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## 4.0 VISUAL IMPACT ASSESSMENT

# 04

# 4.1 VISUAL IMPACT ASSESSMENT

## View 1 - Bonna Point

### View Summary

Location: Bonna Point, Kurnell  
 View Direction: 174° SE  
 Coordinates: -34° 0' 31" S, 151° 11' 19" E  
 Distance to site: 1,330m

### Viewpoint Description

View 1 is taken from a small headland on the coastline of Bonna Point facing south towards the site. Bonna Point is a public reserve situated west of Kurnell township which extends into Quibray Bay.

The view was selected to illustrate the visual impact of the proposal to the site's north.

A dense thicket along the coast of Quibray Bay obscures visibility of existing built form along Captain Cook Drive, including commercial premises adjacent to the site.

Electricity pylons are visible above the tree line running along the horizon of the view which are at ground level adjacent to the site. In addition, the existing quarry on the site is visible above the tree-line.



## Sensitivity

### Sensitivity of the existing character of the setting.

The sensitivity of the view is rated low. It has a high-moderate capacity to absorb change due to the existing disturbances to the landscape including quarry mounds and electricity pylons, and infrequent visitation and use of Bonna Point at the location of the view point.

### Viewpoint Summary

Component	Comment	Impact
<b>Extent of Area Affected</b>	- Bonna Point's south facing coastline is relatively small and less frequented than its northern coastline.	Low
	- The site is not visible from the majority of Bonna Point Reserve, obscured by trees.	
<b>Physical Visual Function</b>	- Nearby south facing coastline is inaccessible to pedestrians, limiting visibility to Bonna Point.	Low
	- Bonna Point is a coastal reserve which is used for recreational activities.	
	- On the day of photographing, usage of Bonna Point was low with few visitors.	
<b>Duration of Effect</b>	- This aspect of the site is not visible from residential areas.	Moderate
	- Bonna Point is typically only used during day hours, with low usage during evening hours.	
	- Urban light pollution will have a negative impact on sky visibility during evening hours, however nearby Mascot and Ramsgate are similarly visible.	

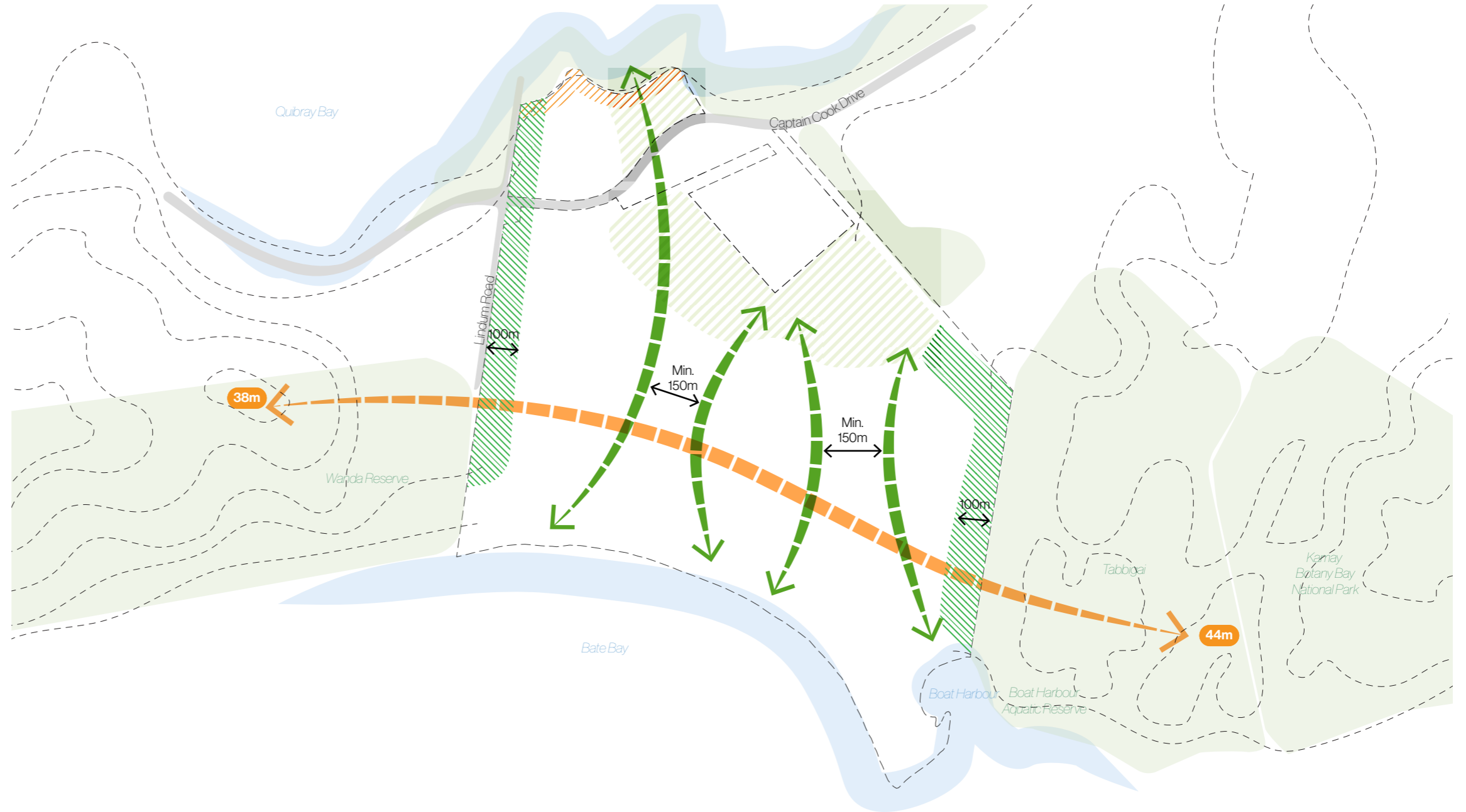


**View 1 - Bonna Point**  
 Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm

## Mitigation Opportunities

### Mitigation measures to be considered in development of the concept design.

- Demonstrate diversity and prominence of open space and visual markers of landscaped land in line with context through substantial ecological corridors spanning at least 150m in width creating wide separations in the visible built skyline.
- Maximum building height to align with the height of local topographic peak at RL.44m in Kamay Botany Bay National Park, with opportunity to exceed if further articulation is integrated at a detail design phase.
- Retain prominence of Quibray Bay and Towra Point by:
  - + Introducing a 4-6 storey maximum height limit of 23m in Lot2 North ensuring that the development sits 16m under the western ridgeline and is setback substantially from the foreshore.
  - + Ensuring development sits below the maximum height of the ridgeline retaining the visual prominence of Wanda Reserve in this view.
  - + Retaining the ecological integrity of existing wetlands and other landscape elements which restrict development, ensuring future built form is set back from Wetland Proximity Area SEPP (Resilience and Hazards) 2021.
  - + Introducing a maximum height of 25m (6 Storey) for future development to sit at least 20m under the ridgeline highpoint in Kamay Bay National Park, allowing for the prominence of the green horizon line to remain.
- Concentrate density along the central horizontal access of the site acting as a third ridge visually linking the National Park to Wanda Reserve.
- Utilise a materiality and articulation of proposed built form which will blend the proposal into its landscape, featuring timber, muted facade finishes, and avoid use of highly reflective materials.
- Introduce at least 100m setback from western and eastern boundary to maintain greater separation between adjacent green space and any future development to allow for boundary vegetation growth.

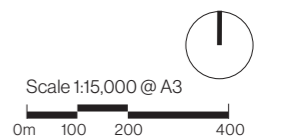


### LEGEND

Subject Site

North-South Ecological Corridors  
 Setback from Site Side Boundaries  
 Existing Vegetation

Prominent Ridgeline Datum  
 Reduced Height towards North Site Boundary to Quibray Bay



**Magnitude of Proposed Changes**

*Contrast the concept design presents to the existing condition.*

<b>Extent of alteration</b>	<ul style="list-style-type: none"> <li>- The proposal infills existing visual disturbances, with a skyline which more effectively integrates into the existing horizon line.</li> <li>- The density of visible trees will not be impacted by the proposal, and mitigates proposed built form.</li> </ul>	Low-Moderate
<b>Effects and Impacts</b>	<ul style="list-style-type: none"> <li>- The proposal will have negligible impact on the amenity of Bonna Point</li> <li>- A portion of the proposal will be visible from Bonna Point, limited to built form which exceeds the existing tree line, concentrated within the Town Centre precinct.</li> </ul>	Low



**LEGEND**

- Subject Site
- Proposed built form visible from viewpoint
- Proposed built form not visible from viewpoint

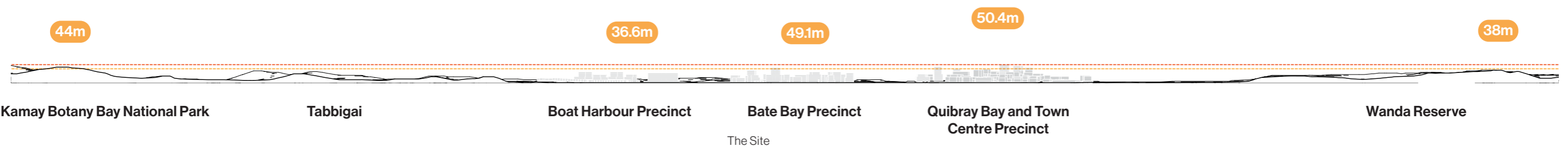
## Visual Impact Conclusion

- Bonna Point is a small peninsula of land, predominantly densely vegetated or featuring open park expanses buffered by lines of tall trees and vegetation. The site is not visible from most areas within the Bonna Point Reserve area.
- The photo was taken at the viewpoint during a low tide event, increasing the depth and accessibility of the beach. During higher tides, this viewpoint would not be accessible. Moving the viewpoint further north would incur more vegetation and limit the view of the site within this viewpoint.
- The proposal is situated within a topographic dip in the landscape, with proposed maximum building height at 50.4m RL visually bridging Kamay-Botany Bay National Park at 38m RL through to Wanda Reserve at 44m RL.
- Vegetation to be retained along the Quibray Bay coastline and Captain Cook Drive obscures visibility of built form within the Boat Harbour, Bate Bay, and Quibray Bay precincts below five to six storeys in height.
- By concentrating density within the Town Centre precinct, the scale and visual impact of the Bate Bay, Boat Harbour, and Quibray Bay precincts is reduced.
- Existing quarry mounds and electricity pylons run across the extent of this viewpoint, which are obscured and replaced by proposed built form.
- The materiality and articulation of proposed built form will be carefully considered to blend the proposal into the surrounding landscape, utilising curvilinear forms, more natural materials and landscaping.
- Three ecological corridors proposed are visible within this view, creating relief and softening views of urban, built areas with vegetation by increase building separations.

In summary, considering the variety of factors that impact the assessment of this view, the mitigation features implemented, minimal receptors and the magnitude of the visual impact, it has been concluded that the overall impact of the proposal from this viewpoint is Low.



**View 1 - Bonna Point**  
Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm



## View 2 - Wanda Reserve

### View Summary

Location: Wanda Reserve highest point, 38m RL.

View Direction: 76.5° E

Coordinates: -34° 1' 54" S, 151° 10' 33" E

Distance to site: 900m

### Viewpoint Description

View 2 is photographed from the highest topographic point of Wanda Reserve located to the site's west. It's highest topographic point is 38m above sea level.

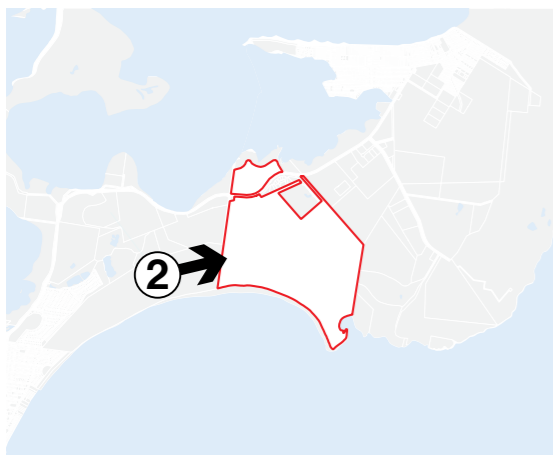
Wanda Reserve constitutes a large coastal environmental area which extends along the length of Wanda Beach, through which an east-west pedestrian track links Greenhills to Lindum Road.

The view was selected to illustrate the visual impact of the proposal from the west as viewed by users of Wanda Reserve, which typically consists of walkers, runners, and off-road cyclists.

The view faces east towards the western interface of the site across Wanda Reserve. The reserve is characterised by its rolling hills and low lying vegetation with scattered trees.

Existing vegetation largely obscures visibility of the site, though it is generally low lying coastal scrub. The main east-west track creates a visual dip in the landscape.

Elements of the existing quarry on site are visible from the viewpoint alongside industrial buildings situated to the site's north-east including Ampol Storage. Beyond this view, Kamay Botany Bay National Park is visible, defining the view's horizon.



## Sensitivity

### Sensitivity of the existing character of the setting.

The sensitivity of the view is rated low-moderate. It has a moderate capacity to absorb change due to existing visual disturbances within the visible landscape, and the presence of dense scrubland mitigating potential impacts.

### Viewpoint Summary

Component	Comment	Impact
<b>Extent of Area Affected</b>	- The accessibility of Wanda Reserve is limited to the east-west track and scattered paths to the coastline.	Low
	- Wanda Reserve is only frequented on weekends, with low visitation during the week.	
	- There are not places to dwell for long periods of time within proximity of the viewpoint.	
<b>Physical Visual Function</b>	- Wanda Reserve is an ecological reserve characterised by an expansive, low-lying scrub.	Low
	- Views beyond the State Park are not consistent with its character, already being disturbed by industrial activity including Ampol Storage.	
<b>Duration of Effect</b>	- Wanda Reserve does not feature spaces suited for long periods of dwelling.	Low
	- Visitation to Wanda Reserve consists of short-stay movement based activities.	
	- Usage of Wanda Reserve is typically limited to day hours. Usage during evening hours is low.	
	- Urban light pollution will have a negative impact on sky visibility during evening hours.	

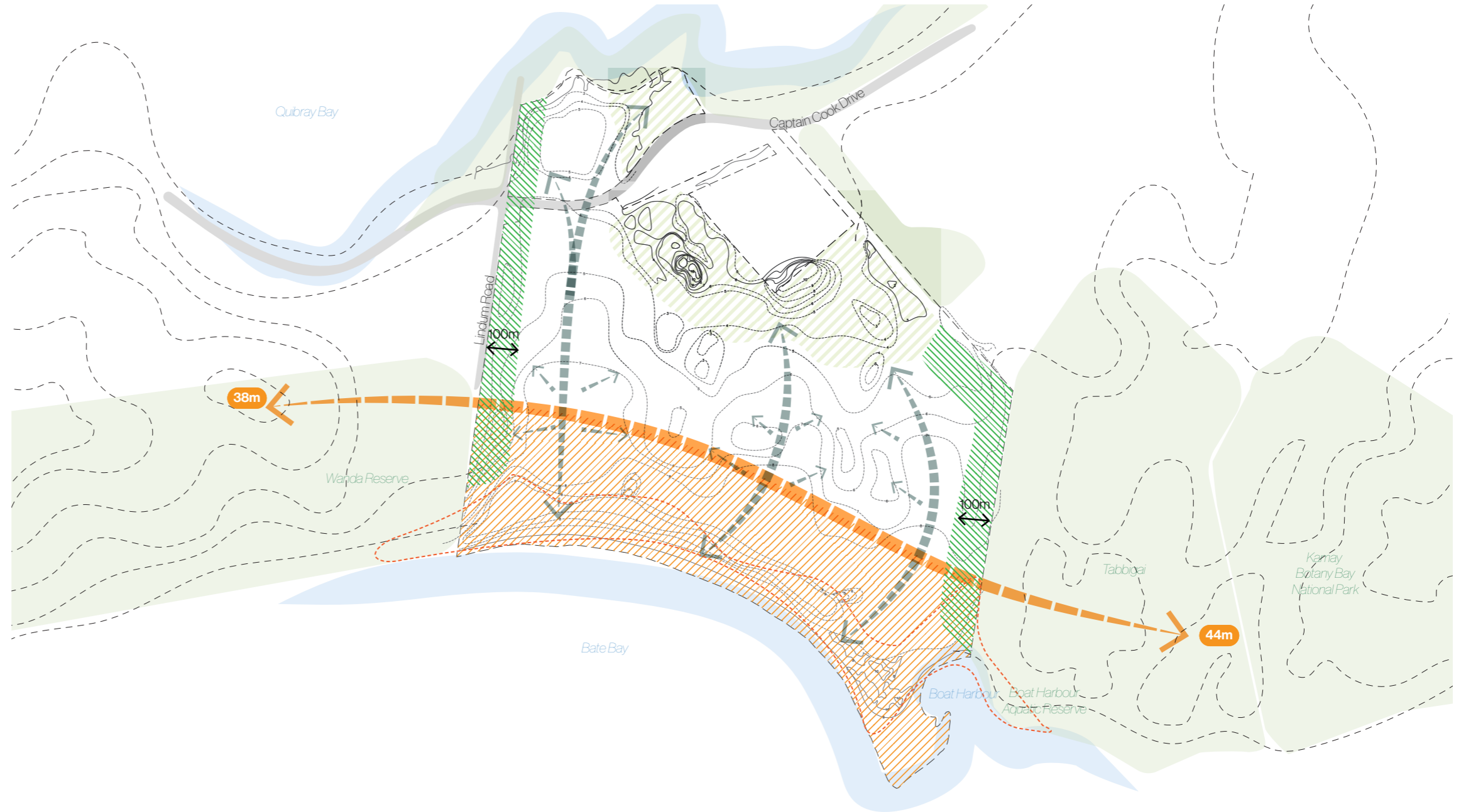


**View 2 - Wanda Reserve**  
Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm

## Mitigation Opportunities

### Mitigation measures to be considered in development of the concept design.

- Reduce height of built form towards waterfront area of Bate Bay to respond to the fall in slope towards the ocean present in surrounding context both east and west of the site.
- Retain prominence of Wanda Reserve by:
  - + Introducing a 6 storey maximum height of 25m along the western boundary interface with Wanda Reserve ensuring development is screened by existing vegetation.
  - + Introducing a 12 storey maximum height ensuring that development aligns with the peak horizon line which links Wanda Reserve to the National Park.
- Ensure visibility of the coastline by:
  - + Retaining ecological integrity of waterfront dunes and Coastal Use Area, restricting development within 180m of the southern site boundary.
  - + Introducing a maximum height of 25m (6 Storey) for development along the site's south coast to sit at least 20m under the ridgeline highpoint in Kamay Bay National Park. This retains the prominence of the green horizon line.
  - + Limiting heights to 8 storeys along Tabbigai on the eastern the boundary of the site and 6 storeys to the south towards Boat Harbour
- A setback of atleast 180m for any development from the site boundary with a transition in height towards the north.
- Utilise a materiality and articulation of proposed built form which will blend the proposal into its landscape, featuring timber, muted facade finishes, and avoid use of highly reflective materials.
- Introduce at least 100m setback from western and eastern boundary to maintain greater separation between adjacent green space and any future development to allow for boundary vegetation growth.



### LEGEND

Subject Site

Existing Vegetation

Setback from Site Side Boundaries

Coastal Barrier

Prominent Ridgeline Datum

Reduced Height towards South Site Boundary to Bate Bay

Proposed Topographic Slope

Proposed Contours 1m

Scale 1:15,000 @ A3

0m 100 200 400



### Magnitude of Proposed Changes

*Contrast the concept design presents to the existing condition.*

<b>Extent of alteration</b>	- The proposal will be visible by users of Wanda Reserve facing east.	Low
	- Users of Wanda Reserve typically take part in movement based activities which have a short visibility duration.	
<b>Effects and Impacts</b>	- The proposal will infill existing visual disturbances such as the Ampol Storage and industrial uses.	Low-Moderate
	- Visibility of Kamay-Botany Bay National Park ridgeline is preserved and accentuated east of Town Centre precinct.	



**LEGEND**

- Subject Site
- Proposed built form visible from viewpoint
- Proposed built form not visible from viewpoint

## Visual Impact Conclusion

- Wanda Reserve is not a highly frequented location, whereby pedestrians pass through the viewpoint and do not dwell for long periods of time.
- Wanda Reserve is typically frequented on weekends during the day, whereas patronage on weekdays and evening hours is low.
- The proposal masks existing visual disturbances within the landscape including the Ampol Storage Terminal and industrial uses.
- Existing coastal scrub and undulating landform in Wanda Reserve provide a reduction in the visibility of the proposal, especially to the site's north towards Quibray Bay.
- The most predominant feature on the horizon of this view is Kamay-Botany Bay National Park. Visibility of the national park is maintained owing to the capped height of the Boat Harbour and Bate Bay Precincts in particular.
- Proposed built form within the Town Centre precinct has been configured to reflect the undulating horizon of the surrounding landscape, creating a visual third 'ridge' which links through the site.
- Building heights are reduced and built form setback from Bate Bay, maximising visibility of the coastline in alignment with SSDCP2015.
- Variation in building form, facade articulation, and choices of natural materials will help break the current homogeneous tone of the photomontages modelled massing.

In summary, considering the variety of factors that impact the assessment of this view, the mitigation features implemented, minimal receptors and the magnitude of the visual impact, it has been concluded that the overall impact of the proposal from this viewpoint is Low-Moderate



**View 2 - Wanda Reserve**

Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm

### View 3 - Captain Cook Drive

#### View Summary

Location: Captain Cook Drive at Marang Parklands

View Direction: 131° SE

Coordinates: -34° 1' 30" S, 151° 10' 32" E

Distance to site: 950m

#### Viewpoint Description

View 3 is photographed from Captain Cook Drive approaching the site's western gateway and primary entry. It is taken at a bend in the road adjacent to Marang Parklands.

The view was selected to illustrate the visual impact of the proposal from vehicles approaching Kurnell from Sutherland Shire along its primary east-west thoroughfare.

Additionally the view is taken adjacent to Marang Parklands, a large recreational development currently undergoing construction and staging.

The view faces in a south-easterly direction towards the centre of the site in alignment with the road. On either side of the road, existing planting and infrastructure elements obscure views beyond the carriageway.

Further east of the viewpoint the site is not visible from Captain Cook Drive, due to the presence of a tall tree canopy along the edges of the carriageway.



### Sensitivity

#### Sensitivity of the existing character of the setting.

The sensitivity of the view is rated low. It has a high capacity to absorb change as a vehicular thoroughfare which accommodates existing infrastructure elements, and lacks visibility to any high quality environmental or architectural assets.

#### Viewpoint Summary

Component	Comment	Impact
<b>Extent of Area Affected</b>	- Captain Cook Drive is not frequented by pedestrians.	Low
	- Patronage of Captain Cook Drive is generally limited to vehicles and cyclists moving at a high speed.	
<b>Physical Visual Function</b>	- The view depicts a bend in the road from where the site is visible.	Low
	- Captain Cook Drive is a vehicular thoroughfare subject to high speeds and brief dwellings period.	
	- Views from further up Captain Cook Drive cannot view the site due to tall vegetation.	
	- Existing infrastructure elements including electricity poles and street signs create an undesirable visual environment.	
<b>Duration of Effect</b>	- Additional urban lighting during evening hours will improve visibility for vehicles and cyclists, functioning as a destination marker.	Low
	- Duration of dwelling on Captain Cook Drive is low, subject only to fast-moving vehicles and cyclists.	

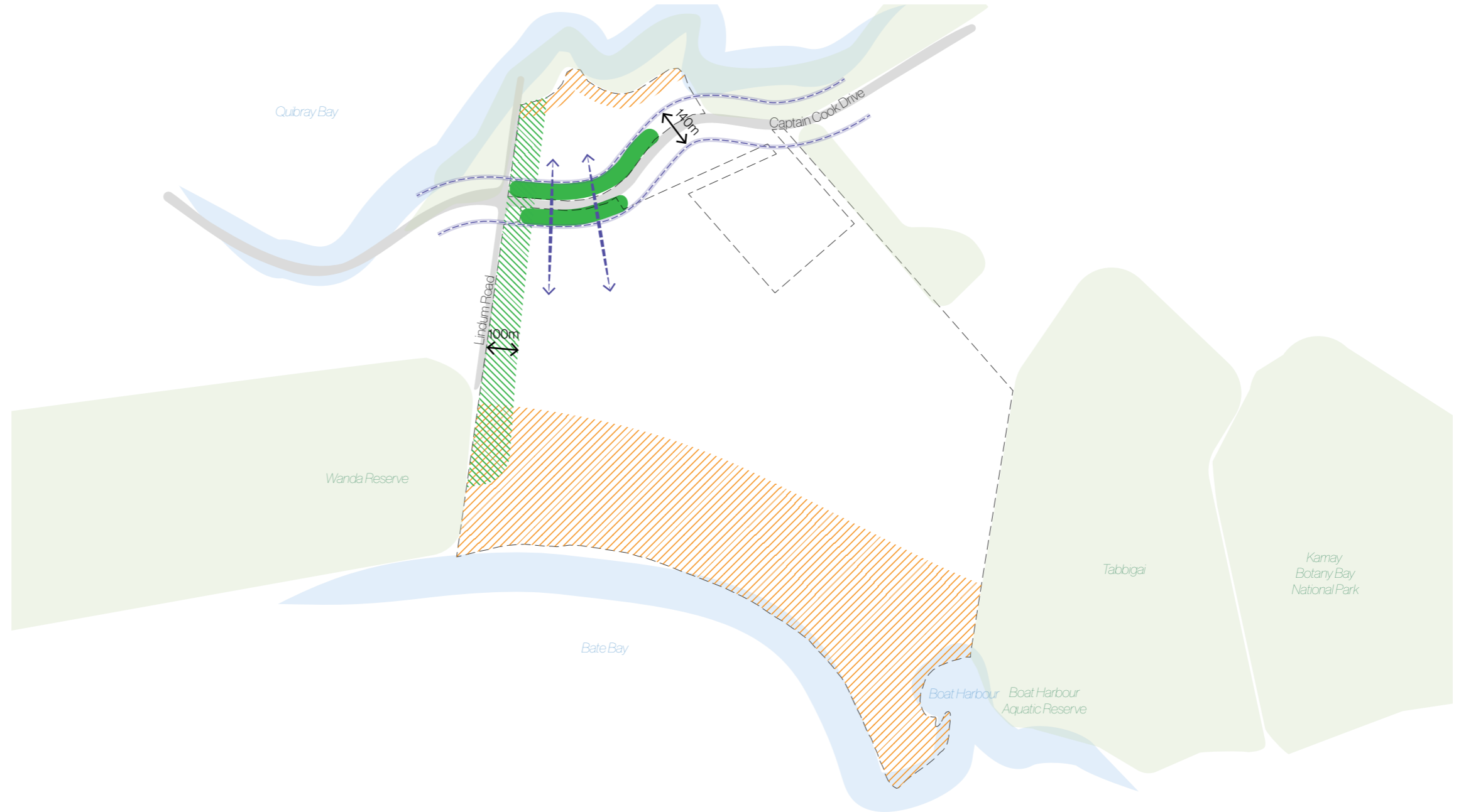


**View 3 - Captain Cook Drive**  
Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm

## Mitigation Opportunities

### Mitigation measures to be considered in development of the concept design.

- Introduce wide built form setbacks to site boundaries, allowing for topographic changes, landscaping and tree canopies to obscure visibility of the proposal including the following:
  - + Introduce at least 100m setback from western and eastern boundary to maintain greater separation between adjacent green space and any future development to allow for boundary vegetation growth.
  - + Setback development at least 70m from Captain Cook Drive, as per EMM Noise and Vibration Study 2020. This reduces the impact of the proposal to Captain Cook Drive, at all points along the road, including that of this viewpoint.
  - + Introducing a maximum height of 25m (6 Storey) for development along the site's south coast to sit beneath the tree line of existing vegetation and taper downwards from areas of higher density.
- A height strategy which includes buildings of varying densities throughout the proposal will break up the total visual mass of precincts.
- Utilise a materiality and articulation of proposed built form which will blend the proposal into its landscape, featuring timber, muted facade finishes, and avoid use of highly reflective materials.



#### LEGEND

Subject Site

Existing Vegetation

Setback from Site Side Boundaries

70m Setback to Captain Cook Drive

Reduce Height along Captain Cook Drive Road Corridor

Existing Vegetation and Mounds along Captain Cook Drive Corridor

Reduced Height towards Site facing prominent coastline

Scale 1:15,000 @ A3

0m 100 200 400

**Magnitude of Proposed Changes**

**Contrast the concept design presents to the existing condition.**

<b>Extent of alteration</b>	<ul style="list-style-type: none"> <li>- The proposal is obscured by electricity pylons and tall planting.</li> <li>- The legibility of the thoroughfare is improved with the site acting as a destination marker.</li> </ul>	Low
<b>Effects and Impacts</b>	<ul style="list-style-type: none"> <li>- The proposal will be slightly visible by vehicles and cyclists travelling in an easterly direction. Upgrades to Captain Cook Drive proposes improved footpaths and cycle lanes of which will create a more hospitable environment for active transport. Road improvements will increase the quantity of uses along the road.</li> <li>- Vehicles and cyclists are typically subject to a brief dwelling period.</li> </ul>	Low



**LEGEND**

- Subject Site
- Proposed built form visible from viewpoint
- Proposed built form not visible from viewpoint

## Visual Impact Conclusion

- Captain Cook Drive features existing elements such as signs, pylons and road related infrastructure which create an inconsistent visual environment with a high capacity for change. These elements draw attention away from the proposal.
- Existing tree canopy completely obscures visibility of the proposal's Quibray Bay precinct in the north from Captain Cook Drive, exceeding the height of the proposed built form.
- The surrounding landscape includes topography which visually exceeds the height of the proposal, including the Resource Recovery Facility.
- Pedestrian use of Captain Cook Drive is currently low due to a lack of pedestrian paths, though future road widening will allow for increased cyclist use.
- Captain Cook Drive is primarily limited to vehicles and cyclists who experience brief dwell times and pass through the viewpoint at high speeds.
- There is no residential or commercial land use within the proximity of the viewpoint, thus no prolonged exposure for any viewers.
- Passing motorists will notice a slight change in view. The development is set back considerably from both Captain Cook Drive and the adjacent western boundary.
- Currently, there is a lack of stopping points, destinations, or turn-off points along the wider stretch of Captain Cook Drive.
- Acting as a visual destination marker, visibility of the site aligned from the road will improve legibility and wayfinding to the site.
- Variation in building form, facade articulation, and choices of natural materials and lighting will help break the current homogeneous tone of the photomontages modelled massing.

In summary, considering the variety of factors that impact the assessment of this view, the mitigation features implemented, minimal receptors and the magnitude of the visual impact, it has been concluded that the overall impact of the proposal from this viewpoint is Low.



**View 3 - Captain Cook Drive**

Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm

## View 4 - Cronulla Beach

### View Summary

Location: Cronulla Beach

View Direction: 48° NE

Coordinates: -34° 3' 8" S, 151° 9' 21" E

Distance to site: 3,300m

### Viewpoint Description

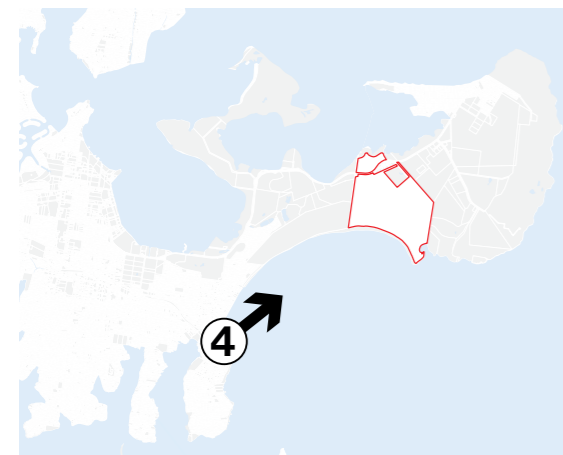
View 4 is photographed from the southern end of Cronulla Beach, from a popular pedestrian walkway which links Cronulla Beach to South Cronulla Beach.

The view was selected to illustrate the visual impact of the proposal from patrons of Cronulla Beach facing in a north-easterly direction towards Wanda Beach.

From Cronulla Beach South, the site's relationship to the adjacent Wanda Reserve and further Cronulla Beach is not visible, blocked by existing built form. To capture the full extent of the Cronulla Beach and Kurnell coastline, a viewpoint further north was required.

Cronulla Beach itself faces in a south-easterly direction away from the Kurnell Peninsula.

The site is situated within topographic valley, with Wanda Reserve and Kamay-Botany Bay National Park defining the western and eastern edges of the Kurnell Peninsula respectively, framing the site.



## Sensitivity

### Sensitivity of the existing character of the setting.

The sensitivity of the view is rated moderate. It has a low capacity to absorb change as a popular recreational area with quality views of the Kurnell Peninsula and existing landscape features.

### Viewpoint Summary

Component	Comment	Impact
<b>Extent of Area Affected</b>	- The site is visible from the length of Cronulla Beach, though the coastline largely faces in a south-easterly direction away from the site.	Moderate
	- Cronulla Beach is a popular recreational spot, subject to high levels of patronage during all times of the year.	
	- There are residential and commercial frontages set back from the beach front with a view of the Kurnell Peninsula.	
<b>Physical Visual Function</b>	- Cronulla Beach is used recreationally, with patrons experiencing long dwelling periods.	Moderate
	- Cronulla is an urbanised local centre including residential and commercial land uses.	
<b>Duration of Effect</b>	- The viewpoint is situated almost 4km south-west of the site.	Low-Moderate
	- Usage of Cronulla Beach is consistently high throughout the year, with patronage most common during summer.	
	- High patronage coincides with longer days, where the visual impact of urban lighting is the least pronounced.	



**View 4 - Cronulla Beach**

Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm

## Mitigation Opportunities

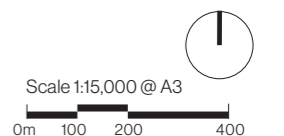
### Mitigation measures to be considered in development of the concept design.

- Utilise a site-wide height strategy which responds to the topographic landscape of the site's surrounding context, featuring a varied, undulating skyline by:
  - + Introducing at least 100m from western boundary to maintain greater separation between Wanda reserve and the Resource Recovery Facility, and the site.
  - + Introducing a maximum height of 12 Storeys throughout the site Master Plan, ensuring all development stays within a 20m range of the 38m ridge height of Wanda Reserve. This ensures the prominence of the green horizon line remains.
  - + A height strategy which includes buildings of varying densities throughout the proposal will break up the total visual mass of precincts.
  - + A setback of at least 180m for any development from the southern boundary of the site with a transition in height towards the north.
  - + Concentrate density within the centre of the site acting as a third ridge visually linking the National Park to Wanda Reserve where there is greater opportunity to locate height.
- Ensure visibility of the coastline by:
  - + Retaining ecological integrity of waterfront dunes and Coastal Use Area, restricting development within 180 of the southern site boundary.
  - + Reduce height of built form towards Bate Bay to respond to the slope in topography and ensure visibility of the coastline, maintaining heights of up to 4-6 storeys set back from the coast in alignment with SSDCP2015.
  - + Introducing a maximum height of 25m (6 Storey) development sits 20m under the ridgeline highpoint in Kamay Bay National Park, allowing for the prominence of the green horizon line to remain.
  - + Limiting heights to 8 storeys along Tabbigai on the eastern the boundary of the site and 6 storeys to the south towards Boat Harbour
- Utilise a materiality and articulation of proposed built form which will blend the proposal into its landscape, featuring timber, muted facade finishes, and avoid use of highly reflective materials.
- Introduce at least 100m from western boundary to maintain greater separation between Wanda reserve and the Resource Recovery Facility, and the site.



#### LEGEND

- Subject Site
- North-South Ecological Corridors
- Setback from Site Side Boundaries
- Coastal Barrier
- Prominent Ridgeline Datum
- Reduced Height towards South Site Boundary to Bate Bay
- Concentrate Height





### Magnitude of Proposed Changes

**Contrast the concept design presents to the existing condition.**

<b>Extent of alteration</b>	- The density and typology of built form has been configured to mirror Cronulla's existing urban form.	Low-Moderate
	- The varied height of precincts mirrors undulation of the horizon line.	
<b>Effects and Impacts</b>	- The proposal will infill existing visual disturbances including a quarry mound and the Ampol Storage Terminal.	Moderate
	- Visibility of Kamay-Botany Bay National Park and Wanda Reserve is preserved bridged visually by built form of a similar height and undulation.	



**LEGEND**

- Subject Site
- Proposed built form visible from viewpoint
- Proposed built form not visible from viewpoint

## Visual Impact Conclusion

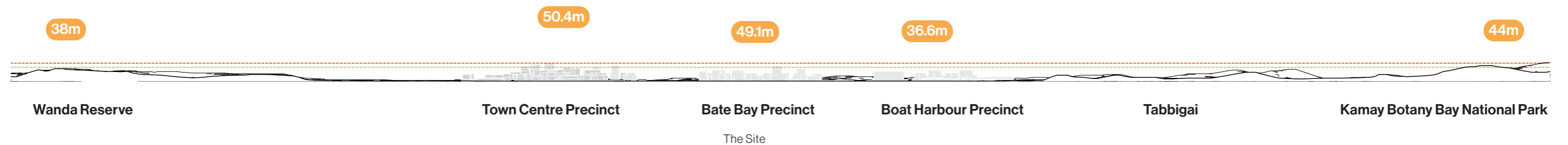
- Bonna Point is a small peninsula of land, predominantly densely vegetated or featuring open park expanses buffered by lines of tall trees and vegetation. The site is not visible from most areas within the Bonna Point Reserve area.
- The photo was taken at the viewpoint during a low tide event, increasing the depth and accessibility of the beach. During higher tides, this viewpoint would not be accessible. Moving the viewpoint further north would incur more vegetation and limit the view of the site within this viewpoint.
- The proposal is situated within a topographic dip in the landscape, with proposed maximum building height at 50.4m RL visually bridging Kamay-Botany Bay National Park at 38m RL through to Wanda Reserve at 44m RL.
- By concentrating density within the town centre precinct, the scale and visual impact of the Bate Bay, Boat Harbour, and Quibray Bay precincts is reduced.
- Existing quarry mounds and electricity pylons run across the extent of this viewpoint, which are obscured and replaced by proposed built form.
- A canopy of trees reduces the visibility of the proposal from this viewpoint throughout the proposal's east, with only buildings above six storeys visible in the Bate Bay and Boat Harbour precincts.
- The materiality and articulation of proposed built form will be carefully considered to blend the proposal into the surrounding landscape, utilising less rectilinear forms, more natural materials and landscaping.
- Three ecological corridors proposed are visible within this view, creating relief and softening views of urban, built areas with vegetation by increase building separations.

In summary, considering the variety of factors that impact the assessment of this view, the mitigation features implemented, minimal receptors and the magnitude of the visual impact, it has been concluded that the overall impact of the proposal from this viewpoint is Low.



**View 4 - Cronulla Beach**

Samsung Galaxy S10 SM-G973F 35mm equivalent focal length of 26mm



# 4.2 CONCLUSION

The visual impacts of the Kurnell Master Plan has been evaluated and determined to be **Low-Moderate**.

A summary of the assessed visual impact is provided in the table below.

View	Impact Rating
<b>View 1</b>	<b>Low</b>
<b>View 2</b>	<b>Low- Moderate</b>
<b>View 3</b>	<b>Low</b>
<b>View 4</b>	<b>Moderate</b>

## Mitigation

In evaluating the sensitivity and conditions of viewpoints, various mitigation opportunities are highlighted which are integrated into the Master Plan relating to built form strategy and heights.

The proposal is divided into four precincts, spreading urban development throughout the site and reducing density of built form. Wide north-south green corridors will act as ecological zones, introducing an internal tree canopy which will mitigate the visual impact of the Master Plan.

The site is situated within a dip in the surrounding topography with Kamay-Botany Bay National Park and Wanda Reserve defining the predominant landscape character of the site's context, enclosed by a frontal dune which extends along its southern boundary.

As the proposed topography of the site remains relatively level at RL.7m within the site's centre and RL.4m to the site's north, built form is framed by these key surrounding landscape features to which heights and siting has been configured to primarily respond to.

Consideration has been paid in the proposal to respond to the height datum established by the surrounding contextual high points. The undulating character of the visible horizon line is extended through the site to integrate built form into the wider visual landscape.

Building heights along the south coast of the site are limited to a maximum of six storeys with a concentration of two to three storey townhouses, tapering built form towards Bate Bay to maintain the predominance of coastal views.

Similarly in the Quibray Bay precinct building heights are limited to six storeys to reflect the precinct's proximity to the coast and to taper down from the Captain Cook Drive.

Height and density will be concentrated within the Town Centre precinct at the site's centre set back from the coast. To respond to the existing topographic landscape of the site's surrounding context, a maximum building height of 50.4m RL is established, slightly exceeding that of the adjacent National Park at 44m RL.

This height will visually bridge the gap between the National Park and Wanda Reserve, undulating in height inbetween and towards the coast.

The existing site is largely devoid of vegetation. Historic clearing of site wide landscape features are to be rehabilitated as part of the Master Plan process. The proposed plan will significantly enhance the current landscape by interconnecting surrounding ecological corridors, and spreading vegetation throughout the site's interior.

The introduction an embedded network of landscape zones, public parks, communal open space and proposed ecological areas throughout the proposal links the site to its surrounding significant natural settings and to the Green Grid Strategy.

Mitigation opportunities embedded into the Master Plan include the location of building heights, setbacks and siting, the retention and introduction of landscaping elements. In addition to the Landscape Master Plan, further screening is recommended during the detailed design phases to feature a materiality and articulation approach which blends built form into the surrounding landscape and reduces visual bulk of individual buildings.

In particular it is recommended within the supporting DCP that these will include timber and muted facade finishes which adopt the overarching colour scheme of Kurnell's environmental context.

Further screening strategies centre around the retention of existing trees along Captain Cook Drive, the addition of trees to be planted along sensitive interfaces to the site's north and south, and the introduction of north-south ecological corridors which will obscure built form within the site.

The new planting should reflect the existing landscape character of the site, dominated by native trees and shrubs along the boundary of the site.

Planting is likely not to mature to maximum height for an extended period of time of around 3-8 years, whereby building height strategy and articulation will constitute the most effective mitigation method to reduce the visual impact of built form.

## Future Recommendations

The following recommendations relate to ways in which the visual impact of the proposed Kurnell Master Plan can be further screened in future to ensure that the overall existing landscape setting and the quality of the landscape character is either maintained or enhanced. The following recommendations should be incorporated into the proposal and detailed design phases:

- Maintain and enhance rehabilitation efforts along Captain Cook Drive where possible, utilising a dense screening canopy to reduce visibility of built form from the road corridor.
- Ensure that the planting palette for internal landscaping features appropriate native trees which feature a tall canopy, obscuring built form and blending the proposal into the surrounding landscape.
- Planting palette outlined in the Landscape Master Plan, Public Domain and Open Space Strategy to guide future character of ecological and recreational open space.
- Consideration of landscape planting early in the staging process is crucial to ensure that mitigation, screening, and softening efforts can commence promptly, allowing trees to mature alongside the completion of all stages within the Master Plan.
- Utilise a materiality and articulation strategy which reflects the contextual character of the Kurnell Peninsula's native ecology and landscape. This may include timber and muted facade finishes, avoiding use of highly reflective materials or monotonous blank walls which contrast dramatically with the landscape character.
- Further soften built form and reduce the visual bulk of the proposal in comparison to the surrounding landscape through considered rooftop activation and facade articulation.
- Utilise a materiality and articulation approach which is responsive to the site's contextual character and mirrors that used in other coastal developments of a similar density. In particular these will include timber and muted facade finishes without reflectivity which adopt the overarching colour scheme of Kurnell's environmental context.
- During the detail design phase it is recommended that to formulate a materiality and articulation response, that photomontages depicting the development's appearance over the course of a 20 year development cycle be explored which will reveal the progression in softening the proposal through landscape elements.

## Summary of Visual Impact

**The visual impact of the proposed Master Plan has been managed through considerate design and mitigation measures coinciding with an understanding of its context.**

The visual impact of the proposal at close-range from Captain Cook Drive is rated low, as existing vegetation along the road corridor screen visibility of the site. Captain Cook Drive has a high capacity to absorb change, characterised by short periods of dwelling and low desirability of the existing view-scape.

The visual impact of the proposal at close-range from Wanda Reserve is rated as low-moderate, with a dense low-lying scrub obscuring visibility of the sight at a distance. Wanda Reserve however is of moderate sensitivity, being used for recreational means and possessing ecological value.

The visual impact of the proposal at a distance from Cronulla Beach to the site's south-west is rated as moderate, as the proposal effectively blends into the surrounding landscape, mirroring the height datum of adjacent hills to create a rolling, consistent horizon, viewed from an area of moderate sensitivity.

The visual impact of the proposal at a distance from Bonna Point to the site's north is rated as low, as the site is well screened by existing vegetation, subject to a low number of potential receivers.

There are no instances where visual impact has a higher than moderate effect on its surroundings however mitigation measures have been taken in light of delivering the most suitable visual amenity to its receptors.

In summary, the proposal has a Low-Moderate visual impact on its context, and a conclusion can be drawn that the design has an acceptable impact on its surrounding context.

The proposal makes contributions in providing an improved visual amenity and experience for receivers at a distance and at close-range, improving upon the existing visual character of the site and contributing the rehabilitation of the local environmental network.

## Summary of Visual Impact

	Magnitude	Sensitivity	Rating
<b>Viewpoint 1</b>	Low	Low-Moderate	Low
<b>Viewpoint 2</b>	Low-Moderate	Low	Low Moderate
<b>Viewpoint 3</b>	Low	Low	Low
<b>Viewpoint 4</b>	Moderate	Moderate	Moderate



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