redirecting type profile (only 14% of the full length), meaning that wave energy is not redirected back to incoming waves, but instead results more commonly in wave overtopping as explained in the evidence of **Dr Allis**. Overtopping of waves also results in the storm debris being deposited onto Marine Drive. An assessment undertaken in the 2016 IBC noted that during the five years assessed (2012 to 2016) HCC were undertaking an average of 81 hours emergency sweeping on Marine Drive per annum in order to keep the road in a serviceable condition for community access.

[6] Indicative Business Case Eastern Bays Shared Path ("IBC"); Stantec; December, 2016.

32. Given the remaining life concerns, there is a risk of catastrophic seawall failure for parts of the existing Eastern Bays seawall. Dependent upon the location, extent and type of failure, should it occur, this may compromise partly, or entirely, access from Eastbourne or the Eastern Bays to the wider region for a period of time. The consequences of such an eventuality are not possible to predict but could be significant if access is cut off, or critical services within the road corridor, such as the MOP, are compromised.

33. As explained in the evidence of **Dr Allis**, climate change, and especially sea level rise, will increase inundation of Marine Drive. Combined with more regular severe storm events it is likely that will considerably increase temporary closures of, and potentially result in the compromise of, ever larger sections of Marine Drive; resulting in an increasingly marginal level of service into the future.

34. There have been a number of high-profile seawall failures within the Wellington region in recent years, such as the State Highway 1 Centennial Highway failure (between Pukerua Bay and Paekakariki) in 2018, and the Owhiro Bay seawall failure in 2020. Noting that these are in different locations to the Project's location, these examples do serve to demonstrate the susceptibility of failure if seawalls are not adequately designed or maintained. I also note the evidence of **Mr Cager**, in which he states that HCC have spent significant amounts on planned and unplanned maintenance of the Eastern Bays seawalls during the last five years, with frequency and cost of maintenance following an increasing trend. Given the age and condition of the asset I am not surprised this is the case.

Safety

35. An assessment of recorded pedestrian crashes was undertaken using 2008-2018 data, which identified two pedestrian crashes. Both of these crashes were outside the Project area and were the result of a pedestrian crossing Marine Drive, from the left heedless of traffic, with the vehicle travelling northbound along Marine Drive. Both collisions occurred at Days Bay and are likely to have been the result of people crossing the road inattentively, rather than walking along Marine Drive and having insufficient space to do so.

36. It is likely that many pedestrians are avoiding walking along Marine Drive due to the lack of existing infrastructure to allow them to do so; this is reflected in the traffic surveys which show relatively low pedestrian usage along Marine Drive.[7] This is also backed up in responses provided to the Eastbourne community survey in 2014[8], and Project related engagement activities that

[7] Pedestrian counts undertaken in Sorrento Bay on Thursday 12 March 2015 identified only 15 pedestrians (total combined both directions) between the hours of 630am and 9am. Whilst this is a low number, it is considerably higher than the count undertaken 2 days earlier (Tuesday 10 March 2015) during the same time period, when only 5 pedestrians were observed. Conditions were fine on both days.
[8] Eastbourne Community Survey (2014). http://iportal.huttcity.govt.nz/Record/ReadOnly?Uri=3688777

highlighted suppressed demand due to perceptions of safety risk. A perceived unsafe environment along Marine Drive is justified in my opinion due the narrow lane widths, and frequent lack or very limited shoulder widths, along Marine Drive as set out in my Project design evidence. I discuss safety benefits in my evidence below.

37. A total of three crashes involving cyclists have been recorded within the same assessment period (2008-2018). Two crashes occurred when a cyclist lost control whilst being overtaken by a vehicle, whilst the other crash involved a vehicle failing to give way and subsequently turning right across the path of an oncoming cyclist. The two crashes involving a vehicle overtaking a cyclist show that the lack of available space on the carriageway can present an issue to cyclists. In my opinion. the low numbers of crashes involving cyclists likely reflect the high perceived safety risk of cycling on Marine Drive which greatly suppresses overall cyclist volumes.

38. More recent pedestrian and cyclist crashes have also been assessed for Marine Drive, which highlighted that while there have been no pedestrian crashes recorded from 2018 to 2020 to date[9], there have been two cyclist crashes, both resulting in injury. The first of these crashes involved a bus overtaking a cyclist resulting in a minor injury, again highlighting the impact of a narrow carriageway. The second, more recent cyclist crash, involved a vehicle failing to give way and turning right across the path of an oncoming cyclist (note that this crash occurred at Days Bay and is not part of the Project area but is included for completeness).

DIRECT EFFECTS OF THE PROJECT

Path Usage

39. The analysis completed in the *Transport Assessment* (Appendix L to the AEE) has identified the following:

    (a) Current estimated usage: includes around 100 pedestrians every day walking up to 2km, and cycle use of 110 cyclists per day (based on survey count data completed in 2017).

    (b) Forecast future use: additional 60 pedestrians per day and 120 additional cyclists per day. Total future volumes of around 400 users per day, broadly equating to double the amount of current users.

40. The *Transport Assessment* (Appendix L to the AEE) identified that based on these projections, the benefits created from the proposed new shared path ("**Shared Path**") primarily came from health benefits (76% of all benefits).

Respondents were asked to rank their three top issues and also to identify the single most important issue for them. The completion of the Eastern Bays shared walk/cycle way was clearly the most important issue (number one for 33 percent of respondents) with concern about climate change and extreme weather events next (16 percent of respondents).

[9] Data from Waka Kotahi NZ Transport Agency's Crash Analysis System ("**CAS**"), extracted on 18/11/2020. Note that typically crashes can take up to 3 months to appear in CAS, particularly crashes of lower severity.

41. The Shared Path may also create other wider benefits that have not been assessed in the structure of the *Transport Assessment* (which has followed the Waka Kotahi NZ Transport Agency ("**Waka Kotahi**") Economic Evaluation Manual[10]), and are considered in the evidence of **Mr Copeland**.

42. It is important to note that the forecast demands used in the *Transport Assessment* (Appendix L to the AEE) were based on standardised EEM procedures at the time of completion (approximately two years ago). Whilst I am not able to quantify this, it is possible that they may be conservative (ie low) in terms of the effectiveness of the Shared Path in creating or inducing greater levels of usage. I have noted the considerable increase in usage of the Te Hikoi Ararewa (The Wainuiomata Hill Shared Path - referred to in the evidence of **Mr Cager**) and the increased uptake one year from opening. I am also cognisant of the recalculation of forecast path usage completed recently for the Te Ara Tupua – Ngā Ūranga to Pito-One Shared Path, in which projections have been revised upwards considerably, and noting some of these uplift factors could potentially be applied to the Project, for example the large uptake in e-scooters and e-bikes.

Connectivity

43. At the strategic level, the Eastern Bays Shared Path would play a key role in connecting the residential areas along Marine Drive to Hutt City Centre and Wainuiomata district. From these better serviced urban areas, the Shared Path will form part of a comprehensive cycleway network within the Wellington region that connects Eastern Bays – Lower and Upper Hutt – Wellington – Porirua - Kapiti. **Figure 1** provides the regional context of the Project.

44. The Te Ara Tupua – Ngā Ūranga ki Pito-One shared path on the other side of Te Whanganui-a-Tara / Wellington Harbour is due to commence in 2021 and will provide enhanced connectivity for walking and cycling between the Hutt Valley and Wellington City. These other projects, such as the HCC Beltway project currently being constructed, reinforce the value of the Shared Path and will enhance its connectivity and level of use. This connectivity is addressed in the evidence of **Mr Puketapu-Dentice**, **Mr Cager, Mr Greenaway** and **Mr Copeland**.

45. The connection to Hutt City also provides pedestrians and cyclists with the opportunity to access different modes of public/sustainable transport to complete the second leg of their journey, utilising the public transport services that are provided within Hutt City (extensive bus network and a well-established Rail network).

46. The Shared path will be well located to provide access to the Ferry terminal at Days Bay, for both commuter and leisure users. The Ferry terminal

[10] The EEM has now been superseded by Waka Kotahi and replaced with the Monetised Benefits and Costs Manual, for business cases that commence after 31 August 2020.

located at Days Bay provides harbour links to Seatoun Wharf, Wellington City and Somes Island, helping to service commuters and leisure users.

47. With the introduction of battery powered private and rental devices such as eBikes and eScooters, the potential for longer commuter and recreational journeys could be realised. With the connection to the Great Harbour Way / Te Aranui o Pōneke scheme, it is considered that residents of the Eastern Bays, Seaview or Eastbourne areas could utilise these devices for journeys further afield than would otherwise be the case on foot or when using a more traditional form of bicycle.

Health Benefits

48. The *Transport Assessment* (Appendix L to the AEE) identified that the Project's new shared path has the potential to create significant health benefits by promoting the use of active travel, accounting for 76% of the total quantifiable benefits.

49. In high and middle-income countries, physical inactivity has become the fourth leading risk factor for premature mortality due to the increases in disease and ill-health associated with inactivity.[11] Declining rates of functional active travel have contributed to this population level decrease in physical activity, and evidence suggests that rising levels of obesity are more pronounced in settings with greater declines in active travel.

50. A recent five-year prospective study of over 250,000 people (median age 52), published in the British Medical Journal[12], found that cycling reduced:

    (a) the risk of all-cause mortality by 41%;

    (b) the risk of any cancer by 45%; and

    (c) the risk of cardiovascular disease by 46%.

51. I have noted the evidence of **Mr Greenaway** that describes the anticipated health benefits that the Shared Path will create due to an increase in physical recreation, that are borne about through creating 'Activity Friendly Environments' where the community has the option of recreation or active community in an attractive, safe and accessible setting.[13]

Safety Benefits

52. I have noted earlier in this evidence that the pedestrian and cyclists crash statistics over an extended ten-year assessment window are relatively low, but that this may be a reflection of the supressed demand given the current lack of facilities, and the perceived risk that the community has stated in the Eastbourne community survey (2014) and through the community engagement for the Project.

[11] World Health Organization, 2010, Global recommendations on physical activity for health.
[12] British Medical Journal, 2017, Association between active commuting and incident cardiovascular disease, cancer, and mortality: prospective cohort study
[13] Active Living Research: Active Transportation – Making the link from transportation to physical activity and obesity (Summer, 2009) ALR_Brief_ActiveTransportation_0.pdf (activelivingresearch.org)

53. Community feedback has been consistent in that many community members are reluctant to walk or cycle at present due to the lack of suitable facilities and the Shared Path will resolve these concerns. As will be discussed below, I note that the vast majority of submissions on the Project were also in support of the Shared Path, noting it would create a safer facility for walking and cycling in the area.

54. Therefore, a key benefit of a separated shared path is the reduction in perceived risk, although this is not easily quantifiable. The Shared Path relocates pedestrians and cyclists from the live carriageway to an area in which they feel much safer. Whilst it is still possible for crashes to occur between pedestrians and cyclists, due to the shared use nature of the proposed new path, the rate of incidence is not considered to be significant due in part to the proposed path width of up to 3.5m. Research has also shown that there is a safety in numbers effect[14] with cycling facilities, such that as the numbers of cyclists increases, the crash rate decreases.

55. I have noted a very common theme in the submissions on the Project that the Shared Path will make walking and cycling safer. Having read the submissions, I note that 179 of the 200 submissions are in support and a vast majority of these refer to safety as being a factor for this support. On this basis I find it reasonable to conclude that there will be a significant reduction in perceived risk when the Shared Path is implemented.

56. As further indication of the 'perceived' safety issue, I note that multiple submitters[15] stated they support the Project because they felt the road had become even more dangerous for walkers and cyclists with the recent introduction of double decker buses using the route, although there is no evidence of any crashes having occurred involving double decker buses.

Resilience

57. Quantifying the additional resilience that the Shared Path will provide is not straightforward. With a new high standard engineered seawall being created for over 3.1km of the Project's length it is anticipated that this will result in reduced economic costs from road closures and delays, reduced clean-up costs and better protection of vulnerable underground services.

58. I concur with the evidence of **Mr Copeland** in which it is stated that, should the seawall not be upgraded, then maintenance and operational costs, including road closures, would likely increase, and the likelihood of wall failure is increased. With a new seawall in place, this provides reduced risk of seawall failure, and the associated risk of failure of the road pavement structure (limiting or preventing access which may be life-critical) as well as interruptions to critical services such as the Main Outfall Sewer Pipeline, and other essential services such as water and power. As already mentioned without a new seawall, and with the anticipated effects of climate change

[14] Predicting Accident Rates for Cyclists and Pedestrians, NZTA Research Report 289.
[15] Including Jennifer Packer (75), Diane Cheyene (144), Anne Seabrook (154).

explained by **Dr Allis**, it is likely that closures to Marine Drive will considerably increase, and potentially result in the compromise of ever larger sections of Marine Drive; resulting in an increasingly marginal level of service into the future.

59. It is acknowledged that the Project will not be the final solution to addressing the problem of sea level rise, rather, as discussed in the evidence of **Dr Allis** the Project provides a fundamental building block in the process to better equip Marine Drive against sea level rise, whilst also buying some time to understand what the future, longer term solution may look like.

Accessibility

60. Bus stops: The Project will require the relocation of a number of bus stops in order to facilitate the new Shared Path. The relocation of the bus stops has been identified on the preliminary drawings but will be confirmed during detailed design and in liaison with the bay communities and bus operators and Greater Wellington Regional Council ("**GWRC**"). These relocations are required to better integrate the Shared Path and the bus stop, with the preferred option of taking the bus stop behind the bus shelter to reduce conflicts with bus passengers. Relocating the bus shelters just marginally away from the higher demand beach areas also provides an opportunity to limit beach encroachment.

61. Beach access: The Project will provide improved access to the beaches and rocky headlands. Currently there are 17 proposed locations for more formalised beach access through the provision of steps, small/mini steps and boat ramps. In addition, these are supplemented by less formalised options where the height between the road level and beach are much lower such as in Lowry Bay, while able-bodied path users may also choose to traverse over rock revetment sections.

Operation

62. Maintenance: With the Shared Path operational, it has been discussed with HCC that there will likely be a requirement to increase its operational management of the path given increased patronage levels, together with a public expectation that the facility will provide a serviceable and high-quality user experience. On this basis, I have concluded that the planned sweeping and litter collection type activities would need to be increased from the current regime. To some extent, these additional activities may be offset by reduced emergency sweeping of the traffic lanes to maintain clear vehicle passage, on the basis of the effectiveness of the redirecting seawalls (reducing debris being deposited on the road) and also providing additional offset between the traffic lane and the sea wall itself. It has not been possible to quantify these changes.

63. Parking: currently there is limited opportunities for parking on the seaward side within the extent of the Project, but some parking frequently occurs in

the headland locations where more space is available. None of the parking within the Project extent is formalised with the use of marked parking bays. Some of this existing ad-hoc parking will be removed to provide space for the Project, which removes the need for further encroachment into the CMA. It has not been possible to quantify the numbers of space removed due to the informal nature of the parking. However, the Project will include for improved formalisation of parking in a number of locations where space permits, including Point Howard, Mahina Bay and near the intersection with Marine Parade.

TEMPORARY EFFECTS DURING CONSTRUCTION AND PROPOSED AVOIDANCE AND MINIMISATION MEASURES

64. Construction activities will be staged, rather than being completed for the entire 4.4km Project length as a single works project. There are a number of reasons for this approach including funding availability, allowable or favourable working windows (including seasonal weather and hours of light/darkness and other limitations within the proposed conditions) and also construction activity related disruption.

65. As noted, Marine Drive is the only road access to the Eastern Bays and Eastbourne communities serving an essential role for access and connectivity for most journeys. Due to the constrained nature of the road (property boundaries or severe terrain on the landward side, and the coastal edge on the seaward side), constructing the seawall will require temporary traffic management arrangements to provide a safe working area for construction activity.

66. In most locations, the seawall works are in close proximity to the northbound traffic lane, and will require this lane to be closed to traffic, under one-way single file traffic operation using stop/go methods, and reduced temporary speed limits. This provides the necessary working space (plus safety zone) and will facilitate the construction work, whilst protecting construction workers and road users in the vicinity of the work site. This type of methodology is commonly used for civil construction projects particularly in constrained environments.

67. The effect of a stop/go traffic restriction near the working area will result in disruption for road users as traffic is controlled and held in each direction intermittently, and then released through the constricted one lane section through the work site. The traffic management operations will be subject to a detailed Traffic Management Plan ("**TMP**"), which is a proposed consent condition (GC.11), and will likely stipulate journey time requirements (for example delays no greater than 5 minutes on average).

68. Whilst the effects of the works on travel times for road users can be minimised to a reasonable level and publicised in advance to road users, it is acknowledged that over the duration of a construction season, for multiple trips per day, or for the entire project construction period over a number of

years, the effects of these traffic disruptions may become frustrating for road users. Therefore, the construction sequencing will stagger the bay works over a number of years, providing a number of months each year with no physical works will provide a level of road user and community 'relief'.

69. The TMP will also detail the requirements for maintaining safe access for walking and cycling through the construction works, as well as access to and from bus stops.

70. There will also be noise effects during construction, and requirements have been covered off by way of a consent condition (GC.14).

RESPONSE TO SUBMISSIONS

71. Of the 200 submissions on the Project, 179 of these were in support of the application. A large number of these supportive submissions related to transport and safety benefits. These are too numerous to summarise individually, and therefore are broadly grouped into themes below:

    (a) Support as the Project will improve cyclist safety.

    (b) Support as the Project will improve pedestrian safety and amenity.

    (c) Support the Project as it will improve transport options, encouraging more active travel and alternative modes.

    (d) Support as the Project will improve resilience.

    (e) Support as the Project will provide a recreational facility that will enhance the unique coastal asset

    (f) Support as the Project will provide improve accessibility between the bays.

Path width

72. Responses to path width submissions are included in the evidence of **Mr Greenaway** and my own evidence on Project Design.

Beach access

73. Some submitters[16] raised concerns regarding beach access or access to the coastal area becoming less available due to the Project. I do not consider that this will be the case, in my opinion the opposite is correct. This is because additional formalised opportunities for access to the beach and coastal areas are being provided (at this stage 17 in total), plus less formal opportunities will remain.

74. Broadly, the concerns appear to stem from the view that the curved seawall, be it single, double or triple, will provide a greater barrier to access. I disagree as, irrespective of the seawall height, the existing road level is not being changed, the vertical height of the road will remain the same, and so

[16] Including East Harbour Environmental Association Incorporated (80), Geoffrey Rashbrooke (179), Margaret Sissons (175)

the height different between the road and the beach or rocky headland will remain the same. Therefore, if there was a 1m height difference between the road and beach previously, this would remain the case under the Project.

75. I acknowledge there are some locations in the Project area where the existing seawall is a pitched profile, up to potentially around 45 degrees in places. If individuals are uncomfortable traversing these, then it is possible that a double curved seawall may restrict access. However, I do note that the seawall profile is tiered with an overhang rather than a single vertical drop, again meaning that able-bodied path users may choose to traverse over the tiered wall construction as opposed to using the more formalised access provisions.

76. The provision of an edge safety barrier will also restrict direct access from the new shared path to the beach or rocky headland, for the ~800m length of the proposed edge safety barrier. However, the safety barrier is targeted only to the locations where the fall height is greatest so current direct access in these locations is difficult and possibly unsafe.

77. A number of submissions[17] were received in support of the proposal, specifically identifying the improved beach access as part of their support.

Bus shelters

78. A number of submitters[18] raised objections to any changes to existing bus stops and shelters. The issues raised included: being more exposed to adverse weather, concerns regarding having cyclists close to bus shelters, and concerns about relocation of bus stops to locations which may not be suitable or to locations that could reduce patronage.

79. My response is as follows:

    (a) Adverse weather: HCC will continue to work with the community and GWRC on finalising the bus shelter locations and appropriately designing bus shelters to best account for storm conditions, for example completely enclosed shelters.

    (b) Cyclist proximity to bus stops: I concur that this is a risk that needs to be managed. Best practice solutions tend to recommend taking the Shared Path to the rear of the bus shelter as opposed to directly in front. This method separates path users from direct conflict with people boarding or alighting from buses so is a safer solution. This approach is proposed for the Eastern Bays bus stops. Additionally, signs and marks will be used to further emphasise the need for additional care around bus stops.

    (c) Bus stop relocations: Whilst bus stop relocations are not yet finalised and will be subject to further agreement between communities and

[17] Including David Moginie (34), Felicity Lovell (137), Ian/Paddy Osborne (191)
[18] Including East Harbour Environmental Association Incorporated (80), Richmond Atkinson (168), Margaret Sissons (175)

GWRC, it is anticipated that no bus stop relocation will be greater than 120m from current location (and more likely 60-80m). Assuming a 120m relocation, and using a conservative walking speed of 1.2m per second[19] for the aged and those with mobility impairments, this would add a further 100 seconds to a walking journey, for those bus users that were inconvenienced (noting that other bus users may be equally advantaged by this mount if the bus stop moved closer to their origin/destination).

Parking

80. One submitter raised the issue of parking. This was actually in relation to the concern that cars may park on the Shared Path as opposed to any loss of parking specifically.

81. It is my view that parking on the Shared Path by cars or other vehicles is unlikely. This is because there will be physical measures placed between the edge of the Shared Path and the traffic lane that will make such parking manoeuvres very difficult (although perhaps not impossible). Further, the path is forecast to be well-used and this frequent continuous usage would, I believe, make parking within the path unlikely. Parking by cars within the path would also be prohibited.

RESPONSE TO COUNCIL OFFICERS' SECTION 42A REPORTS

HCC Council Officers' Report

82. The HCC section 42A report also notes that the Project will have positive effects such as enhanced accessibility and connectivity, increased mode choice, enhanced safety, increased resilience, recreation, health and social benefits.

83. I have noted the content and recommendations of the HCC section 42A report, in relation to the Project's transport design considerations and the positive and adverse effects. I consider the additional conditions proposed, in relation to road staged road safety audits, to be appropriate and in accordance with industry practice, and therefore appropriate for the Project.

84. The HCC section 42A report also notes the peer review recommendation for a path width of nominally 2.4m for most of the length, and a clear width where practical. As I have stated in my own Project Design evidence, the majority of the Shared Path (83 %, or 3.65km) is the full 3.5m width, and only a limited length (17%,[20] or 0.75km) is the reduced 2.5m width.

[19] NZTA Pedestrian Planning and Design Guide (2009), Section 3.4
[20] The transition lengths, ie the sections that connect the different path widths between 2.5m and 3.5m, and by definition are always greater than 2.5m in width, have been included in the statistics for the 2.5m sections, for conservatism.

GWRC Council Officers' Report

85. I have reviewed the GWRC section 42A report, and concur with the commentary in relation to the positive effects of the project in relation to transport mode shift and safety (and health).

Jamie Joseph Povall

30 November 2020