



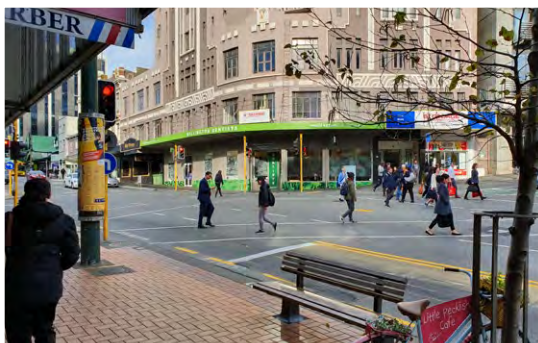
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Appendix D - Design Philosophy Statement

October 2021

Golden Mile Single Stage Business Case | Contract No. 1851



Futuregroup »



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QUALITY STATEMENT

PROJECT MANAGER

Graeme Stanton

PROJECT TECHNICAL LEAD

FutureGroup

PREPARED BY

Rowan Schwynn

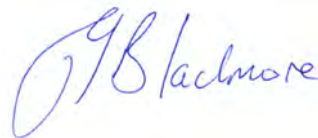
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14/10/2021

CHECKED BY

Let's Get Wellington Moving

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..... 

14/10/2021

REVIEWED BY

Selwyn Blackmore

.....

..... 

14/10/2021

APPROVED FOR ISSUE BY

Graeme Stanton

WELLINGTON

Stantec Building,
Level 15, 10 Brandon Street,
Wellington 6011
PO Box 13-052, Armagh, Christchurch 8141
TEL +64 4 381 6700

REVISION SCHEDULE

Rev No.	Date	Description	Signature or Typed Name (documentation on file)			
			Prepared by	Checked by	Reviewed by	Approved by
1	23 / 6 / 21	Version 1	Lukshmi Ranasinghe	Rowan Schwynn	Selwyn Blackmore	Graeme Stanton
2	9 / 8 / 21	Version 2	Rowan Schwynn	Selwyn Blackmore	Selwyn Blackmore	Graeme Stanton
3	13 / 9 / 21	Version 3	Rowan Schwynn	Selwyn Blackmore	Selwyn Blackmore	Graeme Stanton
4	14 / 10 / 21	Final	Rowan Schwynn	Selwyn Blackmore	Selwyn Blackmore	Graeme Stanton

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1 Purpose

The Golden Mile Design Philosophy Statement (DPS) has been prepared to inform the Golden Mile Project’s Single Stage Business Case (SSBC).

Among other matters, this DPS sets out the design standards, guidelines, assumptions, and factors that will be used to inform the design of the Project. By setting out the intentions of the design at the SSBC stage of the Project, the DPS ensures that the Let’s Get Wellington Moving (LGWM) objectives, Golden Mile Vision 2036 (and supporting design principles), Mana whenua cultural design values as well as the intent of the Golden Mile’s Investment Objectives are integrated into the design approach for the Project from an early stage.

It is expected that this DPS will be reviewed, and updated if required, at the beginning of the Project’s Detailed Design Phase. Therefore, because of its “live status”, it describes the standards, methodologies and assumptions made at the time of its writing.

2 Strategic Context

2.1 Key Project Objectives

The key drivers for the Project are as follows:

- LGWM Programme Objectives
- Golden Mile Project Objectives
- Golden Mile Vision Statement and design principles, and
- Golden Mile investment logic map, including investment objectives.

2.1.1 LGWM Programme Objectives

As set out in Table 1, the LGWM programme is seeking to achieve five objectives for a transport system.

Table 1: LGWM Programme Objectives (updated in June 2021)

Objective	Liveability	Access	Carbon emissions and mode shift	Safety	Resilience
Description	Enhances urban amenity and enables urban development outcomes	Provides more efficient and reliable access for users	Reduces carbon emissions and increases mode shift by reducing reliance on private vehicles	Improves safety for all users	Is adaptable to disruptions and future uncertainty
Weightings (%)	20	15	40	15	10

2.1.2 Golden Mile Objectives

The LGWM programme has developed specific objectives for the Project to ensure that the transport and public realm outcomes to be pursued for the Golden Mile are aligned with the overall direction of the LGWM programme.

Figure 1 sets out the respective objectives for the LGWM programme and the corresponding objectives for the Project.

LGWM Objectives

Golden Mile Objectives



Figure 1: LGWM programme and Golden Mile objectives

2.1.3 Golden Mile Vision 2036 Statement

The Golden Mile Vision 2036 Statement¹ was established to help guide development of the SSBC. Development of the vision was informed by the five goals identified in WCC's Long Term Plan (Our City Tomorrow) 2018-2028², the LGWM Vision Statement as well as the objectives identified in Figure 1 above.

The Golden Mile Vision 2036 Statement is summarised below in Figure 2 below.

¹ See: [Vision-2036-April-2020.pdf \(lgwm.nz\)](#)

² The five goals identified in *Our City Tomorrow* are as follows: resilient, greener, compact, inclusive and connected, vibrant and prosperous. For further information on *Our City Tomorrow* see: <http://ltp2018.publications.wellington.govt.nz/Part+B+Summary+of+Our+10-Year+Plan/Our+long-term+city+outcomes>

Golden Mile Vision

The Golden Mile gets Wellington moving by...

Connecting people across the central city with a reliable public transport system that is in balance with an attractive pedestrian environment.



RELIABLE NETWORK

Golden Mile is core to the public transport network, reliably connecting people to and through the central city.



REFLECTING PLACE

Golden Mile streets and spaces reflect changes in characteristics along the way from our capital places at one end to our fun places at the other.



COMFORTABLE + SAFE

Golden Mile streets are prioritised for public transport and active modes, as well as being greener, safer, comfortable spaces for people to spend time in

WHAT THIS LOOKS LIKE:

Figure 2: Golden Mile Vision 2036 Statement

2.1.3.1 Golden Mile Vision Statement Design Principles

The Golden Mile Design Principles will be used to guide the changes made towards the Vision. The principles are as follows:

Transitioning

1. Recognise that the carrying capacity of public transport on Golden Mile will have a limit if the system is to enable a good customer experience and retain amenity space for pedestrians within the public realm.
2. Plan for the ultimate Wellington central city public transport system being on two routes for efficiency and reliability - the Golden Mile and potentially Jervois Quay/Taranaki Street south.
3. Ensure that provision for alternative public transport routes to supplement the Golden Mile route capacity occurs well in advance of that limit being reached.

Vibrant and Prosperous

4. Reflect the Golden Mile's unique local character and cultural landscape as the original harbour shoreline.
5. Provide for linear continuity and attractive spaces where people can 'dwell' comfortably.
6. Prioritise public transport, walking and cycling access over private vehicles.
7. Recognise the need for the strategic location of loading and servicing facilities to assist business prosperity.

Inclusive and Connected

8. Enable universal access, safe and comfortable movement for all people by considering the interplay of public transport, active modes and pedestrian space.
9. Design for good public transport customer experience in place-specific street-based stops and interchanges.

10. Connect people by the street network and lanes both along and across the Golden Mile and to destination or anchor places (such as the waterfront, The Terrace, Civic Square, Te Papa, and parks).

Greener

11. Deploy clean and green quiet running vehicles to the Golden Mile.
12. Incorporate stormwater design into the street space greening in a format that is appropriate to a premium city place and which reflects climate change influences.
13. Enhance green infrastructure including trees, active mode facilities (cycle storage, e-bike charging), green 'pocket' parks and water sensitive urban design suited to conditions.

Resilient

14. Enable emergency vehicles to access all areas of the Golden Mile in emergencies.
15. Provide for events/incidents that close lanes on the Golden Mile to maintain public transport services.
16. Recognise sea level rise and flooding, ground shaking and liquefaction risks in design.

2.1.4 Golden Mile Strategic Case

The *Golden Mile Strategic Case*³ (Strategic Case) was developed to support the delivery of the SSBC in early 2020. One of its key purposes was to identify the investment objectives (as well as the problem and benefit statements) to be considered during the alternatives and options development and assessment processes.

The problem / benefit statements and investment objectives identified in the Strategic Case are set out below in Figure 3.

³ See: [Microsoft Word - Golden Mile Strategic Case Refresh - FINAL June 2020.docx \(amazonaws.com\)](#)

Moving More People, Safely and More Reliably using Fewer Vehicles

Accommodating the Growth of Wellington

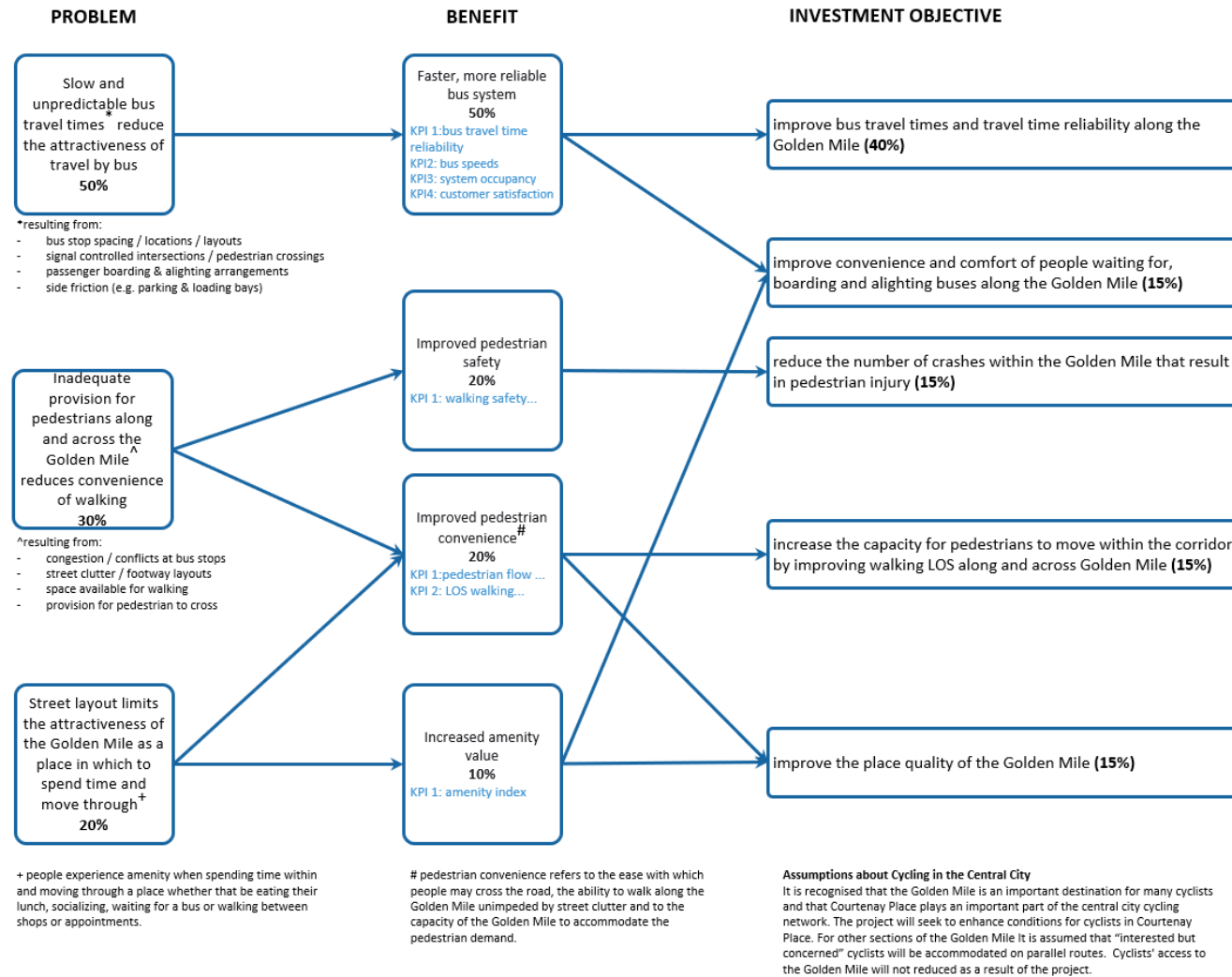


Figure 3: Problem / benefit statements and investment objectives

3 Developing a Preferred Option

3.1 Long List Assessment

The *Golden Mile Long List Report*⁴ (Long List Report) sets out the processes undertaken to identify a long list of intervention options and “mitigation / intervention strategies” that could help to address the problem statements and achieve the investment objectives identified in the Strategic Case. The key steps undertaken in the long list process included:

- **Step 1:** Development of an intervention “toolbox”. This toolbox ultimately identified over 150 different types of interventions that could address the problems and help to achieve the investment objectives
- **Step 2:** Additional “root cause” problem analysis. This process resulted in identification of the following four key strategic issues: dwell times; congestion; intersection delay / variability; and, pedestrian / urban amenity
- **Step 3:** Development of “mitigation / intervention strategies” to address the key strategic issues for each section of the Golden Mile
- **Step 4:** Identification of over 250 “sub-section” mitigation / intervention scenarios for the Golden Mile. The scenarios not considered to be feasible or effective by the Golden Mile Project Team were removed from further consideration. This process eventually left 21 scenarios needing further assessment
- **Step 6:** Application of the mitigation / intervention strategies to each of the 21 scenarios in order to identify each scenario’s key features / attributes. This enabled before and after cross sections to be developed, as set out in Figure 4

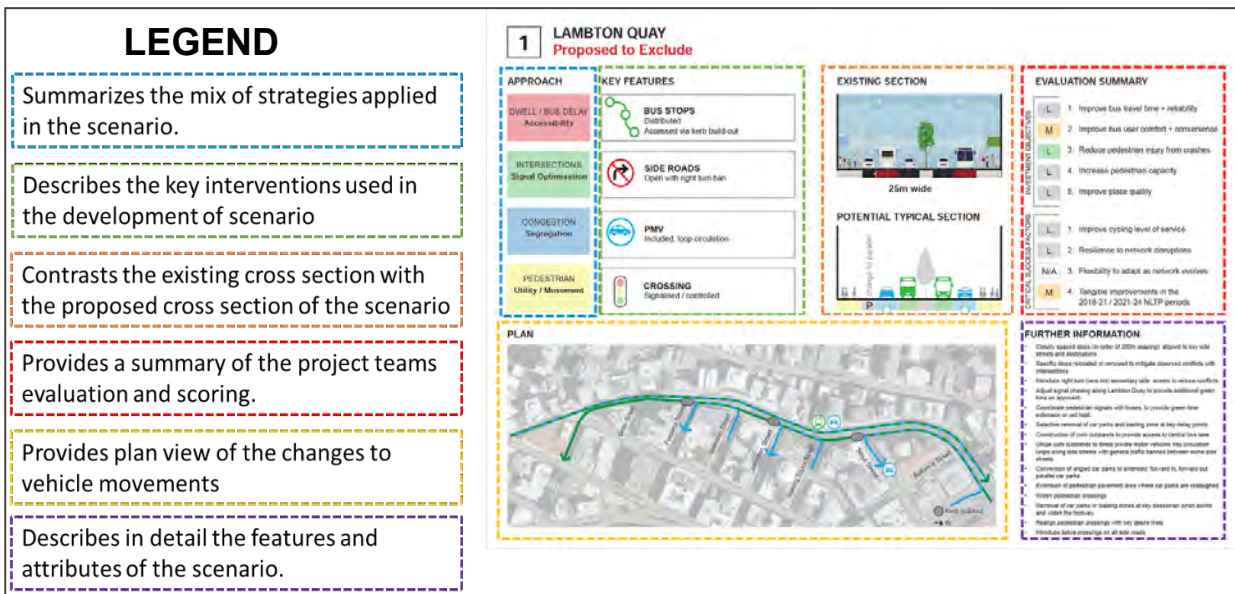


Figure 4: Example of sub-section scenario assessment (Lambton Quay Scenario 1)

- **Step 7:** Evaluation of the 21 scenarios through a high-level MCA process. This process involved evaluating each scenario against the investment objectives and ‘key success factors’⁵

⁴ See: <https://lgwm.nz/assets/Documents/Technical-Documents/Golden-Mile/Golden-Mile-Long-List-Report-June-2020.pdf>

⁵ Golden Mile Strategic Case (2020), page 45

that had been identified in the Strategic Case. Through this evaluation process a further nine scenarios were eliminated, which left 12 scenarios needing further assessment.

The Long List Report concluded that further technical assessments were needed before any short listing of the remaining 12 scenarios could occur. The report identified that this additional work was required to further understand the corridor wide implications of each scenario and to determine whether any of them could be combined. It recommended that this additional investigation work be informed by responding to the following three questions:

- **What is the optimum bus stop spacing / locations for the corridor?** (i.e. to help inform both the potential to use high capacity stops at Lambton Quay and / or Courtenay Place and retain or simplify bus stops on Willis and Manners Streets)
- **Whether to restrict traffic access from the Golden Mile and, if so, to what extent?** (i.e. to help inform the key decision to remove PMV access from key segments of the Golden Mile and in particular, Willis Street), and
- **How to allocate road space for buses, pedestrians and faster active modes?** (i.e. to help inform the extent to which active carriageway may be repurposed at Lambton Quay and / or Courtenay Place).

3.2 Short List Assessment

The Short List Report⁶ sets out the key development and assessment processes undertaken to evaluate the 12 remaining scenarios identified in the Long List Report. It also sets out how the scenarios were eventually “packaged” into the short-listed options.

To respond to the Long List Report’s questions, the Golden Mile Project Team undertook bus stop catchment and capacity modelling, “space allocation / cross section” evaluations as well as general transport modelling. Ultimately, this technical work enabled the project team to reach the following key conclusions:

- To achieve the greatest benefits for bus users and pedestrians (and cyclists / fast mobility devices), PMVs would need to be removed from the Golden Mile
- PMVs are currently a significant impediment to the capacity of the northbound bus stop on Willis Street, and therefore their removal would significantly improve the operation of buses on Willis Street
- The removal of PMVs from Lambton Quay without removing traffic from Willis Street would negatively impact bus operations at the Willis / Hunter Street intersection. It is therefore preferable that PMVs be removed from both Willis Street and Lambton Quay
- Transport modelling indicated that removing PMVs from Willis Street would have minimal impacts on wider CBD traffic movements
- The optimal bus stop configuration for the Golden Mile was likely to be a five paired bus stop arrangement, with Willis Street forming a key point of access for maintaining bus catchments on the Golden Mile
- The Manners Street / Cuba Street stop pair was viewed as being a critical boarding and alighting location for passengers accessing the Cuba Street Mall
- Overall bus capacity on the Golden Mile is limited by the size of bus stops, which in turn is limited by the available cross section. No one mix of improvements is likely to provide unlimited capacity for increased bus volumes along the Golden Mile as long as bus stops are retained, particularly at the key pinch points of Willis Street and Manners Street
- A reduction in carriageway from four lanes to two lanes on Lambton Quay and Courtenay Place would provide the greatest opportunity for improvements for pedestrians, cyclists and

⁶ See: <https://lgwm.nz/assets/Documents/Technical-Documents/Golden-Mile/Golden-Mile-Short-List-Report-June-2020.pdf>

public realm. However, there would need to be a trade-off between providing for these activities and improving bus efficiency, which may involve the use of indented or off-line bus stops while maintaining a two-lane bus carriageway elsewhere, and

- The restriction of PMVs on Courtenay Place and Willis Street (south of Mercer Street) would provide opportunities for implementation of WCC’s Strategic Cycle Network Plan.

Based on the above conclusions, in order to further differentiate between the 12 scenarios, the Golden Mile Project Team developed a “decision-making tree” to help package the scenarios into short-listed options. This decision-making tree comprised of the two strategic questions as set out in Figure 5 below:

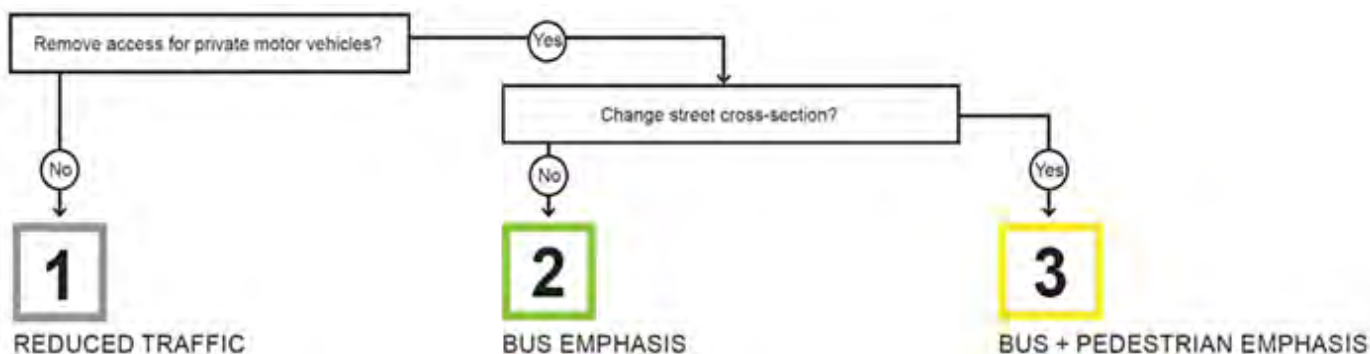


Figure 5: Decision-making tree

If the response to Question One (i.e. whether to retain or remove PMVs from the Golden Mile) was “no”, then long list scenario combination of 1CW7 was identified to be pursued (referred to as the Reduced Traffic Option).

If, however the answer was “yes” to removing PMVs, then the next question related to whether the existing cross sections (i.e. on Lambton Quay and / or Courtenay Place) should be retained or the extra space (e.g. from the removal of indented bus stops) be converted to additional pedestrian and / or public realm space. If the response was to retain the existing cross sections, then long list scenario combination 2BX8 was identified to be pursued (referred to as the Bus Emphasis Option). If, however the response was to convert the extra space to additional pedestrian pavement / public realm, then long list scenario combination 3BX9 was identified to be pursued (referred to as the Bus + Pedestrian Emphasis Option).

In summary, the Golden Mile Project Team’s responses to the decision-making tree process enabled the following three scenarios to be identified (which were renamed as options in the Short List Report):

- Scenario 1CW7 (which was renamed Option 1)
Key features of this option included: restricting PMV movements; consolidation of bus stops; removal of on-street car parks; relocation of loading bays / taxi stands to side roads; closure of side road ends; and, creation of new spaces for pedestrians / public realm.
- Scenario 2BX8 (which was renamed Option 2)
Key features of this option included: removal of PMV access; provision of two bus lanes in each direction on Courtenay Place and Lambton Quay; consolidation of bus stops; removal of on-street-car parks; relocation of loading bays / taxi stands to side roads; closure of side road ends; and, creation of new spaces for pedestrians / public realm.
- Scenario 3BX9 (which was renamed Option 3)
Key features of this option included: removal of PMV access; provision of two dedicated bus lanes along the entire Golden Mile; consolidation of bus stops; removal of on-street-car parking; relocation of loading / taxi bays to side roads; closure of side road ends;

creation of significant new spaces for pedestrians / public realm; and, dedicated cycling opportunities (e.g. Courtenay Place).

3.3 Identifying a Preferred Option

The *Multi Criteria Analysis (MCA) Report*⁷ sets out the key development and assessment processes undertaken to evaluate the three short listed options identified in the Short List Report.

Final MCA processes for the short-listed options commenced following completion of the Golden Mile Public Engagement Programme in 2020.⁸

An MCA Workshop was held on 30 November 2020. Using a 7-point scoring system (and noting that the cost, benefits / disbenefits and value for money assessment criterion were not assigned specific scores) the MCA assessors unweighted (i.e. raw) evaluation scores and final rankings are set out below in Table 2.

Table 2: MCA assessor unweighted (i.e. raw) option scores

Assessment area	Lambton Quay				Willis Street				Manners Street		Courtenay Place			
	Do-Minimum	Option 1	Option 2	Option 3	Do-Minimum	Option 1	Option 2	Option 3	Do-Minimum	All Options	Do-Minimum	Option 1	Option 2	Option 3
Delivery of Objectives														
Bus Travel Time and Reliability	0	1	2	1	0	1	2	2	0	1	0	1	2	2
Bus Passenger Boarding and Alighting Comfort and Convenience	0	1	3	2	0	1	1	2	0	1	0	2	3	2
Pedestrian Safety	0	1	0	2	0	1	1	1	0	1	0	1	0	2
Pedestrian Capacity	0	1	2	2	0	1	1	2	0	1	0	1	2	2
Improve Place quality	0	0	1	3	0	1	1	1	0	0	0	0	1	3
Effects														
Social	0	0	1	3	0	1	2	3	0	0	0	1	2	3
Retail Impacts	0	1	1	2	0	1	1	2	0	0	0	1	1	1
Cycling Level of Service	0	1	1	3	0	0	0	-1	0	-1	0	1	1	3
General (Road) Safety	0	1	1	2	0	1	1	1	0	1	0	1	1	2
Sustainability	0	1	1	3	0	1	1	3	0	0	0	1	1	3
Fit with LGWM Programme	0	0	3	3	0	-1	-1	-1	0	0	0	2	3	2
Delivery, maintenance, and operations														
Delivery	0	-1	-1	-2	0	-1	-1	-2	0	-1	0	-1	-1	-2
Operations and Maintenance	0	-1	-2	-3	0	-1	-2	-3	0	-1	0	-1	-2	-3
Timeframe for Delivery	0	2	2	2	0	2	2	2	0	2	0	2	2	2
Final scores and rankings														
Total scores	0	8	15	23	0	8	9	12	0	4	0	12	16	22
Final rankings		3 rd	2 nd	1 st		3 rd	2 nd	1 st		All Options		3 rd	2 nd	1 st

Cost, benefit, and value for money ranges			
Assessment criteria	Option 1	Option 2	Option 3
Cost estimates range (real)	\$15M - \$23M	\$21M - \$32M	\$52M - \$79M
Discounted Costs (present value)	\$14M - \$20M	\$19M - \$29M	\$47M - \$72M
Benefit ranges (present value)	\$31M - \$57M	\$42M - \$219M	\$87M - \$505M
Indicative BCR ranges (i.e. value for money)	1.6 - 4.2	1.5 - 12	1.2 - 11

Individual benefit components	Option 1 (\$M)	Option 2 (\$M)	Option 3 (\$M)
Car travel time impact	-\$6.2 - \$4.8	-\$79 - \$37	-\$79 - \$37
Public transport travel time benefit	\$18 - \$24	\$26 - \$34	\$23 - \$30
Public transport reliability benefit	\$4.7 - \$6.1	\$9.1 - \$12	\$9.1 - \$12
Pedestrian realm benefits	\$11 - \$17	\$81 - \$128	\$122 - \$407
Pedestrian travel time benefits	\$3.1 - \$4.9	\$5.8 - \$9.4	\$13 - \$20

⁷ See: https://lgwm-prod-public.s3.ap-southeast-2.amazonaws.com/public/Documents/Golden-Mile/Alternatives-and-Options-Report_June-2021.pdf

⁸ See: <https://lgwm-prod-public.s3.ap-southeast-2.amazonaws.com/public/Documents/Technical-Documents/Early-Interventions/LGWM-Golden-Mile-Engagement-Report-March2020.pdf>

All MCA evaluations were undertaken relative to a “Do-Minimum scenario” with each option scored objectively (positively or negatively) against this reference position. A critical feature of the Do-Minimum scenario was the assumption that a second north-south bus corridor would operate within the Wellington CBD, and would enable the maximum number of buses on the Golden Mile to be “capped” at 100 vehicles per hour per direction (i.e. any additional buses over this cap would be accommodated on an alternative corridor).

As set out in the table above, Option 3 was ultimately identified as the best performing option for Lambton Quay, Willis Street and Courtenay Place under the unweighted scoring process. The “All options” option was considered the best performing option for Manners Street.

In addition to identifying the unweighted scores (i.e. raw scores), a weighting scenario exercise was undertaken to test various sensitivities of the unweighted scores to matters considered under various weighting themes, to be possibly more important. The outcomes of the weighting scenarios (and the unweighted evaluations) are set out below in Table 3:

Table 3: Evaluation of the weighted scenarios and unweighted (i.e. raw) rankings

Golden Mile Section	Option	Unweighted Score	Investment Objective Weightings	Focus on improving the public realm	Focus on people movement	Focus on Safety	Program fit and delivery focus	Economic Focus	Social Focus	Workshop Weighting
Lambton Quay	Do-Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Option 1	1.47	0.13	0.11	0.13	0.13	0.09	0.12	0.09	0.11
	Option 2	2.43	0.23	0.19	0.23	0.12	0.19	0.21	0.13	0.23
	Option 3	3.67	0.24	0.28	0.23	0.25	0.19	0.26	0.25	0.28
Lambton Quay Option Preference		Option 3	Option 3	Option 3	Option 3	Option 3	Option 3	Option 3	Option 3	Option 3
Willis Street	Do-Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Option 2	1.50	0.14	0.14	0.14	0.13	0.06	0.14	0.10	0.14
	Option 1	1.37	0.14	0.13	0.16	0.11	0.04	0.14	0.09	0.16
	Option 3	1.77	0.18	0.15	0.19	0.13	0.16	0.16	0.17	0.08
Willis Street Option Preference		Option 3	Option 3	Option 3	Option 3	Option 2	Option 3	Option 3	Option 3	Option 1
Manners Street	Do-Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	All Options	0.80	0.11	0.08	0.11	0.10	0.06	0.10	0.03	0.10
Manners Street Option Preference		All options	All options	All options	All options	All options	All options	All options	All options	All options
Courtenay Place	Do-Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Option 1	2.17	0.18	0.14	0.16	0.15	0.17	0.16	0.14	0.15
	Option 2	2.23	0.20	0.17	0.22	0.04	0.18	0.18	0.13	0.19
	Option 3	3.53	0.26	0.29	0.26	0.25	0.15	0.28	0.22	0.31
Willis Street Option Preference		Option 3	Option 3	Option 3	Option 3	Option 3	Option 3	Option 3	Option 3	Option 3

As set out above, under the weighting scenarios, Option 3 was also generally preferred.

Overall, Option 3 was ultimately identified through the MCA process as the best performing option for Lambton Quay, Willis Street and Courtenay Place (and the “All options” option was considered the best performing option for Manners Street).

3.3.1 Key Features of Option 3 (Preferred Option)

In summary, the key features of Option 3 are as follows:

- PMV access removed from the entirety of the Golden Mile
- One bus lane in each direction along the entire Golden Mile (with no physical separation between the lanes)
- Bus stops will be indented at either end of the Golden Mile, with mid-block stops inline
- Ends of Blair, Allen, Cuba, Mercer, Ballance, Stout, Waring Taylor, Johnson, Brandon and Panama Streets closed

- Retention of north / south through traffic at the Tory Street / Courtenay Place intersection (rather than full closure)
- Dedicated or shared space for cyclists and fast active modes (e.g. e-scooters) on Courtenay Place and Lambton Quay (north of Panama Street)
- Some Loading zones and taxi stands relocated to side streets (loading zones for large service vehicles to be provided on the Golden Mile based on temporal arrangements)
- On-street car parking removed
- Bus stops consolidated to improve bus reliability [a maximum five-minute walk to a bus stop (for someone walking at an average speed)], and
- Emergency vehicle access would be allowed 24 / 7.

3.4 Option Development and Assessment Key Project Assumptions

The option development and assessment processes for the short-listed options were premised on the following key project assumptions:

- Project outcomes will be developed based on a long-term solution in accordance with the Golden Mile 2036 Vision
- It is assumed that Mass Rapid Transit (MRT) is not on the Golden Mile Corridor, although integration with future MRT will need to be considered particularly at the intersection of Manners / Courtenay and Taranaki Street
- Despite the potential for MRT and a second bus corridor, the Golden Mile is still expected to carry significant public transport capacity and must provide a very high-quality public transport spine
- There is general acceptance of less / no general traffic access to the Golden Mile and reduced traffic generally in the Wellington CBD
- There is a general acceptance of a reduction / removal in on-street parking where necessary and where this contributes to project objectives
- The assumed design year for the purposes of travel demand and public transport patronage is 2036 to provide consistency with the Golden Mile Vision
- Property acquisition is not anticipated, and options are to be developed to sit within the existing road corridor⁹
- The assumed design year for travel demand and public transport patronage is 2036
- Public transport patronage and growth will return to pre-COVID levels and projections by 2036
- Patterns of employment and employment distribution will return to pre-COVID levels and projections by 2036
- No material change in the mix and density of land uses along and in the vicinity of the Golden Mile
- Rates of car ownership and vehicle operating costs will remain consistent with forecasts

⁹ Property acquisition has not been explicitly stated as excluded from project scope, however the overarching project budget and timing rules out significant property acquisition as a feasible consideration

- No change to the temporal demand, with AM and PM peak demand periods continuing into 2036
- 30km/hr speed limit, and
- The capacity of the Golden Mile to accommodate buses is constrained and additional bus volumes beyond 100 vehicles per hour, per direction of travel are assumed to use an alternative (unspecified) corridor.

The following measures were specifically excluded from consideration:

- Changes to fares and pricing structures of bus and / or taxi services
- Changes to bus fleet (including use of high-capacity buses beyond those already in use)
- Changes to bus routes, services and timetables
- The addition of new car parks, changes to car park pricing or parking strategies beyond the extent of the Golden Mile, and
- Major grade separation works (e.g. elevated structures) and / or changes to roads or intersections beyond the extent of the Golden Mile.

It is noted that changes to some roads or intersections beyond the extent of the Golden Mile have been modelled in the AIMSUN transport model, but no further design work has been undertaken.

4 Movement and Access Strategy for the Preferred Option

The Golden Mile will need to accommodate a range of uses that have different access requirements.

A *Movement and Access Strategy* has been prepared to define the preferred option's specific access and movement arrangements for all users of the Golden Mile. Its purpose is to inform the design of the preferred option's infrastructure that will enable or control or restrict access for different user groups. The Strategy is set out in full in this section of the DPS.

The key objectives of the Strategy are:

- Confirm the identification of user groups
- Confirm the movement and access hierarchy as it is applied to the user groups
- Confirm the strategic access principles and access controls to be applied to each user group, and
- Confirm the movement and access plans as they apply to each user group, for each section of the Golden Mile.

4.1 Golden Mile User Groups

Table 4 provides a summary of the groups and sub-groups identified as using the Golden Mile:

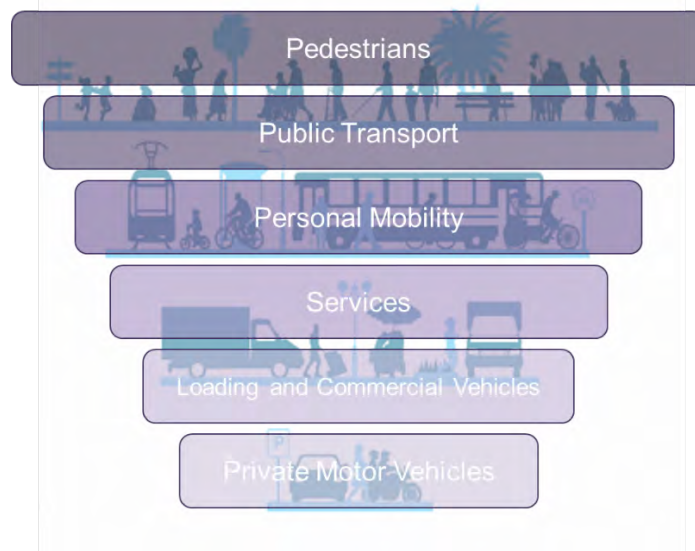
Table 4: Golden Mile user group summary

Group	Sub-Group	Example Users
Pedestrians	Pedestrians Use of space Commercial Activity	Commuters Shoppers Homeless Out-door dining Buskers
Public Transport	Scheduled PT Unscheduled PT Private mass transit	Route services Coaches Charters Tourists Special use
Personal Mobility	Non-motorised Cyclists Motorised personal mobility	Regular users Casual users Commercial users/couriers
Services	Emergency services Maintenance vehicles Enforcement vehicles	Fire/Police/Ambulance Rubbish collection Arborists Water/Sewer Security
Loading and Commercial Vehicles	Large commercial vehicles Small commercial vehicles Food delivery Taxi's Rideshare	Regular deliveries Irregular deliveries Trade vehicles Couriers Charities Taxi's Uber/Ola
Private Motor Vehicles	Standard cars Small vans and trucks Motorcycles Mopeds	Commuters Workers/owners Residents Community transport
Special Events	Regular events Parades Protests Festivals	Markets University parades Christmas parades Music events

4.2 Golden Mile Movement and Access Hierarchy

A *Movement and Access Hierarchy* has been developed to support the implementation of the Strategy. It defines the relationship between the user groups and determines how movement and access will be prioritised. The hierarchy is shown in Figure 6 below.

Figure 6: Golden Mile movement and access hierarchy



The hierarchy collectively reflects the Golden Mile's five Investment Objectives and reinforces the Golden Mile's function as a focal point for pedestrian activity in Wellington, as well as its role as a principal public transport spine.

Pedestrians and public transport are at the top of the hierarchy, meaning movement and access objectives for these user groups should be prioritised for these groups.

Personal mobility (including cyclists) is also important, but the provision of access for these user groups should not restrict pedestrian or public transport.

Service and commercial vehicle access are necessary to maintain the functional operation of infrastructure and business along the Golden Mile.

Private motor vehicles have the lowest ranking in the hierarchy, meaning movement and access for private motor vehicles is subservient to other user groups.

Special events have not been represented in the hierarchy, as these events have specific requirements unique to each event and will therefore be managed by a traffic management plan (TMP) process.

4.3 Strategic Access Principles

The *Strategic Access Principles* describe how the Golden Mile Movement and Access Hierarchy is applied to each user group. It has three fundamental principles as described in Table 5 below.

Table 5: Strategic access principles

Access Principle	Option Description
Free	Movement and access will be enabled and encouraged. Access and movement will be supported by design, with no limitations or controls placed to limit access to particular place or time
Controlled	Movement and access will be permitted; however access and movement may be limited to particular locations, times or both
Restricted	Movement and access will be restricted from using all or part of the Golden Mile. Access may be restricted via traffic or movement controls and infrastructure design

Where a restricted strategic access principle is applied, physical and / or traffic control mechanisms may be applied to prevent access.

Where a controlled strategic access principle is applied, the specific movement and access restrictions associated with a user group will be defined and an appropriate control mechanism implemented. Examples of the application of the controlled strategic access principle include:

- **Temporal control:** limiting access to a defined period of time
- **Area control:** limiting access to a defined location or group of locations, and
- **Conditional control:** restricting access as a general principle but providing exceptions when certain conditions are met, such as, a TMP.

The determination of strategic access principles and the specific access and movement restrictions and controls will inform the development and implementation of the regulatory systems and processes needed to enact and enforce these principles.

The application of the strategic access principles to the identified user groups (as per the hierarchy above) is described in Table 6 below.

Table 6: Assigned access principles summary

User Group	Sub-User Groups	Example Users	Strategic Access Principle
Pedestrians	Pedestrians (including mobility impaired)	Commuters Shoppers Residents Tourists Students Tour groups	FREE
	Use of space	PT customers General amenity Homeless Mobility Impaired	CONTROLLED <ul style="list-style-type: none"> Use of space will be encouraged at specific locations through the use of design.
	Commercial Activity	Charities Fundraising Expansion of trading areas/outdoor dining Pop up retail activity Busking and entertainment	CONTROLLED <ul style="list-style-type: none"> Use of space will be encouraged at specific locations through the use of design May be permit controlled if required.
Public Transport	Scheduled PT	Scheduled Route Services	FREE
	Unscheduled PT	Demand responsive services Roaming profile services Long distance coaches	RESTRICTED
	Private Mass Transit	Private charter services Tour buses Cruise ship coach services	RESTRICTED ¹⁰

¹⁰ Alternative routes and stop locations will be investigated on alternate corridors

User Group	Sub-User Groups	Example Users	Strategic Access Principle
		Special use services	
Personal Mobility	Non-motorised	Skateboards Push scooters Mobility Devices ¹¹	FREE
	Cyclists	Regular cyclists Irregular cyclists Commercial deliveries or couriers	CONTROLLED <ul style="list-style-type: none"> Limited to specific locations, such as the mobility path or bus lanes.
	Motorised personal mobility	Power assisted cycles Power assisted scooters Power assisted skateboards	CONTROLLED <ul style="list-style-type: none"> Limited to specific locations, such as the mobility path or bus lanes.
Services	Emergency services	Fire/Police/Ambulance	FREE
	Maintenance vehicles	Rubbish collection Arborists Street cleaners Water/sewer inspection and maintenance vehicles Security	CONTROLLED <ul style="list-style-type: none"> Controlled by WCC operating agreements May also require TMP for certain activities.
	Enforcement vehicles	Enforcement vehicles Recovery and removal vehicles (tow trucks)	CONTROLLED <ul style="list-style-type: none"> Controlled by WCC operating agreements.
Loading and Commercial Vehicles	Large commercial vehicles	Regular Deliveries Irregular Deliveries Armoured Vehicles (cash collection etc.)	CONTROLLED <ul style="list-style-type: none"> Access limited on the Golden Mile to time-of-day restrictions, nominally out of peak but to be confirmed.

¹¹ In this context – Mobility devices refers to any mobility aid for the mobility impaired such as wheel chairs, inclusive of motorised mobility devices.





















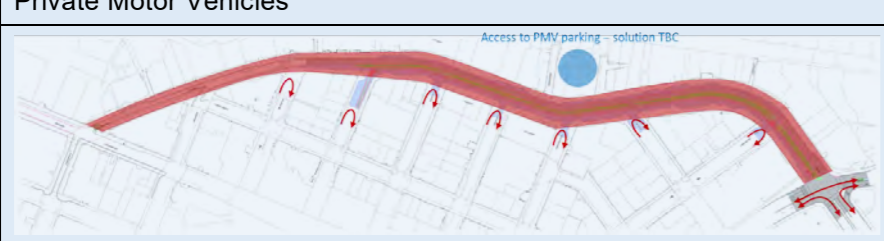



User Group	Sub-User Groups	Example Users	Strategic Access Principle
		Trade vehicles Couriers Charities Taxi's Uber/Ola	<ul style="list-style-type: none"> Free access will be maintained on side roads.
	Small commercial vehicles	Regular Deliveries Irregular Deliveries Trade Vehicles Couriers Regular	<p>RESTRICTED</p> <ul style="list-style-type: none"> Access to be provided from side roads or laneways Free access will be maintained on side roads.
	Taxi's and Rideshare	Standard Taxi's Driver services Uber/Ola etc.	<p>RESTRICTED</p> <ul style="list-style-type: none"> Access to be provided form side road Exceptions will be made for Courtenay Place during the late evening period when access and movement will be CONTROLLED.
	Food Delivery services	Uber eats etc.	<p>RESTRICTED</p> <ul style="list-style-type: none"> Exceptions will be made for Courtenay Place during the late evening period when access and movement will be CONTROLLED.
Private Motor Vehicles	General	Standard cars Small vans and trucks Motorcycles Mopeds	<p>RESTRICTED</p> <ul style="list-style-type: none"> Free access will be maintained on side roads.
	Access to existing on-mile private off street parking	Private businesses Residents	<p>CONTROLLED</p> <ul style="list-style-type: none"> Specific movement plans for each car park will need to be developed

4.4 Development of Movement and Access Plans

The application of the strategic access principles to each user group enabled *Movement and Access Plans* for each section of the Golden Mile to be developed. These plans define the access points and movements for each specific user group.

The movement and access plans for each section of the Golden Mile are summarised in Table 7 to Table 10 below.

Table 7: Lambton Quay movement plan

Lambton Quay Movement Plan	Key	Commentary
Pedestrians (including mobility impaired)		
	<ul style="list-style-type: none">  Primary pedestrian movement plan  Secondary pedestrian movement plan 	<ul style="list-style-type: none"> • Pedestrians will be encouraged to move freely along and to Lambton Quay • Pedestrian permeability across the corridor will also be encouraged through the provision of pedestrian controlled signals • Specific locations and configurations of pedestrian crossings will be adjusted through the design phase, and • Specific locations for stationary activities such as busking, or expansion to trading areas will be confirmed in subsequent design iterations • Access will be encouraged and maintained for mobility impaired.
Public Transport		
	<ul style="list-style-type: none">  Scheduled Bus Movement Plans  Alternative emergency bus route 	<ul style="list-style-type: none"> • Existing scheduled public transport routes will be maintained along Lambton Quay, with operations enabled through design • All other bus services, including charters, cruise coaches etc. will be restricted • Current entry and egress points for routes will be maintained (Brandon Street excepted) • Peak hour 'overspill' services currently right turning from Brandon to Lambton Quay will be relocated – potentially using an alternative 2nd spine bus corridor or maintained on the Golden Mile in the short term, and • Stout Street will be utilised as an emergency alternative route for buses'.
Personal Mobility		
	<ul style="list-style-type: none">  Shared Mobility Lane  Informal fast mobility connections  Primary slow personal mobility movement plan  Secondary slow personal mobility movement plan 	<ul style="list-style-type: none"> • Slow personal mobility devices, such as skateboards or push scooters will have free movement along and to Lambton Quay • Fast mobility devices, such as cyclists, e-scooters etc. will be controlled via the provision of dedicated cycle/mobility paths • A cycle/mobility path will be provided along Lambton Quay, extending to Panama Street, and • Connections to the cycle/mobility path will be provided informally via side roads and northbound from Lambton Quay South, with connections integrated with planned City Streets CBD cycleway investigations in 2021/22.
Service Vehicles		
	<ul style="list-style-type: none">  Emergency Vehicle Mobility Plan  Service Vehicle Mobility Plan  Service Vehicle Access Points  Miscellaneous service providers 	<ul style="list-style-type: none"> • All emergency vehicles will be provided with unrestricted access to all parts of Lambton Quay • Services vehicles will be permitted access as required to undertake their duties, with access controlled by operating agreements or TMP • Access to and from Lambton Quay will be provided via major intersections, and • Enforcement and recovery vehicles will be permitted access to undertake their duties with access controlled by operating agreements.
Commercial Vehicles		
	<ul style="list-style-type: none">  Large Commercial Vehicle Mobility Plan  Couriers and small commercial vehicles  Taxi consolidation area 	<ul style="list-style-type: none"> • Large commercial vehicles¹² will have access to Lambton Quay, with access limited to set time periods – nominally out of peak • Indented loading bays may be provided on both sides of the carriageway to permit loading activities without obstructing bus movements • Access to Lambton Quay will be via the remaining signalised intersections¹³ • Small commercial vehicles, including couriers will be restricted to the use of side roads, which will incorporate dedicated loading zones for this purpose • Taxi's and other commercial rideshare services will be restricted to side roads, with the potential to concentrate taxi zones at specific side roads, and • In addition, a side road¹⁴ may be designed to accommodate large commercial vehicles to allow an alternative option for commercial vehicle access.
Private Motor Vehicles		
	<ul style="list-style-type: none">  PMV Restricted area  PMV Access  Existing private car parks 	<ul style="list-style-type: none"> • Private motor vehicles will be restricted from access to and the use of Lambton Quay • Access for private motor vehicles, including pick up and drop off will be restricted to the use of side roads, and • There a limited number of private car parks access only from Lambton Quay. As an access principle, access will be maintained, with the specific access control to be determined during detailed design.

¹² The specific definition of a large commercial vehicle will be determined as part of detail design. As a general principle, the Golden Mile will accommodate access for those commercial vehicles that are too large to safely utilise side roads

¹³ Emergency vehicles and some permitted service vehicles may utilise side roads to access the Golden Mile as required to undertake their duties.

¹⁴ Specific side road for this treatment will be determined as part of detailed design

Table 8: Willis Street movement plan






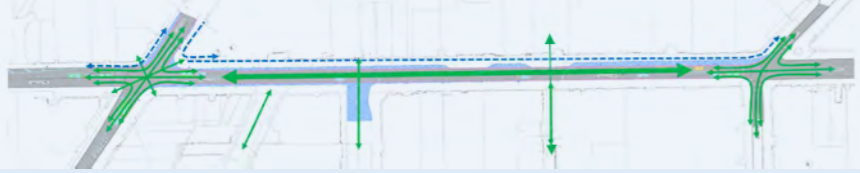














Willis Street Movement Plan	Key	Commentary
Pedestrians		
	<ul style="list-style-type: none">  Primary pedestrian movement plan  Secondary pedestrian movement plan 	<ul style="list-style-type: none"> • Pedestrians will be encouraged to move freely along Willis Street • Pedestrian crossings will be provided at Mercer Street and Chews Lane. The specific locations and dimensions of these crossings will be determined in detailed design • There is the potential to improve signal phasing for pedestrians crossing at Willis/Willeston and Willis/Manners intersections, and • Stationary activities such as busking, may only be feasible at Mercer or Bond Streets due to the constrained cross section.
Public Transport		
	<ul style="list-style-type: none">  Scheduled Bus Movement Plans 	<ul style="list-style-type: none"> • Existing scheduled public transport routes will be maintained along Willis Street, with operations enabled through design • All other bus services, including charters, cruise coaches etc. will be restricted, and • Current entry and egress points for routes will be maintained.
Personal Mobility		
	<ul style="list-style-type: none">  Slow mobility movement plan  Fast mobility movement plan  Fast mobility movement plan 	<ul style="list-style-type: none"> • Slow personal mobility devices, such as skateboards or push scooters will have free movement along and to Willis Street, and • Fast mobility devices, such as cyclists, e-scooters etc. will be limited to northbound access in the bus lane only.
Service Vehicles		
	<ul style="list-style-type: none">  Emergency Vehicle Mobility Plan  Service Vehicle Mobility Plan  Service Vehicle Access Points  Miscellaneous service providers 	<ul style="list-style-type: none"> • All emergency vehicles will be provided with unrestricted access to all parts of Willis Street • Services vehicles will be permitted access as required to undertake their duties, with access controlled by operating agreements or TMP • Access to and from Willis Street will be provided via major intersections, and • Enforcement and recovery vehicles will be permitted access to undertake their duties with access controlled by operating agreements.
Commercial Vehicles		
 <p style="color: red; font-size: small;">All loading and commercial restricted on Willis St</p>	<ul style="list-style-type: none">  Commercial Vehicle Restricted Area  Commercial Vehicle Access 	<ul style="list-style-type: none"> • All large and small commercial vehicles will be restricted from using Willis Street, and • Access for commercial vehicles will be provided either by existing rear situated loading docks or through the use of side streets.
Private Motor Vehicles		
 <p style="color: red; font-size: small;">All PMV restricted on Willis St</p>	<ul style="list-style-type: none">  PMV Restricted area  PMV Access 	<ul style="list-style-type: none"> • Private motor vehicles will be restricted from access to and the use of Willis Street, and • Private motor vehicles may utilise Mercer Street for parking or pick up and drop off.

Table 9: Manners Street movement plan




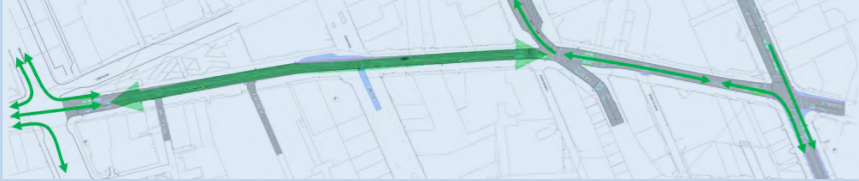

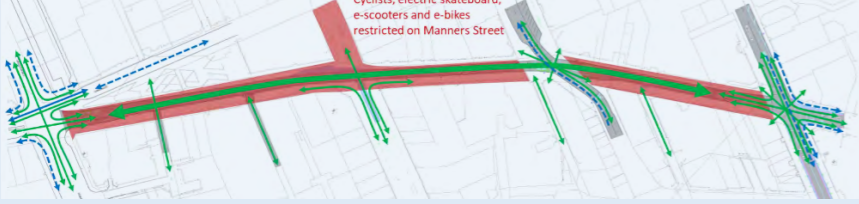




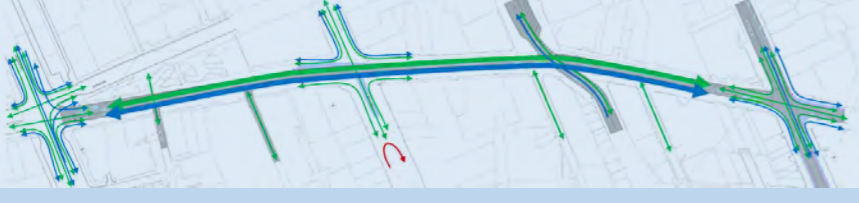











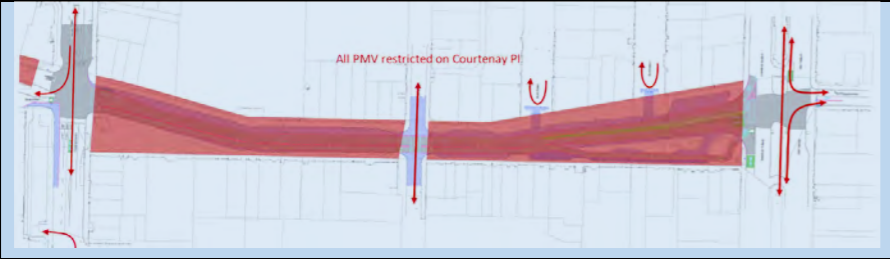
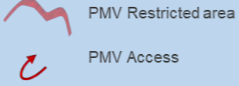
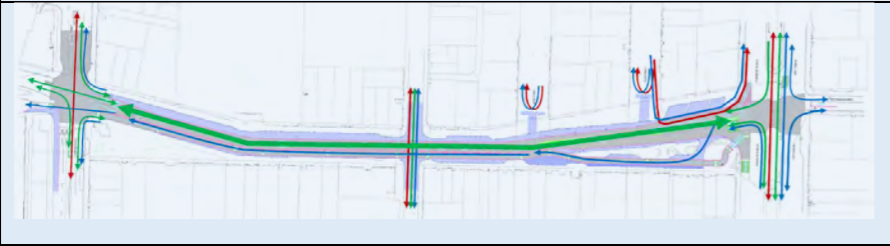

Manners Street Movement Plan	Key	Commentary
Pedestrians		
	<ul style="list-style-type: none">  Primary pedestrian movement plan  Secondary pedestrian movement plan 	<ul style="list-style-type: none"> Pedestrians will be encouraged to move freely along Manners Street Pedestrian permeability across the corridor will be provided by a combination of signalised intersection and pedestrian controlled signals Opportunities to improve pedestrian signal phasing at Willis/Manners and Victoria/Manners will be explored, and Due to the constrained cross section, there are limited opportunities to provide for stationary pedestrian activities along Manners Street.
Public Transport		
	<ul style="list-style-type: none">  Scheduled Bus Movement Plans 	<ul style="list-style-type: none"> Existing scheduled public transport routes will be maintained along Manners Street, with operations enabled through design All other bus services, including charters, cruise coaches etc. will be restricted, and Current entry and egress points for routes will be maintained.
Personal Mobility		
 <p style="color: red; font-size: small;">Cyclists, electric skateboard, e-scooters and e-bikes restricted on Manners Street</p>	<ul style="list-style-type: none">  Fast mobility restricted area  Informal fast mobility connections  Primary slow personal mobility movement plan  Secondary slow personal mobility movement plan 	<ul style="list-style-type: none"> Slow personal mobility devices, such as skateboards or push scooters will have free movement along and to Manners Street Fast mobility devices, such as cyclists, e-scooters etc. will be restricted from using Manners Street, and The strategic cycle network has identified Dixon Street as the primary cycle corridor.
Service Vehicles		
	<ul style="list-style-type: none">  Emergency Vehicle Mobility Plan  Service Vehicle Mobility Plan  Service Vehicle Access Points  Miscellaneous service providers 	<ul style="list-style-type: none"> All emergency vehicles will be provided with unrestricted access to all parts of Manners Street Services vehicles will be permitted access as required to undertake their duties, with access controlled by operating agreements or TMP Access to and from Manners Street will be provided via major intersections, and Enforcement and recovery vehicles will be permitted access to undertake their duties with access controlled by operating agreements.
Commercial Vehicles		
 <p style="color: red; font-size: small;">All loading and commercial restricted on Manners St</p>	<ul style="list-style-type: none">  Commercial Vehicle Restricted Area  Commercial Vehicle Mobility Plan  Couriers and small commercial vehicles 	<ul style="list-style-type: none"> All large and small commercial vehicles will be restricted from using Manners Street Access for specific large commercial vehicles will be controlled by TMP Small commercial vehicles and couriers will utilise side roads and laneways, and Large commercial vehicles may also utilise laneways, however specific traffic management may be required.
Private Motor Vehicles		
 <p style="color: red; font-size: small;">All PMV restricted on Manners St</p>	<ul style="list-style-type: none">  PMV Restricted area  PMV Access 	<ul style="list-style-type: none"> Private motor vehicles will be restricted from access to and the use of Manners Street, and Private motor vehicles may utilise Lower Cuba Street for parking or pick up and drop off with access from Wakefield Street only..

Table 10: Courtenay Place movement plan

Courtenay Place Movement Plan		
	Key	Commentary
Pedestrians		
	<ul style="list-style-type: none"> Primary pedestrian movement plan Secondary pedestrian movement plan 	<ul style="list-style-type: none"> Pedestrians will be encouraged to move freely along and to Courtenay Place Pedestrian permeability across the corridor will also be encouraged through the provision of pedestrian controlled signals, or at signal controlled intersections Specific locations and configurations of pedestrian crossings will be adjusted through the design phase, and Specific locations for stationary activities such as busking, or expansion to trading areas will be confirmed in subsequent design iterations.
Public Transport		
	<ul style="list-style-type: none"> Scheduled Bus Movement Plans 	<ul style="list-style-type: none"> Existing scheduled public transport routes will be maintained along Courtenay Place including maintenance of current layovers, with operations enabled through design All other bus services, including charters, cruise coaches etc. will be restricted, and Current entry and egress points for routes will be maintained.
Personal Mobility		
	<ul style="list-style-type: none"> Shared Mobility Lane Informal fast mobility connections Primary slow personal mobility movement plan Secondary slow personal mobility movement plan 	<ul style="list-style-type: none"> Slow personal mobility devices, such as skateboards or push scooters will have free movement along and to Courtenay Place Fast mobility devices, such as cyclists, e-scooters etc. will be controlled via the provision of dedicated cycle/mobility paths A cycle/mobility path will be provided along Courtenay Place, with a connection to Kent/Cambridge and Dixon Streets, and Connections to the cycle/mobility path will be provided informally via side roads.
Service Vehicles		
	<ul style="list-style-type: none"> Emergency Vehicle Mobility Plan Service Vehicle Mobility Plan Service Vehicle Access Points Miscellaneous service providers 	<ul style="list-style-type: none"> All emergency vehicles will be provided with unrestricted access to all parts of Courtenay Place Services vehicles will be permitted access as required to undertake their duties, with access controlled by operating agreements or TMP Access to and from Courtenay Place will be provided via major intersections, and Enforcement and recovery vehicles will be permitted access to undertake their duties with access controlled by operating agreements.
Commercial Vehicles		
	<ul style="list-style-type: none"> Large Commercial Vehicle Mobility Plan Couriers and small commercial vehicles Taxi consolidation area 	<ul style="list-style-type: none"> Large commercial vehicles¹⁵ will have access to Courtenay Place, with access limited to set time periods – nominally out of peak, with limitations to access during peak periods of night time activity Indented loading bays will be provided on both sides of the carriageway to permit loading activities without obstructing bus movements Access to Courtenay Place will be via the remaining signalised intersections Small commercial vehicles, including couriers will be restricted to the use of side roads, which will incorporate dedicated loading zones for this purpose, and Taxi's and other commercial rideshare services will be restricted to side roads during the day, with a night time access plan to be developed with stakeholders in conjunction with the Poneki Promise project.

¹⁵ The specific definition of a large commercial vehicle will be determined as part of detail design. As a general principle, the Golden Mile will accommodate access for those commercial vehicles that are too large to utilise side roads

Private Motor Vehicles		
 <p>All PMV restricted on Courtenay Pl</p>	 <p>PMV Restricted area PMV Access</p>	<ul style="list-style-type: none"> Private motor vehicles will be restricted from access to and the use of Courtenay Place Access for private motor vehicles, including pick up and drop off will be restricted to the use of side roads, and Tory Street will remain open to general traffic, with turning to or from Courtenay Place restricted.
Night Time Economy		
	 <p>Bus Services Taxi stand and taxi movement plan Ride share and private vehicle drop off</p>	<ul style="list-style-type: none"> Scheduled late night bus services will be maintained along Courtenay Place Taxi's and rideshare will be provided access during the eventing activity period¹⁶. Taxi's and rideshare will be limited to the northbound carriageway for pick up, with a temporary space for this use created in the pedestrian area, in operation for taxi's only during the evening activity period There is also the option to utilise a circulation loop from Blair to Cambridge for taxi/uber drop offs. This option will be investigated in detailed design Tory Street, Taranaki Street and Alan Street may also be used for taxi and rideshare access There is the potential for the temporary holding area for taxi's to also be utilised for food pickup and delivery services during the early evening period if requested by businesses, and Commercial vehicle access will be restricted during the evening activity period.

¹⁶ Specific time periods for these activities and controls will be determined in detailed design

5 Design Process

The design process for the preferred option will follow a series of stages that will lead from conceptual through to detailed design.

Table 11 provides an understanding of how the design development stages and DPS work together. It outlines the design process as the Project design stages are progressed and will provide the users of this DPS with an overview of what design input is required, when it is required and to what level.

Table 11: Summary of the SSBC and design process

Design Element	SSBC			Pre-Implementation		Implementation
	DPS Section Reference	Concept Design (Option Development)	Concept Design Preferred option	Preliminary Design	Detailed Design	Construction
Project assumptions	✓	✓	✓			
Golden Mile Vision 2026 & principles	✓	✓	✓			
Golden Mile Strategic Case		✓	✓	*	*	*
MCA		✓	✓			
Urban Design		✓	✓	✓	✓	✓
Access and Movement Plan	✓	✓	✓	✓	✓	
Road safety Audit		*	*	✓	✓	✓
Safety in Design		*	✓	✓	✓	✓
Geometric Design (2D)		*	✓	✓		
Geometric Design (3D)		*	*		✓	✓
Cross Sections		*	✓	✓	✓	✓
Intersection Design		*	*	✓	✓	✓
Lighting		*	*	✓	✓	✓
Pavements and Surfacing		*	*	✓	✓	✓
Pedestrian and Cycle Facilities		*	*	✓	✓	✓
Bus stop designs		*	*	✓	✓	✓
Loading zones /Taxi Stands		*	✓	✓	✓	✓
Parking, Taxi Stand and Loading bay design		✓	✓	✓	✓	✓
Utilities		*	*	✓	✓	✓
Stormwater and Hydrology		*	*	✓	✓	✓

	SSBC			Pre-Implementation		Implementation
		*	*	✓	✓	✓
Signs and Markings		*	*	✓	✓	✓
Traffic Signals		*	*	✓	✓	✓
Topographical Data		*	*	✓	✓	✓
Environmental and Social considerations		*	*	✓	✓	✓
Construction Methodology		*	*	✓	✓	✓
Maintenance requirements		*	*	✓	✓	✓
Departures		*	*	✓	✓	✓

6 Design Standards

The design standards and guidelines that are set out below provide the technical basis for development of this DPS (and are expected to be reviewed at the commencement of the Detailed Design Phase).

Where there are conflicts between any of these standards below, these will be discussed with LGWM in the first instance. However, for the purposes of this DPS (i.e. for the SSBC) it is assumed that the **WCC Code of Practice for Land Development** will take precedence if conflicts do arise.

6.1 Wellington City Council

- WCC Code of Practice for Land Development (2012)
- Wellington City Operative District Plan
- WCC Place and Movement Framework (draft)
- WCC Cycling Framework 2015
- WCC Water Sensitive Urban Design Guide
- Central City Framework
- WCC Draft Spatial Plan – Planning for Growth
- Green Network Plan
- Our Capital Spaces
- Our Natural Capital
- Wellington Play Spaces Policy
- Wellington Resilience Strategy
- Accessible Wellington
- Te Tauihu
- The Public Art Policy (2012)
- The Trading in Public Places Policy (2006)
- WCC Parking Policy 2020
- WCC Code of Practice for Working on the Road, and
- Accessible Wellington: The Accessible Journey Action Plan (May 2019).

6.2 Waka Kotahi

- Traffic control devices manual (TCD Manual)
- Road and Traffic Standard (RTS) 14 – Guidelines for Facilities for Blind and Vision Impaired Pedestrians (2015)
- Road and Traffic Standard (RTS) 18 – New Zealand On-road Tracking Curves for Heavy Vehicles (2007)
- IDS M30 – Specification and Guidelines for Road Lighting Design (2014)
- IDS M26 – Specification for Lighting Columns (2012)
- Pedestrian Network Guidance
- Cycling Network Guidance
- National Parking Management Guidance
- RTS14
- WK Z19 Environmental & Social Responsibility Standard
- Tactical Urbanism Handbook
- Bridging the Gap, NZTA Urban Design Guidelines (2013), and
- Public Transport Design Guidance

6.3 AUSTRROADS

- Guide to Road Design (AGRD) – Part 3: Geometric Design (2016)
- Guide to Road Design (AGRD) – Part 4: Intersections and Crossings
- Guide to Road Design (AGRD) – Part 4A: Unsignalised and Signalised Intersections (2017)
- Guide to Road Design (AGRD) – Part 5: Drainage Design (2013)
- Guide to Road Design (AGRD) – Part 6A: Pedestrian and Cyclist Paths (2017)
- Austroads Guide to Pavement Technology Part 2: Pavement Structural Design (Austroads Publication No. AGPT02-17)
- Austroads Guide to Pavement Technology Part 5: Pavement Evaluation and Treatment Design (Austroads Publication No. AGPT05-19)
- New Zealand Guide to Pavement Evaluation and Treatment Design (NZ Transport Agency, 2018)
- New Zealand Guide to Pavement Structural Design (NZ Transport Agency, 2018)
- Guide to Traffic Management: Part 3 Traffic Studies and Analysis (2017)
- Guide to Traffic Management: Part 6 Intersections, Interchanges and Crossings (2019)
- Guide to Traffic Management: Part 9 Traffic Operations (2009), and
- Guide to Traffic Management: Part 10 Traffic Control and Communication Devices (2019).

6.4 Others

- Wellington Water Regional Standard for Water Services (May 2019)
- Wellington Water Regional Specification for Water Services (May 2019)

- NZ Ministry for the Environment - NZ Urban Design Protocol (2005)
- Ministry of Justice – Crime Prevention Through Environmental Design Principles (CPTED) (2005)
- New Zealand Building Code (1992)
- AS/NZS 1158.1.1: Lighting for Roads and Public Spaces – Vehicular Traffic (2005)
- AS/NZS 1158.3.1: Lighting for Roads and Public Spaces – Pedestrian Areas (2005)
- AS/NZS 1158.4: Lighting for Roads and Public Spaces – Lighting of Pedestrian Crossings (2009)
- AS/NZS 1158.6: Lighting for Roads and Public Spaces – Luminaires (2010)
- AS1798: Lighting Poles and Bracket Arms – Preferred Dimensions (1992)
- AS2979: Traffic Signal Mast Arms (1998)
- AS/NZS 3000: Electrical Installations (Known as the Australian/New Zealand Wiring Rules) (2007)
- Auckland Transport – Transport Design Manual: Urban Street and Road Guide
- Auckland Transport – Transport Design Manual: Footpaths and the Public Realm
- Auckland Design Manual – Universal Design
- NATCO Global Street Design Guide
- MfE - A Design Guide for Urban New Zealand
- NZBC (D1 Accessible Routes)
- Healthy Streets for London – Healthy Streets Indicators
- Firefighting operations emergency vehicle access guide (June 2018), and
- Lighting sub-category V3 – AS/NZS 1158.1.1:2005.

6.5 Departures from Standards

Where the minimum standards contained within the documents listed above cannot be attained due to restrictions, a departure from standards will be submitted to LGWM for approval.

6.6 Other Documents

Although the following documents are not design standards / requirements, they are expected to inform development of the preferred option's design during its Detailed Design Phase:

- Wellington Public Space Public Life Study (2021)
- Pōneke Promise (2021)
- Central Area Urban Design Guide
- Wellington Urban Growth Plan: Urban Development and Transport Strategy 2014-43
- Towards 20240: SMART Capital, and
- Te Atakura – First to Zero.
- LGWM Programme Report
- MRT IBC

- City Streets IBC
- LGWM Urban Development Strategy, and
- GEHL Study

7 Mana Whenua Cultural Design Values

Mana whenua have provided a set of draft cultural design values to help guide development of the Project. The values are set out in full in **Appendix A**, and summarised as follows:

- Whakapapa – A Sense of Place
- Wai-ora - Respect the Role of Water
- Pungaroa – Sustainable Energy use and Production
- Hauora - Optimising Health & Well-being
- Whakamahitanga - Use of materials
- Manaakitanga - Just & equitable
- Whakāhuetanga - Celebrate Beauty in Design, and
- Whakamatautautanga - Ongoing monitoring of outcomes.

Project Designers will need to develop all design plans to give effect to the above values, and engage with Mana whenua through the established LGWM partnership.

8 Road Layout and Geometric Designs

8.1 Road Classification

Figure 7 sets out the hierarchy of roads in central Wellington area. Lambton Quay, Willis Street, Manners Street and Courtenay Place are classified as the “Golden Mile” as per the WCC Code of Practice for Land Development (and in the WCC District Plan).



Figure 7: Road hierarchy Wellington CBD

8.2 General Arrangements

Appendix B sets out the initial general arrangements for the Golden Mile Streets as well as the side roads.

8.3 Cross Sections

Typical cross-sectionals for the Golden Mile have been prepared as part of the scheme design and are described in the sections below.

8.3.1 Lambton Quay

The existing and proposed cross sections for Lambton Quay is shown in Figure 8.

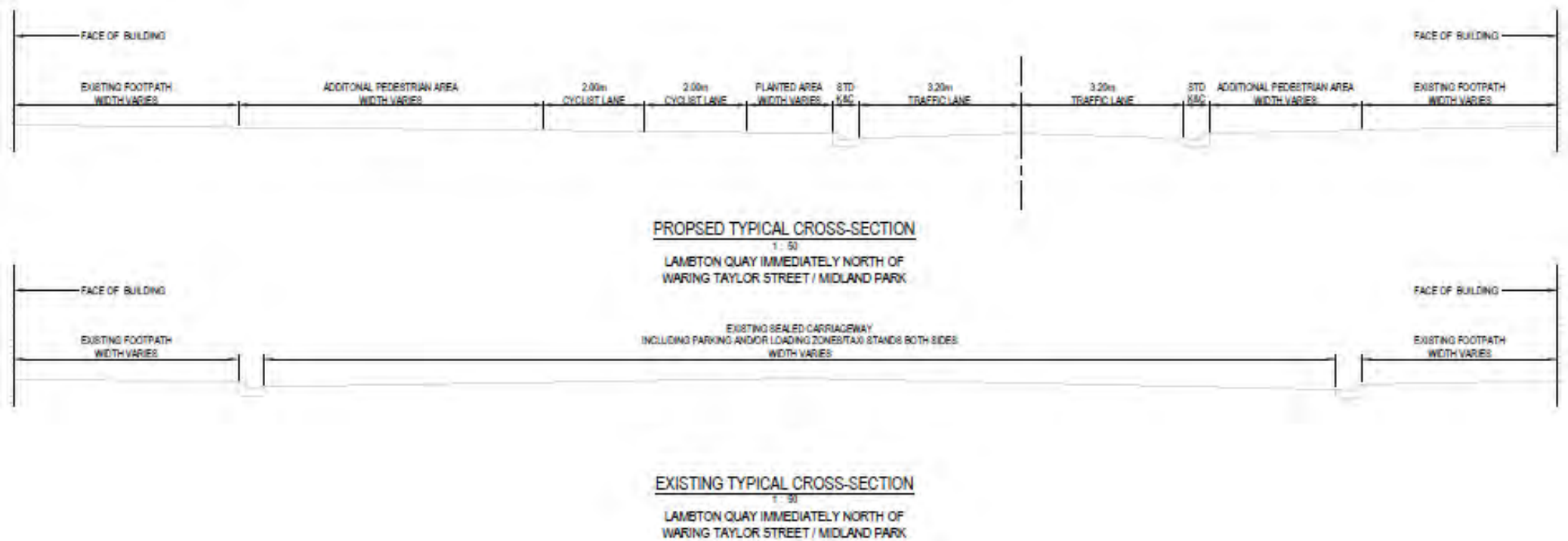


Figure 8: Cross sections -Lambton Quay

8.3.2 Willis Street

The existing and proposed cross sections of Willis Street is shown in Figure 9.

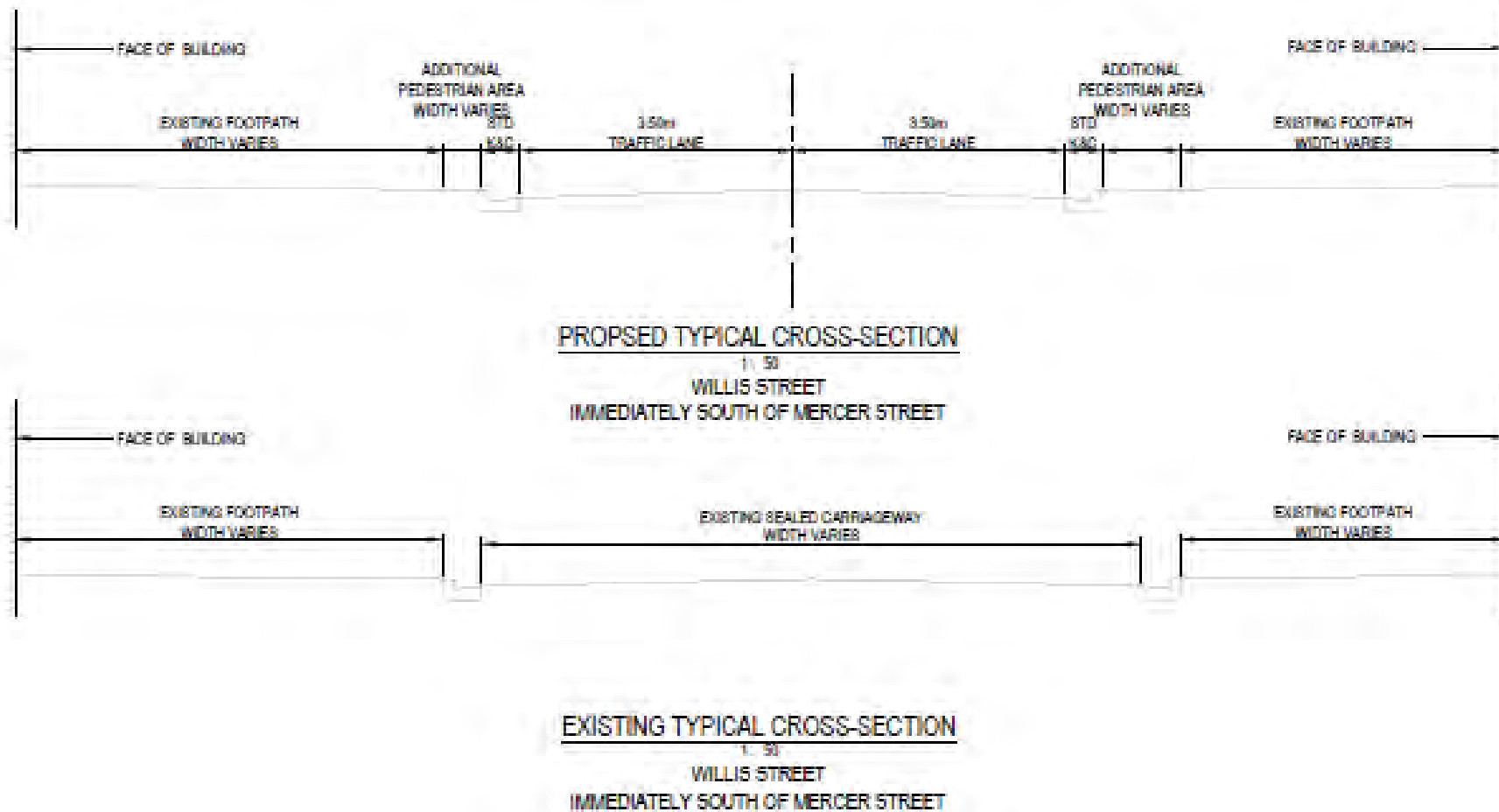


Figure 9: Cross sections - Willis Street

8.3.3 Manners Street

The existing and proposed cross sections of Manners Street is shown in Figure 10.

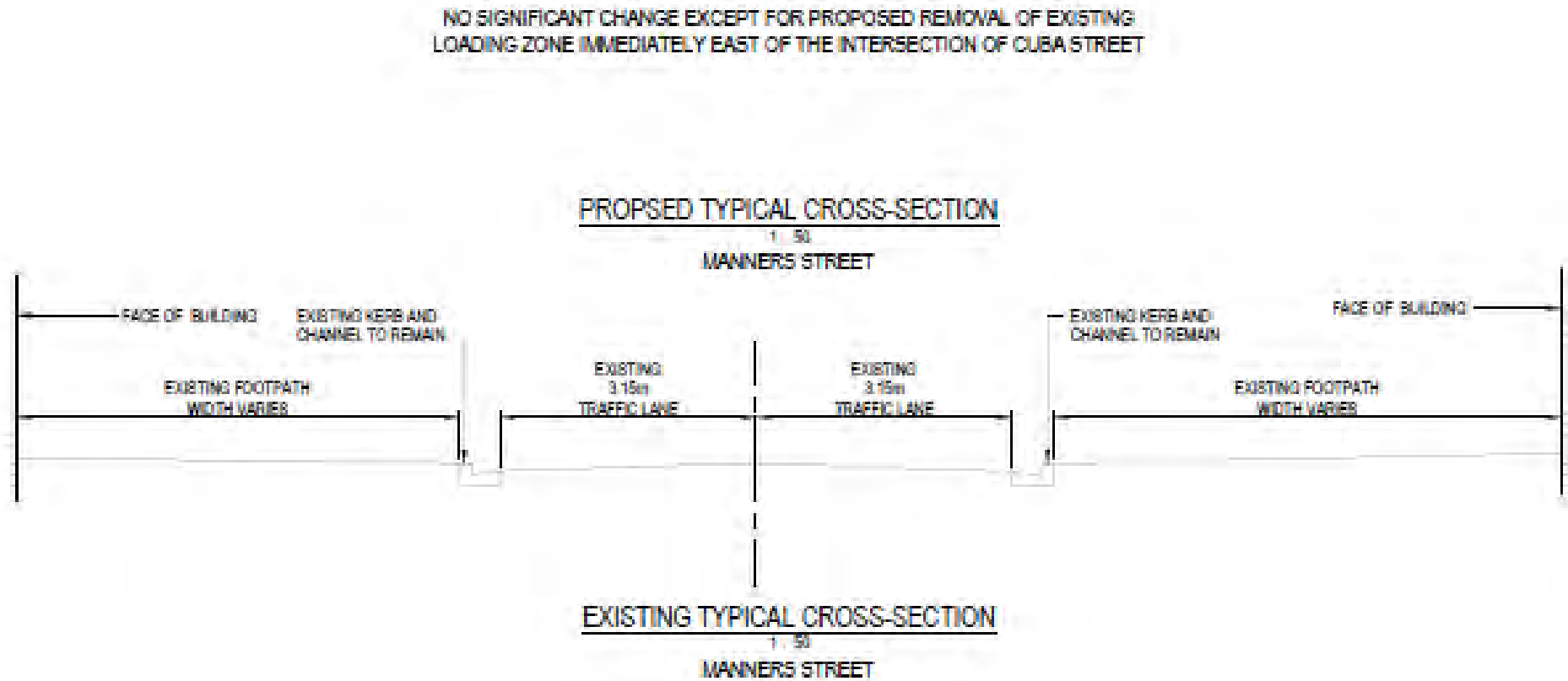


Figure 10: Cross sections - Manners Street

8.3.4 Courtenay Place

The existing and proposed cross sections of Courtenay Place is shown in Figure 11.

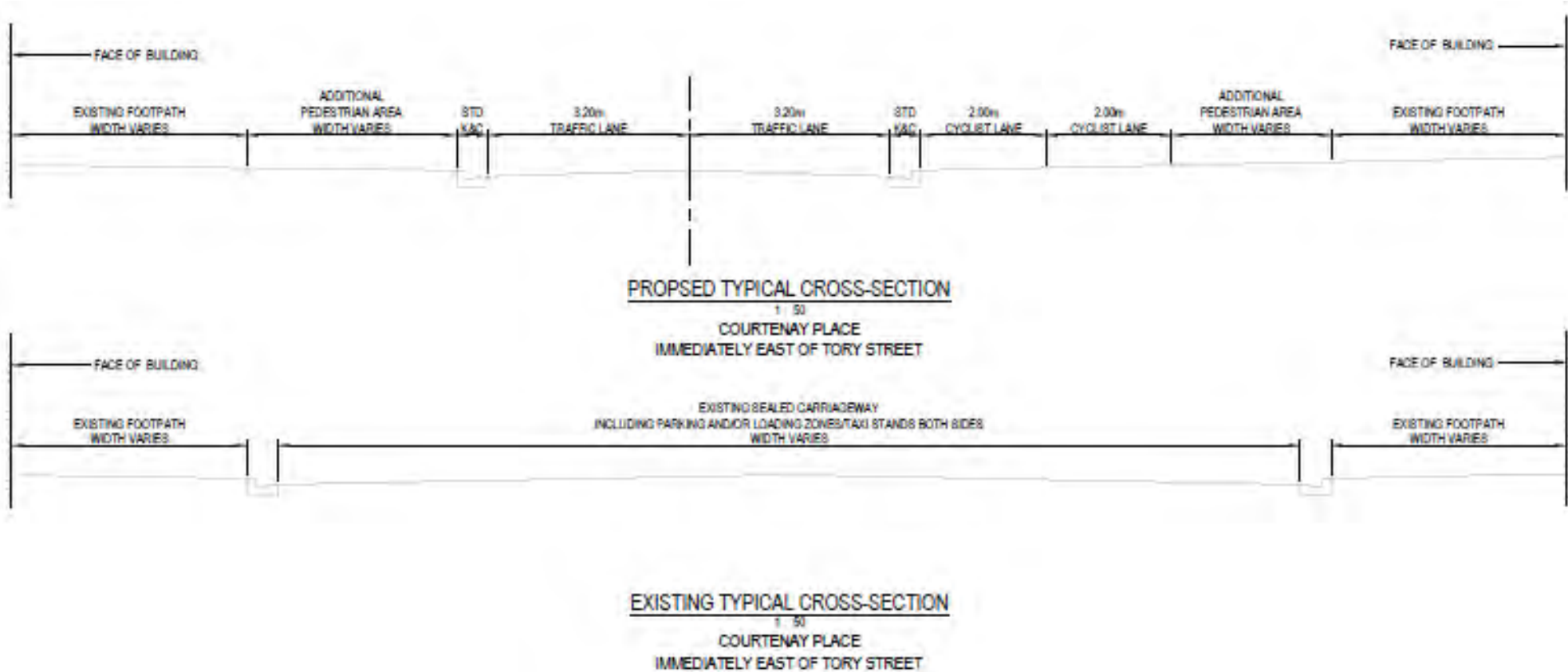


Figure 11: Cross Sections - Courtenay Place

8.4 Design Speed

Lambton Quay, Willis Street, Manners Street, Courtenay Place have a posted speed limit of 30km/h. All connecting side streets to Golden Mile have a posted speed limit of 30km/h except Taranaki Street (which is 50km/h). A design speed of 30km/h for the Golden Mile and the side streets will be adopted.

8.5 Design Vehicles

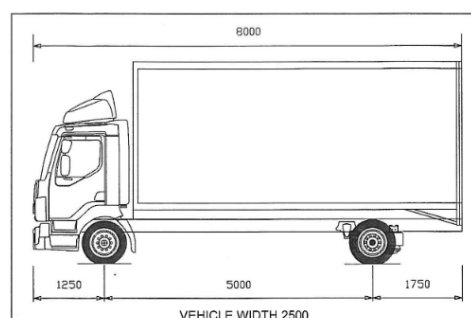
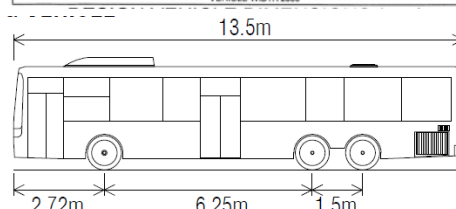
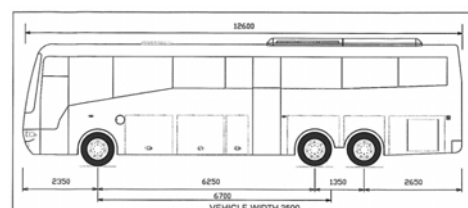
Road geometry shall be designed to accommodate the movement of the specific design vehicles as specified in Table 12 and Table 13 to comply with the requirements of RTS 18 – New Zealand On-road Tracking Curves for Heavy Vehicles (NZTA 2007).

Table 12: Standard bus dimensions

Vehicle characteristics	'Standard' bus dimensions		
	Small single deck bus	Large single deck bus	Double deck bus
Length – vehicle only	10.0m	13.5m	12.5m
Length – vehicle with bicycle rack	11.0m	14.5m	13.5m
Width (including mirrors)	2.85m	2.85m	2.85m
Height	3.4m	3.4m	4.3m
Front overhang	2.5m	2.7m	2.5m
Rear overhang	2.5m	3.0m	2.5m
Ground clearance	75mm (at axles)	75mm (at axles)	75mm (at axles)
Front door height – normal and kneeling	320–370mm (normal) and 245–280mm (kneeling)	320–370mm (normal) and 245–280mm (kneeling)	320–370mm (normal) and 245–280mm (kneeling)
Rear door height	350mm	350mm	350mm
Turning circle (wall to wall)*	22.0m	25.0m	25.0m

Table 13: Standard design vehicles

Location/Intersection	Design Vehicle
The Golden Mile	
Lambton Quay	12.6m Bus (Left-turns), 13.5m Bus (Right turns)
Willis Street	12.6m Bus (Left-turns), 13.5m Bus (Right turns)
Manners Street	12.6m Bus (Left-turns), 13.5m Bus (Right turns)
Courtenay Place	12.6m Bus (Left-turns), 13.5m Bus (Right turns)
Side Roads	
Stout Street	8.0 m Rigid Truck
Waring Taylor Street	8.0 m Rigid Truck
Johnston Street	8.0 m Rigid Truck
Brandon Street	8.0 m Rigid Truck
Panama Street	8.0 m Rigid Truck
Mercer Street	8.0 m Rigid Truck
Cuba Street	8.0 m Rigid Truck
Tory Street	8.0 m Rigid Truck
Allen Street	8.0 m Rigid Truck
Blair Street	8.0 m Rigid Truck
Courtenay Place service lane	8.0 m Rigid Truck



The kerb line radius at intersections will be kept as short as possible and be consistent with design vehicle and pedestrian usage, but in any case shall not be less than 4.0m.

RTS18 states that the tracking curves define the physical space necessary for the vehicle to execute the intended manoeuvre and do not include clearances. A minimum clearance of 500mm is recommended to be added to each side of the tracking curve, with greater clearances being desirable whenever possible.

8.6 Parking

Many parts of the Golden Mile currently provide indented loading zones and taxi stands in both directions. Courtenay Place has the highest number of paid public parking spaces. The number and each type of parking space are provided in Table 15 below. There are 47 paid parking spaces, 36 loading bays, 2 mobility parking spaces and 11 taxi stands on the corridor.

The placement of new parking spaces for the Project is to not be inconsistent with the WCC's Parking Policy and WCC's Mobility Parking Guidelines.

8.6.1 WCC Parking Policy 2020

WCC approved a new parking policy in 2020.¹⁷ The policy sets out the objectives and principles for the management of WCC-controlled on-street and off-street parking, and how parking supports achieving the vision for Wellington.

A *parking space hierarchy* is included in the parking policy to help guide WCC when making parking provision decisions. The hierarchy describes which types of parking have the highest and lowest priorities in different areas, including for the central city area. It also sets out the priority level for the type of parking space (it does not specify the number of spaces). Table 14 shows the parking space hierarchy for the central city area.

Table 14: Parking space hierarchy for Wellington CBD

Highest Priority	High Priority	Medium Priority	Low Priority	Lower Priority	Lowest Priority
Safe and efficient movement of people and goods (footpaths, bus lanes, cycleways, no	Bus stops Mobility Urban design features Bicycle/micro-mobility Loading zone Short-stay (car & motorcycle) Car share	SPSV/taxi stands Electric-vehicle charging	Coach and bus (short stay) Coach and bus (long stay)	Residents Commuter (car & motorcycle)	The lowest priority across all areas is Long stay parking of private nonmotorized vehicles (trailers, towed caravans, boats), advertising vehicles and motorhomes.

8.6.2 WCC Mobility Parking Guidelines

A key objective of the *WCC Mobility Parking Guidelines*¹⁸ is to 'support access for all'. The guidelines ensure good practice in:

- Placement of new mobility parking spaces, including requests for on-street mobility parking space in residential areas
- Creating new off-street mobility parking spaces
- Design and signage, and
- Pricing and payment.

When creating new or moving existing mobility parking spaces, WCC will consider the following objective and principle from its parking policy:

- **Objective:** Support access for all – ensure disabled people, older people, people who are pregnant, and people with babies can access car parks throughout the city, Council facilities, and venues. This will partly be achieved by improving mobility parking spaces, and
- **Principle:** Ensure that access to the city centre, Council facilities and suburban centres is inclusive and prioritises people who cannot use active and public transport.

The following guidelines are to be followed, in so far as possible, when considering the placement (location) of mobility parking spaces:

¹⁷ See: <https://wellington.govt.nz/your-council/plans-policies-and-bylaws/policies/parking-policy>

¹⁸ See: <https://wellington.govt.nz/services/parking-and-roads/parking/mobility-parking/mobility-parking-guidelines>

- Consult with disabled people and the Accessibility Advisory Group
- Consider a range of factors to help inform the placement of a new, relocated or additional mobility parking space
- Replace mobility parking spaces with like wherever practical
- Locate mobility parking spaces in pairs wherever practical
- Locate mobility parking spaces in low traffic volume streets wherever possible and within 200 metres of the intended destination
- Consider the provision of other publicly available mobility parking spaces, and
- Consider whether the mobility parking space designation should be time-restricted.

8.6.3 Existing and Proposed Parking - the Golden Mile

Figure 12 below details the locations of existing on-street parking areas, loading zones, taxi stands, mobility parking and bus stops.

The preferred option proposes relocation of loading zones, taxi stands and mobility parking to side streets and removal of paid parking on the Golden Mile, as well as exploring options to keep some loading zones and time restricted taxi stands at some locations on the Golden Mile.

8.6.4 City Events

The Golden Mile is well used for many different events such as parades, protests, filming, and major sporting celebration events throughout the year. It is also used as a traffic diversion route, in situations of visits by important overseas visitors. For example:

- Victoria University capping parades – four parades per year
- Massey University capping parade – three to four parades per year
- Te Reo parade
- Orange parade school patrols
- Protest marches – (e.g. Climate Change, White Ribbon Parade, Teachers pay Dispute. Protests start from Civic square and end up at parliament. Number of participants can be from 100 to 2000. It is noted that there were eight protests in 2019)
- Annual Christmas Parade, and
- Major sporting parades (e.g. Rugby World Cup, America's Cup).

The university parades start outside the Law School / Beehive and take Lambton Quay, Willis St, Mercer St, Wakefield St to the Michael Fowler Centre/Civic Square. The university parades are held between 12 and 1pm. All other parades and protests are advised by WCC to be held outside peak travelling hours (e.g. after 9am and before 3pm).

The Christmas Parade is held every year in November. The parade route is along Lambton Quay from Whitmore Street to Willis Street. All of the side streets of Featherston Street to Lambton Quay are closed to private motor vehicles for the parade.

The Golden Mile improvements should be designed to cater for the parades. The WCC - City Events, Wellington NZ - Major Events and Screen Wellington teams should be consulted with during the Detailed Design Phase.

Table 15: Existing parking spaces on the Golden Mile¹⁹

Road section	Existing							
	Northbound				Southbound			
	LZ/Taxi	MP	Bus stop	Paid Parking	LZ/Taxi	MP	Bus stop	Paid Parking
Lambton Quay	26/6	0	5	0	2/4	0	2	28
<i>Whitmore St- Ballance St</i>	3/0	0	2	0	0/2	0	1	4
<i>Ballance St – Stout St</i>	6/1	0	1	0	0	1	0	8
<i>Stout St -Wearing Taylor St</i>	5/0	0	0	0	0	0	0	11
<i>Wearing Taylor St-Johnston St</i>	0/3	0	0	0	2/2	0	0	0
<i>Johnston St- Brandon St</i>	2/0	0	1	0	0	0	1	0
<i>Brandon St – Panama St</i>	2/2	0	0	0	0	0	0	5
<i>Panama St- Willis St</i>	8/0	0	1	0	0	0	0	0
Willis Street	8/0	0	1	0	0	0	1	0
<i>Willeston St – Mercer St</i>	8/0	0	1	0	0	0	1	0
<i>Mercer St -Manners St</i>	0	0	0	0	0	0	0	0
Manners Street	3/0	0	1	0	0	0	1	0
<i>Willis St – Victoria St</i>	0	0	0	0	0	0	0	0
<i>Victoria St – Cuba St</i>	0	0	0	0	0	0	1	0
<i>Cuba St – Courtenay Place</i>	3/0	0	1	0	0	0	0	0
Courtenay Place	1/7	0	2	34	8/2	0	2	24
<i>Taranaki St – Tory St</i>	0/2	0	1	0	5 *	0	1	9
<i>Tory St – Allen St</i>	1/3	0		0	3*	0	0	6
<i>Allen St – Blair St</i>	0/2	0	1	5	0/2	0	1	1
<i>Blair St – Cambridge Terrace</i>	0	0	0	14	0	0	0	8
<i>Service Road</i>	0/2	1		15				0
Total	29/5	0	9	34	7/6	0	6	52

¹⁹ For the avoidance of doubt purposes, the Golden Mile Case for Change Report (March 2019) indicated that there were 99 existing paid on-street car parks located on the Golden Mile (see page 73). Table 15 now indicates there is a total of 86 existing paid on-street car parks on the Golden Mile, representing a reduction of 13 car parks since the Case for Change report was completed in March 2019. It is noted that Table 15 does not include potential paid on-street car park loss from the Golden Mile’s side streets as further design is required before this loss can be accurately predicted (it is however noted that the combined potential car park loss from the side streets has been previously estimated as been upwards of 100 car parks)



Figure 12: Map of on-street parking locations

8.7 Traffic Volumes/ Composition

Table 16 below shows the latest traffic and pedestrian survey data for the Golden Mile and side streets (with the exception of the “Golden Mile Streets”,²⁰ all vehicle traffic data has been sourced from the [Mobile Road](#) website). It is noted that there is no pedestrian count information available for the side roads and no cyclist data information available for the Golden Mile in general.

Table 16: Traffic composition summary

Road name	Cars (ADT)	HCV %	Pedestrians (Average for Monday to Friday)	One Network Road Classification
Lambton Quay	6,100	14	29,000	Arterial
Whitmore Street	12,800	7		Arterial
Bowen Street	7,230	8		Arterial
Ballance Street	1,640	4		Primary Collector
Stout Street	1,400	5		Secondary Collector
Waring Taylor Street	1,710	4		Primary Collector
Johnston Street	1,990	4		Secondary Collector
Brandon Street	2,220	4		Secondary Collector
Panama Street	1,900	3		Secondary Collector
Grey Street	1,210	7		Secondary Collector
Willis Street	6,600	18	31,500	Arterial
Willeston Street	1,400	6		Secondary Collector
Mercer Street	4,220	9		Primary Collector
Bond Street	2,050	4		Primary Collector
Boulcott Street	8,000	4		Arterial
Manners Street	1,000	50	13,000	Arterial
Victoria Street	14,800	11		Arterial
(Lower) Cuba Street	570	5		Secondary Collector
Courtenay Place	8,600	11	13,000	Arterial
Taranaki Street (North)	14,980	8		Arterial
Taranaki Street (South)	16,140	8		Arterial
Tory Street (North)	5,820	6		Primary Collector
Tory Street (South)	8,400	3		Primary Collector
Allen Street	1,250	5		Secondary Collector
Blair Street	795	3		Secondary Collector
Cambridge Terrace	11,780	15		Arterial

²⁰ This traffic data has been sourced from the Golden Mile Improvements: Problem Definition and Case for Change Report (2019). See Appendix B of [Microsoft Word - Golden Mile Strategic Case Refresh - FINAL June 2020.docx](#) ([amazonaws.com](#))

8.8 Horizontal Alignment

8.8.1 Super Elevation

Super elevation and radius for the streets in this Project are to be taken from Part C of the WCC Code of Practice.

8.8.2 Intersection Sight Distance

The designs of non-signalised intersections are governed by sight distance requirements by WCC Code of Practice for Land Development (Section C.1.10). Table 17 provides the Intersection Sight Lines for different design speeds. These dimensions are based on Austroads Guide to Road Design Part 4A, unsignalised and signalised intersections.

Table 17: Intersection sight lines

Major Road		Side Road Distance X (m)		
Design Speed (km/h)	Distance Y (m)	Principal to Sub-collector Road	Local Road Cul-de-sac Major Private Way	Service Lane Minor Private Way
100	170	7	5	2.5
70	70	7	5	2.5
50	40	7	5	2.5
40	30	7	5	2.5
30	20	7	5	2.5
20	12	7	5	2.5

8.8.3 Sight Distance at Driveways

According to WCC Code of Practice, for private ways and service lanes where existing road geometry precludes the use of the data in Table 17, then the Land Transport Safety Authority Guidelines for Visibility at Driveways RTS6 may be used.

8.8.4 Pedestrian Crossing Sight Distance

At cautionary crossing points, pedestrians need to choose gaps in the traffic stream to cross safely, so they must be able to see the approaching traffic in good time. This distance, known as the 'crossing sight distance', is a critical element in ensuring pedestrians can cross the road safely.

Crossing sight distance shall be calculated as per the NZTA Pedestrian Planning and Design Guide. Calculation should take account of conditions at the site such as:

- The pedestrian line of sight may be blocked by permanent or temporary obstructions
- Walking speed can vary owing to factors such as pedestrian ages and physical condition, route gradients, pedestrian densities and environmental conditions
- Some pedestrians may take additional time to start crossing, because of mobility or visual impairments, uncertainty or double-checking that it is safe, and
- The signed speed limit in the area should not be used as an indication of actual vehicle speeds. Actual speeds are usually faster than posted limits.

As walking speeds can vary, designs for crossing points should generally be biased towards slower pedestrians. A walking speed of 1.2m/s will be used to calculate the crossing sight distances for the Project.

8.9 Vertical Alignment

The existing vertical alignment of the Golden Mile is relatively flat, and the new design will follow the levels at the existing centreline of the road relatively closely. Vertical alignments will be in compliance with Austroads Guide to Road Design, Part 3.

Where practical, the design will minimise construction cost by reusing the existing pavement while balancing the other vertical design considerations listed in this section. Where other considerations do not dictate a change in surface levels the design will retain the existing surface levels, especially along the crown of the road.

Stormwater drainage is an important consideration when undertaking vertical design, especially around intersections and locations where superelevation is being introduced. The design will co-ordinate longitudinal grades with superelevation transitions to ensure that there are no flat areas.

Where existing services which are not being relocated are below the pavement then cover for these services will be taken into account as part of the detail design.

8.9.1 Kerb and Channel

Typical kerb profiles as per WCC Code of Practice will be utilised. Use of other types of kerbs will require approval from LGWM.

9 Pedestrian and Cycling Facilities

9.1 Pedestrian Facilities

Walking is a major form of transportation in Wellington City and The Golden Mile has some of the highest pedestrian volumes in New Zealand. WCC seeks to ensure that all walkers have a safe and pleasant walking experience and aims to actively encourage walking as the foremost mode of transportation in the city.

Pedestrians using the central city have a wide range of needs and levels of ability. Commuters and shoppers require wide pavements for peak times, the partially sighted pedestrians require uncluttered and tactile surfaces, people in wheelchairs and with prams require ramps.

According to WCC standards, minimum footpath widths for the Golden Mile and other Central City streets shall be 5.0m and 3.0m, respectively. Wider footpaths shall be provided at areas of high pedestrian flows such as bus stops. The proposed width of the footpath varies along the corridor, however provision of wider through-route space for pedestrians is a key component of the Project.

Pedestrian crossing facilities shall be provided across all arms at all traffic signal controlled intersections, and elsewhere as required to serve pedestrian desire lines. Crossing areas shall be a minimum of 2m wide, but wider crossing points shall be designed at areas of greater pedestrian demand. Pedestrian signal crossing times shall assume 1m/s – 1.2m/s pedestrian crossing speed. Crossing distances between controls shall not be greater than 26m.

Pedestrian crossing facilities shall also comply with guidelines outlined in Chapter 14 of the RTS for the provision of accessibility for the vision-impaired pedestrians. Any mid-block pedestrian facilities shall conform to the general guidelines set forth in Chapter 15 of the NZTA Pedestrian Planning and Design Guide.

9.2 Cycle Facilities

WCC developed Wellington Cycleways Programme Master Plan in 2015. The plan covers solutions for multiple modes of transport, with an emphasis on improving transport choice and ease of access for all road users.

Bus lanes may currently be used by cyclists or other mobility users on Lambton Quay and Courtenay Place (where there is no dedicated off-street cycleway). As per the NZTA's TCD manual a bus lane that permits cyclists should be either:

- Wide enough for cyclists to ride adjacent to buses, 4.2m or wider, and
- Narrow enough that cyclists and buses must travel in single file, 3.2m or narrower.

Appendix C sets out the proposed cycle arrangements for Lambton Quay, Willis Street and Courtenay Place (cyclists will continue to be prohibited on Manners Street). A summary for each of these sections of the Golden Mile is set out below:

9.2.1 Lambton Quay

- Shared movement space on north side of Lambton Quay between Whitmore Street and Panama Street. Shared movement space:
 - Not a designated cycle lane
 - Designed as a slow movement lane;
 - Not physically separated (to avoid trip hazards and perceived priority), and
 - Different surface material from footpath / amenity areas.
- Bus-only lanes (ideally) along Lambton Quay where alternative facility provided
- Bus Lanes along Lambton Quay between Willeston and Panama where no alternative facility is available.
- Low-priority connectivity provided at cul-de-sac side roads along length of shared movement space (Ballance, Stout, Waring Taylor, Johnston and Brandon Streets). Low priority assumed to be:
 - Wheeled device friendly drop-kerbs onto road level
 - Sharrows on cul-de-sacs, and
 - Pedestrians have priority for movement from shared path to side road cul-de-sac.

9.2.2 Willis Street

- Current southbound bus only restriction remains
- Cycles permitted northbound in the Bus Lane, but no passing opportunities provided
- Access provided from Willis Street (south), Boulcott Street and Willeston Street – enhanced access provided where practical
- No dedicated crossing facilities at Mercer Street, and
- Potential opportunity to provide contraflow cycle lane along Willeston Street.

9.2.3 Courtenay Place

- Shared movement space on south side of Courtenay Place (full length) connecting Kent/Cambridge with Dixon. Shared movement space:
 - Not a designated cycle lane
 - Not physically separated (to avoid trip hazards and perceived priority), and

- Different surface material from footpath / amenity areas.
- Bus-only lanes (ideally) along length of Courtenay Place
- Low-priority connectivity provided at cul-de-sac side roads along length of shared movement space (Allen and Blair). Low priority assumed to be:
 - Wheeled device friendly drop-kerbs onto road level
 - Sharrows on cul-de-sacs, and
 - No priority over pedestrians.
- Higher-priority connectivity (signalised controls) provided at key intersecting roads along length or shared movement space (Taranaki, Tory and Cambridge).

10 Bus Facilities

Wellington has an extensive and very highly utilised bus network that provides the primary form of public transport in the city. This includes:

- 70,000 boardings per day (average weekday)
- 18 million boardings per annum
- 15 to 20 per cent of people working in the central city go by bus, and
- 75 per cent of people live within one kilometre (a 10-minute walk) of a high frequency bus route.

The Golden Mile is the primary ‘trunk’ for bus services traveling to and through the Wellington CBD. As such, the Golden Mile is the confluence of multiple individual bus routes serving the Wellington area.

One of the principal objectives of the Project is to improve the reliability and travel time of buses moving through the Golden Mile corridor. There are several key activities required to facilitate this outcome:

- The consolidation of bus stops
- The removal or reconfiguration of signals
- The removal of private motor vehicles
- The removal and and/or relocation of taxi stands and loading zones
- The design of bus stop infrastructure to improve boarding and alighting
- Improved passenger wayfinding and customer information, and
- The application of signal coordination and bus priority at remaining signalised intersections and pedestrian operated signals.

An assessment of bus stop catchments was undertaken to inform the consolidation and relocation of bus stops along the Golden Mile. This assessment indicated an optimal stop spacing of 300m – 500m, with the specific locations of bus stops to be informed by road geometry, side road and pedestrian permeability and the availability of sufficient pedestrian areas to allow the provision of stop infrastructure.

The location of the proposed consolidated (new) bus stops is described in Figure 13.

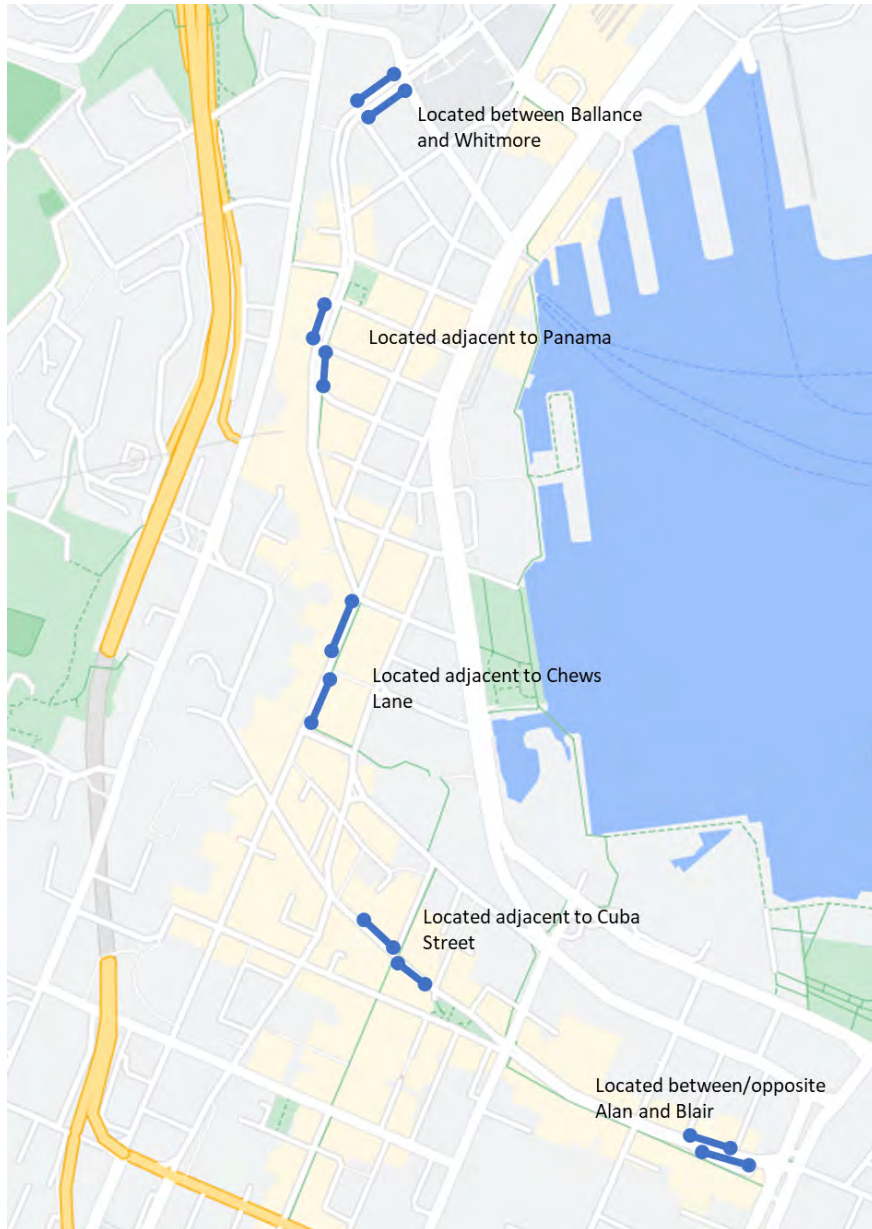


Figure 13: Proposed consolidated (New) bus stop locations on the Golden Mile





10.1 Bus Lanes and Bus Only Lanes

Two types of bus facilities are proposed for the Project as follows:

- **Bus lanes:** can be used by buses, bicycles, motorcycles / scooters and in-service taxis, and
- **Bus-only lanes:** can only be used by buses. All other vehicles can use these lanes briefly (up to 50 metres) to cross through to another lane or turn into another street.

The differences between the two lane configurations are highlighted further below in Table 18.

Table 18: Differences between bus lanes and bus-only lanes

Lane marking and sign	Who can use the lane
	<p>Only buses, bicycles, motorcycles / scooters and in-service taxis are allowed to use this lane.</p>
	<p>During the times listed, only buses, bicycles, motorcycles / scooters and in-service taxis can use this lane.</p> <p>Outside of the times listed, all vehicles can use the lane.</p>
	<p>Only buses are allowed to use this lane.</p>
	<p>During the times listed, only buses are allowed to use this lane.</p> <p>Outside of the times listed, all vehicles can use the lane.</p>

10.1.1 Proposed Bus Only Lanes for Golden Mile

The Project incorporates single bus only lanes on Lambton Quay (both directions as far as Panama Street, and the entire extent southbound), Courtenay Place (both directions) and Willis Street (Northbound only) and single bus only lanes on Willis Street (southbound) and Manners Street (both directions).

The minimum width for a bus lane shall be 3.2m as per the Waka Kotahi's Traffic control devices manual.

10.1.2 Proposed Bus Lanes for Golden Mile

The Project provides bus lanes on those sections where on-road access for cyclists will be allowed. These locations are Lambton Quay South (northbound lane only between Willis Street and Panama Street) and Willis Street (northbound only).

The minimum width for a bus lane shall be 3.2m as per the Waka Kotahi's Traffic control devices manual.

10.2 Bus Stops, Shelters, and Associated Infrastructure

10.2.1 Bus Stops

There are currently 15 bus stops in both directions located along the Golden Mile. The spacing between the stops varies from 140m to 400m. The Project proposes 10, paired bus stops with a mix of indented and in-line bus stops.

10.2.2 Offline Bus Stops

Offline bus stops will be provided at the entry and exit points to the Golden Mile in both directions at Lambton Quay (near Bowen/Whitmore) and Courtenay Place (near Cambridge Terrace). Indented bus stops are necessary at these locations as the stops must accommodate timepoints for buses, which may require buses to layover for extended periods. Indents also allow for timetable recovery to occur without disrupting other services. The respective indented bus stops are illustrated in Figure 14 and Figure 15 below.

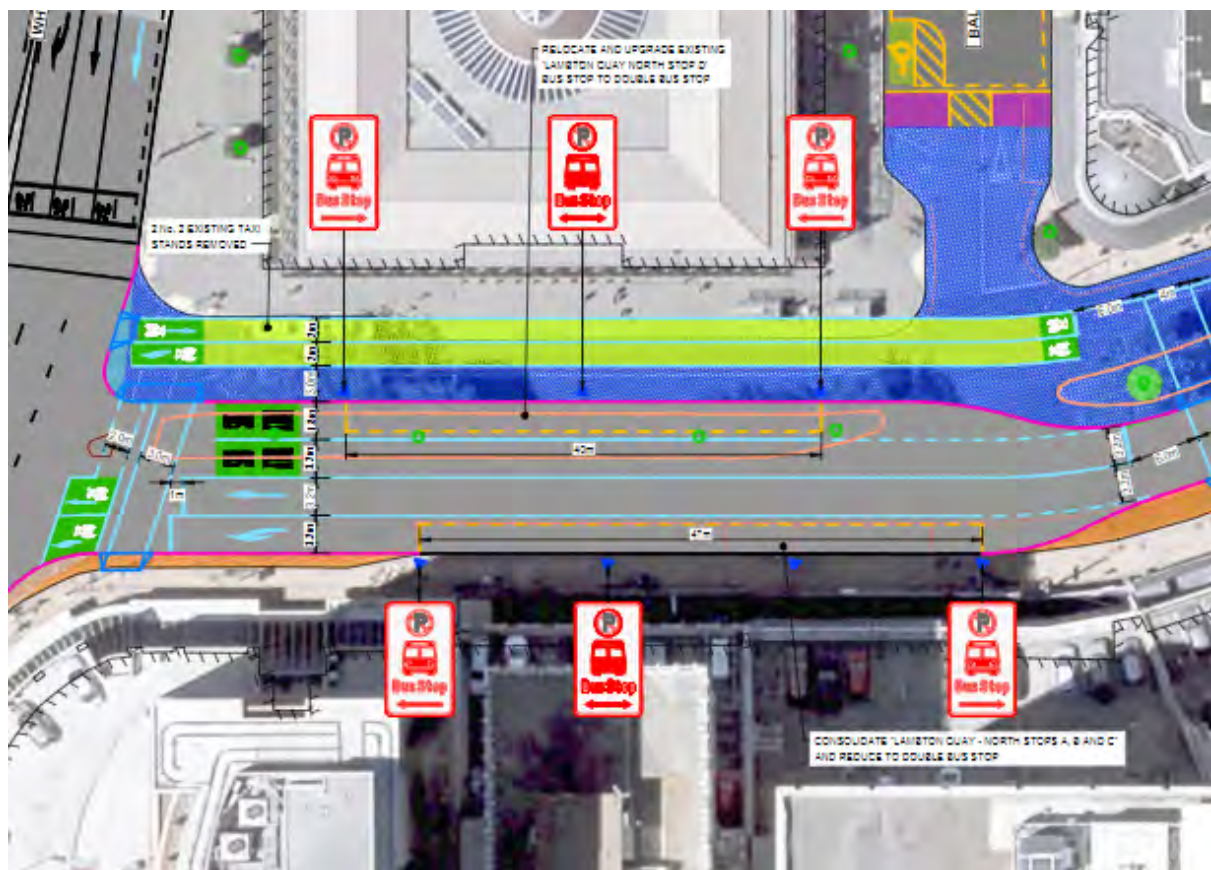


Figure 14: Lambton Quay indented stop

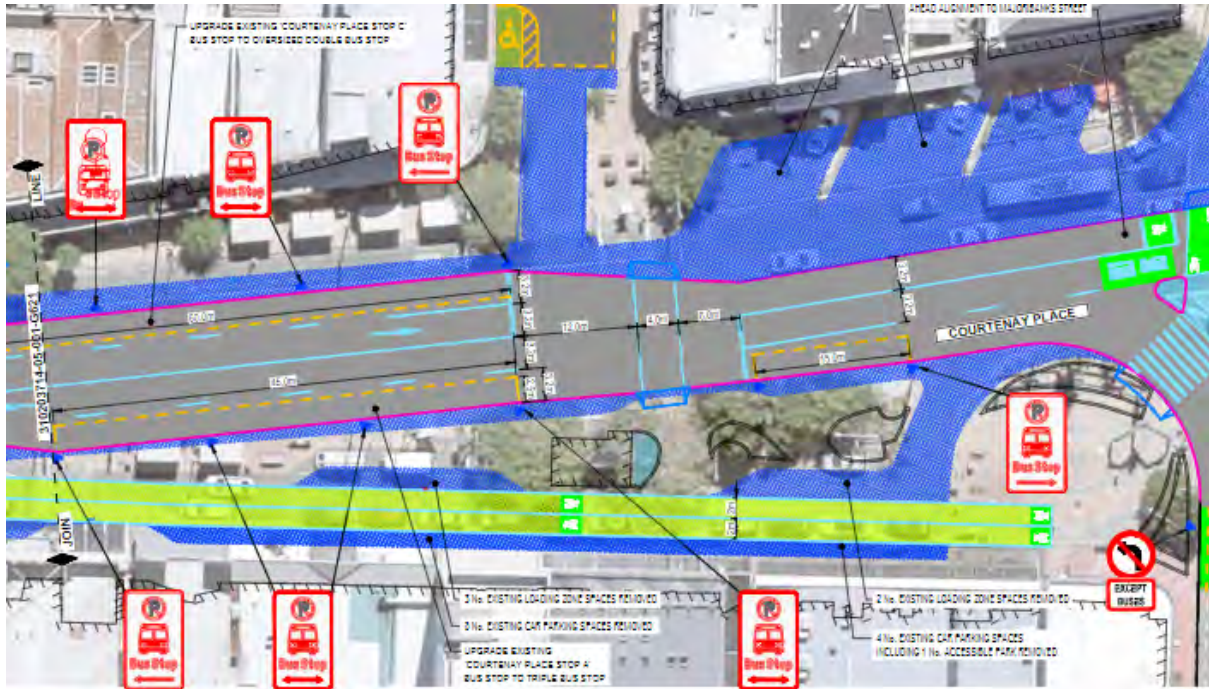


Figure 15: Courtenay Place indented stop

10.2.3 In-line Bus Stops

The remaining three pairs of bus stops, located on Lambton Quay near Brandon St, Willis St and Manners Street²¹ will be in-line, meaning bus stops are positioned in the carriageway.

This design response provides opportunity to reduce the road cross section and provide additional pedestrian space at key bottlenecks on the corridor.

The three in-line bus stops are illustrated in Figure 16, Figure 17 and Figure 18.

²¹ There is the potential to provide an indent for the northbound bus stop outside Arty Bees, subject to the future development plans of the Oak's Building site

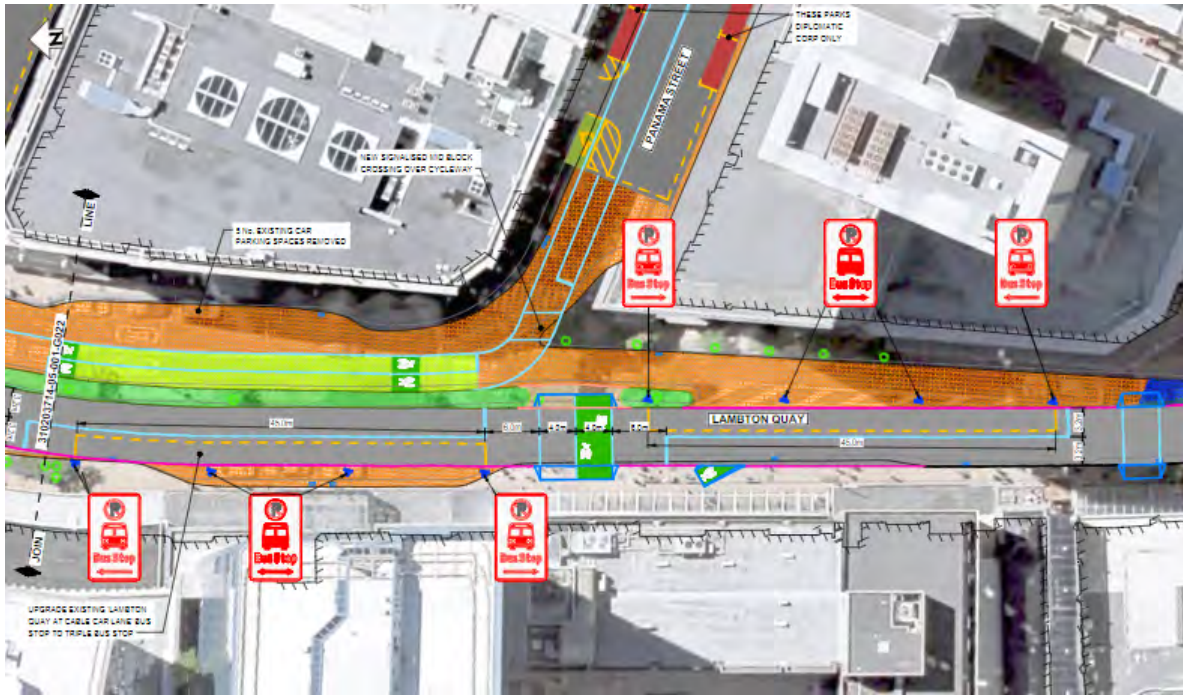


Figure 16: Lambton Quay South in-line stops

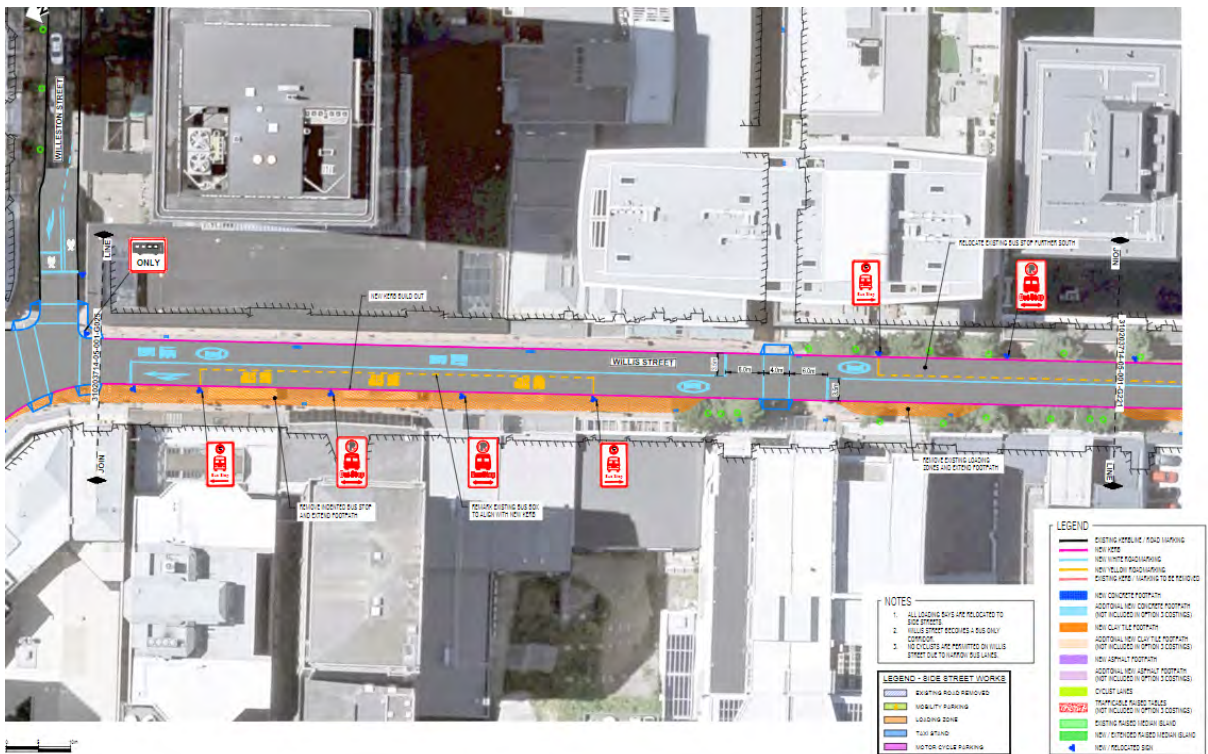


Figure 17: Willis Street in-line stops

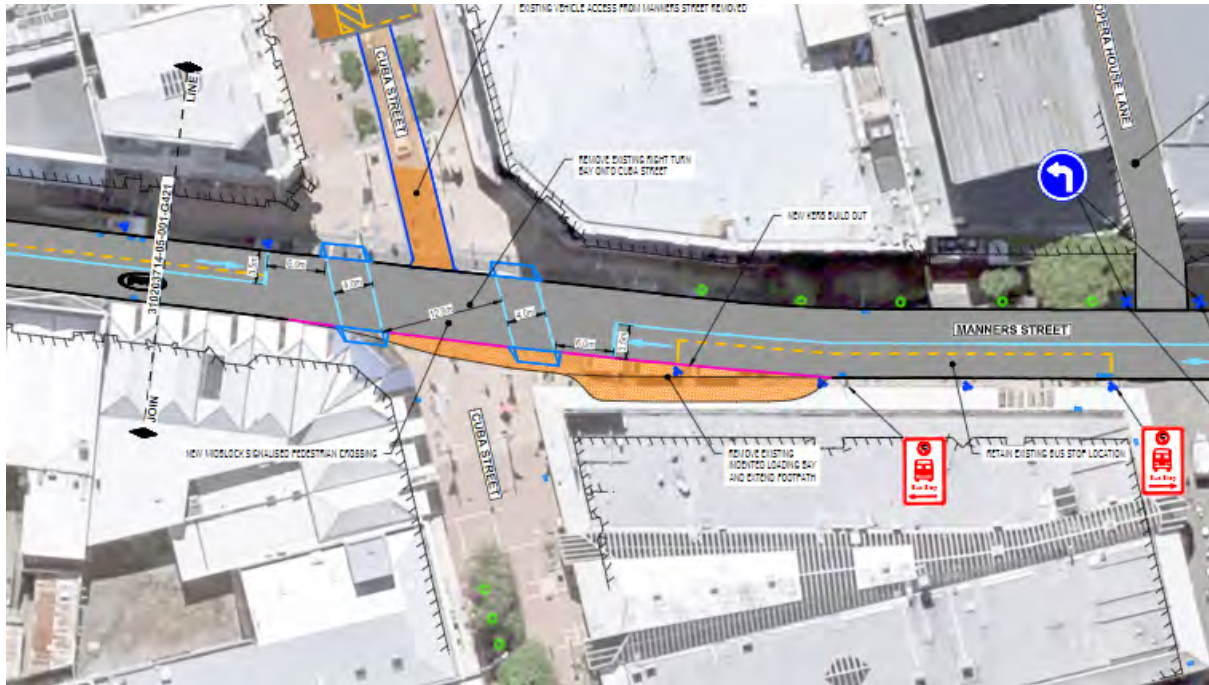


Figure 18: Manners Street in-line stops

10.2.4 Bus shelter and Associated Infrastructure

All bus stops will be provided with supporting infrastructure where space permits. This may include the provision of bus shelters and waiting areas, seating and waste receptacles with the specific use and configuration of bus stop infrastructure determined by the available area at each stop. In addition, there is opportunity to develop a 'feature' bus stop at a key signature location on the corridor, nominally Mercer St or Midland Park, that may include the provision of a bespoke shelter that will reflect the specific character of the location.

The area required for the pedestrian through route past a bus shelter will take into account the pedestrian flow along the route and obstruction by people waiting to board the bus. The designers will refer to NZTA Pedestrian Network Guidance and the NZTA PT Design Guidance 2021 for guidance. Careful design is needed to tie the boarding area back into the footpath, enable principles of universal access, particularly for those users with specific mobility needs and to reduce pedestrian and bus passenger conflicts.

The NZTA Guidelines for public transport infrastructure and facilities: Interim consultation draft, April 2014 interprets the generic bus stop key considerations against different levels of bus stop facility. A level of service for bus stop provision can be determined using the example in Table 19. This table considers the location of the bus stop and the type of bus service using the bus.

Table 19: Bus Stop level of service provision

Bus stop location	Type of bus service			
	Rapid	Frequent all-day	Local & supporting	Infrequent & peak only
City signature	Icon	Icon	Premium	Premium
Major centre	Premium	Premium	Intermediate	Intermediate
Minor centre	Intermediate	Intermediate	Intermediate	Basic
Residential	Intermediate	Intermediate	Basic	Basic
Rural	Intermediate	Basic	Basic	Basic

The Golden Mile has high daily volume of bus passengers, high frequency of bus services and is in a major city centre. Therefore, the bus stops may be designed as premium or icon type. An indicative premium bus stop is shown in Figure 19.

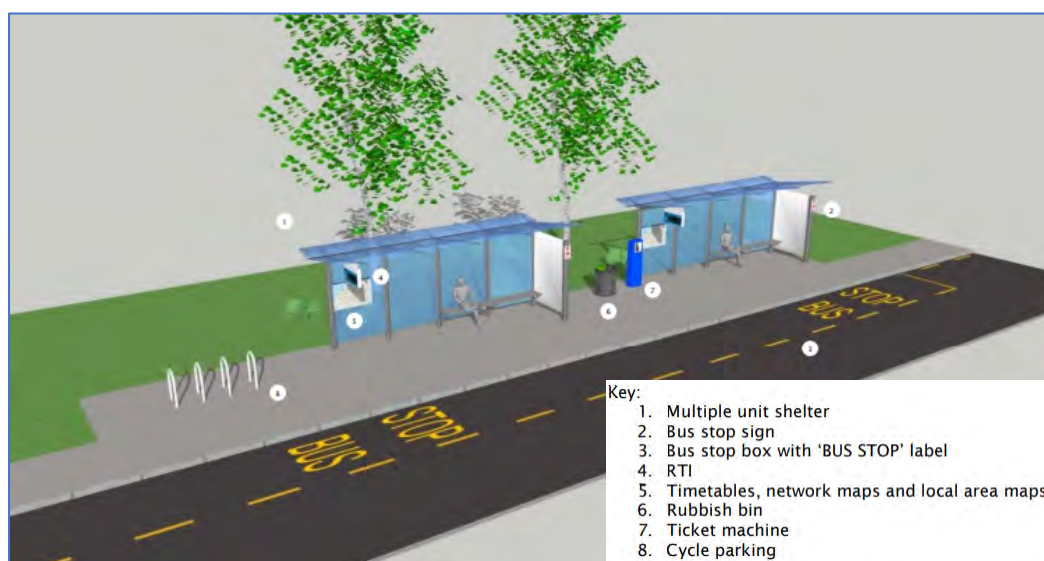


Figure 19: Indicative premium bus stop

11 Traffic Designs

11.1 Intersections

The Project will involve the following:

- Reconfiguration of six existing signalised intersections (see Figure 20 to Figure 25).
- Removal of four signalised intersections (i.e. Stout, Brandon, Mercer and Cuba Streets)
- Removal of six non-signalised intersections (i.e. Ballance, Waring Taylor, Johnston, Panama, Alan and Blair Streets)
- Installation of up to nine new signalised pedestrian crossings, and
- Reconfiguration of up to three signalised pedestrian crossings.

A formal traffic signal plan is to be developed as part of the Detailed Design Phase. Any new and / or upgraded traffic signals will be designed in accordance with the Signals New Zealand User Group (SNUG) National Traffic Signal Specification (Version 3.0 November 2012). In addition, it is recommended that engagement is also undertaken with the Wellington Traffic Operations Centre on the detailed designs for the proposed traffic signal changes during the early stages of the Detailed Design Phase.

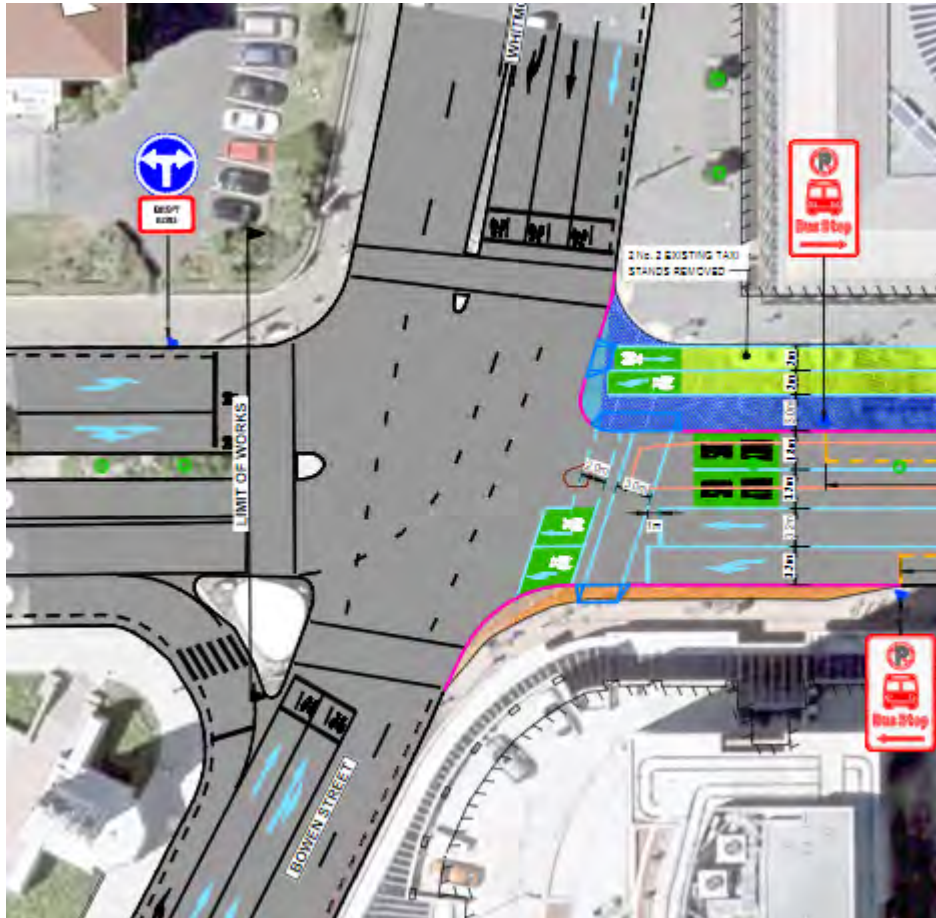


Figure 20: Lambton Quay / Bowen Street / Whitmore Street proposed signalised intersection configuration

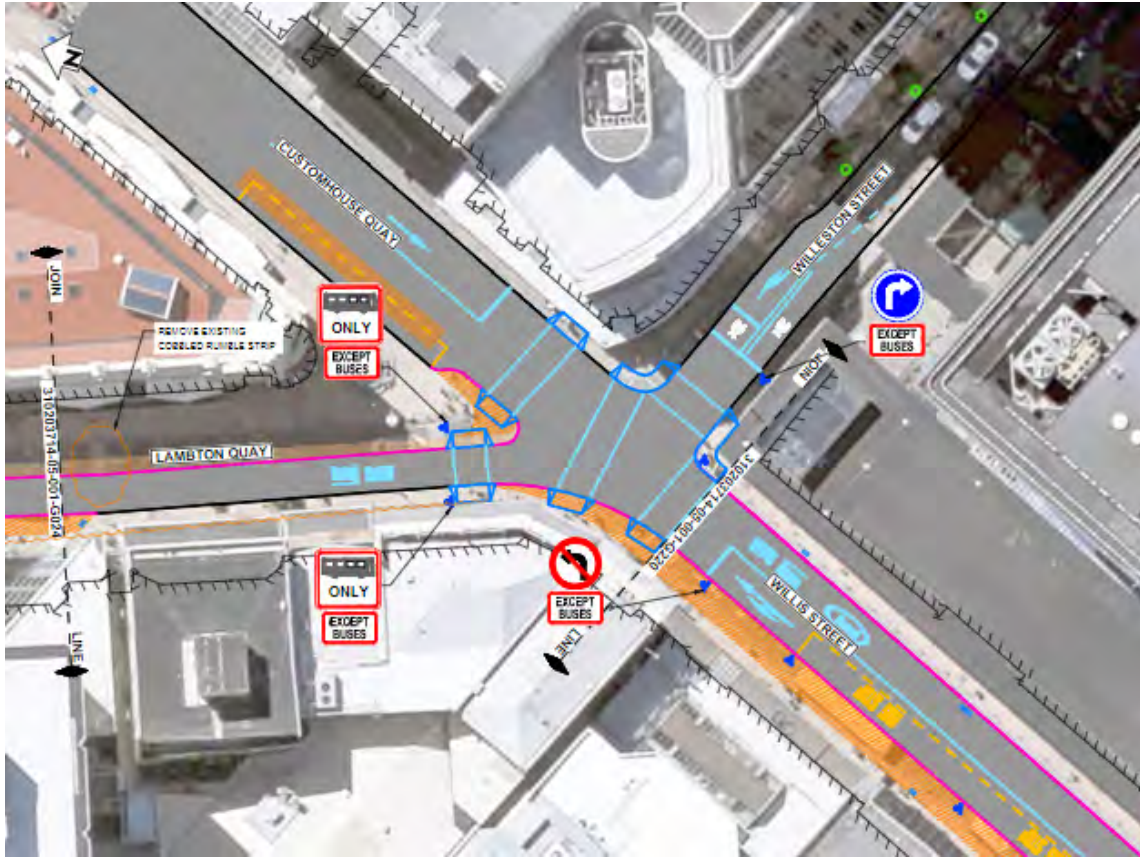


Figure 21: Lambton Quay / Willis Street / Willeston Street proposed signalised intersection

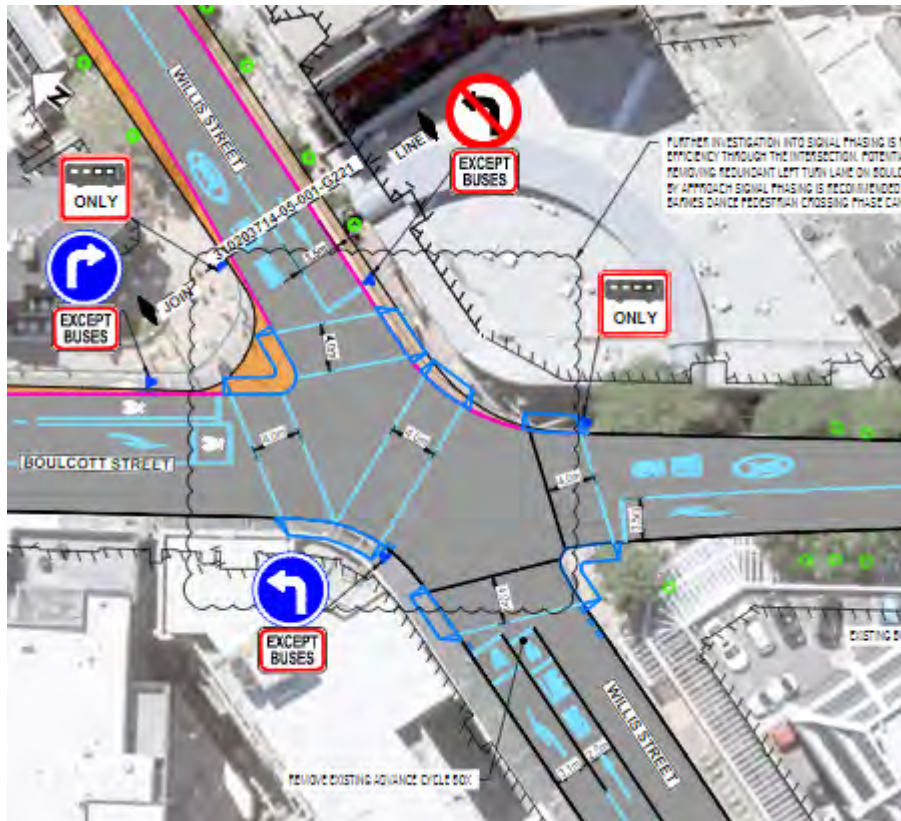


Figure 22: Willis Street / Boulcott Street / Manner Street proposed signalised intersection

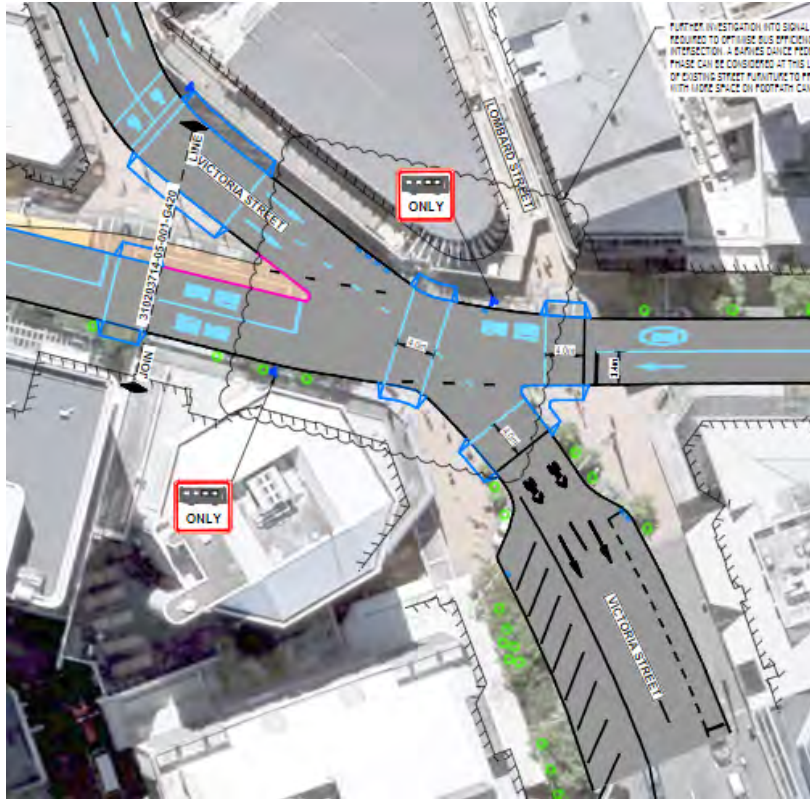


Figure 23: Manner Street / Victoria Street proposed signalised intersection

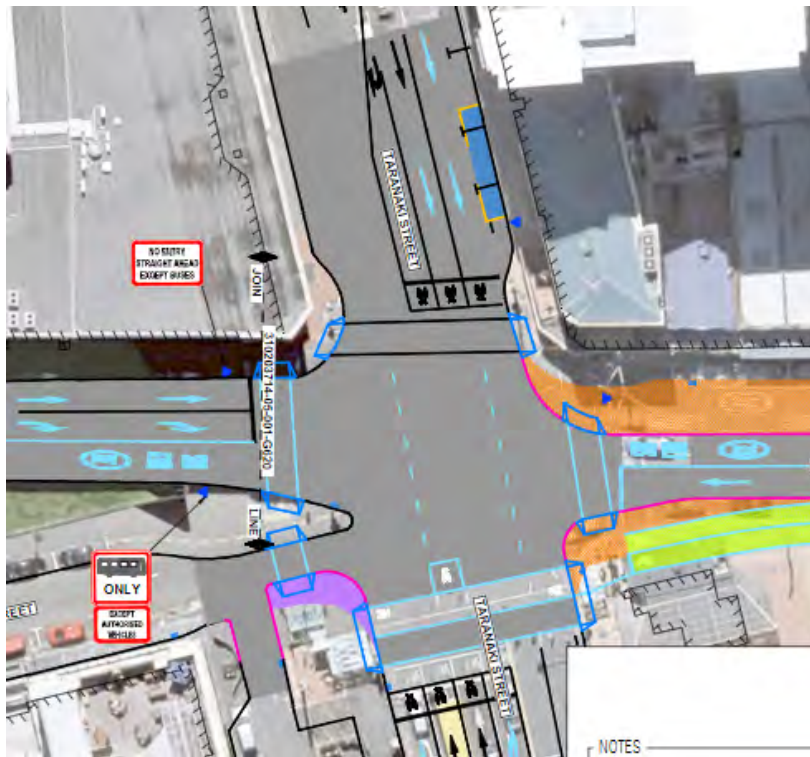


Figure 24: Manner Street / Taranaki Street / Courtenay Place proposed signalised intersection

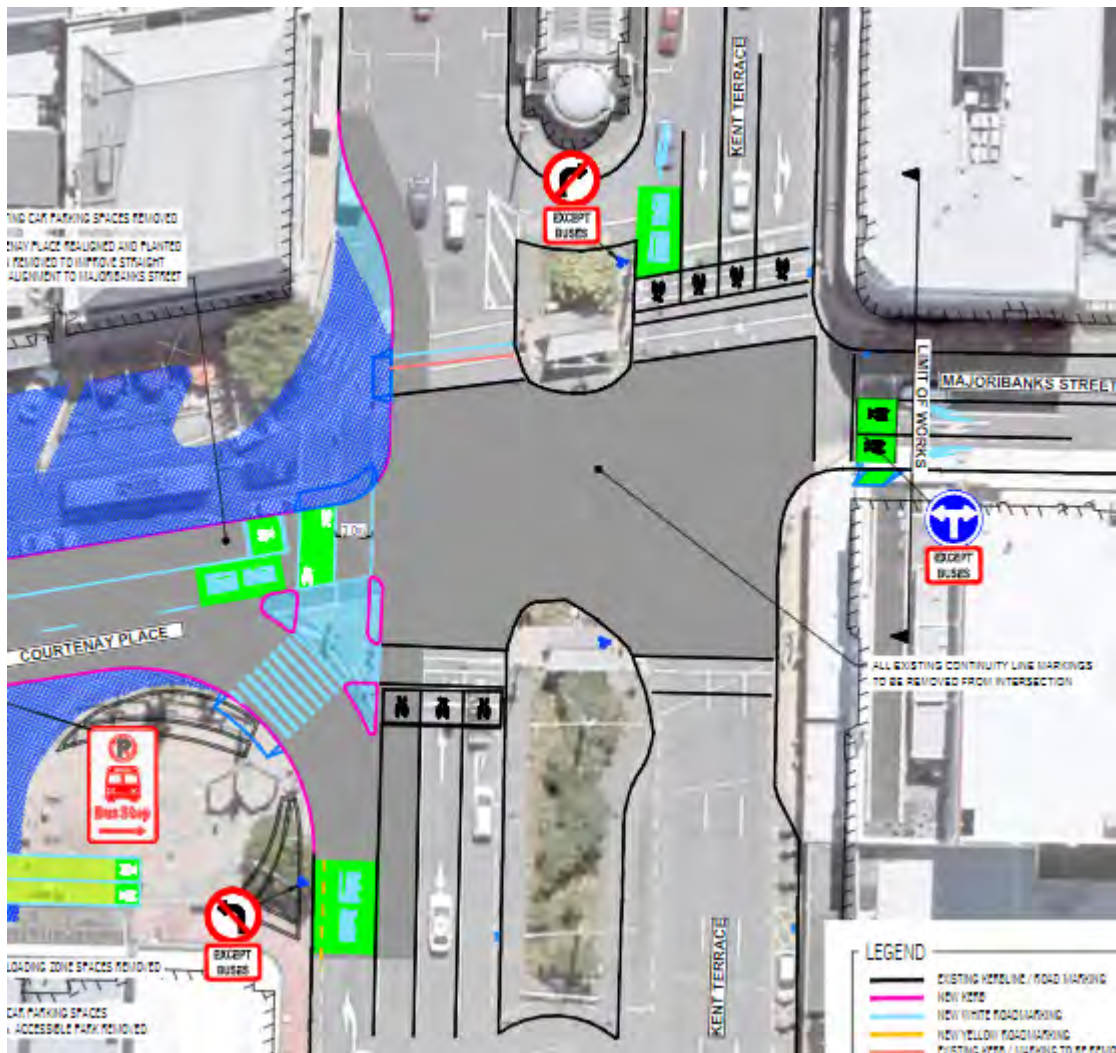


Figure 25: Courtenay Place / Cambridge Terrace proposed signalled intersection

Traffic modelling has been used to identify the preferred lane assignments and phasing for the intersections and pedestrian crossings. Signal optimisation will continue as the design process evolves, with the phasing optimisation and adjustment to signal times updated as the design process evolves.

11.2 Pavement Markings

Road markings, including reflective raised pavement markers (RRPMs), if required, shall be installed in accordance with the following NZTA documents:

- Traffic Control Devices Rules Ministry of Transport 2004
- NZTA Manual of Traffic Signs and Markings - Part 1- Signs (2007), and
- NZTA Manual of Traffic Signs and Markings - Part 2 – Markings (2008).

All lines other than parking markings shall be reflectorised. Road marking paint and its application shall be in accordance with WCC's Code of Practice, Specification RT 800-003, Road Marking.

11.3 Traffic Signage

Road signs shall be installed in accordance with the NZTA Manual of Traffic Signs and Markings - Part 1- Signs (2007).

Traffic signs must be approved by WCC Resolution and installed in accordance with the drawing R-44-782 in the Council's Code of Practice Specifications RT 600-010 Signs, and RT 600-011 Sign Poles.

11.4 Wayfinding Signage

Signage and wayfinding will be required to support changes to stop locations and must be undertaken to:

- Offer information that is consistent with other Metlink information
- Offer information that is easily understood by customers and passengers
- Is easy to install and change following operational or service alterations
- Is appropriate for the location based on standard levels of services
- Is cost efficient and administratively easy to implement, and
- All wayfinding and signage must be undertaken in accordance with the Metlink Wayfinding & Signage Guidelines.

11.5 MRT – Key Station 2: Courtenay Place

The draft MRT IBC has identified the potential for a key MRT Station to be located on the intersection of Taranaki and Courtney Place (currently referred to as the Courtenay Place Station). It was selected as it is likely to serve a strategic function in the public transport network. As set out in Figure 26, the MRT station would be located on Taranaki Street to the immediate south of Courtenay Place. It may involve a widened road reserve and a new bus stop on Courtenay Place.



Figure 26: Proposed location of MRT Station and indicative connecting bus stop²²

The preferred option will need to be developed being cognisant of the developing proposal for a major interchange at Courtenay Place.

²² The figure provides a notional location for a potential interchange bus stop, subject to the completion of the MRT business case. The MRT business case is still in progress and any impact on the Taranaki Street intersection, including potential interchange bus stops, will be addressed in subsequent project phases

12 Utilities

Appendix D sets out the Utilities Assessment Report. To inform this assessment the following services were identified by BeforeUdig service for the Project area:

- Powerco Ltd (Gas)
- Nova Gas
- Wellington Electricity
- Chorus Ltd
- Vital Ltd (previously CityLink Ltd)
- Vector Communications Ltd
- Vodafone NZ Ltd, and
- Wellington Water Limited.

In addition, WCC's *Forward Works Viewer* should be continually reviewed.

Each utility's service drawings are attached to the Utilities Assessment Report. The general design approach to the SSBC pricing for stormwater / drainage is set out below:

12.1 Existing Water Supply

12.1.1 Lambton Quay

Three watermains run underneath the Lambton Quay carriageway. Two of these watermains are located on the western side of the road. One of the watermains is located along the building frontage. The two watermains underneath the carriageway are located further away from the kerb and footpath for most of the corridor, however the pipes run very close to the footpath at the following locations:

- Northern kerb of Lambton Quay between Mansons Lane and 120 Lambton Quay, and
- Southern kerb of Johnston Street at its intersection with Lambton Quay.

The depth of the watermains are not recorded on the plans provided and will need to be verified during the design phase.

12.1.2 Willis Street

Two watermains are present on Willis Street. Both watermains run along the kerb with pipe connections between watermains and properties. The watermains are mainly located underneath the kerbside lanes on both sides of the road. The depths of the pipes have not been provided by the service provider and will need to be verified during the design phase.

12.1.3 Manners Street

Two watermains run underneath the Manners Street carriageway. One runs along the northern kerb of Manners Street and goes beneath the footpath at the two locations listed below, while the other is located underneath the traffic lanes. There are existing water supply pipes beneath the footpaths on both sides of the road to connect the watermains to properties. Particular attention needs to be paid to:

- Northern kerb of Manners Street at Victoria Street / Manners Street intersection, and
- Northern kerb of Manners Street outside 55 Manners Street.

The depth of the watermains are not recorded on the plans and will need to be verified during the design phase.

12.1.4 Courtenay Place

Two watermains present on Courtenay Place. One runs along the northern kerb on Courtenay Place and goes under the footpath from 34 Courtenay Place to the eastern end of the road. The other pipe runs along the southern kerb on Courtenay Place and runs beneath the walkway from 77 Courtenay Place to the western end of the road. The depths of the watermains are not recorded on the plans provided and will need to be verified during the design phase.

12.2 Existing Wastewater

12.2.1 Lambton Quay

Wastewater pipes are underneath the northern kerb of Lambton Quay, and connect to the manholes installed at the kerbside.

12.2.2 Willis Street

Wastewater pipes are shown underneath the northern kerb of Willis Street and in the middle of the carriageway and provide connections between manholes.

12.2.3 Manners Street

Wastewater pipes run underneath the southern kerb of Manners Street.

12.2.4 Courtenay Place

Wastewater pipes run underneath the northern footpath of Courtenay Place and they are shown to be some distance from the kerb.

12.3 Existing Stormwater

12.3.1 Lambton Quay

There is a stormwater pipe present on Lambton Quay which runs beneath the southern footpath. The pipe is shown running close to the kerb at some locations. Wastewater pipes are also located under both the carriageway and walkway to connect the stormwater mains with the existing manholes on Lambton Quay. Depths of the existing stormwater pipes are unknown.

12.3.2 Willis Street

There are two stormwater mains shown on Willis Street, one under each side of the footpaths between Willeston Street and Mercer Street. For the section of Willis Street between Mercer Street and Victoria Street, the stormwater pipes run underneath the carriageway close to the kerbs. No information about the pipe depths are provided.

12.3.3 Manners Street

There is one stormwater main pipe present on Manners Street which runs along and, in a position, very close to the southern kerb. Stormwater pipes are also present to provide connection between the stormwater main and existing manholes. Depths of the pipes need to be verified during the design phase.

12.3.4 Courtenay Place

As per the stormwater plans provided, two stormwater pipes are located on Courtenay Place. One runs under the carriageway in a close position to the kerb on the northern side of the road, whilst the other runs under the footpath between the western end of the road and 77 Courtenay Place, continuing beneath the carriageway in a close position to the southern kerb. No information about the pipe depths are provided.

12.4 Existing Gas

There are two providers of Gas: Powerco Ltd and Nova Gas. Locations of the existing gas service pipes were collected from both providers and are shown in the service drawings. No information relating to the depth of the services has been provided.

12.4.1 Lambton Quay

There are three existing gas mains owned by Powerco Ltd on Lambton Quay. Two of them run underneath the property boundaries on both sides of the road, whilst the other one runs along the northern kerb of Lambton Quay, very close to the kerb.

12.4.2 Willis Street

There are existing gas pipes owned by Powerco Ltd under the footpaths on both sides of Willis Street, which run along the property boundaries. Gas main pipes owned by Nova Energy run along the northern kerbside lane at some locations on Willis Street. The service plans show that all the gas pipes are located at some distance from the kerb.

12.4.3 Manners Street

As per the underground service plans, there are three gas main pipes that run underneath the footpaths on both sides of Manners Street. Two of them are owned by Powerco Ltd, and the other one is owned by Nova Energy. The service plans show that all the gas main pipes are located further away from the kerb, except for a few locations where the pipes intersect with the southern kerb and go beneath the carriageway.

12.4.4 Courtenay Place

The service plans show two gas main pipes installed underneath the footpaths on both sides of Courtenay Place. The service plans indicate that the pipes are located further away from the kerb, except at the section between Tory Street and outside 35 Courtenay Place.

12.5 Existing Power

Service plans provided by Vector include the following types of cables and substations along the Golden Mile. No cable depth information has been provided by the service providers.

- 33,000 Volt cables (33kV)
- 11,000 Volt cables (11kV), and
- Streetlight cables.

12.5.1 Lambton Quay

The service plans provided do not indicate any 33 kV power cables on Lambton Quay. Most of the power service cables shown in the plan run underneath the footpath along the property boundaries on both sides of the road, except at the locations of parallel on-street parking areas on Lambton Quay. The power cables at the parking areas run close to the northern/southern kerbs. Existing lamp posts are shown close to the kerbs on both sides of Lambton Quay.

12.5.2 Willis Street

Power cables are generally shown underneath existing footpaths on Willis Street, except at the section between Willeston Street and 15 Willis Street where the 11kV power cable runs closely along the northern kerb of the road. Existing lamp posts are located on the southern footpath close to the kerb.

12.5.3 Manners Street

No 33kV power cables are shown on Manners Street as per the service plans. From the information provided, existing power cables on the northern side of the road run underneath

the footpath along the property boundaries, whilst the cables on the southern side run along the carriageway of the kerbside lane. None of them are shown to be close to the kerbs. There are streetlight posts installed near the kerbs on both sides of the road.

12.5.4 Courtenay Place

Service plans provided do not show any 33kV power cables on Courtenay Place. There are however other power cables installed underneath both the footpaths and carriageways. The cables are shown to be running close to the kerbs.

12.6 Existing Telecommunications

There are four telecommunication providers in the Project area. They are Chorus, Vodafone, Vector Communications, and Vital. Service plans were obtained from all four providers. No information about the depth of the cables were received, so depths will need to be verified during the design phase.

12.6.1 Lambton Quay

As per the underground telecommunication service plans, telecommunication cables run underneath both the footpath and carriageway on Lambton Quay. Most of the cables run further away from the kerb, except for the section of Lambton Quay between Brandon Street to 201 Lambton Quay, where the fibre cables of Vodafone run close to the eastern kerb.

12.6.2 Willis Street

The service plans indicate that there are telecommunication cables underneath both the footpaths and carriageway on Willis Street. Based on the service plans, Vodafone cables were shown to run closely along the southern kerb, whilst the telecommunication cables owned by Chorus and Vital run closely along the northern kerb. Other telecommunication cables either run underground in the middle of the carriageway or underneath the footpaths along the property boundaries.

12.6.3 Manners Street

Telecommunication cables were indicated under both the carriageway and footpaths. The utility plans show that most of the cables are away from the kerb, except for the fibre cables owned by Vodafone, which run closely along the northern kerb of Manners Street.

12.6.4 Courtenay Place

Utility plans show telecommunication cables underneath both the footpaths and carriageway on Courtenay Place. The fibre cables owned by Vodafone and Vector are shown close to the northern kerb, whilst the cables owned by Chorus are shown close to the southern kerb.

12.7 Initial Utilities Assessment of the Preferred Option

An initial assessment of the preferred option is set out in Table 20.

Table 20: Initial assessment of the preferred option

Section	Assessment
Lambton Quay	<ul style="list-style-type: none"> • Potential relocations of catchpits at the following locations due to the proposed kerb extension: <ul style="list-style-type: none"> ○ 2 catchpits outside 85 Lambton Quay ○ 25 catchpits along the northern kerb on Lambton Quay between 96 Lambton Road and Lambton Quay / Panama St intersection ○ 12 catchpits along the southern kerb on Lambton Quay between the Lambton Quay / Ballance Street intersection and the Lambton Quay / Panama Street intersection ○ 2 catchpits along the southern kerb on Lambton Quay between the Lambton Quay / Panama Street intersection and the Lambton Quay / Featherston Street intersection. • There is an existing water supply pipe, main gas pipe owned by Powerco, a stormwater pipe, power cables and Vector fibre cables on Ballance Street at its intersection with Lambton Quay. Watermain, stormwater pipes, power cables and gas pipes are unlikely to be affected by the proposed footpath widening unless they clash with locations of new manholes and stormwater connection pipes. The Vector fibre cables are very likely to be affected by the footpath extensions. • Foul sewer pipe, the main gas pipe supplied by Powerco Ltd and the wastewater pipes run beneath the northern kerb of Lambton Quay. These services are unlikely to be affected by the kerb build outs unless they clash with the locations of new manholes and stormwater connection pipes. • There are existing fibre cables owned by Chorus underneath the northern edge of the solid median outside 85 Lambton Quay and they are very likely to be affected by the proposed work. • The service plans shows a stormwater pipe and fibre cables owned by Vital beneath the parallel on-street parking area on the northern side of Lambton Quay. The stormwater pipes are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes. The fibre cables are very likely to be affected by the footpath extensions. • An existing water supply pipe, existing power cables, fibre cables owned by Vodafone and chorus and gas services pipe on Stout Street at its intersection with Lambton Quay are shown in the utility plans. The watermains and power cables are unlikely to be affected by the proposed footpath widening unless they clash with locations of new manholes and stormwater connection pipes. However, the fibre cables are very likely to be affected by the footpath extensions. • There is an existing water supply pipe, gas services pipe, power cables, fibre cables owned by Vodafone, Chorus and Vital underneath Johnston Street at its intersection with Lambton Quay. The watermains, gas mains and power cables are unlikely to be affected by the proposed footpath extensions unless they clash with the locations of new manholes and stormwater connection pipes. The fibre cables would be affected by the kerb build outs. • Existing power cables, stormwater pipe and fibre cables owned by Vodafone and power cables are shown underneath Brandon Street at its intersection with Lambton Quay. The stormwater pipes, and power cables are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes. The Vector fibre cables are very likely to be affected by the intersection upgrade work.

	<ul style="list-style-type: none"> Existing water supply pipes, foul sewer pipes, power cables, gas services pipes and 11kV power cables are shown beneath either side of the kerb on Panama Street. The watermains, foul sewer pipes, power cables and gas pipes are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes. There are existing fibre cables owned by Vodafone beneath the southern kerb of Lambton Quay, water supply pipes, foul sewer pipes and fibres owned by Vector underneath the southern kerbside lane on Lambton Quay between Lambton Quay / Panama Street intersection and Lambton Quay / Featherston Street intersection. The fibre cables at these locations are very likely to be affected by the footpath extensions. The watermains and foul sewer pipes are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes
Willis Street	<ul style="list-style-type: none"> Potential relocations of catchpits at the following locations due to the proposed kerb extension: <ul style="list-style-type: none"> 5 catchpits by the northern kerb of Willis Street between the Willis Street / Willeston Street intersection and Willis Street / Boulcott Street intersection 2 catchpits by the northern kerb of Boulcott Street at its intersection with Manners Street and Willis Street. Utility plans show an existing water supply pipe, gas service pipe owned by Powerco, existing power cables, fibres owned by Vector, Chorus, Vodafone, Vital and foul sewer pipes on Mercer Street at its intersection with Willis Street. The watermains, gas pipes, sewer pipes and power cables are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes. All the fibre cables are very likely to be affected by the proposed improvements. Existing fibre cables owned by Vital and Chorus and foul sewer pipes are shown beneath the northern kerb of Willis Street between the Willis Street / Willeston Street intersection and Willis Street / Boulcott Street intersection. The fibre cables are very likely to be affected by the kerb build outs. The foul sewer pipes are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes. Fibre lines shown underneath the southern kerb of Willis Street between the Willis Street / Willeston Street intersection and Willis Street / Boulcott Street intersection and they are very likely to be impacted by the new footpath extension
Manners Street	<ul style="list-style-type: none"> There are existing stormwater pipes, gas service pipes, fibres owned by Vital, Chorus, Vector, water supply pipes and foul sewer pipes located between 58 Cuba Street and Cuba Street / Manners Street intersection. The stormwater pipes, gas pipes and foul sewer pipes are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes. The fibre cables are very likely to be affected by the proposed work. The service plans show existing gas services pipe owned by Powerco and the foul sewer pipes located underneath the loading zone outside 104 Manners Street. The gas pipes and foul sewer pipes are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes
Courtenay Place	<ul style="list-style-type: none"> Potential relocations of catchpits at the following locations due to the proposed kerb extension: <ul style="list-style-type: none"> 10 catchpits along the southern kerb of Courtenay Place between Taranaki Street / Courtenay Place intersection and the Cambridge Terrace / Courtenay Place intersection

	<ul style="list-style-type: none"> ○ 2 catchpits by the southern kerb of Courtenay Place outside 99 Courtenay Place ○ 7 catchpits along the northern kerb of Courtenay Place between Taranaki Street / Courtenay Place intersection and the Cambridge Terrace / Courtenay Place intersection ● Existing fibre cables owned by Chorus lies beneath the southern kerb of Courtenay Place and will potentially be impacted by the kerb build out. ● There are stormwater pipes, water supply pipes and a wastewater pipe underneath the northern kerb of Courtenay Place and storm water pipes, power cables and fibre cables owned by Vector underneath the northern lane. The watermains, Stormwater pipes, sewer pipes and power cables are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes; The Vector fibre cables are very likely to be affected by the footpath extensions. ● There are fibre cables owned by Vodafone, water supply pipes, foul sewer pipes and power cables located underneath the angled on-street parking area outside 14 Courtenay Place. The watermains, foul, sewer pipes and power cables are unlikely to be affected by the proposed footpath widening unless they clash with locations of new manholes and stormwater connection pipes The fibre cables are very likely to be affected by the kerb build outs. ● The utility plans indicate an existing stormwater pipe, water supply pipe, gas services pipes, foul sewer pipes and fibres owned by Vector beneath Blair Street at its intersection with Courtenay Place. The stormwater pipes, watermains, foul, sewer pipes and gas mains are unlikely to be affected by the proposed footpath widening unless they clash with locations of new manholes and stormwater connection pipes The fibre cables are very likely to be affected by the kerb build outs ● Fibre cables owned by Chorus and Vodafone, a water supply pipe, gas services pipes, power cables and stormwater pipes are shown underneath the Tory Street carriageway at its intersections with Courtenay Place. Fibre cables are very likely to be affected by the proposed work. The watermains, gas pipes, stormwater pipes and power cables are unlikely to be affected by the proposed footpath widening unless they clash with the locations of new manholes and stormwater connection pipes ● Existing telecom cables owned by Vital are shown underneath the southern kerbside lane on Courtenay Place they would potentially be affected.
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12.7.1 Assumptions and Exclusions

The following assumptions and exclusions are noted:

- Unmarked or private services in the Project area have not been identified, however LGWM have commissioned Reveal to undertake a GPR survey of the Golden Mile.
- Service plans and the assessments are based on the utility plans provided by the service providers and WCC GIS data. The information may not be accurate and up to date
- The depths of underground services are unknown. It has therefore been assumed that all underground services in the extent of footpath extensions would be affected by the work. Subsequent GPR surveys will provide further information as part of the subsequent design stages.
- The preferred option will require the relocation of streetlight poles and signal poles. Impact to these above ground services has not been assessed as part of the utilities assessment
- Each option requires the relocation of catchpits at footpath widening areas

- No stormwater assessment has been undertaken to identify potential impact to stormwater system, and
- No flood modelling has been undertaken, which is recommended for the Detailed Design Phase.

Depths of the above underground services will need to be verified during the design phase, and therefore it is recommended that ground penetrating radar (GPR) survey is undertaken as soon as possible. In general water mains, sewer mains, power lines, stormwater pipes and the gas pipes are located at a depth unlikely to be affected by the footpath extensions and kerb realignments. The likelihood of those services being affected by the Project is low unless they will be impacted by the locations of new manholes and their connecting pipes. Telecom cables are generally installed at a shallower depth, and as a result, are more likely to be impacted by the proposed improvements.

In addition, there are a number of manhole and various utility chamber lids and covers that will be affected. These utility covers and lids will be required to be identified for restoring to the adjacent footpath levels at the detailed design stages of the Project.

12.8 Future Programmed Utility Works

During consultation with the utility providers, the following future utility upgrade works were identified that may impact on the Project. These works will need to be coordinated between LGWM and the relevant utility companies.

12.8.1 Vital

Vital has an underground and overhead network along the Golden Mile. There is an ongoing project to underground the existing overhead network that is attached to the old trolley bus stays. This project is due for completion in mid-2021 and Vital does not have any other major projects planned beyond mid-2021.

12.8.2 Wellington Water and the Three Waters

The main ongoing operational and maintenance requirements for Wellington Water are to maintain suitable access to operate, repair and renew the drinking water, stormwater and wastewater assets such as pipes, manholes, lamphole, hole cleaning eyes, fire hydrants, and valves.

The WCC Long Term Plan has confirmed funding for the following three water upgrades:

- Featherston Street (Whitmore to Waring Taylor Street) Rising Main (Nov 21 – Feb 22)
- Kent Terrace (54 Buckles Street) Stormwater Culvert Renewal and Strengthening (June 2020 -April 2021)
- Planned wastewater project in Lambton Quay from 193 Lambton Way to Brandon Street and across to 226 Lambton Quay (Mar 22 – May 22).
- Planned wastewater project in Taranaki Street crossing the Manners Street / Courtenay Place intersection (Feb 22 – Sep 22), and
- Potential trenching work might be carried out to repair / replace the old earthenware stormwater and wastewater pipes along the southern footpath-slip lane on Courtenay Place from Kent Terrace to Allen Street.

In addition, Wellington Water is proposing a Wellington CBD Wastewater Pump Station and Rising Main Renewals and Upgrade (June 2023-2031) Project that will have impacts on the following CBD sites:

- Taranaki Street (new pipe) – Q3 FY 21/22 completed FY22/23
- Wakefield Street (new pipe) – Q1 FY 22/23 completed FY 23

- Victoria Street (renewals) – Q1 FY23/24 completed FY 24
- Kent Terrace / Wakefield Street (renewals) – Q3 FY23/24 completed FY 25, and
- Pump Station 1 – 7 – FY 22/23 completed FY 25/26.

A summary of the proposed CBD Wastewater Pump Station and Rising Main Project is provided in Figure 27.



Figure 27: Proposed wastewater pump station and rising main renewals project

12.9 Operational and Maintenance Requirements

In response to operational and maintenance requirements, the following comments have been received from the utility providers.

12.9.1 Powerco

Powerco has gas infrastructure located along the Golden Mile and wider CBD and they will need to access existing services and to construct new services along the Golden Mile. The design will need to ensure that it does not affect the ongoing operation, maintenance and upgrading of the gas network, or restrict access to its network.

12.9.2 Vital

Citylink requires ongoing access to their network through the existing pits and manholes. These must remain uncovered and accessible for maintenance purposes.

12.10 Recommendations for Detailed Design

It is recommended that the following be undertaken for the Detailed Design Phase:

- Discussions with utility providers to continue as design is progressed. Once more design information is available, hold workshops to better understand the impacts and requirements of the utility providers
- Coordination with utility providers to ensure planned utility upgrades are co-ordinated with the Golden Mile and wider LGWM programme
- Undertake a GPR survey as soon as possible (and possibly review existing Golden Mile Topographical Survey)
- Undertake a detailed stormwater assessment (including flood modelling) to ensure potential design constraints are addressed early and / or mitigated
- At high risk locations, such as those where multiple services are likely to be affected, arrange for investigations to be carried out to accurately locate the apparatus, and
- Obtain cost estimates from service providers for relocation, diversion and protection works.

13 Construction Staging

Appendix E provides an outline of the proposed construction staging approach. A summary of the proposed staging approach is set out below:

- Stage 1: Improvements at intersections
- Stage 2: Manners Street as follows:
 - Close Cuba Street and reconfigure as two-way cul-de-sac
 - Divert southbound buses via Mercer Street, Wakefield Street to Taranaki Street and make changes to Manners Street, and
 - Remove diversion.
- Stage 3: Willis Street as follows:
 - Close Willis Street to general traffic and make changes to Boulcott Street intersection
 - Close Mercer Street and reconfigure as two-way cul-de-sac
 - Divert southbound buses via Victoria Street and make changes to Willis Street and Willeston Street (removes access to Lambton Quay northbound for general traffic), and
 - Remove diversion.
- Stage 4: Lambton Quay
 - Divert southbound buses via Panama Street and make changes to Lambton Quay between Panama and Hunter
 - Divert northbound buses via Customhouse Quay and make changes to Lambton Quay between Hunter and Willis
 - Close side streets that enter onto Lambton Quay (except for property access) and reconfigure as two-way cul-de-sacs (can be staged)
 - Close Lambton Quay to general traffic, make temporary changes to Whitmore Street intersection and reconfigure side roads that exit from Lambton Quay

- (except for property access) and reconfigure as two-way cul-de-sacs (can be staged)
 - Make changes to southern carriageway (northbound direction) on Lambton Quay between Whitmore and Panama, and
 - Divert southbound buses to new route and make changes to northern carriageway (southbound direction) on Lambton Quay between Whitmore and Panama.
- Stage 5: Courtenay Place
 - Close side streets (except for property access) and reconfigure as two-way cul-de-sacs or through access only (can be staged)
 - Close Courtenay Place to general traffic, make temporary changes to Taranaki and Cambridge intersections
 - Remove median and surface (except where trees being retained)
 - Shift lanes to south side and make changes to northern side of Courtenay Place, and
 - Shift lanes to north side and make changes to southern side of Courtenay Place.

It is noted that alternative approaches to construction phasing are possible and would result in different access and detour arrangements. Furthermore, any final construction staging / methodology will need to be cognisant of minimising impacts on people, businesses and transport networks (e.g. bus services that might need to be re-routed). For this reason, having early contractor involvement would be of benefit to the Detailed Design Phase (and for communication engagement purposes).

14 Safety

14.1 Vision Zero

The Government has a Vision Zero approach where no-one is killed or seriously injured in road crashes, and no death or serious injuries while travelling on our roads is acceptable. This vision is set out in the Road to Zero 2020-2030 Strategy (2019), which also includes the following key areas to be focused on over the next decade:

- Infrastructure improvements and speed management
- Vehicle safety
- Work-related road safety
- Road user choices, and
- System management.

The Project will work towards Vision Zero by reducing the risk of death and serious injury along the Golden Mile through provision of improved and safe public transport and active mode facilities.

The Project will assess several interventions designed to increase road safety, including but not limited to:

- Safe and appropriate speeds
- Protection for walking and cycling
- New and improved pedestrian crossings
- Restrictions on turning movements

- Improved intersection controls
- Reduced private motor car volumes,
- Pedestrian and bus interactions; and
- Growth in public transport use.

14.2 Safety in Design

Safety in Design (SiD) is a process of identifying hazards and applying risk management techniques during the design process to eliminate or minimise risks to health, safety and the environment from the construction, operation, maintenance, and ultimately de-commissioning of the designed product.

The objectives of the SiD process are to:

- Reduce the risk of directly, or indirectly, causing harm to people throughout the lifecycle of an asset
- Continually challenge and improve designs
- Make changes early in the design stage which are more cost effective than retrofitted changes (to resolve issues) made during operation and maintenance
- Achieve better health and safety outcomes by considering and reconciling the interests of different parties in an asset
- Comply with the duty of care that the Project Designers have to create safe places to live and work, and
- Comply with health and safety legislation.

The objectives are met by identifying hazards and assessing the risks that might be realised in the construction, operation, maintenance and demolition phases of the project life cycle, and associated control measures to be implemented through the design process and beyond.

14.3 Road Safety Audit

A road safety audit (RS) is a term used internationally to describe an independent review of a road project to identify any safety concerns that may affect the safety performance. The audit team considers the safety of all road users and qualitatively reports on road safety issues or opportunities for safety improvement. A road safety audit is therefore a formal examination of a road project, which affects all road users (including cyclists, pedestrians, mobility impaired etc.), carried out by an independent, competent team. A road safety audit is intended to help deliver a safe road system and is not a review of compliance with standards.

In summary, the objectives of the RSA process are to:

- Deliver completed projects that contribute to a safe road system and achieves an outcome consistent with the objectives of 'Vision Zero' and the Safe System approach, that is, minimisation of death and serious injury, by providing a safer road network with self-explaining roads and identifying and ranking potential safety concerns for all road users and others affected by a road project
- Minimise the risk of high-severity crashes that may result from design deficiencies in a proposed road project
- Minimise the need for rework and physical remedial works caused by road safety deficiencies at the various stages of project development, including construction

- Reduce the whole-of-life costs of the project, and
- Improve the awareness of, and contribute to, improvements in safe design practices.

Table 21 summarises the safety process at each respective Project design stage.

Table 21: Safety process requirements

Business Case Stage	Design Stage	Safety in Design	Road Safety Audit
SSBC	Concept Design – (Option development)	=	-
Pre-Implementation	Concept Design (preferred option)	Workshop and Register	Concept Design RSA
	Preliminary Design (50%)	Workshop and Register	Preliminary Design RSA
	Detailed Design (85%)	Workshop and Register	Detailed Design RSA
Implementation	IFC (100%)	Post Construction SiD Audit	Post Construction RSA

An independent RSA has been undertaken for the SSBC. It will be a valuable input to the SID process and its outcomes should be used to inform the SiD review workshops to be undertaken in the Detailed Design Phase.

14.4 Safety Audit and Network Functionality Assessment

To assist development of the SSBC, a Safety Audit and Network Functionality (SANF) assessment has been undertaken and is attached as **Appendix F**.

The SANF framework has been applied to undertake a holistic review of the proposed scheme design encompassing an assessment of the route for appropriateness of safety, landscape, & form and function, and allows all elements of the project to be reviewed within a single report for all road users.

The SANF process reviews the route sections, and the facility choice for each section and includes the more formal requirements of an RSA in the reporting and designer response sections. The goal is to ensure that the most appropriate safety treatment is selected to ensure a fit-for-purpose facility for all users.

In assessing the proposed scheme, it was found that details of the connectivity to the greater network were little understood due to minimal information of other projects that are conceptual in design only. Examples include the WCC cycle network, yet to be developed through this area. This lack of understanding could have significant safety implications for the legibility and usability of this scheme, and the connection to a yet to be determined cycle network. It is recognised that this element will be addressed in future design iterations, and through on-going discussions with WCC.

The interface with the adjacent side streets is indicative of a suitable design, and at this stage does not detail the finer detail required for full consideration of all the safety elements to be improved in the design. This is typical for this stage of a scheme design.

The final design of the project should include full consideration of elements such as slip resistance that could be affected by the choice of materials for construction. Special care should be taken for cycle facilities to ensure that the slip resistance is applicable to this user type, with smaller contact areas than that of a pedestrian, who slip resistance it typically measured for. This will typically require a higher slip resistance than AS/NZS 4586:2004.

The interface of the side roads will need full consideration of permitted and restricted through and turn movements, with the design considering the largest permissible vehicle as a check vehicle. Legibility of the side road treatments should incorporate full consideration of elements that will ensure safe movement and use by vulnerable users such as persons of low vision and blind, mobility impaired, and cognitive and mobility skills of the elderly.

At major intersections, cycle movements for connection to adjacent facilities will need careful consideration of the desired directions of travel, and safe incorporation of cycle facilities such as advance cycle boxes and on / off ramps to ensure safe, legible and effective movement.

Many of the items identified should lead discussion and inclusions into the next phases of design. It is recommended that on-going engagement with the SANF system is incorporated throughout the design, ensuring early identification of issues that may arise through the upcoming design phases. As the design progresses, the SANF system will incorporate more of the conventional Road Safety considerations, and the formal response process that this entails.

The SANF concludes by advising that the scheme design as presented has merit and should be progressed further into detailed design. Specific elements such as permeability and connectivity will require detailed communication throughout the design phases, and all risks identified and recorded where full integration cannot be met at this stage. It is recommended that Connectivity be a specific element of the risk register.

15 WCC Operations and Maintenance

15.1 Street Lighting

The lighting requirements for the Project will be undertaken in accordance with the National code for lighting (i.e. **sub-category V3** of **AS/NZS 1158.1.1:2005**). It is noted that future CPTED designs may require this approach to be reviewed.

Current lighting on the Golden Mile is illustrated in Figure 28.



Figure 28: Existing Golden Mile lighting plan

15.2 Street Cleaning, Landscape Maintenance and Refuse Collection Summary

The street cleaning and refuse collection regime for the Golden Mile is summarised in Table 22.

Table 22: Summary of services

Service	Frequency	Type of Vehicle
Footpath Sweeping	Nightly after 10pm	Footpath sweeper
Road sweeping	Nightly after 10pm	Road sweeper
Bin emptying	24 hour, 7 days a week	Compactor or small truck
CBD refuse	Once a week	Compactor and truck
CBD recycling	Once a week	Compactor and truck
Sump cleaning	Quarterly and bi-annually	Sump truck (night works)
Weed spraying	Monthly	Ute
Wet pavement cleaning	Weekly and monthly	Truck
Sand replacement	When needed	Truck
Street orderlies	25 hours, 7 days a week	Foot and small truck
Fouling	Reactive	Truck
Slot drains	Six monthly	Truck
Chewing gum removal	Six monthly	Truck (waterblasting unit)
Cleaning	Six monthly	Truck

Service	Frequency	Type of Vehicle
Loose litter pick	24 hours, 7 days a week	Foot and small truck
Graffiti Poster removal	24 hours, 7 days a week	Van
Furniture cleaning	24 hours, 7 days a week	Truck
Reactive tree issues	Reactive	Truck
Audits	Daily	Car
Pedestrian Shelter	Six monthly	Truck

15.3 Refuse Collection

CBD refuse collection is currently undertaken as follows:

- Refuse collection nightly 10pm – 7am
- Recycling every Tuesday Night 10pm – 7am
 - All recycling is placing into one bag, with glass separated.
 - Multi-Unit dwellings are not eligible to use recycling service, and
 - Commercial premises are not eligible to use the service.

The future of CBD refuse collection is likely to include:

- Waste / recycling will continue to be collected in the CBD
- Glass to be separated from other recycling (by colour) to avoid contamination and improve recycling rates, and
- Service vehicle access will be required on the Golden Mile after hours to remove waste / recycling.

Any new infrastructure provision should consider the following:

- Waste truck collection requirements, with a typical waste truck being a 21 tonne vehicle
- Provide clearly marked waste collection points that are located strategically to minimise walking distances from site to deposit, and
- Provide noise mitigation provisions, particularly associated with late night collection of glass.

It is noted that new multi-unit dwellings will have a requirement to provide private waste / recycling collection services.

16 GWRC Air Quality Monitoring Equipment

GWRC has five air quality monitoring tubes installed on WCC street poles, four of which are attached to GWRC owned flag tracks. Liaison with GWRC will be required for any proposals that could affect these monitoring sites, so arrangements can be made to remove the equipment before construction starts and permissions obtained for re-deployment of equipment. It is also noted that GWRC may wish to explore installing new air quality monitoring equipment.

Of particular note is GWRC's continuous air quality monitor station that is located at Bus Stop 5006 (Manners Street). This bus stop is a critical monitoring location. As such, any new location for this monitor in the Manners Street locality will need access to a power source.

17 Arboriculture Requirements

There are no WCC District Plan Heritage Trees located on the Golden Mile. For avoidance of doubt, WCC have advised that they consider a Heritage Tree to also be a Notable Tree.

WCC have a standard condition for working around trees on WCC land (i.e. regardless of whether they are a heritage or notable tree or not) as set out in Figure 29 below.

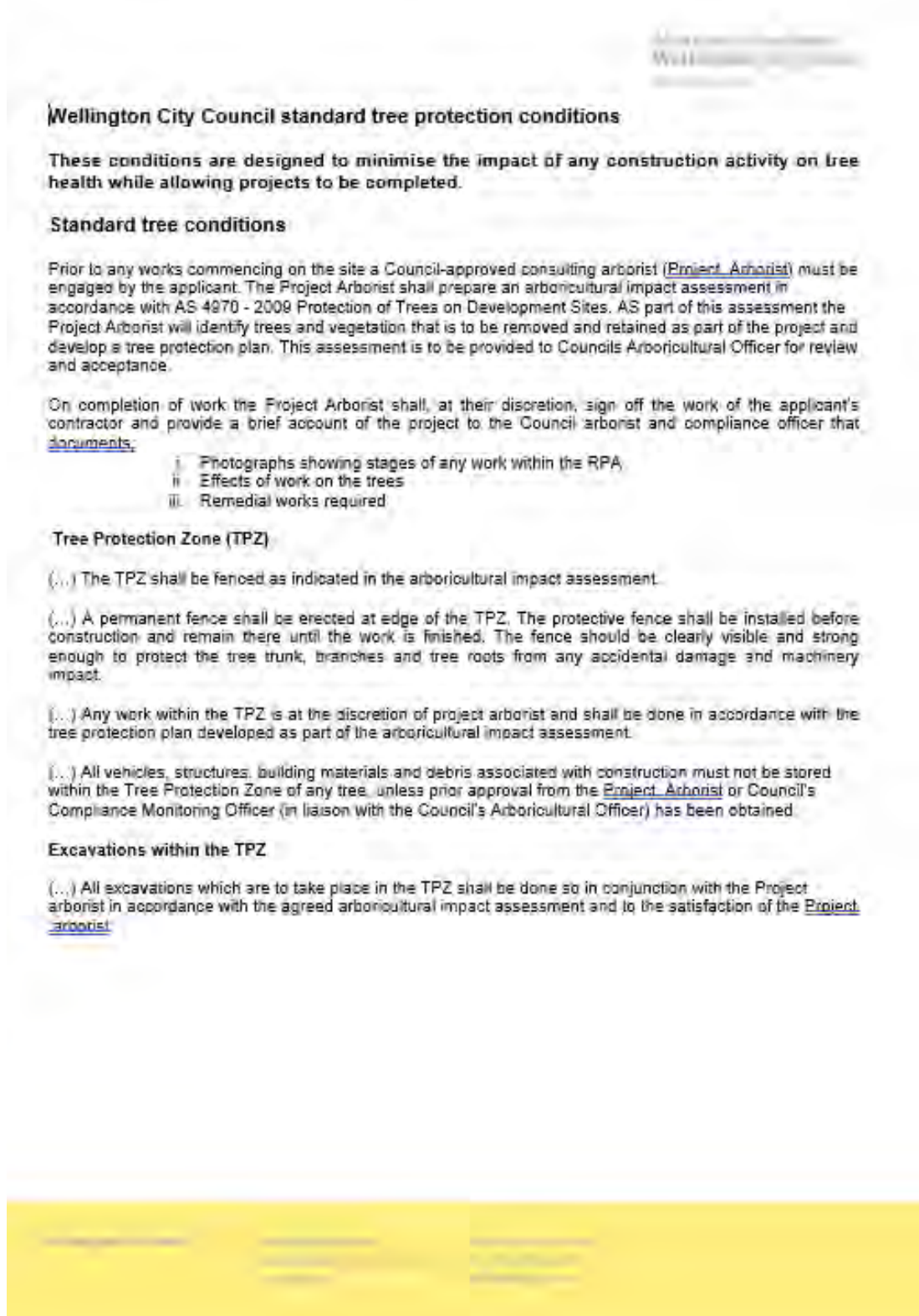


Figure 29: WCC's standard tree protection conditions

It is noted that WCC has a net tree cover canopy gain target of 15% increase over the next 20 years.

18 Heritage Areas

The Project is to be located within legal road (and there is no private property requirements). Nevertheless, the WCC District Plan has identified the following heritage areas that will need to be considered by Project Designers during the Detailed Design Phase:

- Parliamentary Precinct Heritage Area
- Stout Street Precinct Heritage Area
- BNZ / Head Office Heritage Area
- Cuba Street Heritage Area, and
- Courtenay Place Heritage Area.

19 Heritage Buildings

The Project is to be located within legal road (and there is no private property requirements). Nevertheless, the WCC District Plan has identified the following heritage buildings that will need to be considered by Project Designers during the Detailed Design Phase:

19.1 Lambton Quay

- Kelburn Chambers, 280 – 284 Lambton Quay, Constructed 1901 - 1901
- Kirkcaldie and Stains Department Store, 165-177 Lambton Quay, Constructed 1909 - 1909
- DIC Department Store (Former), 179 – 193 Lambton Quay, Constructed 1929 - 1929
- Whitcoulls Building (Former), 312 – 316 Lambton Quay, Constructed 1907 - 1908
- Public Trust Building, 131 – 135 Lambton Quay, Constructed 1909 - 1909
- Hamilton Chambers (Former), 199-201 Lambton Quay, Constructed 1928
- Old BNZ Building 1 and 2, Old Bank Arcade, 233-247 Lambton Quay Constructed 1899 - 1901
- State Insurance Building (Former), 143-149 Lambton Quay, Constructed 1940 - 1942
- Government Buildings, 15 Lambton Quay, Constructed 1876 - 1876
- Prudential Assurance Building, 332-340 Lambton Quay, Constructed 1934 - 1934
- CBA Building (Former), 328-330 Lambton Quay, Constructed 1936 - 1936
- South British Insurance Building (Former), 326 Lambton Quay, Constructed 1936 – 1936
- Australian Temperance and General Mutual Life Assurance Society (T&G) Building, 203 – 213 Lambton Quay (also 30 Grey Street), Constructed 1928 - 1928
- Equitable Building and Investment Co. Building, 360 Lambton Quay, Constructed 1887 - 1887
- Massey House, 126 - 132 Lambton Quay and 47 - 57 The Terrace, Constructed 1955 - 1957

- Fraser Statue, Old Government Building, 15 Lambton Quay, Constructed 1989
- MLC Building (Former), 231 Lambton Quay, Constructed 1939 - 1940
- Stewart Dawson's Corner, 366 Lambton Quay, Constructed 1900 - 1900
- Wellington Cenotaph, Cnr Bowen Street and Lambton Quay, Constructed 1929 – 1931

19.2 Willis Street

- Hibernian Building, 89 Willis Street, Constructed 1930 - 1930
- Hotel St George, 124 Willis Street, Constructed 1929 - 1930
- Dr Henry Pollen House, 122 Willis Street (corner of Boulcott Street), Constructed 1902 - 1902
- Commercial Building, 35 Willis Street, Constructed 1906
- Preston's Building, 92-96 Willis Street, Constructed 1902 - 1912
- Commercial Building, 99 Willis Street, Constructed 1920
- Macarthy Building, 50 – 52 Willis Street, Te Aro Wellington
- Evening Post Building (Former), 82 Willis Street, Constructed 1927 - 1928
- McDonald Building, 128 Willis Street, Constructed 1919 - 1920
- House, 81 Abel Smith Street (formerly 319 Willis Street), Constructed 1897
- Fletcher's Building (Former), 2-4 Willis Street, Constructed 1872 - 1872

19.3 Manners Street

- The Opera House, 109-117 Manners Street, Constructed 1911 - 1914
- Bank of New Zealand – Te Aro Branch, 79-85 Manners Street, cnr Cuba Street, Constructed 1912 - 1913
- James Smith Ltd Department Store (former), 49-65 Cuba Street & 93-97 Manners Street, Constructed 1907 - 1907
- Commercial Building, 88 Manners Street, Constructed 1900 - 1908
- Edwards' Building, 131 Manners Street, Te Aro Wellington
- Postal Box, Corner of Cuba Street and Manners Street (Manners Mall), Constructed 1879 - 1910

19.4 Courtenay Place

- National Bank Building, 49-53 Courtenay Place, Constructed 1928 - 1928
- Commercial Building, 120 – 126 Courtenay Place, Constructed 1904 – 1908
- Wellington Gas Company Building (Former), 60-64 Courtenay Place, Constructed 1898 – 1898
- Former Courtenay Place Men's Toilets, Archaeological site R27/453. Constructed 1910
- Historic Clock -Courtenay Place, Listed Heritage Object
- Te Aro Pa/ Te Aro Kainga, Located northeast from Te Aro Park and east of the Waimapihi Stream to the old shoreline at Wakefield St and east to Taranaki Street.
- Paramount Theatre, 25-29 Courtenay Place, Constructed 1917 - 1927

- Westpac Building, 10-12 Courtenay Place, Constructed 1936 - 1936
- Griffith's Building (Former), 31 - 39 Courtenay Place, Constructed 1917 - 1917
- Commercial Building, 30-36 Courtenay Place, Constructed 1900 - 1900
- Colonial Motor Company Building (former), 89 – 95 Courtenay Place, Constructed 1920 - 1986
- Men's Toilets (Former), Courtenay Place, Constructed 1910 - 1910
- Commercial Building, 11-13 Courtenay Place, Constructed 1911 - 1911
- St James Theatre, 77 – 81 Courtenay Place, Constructed 1912 - 1912
- Commercial Building, 24 - 26 Courtenay Place, Constructed 1895
- A & T Burt Ltd Building (Former)/ St James Theatre Foyer, 87 Courtenay Place, Constructed 1900
- Commercial Building, 14 - 16 Courtenay Place (corner Blair Street), Constructed 1905
- Hooson's Building (Former), 55 Courtenay Place, Constructed 1922 - 1922
- Harper's Corner (Former), 15-20 Cambridge Terrace (1 Courtenay Place), Constructed 1928
- Victory Buildings, 66 - 72 Courtenay Place, Constructed 1919
- Stewart's Building, 43 Courtenay Place, Constructed 1919 - 1919
- Newport Chambers, 48 Courtenay Place, Constructed 1930
- Commercial Building, 46 Courtenay Place, Constructed 1931
- Athenic Building, 45-47 Courtenay Place, Constructed 1922 - 1922
- Courtenay Chambers, 15 Courtenay Place, Constructed 1927 - 1927
- Commercial Building, 28 Courtenay Place, Constructed 1906
- Commercial Building, 41 Courtenay Place, Constructed 1909 - 1910
- Commercial Building, 18 - 22 Courtenay Place, Constructed 1907 – 1907

20 Selected Land Use Register

The Project is to be located within legal road (and there is no private property requirements). Nevertheless, the Greater Wellington Regional Council's Selected Land Use Register (SLUR) has a number of properties / sites registered that are located adjacent to the Golden Mile (and side streets) where Hazardous Activities and Industries List (HAIL) activities may have occurred. These sites are listed in Table 23 below.

Table 23: Private properties listed in the SLUR

Site Name	File No	HAIL Description
Serco National FM	SN/05/419/02	Chemical manufacture, application and bulk storage Storage tanks or drums for fuel, chemicals or liquid waste
15 Stout St	SN/05/413/02	
Midland Tower Company Ltd	SN/05/076/02	
Brandon Chambers	SN/05/293/02	
National Bank Building	SN/05/254/02	
ANZ Building	SN/05/278/02	
BNZ Centre	SN/05/246/02	
Majestic Tower	SN/05/415/02	
James Smiths Corner	SN/05/267/02	Vehicle refuelling, service and repair Service stations including retail or commercial refuelling facilities
Ex Courtenay Place Gasworks	SN/05/176/02	Chemical manufacture, application and bulk storage Gasworks including the manufacture of gas from coal or oil feedstocks
St James Theatre	SN/05/232/02	Vehicle refuelling, service and repair Service stations including retail or commercial refuelling facilities

The Project Designers will need to consider these sites further during the Detailed Design Phase.

21 Noise

It is noted that noise from construction, maintenance and demolition activities, including those associated with urgent repair of utilities to maintain continuity of service, on any site or on any road shall comply with Chapter 12 (Central City Rules) of the WCC District Plan, including been measured and assessed using the recommendations of NZS6803P:1984.

22 Preliminary Streetscape Design Planning

22.1 Current Form and Condition

The Golden Mile is predominately paved with clay pavers in a range of orange-brown tones, with areas of grey stone and exposed aggregate concrete introduced around seating and laneways, such as Grey Street, Press Hall and Lombard Lane. There is considerable variation in the condition of paving along the extent of the Golden Mile, with paving in Courtenay Place generally in comparatively poor condition relative to Willis Street or

Lambton Quay. There are areas of all streets that include a patchwork of different materials, particularly associated with underground services.

There is a range of fixed infrastructure in varying condition spread along the extent of the Golden Mile, including seating, bicycle storage, rubbish receptacles, bus shelters and information signage. In addition to the publicly maintained infrastructure, there is also a large amount of privately owned signage and advertising evident along the Golden Mile. Sections of the Golden Mile, such as Lambton Quay South, Willis Street and Manners Street feel cluttered with the prevalence of on-street infrastructure and signage, coupled with the relatively narrow pedestrian footways at these locations.

There is a recognition that the clay pavers in current use present a number of issues, including:

- Poor slip resistance when wet
- An unpopular aesthetic with the general public
- Installation constraints – with only two contractors available, and
- Short life span – in the order of seven years.

These issues must be balanced against the recognition that across the Golden Mile a complete replacement is a significant cost and maybe unnecessary to gain the best value from the investment in reallocating the street space.

Taking a strategic design approach will be key to ensuring that the corridor can be experienced as a series of sections that, whilst unique to the nature of each section as a place, has a set of common elements including paving, that unite the whole.

Consideration to a future which may look to transition away from the clay pavers over time as they need to be replaced should also be part of any implementation strategy.

22.2 Corridor Approach

As set out in **Appendix G** (Preliminary Streetscape Plan), a ‘signature project’ approach is proposed, which strategically applies the investments to several key places along the Golden Mile and touches more lightly the section in between. This approach responds to Golden Mile Vision 2036 which recognises the importance of place.

The key places are reflective of areas where there is typically more width available in street space that can support:

- People as PT customers – either waiting and/or moving to and from stops
- People in active walking or cycling modes
- People ‘dwelling’ or spending time supported by complimentary business activities, and
- Strategic street and connectivity initiatives to and from other parts of the city centre.

The key places are of sufficient scale as spaces to enable their expression of identity and a response to their context – that is, in both use during the day and night as well as natural, cultural heritage and built character.

As ‘signature’ places they can show a standard of design for LGWM projects that demonstrate the benefits of reallocating space to people and public transport.

There are three key places where a higher level of investment is proposed – these are around Midland Park (and adjacent bus stops), Mercer Street and the north east end of Courtenay Place. Other places, such as Te Aro Park are also contenders, but are out of scope for the Project and will therefore need to link with other WCC initiatives. The corridor approach is described further in Figure 30 below.

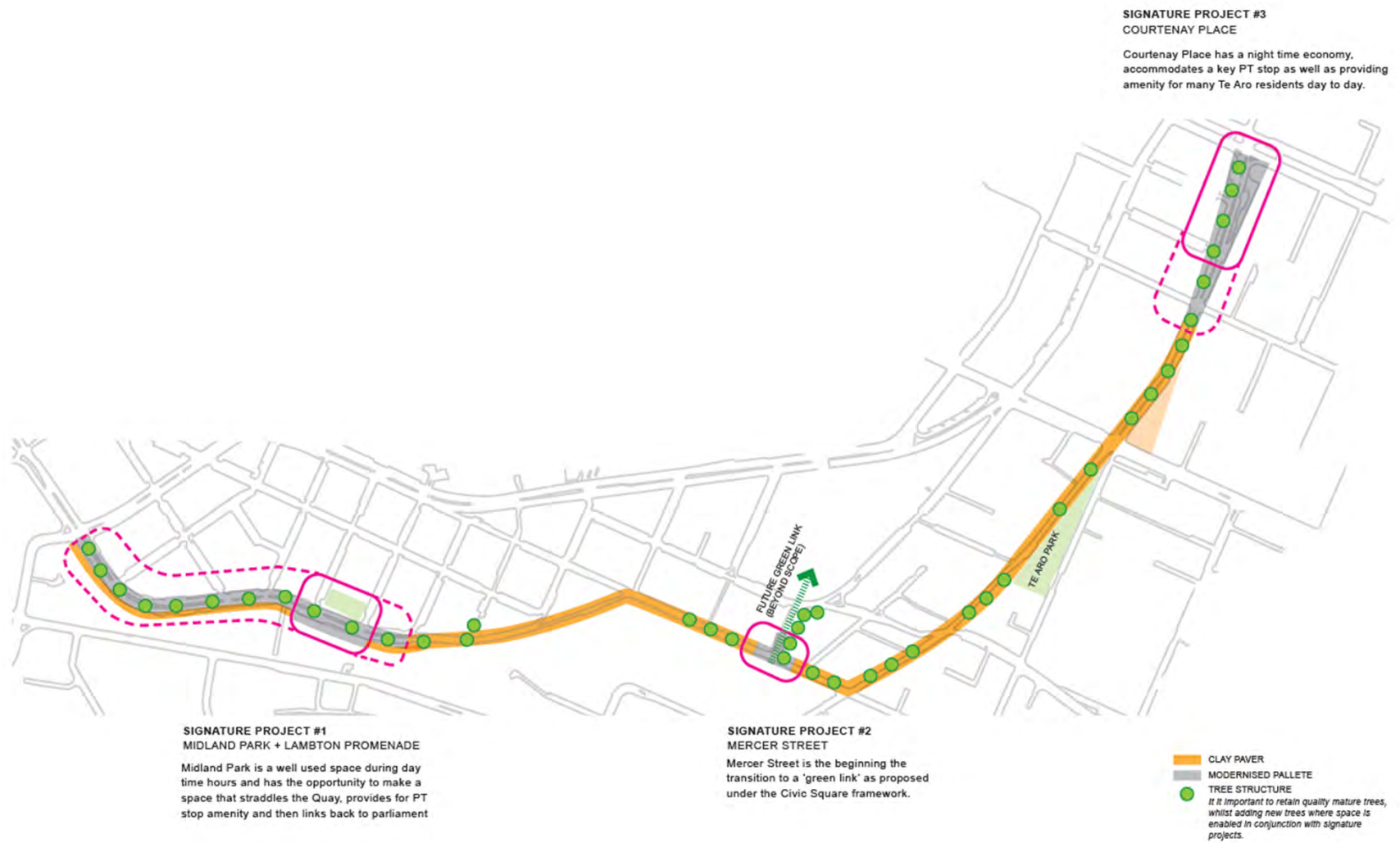


Figure 30: Golden Mile signature projects

22.3 Material Typologies

To inform the corridor strategy, different material typologies have been developed that explore different mixes of material, street furniture, planting and details that may be applied at a signature site and along the Golden Mile. These typologies have different costs and associated life spans and represent a strategy to apply a non-uniform distribution of costs and materials along the Golden Mile, with expenditure focused on key signature locations. These typologies are:

- Feature (Palette) Areas
- Modernised (Palette) Areas, and
- Typical (Palette) Areas.

Each typology represents a different design pallet that may be applied to specific locations on the Golden Mile.

These typologies are described further in Figure 31 to Figure 33 below.

FEATURE PALETTE

The highest cost option with bespoke elements, small areas of stone. Used in the highest profile areas.

INDICATIVE COST*	\$1500-2000m ²
INDICATIVE LIFESPAN	25 yrs (concrete) 50 yrs (stone)

EXAMPLE

Federal Street Stage 2 (Auckland)
70% concrete (high cost), 30% stone, bespoke furniture and greening



STONE PAVING

Approximately 30% area paved in granite or bluestone. Stone is a natural material that enhances in character as it ages. It is used in the highest quality spaces.

\$400-500m²



CONCRETE PAVING

Approximately 70% coverage in concrete pavers. Gold standard allows for a some variation in paving pattern unit sizes.

\$200-300m²



STREET FURNITURE, PLANTING AND DETAILS

More intricate planting, raingardens, bespoke street furniture and feature lighting



Federal Street took a transitional approach to introduce changes to road space allocation prior to physical works. This transitional cost would be additional.

Figure 31: Feature area material typology

MODERNISED PALETTE

A good quality paving surface that is simple and consistent, using a palette of materials that tie together a similar colour range (eg shades of grey or warmer tones). Lower cost surfacing such as asphalt can be used if well designed and thoughtfully integrated. Attention to detail is important, particularly investment into details such as edging, planting and street furniture that will lift the sense of quality, while saving cost through a simple ground surface treatment.



Figure 32: Modernised area material typology

INDICATIVE COST* \$800-1200m²

INDICATIVE LIFESPAN 25 yrs (concrete)
30yrs (asphalt)

CONCRETE PAVING

CONCRETE PAVING
Off-the-shelf pavers such as 400 x 200 x 80mm or 50 x 50 x 80mm sett units. (approx \$150-\$200m² supply and install). Indicative cost includes

Concrete units have a longer life span and require less maintenance than the clay paver. Potential to lay on flexible base course with 5% cement to bedding sand. Cement holds pavers in place for a smooth surface, while still allowing for sections to be lifted to gain access to services.

When trafficable, laid on concrete base.

ASPHALT

A fine grain mix to elevate above general road surfacing. Asphalt can be used to create a simple, recessive ground surface provided it is laid well and is well-maintained.

Surface provides a smooth surface for small wheels and good grip for cycles/scooters.

Easy to access services and affordable to relay. If lifted, it is important to relay in complete sections, which may be more than required to avoid patchy outcome.

STREET FURNITURE, PLANTING AND DETAILS

Simple materials framed well, eg steel edging, header paving, wide concrete kerb, infill manhole covers aligned with paving.

Raingardens with standard cost planting, off-the-shelf street furniture and lighting, minimal feature elements.

EXAMPLE

Whitianga Town Centre



EXISTING PALETTE

Provides for footpath extension including kerb realignment in a basic unit paver, clay or concrete. Asphalt can be used in areas to distribute cost effectively.

Generally this approach relates to the infill of car parks with kerb realignment or simple widening of the footpath.



INDICATIVE COST*	\$300-500m ²
INDICATIVE LIFESPAN	7 yrs (clay paver) 30 yrs (asphalt)

CLAY PAVER

Clay pavers on a flexible base as per existing. Current issues include poor slip resistance, short life span, poor public opinion of aesthetic and pavers coming loose causing a hazard.

ASPHALT

A fine grain mix to elevate above general road surfacing. Asphalt can be used to create a simple, recessive ground surface provided it is laid well and is well-maintained.

Surface provides a smooth surface for small wheels and good grip for cycles/scooters.

Easy to access services and affordable to relay. If lifted, it is important to relay in complete sections, which may be more than required to avoid patchy outcome.

FURNITURE AND DETAILS

Minimal allowance for street furniture, planting or non-standard details.

EXAMPLE

Current Golden Mile aesthetic



Figure 33: Typical area material typology

22.4 Cost Distribution Strategy

A possible application of different material typologies to the four primary segments of the Golden Mile is proposed in Figure 34 to Figure 37 below. This application will require further consideration during the Detail Design Phase.

It is recognised that it is highly unlikely that the current budget for the Project will enable all pedestrian surfaces along the Golden Mile to be repaved with the same material and / or palette. However, it is also recognised that there is opportunity for WCC to programme its further maintenance renewal programme to ensure that a consistent pavement palette is achieved across the Golden Mile over the long term.

An early priority activity for the Detailed Design Phase is to agree the pavement material and palette with LGWM. The following assessment criteria has been agreed with WCC to help guide future palette decision making processes when this phase commences:

- Accessibility and function:
 - Slip and trip risk
 - Ability to integrate with tactile features
 - Trafficability, and
 - Access to services – easy to pick-up and relay.
- Cost and Supply:
 - Whole of life cost
 - Carbon (both embodied and resulting from maintenance)
 - Reliable ongoing supply
 - Constructability, and
 - Supply and install costs (original capex costs).
- Aesthetic:
 - General look and feel including wear over time
 - Ability to reflect a sense of place and contribute to placemaking (texture, tone, material, choice within a family of units to create interest and define zones), and
 - Appropriate sense of quality.

To inform the above assessment, a case study investigation of where buses move through high-pedestrian areas and positive safety techniques that have been employed (rather than restrictive, such as fences) should be undertaken early in the Detailed Design Phase.

LAMBTON QUAY

Closing side streets enables the creation of a continuous pedestrian space on the east of Lambton Quay that allows for unobstructed pedestrian movement along the street. The level of intervention provides a good opportunity for an upgrade to aesthetic.

The streetscape surrounding Midland Park is a signature project, setting the public space within a high quality street environment that promotes pedestrian accessibility.

Where minor works are proposed, eg. in-fill of parking bays, continuation of the existing materiality is proposed.

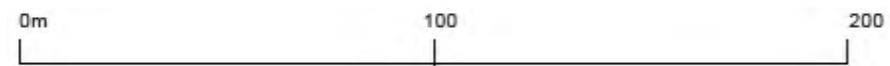
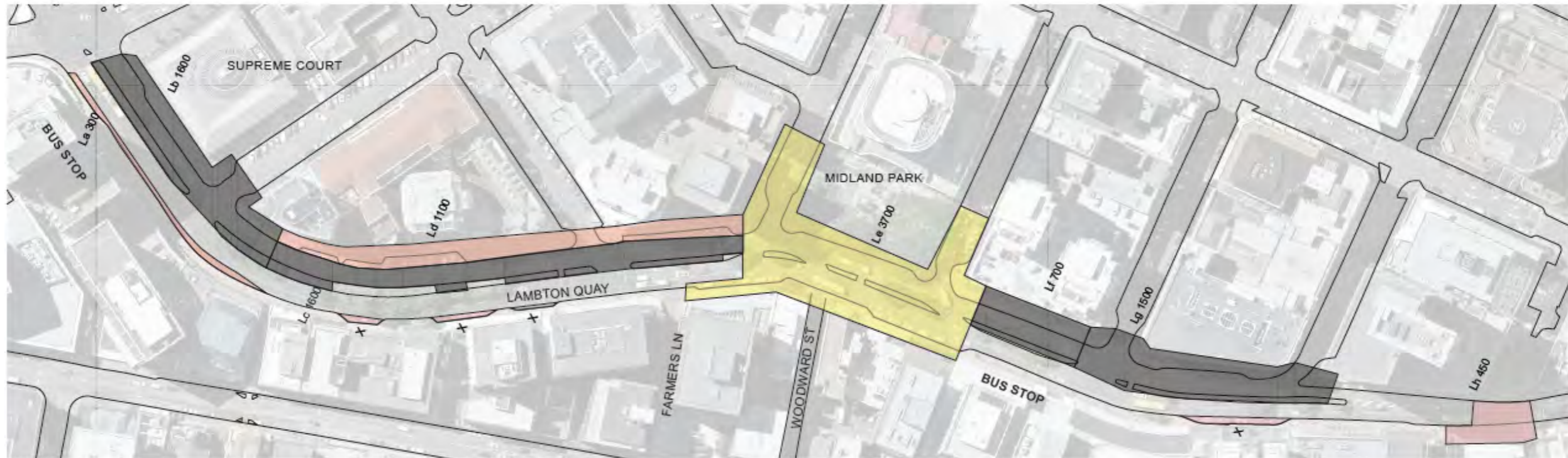


Figure 34: Lambton Quay cost distribution strategy

WILLIS STREET

Paving is generally in good condition and works are limited therefore footpath extensions are proposed to tie in with the existing aesthetic.

Mercer Street is a feature project, which in the future is hoped to extend from Press Hall to Te Ngakau Civic Sq. This project establishes the standard for future and provides amenity for public transport customers.

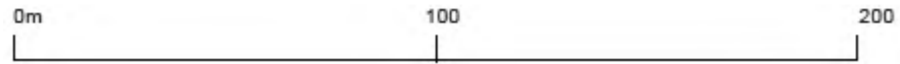
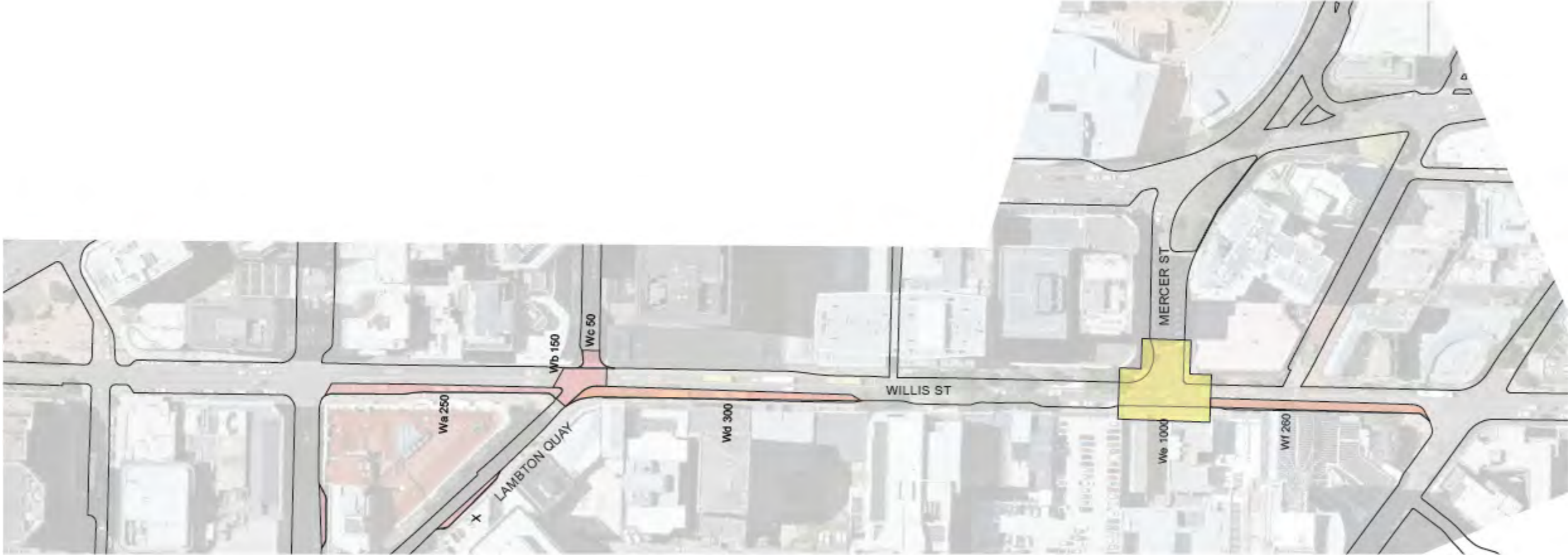


Figure 35: Willis Street cost distribution strategy

MANNERS STREET

Minimal changes are proposed to Manners St due to constrained width. Changes focus on improving the experience for people walking along the street.

When Te Aro Park comes up for renewal, the concept should integrate Manners St and Dixon St as a cohesive project. Te Aro Park is an area that needs to be improved, but it is not in the scope of the Golden Mile investment objectives.

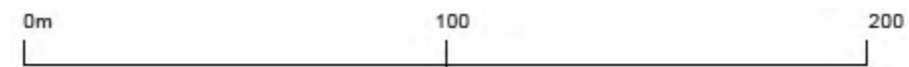
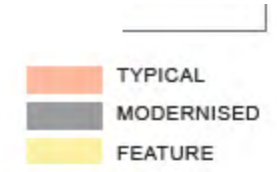


Figure 36: Manners Street cost distribution strategy

COURTENAY PLACE

Focus investment on the southern half of Courtenay Place as a signature project.

- TYPICAL
- MODERNISED
- FEATURE



Figure 37: Courtenay Place cost distribution strategy

23 Initial Crime Prevention through Environmental Design Planning

A high-level Crime Prevention through Environmental Design (CPTED) Strategy has been developed for the SSBC (see **Appendix H**) that sets out best practice CPTED principles to assist in the prevention of crime.

The Strategy is based on a desktop analysis and high-level review of the Project and known information. It draws on information from other work streams, such as the Social Effects Assessment undertaken for the MCA, and outlines how CPTED can assist in achieving the Project's vision and key objectives.

CPTED aims to create safe places and communities through the application of a range of principles, strategies and methods. There are three key interrelated factors that can create a 'safe place', which are as follows:

- The design of the environment
- Mechanical security (cameras, access control etc.), and
- Management (security teams, hours of operation etc).

CPTED's primary focus is the design of the environment, noting that security and management need to be considered in parallel to make a place truly safe.

The New Zealand National Guidelines for CPTED were established in 2005 as part of the Urban Design Protocol. The National Guidelines for CPTED establishes the key CPTED principles which include:

- Surveillance: people are present and can see what is going on
- Access management: methods are used to attract people and vehicles in some places and restrict them from others
- Territorial reinforcement: clear boundaries encourage community 'ownership' of the space, and
- Quality environments: good quality, well maintained places attract people and support surveillance.

The National Guidelines also define seven qualities that characterise well designed, safer places. These qualities broaden the view of CPTED to include additional factors which result in both good CPTED outcomes and a 'high-quality urban design'. These seven CPTED qualities include:

1. Access: Safe movement and connections. Places with well-defined routes, spaces and entrances that provide for convenient and safe movement without compromising security
2. Surveillances and sight lines: See and be seen. Places where all publicly accessible spaces are overlooked, and clear sight lines and good lighting provide maximum visibility
3. Layout: Clear and logical orientation. Places laid out to discourage crime, enhance perception of safety and help orientation and way-finding
4. Activity mix: Eyes on the street. Places where the level of human activity is appropriate to the location and creates a reduced risk of crime and sense of safety at all times by promoting a compatible mix of uses and increased use of public spaces
5. Sense of ownership: Showing a space is cared for. Places that promote a sense of ownership, respect, territorial responsibility and community

6. Quality environments: Well designed, managed and maintained environments. Places that provide a quality environment and are designed with management and maintenance in mind to discourage crime and promote community safety in the present and the future, and
7. Physical protection: Using active security measures. Places that include necessary, well designed security features and elements.

23.1 Current Crime Profile of the Golden Mile

The Golden Mile stretches through a significant cross-section of Wellingtons Central City. The neighbourhoods along the Golden Mile have different land-uses and characteristics, which results in a range of different challenges and risks in relation to crime and antisocial behaviour.

From a high-level review of the Police crime data, two key “hot-spots” have been identified as presenting elevated levels of crime. These two hot-spots coincide with two of the potential signature projects for the Golden Mile (i.e. Courtenay Place and Midland Park), presenting an opportunity to improve the risks relating to crime for these areas. Figure 38 below sets out the types of incidences that are occurring along the Golden Mile.

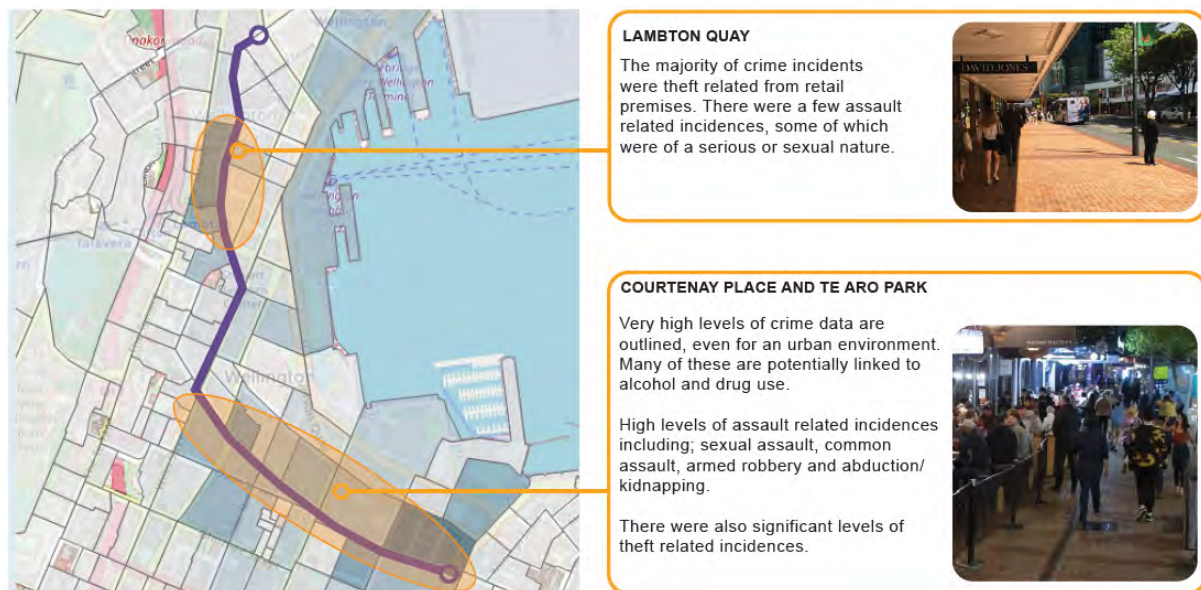


Figure 38: Crime hot-spots

23.2 Social Context Implications on CPTED

As discussed further in Section 24, a Social Effects Assessment has been prepared for the SSBC (see **Appendix I**). As discussed in this section, this assessment concluded overall that there were different needs for different user groups in order to achieve equitable social outcomes.

From a CPTED perspective, it is desirable to diversify the types of people who choose to spend time and move through the Golden Mile. A greater diversity of visitors encourages positive use of the public realm at different times of the day / night.

Many of the Social Effects Assessment findings focused on transportation related solutions, particularly for the traveller and ‘non-private motor vehicle users’ (Taxi, Uber etc). However, for the people who choose to live or spend time in the city, environmental factors and facilities become critically important to their social experience of the place.

23.3 Current CPTED Observations

A summary of the high-level CPTED observations has been prepared, based on a site visit and knowledge from the Project Design Team.

23.3.1 North Lambton – Parliament to Midland Park

This section of the corridor connects between Parliament and the popular Midland Park, the area is associated with the Government sector, corporate offices and retail. There is a scatter of cafes with a lunch-time focus. During business hours traffic is congested and slow. The footpaths are congested, and walking speeds are high. There are intermittent pedestrian connections to the Terrace, providing access to a concentration of high rise offices and apartments.

High-level CPTED observations include:

- There are few places to stop out of the flow of movement and rest. The space could be challenging for a range of people. Choice of movement is restricted – channelled along the footpaths. Street furniture and vehicle congestion impedes pedestrian desire lines across the street. Vehicle noise is loud and reduces comfort
- Customers waiting for the bus are often mixing with people walking due to a lack of dedicated, comfortable space
- There is a lack of activation / surveillance at night by businesses, however there is an emerging night-time economy on the adjacent Featherston Street. After hours there are few pedestrians, mostly passing through to the Wellington Station or apartments and nearby residential suburbs
- This area has potential to provide for more residential apartments in the future given the pressure on housing. The project should anticipate this and be designed in such a way that supports land use change and provides amenity for inner-city residents, and
- There is fair, but a dated environment, generally with good sight lines and reasonable lighting. At night it feels relatively safe when vehicle and pedestrian congestion is reduced, enabling clear sight lines and space to avoid people if desired.

23.3.2 South Lambton – Midland Park to Old bank Arcade

This section is similar to North Lambton, however the cross section tapers from four lanes to one and is 'bus only' in some areas. Land use is characterised by ground floor retail and high rise offices, hotels, apartments and a supermarket. There are late night venues accessed from laneways.

High-level CPTED observations include:

- Footpaths are crowded during the day due to high levels of pedestrian traffic and relatively narrow footpaths
- Footpaths are narrower and more cluttered with street furniture and bollards increasing risks of people bumping into each other and reducing accessibility
- Quality is degraded in places, but generally fair, albeit dated
- At night it feels relatively safe when vehicle and pedestrian congestion is reduced, enabling clear sight lines and choice of movement. Lighting is reasonable. The supermarket provides oversight and activity while foot traffic is generated from hotels and occasional bars, and
- There is low traffic at night, but there is generally someone around.

23.3.3 Willis and Manners Street

Willis Street is a narrow street with high pedestrian volumes. It is retail dominant with few businesses open after hours. There is pressure on bus stops with high volumes of customers, particularly in the evening peak.

High-level CPTED observations include:

- The northern half is reasonably clear of clutter, while the effective footpath width in the southern half is constrained by street furniture designed to deter informal crossing – there are minimal opportunities for respite. Pavement quality is good and well maintained
- Customers waiting for the bus are often mixing with people walking due to a lack of dedicated, comfortable space
- There are good sight lines and reasonable lighting. The supermarket provides eyes on the street until 10pm. After this time, there is no business activation and with occasional pedestrians passing through, and
- It is unlikely that this street will support a night time economy given the strong retail presence.

23.3.4 Te Aro Park

This area is not considered to be within scope of the Project. It is noted however that concern has been expressed with its poor performance as a public space.

23.3.5 Courtenay Place

This area is the primary night-life destination in Wellington with bars dominating the eastern side of the street and takeaway / food focused to the west. During the day many businesses are closed. There are high numbers of pedestrians commuting in the morning and evening, with some lunch time activity. The street transforms on the weekend when bars are full and footpaths are heavily congested. The area has well-documented issues with crime, violence, sexual violence and antisocial behaviour, which is perceived to have increased in recent years, particularly during the day.

High-level CPTED observations include:

- Environmental quality is poor with empty shop fronts, low quality streetscape, dated aesthetic and noticeable graffiti / damage. Street furniture, low walls and vegetation restricts sight lines and choice of movement
- Bars extend trading area onto the footpath, which is generally well defined, although there are issues with passing alcohol in from the street
- Footpaths are heavily congested at night causing friction between people and inability to avoid contact with people when feeling unsafe. While some enjoy the atmosphere, others may feel uncomfortable due to sensory aggravation and inability to move through while retaining personal space
- There is a trial to use the service lane as a taxi stand, which is reported to be working well in the current street configuration
- The street is under-utilised in the day, particularly at the southern end
- Side streets are well activated and level, however full of parked cars restricting surveillance
- Te Aro has a rapidly increasing residential population, mostly in apartments. Transitional and temporary housing has been developed recently. Noticeable presence of homeless people, which can feel threatening to some people

- Noisy traffic during the day reduces levels of pedestrian comfort
- Lack of activation during the day due to dominance of bars only open at night, creating an uncomfortable pedestrian environment by day
- Significant levels of commuter traffic at peak times during the day and into the evening. People are moving through, but not lingering for legitimate uses
- After 10pm on weekends Courtenay Place experiences over-crowding, high-levels of intoxication and significant levels of physical and sexual violence. There is a perception that this area is not safe at night, this is supported by local crime statistics, and
- Conflicts between Uber, buses and taxis can occur at night.

23.4 High Level CPTED Considerations and Recommendations

23.4.1 All Streets

- Wide, clear footpath environments to provide space for people to choose how they move without conflict or pressure. Simplify and dedicate space for street furniture, vegetation and waiting spaces for transport facilities to provide sufficient effective footpath width and sight-lines up and down the street
- People feel safer in places that are well occupied and have a good level of sober oversight. Amenity is also a basic requirement of a successful public space, there needs to be a balance of movement and pause spaces with elements such as seats, planting, feature lighting, playful elements
- It is important that people feel that they are legitimately welcome, particularly youth, and even if they are not spending money. This encourages a sense of ownership and belonging and is a positive influence on behaviour, with a universal design approach to encourage use by the whole community
- Well considered design is needed to integrate different modal movement zones. Environmental cues have a stronger influence on behaviour than control measures, so design to encourage considerate interaction between users is important
- At points of interaction between modes, design for the most vulnerable user
- Express a unique sense of place that reflects local culture to increase sense of ownership, pride and belonging, and encourage respectful behaviour
- Allow for practical servicing for business and residential activity, and
- Encourage businesses to create positive edges and activate the street.

23.4.2 North Lambton – Parliament to Midland Park

- Changes to the cross section are positive, particularly the reduction in traffic, dedicated space for bus customers, provision for active modes, welcoming dwelling space and wide clear footpaths. The ability for people to follow desire lines is supported
- Removal of traffic could reduce passive surveillance at night, some vehicle access, particularly servicing is positive. Frequent side streets support taxi use
- Care will be required when integrating cyclists into the pedestrian realm. Encourage slow speeds and consideration towards pedestrians as the most vulnerable user, and
- The space will be a more desirable place to spend time - this should support businesses to diversify and cater to the large working population at lunch and after work, as well as inner city residents.

23.4.3 South Lambton – Midland Park to Old Bank Arcade

- Decluttering and opening up the space for pedestrian movement is beneficial - supporting accessibility, clear sight lines, choice of movement and comfort
- Reduced vehicle traffic makes a more relaxing atmosphere. Provide opportunities for respite at the end of streets which have been closed if space is not available in the cross-section
- Dedicated space for bus customers to wait is an improvement, and
- Some vehicle access at night is encouraged, at least for service vehicles as side streets provide regular opportunities for taxi/uber access.

23.4.4 Willis and Manners Streets

- Due to the narrow cross-section, changes are minimal. Footpaths should be as clear and as wide as possible to relieve pedestrian congestion. The provision of dedicated space for bus customers to wait is positive, aligning with the natural location to wait, improving accessibility for both people using the bus or on foot
- Closing access to Cuba and Mercer Streets will have a significant impact, allowing respite that is clear of movement, businesses to activate space, and active travel connections to the waterfront. Lighting, quality and amenity will be important in this area, and
- After business hours, some vehicle access would be beneficial to provide natural surveillance. Taxi access should be considered (not necessarily on these streets) to support Cuba Street and popular late-night laneways.

23.4.5 Te Aro Park

- There are significant, well recognised CPTED concerns with this space, and there are opportunities to align the Project and the work of the Pōneke Promise (which seeks to improve the social and physical environment in the precinct), and
- Any future project should seek to integrate from building edge to building edge and include surrounding laneways. Removal of parking from Dixon Street between Cuba and Courtenay Place could be beneficial to promote better integration of Dixon Street businesses with the space, opportunities to spill out, and create a sense of custodianship.

23.4.6 Courtenay Place

- This area has historically been a destination for additional forms of entertainment (theatre, movies, dining etc.), which are less focused on alcohol. It would be beneficial to encourage more diverse activity in the future, as well as community services to support the rapidly growing residential population
- This area requires community services for the increasing residential population. Collaboration with the Pōneke Promise team in regard to this is encouraged
- Encourage collaborative management of licensed premises, such as the Alcohol Accord Association in Christchurch
- The footpath widening reduces crowding and provides space for people to move around each other. Align street furniture, trees, lighting and transport facilities to retain sufficient pedestrian effective width and sight-lines up and down the street
- Providing a space where people can move faster than pedestrians on scooters and cycles is positive for the pedestrian experience. Care needs to be taken through design to promote considerate behaviour from all users

- Define liquor licensing areas with restaurant partitions, creating a clear, continuous edge to the movement corridor to support accessibility
- Encourage active engagement at the built edge to provide sober passive surveillance, supporting diversification of businesses
- Well-considered provision of street trees and furniture will provide amenity and promote a sense of belonging for inner city residents and the general public
- Establish clear access management for servicing and unsafe environments, and
- Allow safe tax/uber access, at least to pick-up drop off. Take care not to cause people to walk too far to access these services, separating people from their group. Ensure there is good business oversight in these locations and co locate taxi areas with late night support services. A focus on improving public transportation for late night trips should be a long-term goal to provide travel options.

23.5 Establishing CPTED Goals

For the Project to be truly successful and promote a safe, healthy environment for all users, the following project-wide CPTED goals are recommended (these goals align with the Project's vision and objectives and the CPTED National Guidelines).

23.5.1 Access

Promote safe and efficient access for all people and modes of transportation (with a particular focus on active modes), including:

- Promote instinctive way-finding within the public realm which is clear and logical
- Safe movement and connections for both public and active transportation modes, and
- Comfortable and safe environments for resting and waiting, which are well overlooked and supported by facilities.

23.5.2 Amenity

High levels of amenity are essential to this Project and not just a 'nice to have'. Amenity creates environments where people want to be and promotes activation / surveillance. It creates a quality environment to deter people damaging or disrespecting the place, including:

- Create a place that reflects the community to help to foster a sense of ownership to maintain its quality
- Well designed, managed and maintained environments
- High-quality, durable and robust materials, and
- Creation of places with interest and intrigue.

23.5.3 Vibrant and Prosperous (and Reflecting of Place)

Create a place which reflects Wellington and it's people. This will attract a diverse range of people to spend time in the Golden Mile for positive social experiences, not just to travel through. A diverse range of people reduces risk of antisocial behaviour:

- Engage with the local community to create a place which reflects uniquely Wellington. Encourage an engaging place to gain a sense of ownership
- Create and encourage places for people to dwell, linger and feel part of the city, and
- Reflect needs of all members of the community, including mobility impaired, youth and family.

23.5.4 Inclusive and Connected

Create places for positive social experiences and interactions. Ensure the needs of all users are met and the design fosters the ease of living and working along the Golden Mile, including:

- Provide the required facilities for the different users
- Allow ease of loading, servicing and deliveries - get the practicalities right for residents and businesses, and
- Promote places for people to meet and greet, getting to know the neighbours can reinforce CPTED principles.

23.5.5 Surveillance

Achieving high-levels of surveillance throughout the Golden Mile by encouraging activation and facilitating clear views:

- Clear sight lines between building frontages
- Minimise clutter within the public realm (poles etc.)
- Promote complimentary and diverse land-uses to create activation/surveillance at different times of the day and night
- Welcoming warm, white light to all areas to promote a feeling of well-being at night and to ensure no dark-spots, and
- Eliminate entrapment areas.

23.5.6 Diversity of Activity

It is acknowledged that the scope of the Project is not to change land-uses. However, creation of a high-quality environment will encourage complementary and diverse land use activities during the day and night, including:

- Create a high-quality environment to attract complimentary diverse land uses. This will assist with activating a place providing surveillance and a positive environment, and
- The public realm reflects the diversity of users within the central city.

23.5.7 Well Managed

To create a safe environment, other techniques which support CPTED principles are required. Effective management of a place and formal security techniques are required in some locations, including:

- Use active security measures to prevent access to areas where it is not safe/appropriate for public access (e.g. servicing areas)
- Use access-control to prevent access to areas where it is not safe/appropriate for public access, and
- Collaborative approaches to management of the Golden Mile with key stakeholders.

24 Social Effects

As noted above, a social effects assessment for the Project has been undertaken (see Appendix I). This assessment built on the initial MCA assessment, and considered how a further developed preferred option could address social and distributional effects based on updated information.

The updated assessment also identified specific issues and recommendations for consideration in the detailed design phase (indicated ***in bolded italics***).

The purpose of the social effects assessment was to consider:

- The effect on equitable access to social and economic opportunities such as employment, retail, health and cultural opportunities. For the purposes of this assessment, 'equitable access' needs to consider different sectors of society including mobility impaired, income groups, age groups, etc. 'Access' needs to consider changes in the number and location of mobility parks, bicycle parks, motorcycle parks, public on-street car parks, public off-street car parks, bus stop locations, and
- The effect on social connectedness.

24.1 Recap on Key Assessment Assumptions and Criteria

To recap, during the MCA process, several key factors were identified by an expert panel and via the public submission process as potentially affecting the level of social impact from changes to the Golden Mile. Considerations included the extent to which the different options were expected to provide:

- A variety of public spaces that meet the diverse needs for people to gather (e.g. that meet the needs of youth)
- Space for appropriate amenities to be provided and for people to be able to move freely and safely
- Reliable travel times for through travellers
- For active transport mode users to move safely, have connection to networks, and have access to active transport facilities such as bike parks in the right places, and
- Public transport users have reliable travel times and easy access to bus stops within the Golden Mile.

Based on the above, the following target groups and their needs were considered for equity implications:

- Youth
- Family groups
- Mobility impaired (disabled, impaired, challenged)
- Inner city residents, particularly those in affordable housing
- Non- PMV users, and
- Travellers to hospital, university, airport destinations beyond the CBD.

Evaluation outcomes

Commonalities

The MCA assessment identified the following needs as common to all groups:

- Increased public transport reliability
- More space for public realm
- Improved pedestrian level of service, and
- Separation between modes and speeds.

24.2 Specific common implications of the Preferred Option

The preferred option provides capacity to enhance social connectedness for Wellingtonians generally, and for users and residents of the Golden Mile. Extra space means greater opportunity to provide space for place-making and stationary and

temporary activities in selected locations such as Mercer Street. Such spaces can be used by visitors to the Golden Mile, workers and residents wanting time relaxing alongside others, and all those wanting to spend time in a public setting safely and comfortably. Shared public spaces such as these contribute to social connectedness by helping Wellingtonians engage with the Golden Mile as a place they belong to, and for them to engage socially in casual but significant ways with other Wellingtonians (and their inner city neighbours).

WCC's Te Māhara Strategy to ending homelessness can be supported through the preferred option by making streets and civic spaces safer, clean and accessible for vulnerable residents, providing better places for them to engage with positively with their community and those that support them.

The preferred option can help the Pōneke Promise through:

- Using available space for multiple functions over using increased amount of pedestrian space to provide an improved and safer urban realm through streetscape, lighting, street furniture and so on
- Reducing congestion and clumping of pedestrians by giving more space for people to move and mingle in safety and comfort. This includes additional space on Courtenay Place and on side streets
- Provide safer opportunities for pedestrians to move across Courtenay Place
- Reduced the severance across Courtenay Place that comes from traffic volumes and noise
- Targeted sites and improved facilities for taxi and rideshare pick-ups and drop-offs nearby to hospitality and entertainment venues, as well as the proposed youth and community hubs. **The convenience of customers being able to easily access taxis and rideshares all along Courtenay Place in the busy night period will need to be balanced with the potential severance and safety risks from high volumes of taxis and rideshares travelling along Courtenay Place.**

Using available space for multiple functions over the day and week will allow more equitable use of space rather than sectioning it off for movement and / or retail activities.

24.3 Target group specific implications for the Preferred Option

The preferred option's implications for the targeted groups are set out in Table 24.

Table 24: Social effects assessment

Groups	Updated Revisions and Implications
Youth	<ul style="list-style-type: none"> • The preferred option aligns with the following youth sustainability values (as identified in the 2020 submissions): <ul style="list-style-type: none"> • Reduced reliance by youth on PMVs to come into and move through the Golden Mile will reduce the financial cost of mobility for youth who are often on low incomes. Low cost modes such as walking and cycling will be more efficient, affordable and safer than PMV options • Increased priority for walking and slow-moving modes throughout the Golden Mile • Cycle lanes along lower Lambton Quay and Courtenay Place will allow connectivity through the city centre and entertainment areas by cycle, providing youth with viable alternatives to driving and normalising active modes, and • Retaining north-bound cycle access on Willis street will at least maintain existing key routes from the southern hill suburbs, albeit with considerable safety trade-offs. <i>The only viable northbound route on Willis Street is for the very confident and able cyclist - discouraging more safety conscious riders (often women) which excludes rather than includes diverse riders</i> • Opportunities identified (through submissions) included: <ul style="list-style-type: none"> • Reflect local cultures in the urban realm through increased number of spaces that can be used for place-making • Allow for water sensitive design in rainwater runoff treatments and planting in new developments • Use of sustainable materials in redeveloped areas such as pavements • Improvements to Courtenay Place urban realm and night-time transport options will <ul style="list-style-type: none"> - Increase the range of safe and affordable transport options for youth to engage in the night-time economy and participate in the night-time workforce - Help Courtenay Place to develop as a more inclusive place where youth and young women feel they belong at any time of the day and night (and other groups who currently are marginalised by unsafe behaviours and practices), and - Option 3 provides the opportunity to design places and movement paths that young women can occupy comfortably, for example ensuring alignment to entrances, visible escape routes, and well connected to bus stops and other modes.

Groups	Updated Revisions and Implications
<p>Mobility impaired users and family groups:</p>	<p>Substantial increases in non-vehicle space is a key characteristic of the preferred option. Use of the additional space has been determined by a movement hierarchy, with the slowest movers being given the highest priority on footpaths. The planned changes will benefit all users by:</p> <ul style="list-style-type: none"> • Allowing more space for users moving at different speeds to be comfortably separated. For example, people with mobility impairments and / or family groups will be able to safely move along Lambton Quay at their preferred pace while faster walkers and those on faster wheels (scooters) and cycles can move along beside without challenging or endangering them • Clear demarcation of slower and faster zones of the shared movement space will help provide clarity about how the space can be safely shared • The operation of the movement hierarchy at intersections such as Panama Street and Lambton Quay means that pedestrian movements are prioritised over faster moving cycling and scooter movements. This will help facilitate more continuous and safer journeys for the highest priority slow movers • Street crossing distances will be reduced as the carriageway becomes narrower, reducing severance and making it easier and less effortful for mobility impaired users to move backwards and forwards across the Golden Mile • Blocking side street crossings and raising the pavement will allow for more continuous journeys along the eastern side of Lambton Quay for all pedestrians • Side streets and wider pavements will allow for more space for people to stop, wait and rest without disrupting other movements. This will help foster a more inclusive environment that allows people and groups to engage in the Golden Mile at their own pace and style • The combination of more footpath width and a more continuous path will meet the differing needs of users over the day and week. During peak commute times it will be easier for greater volumes of commute walkers to walk at different speeds. At other times there will be more space for recreational users and shoppers who want to move at a more leisurely pace, often with others, and • The restriction of short-stay parking in side streets provides the opportunity to provide more and/or improved locations for mobility parking that is close to desired locations on and around the Golden Mile. This will support the objective to support access for all, including those who cannot use active and public transport.
<p>Inner city residents</p>	<p>Changes to movement priorities and parking in the side streets has two implications for inner city residents. Firstly, stopping vehicle thoroughfare between side streets and Lambton Quay will provide the opportunity to increase the space available for place-making. WCC have identified the need for more public places to improve the liveability of the CBD for increasing numbers of inner-city residents. Identifying particular street intersections (such as Grey Street/Lambton Quay) as 'place streets' will allow their development into civic spaces with 'Third Place' qualities of belonging, develop amenity for play (for all ages), and spaces for pop-up style events.</p> <p>Secondly, moving parking in side streets to an emphasis on quick pick-up / drop off plus permitted / special parking in side streets is likely to reduce the</p>

Groups	Updated Revisions and Implications
	<p>competition with retail parking. With management, it could mean that the services needed to support inner city living (such as food delivery and home care) are able to park nearby.</p>
<p>Non-PMV users</p>	<p>For people who travel to the Golden Mile using non PMV modes, the preferred option provides improved journeys by walking and public transport, and to a large extent, cycling. This includes:</p> <ul style="list-style-type: none"> • More efficient and effective public and active transport journeys will increase the range of viable options open to people wanting to come to the Golden Mile • Improved pedestrian level of service will make journeys by foot or slow mobility more efficient and comfortable • Cycling connections between the rest of the cycling network and Lambton Quay and Courtenay Place will improve northbound access & journeys by cycle to and within the CBD. As noted elsewhere, northbound access via Willis Street will still be restricted to confident riders until alternative routes north can be provided, and • The increased space will provide more opportunities to provide high quality and secure cycle and scooter parking and infrastructure. Having secure facilities in well-lit places close to the entertainment and hospitality on Courtenay Place would encourage the use of active modes to participate in the night-time economy.
<p>Travellers to hospital, university, airport destinations beyond the CBD:</p>	<p>The increased reliability, comfort, and safety of public transport and walking routes through the Golden Mile will enhance journeys for those needing to travel through to other destinations and reduce reliance on PMVs.</p> <p>Journeys by cycle between the southern suburbs and northern destinations will still rely on slower, more congested routes along the waterfront or through sections of the Golden Mile on shared movement spaces.</p>

25 Environmental and Climate Change Review

A climate change risk and adaptation assessment (CCRAA) is attached as **Appendix J**. It is not a detailed assessment of risk and adaptation of the proposed changes to be implemented by the preferred option. Rather, it is a high-level screening intended to guide the future detailed design and improve the resilience of the final design and its delivery. That is, as design progresses and more detail becomes available the climate change risk profile will change in response to design changes and in response to risk mitigation and treatment that is incorporated.

The CCRAA has highlighted and projected relevant risks and consequences that can be expected for 2040 and 2090 for the RCP 4.5 and RCP 8.5 (business as usual). These scenarios were chosen because it is considered best practice to assess against the worst-case emissions scenario (RCP8.5) and the mid emissions scenario (RCP 4.5). These scenarios were also selected to be consistent with the requirements of the Waka Kotahi Interim Climate Change Policy.

Both 2040 and 2090 time periods were chosen because 2040 is the average between 2031-2050, and 2090 the average between 2081-2100. The design life of the Project elements is assumed to be 2060.

25.1 Wellington Climate Projections

The projected climate change extremes for Wellington City under business-as-usual scenarios from NIWA²³ shows:

- Sea level rise and storm inundation: threatening low-lying areas of Wellington's central city – affecting public and private infrastructure and buildings
- Increases in mean temperature up to 1°C by 2040, and 2.5°C by 2090 under business as usual scenarios
- Longer dry spells and shorter wet spells: placing increasing pressure on water resources
- Increased rainfall during extreme rainfall events: placing more pressure on urban water infrastructure and impacting homes and transport networks
- Increases in windy days
- Risks to biodiversity due to habitat changes and sea level rise, and
- Establishment of new exotic pests, weeds and diseases because of changes to temperature (air and water) and rainfall patterns.

25.2 Climate Projections

The assessment identified the following as the most relevant climate change projections for the central city area:

- Increase in average and maximum temperature and number of hot days ☀
- Increase in dry days and drought 🔥
- Increase in average rainfall and rainfall intensity 💧

²³ See: <https://wellington.govt.nz/-/media/environment-and-sustainability/environment/files/te-atakura-first-zero-implementation-plan.pdf?la=en&hash=40CA389336FB7613E986AE6D878F6F4D2FA522A0>. See also: www.gw.govt.nz/assets/Climate-change/Climate-Change-and-Variability-report-Wlqtn-Regn-High-Res-with-Appendix.pdf

- Increases in windy days, and ☔
- Sea level rise and inundation 🌊

Mapping of key climate change hotspots have been created or adopted where readily available, highlighting areas that will require consideration for implementing the climate opportunities and ensuring the design mitigations within Table 25 below, occur. These maps (see **Appendix J**) cover:

- Sea level rise an storm surge²⁴
- Heat intensity and duration, based on Wellingtons existing summer solstice, and
- Wind hot spots, based on wind experts known areas of existing wind mitigation hot spot areas.

25.3 Golden Mile Climate Risks and Mitigations

Table 25 below provides a summary of the key mitigations included in the SSBC, and the opportunities for further mitigation in detailed design.

Table 25 Summary of current design mitigations and future

Design Element	Climate Risks	Design Mitigations	Opportunities
Widened Footpaths	☔ ☀️ ☔	<p>Increase in slip resistant pavement options e.g. concrete pavers.</p> <p>Retention of awnings and tree canopy coverage and increased in overall tree canopy. Allows for shade over walking and waiting / dwelling areas (such as trees or otherwise), in warmer months, however, allow for sun to filter through in the colder months.</p>	<p>Opportunity: Consider shelters and wind breaks too shelter from localised wind. Additionally, encourage shops to provide treatment for outside dining to increase shelter throughout the network.</p> <p>Localised screens/shelters would be beneficial at windy intersections, to shelter pedestrians waiting to cross the intersections.</p> <p>Side streets intersections that become pedestrian areas could be landscaped to minimise wind flowing into the main pedestrian route.</p>
Bike Lanes	☔ ☀️ ☔	<p>Bikers utilizing carriageway / asphalt pavement for the majority reduces risk of slippage.</p> <p>Tree canopy coverage over portions of the route will allow some heat relief and rain avoidance.</p>	<p>Places to store bikes and e-scooters that are sheltered and secure.</p>
Bus Lanes & Bus Stops	☔ ☀️ ☔	<p>Additional enclosed bus stops provided along the route allowing for shelter from wind, rain and sun.</p>	<p>Shelter between bus stops and the active transport areas.</p>

²⁴ See: [GWRC Sea Level Rise Models](#)

Design Element	Climate Risks	Design Mitigations	Opportunities
Pavement, drainage infrastructure		<p>Seasonal maintenance works of manual labour to replace tiles reduced due to long life of all pavers excluding clay; and paved style allows for maintenance to be completed in sections reducing exposure and stress on works.</p> <p>Increase in permeable surfaces and drainage away from key user areas.</p> <p>Materials selection and design suitable for subsurface drainage to mitigate long-term risk of flood damage and consequential pavement failure.</p> <p>Increase in tree canopy will assist in reducing heat stress on pavements.</p>	Innovating streets approach – painted asphalt to increase reflective pavement surface and reduce heat stress.
Street Planting – Rain Gardens & Tree Pits		<p>Planting species that are coastal and native will be resilient to salt water, drought, and heavy water / inundation. No irrigation required after installation period.</p> <p>Retention and detention included within tree pits and raingardens reduce risk of flooding and provide slow release water for the plants.</p>	Low maintenance planting to reduce maintenance requirements.
Street Furniture		<p>Installing furniture that drains away and made of durable materials e.g. steel and timber.</p> <p>Easily accessible bin locations to reduce rubbish clogging drains.</p>	<p>Increased Collection of rainwater e.g. grey-water / non-potable utilization for toilets along Courtenay Place, and to allow maintenance to be self-sufficient.</p> <p>Easily accessible bin locations to include recycling and compost options.</p> <p>Provision of water fountains for humans and dogs within shaded.</p>

25.4 Recommended Next Steps

The CCRAA recommendations for the detailed design phase include:

- Integrate climate risks within the wider project risk assessment and management system to ensure the CCRAA is reviewed at appropriate intervals and risk and mitigation owners are accountable
- Continue exploring and integrating climate change mitigation measures and opportunities throughout all project phases
- Use the CCRAA as a tracking register to ensure the suitability of mitigation opportunities are ascertained and they are included in the design as appropriate
- The wind, solar and sea level rise hotspots that are mapped along the Golden Mile are used to define design constraints and opportunities in those locations, and

- The CCRAA is used to inform whole-of-life maintenance and cost assumptions ensuring they are appropriate and account for climate projections, risks, mitigations and opportunities.

25.5 Golden Mile: Carbon Zero Appraisal – Carbon Emission Assessment

To establish a climate resilient transport network, whole-of-life carbon emissions associated with projects and programmes needs to be understood from an early stage. Understanding the whole-of-life carbon impact and climate risks of the concept design enables the design process to reduce emissions and climate resilience through the Project’s detailed design and delivery phases.

The Carbon Emission Assessment (see Appendix J) includes an assessment of the capital construction, maintenance embodied carbon and user emissions. It is intended to be used as a base case to benchmark and to be improved upon throughout concept design, detailed design, and delivery. The key next steps recommended by the Assessment are set out below.

25.5.1 Low Carbon Optioneering

To reduce emissions in the next Project phases, the Project should be aligned with the PAS 2050:2011 carbon emissions reduction hierarchy²⁵. A workshop for low-carbon design should be completed at the beginning of the next project phase to identify opportunities, quantify the expected emission reductions, and the financial cost differential of each initiative. This will help the Project to calculate and pursue the most optimal initiatives and opportunities.

25.5.2 Strategic Opportunities

Given the rapid and comprehensive climate change and carbon emission policy, regulation, and legislation currently underway it is recommended that strategic and discrete actions are taken with a view to integrate them into the expected requirements from central government. Accordingly, the Project should consider:

1. Carbon management as follows:
 - a. Detailed design workshop of low-carbon design initiatives and opportunities to reduce emissions
 - b. Track and embed low-carbon initiatives during design and alongside designers
 - c. Early engagement with construction partners to ensure a low-carbon construction phase is secured through procurement, requirements and performance management e.g. through including low carbon outcomes in the design contract, construction contract and engaging in supplier forums
 - d. Measure the emissions reduced at the end of design, and

²⁵ PAS 2050:2011 carbon emissions reduction hierarchy is as follows:

- 1 Build nothing: evaluate the basic need for an asset and explore alternatives to achieve the set outcomes.
- 2 Build less: evaluate the potential for re-using / refurbishing existing assets to reduce the extent of new construction required.
- 3 Build clever: consider low carbon solutions, including technologies, materials and products, during construction, operation and usage e.g. SCM/ fly ash in all concrete mixes (ready mix and precast).
- 4 Build efficiently: minimise resource consumption during construction and operation

- e. Continue to track emissions through to the end of construction to ensure the projects performance is consistent with the region's ambitions and targets.
2. Set carbon reduction targets for the Project, including:
 - a. The international Science Based Targets Initiative (SBTI) is considered best practice guidance for setting carbon emission reduction targets
 - b. SBTI broadly recommends all activities and projects deliver a 50% reduction in scope 1 and 2 emissions, and 30% reduction in scope 3 emissions.
 3. Consider how the sustainability and carbon approach of the Project might benefit existing and future projects as well as Te Atakura – First to Zero. This could include mapping how GHG emissions from infrastructure capex and opex influence:
 - a. Community wide GHG reduction targets
 - b. Emissions reporting, tracking and management
 - c. Opportunities for a strategic approach to infrastructure GHG reductions
 - d. Specific actions to achieve reduction targets (such as revisions of long-term plans, capital programmes, design standards, and procurement processes), and
 - e. Incorporate climate change mitigation and adaptation throughout the city centre, potentially as part of the wider LGWM programme, to reduce impact on the networks and key user spaces.

26 Consenting Strategy

A Golden Mile Consenting Strategy has been developed and is attached as **Appendix K**. This strategy sets out the key considerations under the Resource Management Act 1991 (RMA) for obtaining the necessary authorisations for the preferred option. It also identifies what other statutory authorisations might be required.

All authorisations are recommended to be obtained during the detailed design phase.

26.1 Key Consenting Risks

The preferred option has been developed to a technical standard suitable for a SSBC. Based on the available technical information the key consenting issues identified are as follows:

- Construction / implementation of the works is to be located within the legal road
- No private property is required for the works
- Key construction activities involve construction of:
 - New kerb / channels (including earthworks)
 - New pavement areas (including earthworks)
 - Streetscaping (including new trees, potential rain gardens)
 - Above and below ground service relocations
 - Installation of new bus shelters
 - Possible modification (e.g. pruning) of existing trees, and
 - Re-routing of bus services during construction.
- Potential effects on the environment include:
 - Noise / vibration and dust from construction activities

- General disruption for local community and businesses
- Potential disturbance of contaminated land
- Potential accidental archaeological discoveries
- Impacts on existing underground services, and
- Temporary changes to bus routes.
- There are a number of heritage buildings, sites and objects located along the Golden Mile, including:
 - The Wellington Harbour pre-1855 Wairarapa earthquake shoreline is located on, near or along the Golden Mile streets (e.g. it runs along the Lambton Quay Alignment).
 - The former Te Aro Pa and associated settlement are located in Te Aro Park (and surrounds) on the corner of the Manners / Dixon Streets, and
 - Maori Site Points 66 (Kumutoto Kainga) and 68 (Waitangi Lagoon) are also of significance for mana whenua.
- The Project's Detailed Design Phase (to commence from December 2021) will provide refined detailed design information, including confirming final construction / implementation requirements, and
- Construction / implementation is expected to commence in late 2022 or early 2023.

26.2 Key Recommendations

The Consenting Strategy recommends the following:

- As the physical works needed to implement the Preferred Option are likely to be authorised under the Local Government Act 1974, it is unlikely that there will be a need to make use of the notice of requirement / designation planning instrument under the RMA
- Based on the WCC District Plan's Central Area, Public Open Space and Heritage provisions, it appears that the Preferred Option works would be a permitted activity, subject to construction activities meeting the relevant standards
- Further consideration of compliance with the relevant standards (e.g. the Heritage Area earthworks standards, and earthworks within Contaminated Land) needs further detailed design, and therefore cannot be gauged until the Detailed Design Phase has commenced and / or site investigations have been completed (e.g. HAIL activities). It is noted that non-compliance is likely to require discretionary (restricted) consents. However, if physical works activities are ultimately considered a permitted activity, then consideration should be given to obtaining a certificate of compliance.
- It is highly likely that a general Archaeological Authority (Form A) will be required by Heritage New Zealand Pouhere Taonga. This application will need to be informed by a detailed cultural and heritage impact assessment in the first instance.
- All works around trees located on WCC land must comply with WCC's standard tree protection conditions. It is noted that any proposal to remove a Heritage / Notable Tree²⁶, partially or completely, or to build, do earthworks or any other work in a Heritage / Notable Tree's root zone, will require a resource consent, and
- Maintaining a watching brief of the WCC District Plan Review process to be undertaken in 2022 / 2023.

²⁶ It is noted that there are no Heritage Trees listed in the WCC District Plan that are located on the Golden Mile

26.3 Key Priorities for the Pre-Implementation Phase

The following key steps are recommended as a priority for the pre-implementation phase:

- Undertake an archaeological assessment to inform preparation of a general authority application to Heritage NZ during the early stages of the Detailed Design Phase, and allow sufficient time within the programme to secure this authorisation
- Consider whether HAIL detailed investigations are required during the early stages of the Detailed Design Phase
- Progress the Detailed Design Phase to a point where sufficient design has been undertaken to inform an assessment of the Preferred Option's compliance with the Central Area Zone, Open Space A Zone, Heritage Zone and Contaminated Land provisions as soon as practicable, and
- Progress the Detailed Design Phase to a point that is sufficient for a New Zealand Arboricultural Association-approved contractor to assess whether works will be in compliance with WCC's standard tree protection condition.

27 Drainage and Water Supply Permits

A public drainage permit (or permits) will be required for any proposal to alter or add to the WCC public drainage networks²⁷. Similarly, a water supply permit will be required for any new water connection²⁸.

28 Traffic Control Regulations Strategy

The Golden Mile Traffic Regulations Strategy is attached as **Appendix L**.

The Strategy identifies that WCC has the power to make traffic bylaws relating to any of its roads under the Land Transport Act (LTA) 1998. The purpose of a traffic bylaw is to regulate the activities that take place on road reserves in order to protect, promote and maintain public health and safety and protect the public from nuisance, harm and to minimise the potential for offensive behaviour preventing the wellbeing and enjoyment of the public using the road.

The traffic bylaw sets the requirements for parking and control of vehicles or other traffic on any road owned or managed by WCC, including the Golden Mile. This includes the ability to:

- Create parking meter areas and restricted parking zones
- Specify times for parking, set parking fees
- Provide information about parking such as using signs and road markings
- Establish the council mechanism for making decisions; by council resolution and the processes required, and
- A list of offences.

28.1 Wellington City Council Traffic and Parking Bylaw 2021

The Wellington City Council Traffic and Parking Bylaw 2021 (Bylaw) is made pursuant to section 22AB of the LTA. In addition, traffic and parking issues are also regulated and controlled by other Policies, Acts and Regulations. This includes the WCC Parking Policy 2020, the Land Transport (Road User) Rule 2004 and the Local Government Act 1974, and are referred to in conjunction with Bylaw 2021.

²⁷ See: [Sewerage, wastewater and trade waste - Wastewater & drainage - Wellington City Council](#)

²⁸ See: [Water - Apply for a water connection - Wellington City Council](#)

Bylaw 2021 allows the Council by resolution to permit, prohibit, limit, restrict, or control on any specified road or portion of road, or any land owned or controlled by Council and not being a road or part of a road.

Any resolutions under this Bylaw may:

- Control access in respect of a specified class, type or description of vehicle, and may be revoked or amended by WCC
- Be expressed or limited to apply only on specified days, or between specified times, or in respect of specified events or classes of events or be limited to specified maximum periods of time
- Where appropriate, prescribe, abolish or amend fees, whether annual, hourly or otherwise, as WCC may reasonably require for any parking space, parking area, building, transport station, or restricted parking area; and may prescribe the methods of displaying appropriate receipts for payments, or other authority to use or park in such spaces, buildings or areas
- In respect of any resolution made in terms of this Bylaw, specify a minimum number of occupants in any PMV, and
- Be made in respect of any defined part of a road, including, any defined footpath, carriageway or lane.

28.2 Access Control Options

To regulate the access into the Golden Mile, three main methods were considered in the Traffic Regulations Strategy:

- Road traffic controls (e.g. signs, signals and road markings)
- Physical access controls (e.g. gates, barriers and bollards), and
- Permitting system - this would allow permit holders who meet WCC requirements in relation to road use, vehicle class, type or travel time period to access the corridor (e.g. buses, emergency vehicles, service vehicles, taxis and ride share vehicles which travel at a certain time period).

The Traffic Regulations Strategy assessed the pros and cons of each of the above options in conjunction with WCC and LGWM, and ultimately concluded that a hybrid approach involving a combination of Road Traffic Controls and a Permitting System was likely to be the most effective solution for supporting the implementation of the preferred option.

28.3 Traffic Control Strategy

The Traffic Regulations Strategy sets out a high-level traffic control strategy that is recommended to be followed in order for the design of the preferred option to be implemented and enforceable. The key objectives of the control strategy are:

- Confirm the timeframe of the traffic resolution process for the Golden Mile improvements
- Confirm how the design process will provide the information required for traffic resolutions, and
- Identify key risks to the traffic resolution process

The traffic control strategy recommends that the traffic resolution process commence towards the end of the Detailed Design Phase component of the detailed design phase (which is likely to be from June 2022). However, it does recommend that the communications / engagement and design approach to be undertaken for the Develop

Design Phase be cognisant of the traffic resolution process. That is, this engagement will help to lay the foundation for the required formal public consultation that will occur during the traffic resolution process from June 2022.

The traffic control strategy recommends that four separate Traffic Resolution Reports are prepared for each section of the Golden Mile (i.e. Lambton Quay, Willis Street, Manner Street and Courtenay Place). Taking this approach will help to reduce processing risks (e.g. the risk of one or several design elements at a particular location holding up the approval of the entire project).

Finally, the strategy recommends involving WCC traffic control officers early in the pre-implementation phase. Early involvement will help to streamline the process as the proposed traffic resolution reports navigate their way through the WCC internal approval process prior to reaching WCC's Regulatory Processes Committee.

29 Summary of Design Constraints, Dependencies and Assumptions

Table 26 sets out the key constraints, dependencies and assumptions to be considered as part of the design process.

Table 26: Key constraints, dependencies and assumptions

Constraints		Notes
C1	Constrained Project budget limits the consideration of improvement options to the legal road	Property acquisition costs for Golden Mile properties would be significant, and therefore improvement options that require property acquisition are effectively ruled out (meaning that improvement options are limited to the legal road corridor).
C2	Bus fares and pricing structures of bus and / or taxi services are out of scope	Changes to fares and pricing structures of bus and / or taxi services are excluded from consideration.
C3	Bus fleet changes are out of scope	Changes to bus fleet (including use of high-capacity buses beyond those already in use) are excluded from consideration.
C4	Bus routes, services and timetables are out of scope	Changes to bus routes, services and timetables are excluded from consideration.
C5	New car parks, changes to car park pricing or parking strategies are outside of scope	The addition of new car parks outside of the Golden Mile, changes to car park pricing or parking strategies are excluded from consideration.
C6	Major grade separation works (e.g. bridges or underpasses) and / or changes to roads or intersections beyond the extent of the Golden Mile are outside of scope	Major grade separation and / or changes to roads or intersections beyond the extent of the Golden Mile are excluded from consideration.
C7	Changing the 30km / hr speed limit is out of scope	Reviewing the new 30km / hr speed limit is excluded from consideration.
C8	The Project is to not be inconsistent with the WCC City Strategic Cycle Network	Both Courtenay Place and Willis Street form part of the WCC Strategic Cycle Network, and the Project is to be consistent with the direction of the strategy.

Dependencies		Notes and management strategies
D1	There is finite capacity on the Golden Mile to accommodate additional bus service or new routes	Bus volumes on the Golden Mile have been “capped” at 100 buses per hour, per direction of travel. Additional bus volumes beyond 100 vehicles per hour, per direction of travel are to be accommodated on an alternative (unspecified) north-south bus corridor.
D2	A second north-south bus corridor will carry significant public transport capacity and will provide a high-quality public transport spine	A second north-south bus corridor is to be progressed by LGWM as part of the City Streets Project. The Golden Mile (project team) is to engage with LGWM to identify the alignment and interfaces between the second spine project and the Golden Mile.
D3	Cycle connections to any new Golden Mile cycle facilities are to be provided by the City Streets Project	Cycle connections outside of the Golden Mile are to be progressed by LGWM as part of the City Streets Project. The Golden Mile (project team) is to engage with LGWM to identify key interfaces.
D4	Bus scheduling will be required to realise improvements to bus operations	Changes to bus stop locations is likely to require bus rescheduling. Rescheduling activities will be coordinated with GWRC / Metlink and bus operators as design and construction staging develops.
D5	Bus ticketing and advertising collateral material will require updating to reflect changes to bus stops	Changes to bus stop locations will be coordinated with GWRC / Metlink to ensure the ticketing system and collateral reflects the changes.
Assumptions		Notes and management strategies
A1	It is assumed that Mass Rapid Transit (MRT) is not located on the Golden Mile Corridor	Although not located on the Golden Mile, integration with future MRT will be needed at the intersection of Manners Street / Taranaki Street / Courtenay Place. This includes consideration of a potential interchange between MRT stops at this location and the Golden Mile corridor.
A2	There is an (existing) general acceptance of lower / less PMV access and a reduction or removal of on-street parking by LGWM and its partners	It is assumed that reducing or removing the use of PMVs for private access and the associated removal of on-street parking along the Golden Mile is acceptable to LGWM and partners.
A4	Public transport patronage and growth will return to pre-Covid levels and projections by 2036	It is assumed that public transport growth will return to pre-Covid levels by 2036.
A5	Patterns of employment and employment distribution will return to pre-Covid levels and projections by 2036	It is assumed that employment will return to pre-Covid levels by 2036.
A6	Population in the central city will increase by 18,000 over the next 30 years	This assumption is as per WCC’s Spatial Plan.
A7	Demand for residential units in the Central City will increase by 8,000 over the next 30 years	This assumption is as per WCC’s Spatial Plan.



A
Mana Whenua
Cultural Design
Values

LGWM Values to Practice Workshop

Whakapapa – A Sense of Place

- Designs need to showcase and recognize natural heritage. The illumination of histories important as connects in with both the move to including NZ/Māori histories in the school curriculum and the work of Enviro schools that engages young people in environmental concerns.
 - Where is the original coastline? Showcase wai tapu along golden mile. Showcase these historical narratives. More work is required to capture these narratives.



Courses of the Wellington streams, plates 3 and 4 [ms map]. [Compiled by Johannes C. Andersen, ca.1940] - <https://natlib.govt.nz/records/22612149>

- Increase wetlands – e.g. extend Waitangi Park
- Opportunities to daylight streams underneath the city or recognize them in some way if impossible to daylight – e.g. Basin reserve to New World - Kent/Cambridge terrace medium strip. Article about some of the City awa <https://stephengibbsdms.wordpress.com/tag/hidden-streams-of-wellington/>
- Use of Endemic trees to celebrate natural histories
 - Southern Rata
 - Rata
 - Hinau
 - Kawakawa
- Look for opportunities to re-wild to respond to climate change and sustainability concerns - <https://www.theguardian.com/environment/2021/jun/03/rewild-on->

[massive-scale-to-heal-nature-and-climate-says-un-decade-on-ecosystem-restoration-aoe](#)

- Design should reconnect people to the environment/ Make clear/celebrate connection with people + natural waterways e.g. Woodward St underpass
- Think carefully about the relationship to Ara Moana (the waterfront)
 - Paintings – story telling e.g.
<https://www.stuff.co.nz/entertainment/arts/300202708/walking-on-water-through-the-streets-as-wellingtons-hidden-art-revealed>

Wai-ora - Respect the Role of Water

- Designs should uphold Te Mana o te Wai
 - Health + Well-being of the water and of the people
 - Ability of communities to provide for health/cultural well-being
 - Celebrate and reconnect to the nine awa / Check/find maps
 - Link this work to the three waters work
 - Need to set time frames for ensuring non-contaminated water is being returned to the harbor. This should be the goal and if we are removing cars off the road this task should be simpler
- Waste should be dealt with carefully and where possible recycled. Designs should be centred on sustaining the environment and should incorporate some of the following types of technologies to ensure sustainable outcomes. See for example:
 - <https://i.stuff.co.nz/business/125330873/plastic-waste-gobbler-first-off-the-blocks-in-new-20m-startup-fund>
 - Paving bricks made from plastic waste <https://youtu.be/QbZKP4UAtL8/>
<https://youtu.be/QAtuue8YRhE>
- Incorporate alternative infrastructure -
https://www.waternz.org.nz/Attachment?Action=Download&Attachment_id=2151

Pungaroa – Sustainable Energy use and Production

Whilst some of the below is aspirational, this should be the ultimate outcome of any LGWM work. On completion energy benefits should flow to the wider city.

- How do designed reduce carbon emissions – see for example Rocky mountain institute <https://rmi.org/> and the use of the notion of natural capital
- Build capacity to manufacture materials etc needed for the 30 year project here in Aotearoa and specifically build capacity amongst Māori to lead material production, energy systems production etc etc.
- Consider - Anerobic digestion systems
 - Public bike machines that generate power
 - Fun ways to get people producing energy
- Waste of power. How do we waste less? Work into designs considerations of this.
- Introduce microsystems
 - Wind turbines (such as in the UK)
 - Micro hydro
- How do we deal with waste?
 - Small manufacturing
- Need a culture shift

- Engage with contractors/companies that want to insist on change themselves. Need to develop a general procurement policy that asks contributors to spell out how they are working toward the pūngaroa value

Hauora - Optimising Health & Well-being

- Designs should support good mental and physical health. Public space designs should support mental and physical health through the provision of :
 - Green space
 - Spaces to linger and come together
 - Spaces for Māori to be Māori e.g. hangi pits instead of BBQs
- Consider approaches such as Health Streets - <https://www.healthystreets.com/about> though needs adaptation and inclusion of cultural considerations
- As below – opportunities for human traction energy creation
- Create attractive pathways that speak to the mana whenua histories of the site to encourage walking

Whakamahitanga - Use of materials

Designs should encourage the use of :

- Natural/sustainable materials
- Recycled materials
 - Kenyan wāhine making plastic bricks: <https://www.designboom.com/technology/gjenge-makers-recycled-plastic-bricks-kenya-02-08-2021/>
 - <https://i.stuff.co.nz/business/125330873/plastic-waste-gobbler-first-off-the-blocks-in-new-20m-startup-fund>
 - Paving bricks made from plastic waste <https://youtu.be/QbZKP4UAtL8> / <https://youtu.be/QAtuue8YRhE>
 - Hempcrete in NZ: <https://hempnz.co.nz/> <https://hba.nz/>
- Report back to mana whenua on points/areas where ‘use of materials’ re: recycling, toxicity reduction etc....should be built into MW procurement plan and monitoring plan below

Manaakitanga - Just & equitable

Design processes and outcomes should be rooted in justice, equity and manaakitanga

- The procurement strategy is important here which is currently being developed to encourage the procurement of iwi/Māori services etc to support
- The underlying philosophy of the LGWM work should move away from a capitalist ethos toward ecological economic approaches which support monitoring outcomes in terms of environmental and socio-cultural outcomes alongside fiscal ones.

Theories/Theorists include:

- Anthony Cale
- Doughnut economics
- Joseph Stiglitz

- Streets and public spaces should be conceptualised and learning/ako streets and spaces, an outdoor classroom
- If we're taking away cars, good, we need to provide good parking (park n ride) and public transport. Phasing is important here and needs to be clear.

Whakāhuatanga - Celebrate Beauty in Design

- Inspired by nature and Interacts with nature
- Art that speaks to iwi narratives at different scales & levels of the urban spatial structure
- Iwi heritage needs to be prioritized to rebalance the visible colonial heritage
 - Pou/waharoa
 - Prominent tupuna statues
 - Midland park – interpretation
- Orientate view lines towards Maunga/Awa – sources of identity for mana whenua
- Draw on Iwi artists
 - Create a database of mana whenua/ Māori artists to help exemplify the narratives/values/aspirations set out here in the implementation
 - E.g. Dream girls collective - <https://www.wellingtonz.com/experience/love-local/city-art-activation/>

Whakamatautautanga - Ongoing monitoring of outcomes

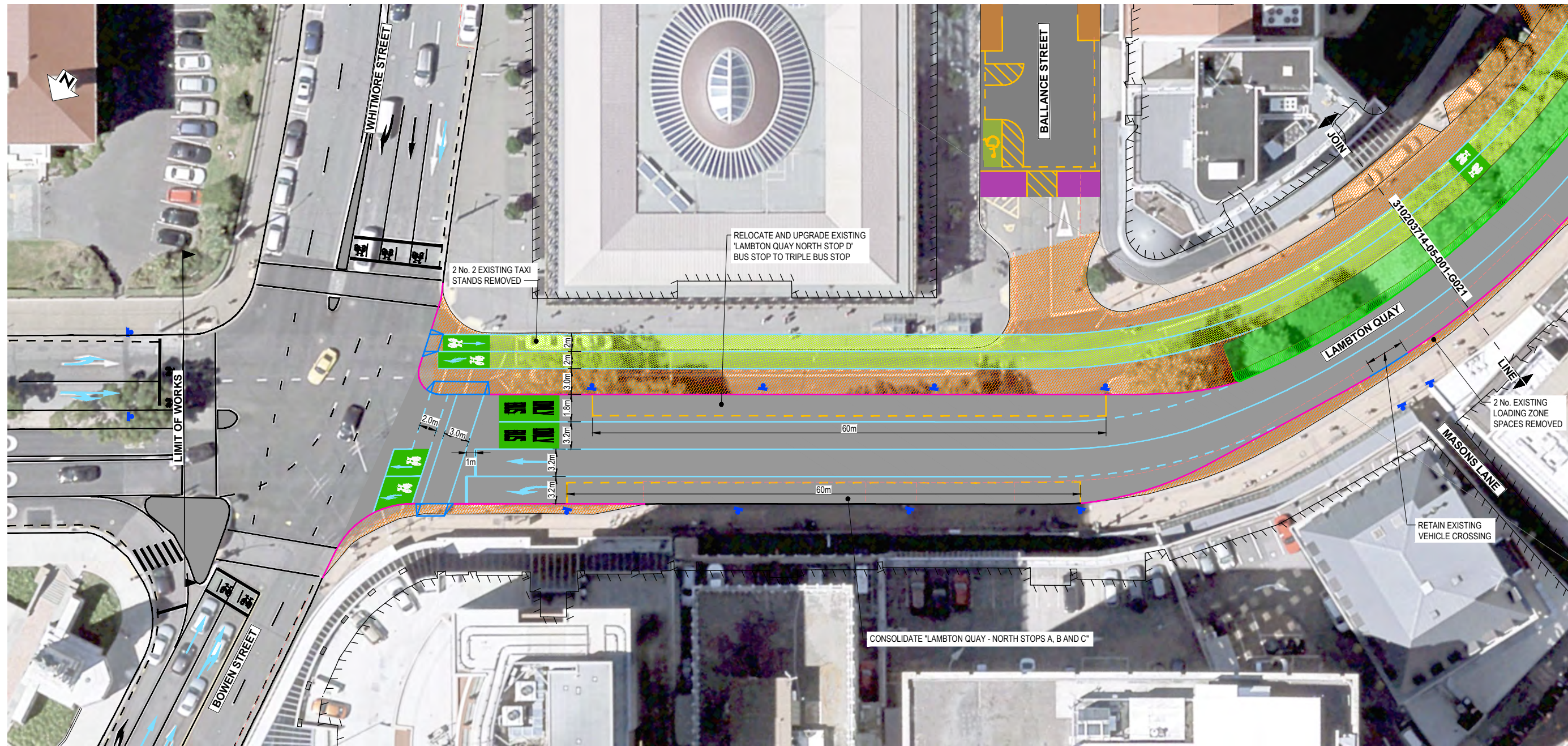
- We need a transformational shift in the way this work is carried out
- Develop a kaitiaki monitoring group
- Motif – <https://motif.world/> offers some of these types of services linking environmental, social with implementation outcomes
- Iwi would need a role in this
- We need to be monitoring how we travel/pollute?
- There's opportunity to dovetail on the work of Greater Wellington Council
- Needs to be resourced



B
General Road
Layout Plans

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW CLAY TILE FOOTPATH
	NEW ASPHALT FOOTPATH
	CYCLIST LANES
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE	PROF REGISTRATION:

SURVEYED		
DESIGNED	Heidi Kwan-Tsang	08/2020
DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		



GOLDEN MILE IMPROVEMENTS

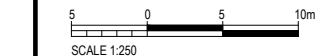
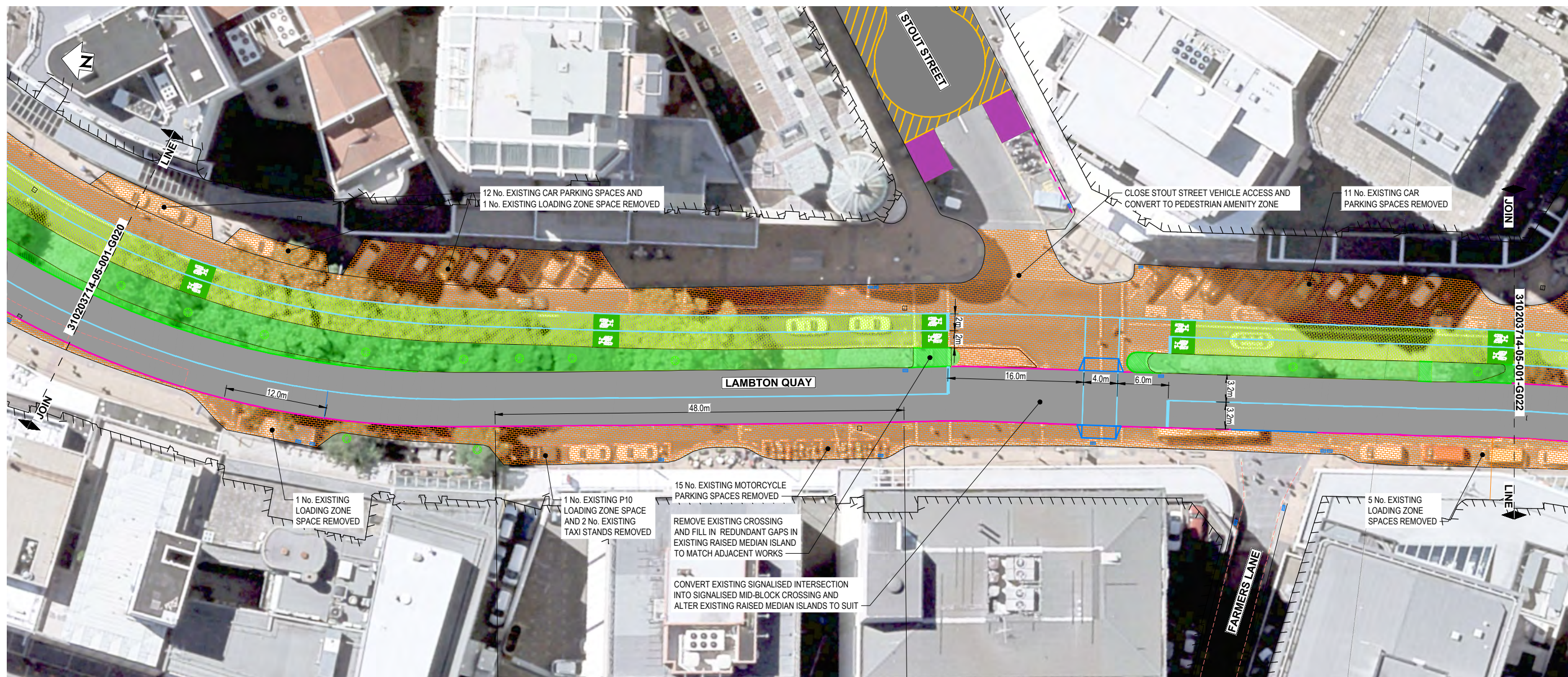
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SHEET 1 OF 6

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G020
Rev.	A

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ORIGINAL SIZE A1



- LEGEND**
- EXISTING KERBLINE / ROAD MARKING
 - NEW KERB
 - NEW WHITE ROADMARKING
 - NEW YELLOW ROADMARKING
 - EXISTING KERB / MARKING TO BE REMOVED
 - ▨ NEW CLAY TILE FOOTPATH
 - ▨ NEW ASPHALT FOOTPATH
 - ▨ CYCLIST LANES
 - ▨ EXISTING RAISED MEDIAN ISLAND
 - ▨ NEW / EXTENDED RAISED MEDIAN ISLAND
 - ▨ NEW / RELOCATED SIGN
- LEGEND - SIDE STREET WORKS**
- ▨ EXISTING ROAD REMOVED
 - ▨ MOBILITY PARKING
 - ▨ LOADING ZONE
 - ▨ TAXI STAND
 - ▨ MOTOR CYCLE PARKING

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DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

Client

GOLDEN MILE IMPROVEMENTS

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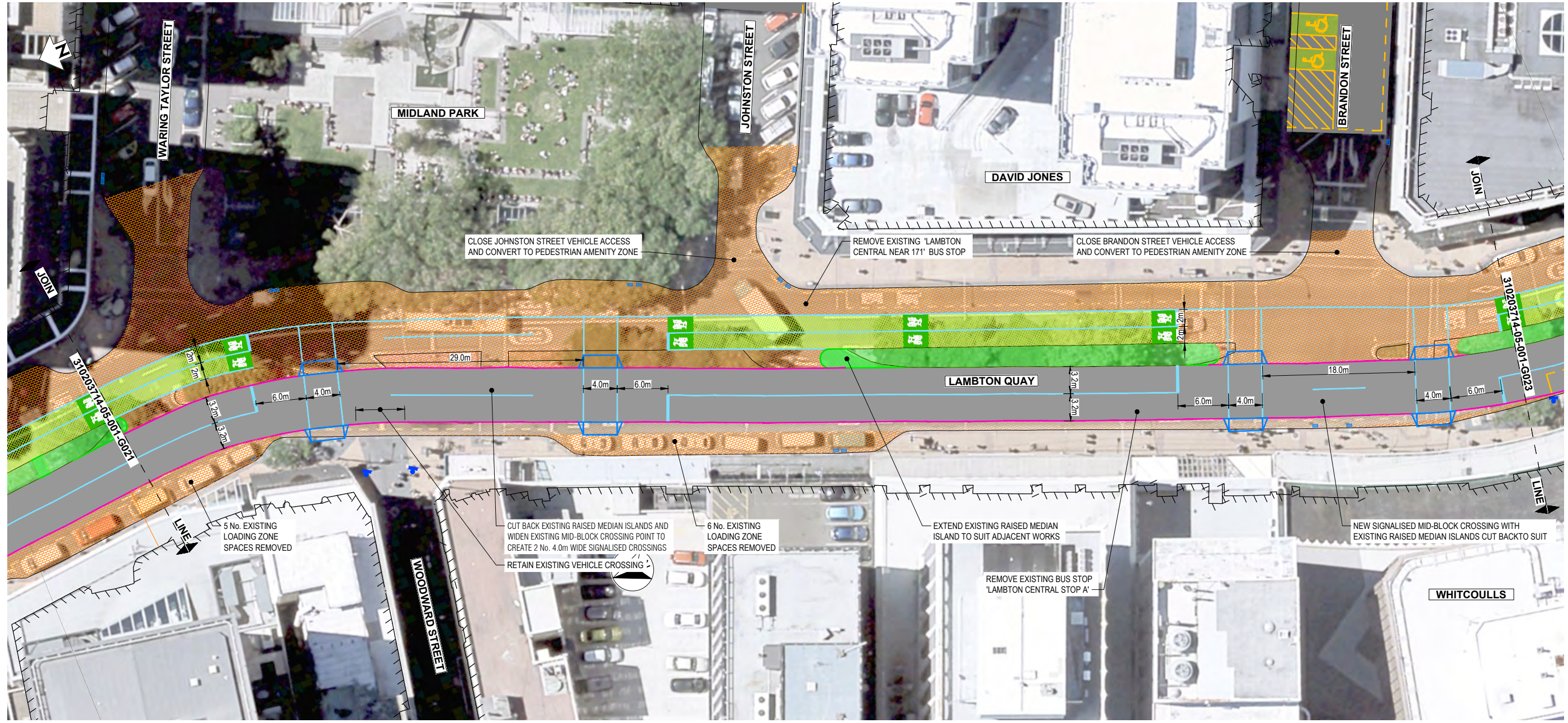
SHEET 2 OF 6

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Drawing No.	310203714-05-001-G021
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ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND

	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW CLAY TILE FOOTPATH
	NEW ASPHALT FOOTPATH
	CYCLIST LANES
	EXISTING RAISED MEDIAN ISLAND
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GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - LAMBTON QUAY

SHEET 3 OF 6

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ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND

	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW CLAY TILE FOOTPATH
	NEW ASPHALT FOOTPATH
	CYCLIST LANES
	EXISTING RAISED MEDIAN ISLAND
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Client

GOLDEN MILE IMPROVEMENTS

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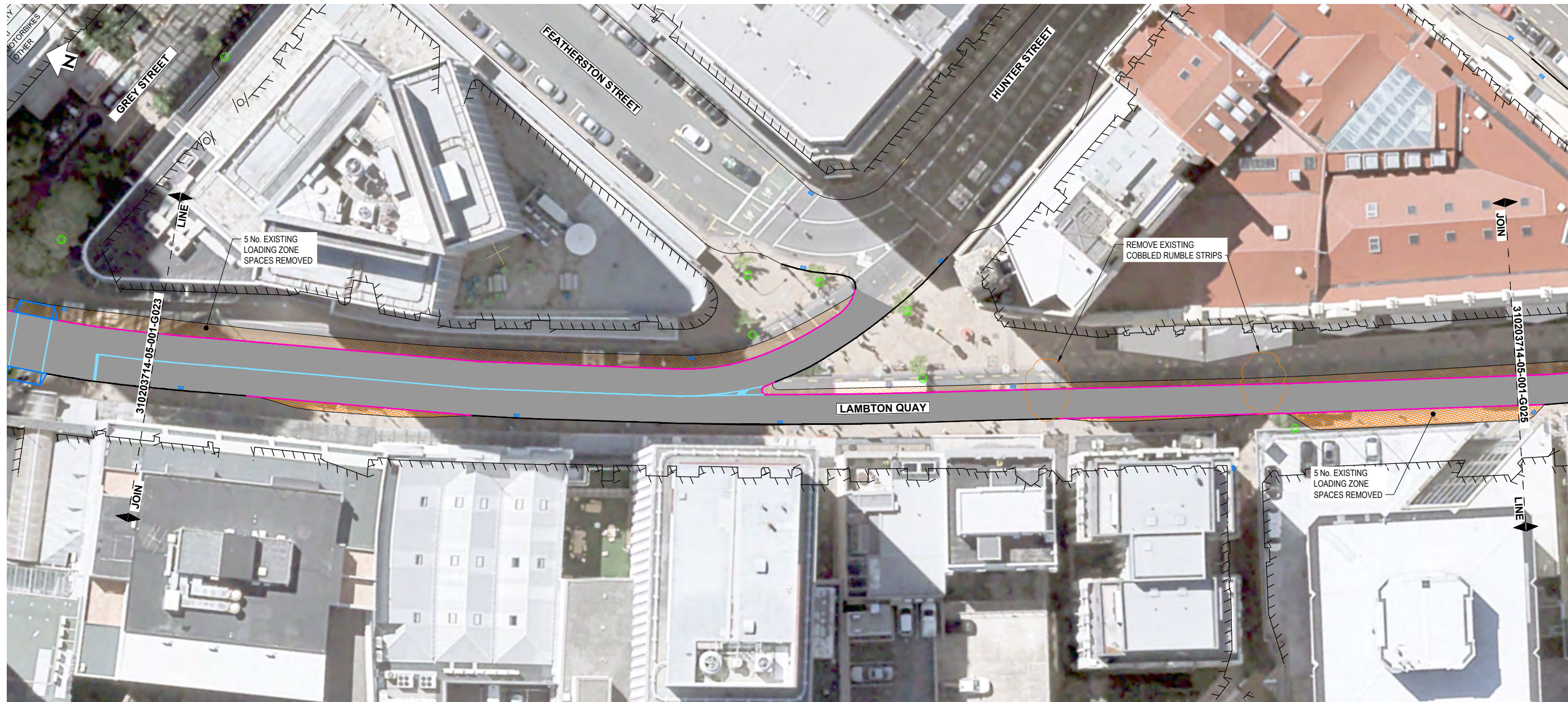
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Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

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ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
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	NEW ASPHALT FOOTPATH
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GOLDEN MILE IMPROVEMENTS

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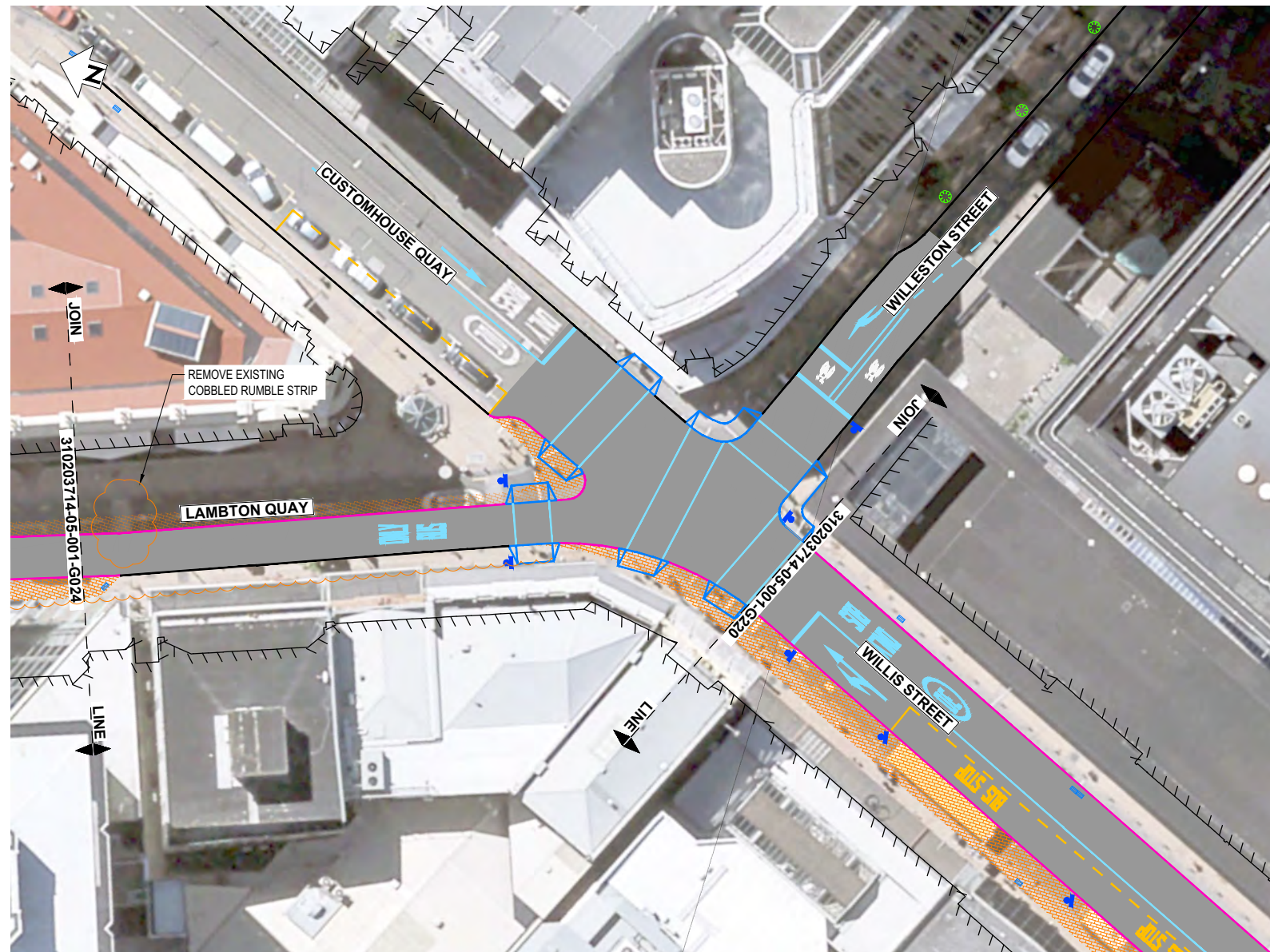
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Rev.	A

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ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND

	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
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Client

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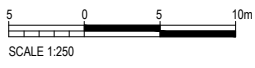
SHEET 6 OF 6

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Drawing No.	310203714-05-001-G025
Rev.	A

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ORIGINAL SIZE A1



- NOTES**
1. ALL LOADING BAYS ARE RELOCATED TO SIDE STREETS.
 2. WILLIS STREET BECOMES A BUS ONLY CORRIDOR.
 3. NO CYCLISTS ARE PERMITTED ON WILLIS STREET DUE TO NARROW BUS LANES.

- LEGEND - SIDE STREET WORKS**
- EXISTING ROAD REMOVED
 - MOBILITY PARKING
 - LOADING ZONE
 - TAXI STAND
 - MOTOR CYCLE PARKING

- LEGEND**
- EXISTING KERBLINE / ROAD MARKING
 - NEW KERB
 - NEW WHITE ROADMARKING
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DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

Client: **Stantec** **Let's GET Wellington MOVING**

GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - WILLIS STREET

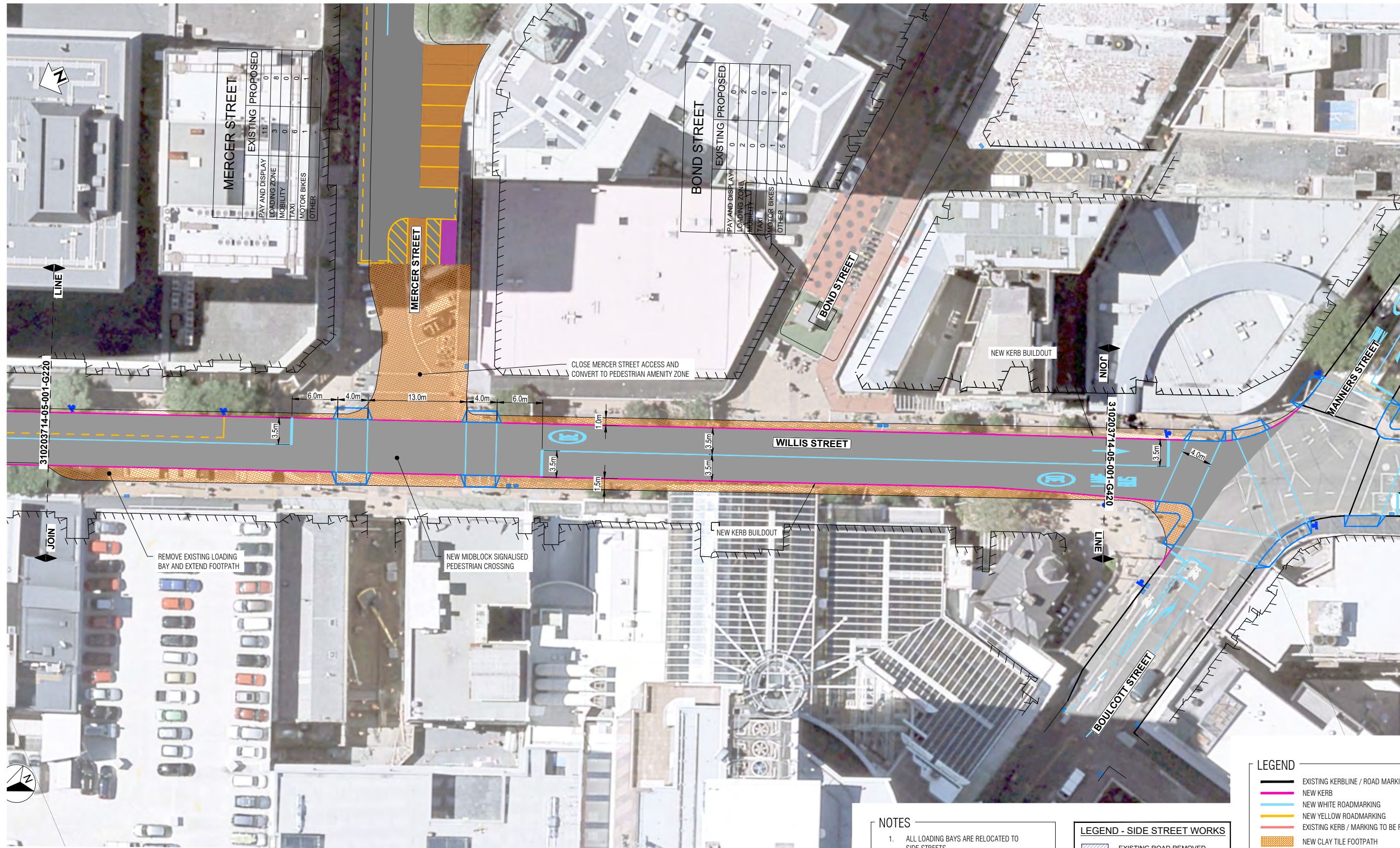
SHEET 1 OF 2

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
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Drawing No.	310203714-05-001-G220
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

SCALE 1:250



MERCER STREET

	EXISTING	PROPOSED
PAY AND DISPLAY	11	0
LOADING ZONE	3	8
MOBILITY	0	0
TAXI	6	0
MOTOR BIKES	1	1
OTHER		

BOND STREET

	EXISTING	PROPOSED
PAY AND DISPLAY	0	0
LOADING ZONE	2	2
MOBILITY	0	0
TAXI	0	0
MOTOR BIKES	1	1
OTHER	5	5

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LEGEND - SIDE STREET WORKS

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	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND

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	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
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DRAWN	Kerry Ware	08/2020
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GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - WILLIS STREET

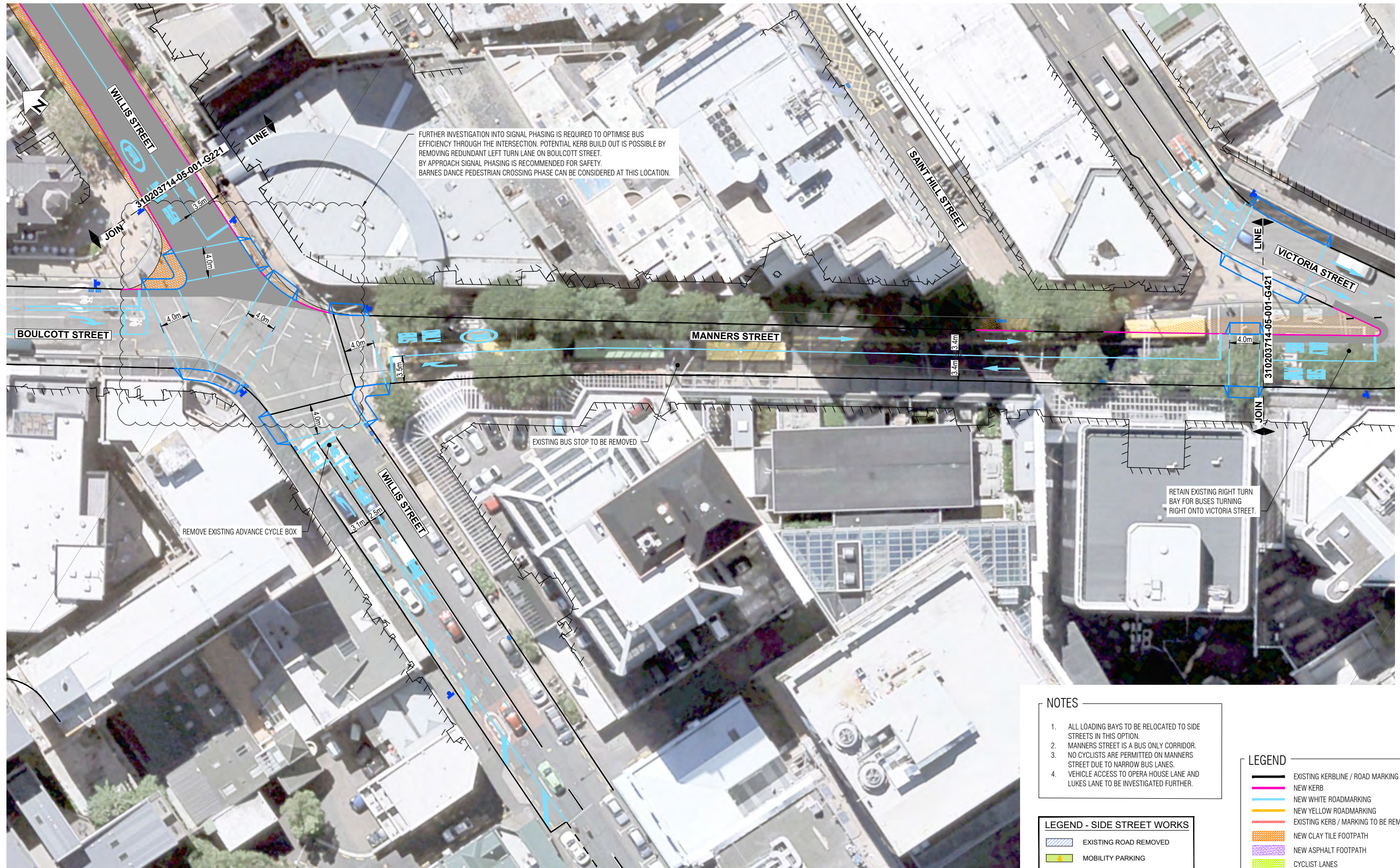
SHEET 2 OF 2

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G221
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
160
140
120
100
80
60
40
20
0

ORIGINAL SIZE A1



FURTHER INVESTIGATION INTO SIGNAL PHASING IS REQUIRED TO OPTIMISE BUS EFFICIENCY THROUGH THE INTERSECTION. POTENTIAL KERB BUILD OUT IS POSSIBLE BY REMOVING REDUNDANT LEFT TURN LANE ON BOULCOTT STREET. BY APPROACH SIGNAL PHASING IS RECOMMENDED FOR SAFETY. BARNES DANCE PEDESTRIAN CROSSING PHASE CAN BE CONSIDERED AT THIS LOCATION.

- NOTES**
1. ALL LOADING BAYS TO BE RELOCATED TO SIDE STREETS IN THIS OPTION.
 2. MANNERS STREET IS A BUS ONLY CORRIDOR. NO CYCLISTS ARE PERMITTED ON MANNERS STREET DUE TO NARROW BUS LANES.
 3. VEHICLE ACCESS TO OPERA HOUSE LANE AND LUKES LANE TO BE INVESTIGATED FURTHER.

- LEGEND - SIDE STREET WORKS**
- EXISTING ROAD REMOVED
 - MOBILITY PARKING
 - LOADING ZONE
 - TAXI STAND
 - MOTOR CYCLE PARKING

- LEGEND**
- EXISTING KERBLINE / ROAD MARKING
 - NEW KERB
 - NEW WHITE ROADMARKING
 - NEW YELLOW ROADMARKING
 - EXISTING KERB / MARKING TO BE REMOVED
 - NEW CLAY TILE FOOTPATH
 - NEW ASPHALT FOOTPATH
 - CYCLIST LANES
 - EXISTING RAISED MEDIAN ISLAND
 - NEW / EXTENDED RAISED MEDIAN ISLAND
 - NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION



REV	REVISIONS	DRN	CHK	APP	DATE	PROF REGISTRATION:

SURVEYED		
DESIGNED	Casey Guan	08/2020
DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		



GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - MANNERS STREET

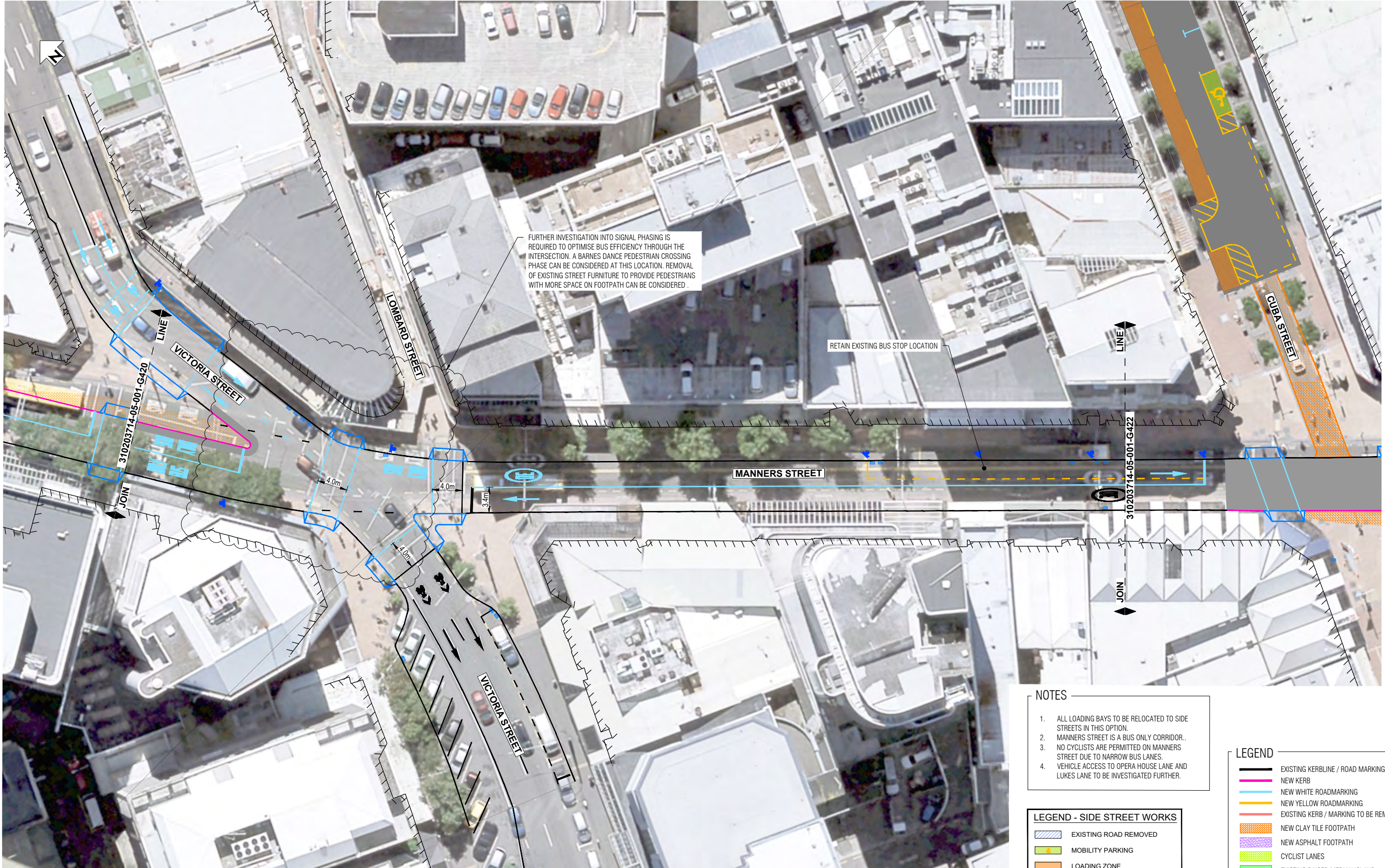
SHEET 1 OF 4

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G420
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
160
140
120
100
80
60
40
20
0

ORIGINAL SIZE A1



5 0 5 10m
SCALE 1:250

- NOTES**
1. ALL LOADING BAYS TO BE RELOCATED TO SIDE STREETS IN THIS OPTION.
 2. MANNERS STREET IS A BUS ONLY CORRIDOR.
 3. NO CYCLISTS ARE PERMITTED ON MANNERS STREET DUE TO NARROW BUS LANES.
 4. VEHICLE ACCESS TO OPERA HOUSE LANE AND LUKES LANE TO BE INVESTIGATED FURTHER.

- LEGEND - SIDE STREET WORKS**
- EXISTING ROAD REMOVED
 - MOBILITY PARKING
 - LOADING ZONE
 - TAXI STAND
 - MOTOR CYCLE PARKING

- LEGEND**
- EXISTING KERBLINE / ROAD MARKING
 - NEW KERB
 - NEW WHITE ROADMARKING
 - NEW YELLOW ROADMARKING
 - EXISTING KERB / MARKING TO BE REMOVED
 - NEW CLAY TILE FOOTPATH
 - NEW ASPHALT FOOTPATH
 - CYCLIST LANES
 - EXISTING RAISED MEDIAN ISLAND
 - NEW / EXTENDED RAISED MEDIAN ISLAND
 - NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Casey Guan	08/2020
DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

Client

GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - MANNERS STREET

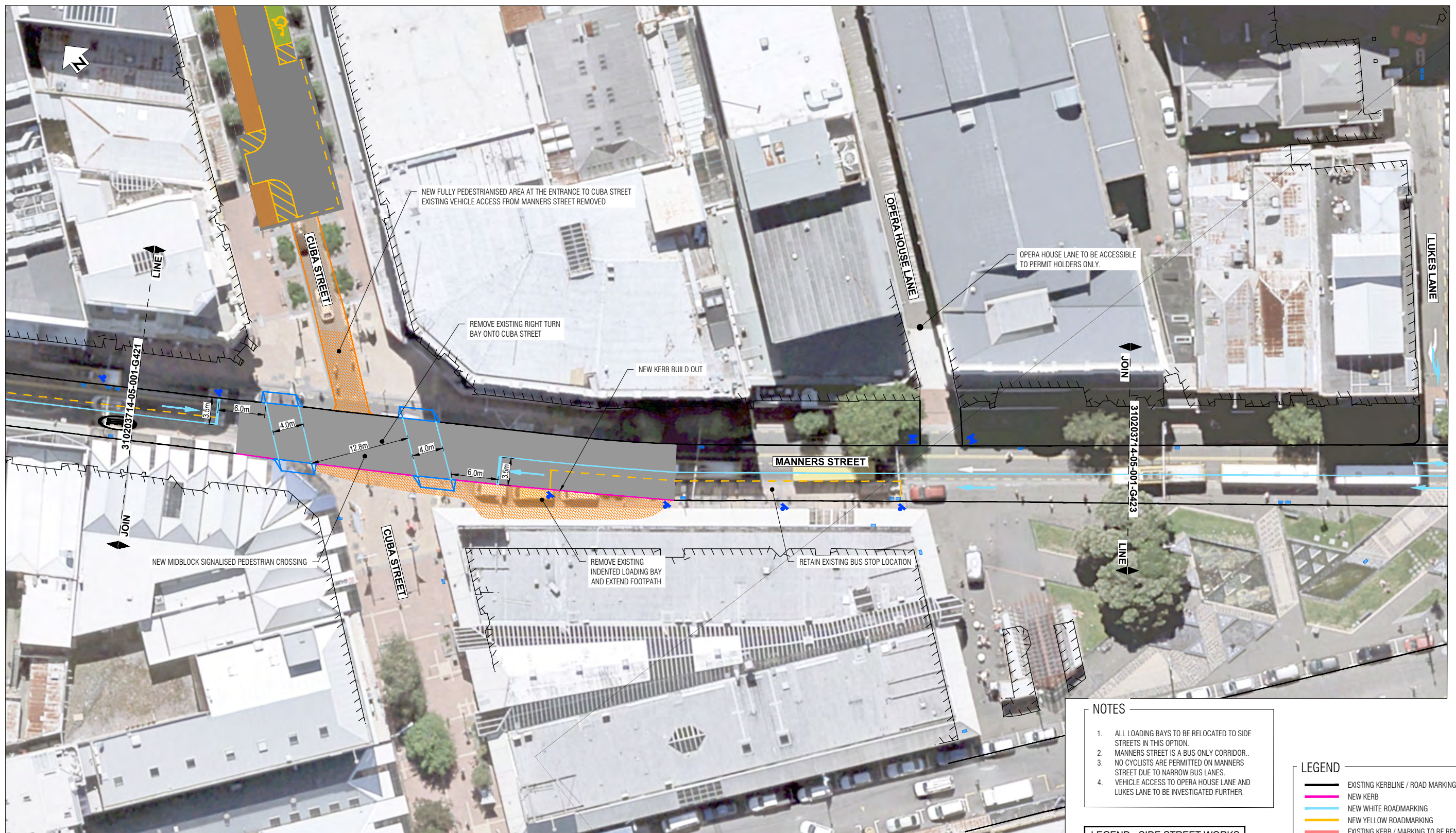
SHEET 2 OF 4

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G421
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200mm
150
100
90
80
70
60
50
40
30
20
10
0

ORIGINAL SIZE A1

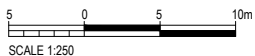


- NOTES**
1. ALL LOADING BAYS TO BE RELOCATED TO SIDE STREETS IN THIS OPTION.
 2. MANNERS STREET IS A BUS ONLY CORRIDOR..
 3. NO CYCLISTS ARE PERMITTED ON MANNERS STREET DUE TO NARROW BUS LANES.
 4. VEHICLE ACCESS TO OPERA HOUSE LANE AND LUKES LANE TO BE INVESTIGATED FURTHER.

- LEGEND - SIDE STREET WORKS**
- EXISTING ROAD REMOVED
 - MOBILITY PARKING
 - LOADING ZONE
 - TAXI STAND
 - MOTOR CYCLE PARKING

- LEGEND**
- EXISTING KERBLINE / ROAD MARKING
 - NEW KERB
 - NEW WHITE ROADMARKING
 - NEW YELLOW ROADMARKING
 - EXISTING KERB / MARKING TO BE REMOVED
 - NEW CLAY TILE FOOTPATH
 - NEW ASPHALT FOOTPATH
 - CYCLIST LANES
 - EXISTING RAISED MEDIAN ISLAND
 - NEW / EXTENDED RAISED MEDIAN ISLAND
 - NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION



REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Casey Guan	08/2020
DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - MANNERS STREET

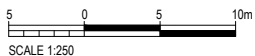
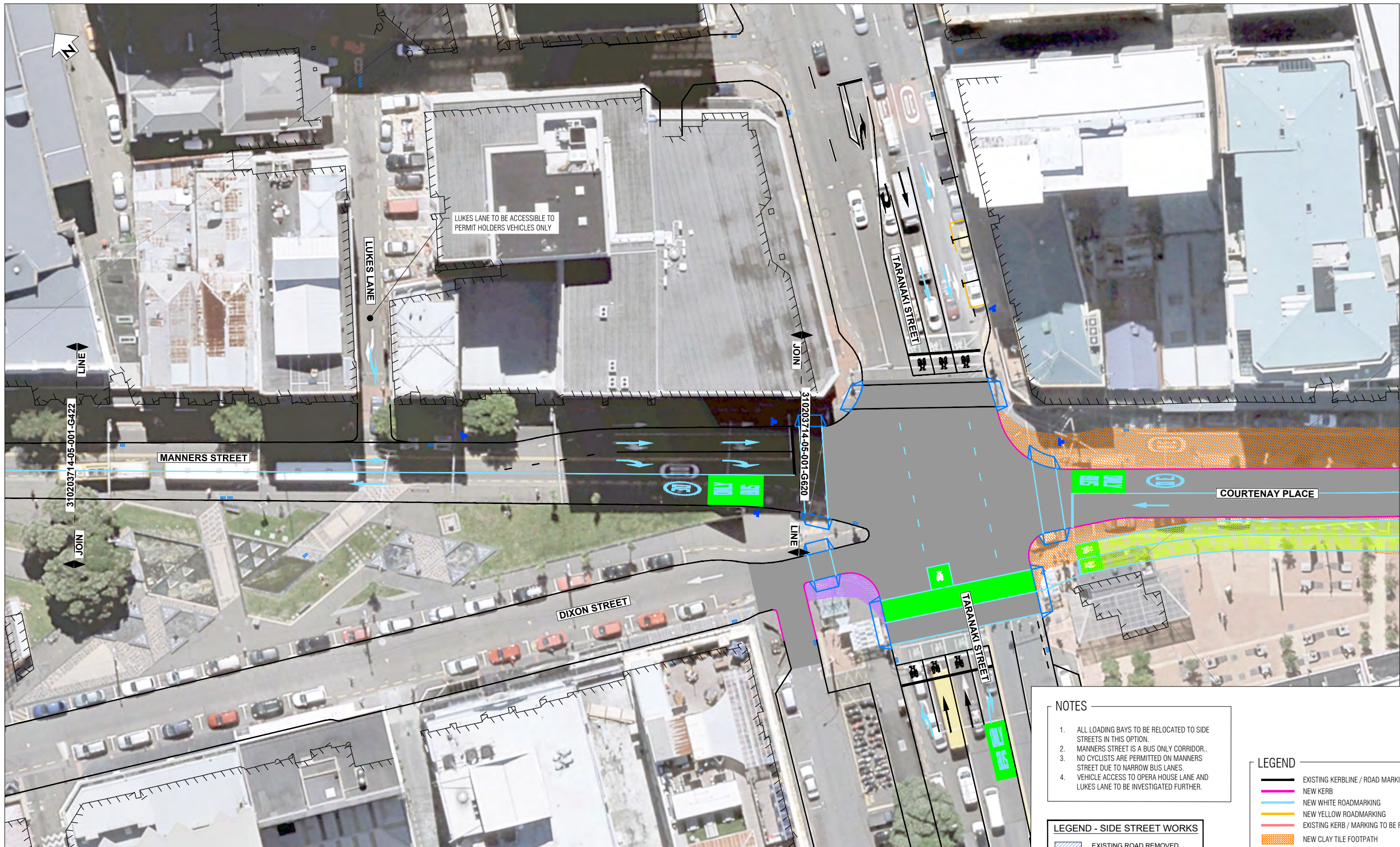
SHEET 3 OF 4

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G422
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200mm
150
100
90
80
70
60
50
40
30
20
10
0

ORIGINAL SIZE A1



- NOTES**
1. ALL LOADING BAYS TO BE RELOCATED TO SIDE STREETS IN THIS OPTION.
 2. MANNERS STREET IS A BUS ONLY CORRIDOR. NO CYCLISTS ARE PERMITTED ON MANNERS STREET DUE TO NARROW BUS LANES.
 3. VEHICLE ACCESS TO OPERA HOUSE LANE AND LUKES LANE TO BE INVESTIGATED FURTHER.

- LEGEND - SIDE STREET WORKS**
- EXISTING ROAD REMOVED
 - MOBILITY PARKING
 - LOADING ZONE
 - TAXI STAND
 - MOTOR CYCLE PARKING

- LEGEND**
- EXISTING KERBLINE / ROAD MARKING
 - NEW KERB
 - NEW WHITE ROADMARKING
 - NEW YELLOW ROADMARKING
 - EXISTING KERB / MARKING TO BE REMOVED
 - NEW CLAY TILE FOOTPATH
 - NEW ASPHALT FOOTPATH
 - CYCLIST LANES
 - EXISTING RAISED MEDIAN ISLAND
 - NEW / EXTENDED RAISED MEDIAN ISLAND
 - NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Casey Guan	08/2020
DRAWN	Kerry Ware	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - MANNERS STREET

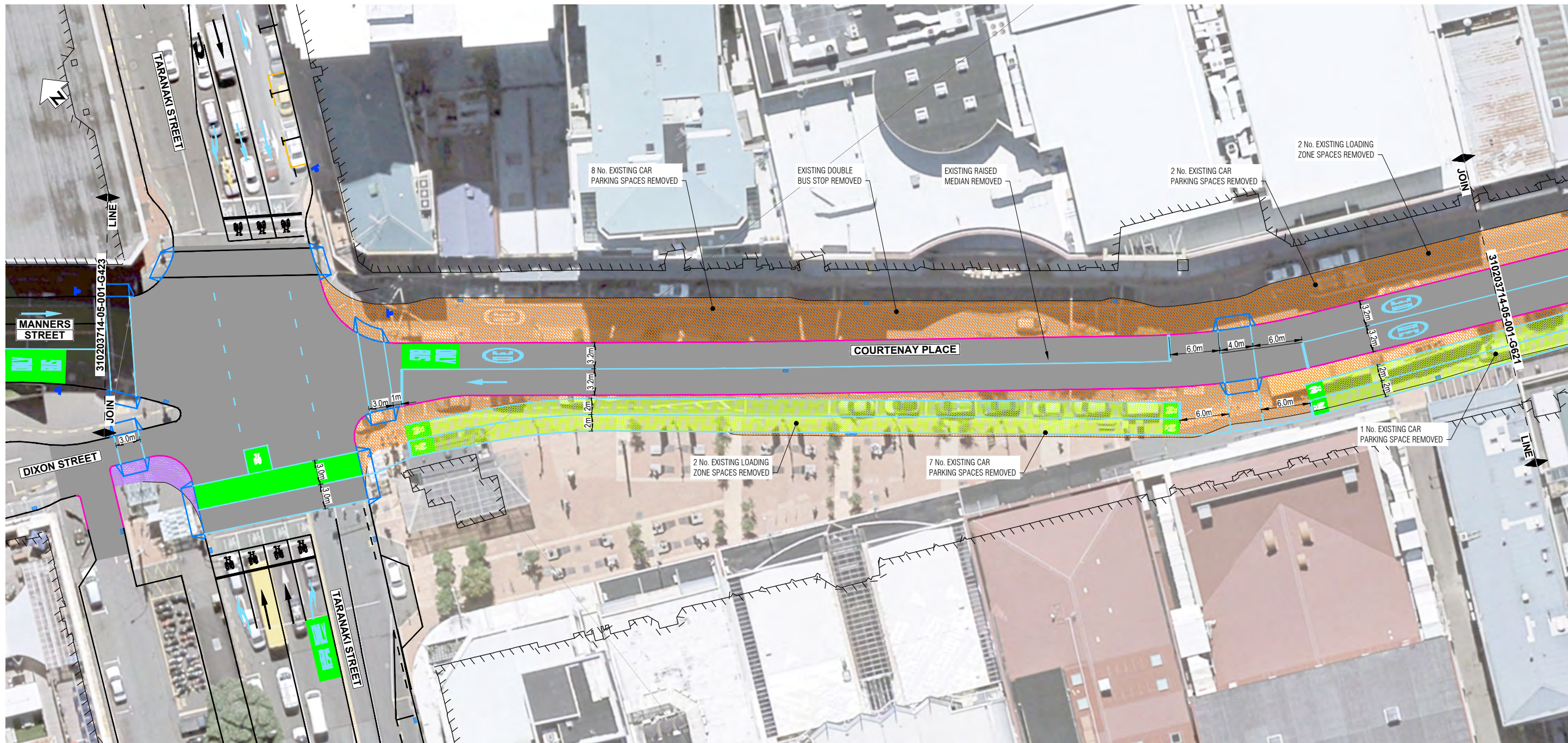
SHEET 4 OF 4

Status Stamp	WORKING PLOT
Date Stamp	08.09.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G423
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
160
140
120
100
80
60
40
20
0

ORIGINAL SIZE A1



8 No. EXISTING CAR PARKING SPACES REMOVED

EXISTING DOUBLE BUS STOP REMOVED

EXISTING RAISED MEDIAN REMOVED

2 No. EXISTING CAR PARKING SPACES REMOVED

2 No. EXISTING LOADING ZONE SPACES REMOVED

2 No. EXISTING LOADING ZONE SPACES REMOVED

7 No. EXISTING CAR PARKING SPACES REMOVED

1 No. EXISTING CAR PARKING SPACE REMOVED



SCALE 1:250

LEGEND - SIDE STREET WORKS

	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND

	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW CLAY TILE FOOTPATH
	NEW ASPHALT FOOTPATH
	CYCLIST LANES
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Heidi Kwan-Tsang	08/2020
DRAWN	Siu Puletiutua	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



GOLDEN MILE IMPROVEMENTS

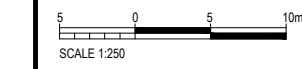
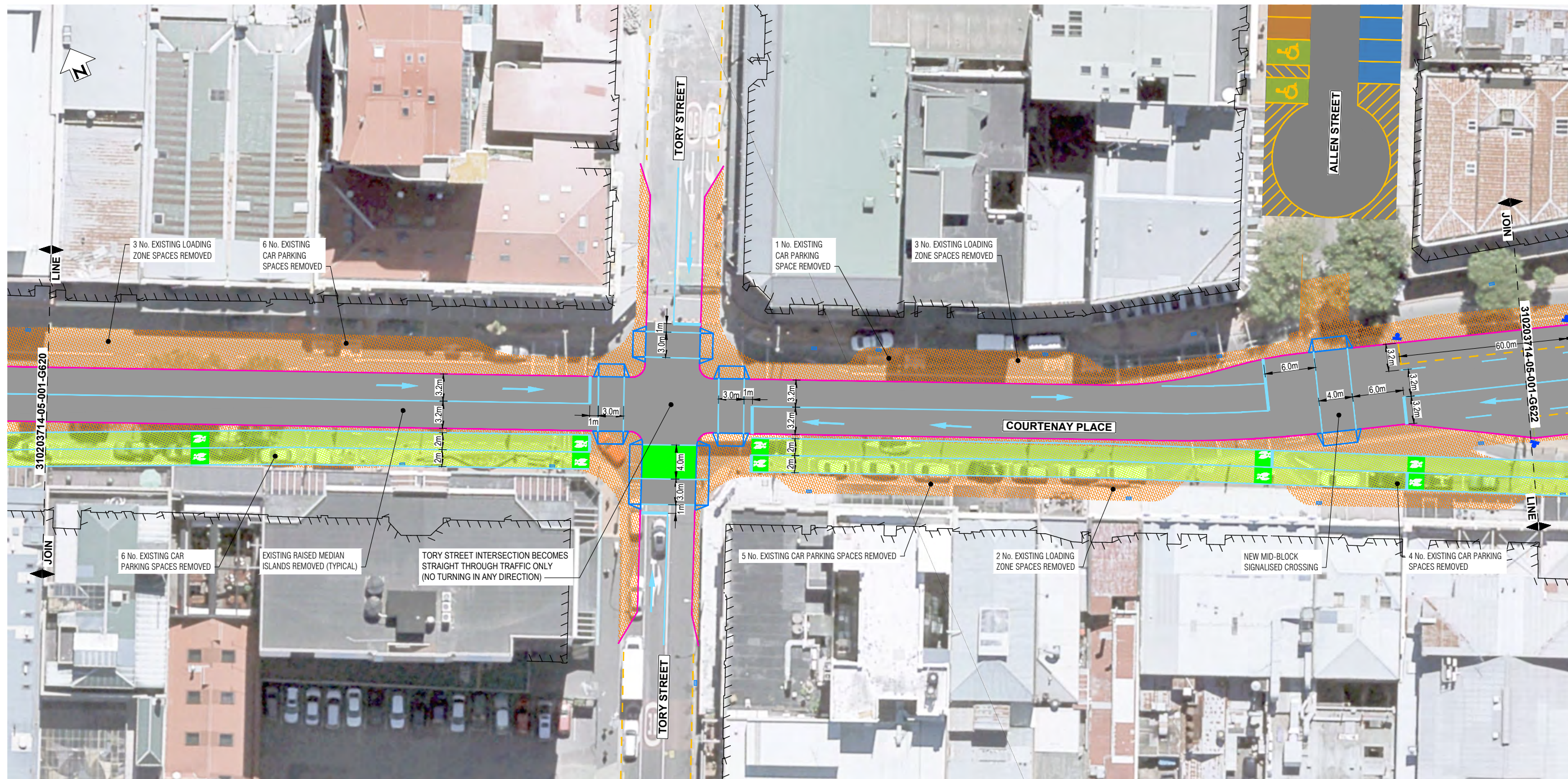
GENERAL LAYOUT PLAN - COURTENAY PLACE

SHEET 1 OF 3

Status Stamp	WORKING PLOT
Date Stamp	08.09.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G620
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

- EXISTING ROAD REMOVED
- MOBILITY PARKING
- LOADING ZONE
- TAXI STAND
- MOTOR CYCLE PARKING

LEGEND

- EXISTING KERBLINE / ROAD MARKING
- NEW KERB
- NEW WHITE ROADMARKING
- NEW YELLOW ROADMARKING
- EXISTING KERB / MARKING TO BE REMOVED
- NEW CLAY TILE FOOTPATH
- NEW ASPHALT FOOTPATH
- CYCLIST LANES
- EXISTING RAISED MEDIAN ISLAND
- NEW / EXTENDED RAISED MEDIAN ISLAND
- NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Heidi Kwan-Tsang	08/2020
DRAWN	Siu Puleituaota	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



GOLDEN MILE IMPROVEMENTS

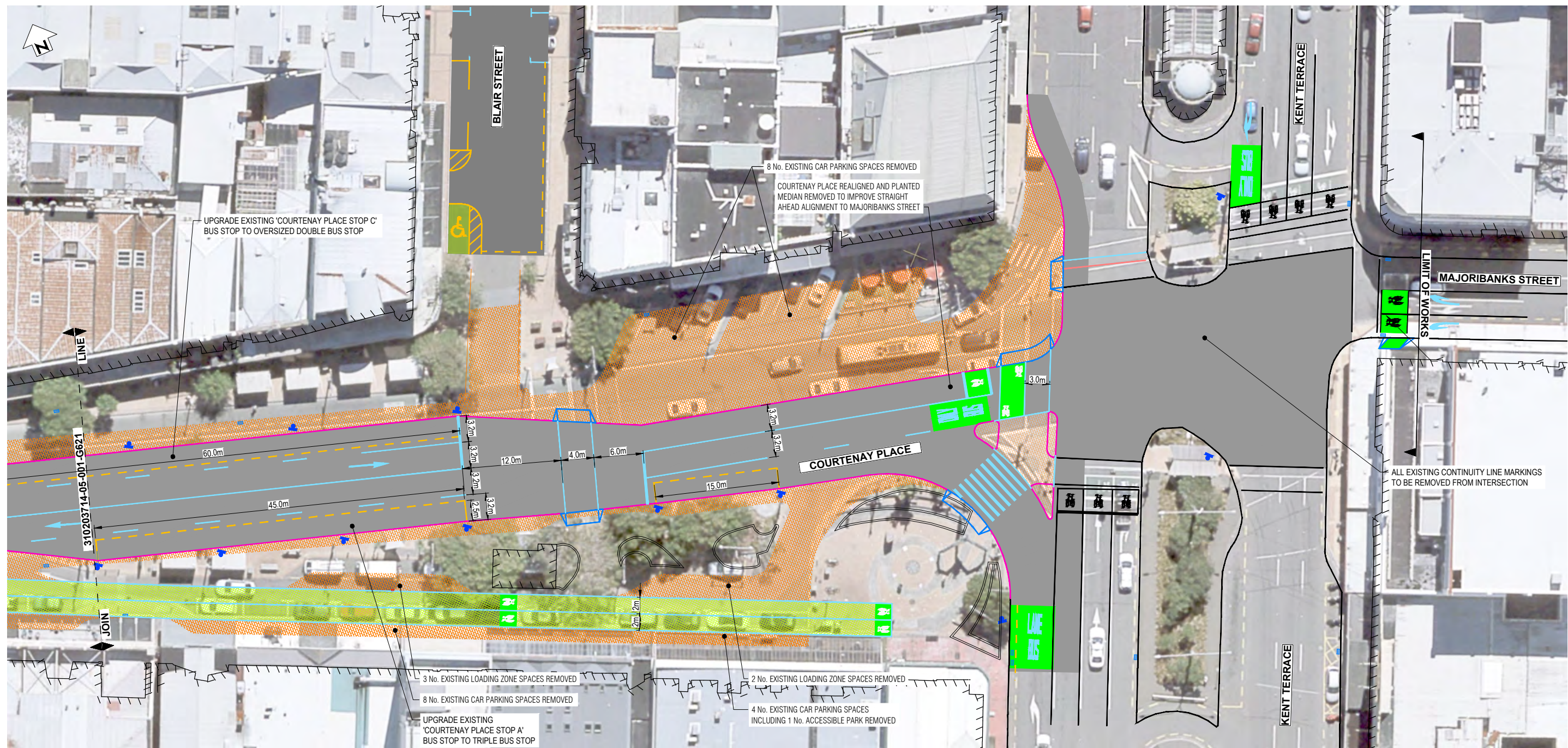
GENERAL LAYOUT PLAN - COURTENAY PLACE

SHEET 2 OF 3

Status Stamp	WORKING PLOT
Date Stamp	09.09.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G621
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND

	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW CLAY TILE FOOTPATH
	NEW ASPHALT FOOTPATH
	CYCLIST LANES
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Heidi Kwan-Tsang	08/2020
DRAWN	Siu Puletiutua	08/2020
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



GOLDEN MILE IMPROVEMENTS

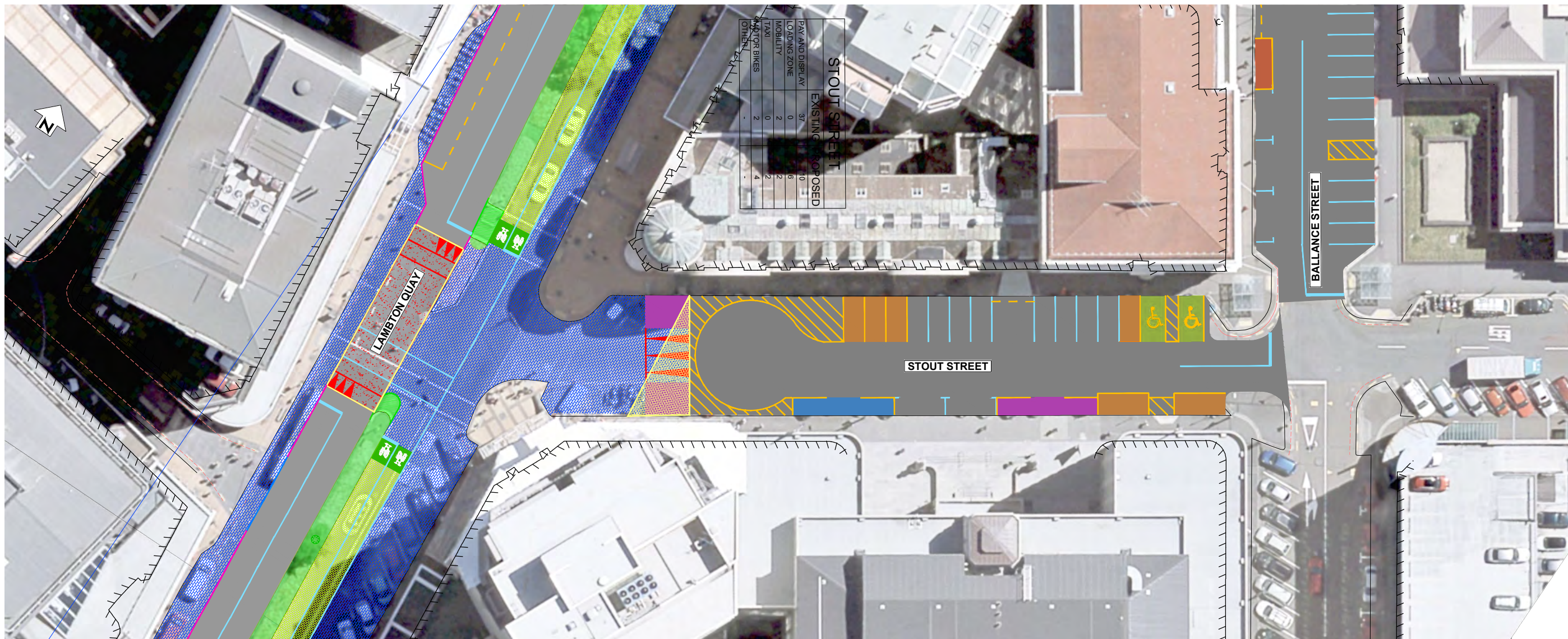
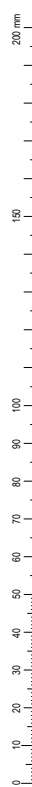
GENERAL LAYOUT PLAN - COURTENAY PLACE

SHEET 3 OF 3

Status Stamp	WORKING PLOT
Date Stamp	31.08.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G622
Rev.	A

ORIGINAL SIZE A1

DONOT SCALE - IF IN DOUBT, ASK



STOUT STREET	
EXISTING	PROPOSED
PAY AND DISPLAY	37
LOADING ZONE	0
MOBILITY	6
TAXI	2
MOTOR BIKES	2
OTHER	4



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
	ADDITIONAL NEW FOOTPATH (NOT INCLUDED IN OPTION 3 COSTINGS)
	TRAFFICABLE RAISED TABLES (NOT INCLUDED IN OPTION 3 COSTINGS)
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	WSP	04/2021
DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

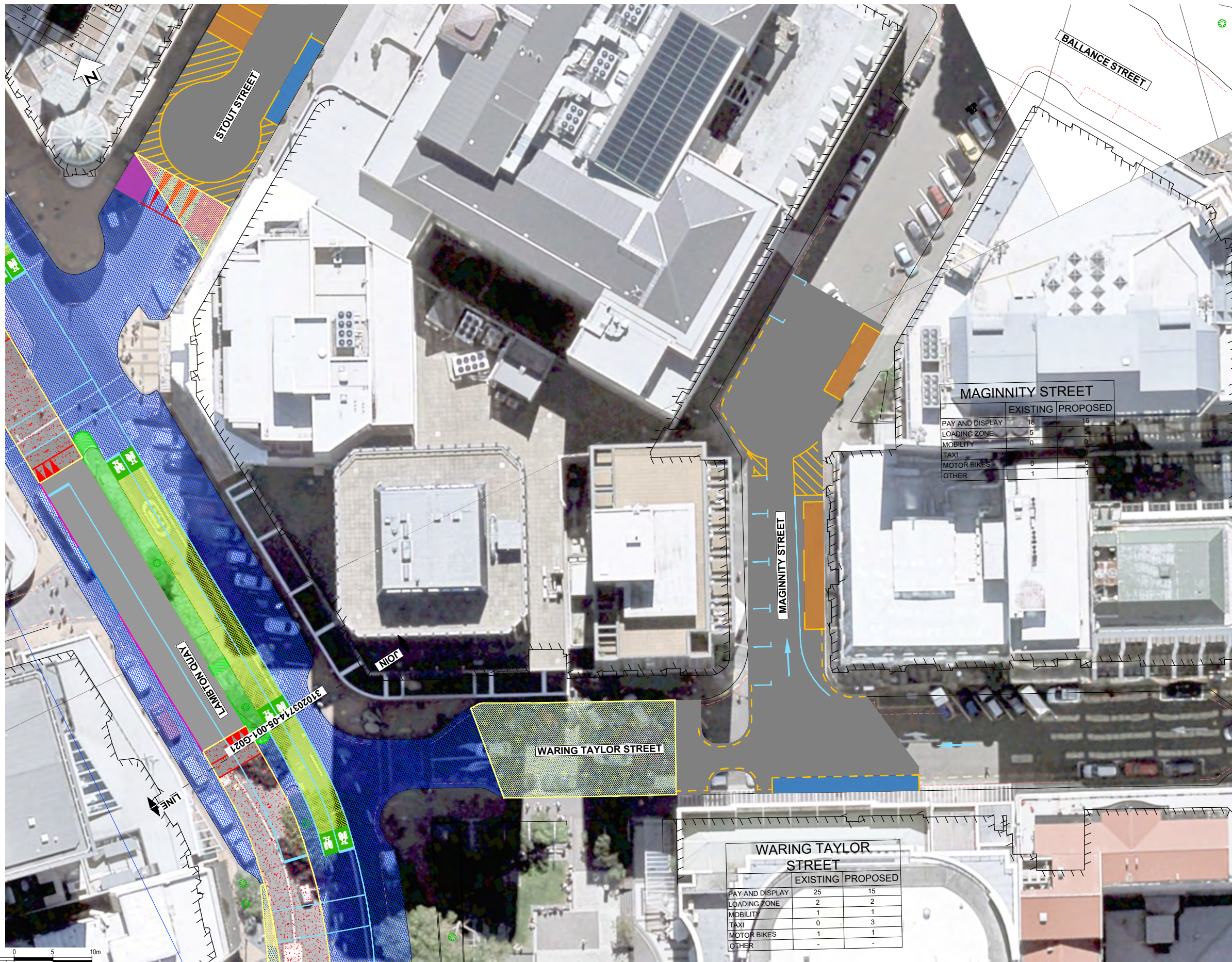
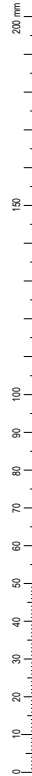
Client: **Stantec** *Let's GET Wellington MOVING*

GOLDEN MILE IMPROVEMENTS
GENERAL LAYOUT PLAN - STOUT STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G801
Rev.	A

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



MAGINNITY STREET		
	EXISTING	PROPOSED
PAY AND DISPLAY	18	16
LOADING ZONE	5	5
MOBILITY	0	0
TAXI	0	0
MOTOR BIKES	0	0
OTHER	1	1

WARING TAYLOR STREET		
	EXISTING	PROPOSED
PAY AND DISPLAY	25	15
LOADING ZONE	2	2
MOBILITY	1	1
TAXI	0	3
MOTOR BIKES	1	1
OTHER	-	-

LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
	ADDITIONAL NEW FOOTPATH (NOT INCLUDED IN OPTION 3 COSTINGS)
	TRAFFICABLE RAISED TABLES (NOT INCLUDED IN OPTION 3 COSTINGS)
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	WSP	04/2021
DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



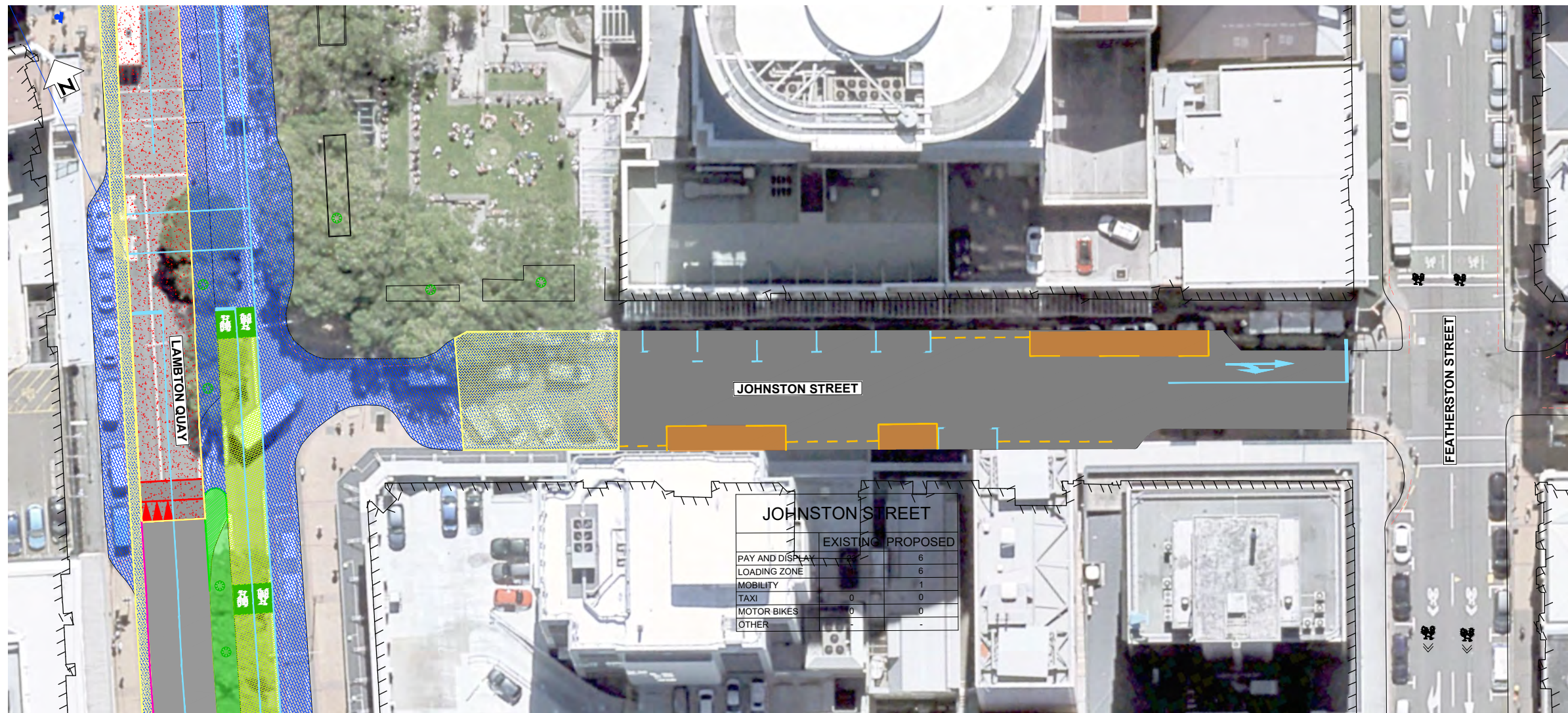
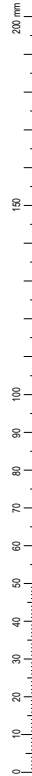
GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - WARING TAYLOR & MAGINNITY STREETS

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G802
Rev.	A

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



JOHNSTON STREET		EXISTING	PROPOSED
PAY AND DISPLAY		6	6
LOADING ZONE		6	6
MOBILITY		1	1
TAXI		0	0
MOTOR BIKES		0	0
OTHER		-	-



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
	ADDITIONAL NEW FOOTPATH (NOT INCLUDED IN OPTION 3 COSTINGS)
	TRAFFICABLE RAISED TABLES (NOT INCLUDED IN OPTION 3 COSTINGS)
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	WSP	04/2021
DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

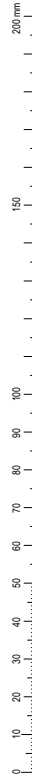
Client: **Stantec** **Let's GET Wellington MOVING**

GOLDEN MILE IMPROVEMENTS

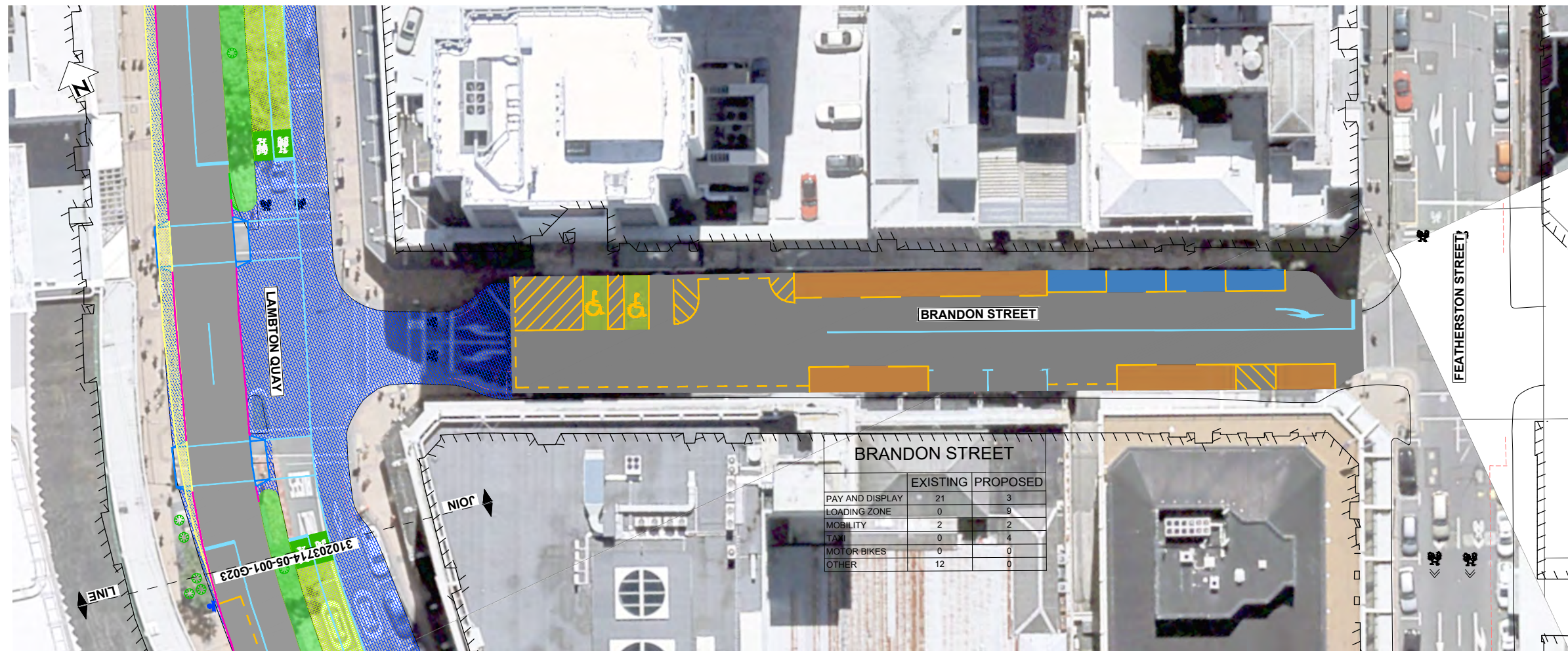
GENERAL LAYOUT PLAN - JOHNSTON STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G803
Rev.	A

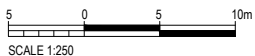
DO NOT SCALE - IF IN DOUBT, ASK



ORIGINAL SIZE A1



BRANDON STREET		
	EXISTING	PROPOSED
PAY AND DISPLAY	21	3
LOADING ZONE	0	9
MOBILITY	2	2
TAXI	0	4
MOTOR BIKES	0	0
OTHER	12	0



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
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	TRAFFICABLE RAISED TABLES (NOT INCLUDED IN OPTION 3 COSTINGS)
	EXISTING RAISED MEDIAN ISLAND
	NEW / EXTENDED RAISED MEDIAN ISLAND
	NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

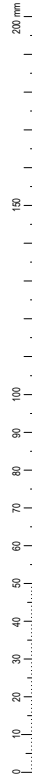
SURVEYED		
DESIGNED	WSP	04/2021
DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

Client: **Stantec** *Let's GET Wellington MOVING*

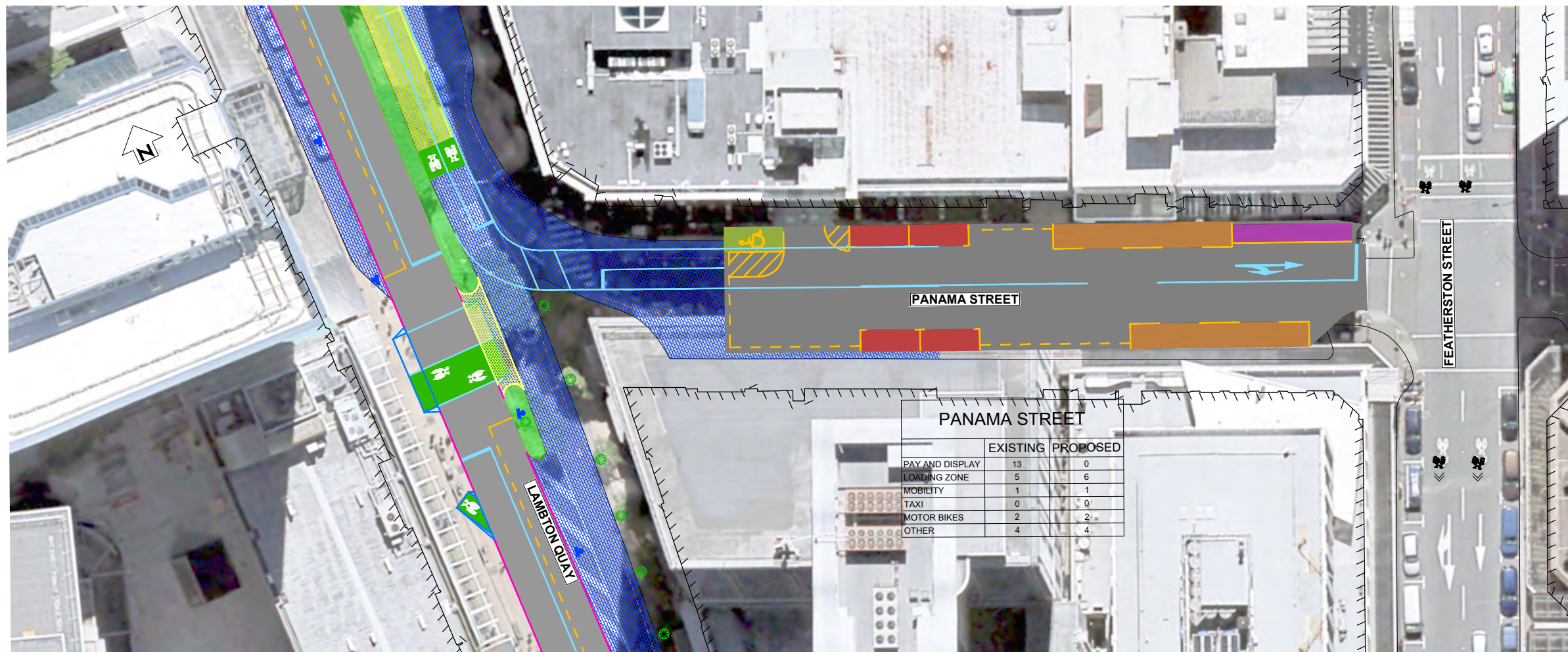
GOLDEN MILE IMPROVEMENTS
GENERAL LAYOUT PLAN - BRANDON STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G804
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK



ORIGINAL SIZE A1



PANAMA STREET		
	EXISTING	PROPOSED
PAY AND DISPLAY	13	0
LOADING ZONE	5	6
MOBILITY	1	1
TAXI	0	0
MOTOR BIKES	2	2
OTHER	4	4



LEGEND - SIDE STREET WORKS

- EXISTING ROAD REMOVED
- MOBILITY PARKING
- LOADING ZONE
- TAXI STAND
- MOTOR CYCLE PARKING

LEGEND

- EXISTING KERBLINE / ROAD MARKING
- NEW KERB
- NEW WHITE ROADMARKING
- NEW YELLOW ROADMARKING
- EXISTING KERB / MARKING TO BE REMOVED
- NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
- ADDITIONAL NEW FOOTPATH (NOT INCLUDED IN OPTION 3 COSTINGS)
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- EXISTING RAISED MEDIAN ISLAND
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- NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	WSP	04/2021
DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

Client: **Stantec** *Let's GET Wellington MOVING*

GOLDEN MILE IMPROVEMENTS

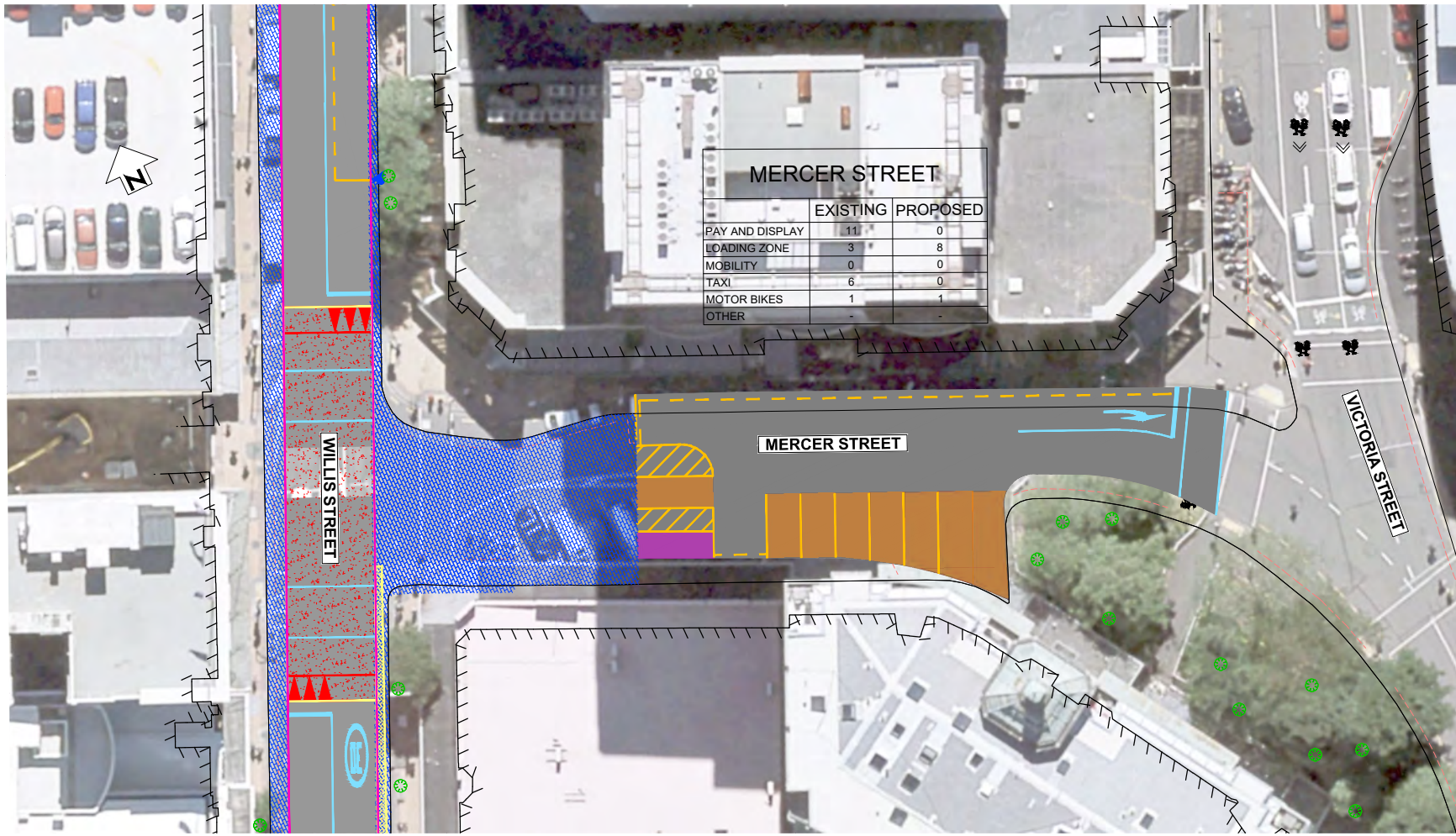
GENERAL LAYOUT PLAN - PANAMA STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G805
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
150
100
90
80
70
60
50
40
30
20
10
0

ORIGINAL SIZE **A1**



LEGEND - SIDE STREET WORKS

- EXISTING ROAD REMOVED
- MOBILITY PARKING
- LOADING ZONE
- TAXI STAND
- MOTOR CYCLE PARKING

LEGEND

- EXISTING KERBLINE / ROAD MARKING
- NEW KERB
- NEW WHITE ROADMARKING
- NEW YELLOW ROADMARKING
- EXISTING KERB / MARKING TO BE REMOVED
- NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
- ADDITIONAL NEW FOOTPATH (NOT INCLUDED IN OPTION 3 COSTINGS)
- TRAFFICABLE RAISED TABLES (NOT INCLUDED IN OPTION 3 COSTINGS)
- EXISTING RAISED MEDIAN ISLAND
- NEW / EXTENDED RAISED MEDIAN ISLAND
- NEW / RELOCATED SIGN

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	WSP	04/2021
DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



Client: GOLDEN MILE IMPROVEMENTS

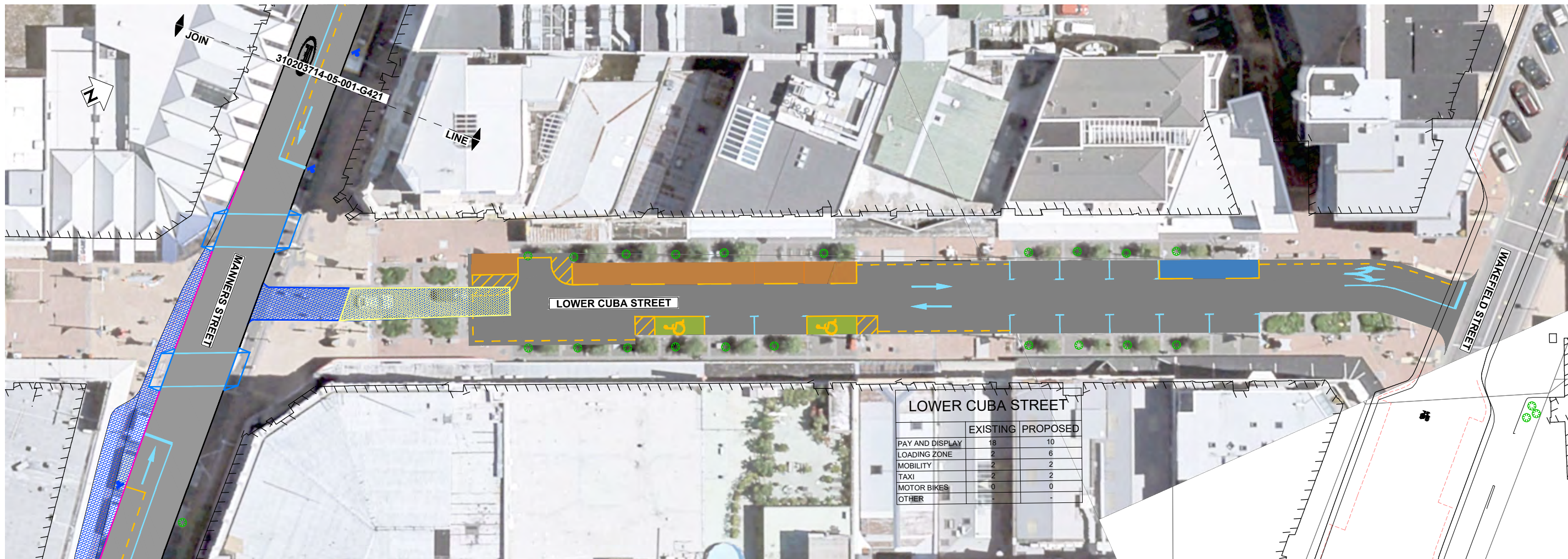
GENERAL LAYOUT PLAN - MERCER STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G806
Rev.	A

ORIGINAL SIZE A1

200 mm

DO NOT SCALE - IF IN DOUBT, ASK



LOWER CUBA STREET		
	EXISTING	PROPOSED
PAY AND DISPLAY	18	10
LOADING ZONE	2	6
MOBILITY	2	2
TAXI	2	2
MOTOR BIKES	0	0
OTHER	-	-



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
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PROF REGISTRATION:		



Client: GOLDEN MILE IMPROVEMENTS

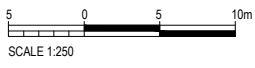
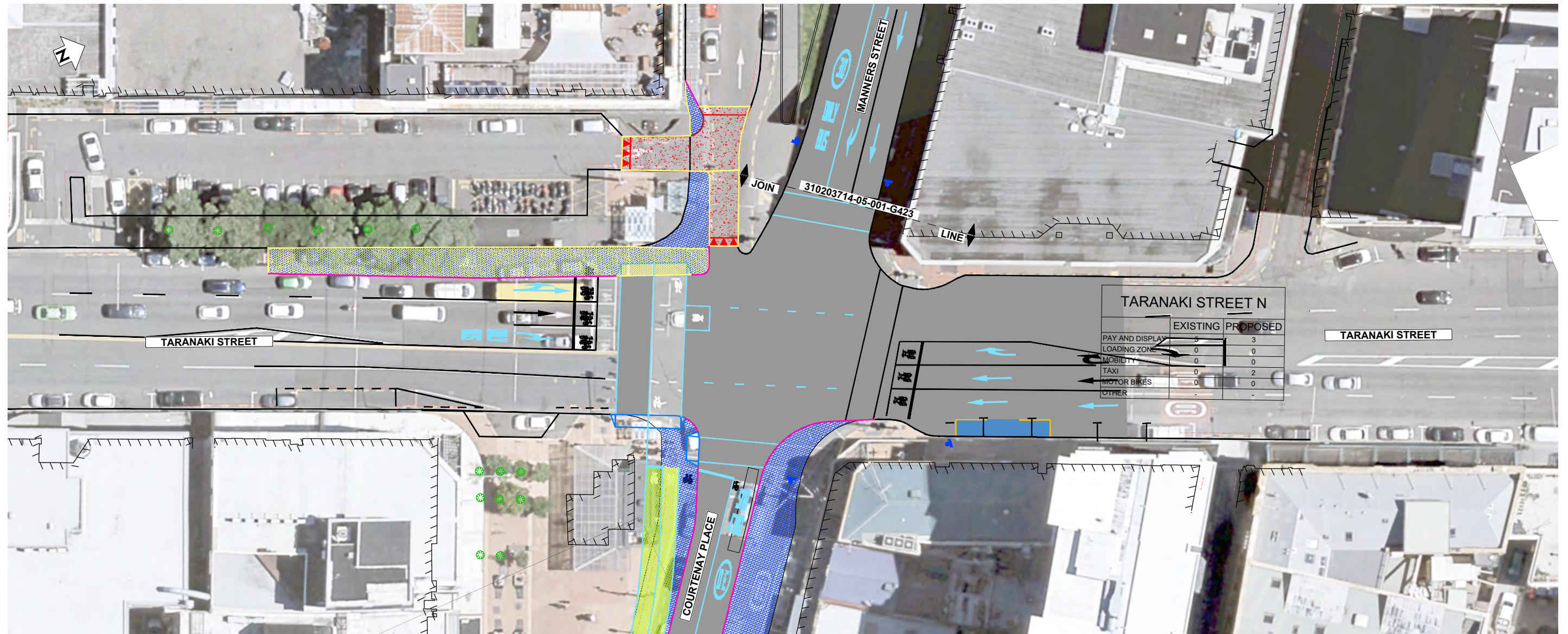
GENERAL LAYOUT PLAN - LOWER CUBA STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G807
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
160
140
120
100
80
60
40
20
0

ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

- EXISTING ROAD REMOVED
- MOBILITY PARKING
- LOADING ZONE
- TAXI STAND
- MOTOR CYCLE PARKING

LEGEND

- EXISTING KERBLINE / ROAD MARKING
- NEW KERB
- NEW WHITE ROADMARKING
- NEW YELLOW ROADMARKING
- EXISTING KERB / MARKING TO BE REMOVED
- NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
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GOLDEN MILE IMPROVEMENTS

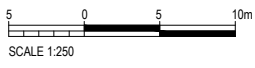
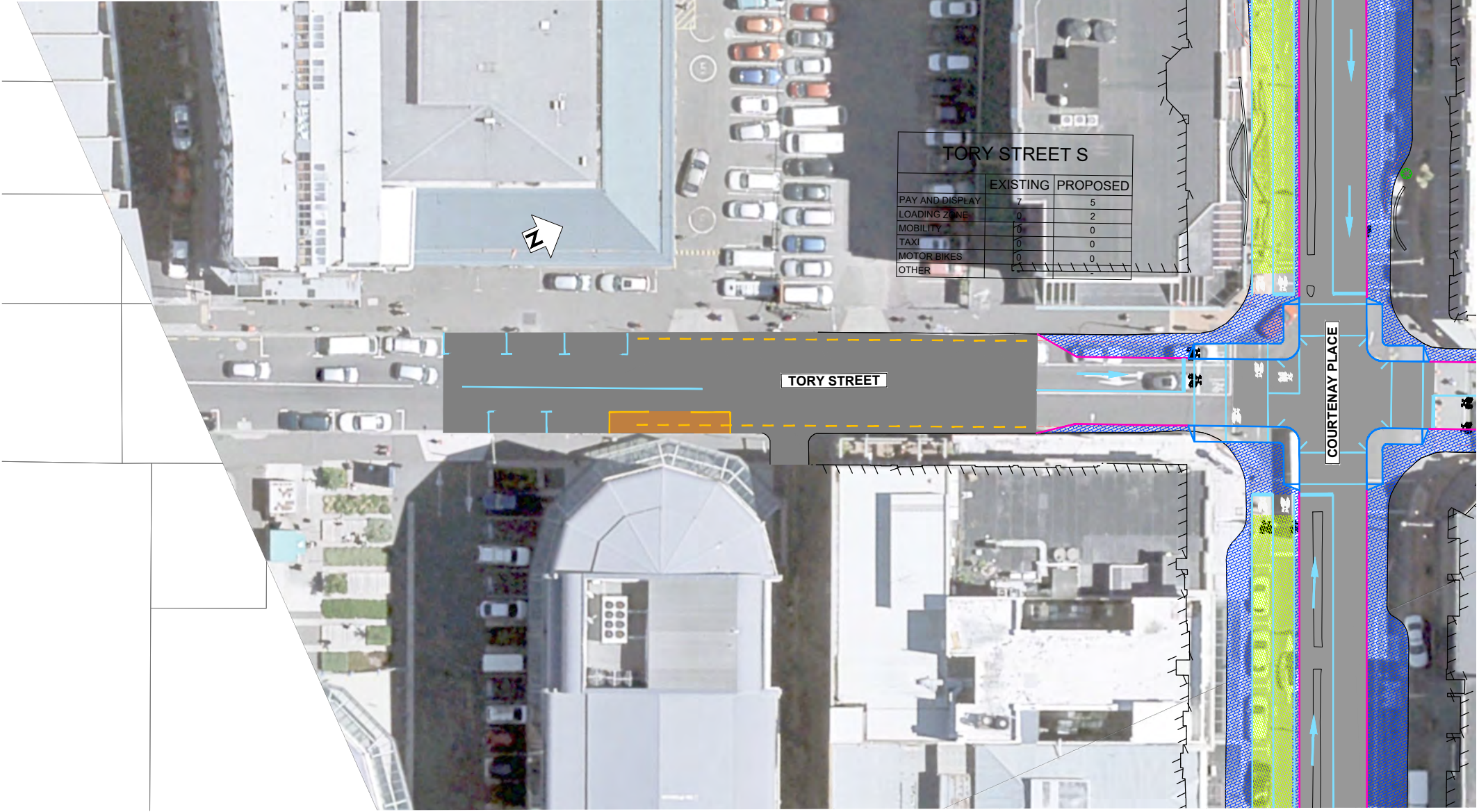
GENERAL LAYOUT PLAN - TARANAKI STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G808
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
150
100
90
80
70
60
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40
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0

ORIGINAL SIZE **A1**



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
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	NEW / RELOCATED SIGN

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DRAWN	Kerry Ware	06/2021
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		



GOLDEN MILE IMPROVEMENTS

GENERAL LAYOUT PLAN - TORY STREET SOUTH

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G810
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
160
140
120
100
80
60
40
20
0

ORIGINAL SIZE A1



TORY STREET N		
	EXISTING	PROPOSED
PAY AND DISPLAY	15	11
LOADING ZONE	0	0
MOBILITY	0	0
TAXI	0	4
MOTOR BIKES	0	0
OTHER	-	-



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
	NEW FOOTPATH (WITH SHARED PATH OPPORTUNITIES)
	ADDITIONAL NEW FOOTPATH (NOT INCLUDED IN OPTION 3 COSTINGS)
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CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		

Client: **Stantec**

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GOLDEN MILE IMPROVEMENTS

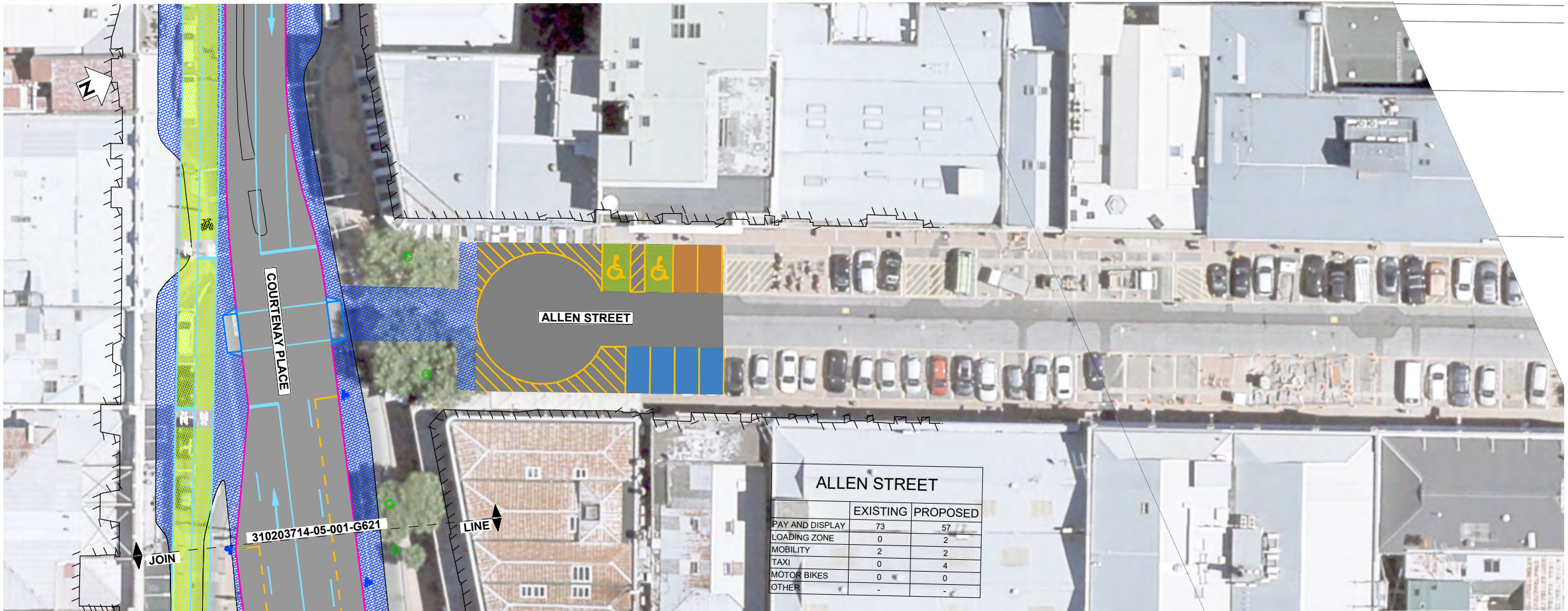
GENERAL LAYOUT PLAN - TORY STREET NORTH

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G809
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
180
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ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS

- EXISTING ROAD REMOVED
- MOBILITY PARKING
- LOADING ZONE
- TAXI STAND
- MOTOR CYCLE PARKING

LEGEND

- EXISTING KERBLINE / ROAD MARKING
- NEW KERB
- NEW WHITE ROADMARKING
- NEW YELLOW ROADMARKING
- EXISTING KERB / MARKING TO BE REMOVED
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APPROVED		
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Client: GOLDEN MILE IMPROVEMENTS

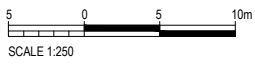
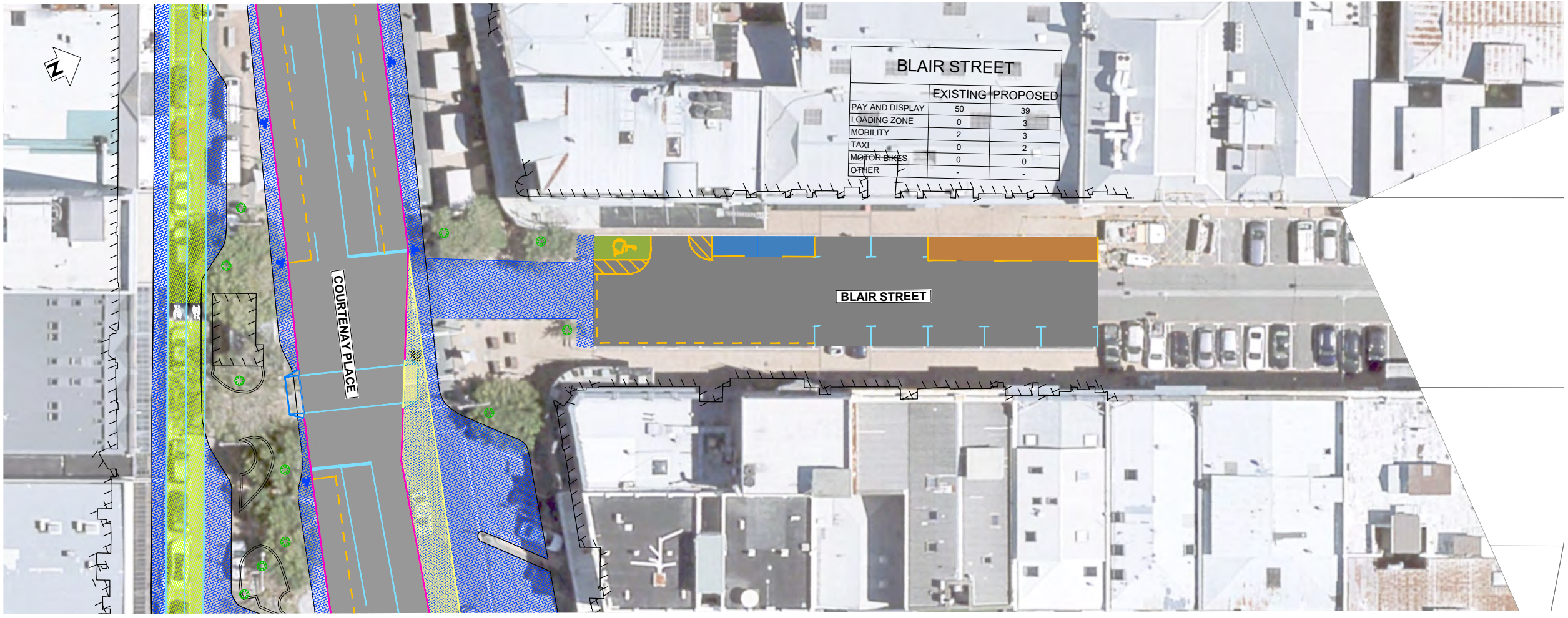
GENERAL LAYOUT PLAN - ALLEN STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G811
Rev.	A

DO NOT SCALE - IF IN DOUBT, ASK

200 mm
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ORIGINAL SIZE A1



LEGEND - SIDE STREET WORKS	
	EXISTING ROAD REMOVED
	MOBILITY PARKING
	LOADING ZONE
	TAXI STAND
	MOTOR CYCLE PARKING

LEGEND	
	EXISTING KERBLINE / ROAD MARKING
	NEW KERB
	NEW WHITE ROADMARKING
	NEW YELLOW ROADMARKING
	EXISTING KERB / MARKING TO BE REMOVED
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DESIGN CHECK		
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APPROVED		

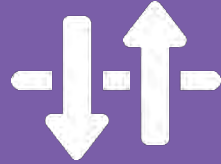


Client: GOLDEN MILE IMPROVEMENTS
 GENERAL LAYOUT PLAN - BLAIR STREET

Status Stamp	WORKING PLOT
Date Stamp	17.06.21
Scales	AS SHOWN
Drawing No.	310203714-05-001-G812
Rev.	A



C
Proposed Cycle
Arrangements



LGWM

Golden Mile Cycling Connectivity V1.0

27 May 2021

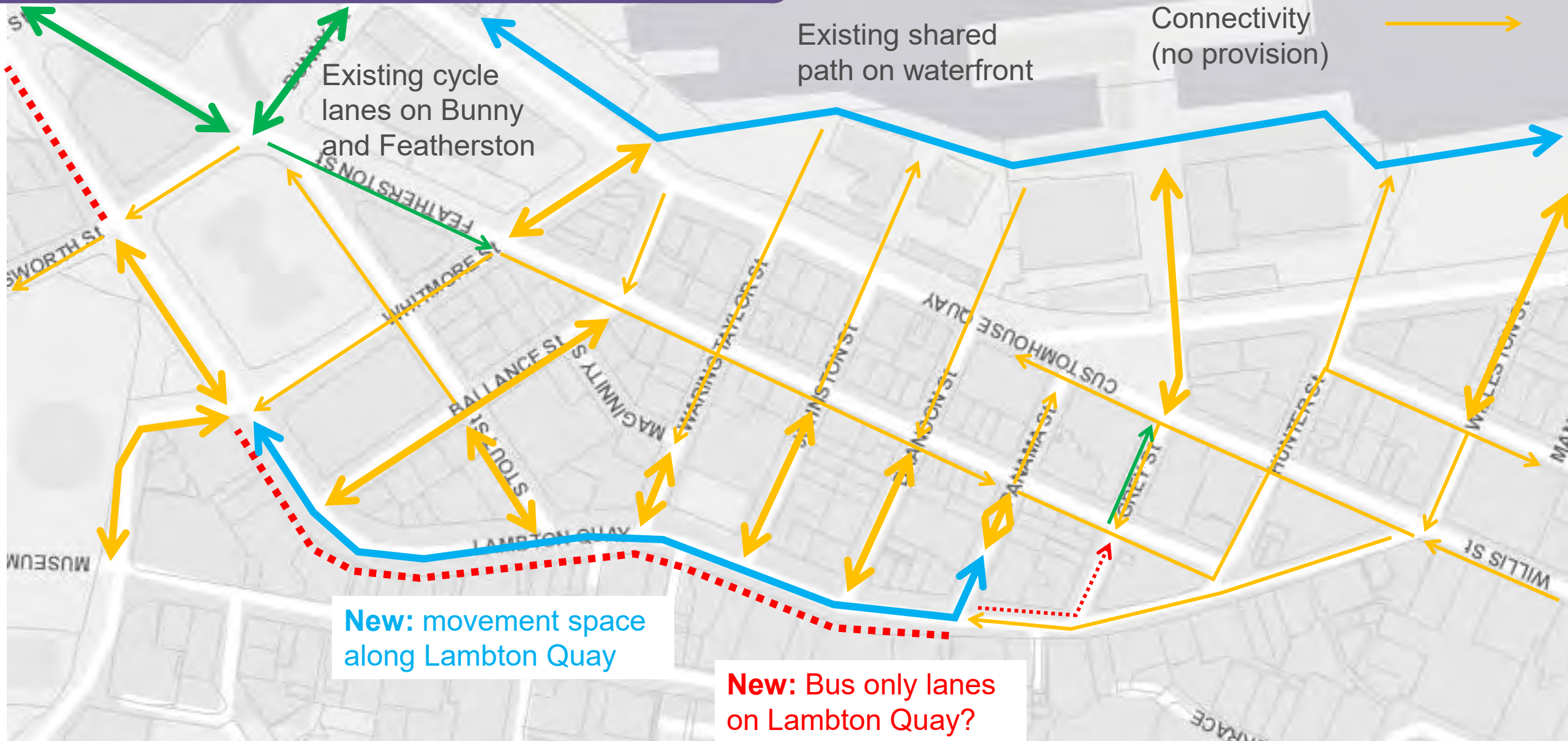


Overview

The following slides show the current thinking about the cycle improvements on Lambton Quay, Willis Street and Courtenay Place

Lambton Quay - proposed

- Shared facility 
- On-road facility 
- Cycles banned 
- Connectivity (no provision) 



Existing cycle lanes on Bunny and Featherston

Existing shared path on waterfront

New: movement space along Lambton Quay

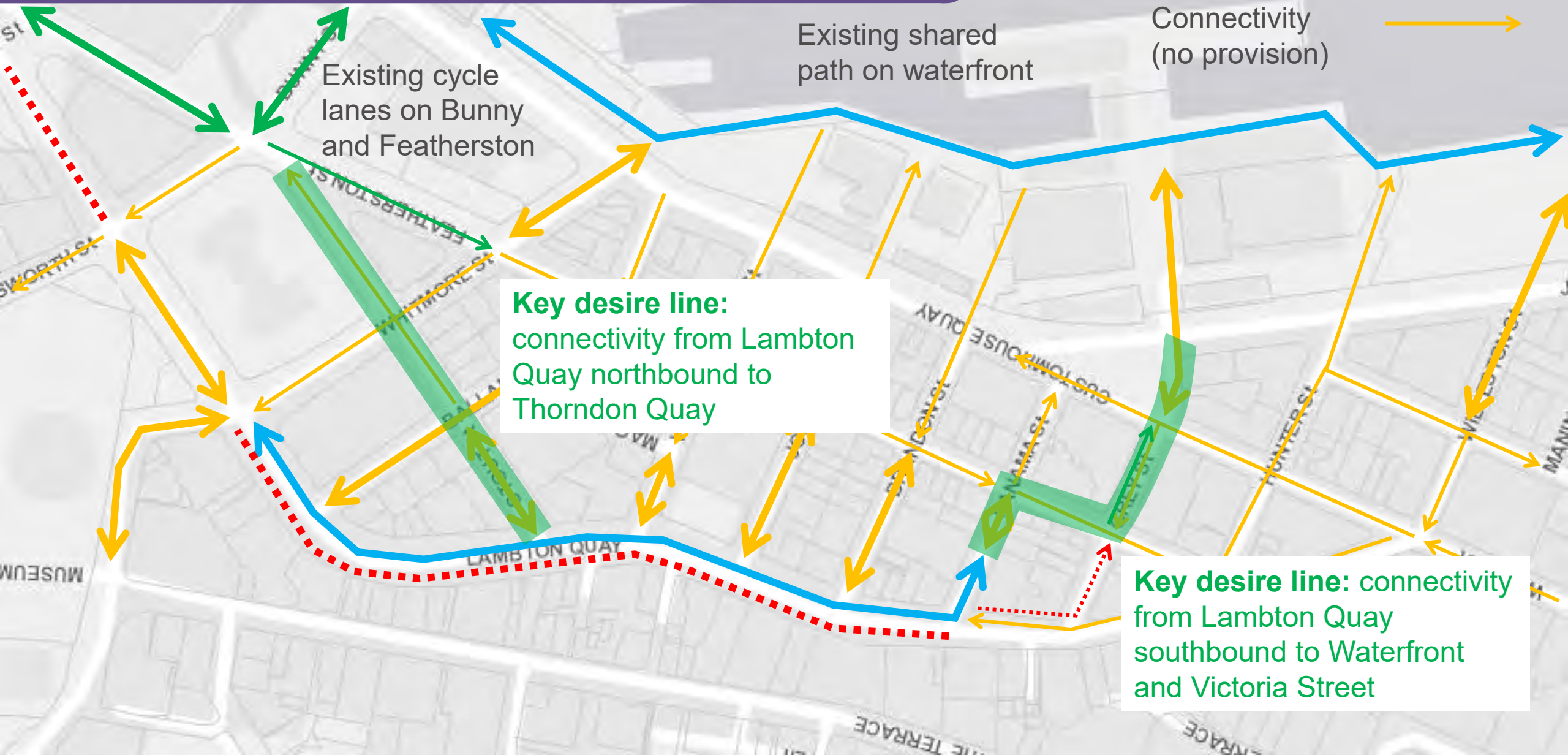
New: Bus only lanes on Lambton Quay?

Lambton Quay – summary

- Shared movement space on north side of Lambton Quay between Whitmore Street and Panama Street. Shared movement space:
 - Not a designated cycle lane
 - Not physically separated (to avoid trip hazards and perceived priority)
 - Different surface material from footpath / amenity areas
- Bus-only lanes (ideally) along Lambton Quay where alternative facility provided
- Low-priority connectivity provided at cul-de-sac side roads along length of shared movement space (Balance, Stout, Waring Taylor, Johnston and Brandon). Low priority assumed to be:
 - Wheeled device friendly drop-kerbs onto road level
 - Sharrows on cul-de-sacs
 - Pedestrians have priority for movement from shared path to side road cul-de-sac

Lambton Quay – key desire lines

- Shared facility 
- On-road facility 
- Cycles banned 
- Connectivity (no provision) 



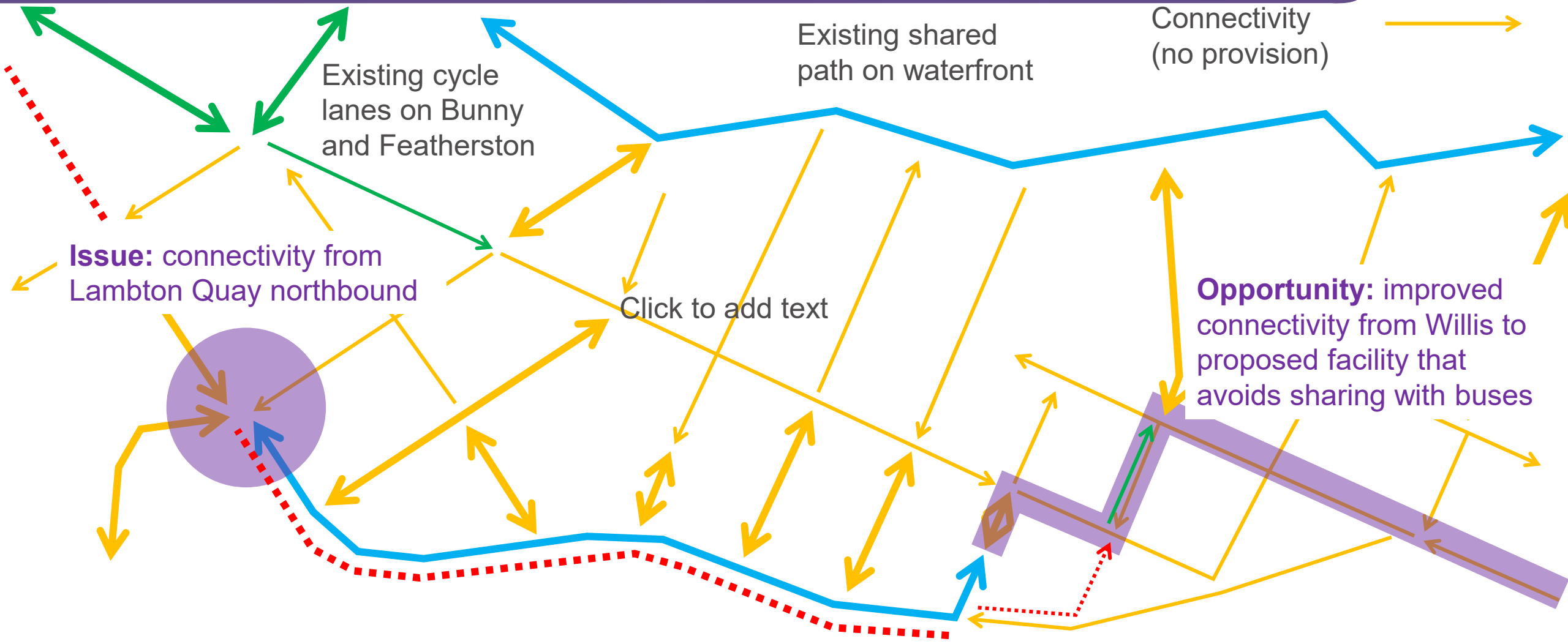
Existing cycle lanes on Bunny and Featherston

Existing shared path on waterfront

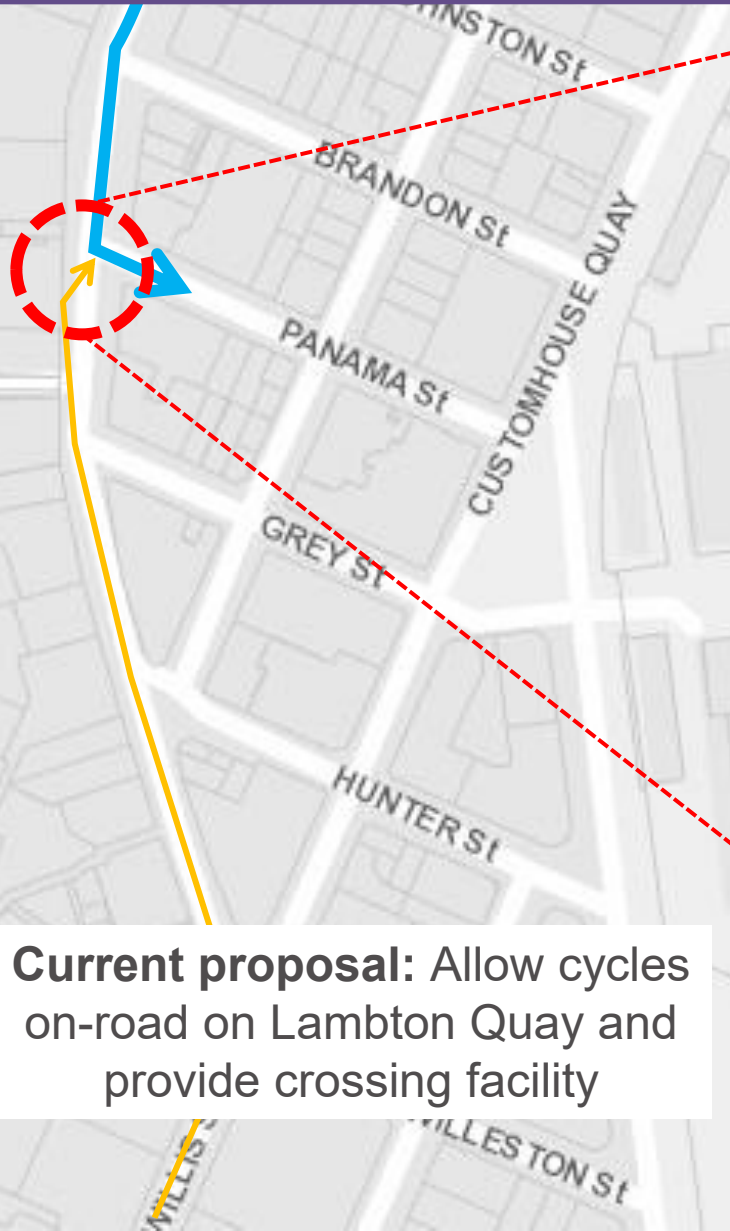
Key desire line:
connectivity from Lambton Quay northbound to Thorndon Quay

Key desire line: connectivity from Lambton Quay southbound to Waterfront and Victoria Street

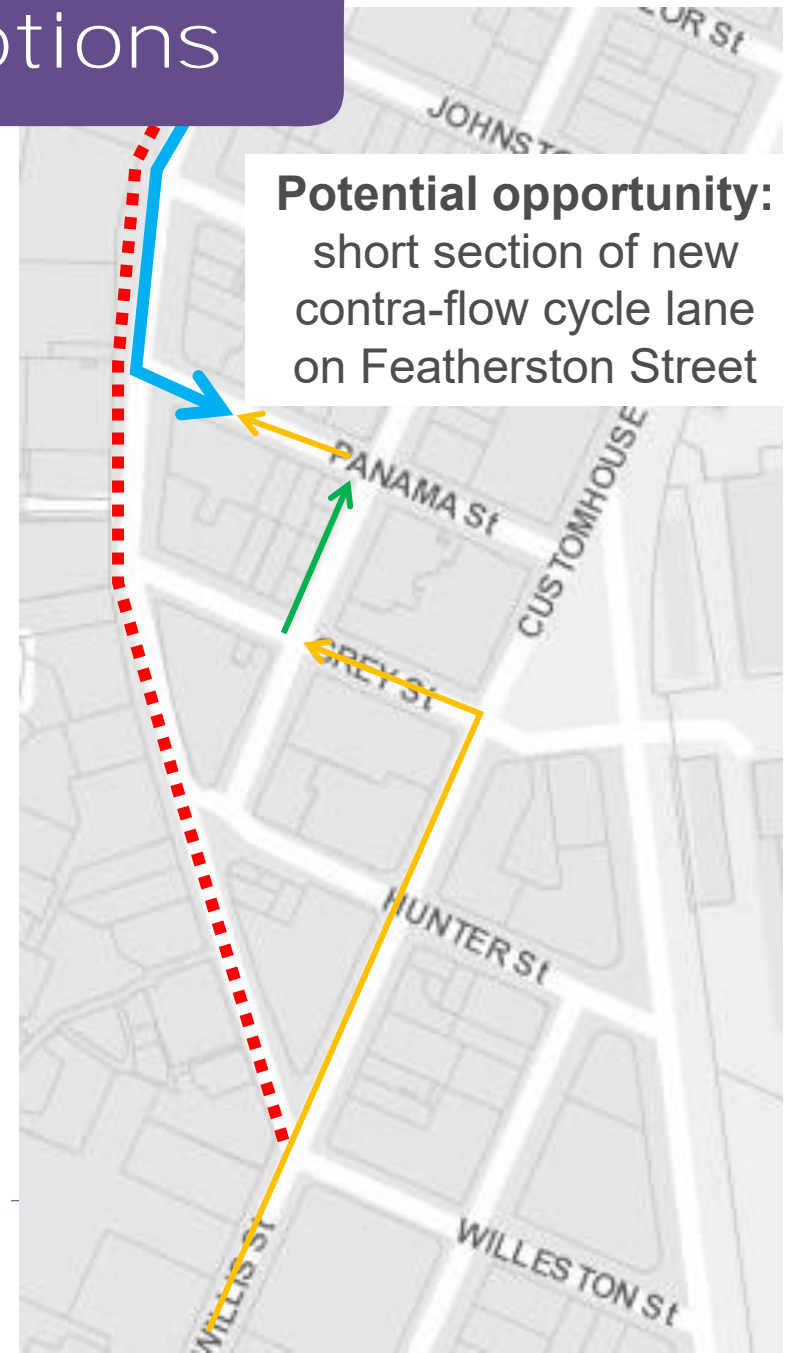
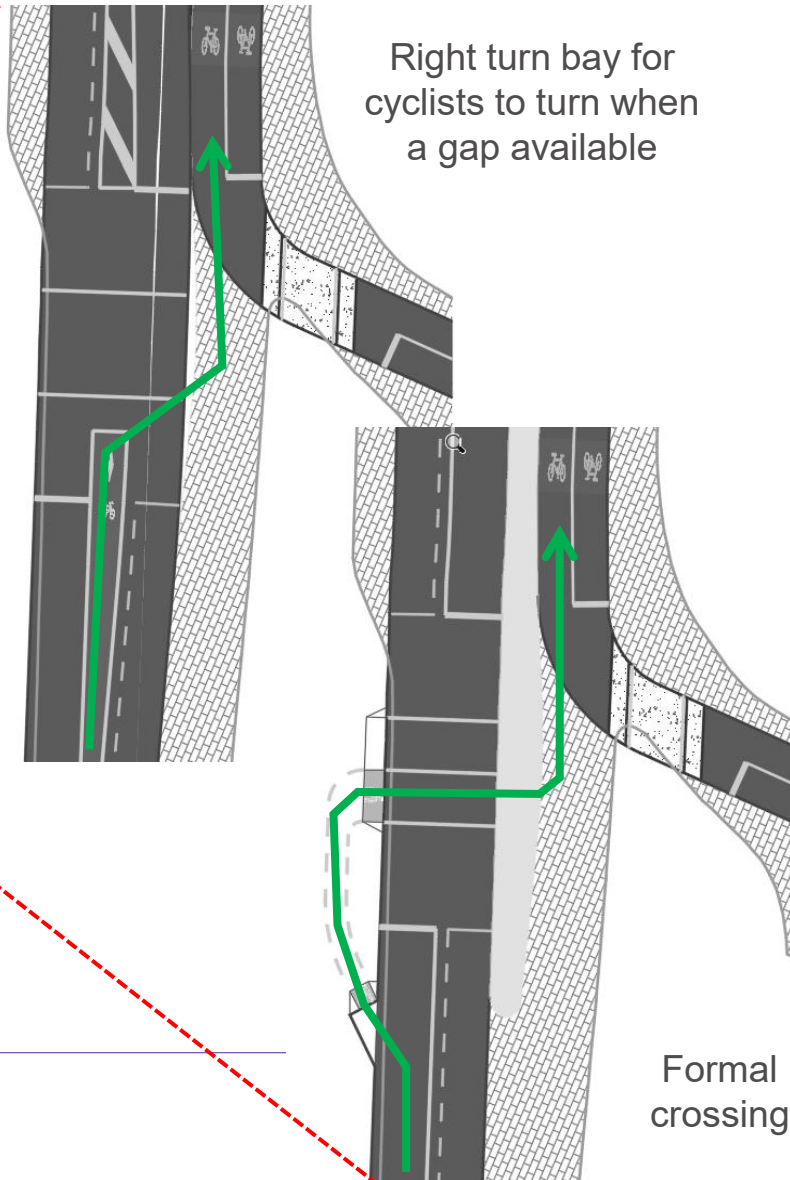
Lambton Quay – potential issues / opportunities



Lambton Quay – northbound entry options

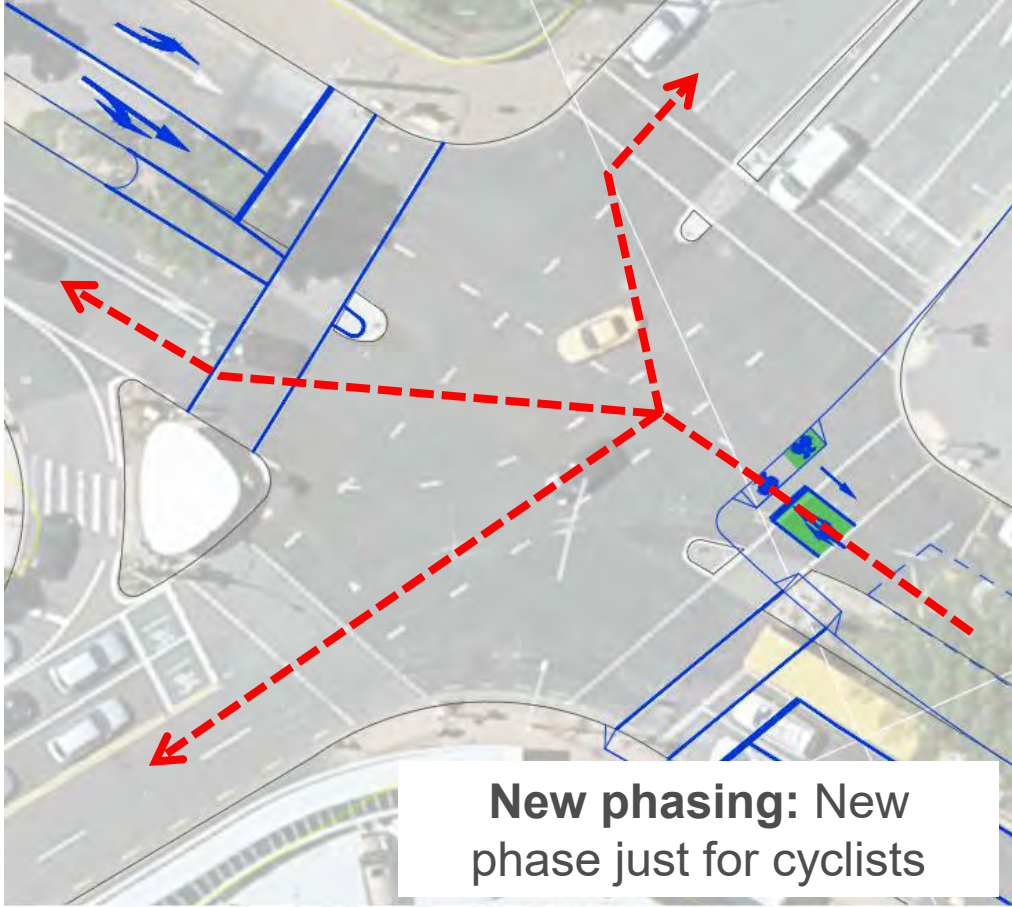
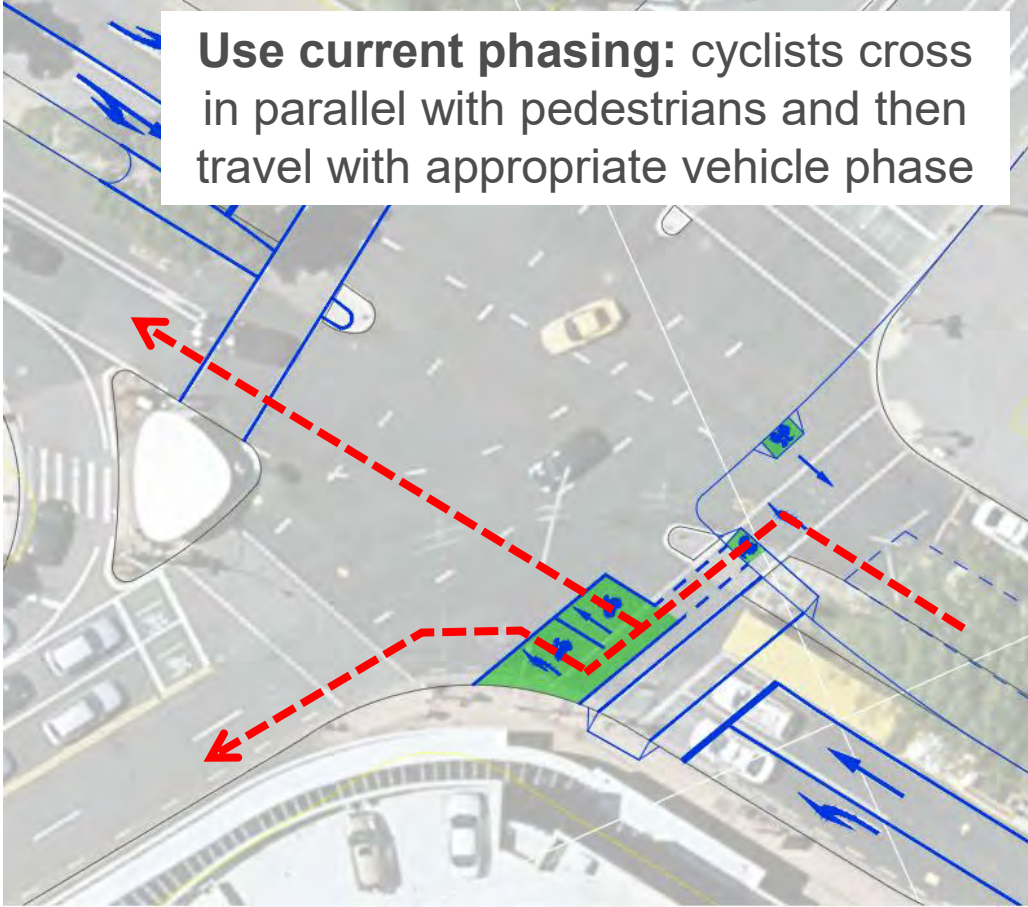


Current proposal: Allow cycles on-road on Lambton Quay and provide crossing facility




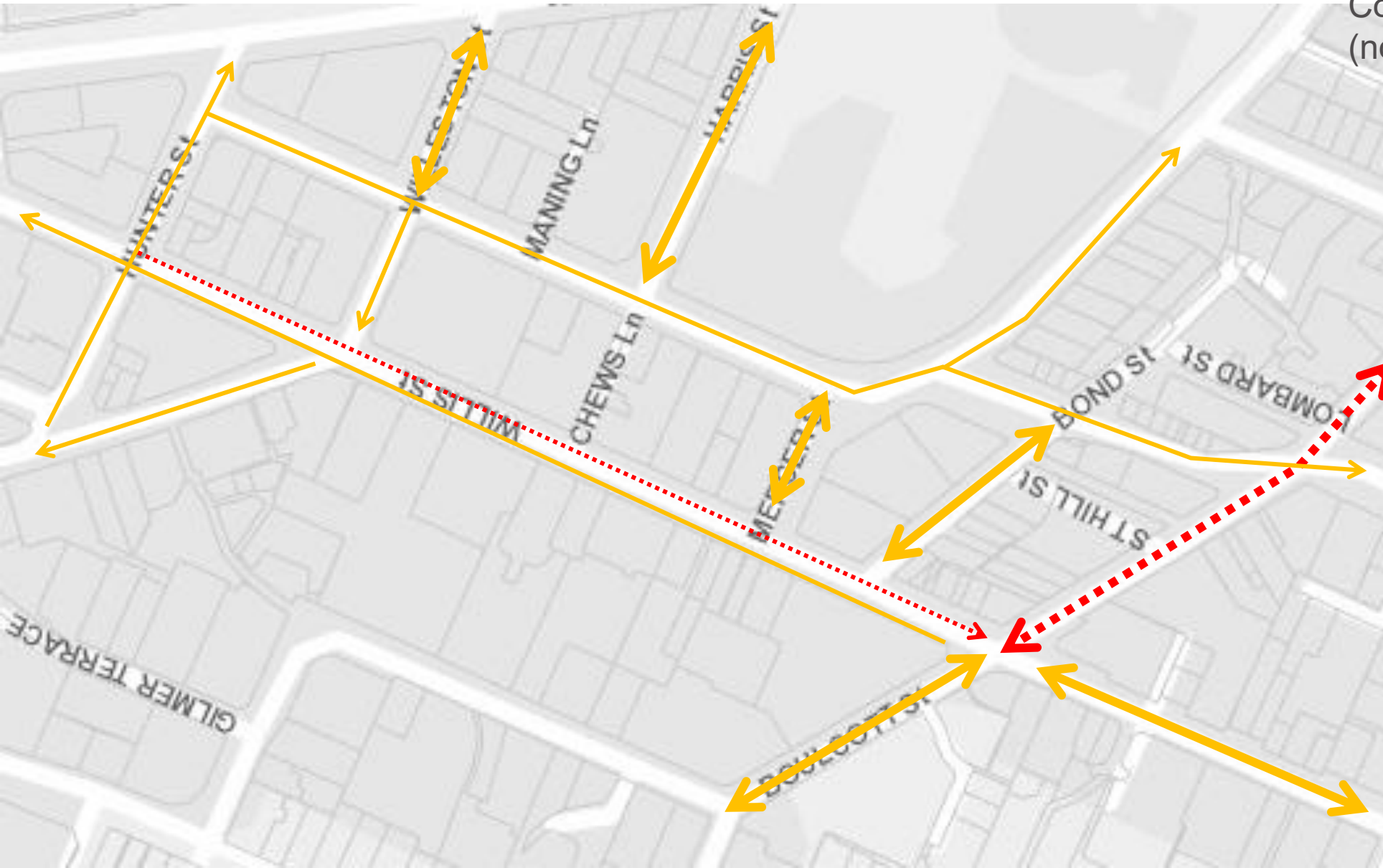
Potential opportunity: short section of new contra-flow cycle lane on Featherston Street

Lambton Quay – northbound exit options




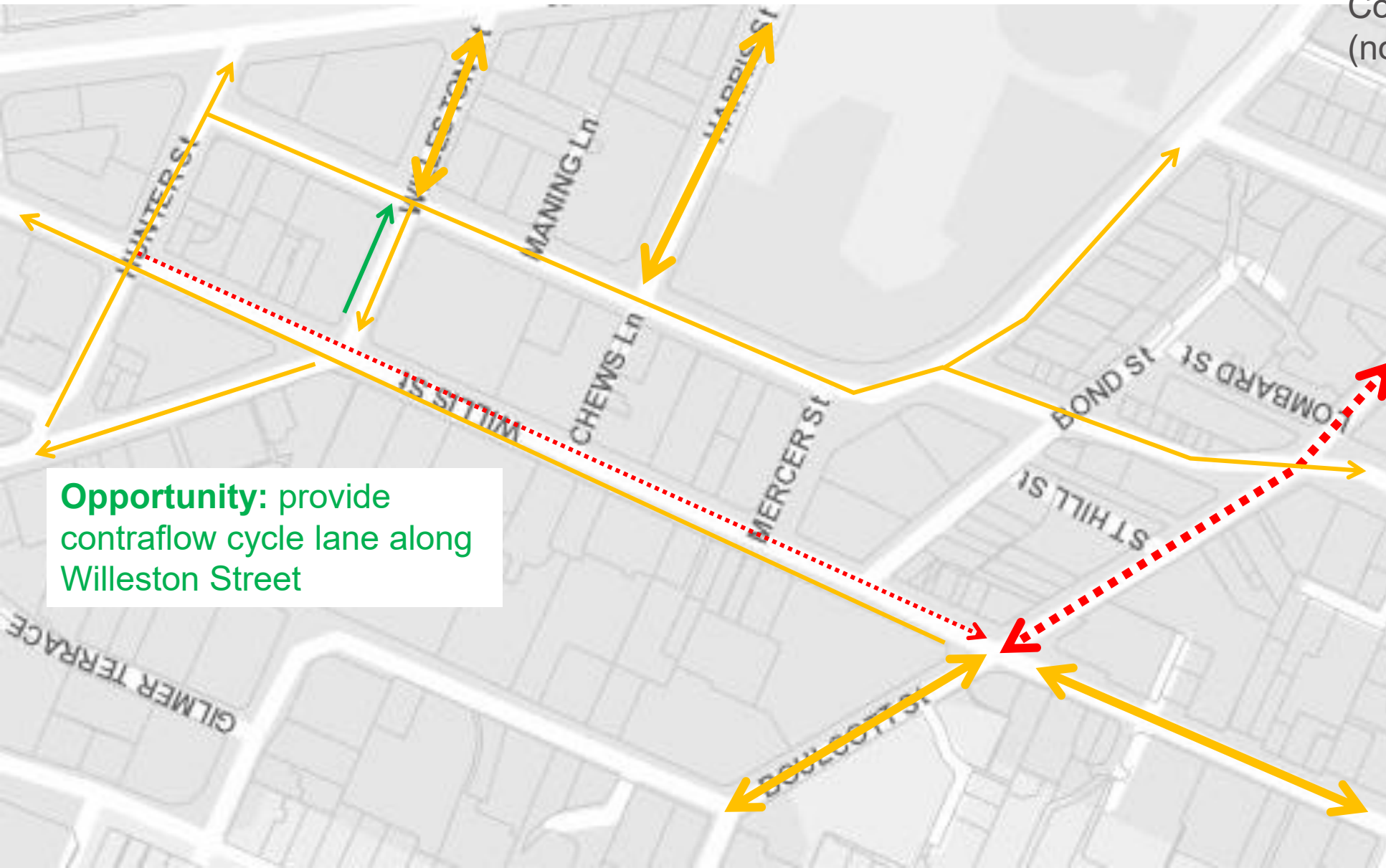
Willis Street - proposed

- Shared facility 
- On-road facility 
- Cycles banned 
- Connectivity (no provision) 



Willis Street - opportunity

- Shared facility 
- On-road facility 
- Cycles banned 
- Connectivity (no provision) 



Opportunity: provide contraflow cycle lane along Willeston Street

Willis Street – summary

- Current southbound bus only restriction remains
- Cycles permitted northbound but no passing opportunities provided
- Access provided from Willis Street (south), Boulcott Street and Willeston Street – enhanced access provided where practical
- No dedicated crossing facilities at Mercer Street
- Potential opportunity to provide contraflow cycle lane along Willeston Street

Courtenay Place - proposed

- Shared facility 
- On-road facility 
- Cycles banned 
- Connectivity (no provision) 

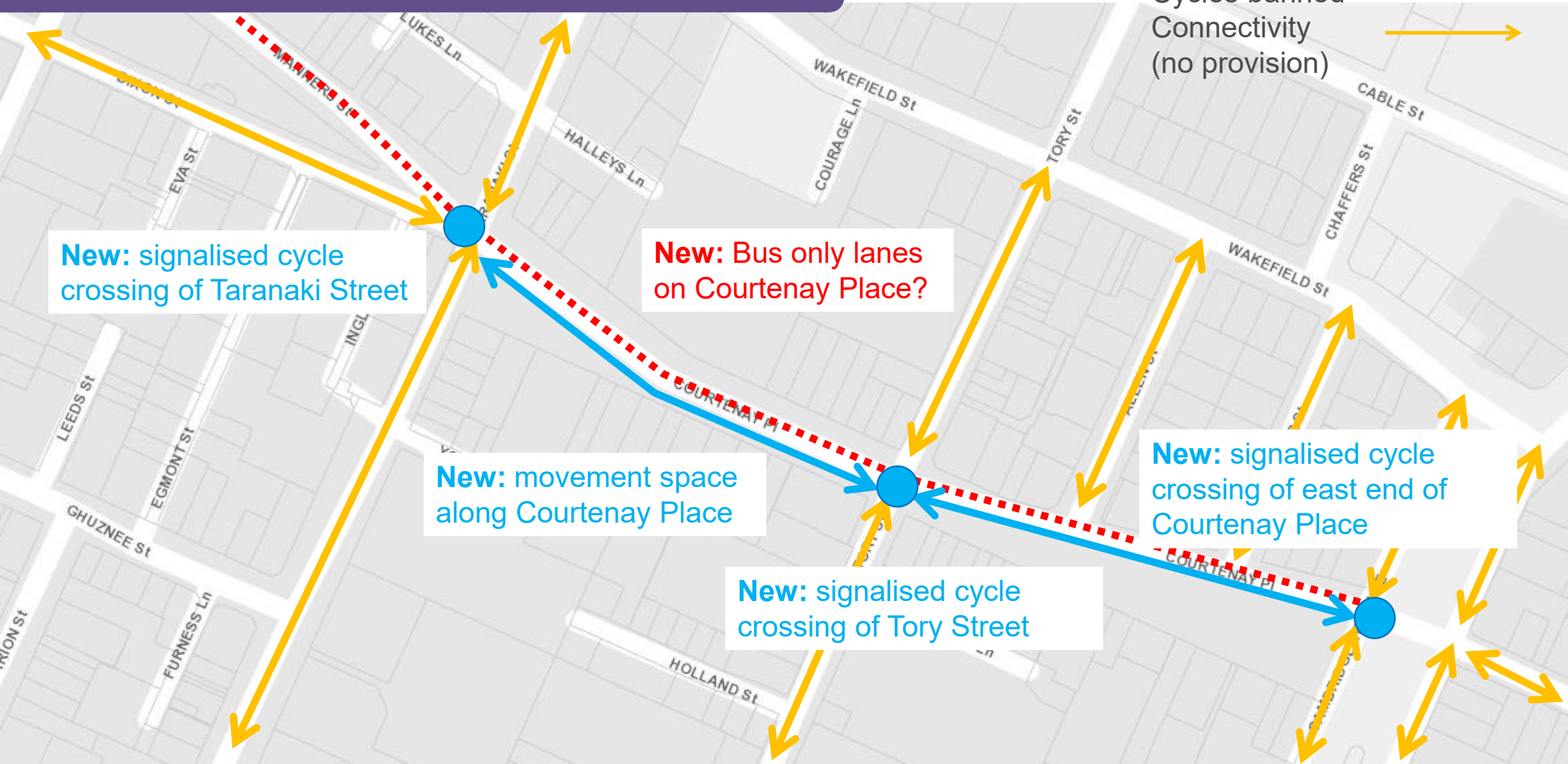
New: signalled cycle crossing of Taranaki Street

New: Bus only lanes on Courtenay Place?

New: movement space along Courtenay Place

New: signalled cycle crossing of Tory Street

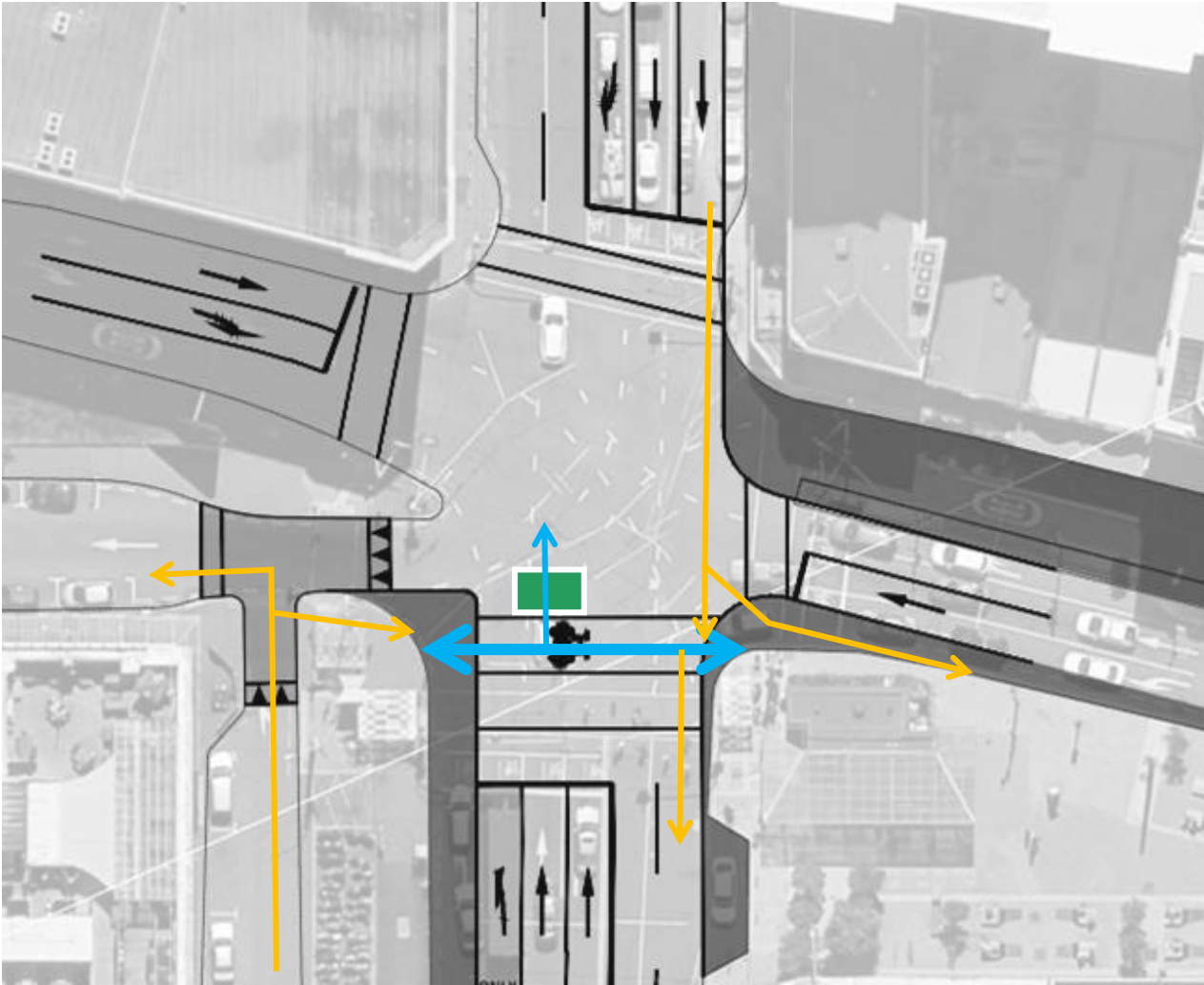
New: signalled cycle crossing of east end of Courtenay Place



Courtenay Place – summary

- Shared movement space on south side of Courtenay Place (full length). Shared movement space:
 - Not a designated cycle lane
 - Not physically separated (to avoid trip hazards and perceived priority)
 - Different surface material from footpath / amenity areas
- Bus-only lanes (ideally) along length of Courtenay Place
- Low-priority connectivity provided at cul-de-sac side roads along length of shared movement space (Allen and Blair). Low priority assumed to be:
 - Wheeled device friendly drop-kerbs onto road level
 - Sharrows on cul-de-sacs
 - No priority over pedestrians
- Higher-priority connectivity (signalised controls) provided at key intersecting roads along length or shared movement space (Taranaki, Tory and Cambridge).

Courtenay Place – Taranaki Street crossing



- Southbound Taranaki Street cyclists can access east side of crossing to head east or west or south (filtering through pedestrians)
- Northbound Taranaki Street cyclists can access west side of crossing (via Inglewood Place) to head east or west
- Hook-turn advanced stop box (ASB) provided to allow cyclists to head northbound from the crossing

Courtenay Place – Tory Street crossing



- Southbound Tory Street cyclists can access east side of crossing to head east or west or south (filtering through pedestrians)
- Northbound Tory Street cyclists can access west side of crossing to head east or west
- Hook-turn advanced stop box (ASB) provided to allow cyclists to head northbound from the crossing
- Need to ensure space for waiting to turn

Courtenay Place – Cambridge Street crossing



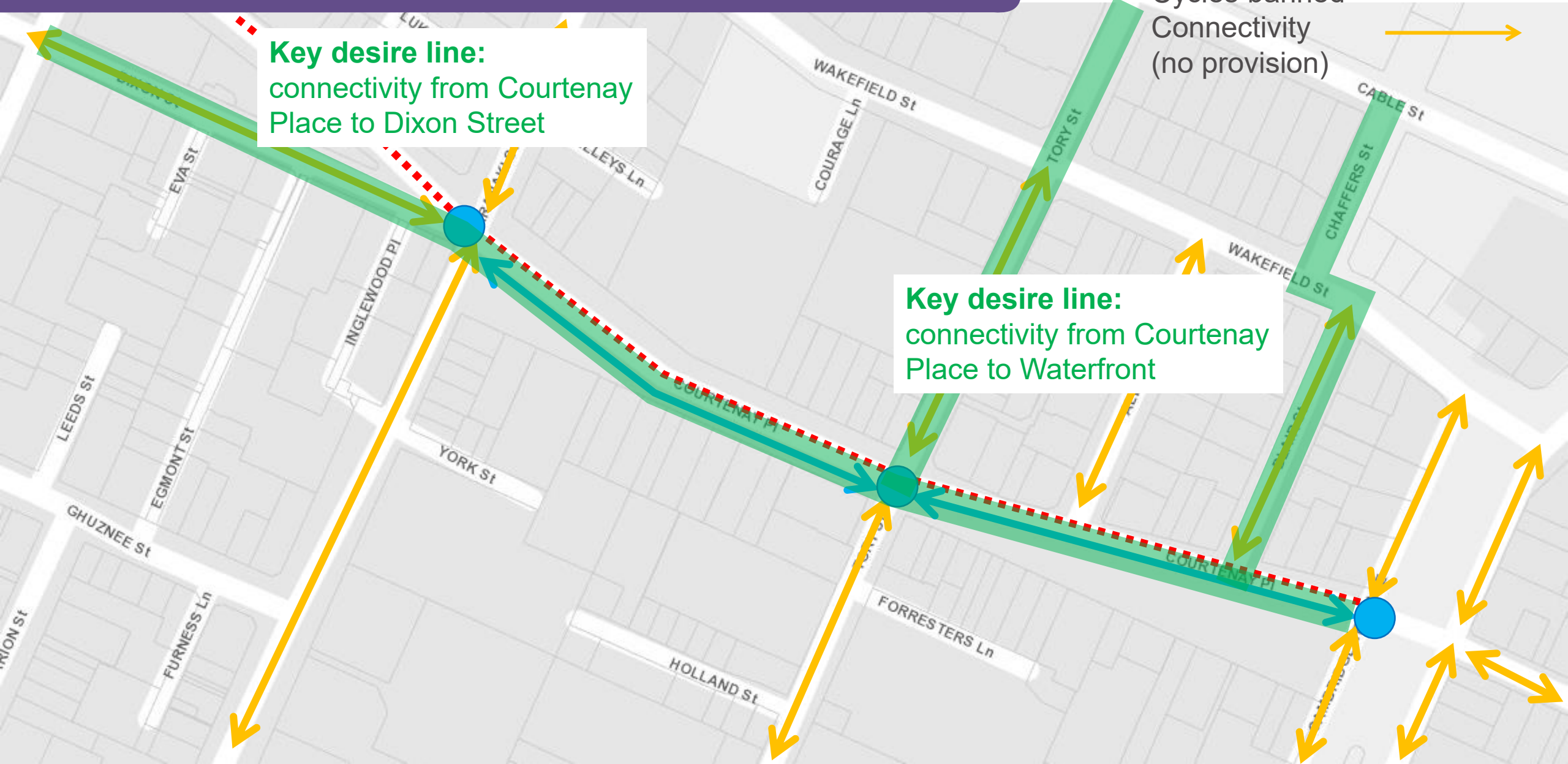
- Cyclists can turn into Courtenay Place and access movement space from any direction
- One-way cycle crossing of east end of Courtenay Place to provide access to hook-turn advanced stop box (ASB) to allow cyclists to head to any direction
- **Opportunity** to provide new cycle crossing of Kent and Cambridge Terraces to connect to future City Streets project

Courtenay Place – key desire lines

- Shared facility 
- On-road facility 
- Cycles banned 
- Connectivity (no provision) 

Key desire line:
connectivity from Courtenay Place to Dixon Street

Key desire line:
connectivity from Courtenay Place to Waterfront



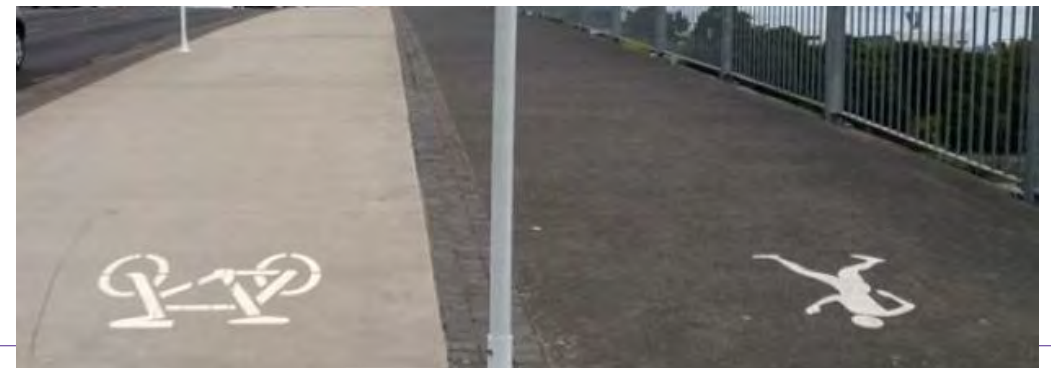
Cycle facility design – vertical separation

- Potential vertical separation options:
 - Standard kerb separated
 - Mountable kerb separation
 - Flush with footpath area
- Standard kerb separation will likely reduce pedestrian use of the space resulting in higher cycle speeds. The vertical kerb will also introduce a trip hazard for pedestrians and make it more difficult for cyclists to leave the path along the length.
- Flush paths are most likely to result in pedestrian use of the space and encourage lower cycle speeds.
- Mountable kerb separation will likely deliver outcomes somewhere between the other two options, but as with the standard kerb, care will need to be taken that the change in height doesn't present a trip hazard.



Cycle facility design – surface material

- Surface material is closely linked to the level of vertical separation. If spaces are not vertically separated then surfacing can help to define the different spaces.
- Lack of definition between the spaces will potentially lead to more conflicts between cyclists and pedestrians.
- Given the space is expected to form part of a high-quality urban space, a change in material is expected to be the most appropriate way to define the space.
- Material choice will also need to consider ride quality and friction for wheeled devices.



Cycle facility design – width

- Figure from Vic Roads Tech Note 21 indicates that demands that:
 - 2.5m path will provide for up to 600 cyclists per hour
 - 3.0m path will provide for up to ~1,100 cyclists per hour
 - 4.0m path will provide for more than ~1100 cyclists per hour

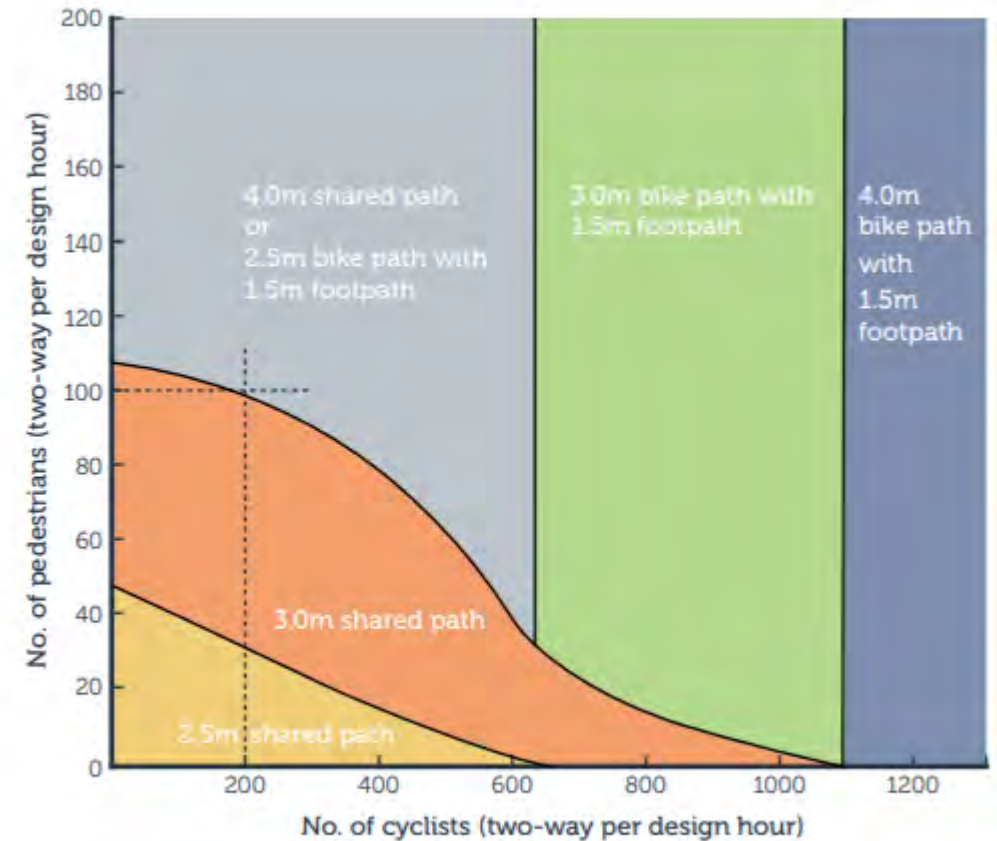


Chart B: Path with 50/50 directional split.

Cycle facility design – summary

- The current proposed design:
 - Flush with footpath area
 - Different surface treatment e.g. asphalt cycle path and concrete paved footpath area (no green surfacing)
 - 3.2m facility width

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