NSW GOVERNMENT

August 2021

Transport for NSW

Sydney Harbour Bridge Cycleway ramp options

Consultation Report

Artist impression of the linear option looking north east from the corner of Burton Street and Alfred Street

For more information call **1800 581 595**
Email SydneyHarbourBridgeProjects@transport.nsw.gov.au
or visit **nswroads.work/cycleway**

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1 Executive summary

1.1 The project

Between 7 and 28 June 2021, Transport for NSW sought public feedback on two options for a ramp to improve access at the northern end of the Sydney Harbour Bridge cycleway.

The options were a **linear ramp** extending north above Milsons Point Station Plaza, and a **loop** extending over the southern bowling green at Bradfield Park Central. In addition, feedback was sought on early plans for a separated bi-directional cycleway along Alfred Street proposed for either option, and a shared zone for bikes and pedestrians at Burton Street, which would be delivered if the loop were to go ahead.

Artist impression of the linear ramp looking towards the entrance to Milsons Point Train Station from Alfred Street

1.2 How we engaged

Opportunities to find out about the project were provided through in person and online community events. In addition, meetings were held with four stakeholder organisations that would potentially be directly impacted by the ramps.

Engagement was promoted through a letter-boxed community update, four social media posts, and emails to stakeholders. Information about the project was provided on a dedicated page of the TfNSW website. Feedback was encouraged through an online survey and via submissions.

1.3 Who we heard from

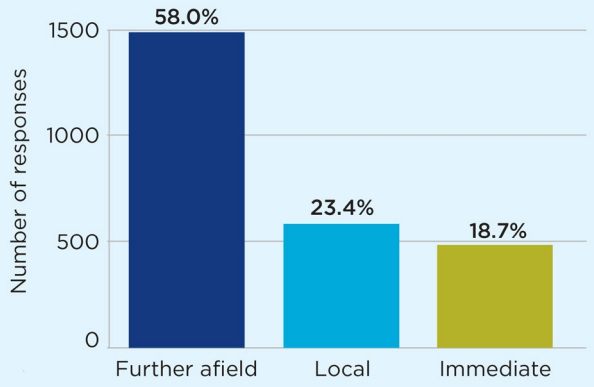
Over the course of the three week public display period, the team had more than 6300 significant interactions with members of the public, including 2759 different people who either completed a survey or provided a submission.

The survey received 2578 responses in total. The immediate area (defined as postcodes 2060 and 2061) contributed 18.7 per cent (482) of all responses. A further 23.4 per cent of responses (602) came from the local area (defined as a 7km-10km cycling catchment north of the project area), and 58.0 per cent (1,494) from further afield.

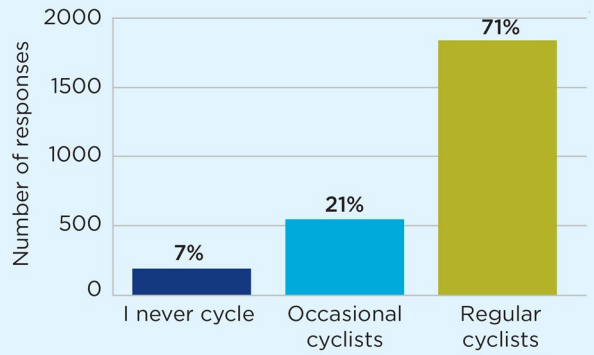
The majority of survey responses (71 per cent) were from people who cycle at least once a week, and 21 per cent (366) were from occasional riders. Seven per cent (191) of respondents never cycle.

We also received 461 submissions. Of the 261 submissions that had postcode data, 110 (42 per cent) came from the immediate area, 71 (27 per cent) came from the local area, and 80 (31 per cent) from further afield. The submissions included 15 from organisations including two industry bodies, two local councils, five local community groups and six active transport groups.

Survey responses by locality



Survey responses by cycling ability



1.4 What we heard

Clear majority support overall

This project attracts passionate views both in support and against. However, we heard widespread support for a ramp, and the linear in particular, from all respondents.

Eighty two per cent of all survey respondents preferred one or either of the two options put forward

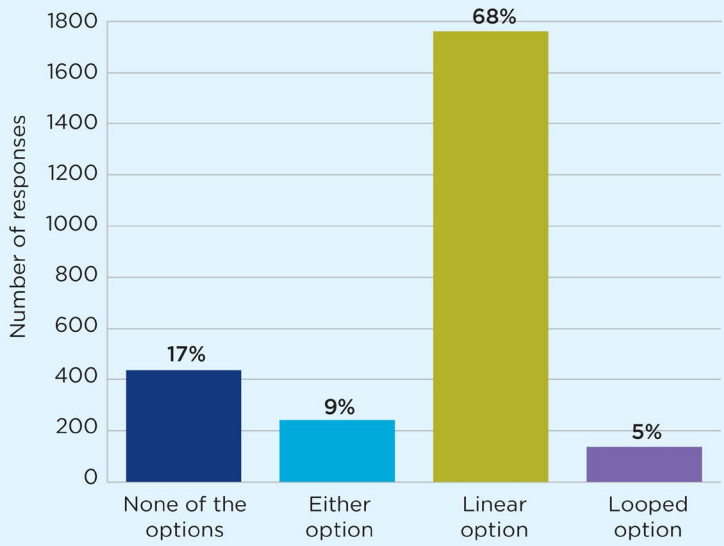
68% supported the **linear option**

5% supported the **loop option**

9% supported the **either option**

17% supported the **neither option**

Option preference

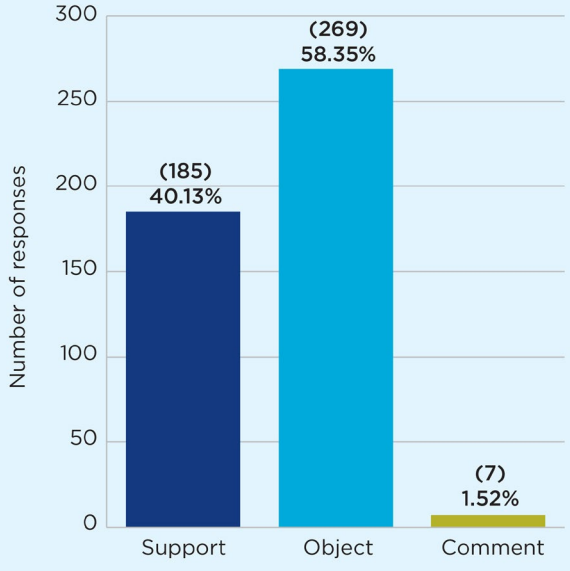


Eighty two per cent of the 602 respondents in the local area preferred one or either option. This rose to 97 per cent in the wider area (n=1494). Of the 15 organisations that made submissions, eight supported the project, six are opposed or are concerned about it, and one was providing comment.

But we also heard concern among sections of the immediate community. Forty per cent expressed a preference in favour of the project and 60 per cent preferred neither option.

Submissions also showed a higher level of opposition to the project. Of the 461 submissions received, 40 per cent supported the project, 58 per cent opposed it and 2 per cent just made comments.

Submissions level of support



People who support the project are impatient. They believe the project is well overdue and is vital to making cycling a safe and accessible transport option for a wider group of people – not just those fit enough to manage the steps currently. Supporters also believe the ramp could help to activate Bradfield Park and bring recreational riders to the local area.

Those in opposition believe the problem has been overstated and that the steps are a minor inconvenience at worse. They believe the impacts to open space are not worth the potential benefits and that the project is a waste of money.

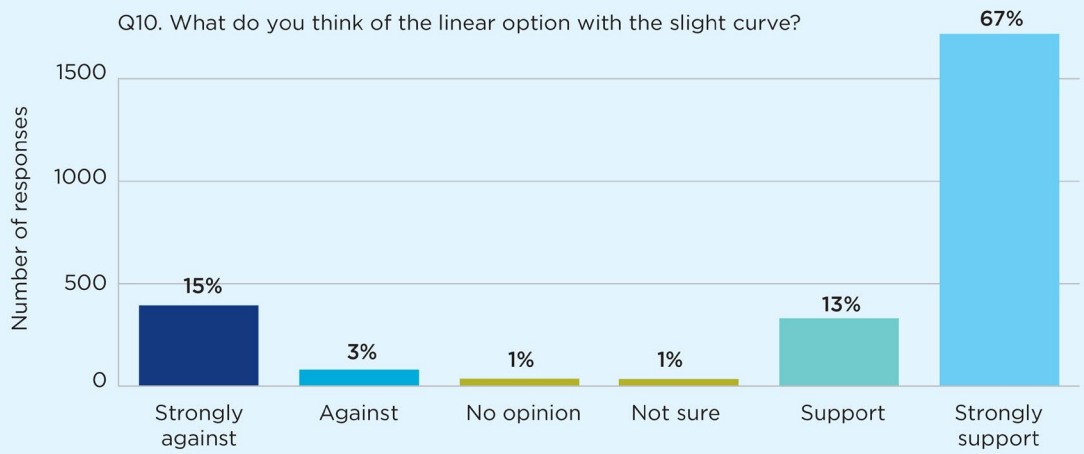
Many opponents believe a lift would accommodate people who can't manage the steps. They also question Transport's claim that 2000 cyclists use the cycleway on average per weekday.

Opponents also believe both options are ugly, would have a detrimental impact on the fabric and heritage of the Sydney Harbour Bridge, and would intrude upon the peacefulness of Bradfield Park. Several people put forward alternative ramp options for consideration.

A linear ramp has very high support and is preferred to the loop by all groups.

Eighty per cent of all respondents support or strongly support the linear option, while 18 per cent oppose or strongly oppose it. A high level of support for the linear was also recorded for regular cyclists (95 per cent, n=1837), people in the local catchment (79 per cent, n=602), and those in the wider area (95 per cent, n=1494).

Support for linear option



Supporters of the linear think it is a safer option due to its clear sight lines and separation of cyclists, pedestrians and motorists. They also consider it a more direct and easier connection for cyclists. Supporters believe the linear ramp looks better and is less intrusive than the loop; but also feel the final design needs to be of a high architectural standard.

Across all locality groups, support for the linear option is consistently higher relative to support for the loop - even in the immediate area where people are more likely to oppose the project overall. The linear is also preferred by stakeholders who would otherwise oppose the project overall.

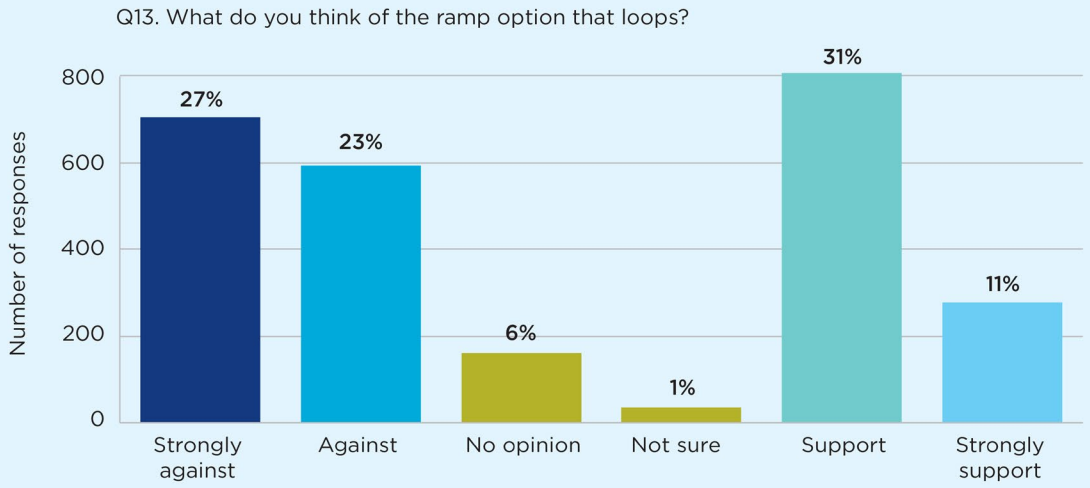
Seven of the 15 organisational submissions support the linear option with two supporting it conditionally. Three did not state a preference. No organisations stated a preference for the loop.

Opposition to the linear is high among non-cyclists (84 per cent opposed, n=191), and among those in the immediate area (66 per cent oppose, n=482). Opponents consider the linear to be ugly and intrusive on local open space and damaging to the heritage of the Sydney Harbour Bridge.

Support for the loop is mixed. Loop supporters still prefer the linear

Feedback on the loop option is mixed, with exactly half of all respondents opposed and 42 per cent in support. Twenty per cent of responses in the immediate area support the loop (12 per cent lower than for the linear) while 75 per cent are opposed (9 per cent higher than that for the linear).

Support for loop option



Supporters think the ramp is a less intrusive design due to its compact footprint and believe it could be fun and playful. However, others said the design would be bulky and ugly.

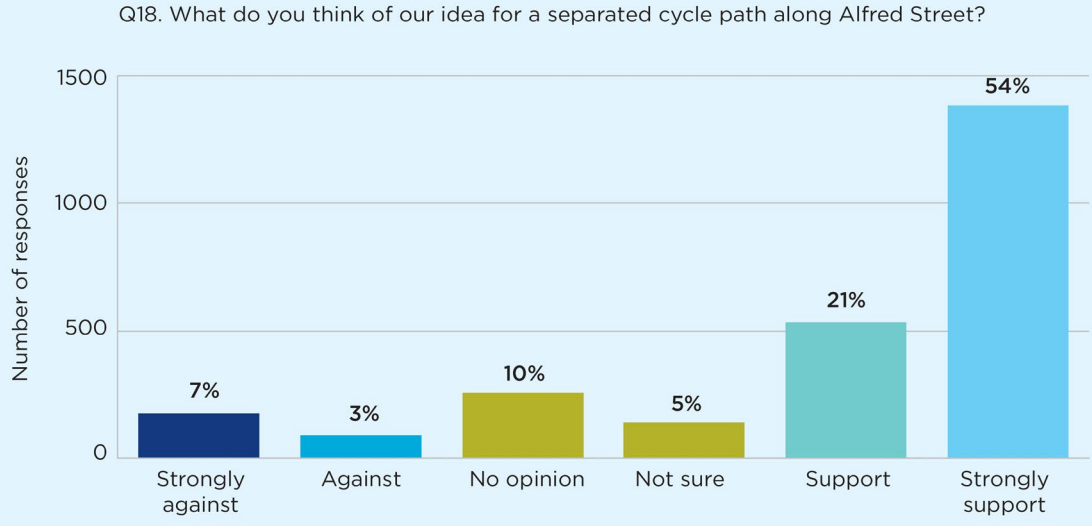
Opponents are concerned that the loop would not be safe due to its bends and slightly greater gradients. They are also concerned that the loop could cause conflicts at its base with pedestrians on Burton Street. Concerns were also raised about the potential impacts on the Kirribilli Markets and local schools who use the bowling greens for school sports. Some respondents also opposed the removal of the bowling club building.

Majority support for Alfred Street plans but some need more information

There is majority support for plans for a separated cycle path on Alfred Street. The survey showed that 75 per cent of all survey respondents support the plans though 15 per cent of respondents are unsure or undecided on the proposal.

More respondents in the immediate area support the plans (44 per cent) than oppose (34 per cent), but 21 per cent had no opinion or required more information.

Support for Alfred Street separated cycleway



Supporters see the separated cycleway as a sensible plan to ensure the safety of both pedestrians and cyclists, and as a way of reducing conflict and collision.

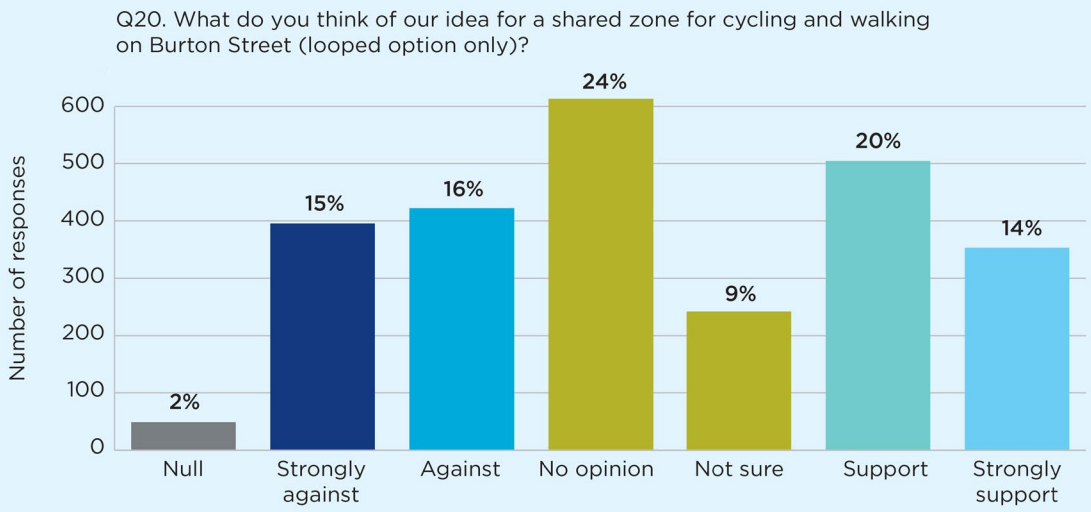
Opponents believe Alfred Street is too narrow to accommodate a bike path and object to the loss of parking. There was also concern about the proposed shared path on the west of Alfred Street and how cyclists would safety cross the Lavender Street roundabout.

There were suggestions for the cycle path to be one-way in the line of traffic flow, and for the Alfred Street crossing to be brought further south.

Mixed support for Burton Street plans with many people unsure

Views about the Burton Street shared zone is almost evenly mixed across all respondents, with roughly a third: supporting the plans (34 per cent), opposing the plans (31 per cent) or unsure (33 per cent). This split is consistent among cyclists and non-cyclists, and across people in the immediate, local and wider area.

Support for Burton Street shared zone



People who support the Burton Street shared zone do so with conditions, such as clear signage and behaviour changes, or see it as necessary if the loop goes ahead. Opponents do not support shared zones generally or are opposed to the loop and therefore the Burton Street plans.

1.5 Conclusion

In response to community feedback, we have selected the linear ramp as our preferred option.

We have commenced a design competition to find a leading architectural team with heritage and Connecting with Country expertise to design a ramp of the highest calibre.

Later this year the community will have a chance to comment on shortlisted designs, together with updated plans for the Alfred Street separated cycleway.

2 About the project

2.1 Background

The Sydney Harbour Bridge cycleway runs between Millers Point and Milsons Point along the western side of the Sydney Harbour Bridge.

On average, around 2000 cyclist trips are taken across the cycleway each weekday, making it one of the most heavily used bike paths in Sydney. It is the only cross-harbour bike route and a critical part of Sydney's bike network.

Access at the northern end of the cycleway is via 55 steps which connect with Bradfield Park at Milsons Point. The steps deter people from cycling more, and make access difficult for older people, riders with children, and users of heavy e-bikes. The steps also limit the cycleway's capacity and are a safety hazard.

Many attempts to develop an alternative to the steps have been made over the years and numerous ramp options have been explored. Suggestions of lifts, travelators and putting bikes back on the main deck of the Sydney Harbour Bridge have been put forward as alternatives to a ramp solution. However, no plans have progressed largely due to local concerns about potential impacts to Bradfield Park and the heritage of the Sydney Harbour Bridge.

In 2018, the NSW Government's Future Transport 2056 identified cycling as an important mode of city-serving infrastructure and outlined the aim of increasing cycling within 10 kilometres of major centres. For these reasons - and in response to the increasing popularity of bike riding during the COVID-19 pandemic – Transport for NSW (Transport) took a fresh look at the problem in 2020.

2.2 Alternatives considered

Transport began with a strategic assessment to see whether there was a non-ramp solution that could avoid Bradfield Park. This involved:

- modelling the current and projected capacity of the cycleway assuming a growth in cycling and improved access at the northern end
- exploring the merits of moving the cycleway to the eastern side of the bridge
- examining whether lifts and travellators would be a suitable replacement for the steps
- conducting high level investigations into whether it would be feasible to convert a lane of the bridge into a cycleway in the future.

These investigations have demonstrated the following:

- The cycleway needs to remain in the west side of the bridge to connect to the Kent Street cycleway and to cycle routes through to Darling Harbour and Pyrmont.
- Even if it were possible to put bikes on the deck of the bridge, the existing cycleway would still be needed as lanes 1 to 7 of the bridge are too narrow to be bi-directional.
- Removing the stepped access and safety barriers at the northern end will more than double the capacity of the cycleway and help meet demand over the next 10-20 years.
- While lifts and travellators would provide access for heavy bikes, and older or less able cyclists, they would not remove the current bottleneck and could reduce the existing cycleway capacity.
- Upgrading the existing western cycleway was concluded to be best aligned with the program outcomes.

2.3 Options assessment

More than 20 ramp options drawn from past and present project teams were assessed against basic rideability criteria. Most options were not feasible as they would be steep and / or require tight curves. The remaining options were assessed against movement, place and heritage criteria. A north-south linear ramp and a looped ramp south of Burton Street were selected for further exploration.

These two shortlisted options were then refined to reflect past feedback received from Heritage NSW, Heritage Council, North Sydney Council, community groups and bicycle groups. Through this process, the project aimed to avoid tree removal, reduce the ramp's footprint, avoid impacts to the fabric of the Sydney Harbour Bridge Viaduct, and reduce impacts to key views. The options also needed to meet rideability requirements as defined by national and international cycling guidelines.

As a result, a refined linear option and a refined loop option were developed for stakeholder engagement.

2.4 Early stakeholder engagement

Transport met regularly with key stakeholders between July 2020 and May 2021, during the project development process. The meetings aimed to notify stakeholders that Transport was taking a fresh look at the project, provide an overview of alternatives considered, and brief them on the two shortlisted options.

Transport held 24 separate briefings with key organisations, outlined below.

Early stakeholder meetings

Number of Stakeholder meetings

* Milsons Point Resident Group and Lavender Bay Precinct Committee reps, (incl NSC Mayor and Ward Councillor)

2.5 Shortlisted options

Following the early stakeholder engagement, Transport placed the two shortlisted ramp options on public display for community feedback on 7 June 2021. As part of this engagement, Transport also sought feedback on a separated cycle path on Alfred Street that would be delivered as part of either option, and for a shared zone on Burton Street that would be delivered as part of the looped ramp option.

3 Engagement activities

Community engagement on the two ramp options started on 7 June 2021 for a public display period of three weeks, ending midnight 27 June 2021.

However, due to the cancellation of the final scheduled pop-up event on 27 June as a result of the Greater Sydney stay at home restrictions introduced by the NSW Government in response to the COVID-19 situation, the deadline for submissions and survey responses was extended until midnight 28 June.

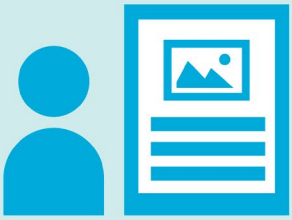
3.1 Information

The project web page nswroads.work/cycleway was updated with information including the community update, images of the options and a detailed project overview. FAQs and captioned recordings of the community livestream events were also uploaded during the public display period.

Community consultation was advertised via:

Emails to stakeholders

A community update sent to 8,900 residences in Milsons Point, Kirribilli, Lavender Bay and Neutral Bay



Posters at Kirribilli, Milsons Point and McMahon's Point Wharves

Paid Facebook advertising targeted at local suburbs, cycling groups and family groups

An article in the Sydney Morning Herald

3.2 Events

Opportunities to find out about the project and to talk to the project team were provided through one community drop-in session and three pop-up events. Key members of the Transport project team also facilitated two community livestream events providing further information to the community.

During the public display period, more than 565 interactions and conversations were held with members of the public.

As a result of the COVID-19 stay at home restrictions, two community events due to be held on the final week of the public display period on 22 and 27 June, were cancelled.

Pop-up Sessions

- 6-8am Tues 8 June, foot of northern steps
- 8am-3pm, Sun 13 June, Kirribilli Markets
- 4-6pm, Wed 16 June, foot of northern steps

Community Drop-in Sessions

- 2pm-7pm, Thu 10 June, Kirribilli Neighbourhood Centre

Livestream Sessions

- 1-2pm, Tues 15 June
- 5:30-6:30pm, Wed 23 June

3.3 Feedback channels

Consultation focused on encouraging stakeholders to either complete an online survey or provide a submission via an online platform, email, or post. The project web page linked directly to these feedback channels.

The online survey asked respondents for details on age, gender, postcode and cycling experience. It also asked respondents to rate the linear ramp, looped ramp, Alfred Street and Burton Street plans on a scale ranging from strongly oppose to strongly support. The survey also provided for free-text responses for each question.

3.4 Meetings

Prior to, and during the consultation period, the team contacted organisations whose operations could potentially be impacted directly by the project. These are outlined in Table 1.

Table 1: Impacted stakeholders contacted during the consultation period

Stakeholder	Potential impact
La Capannina Restaurant	The restaurant operates from the bowling club building. The building would be removed if the loop were to proceed.
Kirribilli Community Centre	The centre manages Kirribilli Markets. The markets would be potentially impacted during construction. Cyclists would enter and exit the looped ramp at Burton Street which is where the markets operate
St Aloysius School and Loretto College	The schools use the bowling greens for school sports. Up to 1000 children use the greens each week.

4 Responses

4.1 Analysis methodology

All survey responses and submissions were received digitally through the online 'Have Your Say' platform and by email. After the close of engagement, all information was reviewed, and consolidated before being analysed.

The team used a data science technique called 'topic modelling' to sort and categorise the qualitative responses to each question. This was then checked by a person to attribute topics to each comment in a dataset. Finally, the dataset was reviewed by a member of the project team with subject matter expertise. The insights received through the analysis were then combined with an analysis of feedback from engagement events and summarised in this report.

In addition to considering the overall feedback results, our analysis has also sought to understand views from the immediate, local and wider areas, and from the perspectives of cyclists and non-cyclists. In this regard, the following definitions have been used.

Table 2: Definitions use for feedback analysis

Respondent category	Definition
Immediate	Respondents from postcodes 2060 and 2061
Local	Respondents within a 7km-10km North Shore riding catchment including postcodes 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2088, 2089 and 2090
Wider	Respondents from all other areas
Cyclist	Respondents who stated they cycle at least weekly
Occasional and non-cyclists	People who ride for leisure or at least monthly.

4.2 Total interactions

The project team had conversations or interactions with approximately 6673 people throughout the three week public display period. These are documented in Table 3.

Table 3: People reached throughout the engagement period

Channel	Activities	People engaged
Survey	**2,578** responses to the online survey	**2,759** respondents
Submissions	**461** submissions via online platform and email	
Meetings	**4** meetings with 3 impacted organisations	**8**
Events	**3** pop-ups; **1** drop-in; **2** livestream events	**565**
Calls	to **1800** number to provide feedback	**20** approx.
Social media	**4** Facebook ads targeted at local area, cyclists and family groups	**3,321**

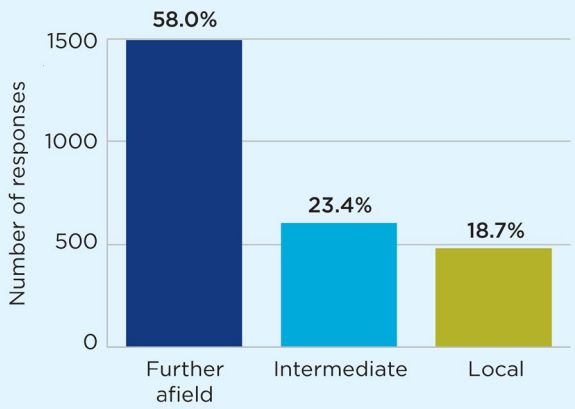
Many people made both a submission and survey response, and several made more than one of each kind of contribution. Factoring for multiple responses, the project team heard from 2759 different people across the survey and submissions.

4.3 Survey

4.3.1 Local and non-local respondents

The online survey received 2578 responses. Of these, 482 (18.7 per cent) were from the immediate area, a further 602 (23.4 per cent) were from the local area and 1494 (58 per cent) came from across the Sydney Metropolitan area and beyond. See Figure 1.

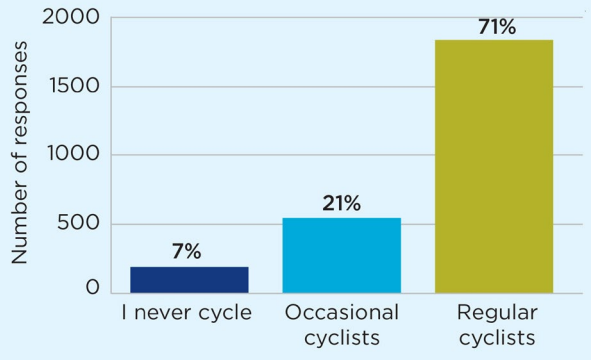
Figure 1: Survey responses by locality



4.3.2 Cyclists and non-cyclists

Seventy-one per cent of survey responses (1837) came from regular cyclists (people who cycle at least once a week), making them the biggest group of respondents. Twenty one per cent (550) were intermediate cyclists and 7 per cent (191) never cycle. See Figure 2.

Figure 2: Survey responses by cycling ability



Of the 1494 respondents who were non-local, 86 per cent (1,288) were regular cyclists and a further 11 per cent (173) cycle at least once a month or for recreation. Among the 1084 local and immediate respondents, 51 per cent (549) were regular cyclists, and 33 per cent (358) intermediate cyclists and 16 per cent (177) were non-cyclists.

4.4 Submissions

4.4.1 Individuals

A total of 461 submissions were received. Of these, 254 were received via the online platform and 207 were sent via the project email address or to the local MP and or Ministers Office before being redirected to the project team.

Only 261 of the 461 submissions received had postcode data. Of these, 110 (42 per cent) came from the immediate area, 71 (27 per cent) came from the local area, and 80 (31 per cent) from further afield.

4.4.2 Organisations

Of the 461 submissions, 15 submissions came from the following organisations (see section 6.2 for a full breakdown of organisations' submissions).

- Australian Institute of Landscape Architects
- Tourism and Transport Forum
- Lane Cove Council
- North Sydney Council
- Committee for North Sydney
- Edward East Precinct Committee
- Kirribilli Neighbourhood Centre
- North Shore Historical Society
- Park Precinct Committee
- Bicycle NSW
- Bike East
- Bike North
- Sydney Cycling Club
- Sydney East Riders
- Walk Sydney NSW

4.5 Engagement events

4.5.1 Information sessions

In addition to the survey and submission feedback, more than 565 interactions and conversations were held with members of the public over the three week consultation period. These are detailed in Table 4.

Table 4: Engagement events

Event type	Date and time	Location	Number	Type
Pop up	6am-8am, Tues 8 June	Foot of northern steps	100	Conversations
Pop up	8am-3pm, Sun 13 June	Kirribilli Markets	250	Conversations
Pop up	4pm-6pm, Wed 16 June	Foot of northern steps	80	Conversations
Drop in	2pm-7pm, Thu 10 June	Kirribilli Neighbourhood Centre	22	Conversations
Livestream 1	1pm-2pm, Tues 15 June	Online	28	Attendees
Livestream 2	5:30pm-6:30pm, Wed 23 June	Online	85	Attendees

4.5.2 Calls and emails

Over the course of the project around 20 calls were made to the project 1800 number, and 92 emails (excluding those considered to be submissions). This indicated that community members preferred digital means to contact the project team.

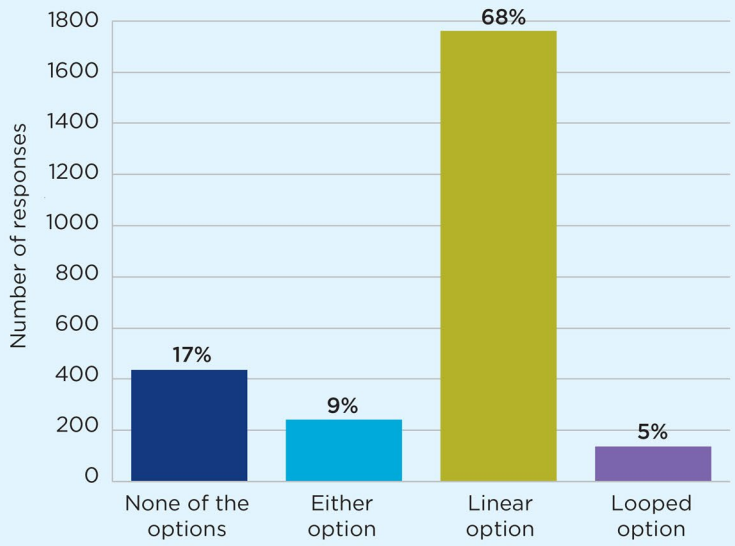
5 Survey analysis

5.1 Option preference

5.1.1 Overall preference

The project has strong overall support, and the linear option is a clear preference.

Figure 3: Option preference overall (n=2578)



When asked to express a preference, 82 per cent (2142) of all respondents expressed a preference for one or either of the options, and only 17 per cent (436) stated they would prefer 'neither'. Sixty-eight per cent (1762) of all respondents expressed a preference for the linear option.

5.1.2 Local v non-local preferences

Support for the project, and for the linear option, is strong across the Lower North Shore, though opposition in the immediate area is high.

Figure 4: Preference – immediate area (n=482)

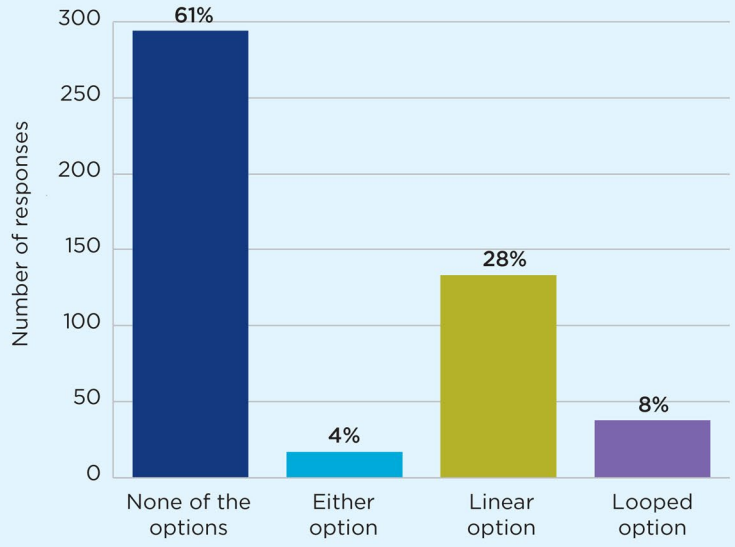
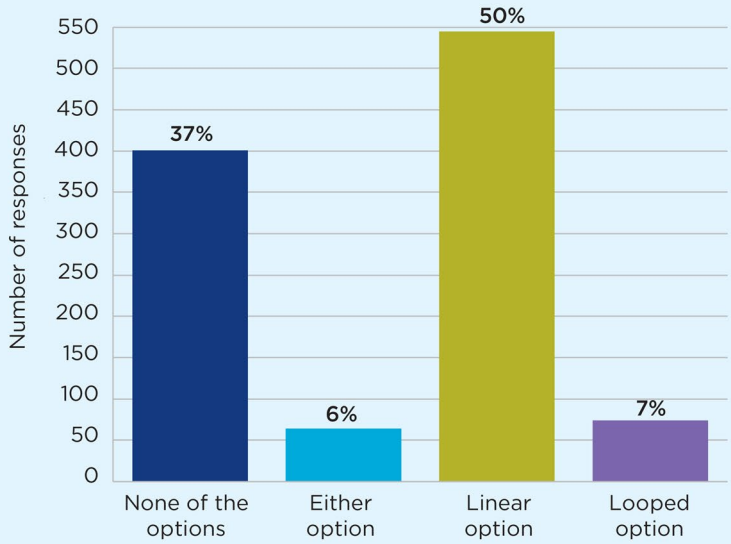


Figure 5: Preference: local and immediate (n=1084)

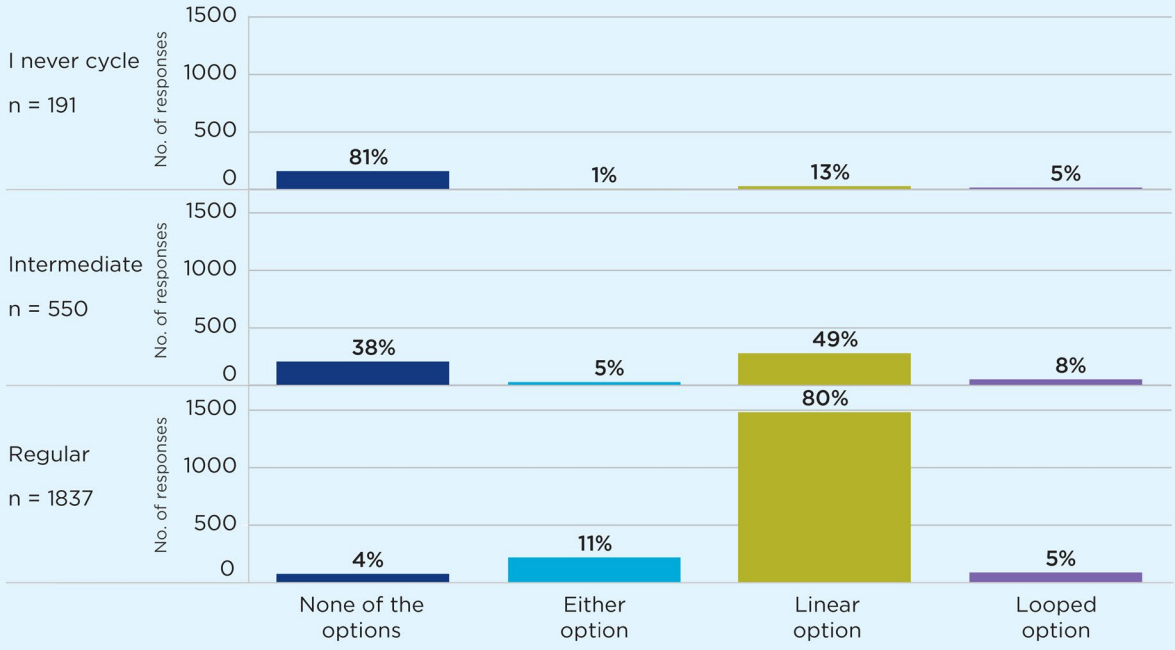


In the local and immediate area (1084), 50 per cent (545) of respondents would prefer the linear option and 37 per cent (401) would prefer neither option. In the immediate area only (482), these figures change to 28 per cent and 61 per cent respectively.

5.1.3 Cyclist v non-cyclist preferences

The vast majority of regular cyclists, and half of occasional cyclists, prefer the linear option. Non-cyclists are more likely to oppose the project.

Figure 6: Option support by cycling experience



Segmenting the response data by cycling ability shows that of regular cyclists (n=1837), 80 per cent (1468) prefer the linear and 4 per cent (73) prefer neither. Of intermediate cyclists (n=550), 49 per cent (269) prefer the linear; and of non-cyclists (n=191), 81 per cent (154) prefer neither option.

5.1.4 Feedback themes

Respondents were given the opportunity to provide feedback on their preference. Comments fall into seven main themes depending on the preference chosen. This is summarised in Table 5.

Table 5: Option preference – themes from qualitative feedback

Preference	Themes
Linear	
Safer and avoids conflict with pedestrians given the traffic volume	• safer compared to the loop • separates cyclists from pedestrians and motorists at Burton Street, Milsons Point Station and Kirribilli Markets • good visibility for cyclists and pedestrians • easier to negotiate, particularly uphill, and benefits from better sight lines and visibility
Looks good and less intrusive	• looks better, could be an elegant design, and was a 'lighter 'addition to the open space • would not take up too much space in the park and was less intrusive than the looped option • the designs on display needed development and the final design needs to be of a high architectural standard
Loop	
Less intrusive, visually compact and takes less space	• less intrusive to open space due to a compact footprint • linear option would cut the park in half and would lengthen the travel time for cyclists coming from the east • would reduce the speed of cyclists coming off the ramp • would be fun to ride and provide opportunity to give space back to the community.
Either	
Any ramp is better than no ramp: Stop delaying and build it quick	• Linear preferable but would be happy if either option were to go ahead. Anything was better than the current situation • the project had been proposed for some time and needs to proceed • the main objective should be fully accessible cycling infrastructure, rather than any particular option
Neither	
Takes up parkland and is a waste of money	• both options are too imposing on Bradfield Park • the project would adversely affect the many users of the park - open space is highly valued by the local community • the problem of the 55 steps has been overstated and cyclists manage these steps adequately • the project is not needed and that the purported benefits are not worth the local impact. A 'do nothing' approach is preferable • there were better ways to spend money allocated for the project, either on cycle paths elsewhere or on other infrastructure projects

Table 5: Option preference – themes from qualitative feedback (continued)

Preference	Themes
Enhance the existing infrastructure by installing a lift to accommodate cyclists/bikers	• lifts to accommodate people who cannot manage the stairs is a more acceptable solution to a ramp, which was seen as intrusive • lifts should be an interim option until an alternative longer-term plan is identified
Ugly and has negative impact on the historic bridge	• both options are an ugly eyesore • both options would have a detrimental impact on the fabric and heritage of the Sydney Harbour Bridge and would intrude upon the peacefulness of Bradfield Park • the designs put cyclists above the needs of the community • only two options have been put forward and that these do not differ much from options put forward in 2017. Broader community consultation is needed to examine all possible options

5.2 Support for the ramp options

5.2.1 Overall support

A clear majority of all respondents support the linear ramp. More people oppose the loop than support it.

Figure 7: Linear option support (n=2578)

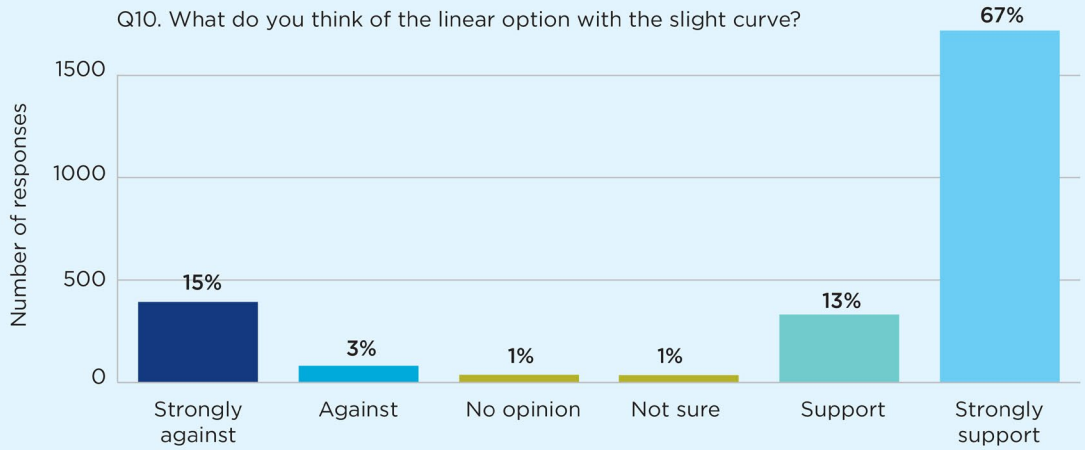
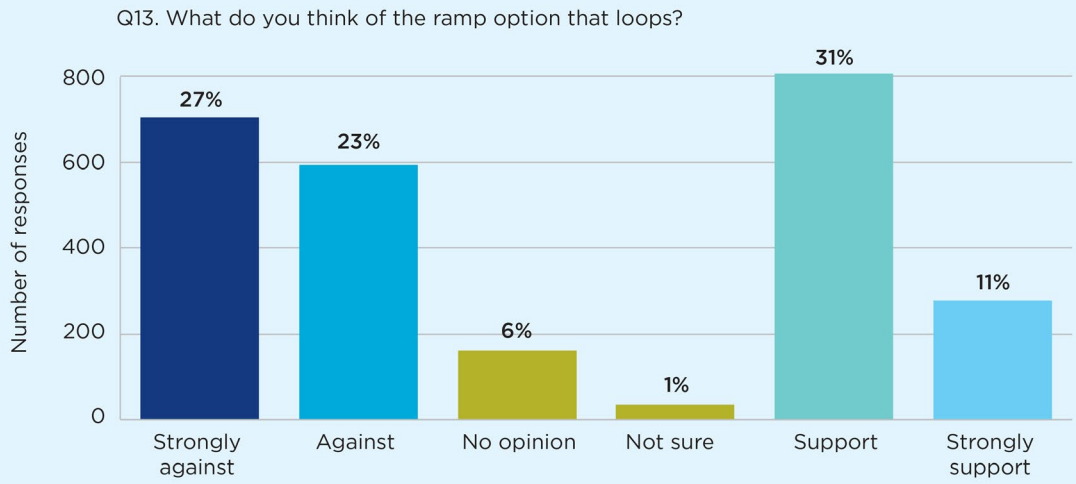


Figure 8: Loop option support (n=2578)



Eighty per cent (2047) of all survey respondents *strongly support* or *support* the linear option, and 18 per cent (476) *strongly oppose* or *oppose* it. Two per cent (55) have no opinion or are unsure.

Forty-two per cent (1084) of survey respondents *strongly support* or *support* the loop option, and 50 per cent (1298) *strongly oppose* or *oppose* it. Seven per cent (55) have no opinion or are unsure.

5.2.2 Local v non-local support

Across all locality groups, support for the linear option is higher than for the loop – even in the immediate area where people are more likely to oppose the project overall.

Figure 9: Linear option support by locality

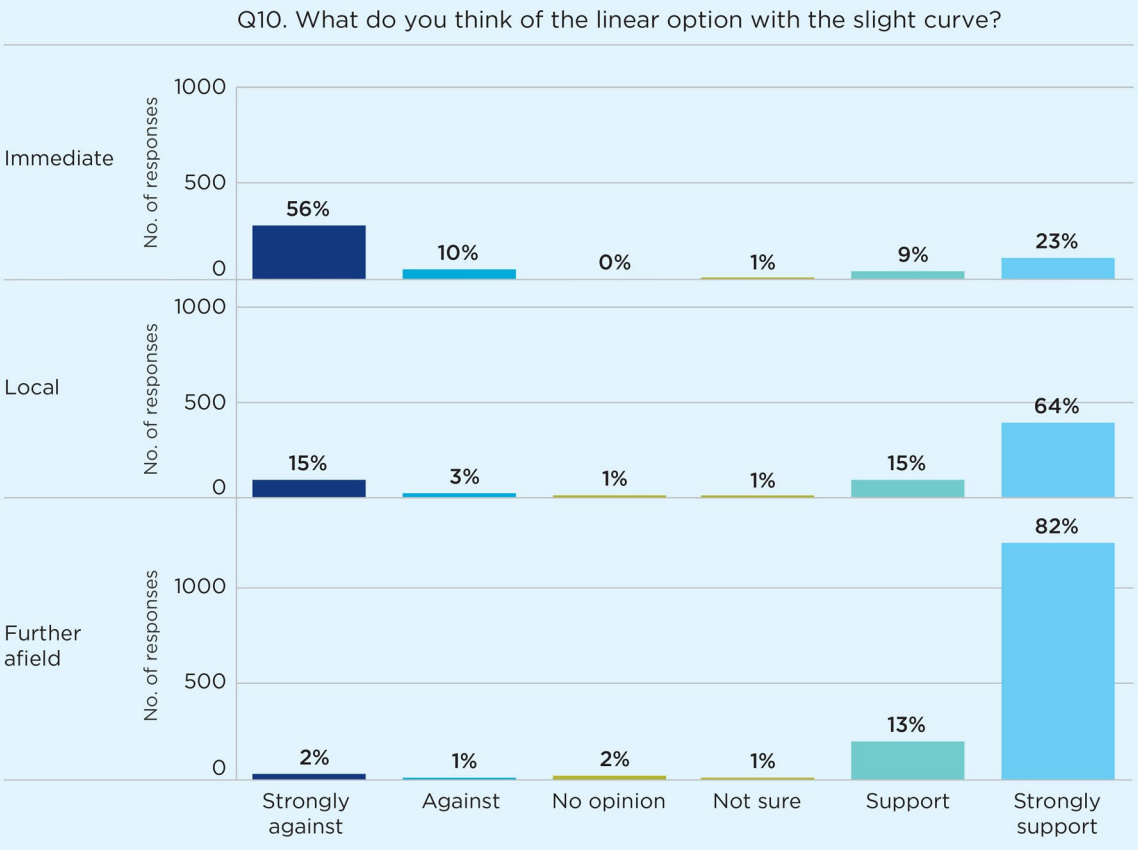
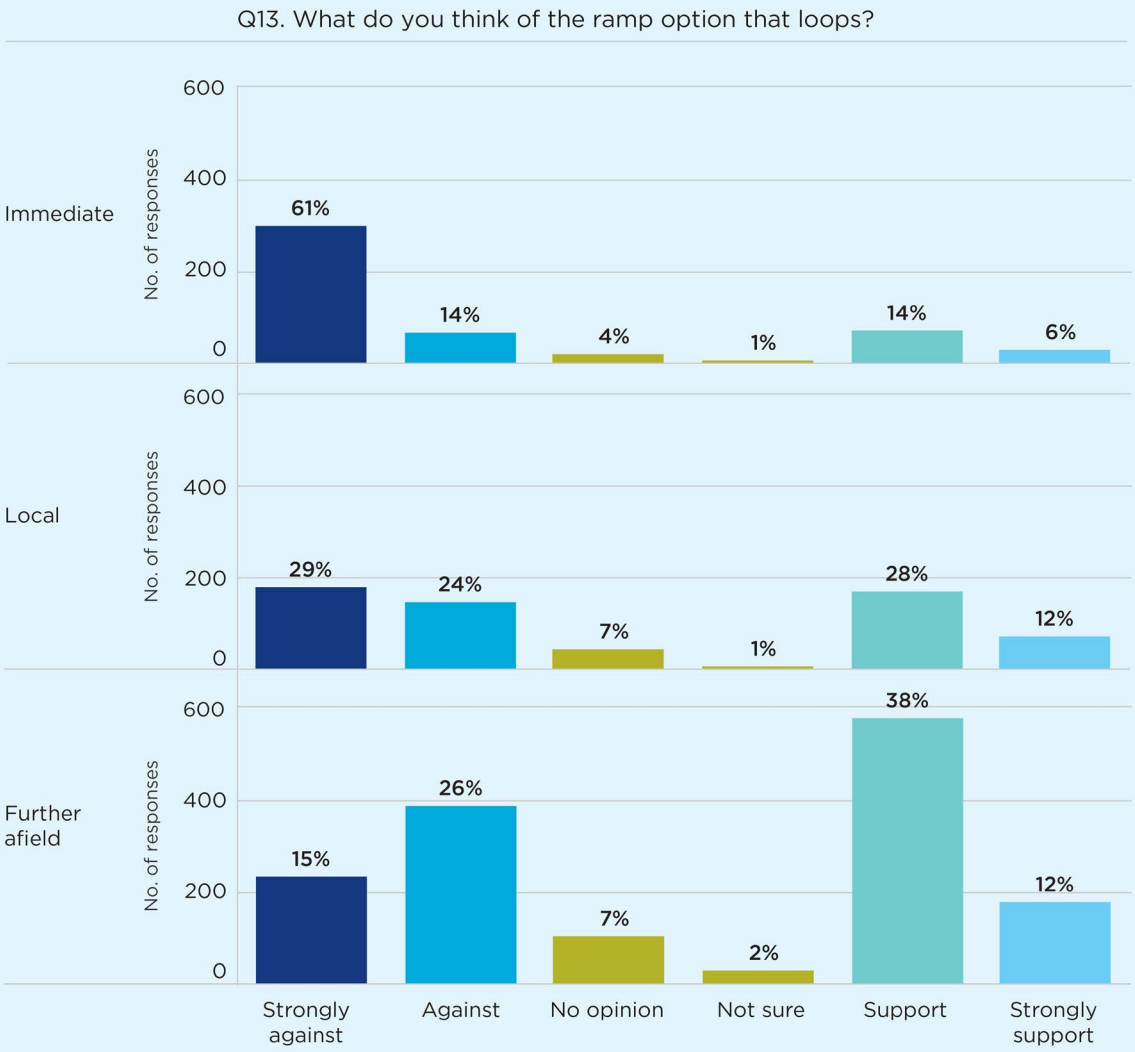


Figure 10: Loop option support by locality



Of the 1084 respondents in the immediate and local areas, 58 per cent (631) *strongly support* or *support* the linear option, and 40 per cent (435) *strongly oppose* or *oppose* it. Two per cent (18) have no opinion or are unsure. By contrast, 31 per cent (335) *strongly support* or *support* the loop, and 63 per cent (682) *strongly oppose* or *oppose* it. Six per cent (18) have no opinion or are unsure.

Support for both options drops in the immediate area. Of the 482 people from postcodes 2060 and 2061 who responded to the survey, 32 per cent (156) *strongly support* or *support* the linear option, 66 per cent (321) *strongly oppose* or *oppose* the option, and 1 per cent (3) are unsure. Twenty per cent of people in 2060 and 2061 (98) *support* or *strongly support* the loop, 75 per cent (362) *oppose* or *strongly opposed* it, and 5 per cent (22) are unsure.

Of the 1494 respondents in the wider area, 95 per cent (1416) *strongly support* or *support* the linear, and only 3 per cent (41) *strongly oppose* or *oppose* it. Just under 3 per cent (35) have no opinion or were unsure. Half of this cohort (749) *strongly support* or *support* the loop, and 41 per cent (616) *strongly oppose* or *oppose* it. Nine per cent (129) have no opinion or were unsure.

Among the most opposed group of respondents (people from postcodes 2060 and 2061), support for the linear is 12 per cent higher than the loop; and opposition to the linear is 9 per cent lower.

5.2.3 Cyclist v non-cyclist support

Support for the linear option is higher than for the loop across all cycling abilities,

Of the 191 non-cyclists who responded to the survey, 13 per cent (26) *strongly support* or *support* the linear option, and 84 per cent (160) *strongly oppose* or *oppose* it. Three per cent (5) have no opinion or are unsure. Ten per cent (18) *strongly support* or *support* the loop option, and 87 per cent (167) *strongly oppose* or *oppose* it. Four per cent (6) have no opinion or are unsure.

Of the 550 intermediate cyclists who responded to the survey, 55 per cent (305) *strongly support* or *support* the linear option and 42 per cent (237) *strongly oppose* or *oppose* it. Two per cent (22) have no opinion or are unsure. Twenty eight per cent (154) *strongly support* or *support* the loop option, and 64 per cent (356) *strongly oppose* or *oppose* it. Seven per cent (40) have no opinion or are unsure.

Support for the linear option is high among regular cyclists – 93 per cent (1716) support the linear option, while only 4 per cent (83) oppose it. Two per cent (38) are unsure or have no opinion. By comparison, only 50 per cent (912) of regular cyclists support the loop, while 43 per cent (775) oppose it. Nine per cent (150) are unsure or have no opinion.

Figure 11: Linear option support by cycling ability

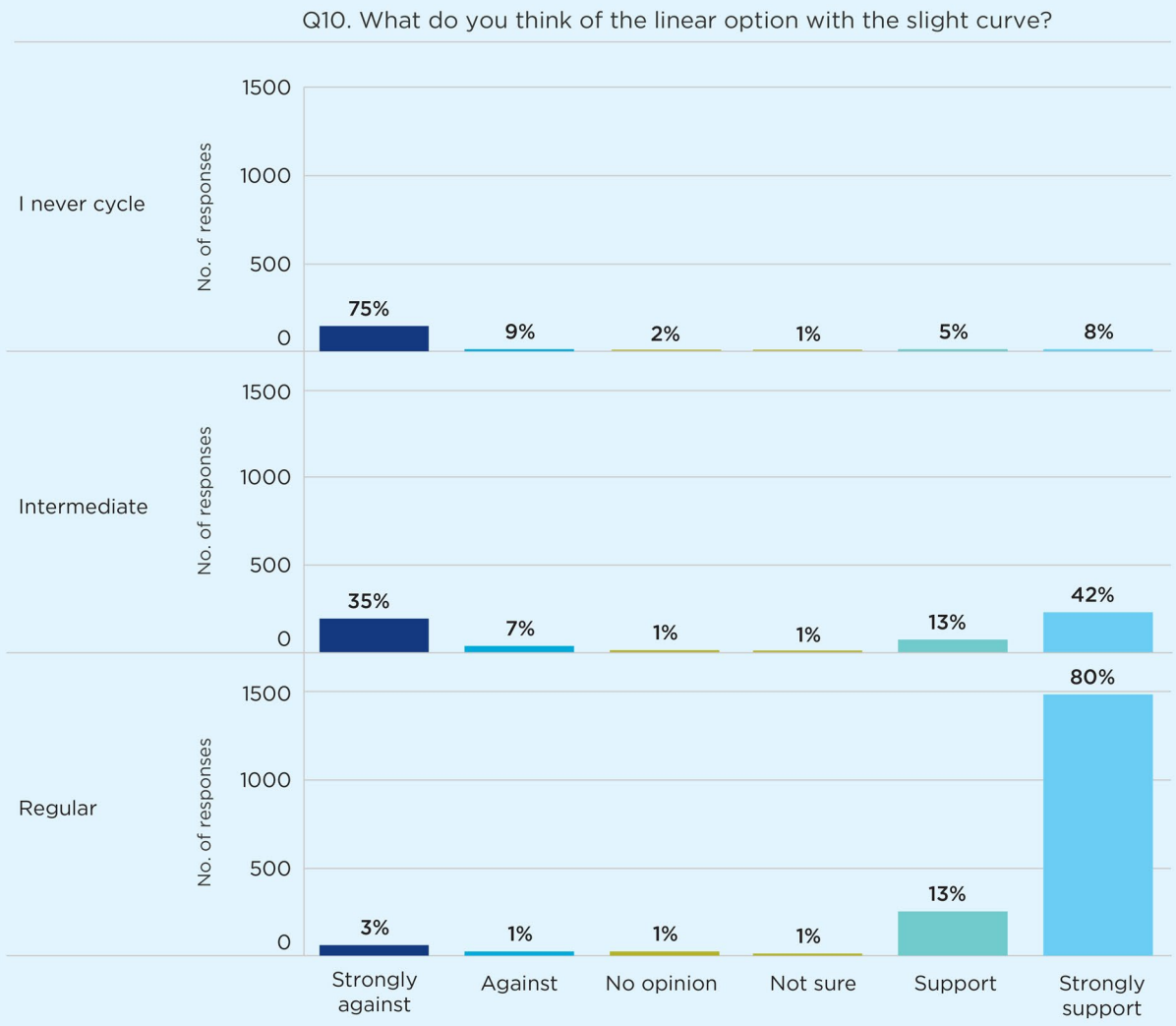
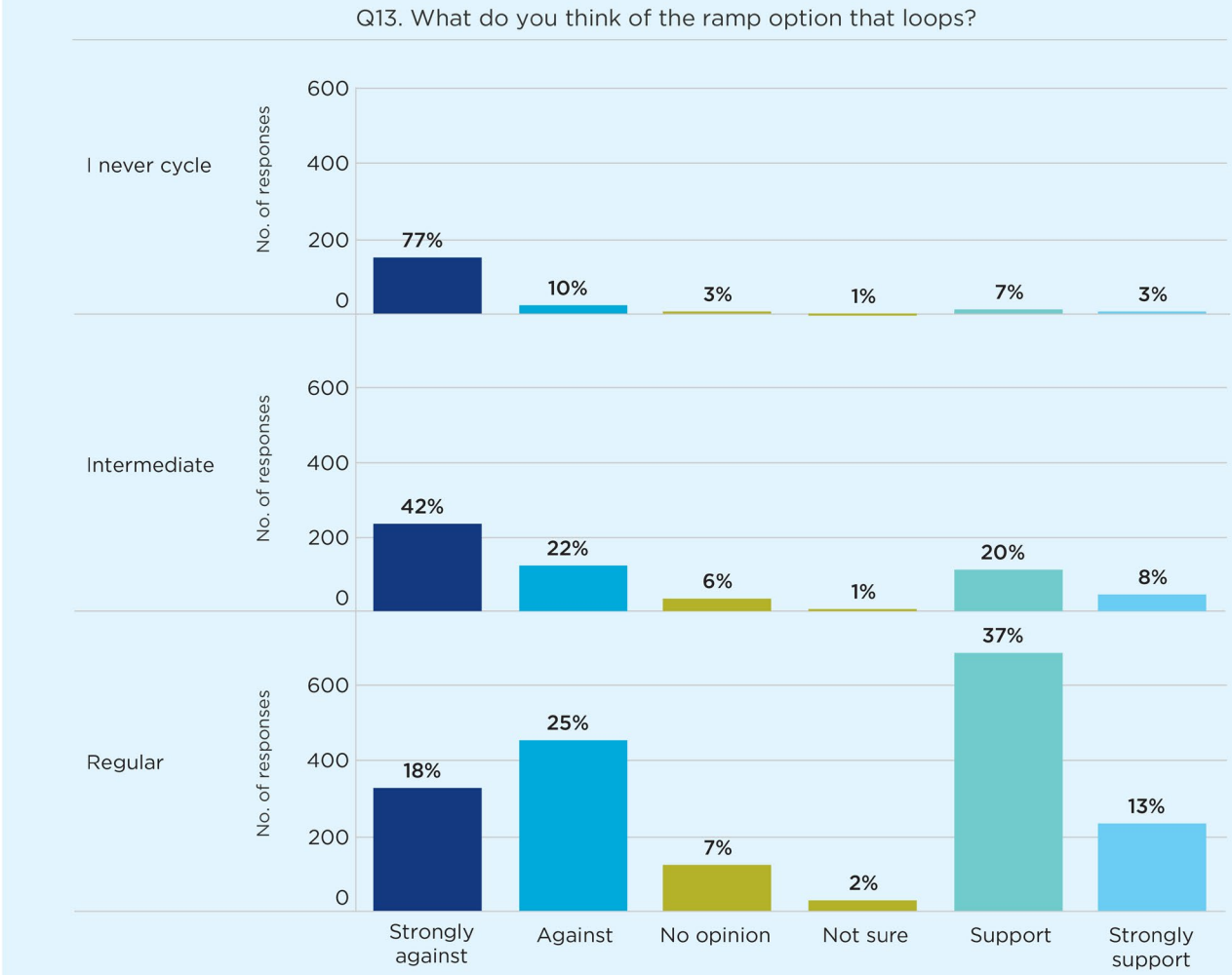


Figure 12: Loop option support by cycling ability



Artist impression of the looped option looking south from Burton Street

5.2.4 Feedback themes

Respondents were given the opportunity to provide feedback on their level of support for each option. A total of 2324 comments were provided for the linear and 2096 for the loop. Tables 6 and 7 summarise the themes and comments made for the linear and loop ramp respectively.

Table 6: Linear option feedback – themes

Preference	Themes
Support	
Linear ramp is safe with better visibility and is least disruptive to public spaces	• safer due to a lack of bends and clear sightlines • avoids pedestrians on Burton Street and Milsons Point Station Plaza • avoids Kirribilli Markets
Easier entry/exit to the ramp/bridge and less interference with other users	• a safer, quicker and more enjoyable connection to North Sydney • more accessible for less confident riders who wouldn't have to negotiate the steps or curves of the loop option • a good option for encouraging more people to ride a bike
Aesthetic/attractive and more practical solution than loop option	• looks good • would fit in better with surrounding area and the linear aspects of the bridge • a more convenient and accessible option for a wider range of riders
Opposed	
Waste of money and would prefer a lift/escalator	• people opposed to the linear option were opposed the project generally • the need does not justify the impact on the local area or the expense • the steps are at worst a 'minor inconvenience' and are manageable by cyclists • 2,000 cyclists on average per weekday is overstated – the actual figure is lower • a lift would provide an adequate alternative to the steps • the money for the project would be better spent on other projects such as a bike lane on the Pacific Highway or improving the existing cycleway
Ugly/ruins heritage of bridge	• an ugly eyesore that would deface the entrance to the Art Deco Milsons Point Station • would reduce open space and spoil the ambience of the station entrance and plaza • the images provided by Transport did not provide a full idea of what the ramp would look like • the indicated design did not fit in with the heritage context • the community's quality of life would be impacted by the cumulative effect of this and other projects in the area
Takes up parkland and too much of open space	• too much of an intrusion on Bradfield Park, and views to the bridge and Milsons Point Station entrance • words like 'imposing' jarring' obtrusive; and 'unattractive' were used • residents of the apartment blocks in the area rely on Bradfield Park for recreation

Table 7: Loop option feedback – themes

Preference	Themes
Support	
Better accessibility, visually compact without taking too much space	• visually more appealing and less intrusive • design is 'interesting', 'beautiful', and 'playful' • a better option for cyclists going east • similar to Tibby Cotter Bridge and Anzac Bridge cycle ramp – which are ok to use
I support loop option over the current steps but linear ramp is much preferred	• much better than the steps but linear would be preferred
Opposed	
Unsafe and difficult to ride with increased risk of accidents/collisions with other users	• would create conflict with users of Burton Street • bends and gradients would be difficult for cyclists to negotiate • would cause collisions between cyclists going up and down
Terrible design: Obstructs public view of the bridge and takes up too much open space	• design is bulky and ugly • negative impacts to Kirribilli markets • will require the demolition of the bowling club building and disrupt school children who use the bowling greens for recreation
Ramps are unnecessary. Lift/travelator would be a better option	• lift would be more discreet and less of an eyesore

5.3 Support for cycle paths

Respondents were asked to express their level of support for the proposed Alfred Street Separated cycle path and the Burton Street shared zone on a scale between *strongly support* to *strongly opposed*.

5.3.1 Overall support

There is clear support for the Alfred Street proposal but responses to the Burton Street Shared zone were mixed. A relatively high proportion of people have no opinion or are unsure about the proposals.

Figure 13: Level of support for Alfred Street separated cycle path (n=2578)

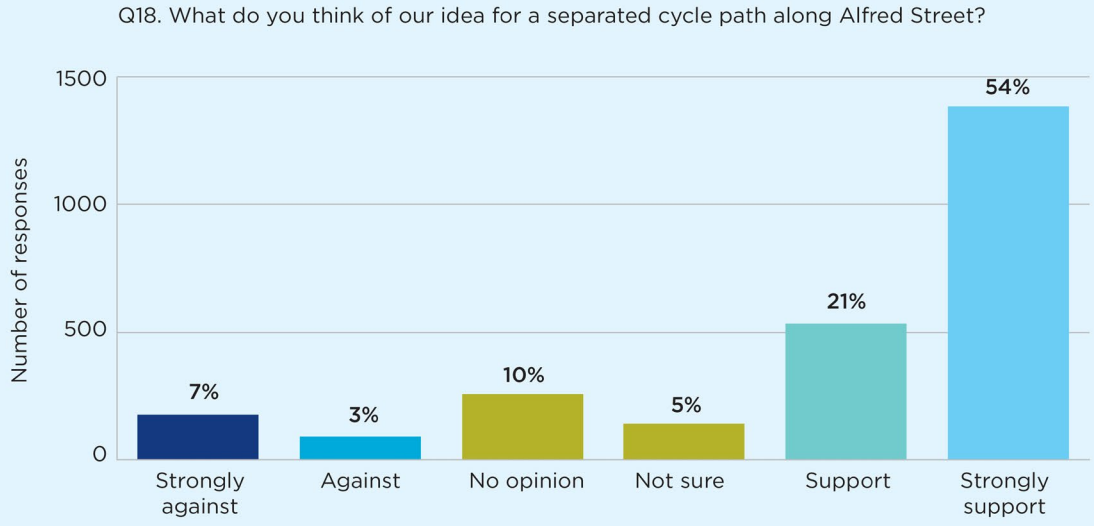
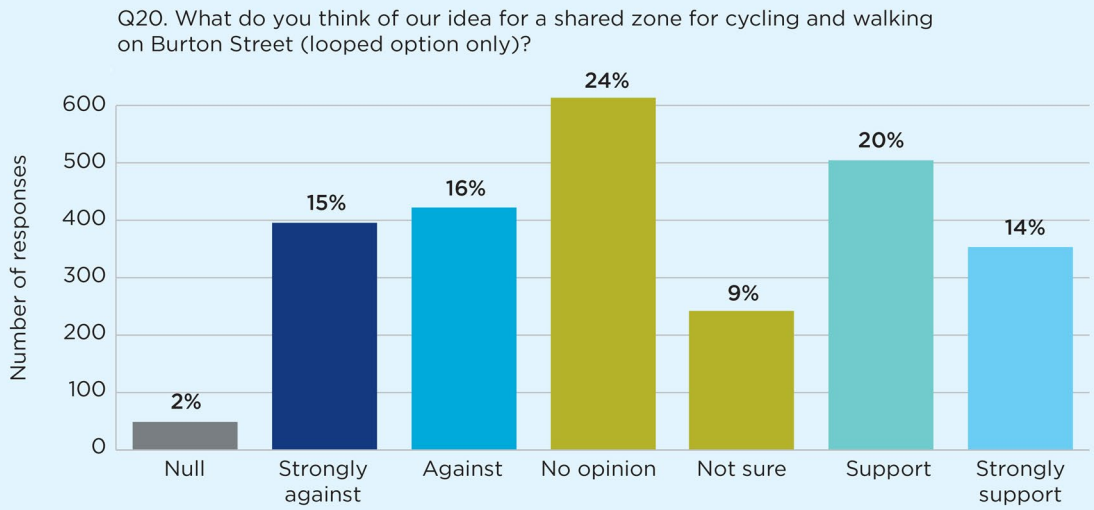


Figure 14: Level of support for Burton Street shared zone (n=2578)



Seventy-five per cent (1919) of all survey respondents *strongly support* or *support* the Alfred Street proposal, and 10 per cent (263) *strongly oppose* or *oppose* it. Fifteen per cent (396) have no opinion or are unsure.

Thirty-four per cent (857) of all survey respondents *strongly support* or *support* the Burton Street plan, and 31 per cent (817) *strongly oppose* or *oppose* it. A third – 33 per cent (856) have no opinion or are unsure.

5.3.2 Local v non-local support

People from the wider area support the Alfred Street proposal but are more mixed about the Burton Street shared zone. This trend is reflected in the local and immediate areas.

Figure 15: Level of support for Alfred Street separated cycle path in the immediate and local area (n=1084)

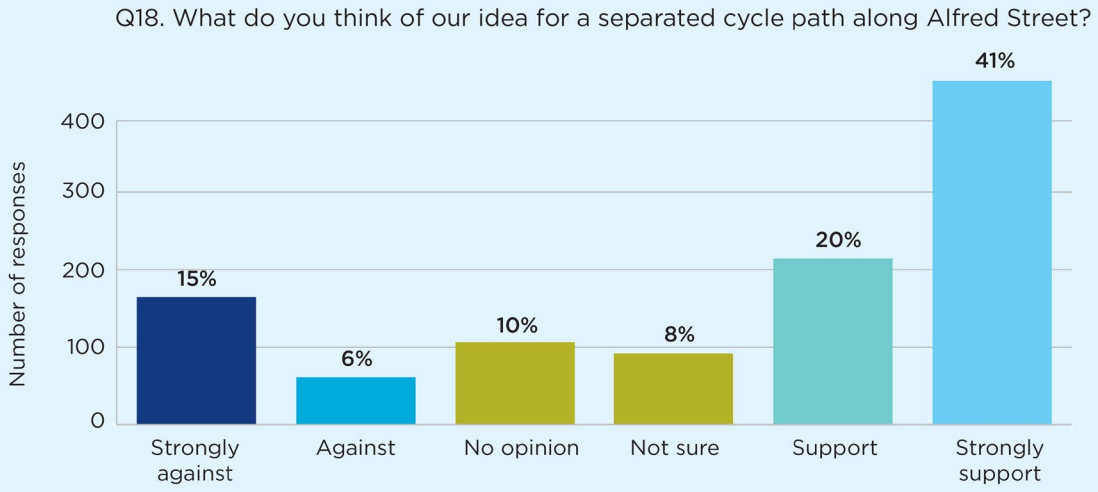


Figure 16: Level of support for the Alfred Street separated cycle path in the wider area (n=1494)

Q18. What do you think of our idea for a separated cycle path along Alfred Street?

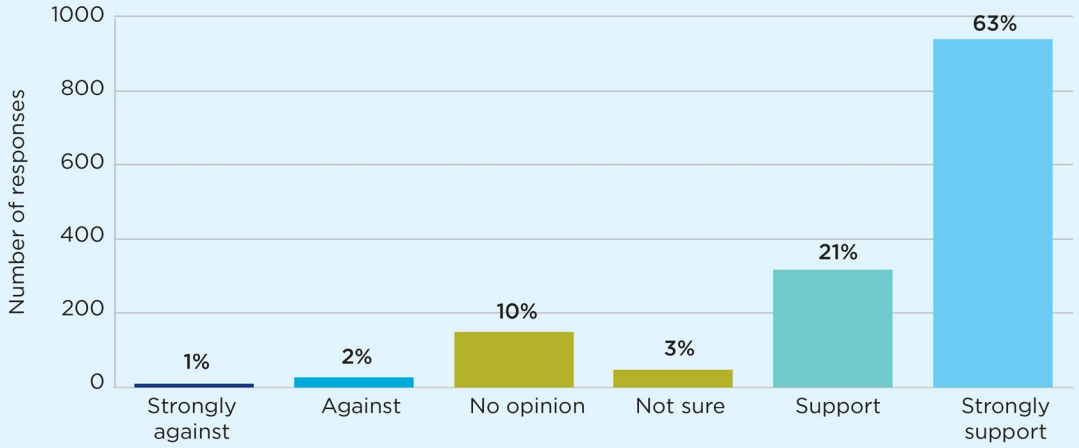


Figure 17: Level of support for Burton Street shared zone in the immediate and local area (n=1084)

Q20. What do you think of our idea for a shared zone for cycling and walking on Burton Street (looped option only)?

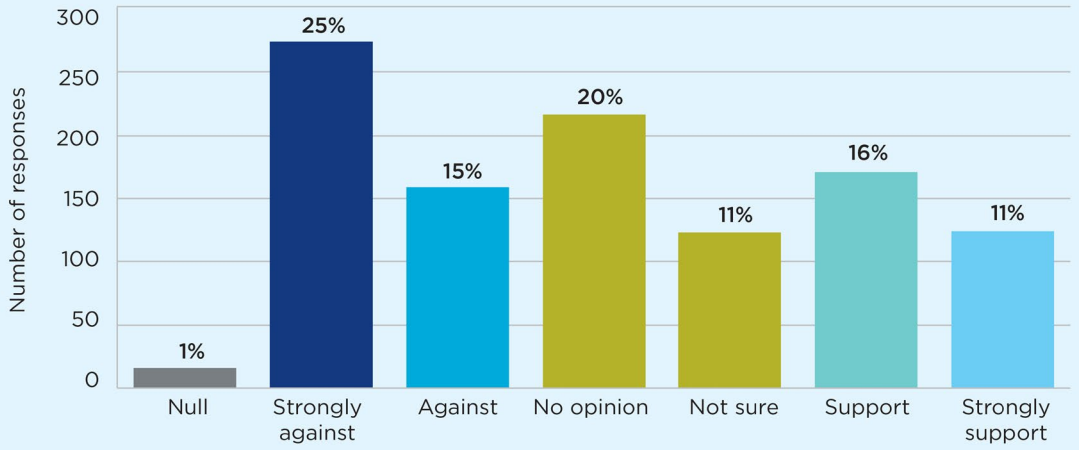
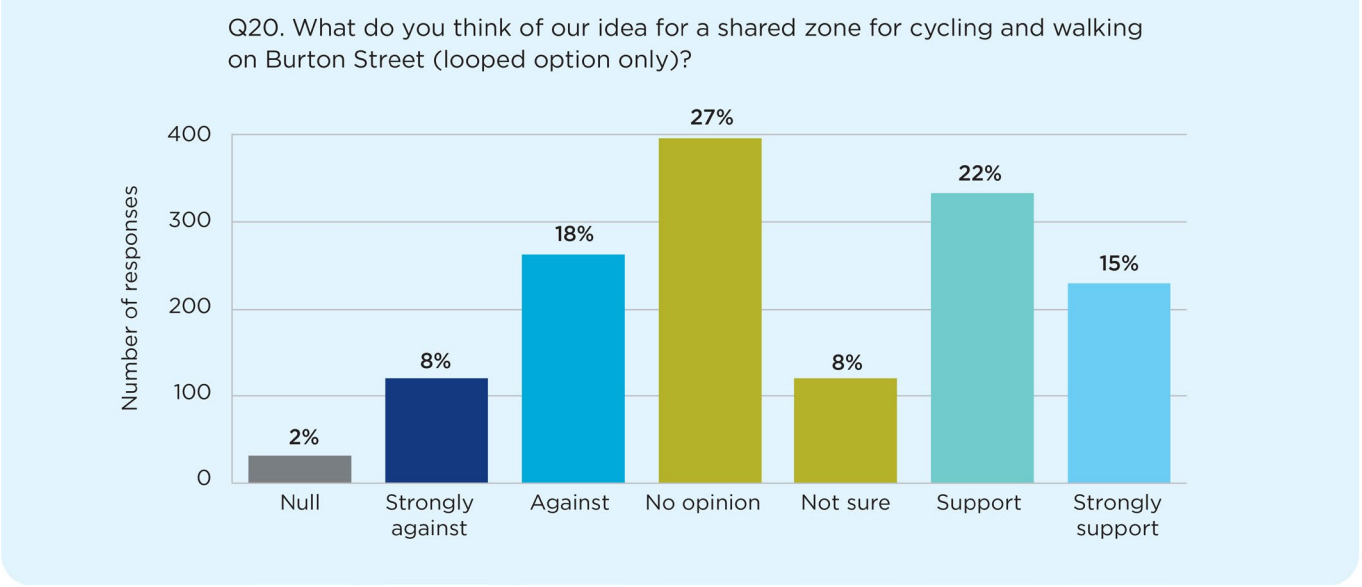


Figure 18: Level of support for the Burton Street shared zone in the wider area (n=1494)



Of the 1084 respondents in the immediate and local area, 61 per cent (660) *strongly support* or *support* the Alfred Street plan, and 21 per cent (226) *strongly oppose* or *oppose* it. Eighteen per cent (198) have no opinion or are unsure.

Just over a quarter, 27 per cent (295), *strongly support* or *support* the Burton Street plan, and 40 per cent (433) *strongly oppose* or *oppose* it. Thirty-one per cent (340) have no opinion or are unsure.

Support for both plans drops in the immediate postcodes of 2060 and 2061 though support for the Alfred Street plan is still greater than opposition to it. The survey shows that a relatively high number of people are undecided or unsure about both plans.

Of the 482 people from the immediate area, 44 per cent (213) *strongly support* or *support* the Alfred Street plan, 34 per cent (167) are *strongly opposed* or *opposed*, and 21 per cent (102) have no opinion or are unsure. More than half – 52 per cent (252) are *opposed* or *strongly opposed* to the Burton Street plans, 17 per cent, (83) *support* or *strongly support* the plans, but 29 per cent (140) are undecided or unsure.

Of the 1494 respondents who were not local, 84 per cent (1259) *strongly support* or *support* the Alfred Street plan, and only 3 per cent (37) *strongly oppose* or *oppose* it. However, 13 per cent (198) have no opinion or are unsure.

Of the non-locals, 37 per cent (562) *strongly support* or *support* the Burton Street plan, and only 26 per cent (384) *strongly oppose* or *oppose* it. However, 35 per cent (516) have no opinion or are unsure.

5.3.3 Cyclist v non-cyclist support

The pattern of support for the Alfred Street and Burton Street proposals is similar across cycling abilities. Opposition to the Burton Street proposal is particularly high among non-cyclists.

Of the 741 occasional and non-cyclists who responded to the survey, 50 per cent (373) *strongly support* or *support* the Alfred Street plan, and 28 per cent (203) *strongly oppose* or *oppose* it. Twenty two per cent of occasional and non-cyclists (165) had no opinion or were unsure.

And, of the 1837 regular cyclists who responded, 84 per cent (1546) support the Alfred Street plan, while only 3 per cent (60) oppose it. Twelve per cent (231) are unsure or have no opinion.

Of the 741 non and occasional cyclists who responded to the survey, only 22 per cent (151) *strongly support* or *support* the Burton Street plan, and 45 per cent (336) *strongly oppose* or *oppose* it. A third, 33 per cent (246) had no opinion or were unsure.

And, of the 1837 regular cyclists who responded, 38 per cent (706) support the Burton Street plan, while 26 per cent (481) oppose it. A third, 33 per cent (610), are unsure or have no opinion.

Figure 19: Non and occasional cyclist support for Alfred Street separated cycle path (n=741)

Q18. What do you think of our idea for a separated cycle path along Alfred Street?

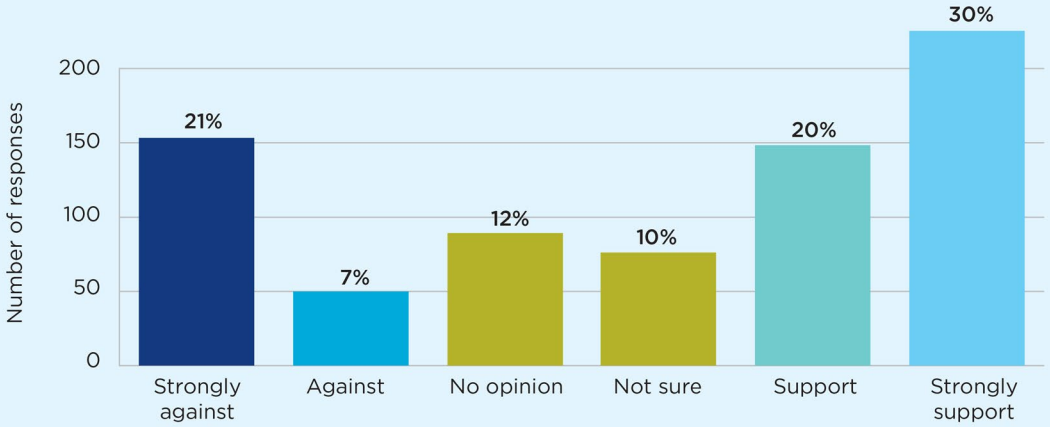


Figure 20: Regular cyclist support for Alfred Street separated cycle path (n=1837)

Q18. What do you think of our idea for a separated cycle path along Alfred Street?

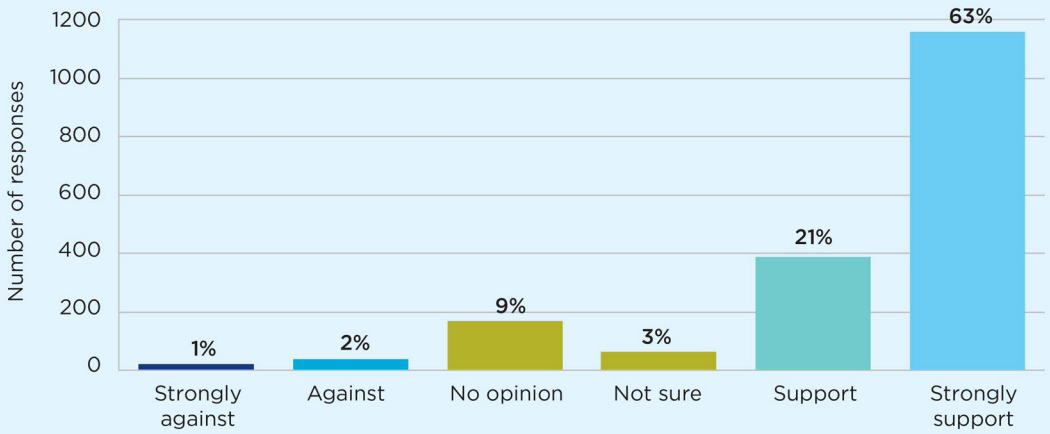


Figure 21: Non and occasional cyclist support for Burton Street shared zone (n=741)

Q20. What do you think of our idea for a shared zone for cycling and walking on Burton Street (looped option only)?

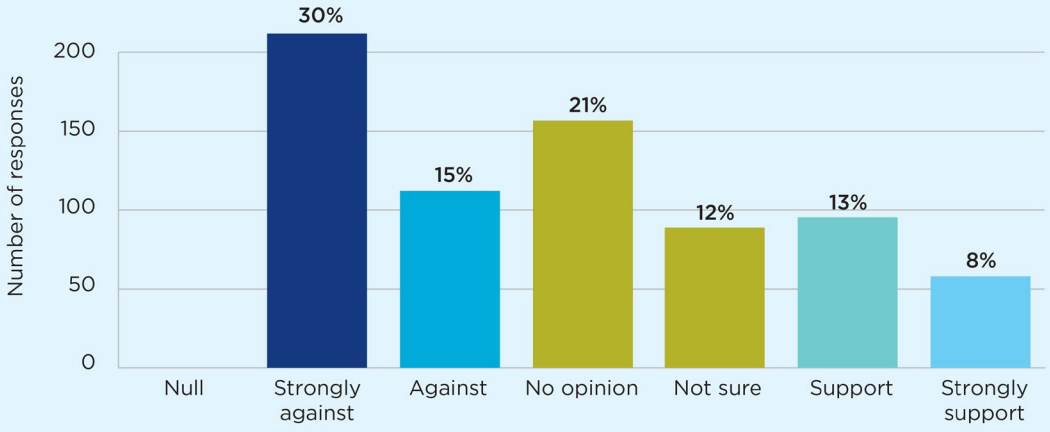
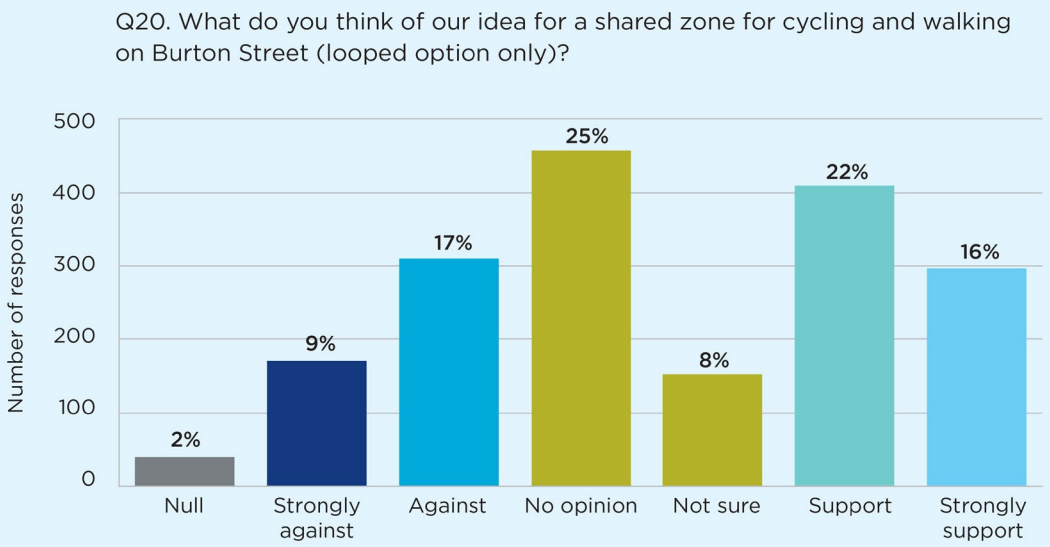


Figure 22: Regular cyclist level of support for Burton Street shared zone (n=1837)



5.3.4 Feedback themes

Table 8 outlines the feedback themes for the Alfred Street separated cycleway and Table 9 outlines the themes for the Burton Street Shared Zone.

Table 8: Alfred Street cycle path – feedback themes

Preference	Themes
Support	
Much needed to reduce traffic/congestion	• always better to separate cyclists and pedestrians • Alfred Street is a busy street with traffic, buses delivery vans – and cyclists. A separated path makes sense • shared path element to the west of Alfred Street could be problematic
General support	• separate cycle paths are always preferred • there needs to be better cycling connections to North Sydney • designated cycle paths is strong encouragement for people to cycle. Build it and it will be used • looks amazing – nice integration
Safest option for pedestrians and cyclists alike	• a separate cycle path is the safest option for cyclists, pedestrians and motorists. • separated cycle path is necessary on Alfred Street at peak times • the plan is good, but it needs to be integrated with a bi-directional separated bike path at the roundabout at Lavender Street • the design for the roundabout is at least no worse than the current situation, but it is not much better. Confident cyclists will continue on the road. But it is good for less confident cyclists and family groups

Table 8: Alfred Street cycle path – feedback themes (continued)

Preference	Themes
Opposed / not sure	
Don't know/need more information/no opinion	• not aware of the option • insufficient information provided to make a decision • do not understand the option
Unsupportive because of traffic/parking	• Alfred Street is already narrow. The cycle lane will make it narrower causing congestion between cars, buses and bikes.
Unnecessary/ Unsupportive	• no need. The current road sharing arrangement on Alfred Street works fine • a dedicated cycle path would force cyclists into a narrow path that terminates suddenly at either end. Faster cyclists would not use it • it would be better to cross Alfred Street via the traffic lights further south to avoid speeding cars coming off the bridge • shared path on the west side won't work as most cyclists will not use it • separated cycleways cause antagonism with motorists. Better to use traffic calming measures and lower the speed limit to truly make the area a shared zone • the crossings mean that a bi-directional bicycle path down one side of Alfred will be bypassed by cyclists in favour of riding on the road • put cycle path on the west side of Alfred Street to connect to Middlemiss Street • make cycle path one-directional (southbound) to avoid the need for crossings. Northbound could use the road, particularly if there was a safer cycle entrance from Burton Street onto Alfred Street • consider one-directional bike paths on each side of the road • traffic on Alfred Street moves quick enough and does not justify a separated cycle path. It's not worth it with the local concern about the removal of car parking spaces • don't support impacting park for bike path

Table 9: Burton Street shared zone – feedback themes

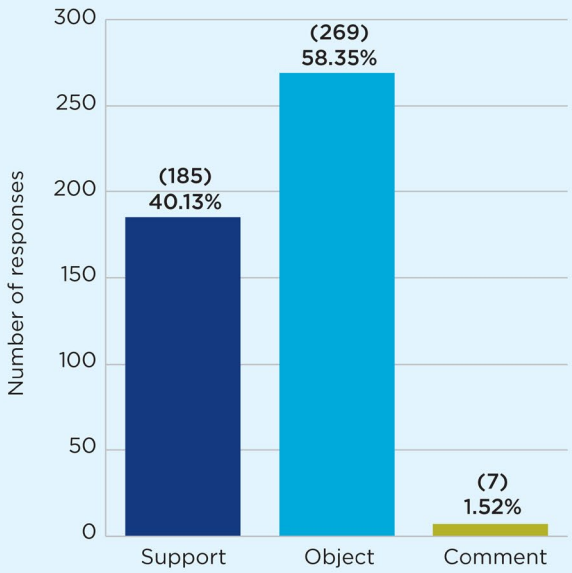
Preference	Themes
Support	
Support with conditions	• better than nothing but not ideal • this may work but only if cars are not able to use the street at all • Burton Street already functions much like a shared zone • needs to be well designed if it is to work • pedestrian and / or cyclist behaviour needs to change if it is to work
It is essential if the loop option is chosen	• a reasonable alternative should the looped option be chosen • this would probably be needed if the loop was implemented, the issue I find now when coming off the bridge is the link onto Alfred Street, not safe and not easy to get over that in the morning
Opposed / not sure	
Do not support shared pedestrians/cycle path	• would cause collisions between pedestrians and cyclists • negative impact on Kirribilli market • shared zones are unsafe and tend to lead to antagonistic behaviour • do not want to lose the parking in the tunnel section of Burton Street. These are vital for residents, retailers in Broughton Street and for safe pickups from the train station • ending the cycleway in a shared zone is dangerous (due to speed of cyclists) but would create another pinch point that makes cycling more awkward and less appealing
Don't know and not familiar with the proposal	• not aware of the option • insufficient information provided to make an informed decision • do not understand the option
Do not support looped option	• don't like the loop option

6 Submissions analysis

6.1 Submissions from individuals

A total of 461 submissions were received. Over half of the submissions, 58 per cent (269), were opposed to the project. Forty per cent (185) were in support and 2 per cent (7) just provided comment.

Figure 23: submissions – support for project



Most submissions came from the immediate area indicating that this was the preferred feedback channel for concerned local people.

Figure 24: Submissions breakdown

Postcode group	Null	Comment	Support	Object	Grand Total
Intermediate		3	32	75	**110**
Local			40	31	**71**
Further afield		4	72	4	**80**
Null	0		41	159	**200**
Grand Total	**0**	**7**	**185**	**269**	**461**

6.1.1 Submissions themes opposing the project

Opposing submissions were analysed closely, revealing nine consistent themes. Most opposing submissions supported lifts as an alternative to the ramp, believing this solution to be less intrusive than the proposal. They also raised concerns that the ramp would cause unacceptable impacts to local space.

Table 10: Submissions summary comments – objection

Theme	Summary comments
Support the lift/elevator option which is less intrusive	• a lift is a credible alternative for cyclists unable to climb the stairs • lifts have worked on the eastern side of the bridge for pedestrians • Transport has not published data to demonstrate why a lift would cause congestion and capacity constraints • a lift would cost less than a ramp and could be installed easily and quickly • a lift should be considered as an interim solution until a longer term solution is developed • a lift would have a smaller footprint and have little effect on open space or the heritage of the bridge
Destroys the heritage value of the bridge, takes up too much of green space	• both options are intrusive and ugly. They are not in keeping with the heritage setting around the bridge • public open space is in short supply in North Sydney LGA. It is vitally important to residents of nearby apartment blocks • the ramps will affect the views to the ArtDeco entrance of Milsons Point Station • the ramps will destroy the ambiance of Bradfield Park • the illustrations put forward suggest modernist designs that are not sympathetic to the bridge
Alternative suggestions	• many submissions put forward alternative suggestions. These are outlined and responded to in Section 8
Oppose the two proposed solutions	• fundamentally opposed to both options. They have been put forward before
Ramp presents a major safety issue for pedestrians and cyclists alike	• cyclists pose problems to pedestrians in the local area. The ramps will encourage more into an already-congested area • the Alfred Street and Burton Street plans will cause conflict between pedestrians and cyclists
Waste of taxpayers money	• the problem of the 55 steps has been overstated. It is not a major effort for cyclists to take their bikes up the steps • Transport say 2,000 cyclists use the cycleway each day. There is no evidence for this and the reality is likely to be much less
Severely impacts the market of Kirribilli neighbourhood	• both options jeopardise the viability of Kirribilli markets which are a major source of income for the Kirribilli Neighbourhood Centre
Adds to the already existing congestion/ traffic	• plans for a separated cycle path on Alfred Street will narrow the road even further, taking up parking spaces and causing conflict with buses and pedestrians
Support the Harbour Link Project	• Transport should adopt the 2010 Harbourlink project

6.1.2 Submissions themes supporting the project

Supportive submissions were analysed closely, revealing 11 consistent themes. Supporters claimed the linear offered a less intrusive design as well as a better riding experience, and the project was long overdue.

Table 11: Submissions summary comments – support

Theme	Summary comments
Linear ramp is the safest option	• the linear option is best for addressing access and safety issues. It will be safer cyclists due to its sight lines with minimal corners • avoids mixing pedestrian and cyclists • it improves safety and continuity
Linear is less intrusive option	• the effect on Bradfield Park is very minimal • the park is not used much and a cycle ramp could increase activation • the concepts appear to be quite elegant – the linear could become an amazing piece of urban design • needs a lighter design, more in keeping with the design of the bridge • build it sympathetically by top-tier heritage architects
A ramp is long overdue	• this has been talked about for a long time - just build it • the steps are a longstanding problem that inhibit access to the cycle path and cause bottlenecks • the bridge is a funnel point for cycling between the City and the Lower North Shore. It is a high-volume link. Steps reduce capacity • the steps are a safety risk for cyclists and also for pedestrians when bikes exit the steps
Support either of ramp option instead of steps	• the linear ramp is much preferred, but any option would be better that the steps • lifts are not a solution. They would slow down journey times, make cycling less competitive, create bottle-necks and would break down
This is a vital infrastructure for the area	• the ramp will be a great accessibility upgrade that will benefit a wide range of people: parents, kids, older people, e-bike users • the best way to integrate the bridge into the existing cycle network. • improves safety and continuity of the main cycle links • the linear option is preferred because it is more direct taking most cyclists closer to where they want to go
Ramp encourages more people to take up cycling	• everyone benefits - more people will ride to the city and there will be fewer cars on the road • the ramp will encourage safe cycling throughout our city with resulting health benefits • the ramp will encourage young families and those new to cycling
Need integrated and separated bike paths	• the ramp is a good idea but there is a more urgent need for a bike path through North Sydney. Don't spend all the money on one ramp
Alternative suggestions	• many submissions put forward alternative suggestions. These are outlined and responded to in Section 8
Major project at the northern end is not needed	• the steps are a problem but the greater priority should be the steep ramp at the southern end of the cycleway

6.2 Submissions from organisations

Of the 461 submissions received, 15 were from organisations as listed in Table 12. These included two industry organisations, two Councils, five local groups and six active transport groups.

Of the organisations that provided a submission, eight support the project, six oppose or are concerned about it and one was providing comment.

Seven organisational submissions support the linear option with a further two supporting it conditionally (being concerned or opposed to the project overall). Three submissions did not state a preference. No organisations stated a preference for the loop.

Table 12: Organisational submissions

Organisation	Project support	Option preference
Industry organisations		
1. Australian Institute of Landscape Architects	Comment	Not stated
2. Tourism and Transport Forum	Support	Linear
Councils		
3. Lane Cove Council	Support	Not stated
4. North Sydney Council	Opposed	Neither
Local groups		
5. Committee for North Sydney	Concerned	Not stated
6. Edward East Precinct Committee	Concerned	Linear (on condition)
7. The Kirribilli Centre	Opposed	Linear (on condition)
8. North Shore Historical Society	Concerned	Neither
9. Park Precinct Committee	Opposed	Neither
Active transport groups		
10. Bicycle NSW	Support	Linear
11. Bike East	Support	Linear
12. Bike North	Support	Linear
13. Sydney Cycling Club	Support	Linear
14. Sydney East Riders	Support	Linear
15. Walk Sydney NSW	Support	Linear

6.2.1 Summary of submissions and responses

Australian Institute of Landscape Architects

The Australian Institute of Landscape Architects (ALIA) recognises the project as a key component in improving the cycle network. ALIA also recognises the heritage value of the Harbour Bridge and parkland. ALIA suggests a participatory design process involving Council and local community groups. ALIA recommends that the project be considered State Significant Infrastructure and subject to the NSW Government Architect's office State Design Review Panel process.

Bicycle NSW

Bicycle NSW support the project, noting it is consistent with NSW Government plans supporting mode-shift and active transport improvements. Bicycle NSW prefer the linear option on the basis that it provides clearer lines of sight for cycle traffic, has a lesser visual impact, and provides better opportunity to manage conflicts between cyclists and pedestrians. Bicycle NSW note in the event that community feedback is strongly supportive of the looped design, they would support that option.

BIKEast

BIKEast supports an improved northern access, noting it is consistent with NSW and Local Government objectives to increase mode share. BIKEast supports the linear ramp, citing better sightlines for cyclists, and reduced potential for conflict with heavily pedestrianised areas at Milsons Point Station and Kirribilli Markets. They also reject a lift solution, believing this would lead to crowding, reduce cycleway capacity and not address safety issues. BIKEast highlight the existing accessibility and equality issues posed by stairs, focusing on the difficulties faced by riders of electric bikes, families who rely on cargo bikes, and people with mobility requirements. They stress a solution is needed as soon as possible.

Bike North

Bike North strongly support the linear design option. Bike North note the existing stairs present safety and accessibility issues for people with cumbersome or heavy bicycles, people with mobility requirements, and cyclists wearing cleated shoes. They maintain the stairs act as a barrier to cycle connectivity between the Sydney CBD and North Sydney, which reduces the capacity of the cycleway, limits the contribution cycling can make to the transport mix, and minimises tourism opportunities for North Sydney businesses. Bike North prefers a linear design for the cycle ramp as it provides better sightlines for cyclists and minimises potential conflicts with pedestrians at Milson Point Plaza and the Kirribilli markets.

Bike North supports the separated cycleway along Alfred Street South. They believe a better solution is needed for Lavender Street involving closing the exit from the Harbour Bridge or providing grade separated across Lavender Street Roundabout. Bike North also propose a future project to extend the cycle path at Naremburn.

The Committee for North Sydney

The Committee for North Sydney (CNS) raised concerns about the level of community participation in the identification of cycle access options. The CNS believes the process to arrive at the exhibited options has been hasty and non-consultative. They describe the exhibited options as grandiose sculptural landmarks and recommend that Transport provide more opportunity for stakeholders and the community to understand the problem and participate in the identification of a solution.

Edward Precinct

Edward Precinct conditionally support the linear ramp option, noting they believe improvements should be made to the design to detract less from the heritage value of the Sydney Harbour Bridge. Edward Precinct have suggested that Transport also assess a longer, less bulky ramp adjacent to the bridge approach wall, nominating alternative exit points at either the northern end of Bradfield Park North, in Middlemiss Street, or connecting with the former tramway abutment at Blue Street.

Kirribilli Neighbourhood Centre

The Kirribilli Neighbourhood Centre is strongly opposed to both the project, citing a number of concerns including loss of amenity and construction impacts. However, the centre's would prefer the linear option if the project were to go ahead.

The centre notes the potential impacts to the heritage values of Millers Point Station and Bradfield Park. They object to the loss of parking and public space loss during construction. The centre also raise concerns that the cycleway is too narrow for electric bikes.

In addition, the Centre outline significant impacts on the Kirribilli Markets from which they draw the majority of their income. They identify that the loop design would require removal of the bowling clubhouse, which currently provides important storage facilities for the markets, and both designs would potentially reduce the number of market stalls. They also note potential conflicts between cyclists and pedestrians. The Centre requests alternative storage facilities be funded by the project if needed, and that designs are sympathetic to the stall locations of the Kirribilli markets and the need to keep pedestrian and cycle movements separated.

Lastly, the Centre maintain that relocation of the markets during construction is not feasible and that any reduction in the operating footprint of the markets would have serious financial implications for their organization. In this event the Centre would seek compensation from TfNSW for the lost income.

Lane Cove Council

Lane Cove Council supports a cycleway access ramp, recognising that it would be of significant value to the growing number of cyclists travelling from Lane Cove to the Sydney CBD. Council also note the works would provide an alternative transport option for Lane Cove residents who experience commuter congestion at the Lane Cove Bus Interchange. Council did not indicate a preference for either design option.

North Shore Historical Society

The North Shore Historical Society (NSHS) is opposed to both options, citing impacts to the heritage values of the Sydney Harbour Bridge, Bradfield Park, and the

Millers Point Station entrance. The submission also objects due to impacts to local amenity including loss of parking, green space and trees, and significant visual impacts which are not consistent with the current heritage preservation. The NSHS advocates for a re-examination of other less visually intrusive alternatives including lifts and using the old tramway corridor on the bridge. Their submission calls for the consideration of additional, more heritage sensitive options accompanied by further community consultation before the project progresses any further.

North Sydney Council

North Sydney Council do not support either of the exhibited Sydney Harbour Bridge Cycleway Access ramp options, noting their desire to engage with Transport on an alternative project. Council have further requested that Transport establish a Project Control Group with representation from both North Sydney and City of Sydney Councils, to have oversight of this alternative project. Council's proposal would be to generate three alternative designs through the delivery of a Sydney Harbour Bridge Cycling Infrastructure Design Competition. These alternative designs would then be considered as part of the Western Harbour Tunnel Active Transport Network Review.

Parks Precinct

Parks Precinct do not support either of the ramp options. Noting the scarcity of public open space in the North Sydney LGA, they advocate for the continued use of the existing stairs, with the introduction of a lift solution as an alternative access. Parks Precinct recommend any loss of public space resulting from the project should offset by the provision of additional useable public space in the North Sydney LGA.

Sydney Cycling Club

Sydney Cycling Club (SCC) support a cycle access ramp and prefers the linear option. SCC outline that improved accessibility has been needed for a long time and provide examples of the issues their members face on the northern side of the bridge. These include safety concerns, cycleway congestion at the top of the stairs, poor separation between pedestrians and cyclists, and a lack of poor-quality cycle paths in the surrounding area including Burton, Alfred, Lavender and Middlemiss Streets. SCC prefer the linear design option as it offers the most direct and efficient cycling connection to and from North Sydney, removes substantial conflict issues for cyclists, pedestrians and vehicles, and has an overall lesser impact on public space.

Sydney Easy Riders

Sydney Easy Riders (SER) outline the current stair access has poor accessibility to potential users of the cycleway including electric bike riders, families and children. They suggest that the current access creates a physical barrier to increasing cycleway use in that it assumes above average levels of mobility and strength. They also note the barriers at the top of the stairs currently create a pinch point and that a ramp connection would improve the capacity of the Harbour Bridge Cycleway.

SER strongly support the cycle access ramp proposal with a strong preference for the linear design option in that it provides cyclists with clear sightlines and the simplest, most rideable connection. SER also believe the linear has a less obtrusive design in the context of the Harbour Bridge. SER acknowledge concern from residents about changes to local amenity, but suggest this is counterbalanced by the broader safety and health benefits.

Tourism & Transport Forum Australia

Tourism & Transport Forum Australia (TTF) support the introduction of a cycleway access ramp at the northern end of the Sydney Harbour Bridge, recognising the project as addressing the most critical link in the Sydney active transport network. TTF note the years of planning and consultation which have preceded the exhibition of options, and endorse the linear option. TTF support this design as it minimises cyclist and pedestrian traffic crossover near the Alfred Street station entry and offers cyclist a better line of sight to other cyclists than the looped ramp option.

WalkSydney

WalkSydney support the construction of a cycleway access ramp, preferring an immediate workable solution over a perfected longer-term vision. They note that the proposal is consistent with their preference for separation of transport modes with different speeds, and that the ramp will improve accessibility for riders and other mobility users. In addition, WalkSydney are generally aligned with improvements to cycling amenity which they believe provide overall safety improvements for walkers. WalkSydney prefer the linear ramp option on a safety basis, citing the clearer sightlines for ramp users. In the medium term, they also advocate for the conversion of a trafficable lane on the alternative side of bridge into an active transport connection, noting the future options for vehicles under the harbour.

7 Engagement feedback analysis

Feedback was gathered by the project team at the four engagement events and two livestream events held during the consultation period.

7.1 What we heard

- linear is preferred. It would manage cyclist and pedestrian conflict better
- a lot of cyclists want to “Get it done”
- suggestions for alternative options including keeping the ramp going through Bradfield Park to Middlemiss St to take cyclists where they want to go
- concern about the look of the ramps in the released photomontages
- concern about the impact of the separated cycle path on traffic and parking on Alfred Street
- doubts that 2000 cyclists use the cycleway on average every weekday
- questions about the project need- cyclists use the steps ok now
- concerns about impacts to Kirribilli Markets: loss of storage and market stalls and disruption to trading

The livestream events attracted many questions under the topics of:

- construction, cost and timing
- cycling demand and projections
- ramp design
- existing cycleway and steps
- heritage impacts
- Kirribilli market impacts
- lifts and travelators
- on-bridge deck solutions
- open space impacts
- options – alternatives, linear, loop
- Alfred Street separated cycleway
- southern ramp project

Artist impression of the looped option looking north east from the corner of Fitzroy Street and Alfred Street

8 Key concerns

This section provides responses to key issues and concerns raised during the public display.

8.1 Feedback themes and responses

The problem of the 55 steps has been overstated. Cyclists can manage these steps adequately and there is no congestion. Demand will not reach levels claimed.

The 55 steps are not just an inconvenience to those who currently chose to cycle across the Sydney Harbour Bridge. They are unsafe, inaccessible to many, and create a barrier to encouraging more people to cycle as a mode of choice.

Many cyclists who chose to cycle across the bridge manage to negotiate the steps. However, others, who are not as fit, who have heavier bikes, or who travel with children, struggle to negotiate this access. We need to make this sole cross-harbour cycling link accessible to all.

We know from overseas examples, that improving the comfort and ease of cycling infrastructure is critical to encouraging more people, and a wider range of people, to cycle for commuting or for leisure.

In the City of Sydney, improvements in cycling infrastructure have seen year-on-year growth in cycling numbers since 2010. By contrast, while the ten-year weekday average of SHB cycle trips remains around 2000, actual numbers have dipped. This suggests that other factors are suppressing demand relative to the observed wider growth trend.

For that reason, we believe the steps are a clear inhibitor to an uptake in cycling and increase in mode shift.

Cycling demand is less than 2000 cyclists per weekday

Data on current cycleway use can be found on the Transport website (https://roads-waterways.transport.nsw.gov.au/roads/bicycles/statistics/index.html).

Counts show that between 1500 and 2000 cycling trips are currently made during weekdays, with the 10-year average weekday volume (2009-2019) sitting just below 2000 trips per day. While hourly counts are not routinely captured, the busiest hour for which we have data saw 600 cyclists travel in both directions on Ride to Work Day in 2017

The modelled capacity of the existing cycleway with the steps is between 800-900 per hour in total. The modelled capacity of the cycleway without the steps is 2000 per hour in each direction. Cycling demand across the bridge is expected to double in the next 15 years to around 4000 per day.

The capacity of the cycleway exceeds forecast peak demand for more than 30 years. Even if that capacity were reached, the '2000 per hour' rate would only occur at the height of the peak hour.

It is important to note that while the Sydney Harbour Bridge cycleway capacity has been modelled to be 2000 per direction, cycleway usage will be determined by other factors including the ease with which cyclists can reach the cycleway from surrounding suburbs – both north and south of the bridge.

A lift or travelator would be a more acceptable solution

We undertook a detailed assessment of both lifts and travelators. This involved the creation of a dynamic model that assessed the impact these mechanical options would have on the capacity of the cycleway. Our lifts model assumed:

- three cargo lifts (redundancy of one)
- un/loading platform at top
- a no-ride zone between stairs and lifts
- 1000 riders in peak hour (the current upper capacity limit of the cycleway) with 70:30 directional split
- cyclists push their bikes at a constant speed of 1.5 metres per second
- spatial envelope of a bike plus rider is 1.8m (length) by 1.1m (width)
- cyclists follow a random arrival pattern across an hour, but arrive according to an overall rate (e.g. 300 cyclists per hour travelling northbound)

Modelling demonstrated that crowding would occur even if only 10 per cent of cyclists used the lift as an alternative. Crowding would, in turn, limit the existing capacity of the cycleway, removing the opportunity to meet increased cycling demand and deterring more people from taking up cycling. In addition, lifts would not remove the safety risk as the steps would remain in place. Our modelling of travelators assumed:

- three travelators (north, south and redundancy)
- sufficient width for bike and rider (1100mm)
- canopy to protect for rain
- speed of 0.4 m/s
- vertical rise of 11 metres

- incline of 12 per cent
- 2 x 26 metre sections with 3 x 5 metre landing platforms

This analysis revealed similar capacity restraints and continued safety risks as the lift. While the open space impact of a bank of three travelators might not be as large as a ramp, it would still be significant without any of the benefits of a ramp, and there would be heritage impacts also.

The ramps are an eyesore

The draft concept drawings on display were to illustrate the aspiration for the ramps to be sculptural and architectural in form, as well as visually distinguishable from the Sydney Harbour Bridge. They do not represent a final design. More work is still needed to determine features, materials, and design treatments.

We have launched a competitive design process to select three leading architects' firms to work on a more detailed concept of the preferred option. The design process will be procured to attract leading and innovative design practices with suitable experience in public architecture, active transport and heritage design.

We will then select one firm to work on a detailed design that will be put out for public display as part of a Review of Environmental Factors (REF) early next year.

The ramps will take up open space

A linear ramp would result in a marginal loss (around 5 per cent) of useable open space. A looped ramp would result in a marginal net gain in open space by removing the old bowling club building. North Sydney Council's Masterplan for Bradfield Park Central also proposes to remove the bowling club building.

Both options avoid tree loss and open space impacts in Bradfield Park north of the station plaza. Passive recreation could still take place underneath either ramp. A design excellence process, and the ongoing involvement of high-calibre architects and designers, will ensure the final design enhances the location by providing shade, amenity, and architectural interest.

The ramps will damage the heritage of the Harbour Bridge

The current options reduce heritage impacts by

1) limiting impact to the physical fabric of the bridge
2) setting the linear option back from the entrance to Milsons Point Station
3) ensuring the loop is compact and has permeability to increase southern views to the bridge and
4) ensuring the ramps are visually distinguishable from the bridge. We acknowledge that heritage impacts cannot be totally avoided with either option.

It is not possible to attach a ramp structure to the bridge as the bridge retaining wall does not have adequate strength to carry additional loads from a cantilever structure. Such a solution would also have an unacceptable heritage impact. The feasibility of cantilevered structures was assessed in 2012, which can be viewed here (page 38).

Accepted heritage principles, and the project's heritage specialists, recommend that new structures which adjoin heritage items should be visually distinguishable.

Setting the linear ramp back from the Milsons Point Station provides space for the entrance to be seen. There will be some unavoidable visual impacts and ensuring the ramp contributes positively to the public realm is a key focus of the design process.

The Alfred Street cycleway will cause collision and conflicts

The Alfred Street cycleway is an intrinsic part of the project as it would take cyclists safely to the existing bike network. Designs for the Lavender Street roundabout and crossing, and for the Alfred Street cycleway are at an early stage and further refinement is still to be done.

The Alfred Street separated cycleway and upgrades to the Lavender Street roundabout will be designed to meet current and future cycling demand, whilst safely and efficiently accommodating other road users.

We have looked closely at the width of Alfred Street and there is sufficient room for a bi-directional cycleway if the traffic and parking lanes were safely narrowed and power poles were put underground. Bradfield Park North open space and trees will not be impacted.

We will investigate the footpath width on the west side of Alfred Street to assess its suitability as a shared path in the next stages of the design. We will also investigate opportunities to separate pedestrians and cyclists in this location.

The next stage of the project would include a Safety in Design process and traffic analysis to fully understand the impacts on all road users. A Road Safety Audit will be completed at different stages of the project and Transport Technical Direction for crossings will be adhered to.

Parking is important for local businesses, residents and visitors to the local area. The project aims to minimise impacts on parking and open space, whilst improving cycle access and safety.

8.2 Alternative options

Around 20 submissions (both supporting and opposing) offered alternatives to the current proposals. Many of these made similar suggestions. Suggestions are summarised in Table 13 below.

Table 13: Alternative suggestions

Suggestion themes	Response
Ramps above Bradfield Park	
A ramp extending north above Bradfield Park, close to the bridge, turning 180 degrees south to gently descend to the ground.	This ramp is 193 metres long and has a continuous 5 percent grade. This would not meet Austroads Guidelines which recommended 5 per cent grades for a maximum length of 70 metres. At this location, the ramp would need to be a minimum of 240 metres to achieve acceptable gradients.
A loop above bocce court extending under the Burton Street viaduct before turning north along Ennis Road, under the Cahill Expressway and over the Bradfield Highway to meet the old tramway spur into North Sydney.	This option would be very impactful to the Burton Street viaduct opening as well as heritage, markets, and parking. Also, it would occupy much of the bocce court and create a barrier to movement between the Station Plaza and Bradfield Park South.
Using the cavity of the Sydney Harbour Bridge	
A long and gradual ramp inside the space under the rail-traffic viaduct.	The space within the Burton Street viaduct opening is insufficient for a ramp with rideable grade and curves. Also, a ramp within the opening would have very significant heritage impacts.
Ramps abutting the bridge, or clipped / cantilevered to the bridge	
Extend the ramp above Bradfield Park, past the Milsons Point Station to land closer to Lavenders Street or over to Middlemiss Street.	There are a few reasons why this Transport didn't adopt this option. • Previous advice from NSW Heritage has been not to attach or place a structure close to the bridge. • The bend required to take the ramp under the Lavender Street viaduct would be too tight to meet minimum cycling standards, potentially impede one or more traffic lanes and have unacceptable heritage impacts on the viaduct. • The gradient from the east side of the viaduct up to the tramway 'stub' would be too steep to meet standards. It would also be unsafe on the decline. • This option would require a ramp to extend through the mature tree cover at the end of Bradfield Park North and would require significant tree removal. • This option would take all cyclists to North Sydney. It would not serve the 20 per cent of cyclists who currently loop back at Milsons Point to go east towards Mosman or would the option provide access for local Milsons Point cyclists. • Extending the cycleway across the Pacific Highway exit ramp would still require the bend under the Lavender Street viaduct (point 2 above), and result in unacceptable impacts to trees in Bradfield Park north (point 4 above).
Harbourlink: a shared path extending from the current cycleway along the side of the bridge, under the Lavender Street cycleway and then up to meet the old Tramway land stub	
Other ideas	
Cycleway: An elevated shared path above Lane 1 of the bridge, made from a similar material to the bridge itself, starting at the south and extending all the way to Blues Street in North Sydney	An elevated cycleway would not fit inside the Sydney Harbour Bridge pylons with sufficient safe clearance above the North Shore line overhead power cables. Also, the heritage impacts of an elevated structure on the bridge would be very significant.

9 Next steps

In response to community and stakeholder feedback, and the preference for the linear ramp, Transport will proceed with this option. The final design will be developed to a high design standard that respects the significant heritage of the bridge and enhances local open space.

The following flowchart illustrates our next steps.

We are here

August 2021
Preferred option: proceed with the preferred linear ramp option

August 2021 onward
Alfred Street consultation: consult the local community and stakeholders to get input to the plans for the Alfred Street cycle path and Lavender Street roundabout upgrade

September 2021
Design competition: commence a design competition to find a leading architectural team with heritage and Connecting with Country expertise to design a ramp of the highest calibre

October 2021
Display shortlisted designs: exhibit the three shortlisted designs, plus Alfred Street plans, for public feedback before selecting a final winning design.

Early 2022
REF exhibition: Display the final design and Review of Environmental Factors

10 Appendices

Appendix A: Feedback survey

Sydney Harbour Bridge Cycleway Access Project – survey

1. **How old are you?**

- ☐ Under 24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+
- ☐ Prefer not to say

2. **Gender – how do you identify?**

- ☐ Woman
- ☐ Man
- ☐ Non-binary
- ☐ Prefer not to say
- ☐ Prefer to self-describe

3. **Are you an Aboriginal and/or Torres Strait Islander person?**

- ☐ Yes, Aboriginal
- ☐ Yes, Torres Strait Islander
- ☐ Yes, both Aboriginal and Torres Strait Islander
- ☐ No
- ☐ Prefer not to say

4. **What is your postcode?**

_____

5. **Why are you interested in this project? (pick more than one)**

- ☐ I am a local resident
- ☐ I am a local business owner
- ☐ I use the cycleway to travel to work
- ☐ I use the cycleway for recreation
- ☐ Other (please specify)

_____

6. **How often do you cycle?**

- ☐ At least once a week
- ☐ At least once a month
- ☐ Only for recreation
- ☐ I don't cycle but am thinking about it
- ☐ I never cycle

7. **What do you think of the linear option with the slight curve?**

- ☐ Strongly support
- ☐ Support
- ☐ No opinion
- ☐ Oppose
- ☐ Strongly against
- ☐ Not sure

8. **Tell us more about your answer to question 7**

_____

_____

_____

_____

9. **What do you think of the ramp option that loops?**

- ☐ Strongly support
- ☐ Support
- ☐ No opinion
- ☐ Against
- ☐ Strongly against
- ☐ Not sure

10. **Tell us more about your answer to question 9**

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_____

_____

_____

11. Which option do you prefer?

- ☐ Linear option
- ☐ Looped option
- ☐ Either option
- ☐ None of the options

12. Tell us more about your answer to question 11

_____

_____

_____

_____

_____

13. What do you think of our idea for a separated cycle path along Alfred Street?

- ☐ Strongly support
- ☐ Support
- ☐ No opinion
- ☐ Against
- ☐ Strongly against
- ☐ Not sure

14. Tell us more about your answer to question 13

_____

_____

_____

_____

_____

15. What do you think of our idea for a shared zone for cycling and walking on Burton Street (looped option only)?

- ☐ Strongly support
- ☐ Support
- ☐ No opinion
- ☐ Against
- ☐ Strongly Against
- ☐ Not sure

16. Tell us more about your answer to question 15

_____

_____

_____

_____

_____

17. How did you hear about this questionnaire? Please select all that apply.

- ☐ By mail/letterbox
- ☐ Social media advertising
- ☐ From my local council
- ☐ From a local community group
- ☐ From someone I know
- ☐ Other (please specify)

_____

18. Is there any other feedback you would like to provide the team on the options for the cycling ramp?

_____

_____

_____

_____

_____

_____

_____

_____

Contact us

For more information or to subscribe for email updates contact:

1800 581 595

SydneyHarbourBridgeProjects@transport.nsw.gov.au

nswroads.work/cycleway

Sydney Harbour Bridge Northern Access Proposal
Communications and Stakeholder Engagement
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131 450

If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1800 770 973.

August 2021

NSW GOVERNMENT