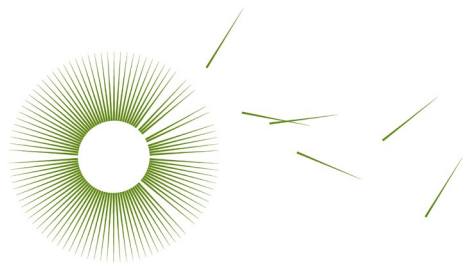


Appendix D: Addendum Landscape Character and Visual Impact Assessment



iris

Sydney Harbour Bridge Cycleway Northern Access

Addendum - Landscape Character and Visual Impact Assessment



Contents

| | | |
|----------|---|-----------|
| 1 | Introduction | 4 |
| 2 | Detailed design, February 2023 | 5 |
| 3 | Update to the assessment of landscape character impact | 8 |
| 4 | Update to the assessment of visual impact | 14 |
| 5 | Mitigation measures | 29 |

Table 1-1 ABBREVIATIONS

| Term | Meaning |
|--------------------------|--|
| CMP | Conservation Management Plan |
| CPTED | Crime Prevention Through Environmental Design |
| DCP | Development Control Plan |
| LCVIA | Landscape Character and visual impact assessment |
| LEP | Local Environmental Plan |
| LSPS | Local Strategic Planning Statement |
| REF | Review of Environmental Factors (REF) |
| SHB | Sydney Harbour Bridge |
| SHR | State Heritage Register |
| Transport for NSW | Transport for New South Wales |

Table 1-2 DEFINITIONS

| Term | Meaning |
|----------------------------|--|
| Detailed design | The detailed design of the Sydney Harbour Bridge Cycleway Northern Access Project, assessed in this addendum. |
| Out of hours work | Defined as works outside standard construction hours (i.e. outside of 7.00 am to 6.00 pm Monday to Friday, 8.00 am to 1.00 pm Saturday and Sundays/public holidays). |
| Sensitive receivers | Land uses which are sensitive to potential noise, air and visual impacts, such as residential dwellings, schools and hospitals. |
| Preliminary design | The preliminary design of the Sydney Harbour Bridge Cycleway Northern Access Project, assessed in the REF. |
| The proposal | The construction and operation of Sydney Harbour Bridge Cycleway Northern Access Project. |
| Detailed design | The detailed design of the Sydney Harbour Bridge Cycleway Northern Access Project, assessed in this addendum. |
| Out of hours work | Defined as works outside standard construction hours (i.e. outside of 7.00 am to 6.00 pm Monday to Friday, 8.00 am to 1.00 pm Saturday and Sundays/public holidays). |

1 Introduction

1.1 Overview and purpose of this addendum

Transport for NSW (Transport) is progressing plans for the Sydney Harbour Bridge Cycleway Northern Access Project (the proposal), consisting of a bike ramp at the northern end of the Sydney Harbour Bridge cycleway as well as upgrades to the Alfred Street South cycle path.

IRIS Visual Planning + Design has recently prepared a Landscape Character and Visual Assessment (LVIA) of the proposal preliminary design (submitted November 2022), forming part of the Review of Environmental Factors (REF) submission for the Sydney Harbour Bridge Cycleway Northern Access Project. Following a review of submissions received during the public display period of the REF, a detailed design of the proposal has been released, for further assessment.

The purpose of this addendum is to identify and assess the potential landscape character and visual impacts of the detailed design, February 2023. In particular, this addendum identifies any changes to the impacts identified in the LVIA chapter prepared for the preliminary design REF.

1.2 Approach

This addendum provides an assessment of the potential landscape and visual impact of the detailed design and identifies if there would be any changes to the impacts identified in the LVIA chapter of the REF.

The methodology for the assessment of landscape and visual impacts is detailed in the LVIA chapter of the REF. The method includes the following steps, which have been used for this assessment:

- Identify the sensitivity of the receptor (e.g. landscape character area or viewpoint)
- Describe the magnitude of change
- Assign an impact level.

1.3 Structure of this addendum

This report contains the following:

- Description of the detailed design, February 2023, noting key changes from the preliminary design considered in the REF
- Revised assessment of landscape character impacts
- Revised assessment of visual impact
- Further comments on the relevant planning considerations
- Identification of any changes and additional mitigation measures.

2 Detailed design, February 2023

This addendum to the landscape character and visual impact assessment (2022) considers the detailed design, February 2023.

2.1 Key features of the design

The detailed design includes the following central elements and approaches, which are consistent with the approved concept design:

- “Designing with Country” including recognising the Sydney Harbour Bridge as a crossing between Gadigal and Cammeraygal Country
- Respecting the heritage values of the Sydney Harbour Bridge including for example, recognising in the design the sweep of the bridge approach and the arch of the span
- Opening (retaining) most of Bradfield Park for public use
- Balancing (minimising) the visual impacts of the new structure by placing it to the east (close to the bridge approach) and extending the cycleway to the north of the station plaza
- Privileging existing users (pedestrians) and minimising conflicts
- Shortening the ramp as much as possible to reduce open space and heritage impacts but still ensuring the ramp gradient is accessible to a range of cycle users
- Use of enduring materials and a design that is “beautiful” and “light”
- Recognising Bradfield Park as a “key open space” with heritage status, including keeping the park open and uncluttered, and retaining the legibility of key focal points in the park (e.g. the Milsons Point Railway Station entrance and the key plantings).

A new elevated linear bike ramp, with deck about three metres wide and about 200 metres in length between the Sydney Harbour Bridge Cycleway and Bradfield Park North including:

- Steel ramp structure with deck incorporating Designing with Country motifs, and balustrade with integrated lighting
- Precast columns carefully sited within Bradfield Park North and Central
- Provision of a bike riders rest area next to the Sydney Harbour Bridge Cycleway connection
- A gathering space, lighting and cycle path within Bradfield Park North connecting the elevated linear bike ramp and the proposed Alfred Street South cycle path.

The Alfred Street South pedestrian and cycle path upgrade would include:

- New 2.5-metre-wide two-way cycle path on Alfred Street South from the ramp landing, linking to the existing bike network in Middlemiss Street. The cycle path would be located on the east side of Alfred Street South between the ramp landing and the new street crossing at 110 Alfred Street South. On the west side of Alfred Street South the cycle path would be located between the new crossing and Lavender Street
- Replacement of the existing pedestrian refuge crossing at the north end of Alfred Street South with a pedestrian and bike rider crossing located near 110 Alfred Street South and an upgrade to the pedestrian crossing at Lavender Street
- Low speed shared path and verge widening on the north side of Lavender Street
- Adjustments to the Lavender Street roundabout
- New street tree planting, shrub planting and footpath paving
- Relocation of the existing bus stop on Alfred Street South near Lavender Street, about 60 metres to the south of its current location

- Permanent removal of up to 15 parking spaces along Alfred Street South.

The proposal, would also include, but not be limited to:

- Kerb and pavement work, and line marking
- Drainage and utility adjustments
- Street furniture adjustments
- Changes to street parking, parking meter locations and regulatory signage
- Minor lighting upgrades to Bradfield Park North and in other locations where required to meet safe lighting standards.

2.2 Summary of changes

The key changes proposed between the preliminary and detailed design (February 2023) are summarised in Table 2-1.

Table 2-1 CHANGES TO THE PROPOSAL DESIGN

| Detailed design, February 2023 | |
|---|---|
| Design element | Design refinement |
| Connection to the Sydney Harbour Bridge | <ul style="list-style-type: none"> – The tie in with the Sydney Harbour Bridge would be shifted around three metres north, reducing the length of the ramp slightly. – The section of parapet that would be removed would be 8.4 metre wide, less than the 11.4 metre section previously proposed. – The geometry of the connection separates the ramp from the bridge more distinctly at the connection point. – The balustrade would be consistent along the length of the ramp, with no change to the balustrade treatment at the bridge connection. |
| Relocation of parapet section | <ul style="list-style-type: none"> – The section of parapet that would be removed would be relocated to a location alongside a new path at the north end of the ramp landing point. |
| Ramp landing | <ul style="list-style-type: none"> – The alignment of the pathways and cycle ramp has been adjusted to improve safety for pedestrians. – Bike racks have been relocated further away from ramp landing, to reduce potential conflicts. |
| Bike ramp - Form and detail | <ul style="list-style-type: none"> – The paving surface of the ramp would incorporate Aboriginal artwork. |
| Columns | <ul style="list-style-type: none"> – The columns would be thinner in profile, tapered in width at the top and ellipse-shaped, with a ribbed concrete finish – Services, including downpipes, would be integrated into the columns and not be visible. – Bronze trim at the base of the columns in the plaza forecourt. |
| Bike ramp - Balustrade | <ul style="list-style-type: none"> – The bump rail has been reduced and the hairpin balustrade has been extended to enclose the gap between the parapet and balustrade. – The bump rail would be incorporated as a separate, lightweight, independently element that appears to mirror the angle of the balustrade screen. – Balustrade to be cast alloy with a copper finish or matt stainless steel, the width of the balustrade would be about 11.4mm for copper or 8.4mm for aluminium finish. |
| Lighting | <ul style="list-style-type: none"> – LED lighting would be integrated into the ramp structure, located under of the handrail and soffit, simplifying the appearance of the ramp structure. |

| | |
|--------------------------------|--|
| | <ul style="list-style-type: none"> - Three pole top lights would be installed at the ramp landing standard with North Sydney Council requirements |
| Sandstone inlays | <ul style="list-style-type: none"> - The sandstone inlays within Bradfield Park North would be updated in line with most recent surveys. - The stone at the ramp landing impacted by construction would be lifted and reinstalled at the ramp landing. |
| Shared path on Lavender Street | <ul style="list-style-type: none"> - Due to space constraints on the northern side of Lavender Street, the separated walking and cycling facility would be reverted to a shared path on the northern side of the roundabout. |
| Alfred Street South | <ul style="list-style-type: none"> - Five new street trees are proposed, rather than six, to enable retention of one extra on-street parking space. |
| Relocation of bus stop | <ul style="list-style-type: none"> - The previous in-lane bus stop would be replaced by a kerbside bus stop in the same location as proposed in the REF. Four parking spots would be removed to accommodate the new kerbside bus stop. |

3 Update to the assessment of landscape character impact

3.1 Assessment of landscape character areas

The following landscape character areas were identified for the study area in the REF. These remain relevant and will be used for this updated assessment:

- Sydney Harbour Bridge and Milsons Point Station (LCA1)
- Bradfield Park (LCA2)
- Recreational and entertainment areas (LCA3)
- Kirribilli village centre (LCA4)
- Kirribilli residential area (LCA5)
- Milsons Point mixed use core (LCA6)
- Lavender Bay residential area (LCA7).

The proposal has the potential to impact upon four of these character areas; the Sydney Harbour Bridge and Milsons Point Station (LCA1), Bradfield Park (LCA2), Milsons Point mixed use core (LCA6), and Lavender Bay residential area landscape character area (LCA7). The remaining landscape character areas would not be altered by the proposal.

Table 3-1 provides a summary of the potential impacts of the proposal on these landscape character areas, considering the further detail provided in the detailed design, February 2023.

This assessment has been undertaken according to the methodology described in Section 5 of the LVIA chapter of the REF.



KEY



Milsons Point Station

Landscape character areas:

- 1. Sydney Harbour Bridge and Milsons Point Station
- 2. Bradfield Park
- 3. Recreation and Entertainment Areas
- 4. Kirribilli Village Centre

- 5. Kirribilli residential area
- 6. Milsons Point mixed use core
- 7. Lavender Bay residential area

Figure 3-1 LANDSCAPE CHARACTER

Table 3-1 DESCRIPTION OF LANDSCAPE CHARACTER IMPACTS

| | Construction | | | | Operation | | | |
|-----------------------------------|--|------------------------------|---------------------------|------------------------------|---|--------------|---------------------|--------------|
| | REF Assessment | | Detailed design, Feb 2023 | | REF Assessment | | Detailed design | |
| LCA1 | Sydney Harbour Bridge and Milsons Point Station | | | | | | | |
| Sensitivity | Magnitude of change | Impact level | Magnitude of change | Impact level | Magnitude of change | Impact level | Magnitude of change | Impact level |
| National / Very high sensitivity | Moderate | Moderate-high adverse | Moderate | Moderate-high adverse | Moderate adverse | Low | Moderate adverse | Low |
| Rationale for revised assessment: | <ul style="list-style-type: none"> The general location and extent of the construction site would not change. Removal of part of the Sydney Harbour Bridge parapet would be shifted slightly north and reduced in length. The construction site would continue to be set back from Milsons Point Station and the northern approach spans of Sydney Harbour Bridge, and the station and bridge would continue to remain open. <p>Overall, the proposal would affect a relatively small area of direct change and a moderate magnitude of change.</p> | | | | <ul style="list-style-type: none"> There would continue to be a small physical change to the bridge structure, with the removal of a short, and slightly reduced, section of the bridge parapet wall. The ramp would continue to be set back from and aligned parallel to the northern approach spans of Sydney Harbour Bridge, and curve away from the Milsons Point Station entry. The ramp would continue to be out of view from the southern areas of Bradfield Park, limiting its influence on the character of the Sydney Harbour Bridge. <p>While the proposal would introduce a discernible built structure to the Sydney Harbour Bridge, the generally curvilinear alignment, with contemporary and refined character, would minimise adverse visual impacts on the visual setting of Sydney Harbour Bridge and Milsons Point Station. The design has been carefully crafted by a team of professionals and stakeholders to minimise the impact on views towards the Sydney Harbour Bridge and Milsons Point Station.</p> | | | |
| LCA2 | Bradfield Park | | | | | | | |
| Sensitivity: | Magnitude of change | Impact level | Magnitude of change | Impact level | Magnitude of change | Impact level | Magnitude of change | Impact level |
| Regional | Moderate | Moderate | Moderate | Moderate | Moderate | Low-moderate | Moderate | Low-moderate |

| | Construction | | | | Operation | | | |
|-----------------------------------|--|--------------|---------------------------|--------------|---|----------------|---------------------|----------------|
| | REF Assessment | | Detailed design, Feb 2023 | | REF Assessment | | Detailed design | |
| Rationale for revised assessment: | <ul style="list-style-type: none"> - The general location and extent of the construction site would be unchanged. - The construction site would continue to be set back from Milsons Point Station and the northern approach spans of Sydney Harbour Bridge, and a large part of Bradfield Park would remain open to public use, including the western entrance plaza. - The main landscape features of the central and northern areas of Bradfield Park, including the central lawns, canopy trees and majority of the feature trees, would continue to be retained. - No additional tree removal is proposed. <p>Overall, the proposal would affect a relatively small area of Bradfield Park, and the main landscape features of the park would remain so there would be a moderate magnitude of change to the character of this landscape.</p> | | | | <ul style="list-style-type: none"> - There is no further tree removal or changes to the forecourt's pathways, and garden beds proposed. - Some improvement to the look of the columns, being slimmer, ellipse-shaped and tapered towards the top, with a ribbed concrete finish, no visible services and bronze trims at the base of the columns in the plaza forecourt - Columns would continue to be spaced widely and the shape of the bridge would be angled to visually lighten the structure. - The handrails and balustrade would have a contemporary form and matt finish - Integrated Aboriginal artwork, proving cultural expression in the landscape, provide interest and contribute to sense of place and local character. - The removed section of Sydney Harbour Bridge parapet would be reintegrated into Bradfield Park, near the ramp landing. Providing an opportunity for heritage interpretation and placemaking. - Signage would be incorporated into the pavement to reduce the potential for visual clutter in the park. - Cycle path along Alfred Street South, in the vicinity of the park, would continue to improve the amenity of the streetscape and park interface. - No further impacts on the main landscape features and recreation areas of the park. <p>The proposal would introduce a discernible built structure to the central areas of Bradfield Park, reducing the visibility of the National Heritage listed approach walls of the Sydney Harbour Bridge and also revealing them with the removal of trees. However, the generally curvilinear alignment, with a contemporary and refined design character, and the retained tree canopy would maintain the character of the park and minimise adverse effects on the Sydney Harbour Bridge setting.</p> | | | |
| LCA6 | Milsons Point mixed use core | | | | | | | |
| Sensitivity | Magnitude of change | Impact level | Magnitude of change | Impact level | Magnitude of change | Impact level | Magnitude of change | Impact level |
| Local | Neutral change | Negligible | Neutral change | Negligible | Low improvement | Low beneficial | Low improvement | Low beneficial |

| | Construction | | | | Operation | | | |
|-----------------------------------|---|--------------|---------------------------|--------------|--|---------------------|-----------------|---------------------|
| | REF Assessment | | Detailed design, Feb 2023 | | REF Assessment | | Detailed design | |
| Rationale for revised assessment: | <ul style="list-style-type: none"> The general location and extent of the construction site would be the same. The existing bus stop bay at Alfred Street South would now be retained, reducing the extent of construction activity slightly. <p>Overall, the construction activity within Alfred Street South would continue to influence the character of the adjacent areas of the Milsons Point mixed use core area, resulting in a minor (and temporary) change the character, amenity and function of this landscape overall.</p> | | | | <ul style="list-style-type: none"> The new cycle path along Alfred Street South, between Burton Street and Middlemiss Street, would continue to improve the amenity and function of the streetscape. The proposed bus stop bay on Alfred Street South would now be a kerb-side bus stop in the same location as proposed in the REF. There would be an additional carpark retained and one less street tree added. Streetscape improvements such as new paving and planting, would continue to enhance the character of this part of Alfred Street South. <p>Overall, there would continue to be a low magnitude of change, and an overall improvement to the character of this landscape.</p> | | | |
| LCA7 | Lavender Bay residential area | | | | | | | |
| Sensitivity | Magnitude of change | Impact level | Magnitude of change | Impact level | Impact level | Magnitude of change | Impact level | Magnitude of change |
| Local | Neutral change | Negligible | Neutral change | Negligible | Negligible | Neutral change | Negligible | |
| Rationale for revised assessment: | <ul style="list-style-type: none"> The general location and extent of the construction site would be unchanged. The existing Canary Island Date Palm would continue to be removed from the roundabout. The construction activity on Lavender Street and at the Alfred Street South intersection roundabout would continue to result in some footpath closures and diversions around the construction site temporarily. <p>Overall, the construction activity would have a small and contained impact on this character area as a whole, due to localised and small scale of the works.</p> | | | | <ul style="list-style-type: none"> Streetscape improvements such as new paving and planting, would continue to enhance the character of a small part of Lavender Street. There would be a shared path on the northern side of the roundabout instead of a separated walking and cycling facility. <p>While the new pathways and streetscape improvements would slightly improve accessibility and amenity, the improvements would be localised and would not alter the wider character, amenity and/ or function of this landscape.</p> | | | |

3.2 Summary of landscape character impact

A summary of the landscape character impacts for the detailed design, as well as a comparison to the impacts identified for the preliminary design, is provided in Table 3-2.

Table 3-2 SUMMARY OF LANDSCAPE CHARACTER IMPACT

| Location | Sensitivity | Landscape character impact – construction | | Landscape character impact – operation | |
|--|-------------|---|--------------------------------|--|--------------------------------|
| | | REF Assessment | Detailed design, February 2023 | REF Assessment | Detailed design, February 2023 |
| Sydney Harbour Bridge and Milsons Point Station (LCA1) | National | Moderate-high adverse | Moderate-high adverse | Moderate adverse | Moderate adverse |
| Bradfield Park (LCA2) | Regional | Moderate adverse | Moderate adverse | Low-moderate adverse | Low-moderate adverse |
| Milsons Point mixed use core (LCA6) | Local | Negligible | Negligible | Low benefit | Low benefit |
| Lavender Bay residential area (LCA7) | Local | Negligible | Negligible | Negligible | Negligible |

While there is further detail around the assumptions made in the assessment, and some minor changes, overall the findings of the landscape character assessment remain unchanged from the LVIA chapter of the REF.

4 Update to the assessment of visual impact

4.1 Assessment of representative viewpoints – public domain

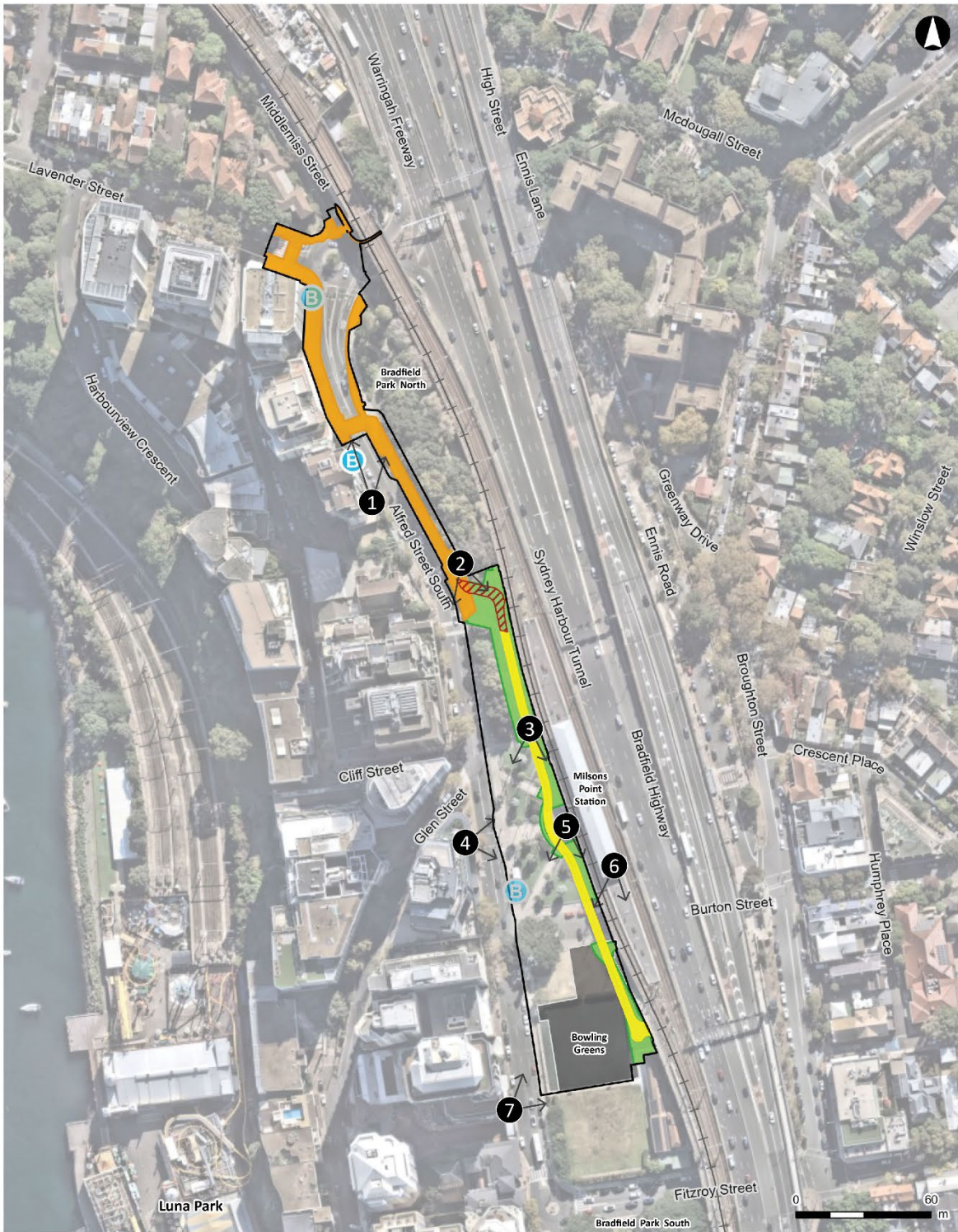
The REF included an assessment of a range of representative views in the vicinity of the proposal. The following viewing locations have been reassessed as the detailed design would be seen in these views:

- Viewpoint 1: View north along Alfred Street South
- Viewpoint 2: View south along Alfred Street South
- Viewpoint 3: View from Bradfield Park north
- Viewpoint 4: View east from Alfred Street South to the Milsons Point Station entry
- Viewpoint 5: View south from Milsons Point Station western entry
- Viewpoint 6: View southwest from Milsons Point Station platform
- Viewpoint 7: View northeast along Alfred Street South.

The following viewpoints have also been added, in response to the submission received from North Sydney Council in relation to the LVIA chapter prepared for the REF. These additional views are:

- Viewpoint 8: View east to the Burton Street tunnel archway
- Viewpoint 9: View northeast from Burton Street to Milsons Point Station forecourt and entrance.

The location of these viewpoints is shown in Figure 4-1.



Legend

- | | |
|---|--------------------|
| Proposal boundary | Ancillary facility |
| Project design | Bus stop |
| Elevated linear bike ramp | New |
| Bike ramp landing | Existing |
| Alfred Street South cycle path and pedestrian upgrade | Railway |
| Landscaping | |

Viewpoint location



1:2,500 at A4
 Coordinate System: GDA2020 MGA Zone 56
 Date issued: July 18, 2023
 Imagery: Nearmap 2022

Path: C:\Users\gqaz2278\ARCAD\IS\30119205 - SHB Northern Cyclodway REF - 05 GIS\A_Current\B_Maps\SHBNC_RTS\SHBNC_RTS_A4P_v2.aprx

Figure 4-1 VIEWPOINT LOCATION PLAN

4.2 Selection of updated photomontages and artists impressions

The following pages include several updated photomontages and artists impressions from the assessed representative viewpoints. These focus on the key areas of change.

4.2.1 Viewpoint 4: View east from Alfred Street South to the Milsons Point Station entry



Figure 4-2 VIEWPOINT 4: VIEW EAST FROM ALFRED STREET SOUTH TO THE MILSONS POINT STATION ENTRY



Figure 4-3 VIEWPOINT 4: VIEW EAST FROM ALFRED STREET SOUTH TO THE MILSONS POINT STATION ENTRY, 3D MODEL IMAGE (MODEL SOURCE: AURECON)

4.2.2 Viewpoint 5: View south from Milsons Point Station western entry



Figure 4-4 VIEWPOINT 5: VIEW SOUTH FROM MILSONS POINT STATION WESTERN ENTRY



Figure 4-5 VIEWPOINT 5: VIEW SOUTH FROM MILSONS POINT STATION WESTERN ENTRY (MODEL SOURCE: AURECON)

4.2.3 Assessment of viewpoints

| | Construction | | Operation | |
|--|--|--------------------------------|--|--------------------------------|
| | REF Assessment | Detailed design, February 2023 | REF Assessment | Detailed design, February 2023 |
| Viewpoint 1: View north along Alfred Street South | | | | |
| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
| Local | Low adverse | Low adverse | Low beneficial | Low beneficial |
| Rationale for revised assessment: | <ul style="list-style-type: none"> Prominence and extent of construction activity, movement of construction vehicles, machinery and plant would remain as previously assessed. Main construction activity (ramp works and construction compound) would continue to be located to the south and not seen in this view. | | <ul style="list-style-type: none"> The upgraded streetscape would improve the amenity of this view, with a less vehicle dominated streetscape and improved streetscape planting. | |
| Viewpoint 2: View south along Alfred Street South | | | | |
| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
| Local | Moderate adverse | Moderate adverse | Low-moderate adverse | Low-moderate adverse |
| Rationale for revised assessment: | <ul style="list-style-type: none"> The prominence, general extent and close proximity of construction activity would be unchanged. There would be some additional works associated with the placement of the wall section in the park. The proposal construction would continue to disrupt views to Bradfield Park, Milsons Point Station entrance and Sydney Harbour Bridge approach wall and northern pylons. | | <ul style="list-style-type: none"> The curve of the ramp landing would continue to be prominent, with a slightly tighter curve. The 8.4 metre section of removed parapet wall would be relocated to the north of the ramp landing, providing a new feature in this view, obstructing the view to a section of the Sydney Harbour Bridge northern approach wall. Signage would be incorporated into the pavement to reduce the potential for visual clutter in the vicinity of the ramp landing and park interface. The ramp would continue to obstruct views to Milsons Point Station entrance. The northern pylons of the bridge and approach spans would also continue to be seen, in the background of view. | |
| Viewpoint 3: View south from Bradfield Park Central | | | | |
| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
| Local | Moderate adverse | Moderate adverse | Moderate adverse | Moderate adverse |
| Rationale for revised assessment: | <ul style="list-style-type: none"> The general extent, prominence and close proximity of construction activity would remain as previously assessed. | | <ul style="list-style-type: none"> The general location and visual appearance of the ramp would be similar; offset and extending in a long linear alignment parallel to the Sydney Harbour Bridge northern approach. The ramp would continue to block views to the approach wall and Milsons Point Station entry, rising slightly more steeply, to be positioned above the parkland. | |

| | | |
|--|--|--|
| | | <ul style="list-style-type: none"> - There would be narrower, tapered ellipse shaped columns, with a ribbed, off-form concrete finish that would be slightly less visually obtrusive. - The garden bed along the northern approach wall would be replaced with new areas of low planting. - The sandstone inlays would be relocated and visible in the landscape, through the design of pathway surfaces and planting beds, adding visual interest. - Cyclists on the ramp would continue to be visible moving along the ramp, increasing the activity seen in the view. - The footpath along Alfred Street South and the new cycle path would also continue to be seen in this view. |
|--|--|--|

Viewpoint 4: View east from Alfred Street South to the Milsons Point Station entry

| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
|-----------------------------------|---|-------------------------|---|-----------------------------|
| Local | Moderate adverse | Moderate adverse | Low-moderate adverse | Low-moderate adverse |
| Rationale for revised assessment: | <ul style="list-style-type: none"> - The general extent, prominence and proximity of construction activity would remain the same, including a mobile crane work zone that would be established beside the Burton Street underbridge. - The construction activity would be temporary, substantially altering the character of this view and partly obstructing views to the Sydney Harbour Bridge approach walls, Milsons Point Station entry and the arch of the Burton Street underbridge in the short term. | | <ul style="list-style-type: none"> - The location of the proposal would be the same, and slight increase in the steepness of the ramp would not be perceptible in this view. - The cycle ramp would continue to generally follow the gradient of the Sydney Harbour Bridge ramp, crossing this view, curving away from the station entrance, and descending to the north (left of view), parallel to the Sydney Harbour Bridge approach wall. - The ramp columns would be tapered ellipse shaped columns, slightly thinner in profile, with a ribbed, off-form concrete finish, slightly reducing their prominence in this view. - The main features of Bradfield Park would continue to be seen in the middle ground of this view, including the axial pathways, lawn areas and ornamental trees. - The ramp would continue to obstruct the view to the decorative '1932' cartouche above the station entrance and decorative bridge wall parapet from this location. | |

Viewpoint 5: View south from Milsons Point Station western entry

| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
|-----------------------------------|---|------------------------------|---|-------------------------|
| Local | Moderate-high adverse | Moderate-high adverse | Moderate adverse | Moderate adverse |
| Rationale for revised assessment: | <ul style="list-style-type: none"> - The general extent, prominence and proximity of construction activity would remain unchanged. | | <ul style="list-style-type: none"> - The location of the proposal would be the same, and slight increase in the steepness of the ramp would not be perceptible in this view. | |

| | | | | |
|--|---|--|---------------------|-----------------------------|
| | <ul style="list-style-type: none"> - Including a raised platform, to install the cycleway deck, and the southern construction site, temporary crane site and site sheds, south of Burton Street. - There would be no further tree removal seen in this view. | <ul style="list-style-type: none"> - There are no proposed changes to the axial pathways, lawn areas and ornamental trees. - The partial view to the Sydney Harbour Bridge pylons and arch would be maintained. - The improved design of the balustrade and piers would reduce the visual mass of the structure somewhat. | | |
| Viewpoint 6: View southwest from Milsons Point Station platform | | | | |
| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
| Local | Low-moderate | Low-moderate | Low-moderate | Low-moderate |
| Rationale for revised assessment: | <ul style="list-style-type: none"> - The general extent, prominence and proximity of construction activity would remain the same, with the upper section of the raised platform worksite, ramp deck and balustrade installation visible. | <ul style="list-style-type: none"> - The general location of the proposal would be unchanged. - The ramp balustrade would be visible and generally level with the top of the Sydney Harbour Bridge wall, being simplified as one uniform treatment along the length of the ramp and with a contemporary design and matt finish. | | |
| Viewpoint 7: View Northeast Along Alfred Street South | | | | |
| Sensitivity | Impact level | Revised impact level | Impact level | Revised impact level |
| Local | Low-moderate | Low-moderate | Low-moderate | Low-moderate |
| Rationale for revised assessment: | <ul style="list-style-type: none"> - The general extent, prominence and proximity of construction activity would remain the same, including the establishment of a laydown, storage area and sheds in the location of the bowling green and boules piste, and a temporary workzone for mobile crane. - There would be no further tree removal proposed. | <ul style="list-style-type: none"> - The bridge connection would be located slightly further north and have a slightly adjusted shape connection point. - The ramp would be slightly steeper to allow for the shortening of the ramp, but this would not be perceptible in this view. - There would be a consistent balustrade along the ramp and extending around the landing with bike riders' rest area at the cycleway entrance, simplifying this area in the view. - The balustrade design has been refined and would have a contemporary style. - The balustrade and ramp deck would continue to partially block views to the concrete detailing along top of the Sydney Harbour Bridge walls and the upper section of the existing stairs. | | |

4.2.4 Viewpoint 8: View northeast from Burton Street to Milsons Point Station forecourt and entrance



Figure 4-6 VIEWPOINT 8: VIEW NORTHEAST FROM BURTON STREET TO MILSONS POINT STATION FORECOURT AND ENTRANCE



Figure 4-7 VIEWPOINT 8: VIEW NORTHEAST FROM BURTON STREET TO MILSONS POINT STATION FORECOURT AND ENTRANCE, MODELLED IMAGE (MODEL SOURCE: AURECON)

Existing view: This view shows the view along the axial route to the Alfred Street South entrance to Milsons Point Station (refer to Figure 4-6), including the original awning, light fittings either side and decorative '1932' cartouche. This entrance has aesthetic significance (OEH, 2010), the station has a state heritage listing and is an essential component of the northern approach to the Sydney Harbour Bridge. Elevated above the station entry, and bridge walls, trains can be seen entering and departing the station, passing across the view.

Bradfield Park, seen in the foreground of this view is a busy plaza, activated by pedestrians and bike riders. This area of the park is a local heritage item (North Sydney LEP) and includes axial pathways, lawn areas and ornamental plantings of *Livistona australis* (Cabbage Tree Palm) and *Butia capitata* (Jelly Palm).

Visual sensitivity: While this view is outside the Sydney Harbour Bridge heritage curtilage and Sydney Harbour Bridge setting boundary, it is located within a local heritage listed park and is a direct, heavily experienced view to National and State heritage listed items, including Milsons Point Station and the northern Sydney Harbour Bridge approaches. This view is of **regional visual sensitivity**.

Visual impact during construction: The central and northern parts of the ramp construction site would be seen in the middle ground of this view, in the eastern side of Bradfield Park, extending in front of Milsons Point Station and the walls of the Sydney Harbour Bridge.

The lawn areas and ornamental plantings of *Lagerstroemia sp.* (Crepe myrtle), *Livistona australis* (Cabbage Tree Palm) and *Butia capitata* (Jelly Palm) would be retained. The construction of several columns would be visible, including one to the southern side of the station entrance (right of view) in the middle ground. This would include temporary construction sites surrounded by hoarding and fencing that may obstruct the view to the station entry, parts of the Sydney Harbour Bridge wall and Burton Street underpass at times during construction. Generally, the work would include elements raised above Bradfield Park, so that there would be a clear view of the cycleway deck installation.

Overall, the construction work would partly obstruct this view of the Sydney Harbour Bridge approach walls, and Milsons Point Station entry. This work would contrast in character with the landscape features of Bradfield Park and would comprise much of the view, being located to the fore and middle ground and across this view, substantially altering the character of the view temporarily. This would result in a moderate magnitude of change and a **moderate adverse visual** impact during construction. This impact would be temporary and experienced in the short term.

Visual impact during operation: The main features of Bradfield Park would continue to be seen in the middle ground of this view, including the axial pathways, lawn areas and ornamental trees of *Livistona australis* (Cabbage Tree Palm) and *Butia capitata* (Jelly Palm). There would be several columns visible, however, these would not obstruct the view directly along the axial path, and view to the station entry.

The ramp would be generally parallel to the bridge, crossing this view, and curving away from the station entrance. The ramp would gently descend northwards (left of view), in a long linear alignment. From this location, the underside of the bridge deck would be seen, with the architectural balustrade along the ramp.

The decorative '1932' cartouche above the station entry would be obstructed by the ramp structure from this location, and visible as the viewer moves further along the pathway and closer to the station entry. The ramp would also obstruct the view to the decorative top section of the approach walls. Bike riders would be visible travelling along the cycleway, elevated above the station entrance plaza. This movement would be viewed in the context of the existing trains elevated on the bridge, in the background of this view.

Overall, the main features of this view would either be retained, or only slightly obstructed in this view. The ramp design would be visually lightweight, with further refinements to the column design reducing visual clutter. The location of the ramp near to the bridge approach wall would reduce its prominence and collocate

the built elements in the view. As such, there would be a moderate magnitude of change and a **moderate adverse visual impact** during operation.

4.2.5 Viewpoint 9: View east to the Burton Street tunnel archway



Figure 4-8 VIEWPOINT 9: VIEW EAST TO THE BURTON STREET TUNNEL ARCHWAY



Figure 4-9 VIEWPOINT 9: VIEW EAST TO THE BURTON STREET TUNNEL ARCHWAY, MODELLED IMAGE

Existing view: This view (refer to Figure 4-8) shows the Burton Street tunnel archway through the Sydney Harbour Bridge. It includes the decorative concrete walls, stairs and the high arch of the Burton Street underbridge linking Milsons Point with Kirribilli. Trains are also visible above the bridge, passing across the view intermittently. The Sydney Harbour Bridge approaches and stairs, and the bowling greens at Bradfield Park can be seen to the south (right of view).

Visual sensitivity: This view is from a location within the local heritage listed area of Bradfield Park, outside the Sydney Harbour Bridge heritage curtilage and Sydney Harbour Bridge setting boundary. This view is, however, a view to World Heritage and National listed items, including the northern Sydney Harbour Bridge approaches. This view is of **regional visual sensitivity**.

Visual impact during construction: The southern part of the ramp construction site would be seen in the middle ground of this view, extending across Burton Street, in front of the Burton Street archway and the Sydney Harbour Bridge walls. The north bowling green and boules piste would be closed and used as a laydown and storage area, and site sheds. The existing mature trees and majority of the hedges in Bradfield Park Central would be retained and fenced during construction.

From this location, the construction of several columns would be visible, as would installation of the ramp deck and balustrades overhead. This work would obstruct views to the Sydney Harbour Bridge stairs, approach walls and the Burton Street arch. Burton Street would remain open, including the on-street parking and lanes through the underbridge, however, there would be a temporary workzone for mobile crane use in this area on occasions.

Overall, this work would obstruct the view to the heritage features of this view and contrast with the character of this view. The works would extend across the view and would rise above the skyline. This would result in a moderate magnitude of change and a moderate **adverse visual impact** during construction. This impact would be temporary and experienced in the short term.

Visual impact during operation: The ramp would be visible, raised above Bradfield Park and crossing Burton Street, including a three-metre-wide concrete deck supported by steel structure and slim concrete columns. From this angle, the underside and western elevation of the ramp would be visible and viewed in close proximity. The ramp would be aligned generally parallel and offset from the Sydney Harbour Bridge, providing some visual separation from the approach wall and Burton Street arch.

The ramp would converge with the bridge, south of the stairs (right of view). From this location the bridge stairs would be unobstructed. The ramp would both complement the bridge using Moruya granite aggregate, providing a visual connection to the stone clad superstructure of the Sydney Harbour Bridge, as well as be differentiated from the heritage structure with its contemporary form. The ramp would incorporate design features that minimise the visual bulk and scale of the structure, including the asymmetrically shaped ramp deck, visually lightweight balustrade and the slender tapering oval columns with precast ribbed texture.

Overall, the proposal would introduce a new contemporary built structure into this view. While the design would reduce the visual mass of the structure somewhat, the ramp would introduce some visual clutter into this view towards the bridge. Overall, there would be a moderate magnitude of change and a **moderate adverse visual impact** on this view during operation.

4.3 Impact on the 'postcard' views of the Sydney Harbour Bridge

The alignment and form of the ramp would be largely unchanged. The refinements to the design would not be appreciated in the 'post card' views of the Sydney Harbour Bridge, which are visible from a greater distance or from the east, where the site is not visible.

4.4 Summary of daytime visual impact

A summary of the visual impacts identified for the detailed design; February 2023 is provided in Table 4-1. The detailed design includes further detail and refinements that provide some improvement to the visual impacts of the proposal. However, overall, the visual impacts remain unchanged from the REF.

Overall, while the sightlines to the curved approach span are not directly impacted, there would be low-moderate to moderate adverse impacts on views to the constructed approaches to the bridge, including Milsons Point Station, which are a National Heritage value.

Table 4-1 SUMMARY OF DAYTIME VISUAL IMPACT

| Location | Sensitivity | Visual impact - construction | | Visual impact - operation | |
|--|-------------|------------------------------|--------------------------------|---------------------------|--------------------------------|
| | | REF Assessment | Detailed design, February 2023 | REF Assessment | Detailed design, February 2023 |
| Viewpoint 1: View north along Alfred Street South | Local | Low adverse | Low adverse | Low beneficial | Low beneficial |
| Viewpoint 2: View south along Alfred Street South | Local | Moderate adverse | Moderate adverse | Low-moderate adverse | Low-moderate adverse |
| Viewpoint 3: View south across Milsons Point Station entrance plaza | Regional | Moderate adverse | Moderate adverse | Moderate adverse | Moderate adverse |
| Viewpoint 4: View east from Alfred Street South to the Milsons Point Station entry | Regional | Moderate adverse | Moderate adverse | Low - moderate adverse | Low - moderate adverse |
| Viewpoint 5: View south from Milsons Point Station western entry | Regional | Moderate – high adverse | Moderate – high adverse | Moderate adverse | Moderate adverse |
| Viewpoint 6: View southwest from Milsons Point Station platform | Regional | Low-Moderate adverse | Low-Moderate adverse | Low - moderate adverse | Low - moderate adverse |
| Viewpoint 7: View northeast along Alfred Street South | Local | Low-moderate adverse | Low – moderate adverse | Low - moderate adverse | Low - moderate adverse |
| Viewpoint 8: View northeast from Burton Street to Milsons Point Station forecourt and entrance | Regional | N/A | Moderate adverse | N/A | Moderate adverse |
| Viewpoint 9: View east to the Burton Street tunnel archway | Local | N/A | Moderate adverse | N/A | Moderate adverse |
| Impact on the 'postcard' views to the Sydney Harbour Bridge | National | Negligible | Negligible | Negligible | Negligible |

4.5 Assessment of views at night

There are no changes proposed that would alter the extent and scale of construction and require additional lighting during construction. As such, there would continue to be a negligible visual impacts at night, during construction.

The detailed design, February 2023, confirms that lighting would be integrated into the underside of the handrail and into the soffit to illuminate the underside of the ramp deck. The ramp would continue to be adequately lit to provide for bike rider safety. There would continue to be negligible visual impacts at night, during operation, as the lighting would be designed to avoid light spill and be seen in the context of an existing brightly lit setting. These levels of impact level are unchanged from the REF.

4.6 Assessment of views from private dwellings

The REF assessed the potential impact on views from residences in the multi-storey apartment buildings to the west of Alfred Street South by considering similar views from level 4 and level 11 of the properties at 52 Alfred Street, directly opposite the proposal site. As the location of the ramp is unchanged, the assessment of these views is still relevant.

Due to the distance between these properties and the proposed ramp, and minor refinements proposed, there would not be any substantial changes to the assessment of visual impact, which would remain as low.

The following table (refer to Table 4-2) include an updated assessment these two representative views, comparing the impacts of the REF and the detailed design, February 2023.

Table 4-2 REPRESENTATIVE VIEWPOINT ASSESSMENT

| View location | REF Assessment | Detailed design, February 2023 |
|--|--|--------------------------------|
| Level 4, 52 Alfred Street | Low visual impact | Low visual impact |
| View across Bradfield Park Central to the approach walls of the Sydney Harbour Bridge, including the arched Burton Street underpass, the bridge stairs, and the Milsons Point Station entry (from some locations), station entrance plaza and parkland areas of Bradfield Park and bowling greens. | <ul style="list-style-type: none"> - The cycle ramp would be in the same location and of a similar scale and form. There would be no appreciable change to the obstruction of the Sydney Harbour Bridge approach walls and bridge stairs, the Burton Street underpass arch and Milsons Point Station entry in views from this location. - The Sydney Harbour Bridge pylon towers, arch and harbour waters would remain visible. - The prominence of the ramp in these views would remain as assessed in the REF. | |
| Level 11, 52 Alfred Street | Low visual impact | Low visual impact |
| Downward view across Bradfield Park to the approach walls of the Sydney Harbour Bridge, including the arched Burton Street underpass, the bridge stairs, the Milsons Point Station entry, bowling greens. | <ul style="list-style-type: none"> - The cycle ramp would be in the same location and of a similar scale and form. There would be no appreciable change to the obstruction of the plaza, the Sydney Harbour Bridge approach walls, bridge stairs, the Burton Street underpass arch and Milsons Point Station entry in views from this location. - The proposal would not obstruct a view towards the Sydney Harbour Bridge pylon towers, arch or the harbour waters. - The prominence of the ramp in these views would remain as assessed in the REF. | |

5 Mitigation measures

The following mitigation measures remain relevant would be considered to minimise the potential landscape and visual impacts identified. Further proposed changes are highlighted in **bold**.

The following mitigation measures would be implemented to ensure the visual and landscape character impacts are minimised during future stages of detail design:

- Ensure the width of the ramp piers are slender to minimise their visual mass and scale
- Use of visually light-weight materials and a neutral colour palette to reduce the visual prominence of the ramp
- Contemporary materials and design to differentiate the structure from the heritage features and minimise the impact on the landscape character of the bridge and its setting
- Bridge alignment to minimise the obstruction to the visual features of the bridge including the Milsons Point Station entry, including the cartouche where possible, **and Burton Street archway**
- Minimise the height of the ramp so that it does not rise substantially above the Sydney Harbour Bridge walls
- Minimise the removal of trees and vegetation where possible
- Where vegetation removal is necessary, avoid trees that contribute to the symmetry and integrity of the station entrance plaza design where possible
- Ensure line markings **and any signage incorporated into the ground surfaces of the proposal** are sympathetic to the character of the station entrance plaza and heritage values of the setting
- Minimise any visual clutter created by lighting, signage, CCTV and any other aboveground infrastructure within the visual setting of the Sydney Harbour Bridge.
- Relocate or provide new table tennis table in another location in the local area to replace the removed table from within Bradfield Park central.
- **Investigate opportunities to relocate the existing Canary Island Date Palm to an alternative location in consultation with North Sydney Council if appropriate.**

The following mitigation measures would be implemented to further reduce and manage the visual and landscape character impacts of the Proposal during construction:

- Temporary access arrangements should be well signed and provide a visually legible route for bike riders and pedestrians
- Construction staging should ensure public access to recreational areas of the station entrance plaza are maintained where possible and reduced access to these facilities is minimised
- High quality hoarding incorporating artwork prepared in consultation with stakeholders
- Consolidate construction equipment and activity to maximise the area of useable public realm where possible.

The following mitigation measures would be implemented to further reduce and manage the visual and landscape character impacts of the Proposal during operation:

- All lighting should be managed in accordance with AS4282:2019 Control of the obtrusive effects of lighting.

Refer also to Statement of Heritage Impacts (SOHI) report) for mitigation measures to reduce and manage heritage impacts.