10.2 INKERMAN SAFETY IMPROVEMENT PROJECT

EXECUTIVE MEMBER: **BRIAN TEE, GENERAL MANAGER, CITY GROWTH AND DEVELOPMENT**

PREPARED BY: **DAVID MACNISH, HEAD MAJOR TRANSPORT PROJECTS - DOMAIN PRECINCT**

NELLIE MONTAGUE, MANAGER PARTNERSHIPS AND TRANSPORT

1. PURPOSE

1.1 To seek Council endorsement to release draft concept designs for the Inkerman Safety Improvement (formally Inkerman Safe Travel Corridor) Project for community engagement.

2. EXECUTIVE SUMMARY

2.1 The Inkerman Street was identified as the highest priority bike corridor in Council's Move Connect Live: Integrated Transport Strategy 2018-28. The strategy identifies Inkerman Street as having a protected bike lane from St Kilda Road to Hotham Street.

2.2 Inkerman Street has a high number of crashes compared to other Council-managed roads and is considered a 'black length' with 33 recorded crashes between St Kilda Road and Hotham Street in the 5-year period ending June 2022. 14 of the 33 crashes resulted in a serious injury.

2.3 The road surface of Inkerman Street between St Kilda Road and Westbury Street is in average to poor condition and is scheduled for re-sheeting extending to Hotham Street through Council's asset renewal program and budget. This will require new linework. This provides an opportunity to address safety on the corridor at the same time as the re-sheeting works.

2.4 At the 5 May 2021 Council Meeting, Council endorsed the development of three concept designs for the Inkerman Safe Travel Corridor Project to be presented at a future Council meeting for consideration for release for community engagement.

2.5 Following discussions with Councillors, Council Officers developed a fourth 'do minimum' option and, for all options, explored ways to reduce parking impacts. This report outlines four options for Council consideration and the outcome of efforts to mitigate parking loss.

2.6 Of the original three options, parking retention could only be increased in Option 3. This included the reduction of sightlines at driveways to increase parking retention in these locations as well as reduction of the bike lane width on the approach and departure of signalised intersections.

These changes have increased parking spaces within Option 3 by 44 spaces. While this approach does not align with best practice, the overall design will increase safety outcomes and reduces the impact of the loss of parking.

2.7 The options within this report are as follows:

- **Option 1**: physically protected, wide (2.2m) kerbside bike lanes with buffered parking on one side of the road, three dedicated pedestrian crossings with flashing lights and kerb outstands at side streets.

This option provides the highest safety increase, aligns with Council's endorsed Move Connect Live strategy, will provide for less confident riders. The design provides dedicated, safe accessible crossing locations at mid-block. However, it has the highest impact on parking (116 bays removed). The provision of a fully protected bike lane and better pedestrian connections will facilitate community members to choose alternate modes of active travel (such as riding or walking) which facilitates a reduction in traffic congestion. This option accommodates an additional 26 in-road street trees when compared to existing conditions.

This option increases the width of parking bays to allow for parking of larger vehicles (SUVs) which are not currently accommodated in the current parking bays on Inkerman Street as they are below recommended / standard widths. This option has the second highest cost ($6.63M including 40% contingency) plus the re-sheeting works ($2.4M including 40% contingency) due to be delivered as part of the asset renewal program.

- **Option 2**: physically protected, narrow (1.3m) kerbside bike lanes with parking on both sides of the road with no offset from traffic lanes (no separation between parking and traffic lanes), three dedicated pedestrian crossings with flashing lights and kerb outstands.

  This option provides the second highest safety increase, will provide for some less confident riders. However, the width of the bike lane would not allow passing and excludes riders using cargo bikes or trikes, these users would be required to use the traffic lane. The option has the second highest impact on parking (73 bays removed). The design provides dedicated, safe accessible crossing locations at mid-block. This option accommodates an additional 29 in-road street trees when compared to existing conditions.

  This option increases the width of parking bays to allow for parking of larger vehicles (SUVs) which are not currently adequately accommodated within the current parking bays on Inkerman Street as they are below recommended / standard widths. This option has the highest cost ($6.65M including 40% contingency) plus re-sheeting work costs ($2.4M including 40% contingency).

- **Option 3**: on-road painted bike lanes located between parking and traffic lanes, with painted buffers on either side, parking on both sides of the road (reduced parking offsets from driveways), three dedicated pedestrian crossings with flashing lights and kerb outstands.

  This option provides the third highest safety increase, provides increased safety for existing riders and for riders who are comfortable to use buffered bike lanes. The design has minimal impact on parking (20 bays removed). The design also provides dedicated, safe accessible crossing locations at mid-block. This option accommodates an additional 3 in-road street trees when compared to existing conditions.

  This option increases the width of parking bays to allow for parking of larger vehicles (SUVs) which are not currently accommodated within the current parking bays as they are below recommended / standard widths. This option has the second lowest cost ($3.92M including 40% contingency), re-sheeting works ($2.4M including 40% contingency) required as part of the asset renewal program.

- **Option 4**: maintain existing road treatments (narrow 1.9m parking bay, bike lane directly adjacent parking with no buffer between traffic lanes and a narrow central refuge), no change to parking on both sides of the road, three raised platform threshold treatments to slow speeds and two kerb outstands at Nelson and Raglan Streets.

  This option provides the least safety increase, it makes minimal changes to rider safety. The design has no impact on parking (0 bays removed). The design does not provide accessible safe crossing locations at mid-block. There are no additional trees.

  This option maintains the current parking bays on Inkerman Street which are below standard widths, larger SUVs are wider than the parking bay and protrude into the bike lane when parked. This option has the lowest cost ($1.93M including 40% contingency) and the costs of re-sheeting works ($2.4M including 40% contingency).

  Additional items such as dedicated pedestrian crossings and bike lanes on approach to the intersection were considered in Option 4, these were not included as the increase in cost and associated loss of parking bays effectively aligned with Option 3 without the benefit of addressing issues such as parking widths or buffers between parking and the bike lanes.

2.8 In addition to any option selected, the section of Inkerman Road between Chapel and Barkly Streets can be considered in a later phase of Council's Great Places and Precincts program. This would result in a place based-lens being applied to the retail precinct and result in recommendations around lighting, activation, greenery, signage, maintenance and how to connect community and traders. As part of this initiative, local stakeholders would be engaged around their vision for the area.

2.9 A technical review of the options considered the safety benefits for all road users, project objectives including increased ridership, and impacts on the local community, recommended that Option 1 (including a fully protected bike lane) and Option 3 (on-road buffered bike lane) be presented to the community for feedback.

2.10 Option 1 aligns with Council's endorsed Move Connect Live, Integrated Transport Strategy which identified a protected bike lane on Inkerman Street.

A 2021 survey conducted by Monash University found that 71% of people living in the City of Port Phillip were interested in riding a bike but had concerns about commencing to ride. This group said they would ride a bike if physically separated bike lanes were provided.

The City of Melbourne identified that the installation of protected bike lanes across their municipality resulted in a 22% increase in bike ridership.

Bike lanes provide effective alternatives to owning, driving and maintaining privately owned cars allowing residents, workers and visitors to have travel options that support liveability, promote health and wellbeing and reduce traffic congestion.

2.11 Option 3 balances addressing safety outcomes and minimising parking impacts along the corridor.

2.12 Options 1 and 3 are recommended over Options 2 and 4 because Options 1 and 3 deliver improved outcomes in terms of safety for all road users and project objectives and alignment with best design practice.

2.13 Subject to Council endorsement, community consultation is proposed for five weeks commencing 19 October 2023. Community members, including residents and traders, will be informed of the project including over 8,000 through a postcard mailout (with QR code) within the study area, targeted email communications, social media, Divercity, and a dedicated Have Your Say webpage.

2.14 The outcomes of community consultation will be presented to Council in early 2024 to enable Council to determine if the project will proceed to detailed design and delivery.

3. RECOMMENDATION

That Council:

3.1 Endorses the release of the draft concept designs Option 1 and Option 3 for the Inkerman Safety Improvement Project Corridor for community engagement.

3.2 Requests a subsequent report be tabled at an ordinary Council meeting, as soon as practicable in 2024, for Council to consider the results of the community engagement and to determine whether to progress the project to detailed design and construction.

4. KEY POINTS/ISSUES

BACKGROUND

4.1 The Inkerman Safety Improvement Project proposes treatments to Inkerman Street between St Kilda Road and Hotham Street (Figure 1).

Figure 1. Map of Inkerman Safety Improvement Project site

4.2 At the 5 May 2021 Council Meeting, Council endorsed the following:

That Council:

3.1 Endorses officers to progress the development of concept designs for the Inkerman Safe Travel Corridor Project that includes the designs detailed in Options 1, 2 and 3, for the section of the corridor between Hotham Street and St Kilda Road.

3.2 Officers provide a report to Council in early 2022 that includes the Inkerman Road Bike Corridor concept designs and a communication and engagement plan for the project. Noting Council will review whether to progress the Inkerman Bike corridor to the next stage of the project which includes community consultation at this meeting.

4.3 The project objectives agreed at the 2021 Council meeting were to:

- Improve safety for all road users and attract a broader range of people of all ages and abilities to ride a bike
- Increase travel choices by providing a safe alternative to public transport and cars, and
- Minimise and mitigate parking loss and maximise tree retention

4.4 Options 1, 2 and 3 are detailed in this report, as included in the resolution of 5 May 2021. Following engagement with Councillors Option 3 has undergone adjustment including a reduction in parking loss and, an additional option, Option 4, has been developed.

4.5 The timelines outlined in the 2021 report have been adjusted to reflect the time taken to develop additional designs and obtain Department of Transport and Planning approvals.

CRASH HISTORY

4.6 Inkerman Street has a high number of crashes compared to other Council-managed roads. In the 5-year period ending June 2022, there were 33 recorded crashes between St Kilda Road and Hotham Street. This excludes crashes occurring at the intersection of St Kilda Road which is outside the project boundary.

Crashes are a “Recorded Crash” if they have been attended by emergency services, or a Transport Accident Commission (TAC) claim has been made, with a formal police report being submitted. Minor crashes are not recorded.

4.7 14 of a total 33 recorded crashes resulted in serious injuries. A ‘serious injury’ is where at least one person is sent to hospital at the time of the crash or suffers a long-term reported impairment that is reported retrospectively (e.g. TAC claim).

4.8 The 33 recorded crashes involved the following road users:

- 13 bike riders (5 serious)
- 10 pedestrians (6 serious)
- 6 motorcyclists (2 serious)
- 32 involved car drivers (1 serious) and, mostly, involved two road users.

4.9 Crashes that resulted in serious injuries impacted pedestrians and bike riders more than other road users.

STRATEGIC ALIGNMENT

4.10 Inkerman Street is the highest priority project in Council’s Move, Connect, Live: Integrated Transport Strategy 2018-28. The endorsed strategy identifies Inkerman Street as providing a protected bike lane.

4.11 Inkerman Street intersects with St Kilda Road (State Strategic Cycling Corridor) which provides a direct connection for riders to the CBD.

4.12 In 2018 the Victorian Government announced protected bike lanes on St Kilda Road. The first stage of the project between Southbank Boulevard to the St Kilda Junction has recently been completed.

4.13 In November 2022, City of Glen Eira resolved to not proceed with plans for a cycling corridor along Inkerman Street/Road between Hotham and Chapel Street. While Glen Eira will not be delivering a bike corridor between Hotham Street and Chapel Street, the bike link between Hotham and St Kilda Road maintains its importance due to the connection to the St Kilda Road Strategic Bike Corridor and the Melbourne CBD.

CO-ORDINATION WITH OTHER PROJECTS

4.14 The road surface of Inkerman Street between St Kilda Road and Westbury Street is in poor to bad condition and is scheduled for re-sheeting through Council's asset renewal program and budget. The section between Westbury Street to Hotham Street will be undertaken at the same time.

4.15 The re-sheeting of the road will require new linework and provides an opportunity to address safety along the corridor.

4.16 Coordination of works associated with the Inkerman Safety Improvement Project with the asset renewal works will reduce community impacts and create cost savings.

EXISTING CONFIGURATION

4.17 Inkerman Street is a Council owned and managed road with a speed limit of 50 km/hr. Drivers exiting a parked vehicle open the car door and exit the vehicle directly into the bike lane with no buffer zone.

The existing bike lanes are directly adjacent parked cars and located between the parking and the moving traffic lane.

The car park widths on Inkerman Street are below standard / recommended widths and larger vehicles and SUVs are wider than the parking bays. Larger vehicles (or vehicles not parked on the kerb line) protrude into the bike lane due to the limited width.

Dedicated crossing locations for pedestrians are only located at intersecting roads that have traffic lights. Mid-block pedestrian crossing is done 'informally', utilising the median as a refuge location. Informal crossing locations do not allow for all community members.

Figure 2. Image showing road layout and (small) vehicle parking on Inkerman Street

Figure 3. Image showing bike lane approach to traffic lights and parked vehicles encroaching into the bike lane on Inkerman Street

DESIGN OPTIONS

4.18 The design options aim to achieve the project objectives, address repetitive crash history, and increase safety for all road users (including pedestrians, bike riders, drivers and motorcyclists). They also aim to ensure waste collection can occur safely and that there is access for maintenance operations, emergency vehicles, vehicle turning requirements and sightlines and pedestrian accessibility.

4.19 The design options vary in the level of intervention, ability to achieve the project and safety outcomes and impact on parking.

4.20 Further details pertaining to each option are outlined below.

OUTCOME OF EACH DESIGN OPTION

4.21 Each of the options:

- Provide increased safety for all road users to varying degrees (vehicles, pedestrians, riders, and motorcycles)
- Utilise the existing road footprint (kerb to kerb)
- Has impacts on traffic
- Reduces on-street parking availability to varying degrees (apart from Option 4)

4.22 Other than set out below, all design options include:

- Bike lane marking through signalised intersections, with green treatments and intersection marking (note: bike lanes on approaches to signalised intersections are in Option 1-3 only with bikes mixing with traffic in Option 4)

- Installation of green treatments and line-marking at unsignalised intersections, to provide awareness for bikes crossing
- Installation of kerb extensions at two unsignalised intersections where crashes have occurred
- Implementation of signalised 'early start' for pedestrians and bike riders at traffic lights
- Introduction of a safer 40km/h speed limit

4.23 The options are considered below:

4.24 **Option 1 (recommended for community engagement)**
Physically protected, 2.2m wide kerbside bike lanes with buffered parking on one side of the road, three dedicated pedestrian crossings with flashing lights and kerb outstands at side streets.

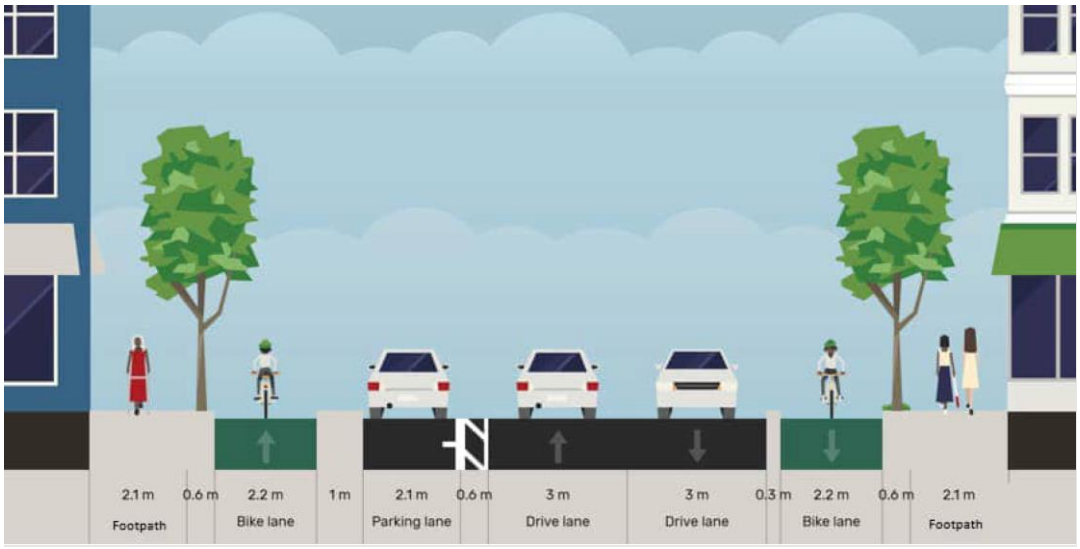

Figure 4. Option 1. Road layout

4.25 Summary

- Design features: This option provides space for various bike types and speeds, providing vulnerable riders with the greatest level of comfort and facilitating the highest uptake of riding. Drivers have clear space to exit vehicles. Pedestrians have priority crossing locations at mid-block locations and clear sightlines to bikes and vehicles.
- Safety outcome: This option provides the greatest safety improvement and reduces both the likelihood and severity of all crash types, is inclusive of all bike users and provides dedicated mid-block crossing locations for pedestrians.
- Strategic outcome: This option aligns with some project objectives and aligns with outcomes in Council's Integrated Transport Strategy. The only objective not adequately satisfied is minimising impact on parking.
- Financial elements that have the highest cost impact for this option in order are as follows:
    - Re-sheeting
    - Separator kerbs for bike lanes

- Pedestrian crossings with flashing lights
- Early starts for pedestrians and riders at signalised intersections and relocation of detector loops
- Kerb outstands

Note: A costing comparison is in Section 6 - Financial Impacts of this briefing.

- Impacts: This option has the highest impact on parking (loss of 116 bays over the 1.2km length) during peak occupancy times 4% of the parking bays would be available for parking (additional detail in following section under the heading Parking Impacts). To increase the availability of parking new parking controls could be introduced to increase turn over, encouraging off street parking where available and prioritising bays for residential use. Options for reducing the impact of parking will be considered during community consultation.

This option increases the width of parking bays to allow for parking of larger vehicles (SUVs) which are not currently accommodated within the current parking bays on Inkerman Street as they are below recommended / standard widths.

The option provides the safest outcome for all road users, aligns with Council's endorsed strategies and is a similar approach to the St Kilda Road bike corridor.

4.26 **Option 2 (not recommended for community engagement)**

Physically protected, narrow 1.3m kerbside bike lanes (cargo bikes require 1.5m) with parking on both sides of the road with no offset from traffic lanes, three dedicated pedestrian crossings with flashing lights and kerb outstands.

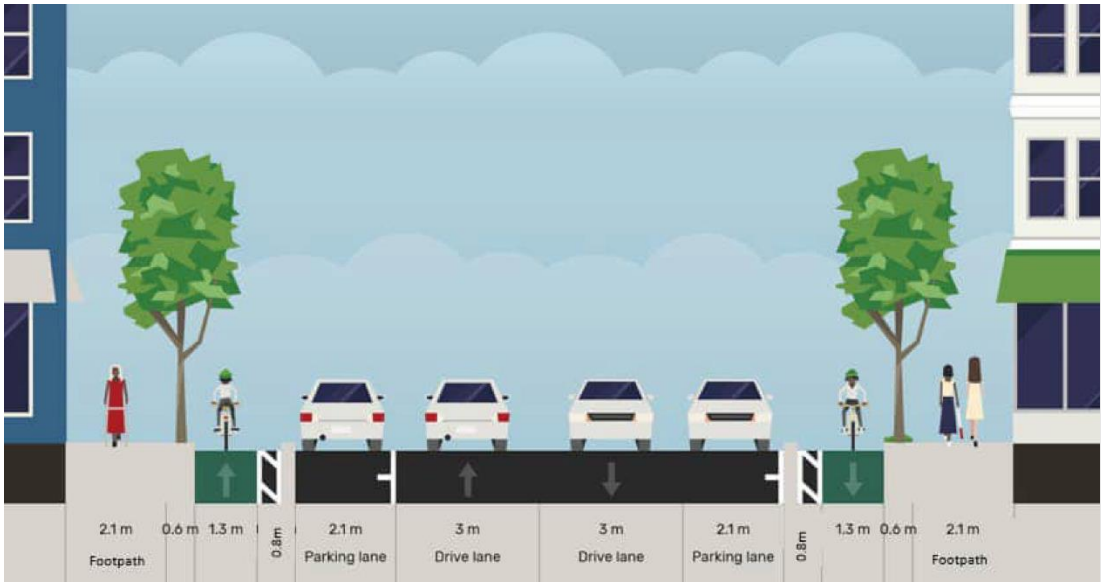

Figure 5. Option 2. Road Layout

4.27 Summary:

- Design features: The narrow (1.3m) kerbside bike lanes only provides space for some bike types, it would likely have the second highest uptake for new riders but does not allow more confident riders to overtake. Pedestrians have priority crossing locations at mid-block locations and clear sightlines to bikes and vehicles.

- Safety outcome: This option provides the second highest safety improvement, however, rates only marginally better than option three. It reduces the likelihood and severity of most crash types and provides dedicated mid-block crossing locations for pedestrians. However, the safe system analysis does not consider the community members that use larger bikes (such as cargo bikes or trikes) and are required to use the traffic lane as the bike lane is not wide enough to accommodate larger bikes. Drivers are required to exit parked vehicles into the moving traffic lane.
- Strategic outcome: This option aligns with some of the project objectives and some components of Council's Integrated Transport Strategy. The option does not align to Council's Integrated Transport Strategy objective of being inclusive due to the inability to allow for larger bikes such as cargo bikes or trikes.
- Financial elements that have the highest cost impact for this option in order are as follows:
    - Re-sheeting
    - Separator kerbs for bike lanes
    - Pedestrian crossings with flashing lights
    - Early starts for pedestrians and riders at signalised intersections and relocation of detector loops
    - Kerb outstands

  Note: A costing comparison can be seen in Section 6 - Financial Impacts.
- Impacts: This option has the second highest impact on parking (loss of 73 bays over the 1.2km length) during peak occupancy times there 10% of the parking would bays empty and available for parking (additional detail in following section under the heading Parking Impacts). To increase the availability of parking new parking controls could be introduced to increase turn over in remaining bays, encouraging off street parking where available and prioritising bays for residential use.

  This option increases the width of parking bays to allow for parking of larger vehicles (SUVs) which are not currently accommodated for within the current parking bays on Inkerman Street as they are below recommended / standard widths.
- While it has a similar (slightly higher) safety rating to Option 3, it provides a compromised outcome for road users:
    - Not all bikes can fit in the bike lane due to its width, excluding anyone using a trike or cargo bike.
    - Drivers exiting parked vehicles do not have a buffer space to the traffic lane.

4.28 **Option 3 (recommended for community engagement)**
On-road 1.2m bike lanes located between parking and traffic lanes, with painted buffers on either side, parking on both sides of the road, three dedicated pedestrian crossings with flashing lights and kerb outstands.

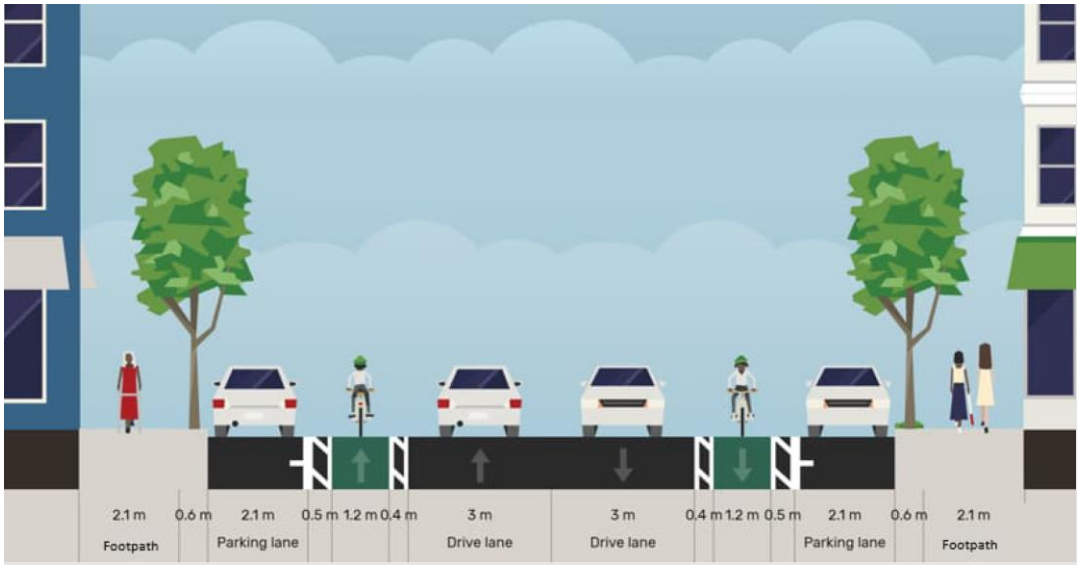

Figure 6. Option 3a. Road Layout

4.29 Summary:

- Design features: This option upgrades existing on-road bike lane by providing a buffer on each side to protect bike riders. It provides wider parking bays and a buffer between parked cars and the bike lane for drivers to exit the vehicle. While existing riders would feel safer, it may not encourage less confident riders to start riding. Pedestrians have priority crossing locations at mid-block locations and clear sightlines to bikes and vehicles.
- Safety outcome: This option provides the third highest safety improvement, although only marginally less than option two. It reduces the likelihood and severity of many crash types and provides dedicated mid-block crossing locations for pedestrians.
- Strategic outcome: This option aligns with the project objectives of reducing parking impacts, however does not align with the objective to increase ridership or with Council's Integrated Transport Strategy as it does not provide a protected bike lane.
- Financial elements that have the highest cost impact for this option in order are as follows:
    - Re-sheeting
    - Pedestrian crossings with flashing lights
    - Early starts for pedestrians and riders at signalised intersections and relocation of detector loops
    - Kerb outstands

  Note: A costing comparison can be seen in Section 6 - Financial Impacts.
- Impacts: This option has minimal impact on parking (loss of 20 bays over the 1.2km length) during peak occupancy times there would be 18% of the parking bays available for parking and the remaining bays would meet current parking

demand (additional detail in following section under the heading Parking Impacts). The width of the bike lane with the painted buffers allows for use by wider bikes avoiding the need for these cyclists to use the traffic lane.

This option increases the width of parking bays to allow for parking of larger vehicles (SUVs) which are not currently accommodated for within the current parking bays on Inkerman Street as they are below recommended / standard widths

This option would also set the road up for a transition to a fully protected facility at a future time.

4.30 Option 4 (not recommended for community engagement)

Maintain existing road treatments (narrow 1.9m parking bay, bike lane directly adjacent parking with no buffer between traffic lanes and a narrow central refuge), three raised platform threshold treatments and two kerb outstands.

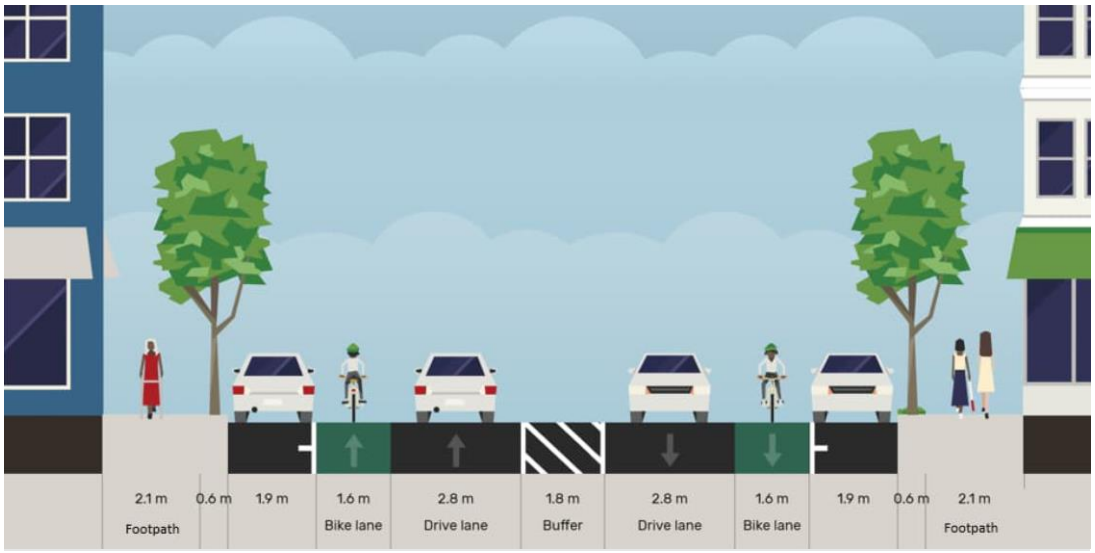

Figure 7. Option 4. Road Layout

4.31 Summary:

- Design features: Option maintains the existing road layout. Changes include introduction of three mid-block road humps to slow speeds, hold lines at some side streets and kerb outstands at Nelson and Raglan Streets. Existing dedicated pedestrian crossings at traffic signal locations are maintained but no additional crossing locations are included.
- Safety outcome: This option provides the least safety improvement.
- Strategic outcome: This option has the least alignment with the project objectives and does not align the project objective to increase ridership or with Council's Integrated Transport Strategy.
- Financial elements that have the highest cost impact for this option in order are as follows:
    - Re-sheeting
    - Kerb outstands
    - Raised threshold treatments

- Early starts for pedestrians and riders at signalised intersections

Note: A costing comparison can be seen in Section 6 - Financial Impacts of this briefing.

- Impacts: Retains existing parking (22% available during peak times) and addresses some existing crashes. Does not address safety for vulnerable road users (additional detail in following section under the heading Parking Impacts). There is no increase in safety for drivers exiting vehicles or bike riders adjacent to cars. Retains existing below-standard parking widths with doors opening into bike lanes. Note: larger SUVs are wider than the parking bay and protrude into the bike lane when parked.

PARKING IMPACTS

4.32 An independent parking assessment has been undertaken using parking occupancy data obtained in February 2022. Where parking demand exceeds parking supply, people seek off-street parking where possible or use different modes of travel.

4.33 Occupancy is calculated based on parking available on side streets within 100m (less than a 3-minute walk) of Inkerman Street. The current number of bays within this catchment is 633 car bays with 180 bays on Inkerman Street.

4.34 Based on parking survey data the designs have the following impact on parking:

- Existing 78% parking occupancy
- Option 1 96% parking occupancy 116 bay reduction
- Option 2 90% parking occupancy 73 bay reduction
- Option 3 82% parking occupancy 20 bay reduction
- Option 4 78% parking occupancy 0 bay reduction

4.35 The following table summarises the above information by section:

Inkerman St sections:	**Section 1** *St Kilda Rd to Chapel St*	**Section 2** *Chapel St to Westbury St*	**Section 3** *Westbury St to Hotham St*	**Totals**
Parking Supply *Existing parking supply on Inkerman St and side streets within each section up to 100m*	172	301	160	**633**
Occupancy				
Peak Occupancy Observed	143	229	124	**496**
(%)	83%	76%	78%	**78%**
Option 1				
Parking Reduction	*46*	*43*	*27*	***116***
Parking Supply	126	258	133	**517**
Resulting Peak Occupancy	113%	89%	93%	**96%**
Option 2				
Parking Reduction	*28*	*24*	*21*	***73***

Parking Supply	144	277	139	**560**
Resulting Peak Occupancy	99%	83%	89%	**90%**
Option 3 *Parking Reduction*	*8*	*6*	*6*	**20**
Parking Supply	164	295	154	**613**
Resulting Peak Occupancy	87%	78%	81%	**82%**
Option 4 *Parking Reduction*	*0*	*0*	*0*	***0***
Parking Supply	172	301	160	**633**
Resulting Peak Occupancy	83%	76%	78%	**78%**

SAFE SYSTEMS ASSESSMENT (SSA)

4.36 The Safe System Assessment (SSA) considered if the designs would reduce the risk of death or serious injury. AusRoads Safe System Framework (AP-R509-16) and VicRoads Safe System Assessment Guidelines (April 2019) were used to assess existing conditions and the proposed options.

4.37 The SSA Matrix assesses the likelihood and severity of different major crash types for all users that represent the main contributors to fatal or serious injuries.

4.38 The SSA showed that every option increased safety conditions along Inkerman Street. Option 1 is the safest and option 4 provided significantly less benefits than Options 1, 2, 3.

4.39 A summary of the SSA results is provided below.

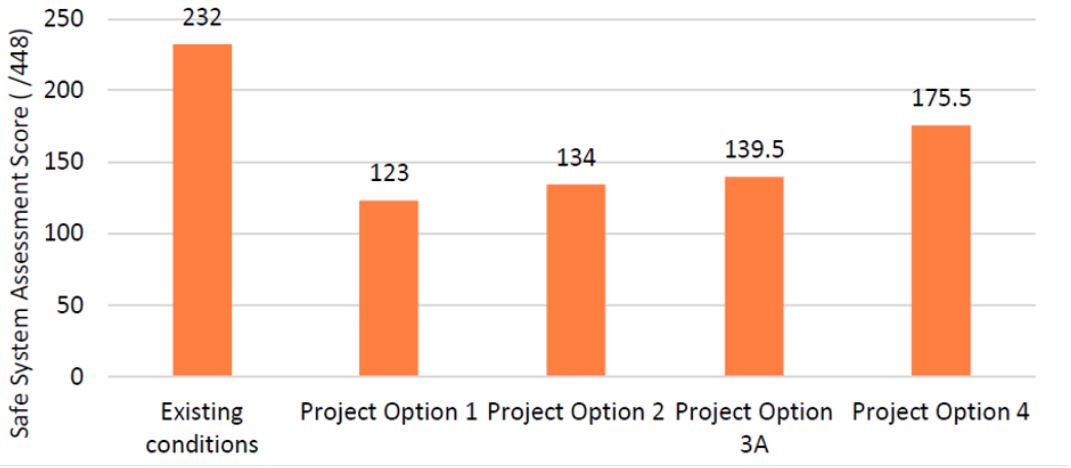

Figure 8. Safe Systems Comparison overall scoring – a lower score indicates a greater safety outcome.

4.40 The improved safety scores are largely due to the safer overall road environment with continuous bicycle lane (in some cases protected) up to intersections, advanced

bicycle starts at intersections, raised pedestrian mid-block crossings and speed limit reduction from 50km/h to 40km/h.

4.41 In comparing the options there are differences between scores relating to pedestrians and rider safety.

Bike Riders

Option 1 is the safest for bike riders, Option 2 is the second safest, Option 3 the third safest and Option 4 the least safe.

Pedestrians

For pedestrians, Options 1 and 2 have the same safety rating and Option 3 is considered safer and Option 4 is the least safe. In all cases the options are safer for pedestrians and bike riders than the existing conditions.

4.42 The breakdown of SSA scoring for each option can be seen below, highlighting the increases in pedestrian and rider safety:

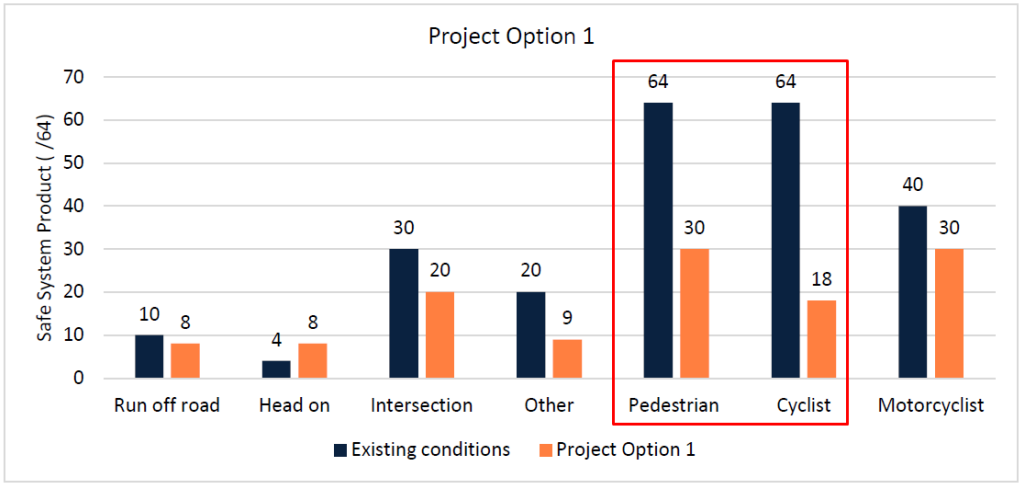

Figure 9. Option 1 SSA comparison to existing conditions – note a lower score indicates a greater safety outcome.

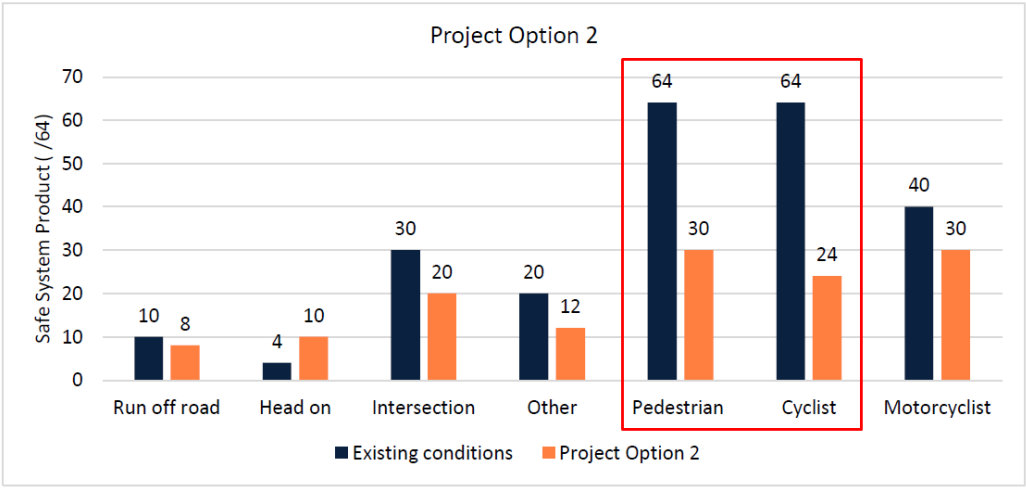

Figure 10. Option 2 SSA comparison to existing conditions – note a lower score indicates a greater safety outcome.

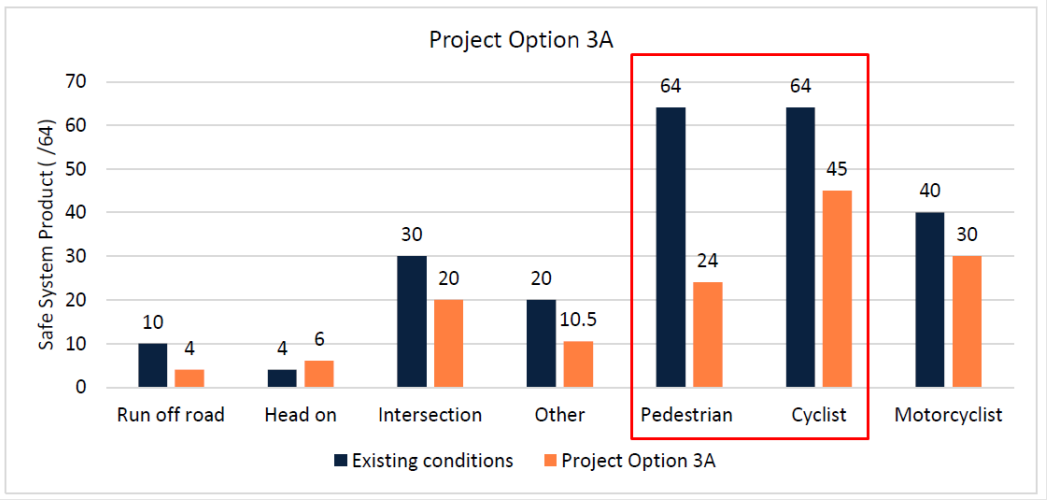

Figure 11. Option 3 SSA comparison to existing conditions – note a lower score indicates a greater safety outcome.

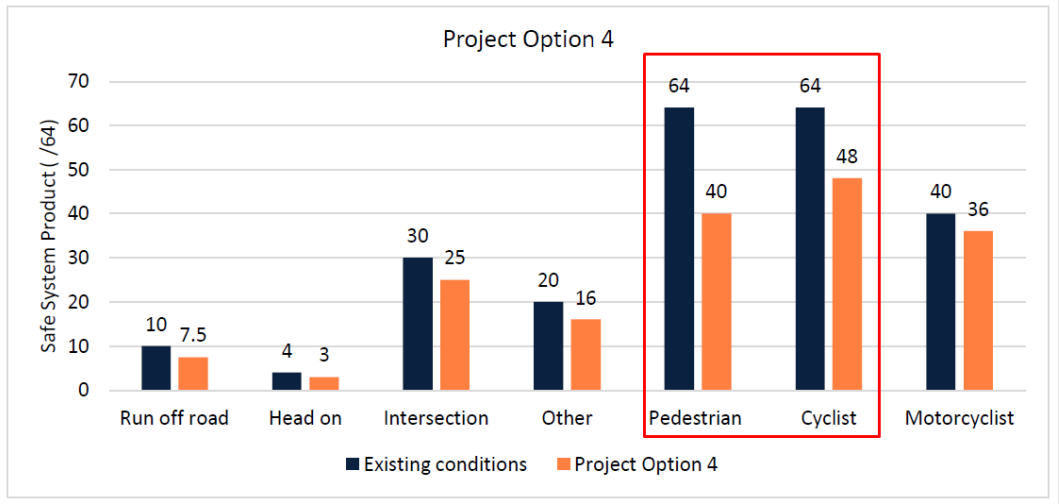

Figure 12. Option 4 SSA comparison to existing conditions – note a lower score indicates a greater safety outcome.

4.43 The SSA does not consider user perceptions of safety, strategic outcomes such as road user comfort, use of facilities by all riders or project aims to increase ridership.

TRAFFIC IMPACT ASSESSMENT

4.44 Traffic modelling (SIDRA) for all signalised intersections was used to determine the impact the project would have on the functionality of the intersections. The Department of Transport and Planning, who manage and approve signal changes support the proposed changes and impacts.

4.45 Options 1, 2, and 3 are considered to have a similar impact on traffic. With Option 4 there is negligible changes associated with early starts for pedestrians and riders.

4.46 The impacts can be seen in the below table:

Interventions / outcomes	Option 1	Option 2	Option 3a	Option 4
Traffic Impacts during peak hours (increase from existing):				
Inkerman at St Kilda Road	90 sec am 14 sec pm	90 sec am 14 sec pm	90 sec am 14 sec pm	*negligible*
Inkerman at Chapel Street	*negligible*	*negligible*	*negligible*	*negligible*
Inkerman at Westbury Street	*negligible*	*negligible*	*negligible*	*negligible*
Inkerman at Hotham Street	23 sec am 2 sec pm	23 sec am 2 sec pm	23 sec am 2 sec pm	*negligible*

STREETSCAPE AND LANDSCAPING

4.47 SMEC Australia Pty Ltd prepared a report, considering amongst other things, greening elements, landscape upgrades and street trees. The report identified Option 2 as providing the greatest increase in greening amenity.

4.48 All options provide opportunities for new planting in existing garden beds or new planting areas.

4.49 All options, excluding Option 4, require the removal of seven (7) trees in the Inkerman Street median and the removal of rainwater gardens at the intersections of Inkerman Street and Marriott and Henryville Streets to enable changes to the road alignment.

4.50 Options 1, 2, and 3 deliver new tree planting opportunities within the road reserve with an expected increase in the number of in-road trees (excluding replacement trees) of:

- Option 1 26 trees
- Option 2 29 trees
- Option 3 3 trees
- Option 4 0 trees
- Additional trees will be included behind kerb where possible. The precise number of trees will be determined during detailed design.

OPERATIONS: WASTE COLLECTION, EMERGENCY VEHICLES

Waste Collection

4.51 Current waste collection practices along Inkerman Street frequently require a waste collection 'jockey' to move bins to facilitate collection due to parked cars limiting clear truck approach. This practice would be maintained for Option 3 and Option 4.

4.52 Council's waste contractor has advised that they undertake waste collections in similar arrangements as Option 1 and Option 2 (over protected bike lanes) in the City of Melbourne. Should the project proceed to detailed design, Council officers will seek further input from waste operators inclusive of assessing the best times to collect waste.

Emergency vehicles

4.53 For Options 1, 2 and 3, as there is no central barrier on the road, emergency vehicles can travel centrally on the road with vehicles pulling over to the side when required. For Option 4 there is no change from the current operation.

5. CONSULTATION AND STAKEHOLDERS

PROPOSED ENGAGEMENT

5.1 Community consultation will be undertaken to raise awareness of the project, gauge the level of support for options, and understand community aspirations and concerns regarding the future of Inkerman Street.

5.2 The community will be notified of the engagement in the following ways:

- 'Help shape the Inkerman Street Safety Improvement project' postcard drop with QR codes to approximately 8,000 residents and businesses adjacent the project (CoPP properties bound by St Kilda Rd, Alma Rd, Carlisle St and Orrong Rd plus properties on Inkerman between St Kilda Rd and Barkley Street)
- Corflute signage and Posters placed along the street with QR codes
- Website Update with Have Your Say page / QR Code and FAQ's
- Social Media posts

5.3 Engagement period and activities - Officers will undertake the following engagement activities with support of engagement consultants:

- A dedicated Have Your Say page with project information and online survey/feedback form, proposed to be open for a five-week period (19 October – 25 November 2023) with notification postcards sent following Council endorsement
- Neighbourhood pop-ups and drop-in information sessions, 4 x Pop-Up information sessions at different locations / times including a drop-in session at Public Housing Tower
- Meetings with key Council Advisory Groups
- Direct engagement with traders to understand and address concerns related to local issues such as parking.

PAST ENGAGEMENT

5.4 The Inkerman Street bike corridor was first identified in Council's Move, Connect, Live: Integrated Transport Strategy 2018-28. This strategy was crafted through extensive engagement with residents, business owners, workers, students, community groups, and industry and government stakeholders.

5.5 The Engagement Report tabled at the 20 September 2018 Council Meeting reviewed more than 300 survey responses and identified the following:

- 'Walking and bike riding improvements' were rated as the top priority.
- The proposed action 18 'Deliver a network of dedicated and continuous priority bike lanes to create safer routes for all ages and abilities' received the most support from respondents.

- More than a quarter of respondents identified that safety concerns were the biggest barrier to changing their travel choices.

5.6 Council's Sustainability Survey 2023 reached a sample of residents drawn proportionally from across City of Port Phillip. A significant number of respondents reported that they had increased their levels of walking and cycling due to climate change. Respondents identified better infrastructure and safety improvements as the key factor that would encourage them to walk and ride more often.

6. LEGAL AND RISK IMPLICATIONS

6.1 Council has an obligation to mitigate high-risk environments that impact the local community, particularly where the asset is owned and managed by Council, as is the case with Inkerman Street. Given the corridor's crash history, addressing safety risks is imperative for Council to discharge its responsibilities.

7. FINANCIAL IMPACT

7.1 The Inkerman Safety Improvement Project has funding allocated in the Council Budget.

7.2 The Council report of 5 May 2021 detailed a preliminary estimated total design and construction cost for the project of up to $7.0M for protected bike lanes (options 1 and 2) and $3.9M for buffered bike lanes (option 3), excluding asset renewal or maintenance costs such as re-sheeting.

7.3 The Inkerman Street road surface is in average/poor condition and requires re-sheeting (including line-marking) irrespective of the Inkerman Project. The re-sheeting works are part of Council's Asset Renewal Program and budget. By coordinating delivery of the Safety Improvement Project alongside the asset renewal works, there will be less impact on the community, businesses, and a reduction in project delivery costs.

7.4 Given the crash history, Council will seek funding through the Federal Blackspot Program and the Transport Accident Commission's Safe Local Roads and Streets Program.

7.5 An updated cost estimate, prepared by the project consultant for the concept designs is detailed below (officers have applied a 40% contingency).

Description	Option 1	Option 2	Option 3a	Option 4
Project cost				
St Kilda Road to Hotham	**$ 4,736,250**	**$ 4,751,550**	**$ 2,800,000**	**$1,380,000**
40% Contingency	*$ 1,894,500*	*$ 1,900,620*	*$ 1,120,000*	*$552,000*
Sub-total	**$ 6,630,750**	**$ 6,652,170**	**$ 3,920,000**	**$1,932,000**
Re-sheeting costs				

St Kilda Road to Westbury	**$ 1,280,000**	**$ 1,280,000**	**$ 1,280,000**	**$ 1,280,000**
Westbury to Hotham	**$ 440,000**	**$ 440,000**	**$ 440,000**	**$ 440,000**
40% Contingency	*$ 688,000*	*$ 688,000*	*$ 688,000*	*$ 688,000*
Sub-total	**$ 2,408,000**	**$ 2,408,000**	**$ 2,408,000**	**$ 2,408,000**
Total	**$ 9,038,750**	**$ 9,060,170**	**$ 6,328,000**	**$ 4,340,000**

Melbourne Water has indicated that hydraulic modelling will be necessary for Options 1 or 2 at an estimated cost of between $40,000 to $100,000 (this has not been included above).

8. ENVIRONMENTAL IMPACT

8.1 Opportunities have been identified through this project to provide new tree planting and water-sensitive urban design features. This would increase tree canopy cover and support biodiversity, while providing shade, passive irrigation, and improved water quality. These are available in Options 1 and 2 but not Options 3 or 4.

8.2 Prioritising the delivery of comfortable, safe, continuous, and connected bike lanes will encourage increased bike riding. Providing a streetscape amenable to walking and riding allows car journeys to be avoided, with an associated decrease in reduce community greenhouse gas emissions in Port Phillip. Private vehicle use presently accounts for 14 per cent of the City's emissions. This number is expected to account for nearly 50 per cent of local emissions by 2040.

9. COMMUNITY IMPACT

9.1 The project responds to ongoing safety issues and personal injury risks experienced by the community and seeks to increase transport choices and provide healthier lifestyles. It supports local connectivity, giving people the choice to safely walk or cycle to nearby destinations including shops, parks and services.

9.2 Removal of some on-street parking outside commercial space may be of concern to local businesses. Community engagement will assess the parking loss impact and seek design outcomes to mitigate the loss. This could include changes to existing parking restrictions to increase turnover and reviewing other opportunities to maintain net parking supply in the area.

9.3 The project reduces the need for car travel improving physical health and wellbeing.

10. ALIGNMENT TO COUNCIL PLAN AND COUNCIL POLICY

10.1 The Inkerman Safety Improvement Project aligns to Strategic Direction 2 of the Council Plan 2021-31:

"Liveable Port Phillip: a great place to live, where our community has access to high quality public spaces, development and growth are well-managed, and it is safer and easy to connect and travel within."

10.2 The Inkerman Street bike corridor was identified as the highest priority bicycle corridor in Council's Move, Connect, Live: Integrated Transport Strategy 2018-28. The project delivers on Outcome 2: '*Our community is healthier because it has safe, connected and convenient walking and bike riding choices*.'

10.3 Council's Draft Climate Emergency Plan 2023-2028 projects that vehicle transport emissions will constitute nearly half of all community greenhouse gas emissions in 2040. This is despite an expected reduction in absolute emissions associated with transport, as other sources are expected to reduce more quickly. The report notes that delivering projects which increase sustainable transport use therefore represents one of the most significant opportunities to reduce local emissions.

11. IMPLEMENTATION STRATEGY

11.1 TIMELINE

11.2 **18 October 2023 Council Meeting** (this meeting) - Report to Council for decision on whether to proceed to community consultation on the Project and on which design options.

11.3 **Late 2023 Community Engagement** - Community Engagement on the Project.

11.4 **Future Councillor Briefing and Meeting-** Community consultation outcomes presented to Council to inform decision on whether to proceed with detailed design.

12. OFFICER DIRECT OR INDIRECT INTEREST

12.1 No officers involved in the preparation of this report have any material or general interest in the matter.

ATTACHMENTS Nil