GROUPGSA

BESMAW PLANNING PROPOSAL

Visual Impact Assessment

Prepared for Besmaw | GroupGSA | 12 December 2023

We acknowledge the traditional custodians of the land upon which the site is located, the Gweagal people of the Dharawal nation; their connection to Country, land, water, community and spirit.

We pay our respects to Elders past, present and emerging, whose knowledge, traditions and stories guide custodianship on what will always be their ancestral lands.

Issue	Title	Date	Prepared	Checked
1	Draft issue for review	07/11/2023	DD	HR/JK
2	Draft issue for review	29/11/2023	DD	HR
3	Final Draft Issue	11/12/2023	DD	HR/JK
4	Final Issue	12/12/2023	DD	HR/JK
5				
6				
7				
8				

CONTENTS

GROUPGSA

1.0 INTRODUCTION

01

GROUPGSA

1.1 INTRODUCTION

GroupGSA have been engaged by Besmaw to undertake a Visual Impact Assessment for the Besmaw Planning Proposal Master Plan and Urban Design Report at 251, 260R, 278 and 280-282 Captain Cook Drive.

Vision and Purpose

This Visual Impact Assessment (VIA) will evaluate the Besmaw Planning Proposal and Master Plan and Urban Design Report seeking to introduce a new community to the Kurnell Peninsula. The VIA has informed the Besmaw Planning Proposal and development of the Master Plan reference scheme.

As part of the proposal, Besmaw's vision for the site encompasses a new urban community on the Kurnell Peninsula that embodies the site's rich cultural and ecological context, provides a diversity of housing, amenity, and employment opportunities.

The unique regional and local context of the site has driven development of the Master Plan to incorporate Council's strategic goals and best-practice planning measures, while responding to the urban and ecological conditions of the Kurnell Peninsula.

The resulting Master Plan reference scheme is well integrated into the existing landscape character of the Kurnell Peninsula, and the regional character of Sutherland Shire imbued into the proposed built form and open space strategy.

Visual Impact Assessment

A Visual Impact Assessment is a comprehensive analysis of the potential visual impacts that a proposal is likely to have on its contextual landscape character and broader visual catchment, as viewed from key public receivers.

This Visual Impact Assessment will evaluate the sensitivity of a given public view point and inform the appropriate height and scale of future built form. The resulting Master Plan scheme is then visualised on-site to understand the extent to which it responds to the sensitivities outlined.

The views in this Visual Impact Assessment have been selected from a wide array of public view points to best illustrate an understanding of the proposal's place amidst its immediate context, and the extent to which mitigation methods may be integrated.

This report has been prepared in accordance with national, international, and best-practice visual assessment policy, in particular the *Guideline for Landscape Character and Visual Impact Assessment* practice note prepared by Transport for NSW - Centre for Urban Design.

It is requirement of Sutherland Shire DCP 2015 Chapter 10 that developments visible from the foreshore minimise visual impact where possible, and make a positive contribution to the coastline and natural setting of the area.

Methodology

Visualisation of the proposed Master Plan reference scheme in situ is tested against four key public view points to reveal the potential visual impact of the proposal on a variety of receivers from the site's surrounding context.

These key vantage points were identified by Council as being of the highest significance. A walk over was undertaken by the SDRP and Council to understand the visual catchment of the site from these vantage points. These locations were also identified in the Scoping Proposal feedback. The report responds directly to the site-specific VIA requirements.

View points are analysed to determine the sensitivity of receivers, and the magnitude to which proposed development may impact its existing visual character.

Sensitivity refers to the qualities of an area, the number and type of receivers, and how sensitive the existing character of the setting is to the proposed nature of change.

Magnitude refers to relative physical scale of the proposal in comparison to the total extent of the view including distance and size, and the presence of other prominent visual features.

A render visualisation of the proposal;, pedestrian through site link. Source: GroupGSA

1.2 SITE CONTEXT

The subject site is located on the Kurnell Peninsula in Sydney's Sutherland Shire.

The site represents a unique opportunity for the revitalisation of the Kurnell Peninsula as a key site of regional significance.

Once dominated by heavy industry, the Kurnell Peninsula's old industrial core is undergoing transition into a new urban precinct with proposed parklands, commercial development, ecological rehabilitation, and cleaner industry.

Urban Context

The peninsula is home to a small population of approximately 2,250 people which are concentrated in the singular settlement of Kurnell to the site's north-east, alongside a variety of industrial lots and commercial estates.

Sutherland Shire's urbanised areas are characterised by their high level of residential and commercial development distributed between an array of local centres, the most populous of which is Cronulla to the site's south-west.

Sutherland Shire is expected to undergo significant population growth in upcoming decades accommodating an additional 26,345 people between 2021-2041. This will require 12,285 new dwellings throughout the LGA.

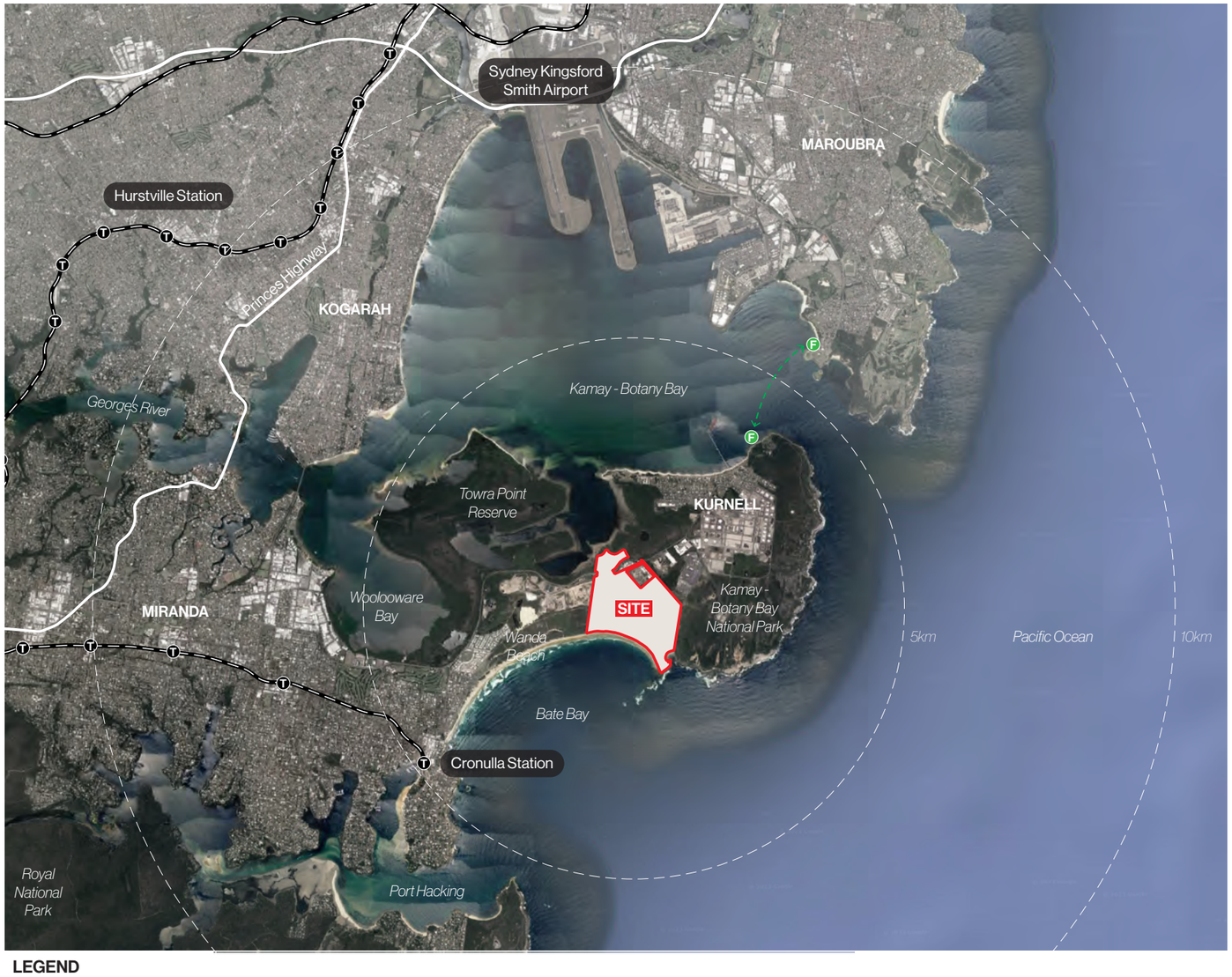
The site represents a key opportunity to achieve Council's housing targets in the face of significant demographic growth, as the region's largest amalgamated brownfield development site.

Environment and Ecology

The Kurnell Peninsula is a significant environmental asset with opportunity to re-establish north-south ecological corridor linking Towra Point Reserve to Kamay-Botany Bay National Park.

Kurnell benefits from its unique surrounding landscape character, capture of key metropolitan and coastal views, and convenient connectivity to the existing urban centres of Sutherland Shire.

As of today rehabilitation of past industrial and waste facilities has resulted in the rehabilitation and transformation of the Marang parklands.



LEGEND

- Subject Site
- Train Line
- Main Road
- Proposed Ferry

Scale 1: 100,000 @ A3

0m 400 800 2000 4000

1.3 OPPORTUNITIES

The site presents the opportunity to create a thriving community enriched by culture, enterprise and social exchange, which embodies the unique values of the Kurnell Peninsula.

Opportunities identified pertaining to the site to be integrated into the development of the Master Plan include:

Ecological

- Restore east-west ecological links through the site concentrated along the site's southern foreshore.
- Remediate significant ecological areas concentrating on extant bushland within Lot 8.

Open Space

- Orient open space and built form towards predominant contextual views facing Botany Bay and Sydney CBD skyline.
- Complement existing characters and uses of surrounding parklands to facilitate a smooth transition between the ecological and recreational corridors
- Re-establish relationship to Country and delineate clear relationships to the Aboriginal past by engaging with midden sites.
- Extend the predominant landform through the site, introducing a new topography which appropriately interfaces with the surrounding landscape.

Land Use and Built Elements

- Situate a mixed-use community at the primary gateway to the Master Plan, which will benefit from high levels of activation and visibility.
- An eco-tourism precinct adjacent to the national park maintains strong views of Boat Harbour.
- Activate the foreshore with community infrastructure and opportunity for retail offers.

Connectivity

- Introduce a separate pedestrian connection linking Lot 2 North to Lot 2 South.
- A site-wide arterial through-road which links all four precincts into a single Master Plan community.
- Provide pedestrian links to Cronulla Beach to maximise utilisation of the site's unique coastal location and provide public benefit.

1.4 THE PROPOSAL

The Master Plan comprises four precincts - each embedded in the unique natural qualities of their context, delivering a vibrant and sustainable community of its place.

Overview of the Master Plan

The Master Plan reference scheme has been prepared by GroupGSA to accompany and inform the development of the Planning Proposal, applying best-practice urban design to create a dynamic community unique to the site.

The site is approximately 210ha in total area across four lots amalgamated into a single Master Plan.

The Master Plan comprises four distinct precincts immersed within a rehabilitated landscape, which feature an urban morphology and built use strategy responsive to the unique conditions of the Kurnell Peninsula.

Building heights responds to the existing topography of the site's immediate context, with a maximum building height of twelve storeys extending the visual ridgeline which links Kamay-Botany Bay National Park and Wanda Reserve through the site.

Built form tapers down towards Quibray Bay and Bate Bay, preserving the prominence of the frontal dune and landscape character of Wanda Beach and Boat Harbour.

Rehabilitation of the ecological context of the Kurnell Peninsula has driven the Master Plan landscape strategy, restoring key north-south environmental corridors and embedding built form within a network of varied green spaces in alignment with Sydney Green Grid strategy and importantly, the Kurnell 2020 Corridor Delineation Plan.

Consideration of the distinct conditions of the site have driven the development of the Master Plan, ensuring that built form and open space embodies elements unique to the Kurnell Peninsula, creating a community that is effectively of its place.

The Master Plan includes the following key elements:

- 4,333 dwellings including residential and seniors.
- 587 dwellings including hotel rooms and cabins.
- 142ha of open space including local, district and regional parks representing approximately 67.4% of total site area.
- 9,806m² of retail floorspace.
- Community facilities including a surf life-saving club, four community centres, a cultural trail and associated cultural enterprise and educational opportunities.
- Infrastructure including a public school, SES depot, and water treatment plant.

GROUPGSA

The Master Plan includes a rehabilitated site topography that is designed to integrate into the surrounding landscape, which has guided the development of the built form approach.

The proposed site topography was formulated to support the development of the Master Plan and inform the design process.

The site is defined by the hilly landscapes of the Kurnell Peninsula, with Wanda Reserve to its west and Kamay-Botany Bay National Park to its east which feature topographic heights far taller than the site's existing landform.

While topographic heights of 38m and 44m are found within proximity of the site, it is situated within a dip in the landscape, with opportunity to configure a horizon which links these peaks through the site itself.

The topography has been designed to facilitate a sensitive height strategy that is consistent with the surrounding context. Key strategies to support this intent include;

- Consider transitional plateaus, that can define the outer boundaries of sub precincts.
- The topographic plateaus shape the four precincts, forming valleys that capture runoff in ecological corridors and promote planting throughout the site.
- A green web that will seamlessly extent through open spaces, local parks, and waterways. This will allow for vegetation to be planted throughout the Master Plan between sub-precincts.
- A retained frontal dune defines the southern boundary extent of the site, visually screening low-rise built form which is concentrated along coastlines.
- Utilising a naturally sloping topography will ensure that height is concentrated within dense centres, which will dissipate towards outer interfaces where topography reduces in RL.

The Master Plan built form approach works in conjunction with the proposed rehabilitated site topography intended to create a varied skyline which mirrors the undulating hills of the Kurnell Peninsula, and responds to the topography of nearby peaks.

The Master Plan employs a site-wide building height strategy informed by the Visual Impact Assessment which responds to the contextual landscape of the site, mirroring the heights and landform of the surrounding topography.

This is further articulated at a precinct level, in which building heights are concentrated within various centres, tapering towards the coastline, outer interfaces, and ecological corridors.

A maximum building height of twelve storeys is maintained at a maximum RL of 50.4m within the Town Centre precinct and 49.1m in the Bate Bay Precinct.

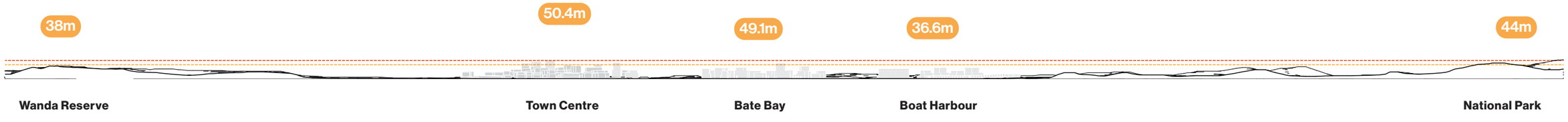
These heights reflect the contextual topography of the site, slightly exceeding the 44m RL found in the adjacent Kamay Botany Bay National Park, with opportunity to further articulate and soften upper storeys.

Mitigation strategies suggested as part of the Visual Impact Assessment have been implemented into the Master Plan design process, taking the sensitivity of view points into consideration.

The resulting Master Plan is then evaluated on the magnitude of change that it proposes and further screening methods to be considered.

LEGEND

- One Storey
- Two Storeys
- Three Storeys
- Four Storeys
- Five Storeys
- Six Storeys
- Eight Storeys
- Ten Storeys
- Twelve Storeys



2.0 METHODOLOGY

02

2.1 METHODOLOGY

Policies and Guidelines

Sources

There is currently no national level guideline document for Landscape or Visual Assessment (LVA) in Australia. The methodology used to inform this Visual Impact Assessment is based on a number of guidance documents offered by other international Landscape Architecture Institutes and Government bodies including:

- Guideline for Landscape Character and Visual Impact Assessment, Environmental Impact Assessment Practice Note EIA-N04, prepared by Transport for NSW - Centre for Urban Design.
- The Guidance for Landscape and Visual Impact Assessment (GLVIA), Third Edition (2013) prepared by the Landscape Institute and Institute of Environmental Management and Assessment; and
- Scenic Management System (1996) as described in the publication Landscape Aesthetics: A Handbook of Scenery Management prepared by the US Forestry Service.
- Landscape Institute and Institute of Environmental Management and Assessment (2013) The Guidelines for Landscape and Visual Impact Assessment, Third Edition.
- United States Department of Agriculture. (1995). Landscape Aesthetics A Handbook for Scenery Management, Agriculture Handbook Number 701. United States Department of Agriculture Forest Service.
- New Zealand Institute of Landscape Architects, NZ (2010) Best Practice Note: Landscape Assessment and Sustainable Management 10.1.

The sensitivity of views and magnitude of change have been determined primarily in reference to *Guideline for Landscape Character and Visual Impact Assessment* prepared by Transport for NSW, as the pre-eminent state government document for visual impact evaluation.

In addition to these, the Sutherland Shire DCP - Chapter 10a, requires development visible from the foreshore, waterways, and public domain to make a positive contribution to the foreshore and natural setting of the area.

Viewpoint Selection

The viewpoint selection for this assessment was informed by desktop research and the advice and direction received from Council, SDRP and the DPE in their feedback on the Scoping Proposal.

Vantage points were initially visited during site inspections alongside Council and the SDRP on 30th November and 7th December 2022.

A subsequent site inspection was undertaken by GroupGSA to verify and photograph the selected viewpoints.

All photographs were taken with a Samsung Galaxy S10 SM-G973F, with lens that has a 35mm equivalent focal length of 26mm. All artist impressions were generated using a 3D model of the proposed site plan informed by the visual sensitivity evaluation, with view locations imported into the model. Exported views have been overlaid on site photos to generate the artist impression of the expected view outcome.

In addition to this, a key plan of the resulting masterplan depicts the extent of built form visible from the rendered view, to understand how co-ordination of heights and siting of built form has achieved mitigation of visual impact to the surrounding landscape character.

Key viewpoints, coordinates, view angles and locations were recorded on site by Group GSA. The corresponding desktop study uses accurate site surveys to model existing surveyed site elements that are subsequently overlayed onto the viewpoint photograph.

Viewpoints represent key public receivers within the surrounding context of the site, and were located to understand the receptivity of the surrounding landscape to visual change and to what extent.

Bonna Point, Wanda Reserve, and Cronulla Beach are key public spaces within the site's locale, which feature both urban and environmental views, but are subject to a varying number of visitors, land uses, and degree of accessibility which inform their sensitivity rating.

Captain Cook Drive is the peninsula's main thoroughfare and gateway to the site, and was selected to understand the quality of the road reserve's visual conditions and to what extent the proposal will be mitigated by existing vegetation screening.

Alternative viewpoints for consideration included Captain Cook Bridge and Brighton-Le-Sands Beach, which were not evaluated in this Visual Impact Assessment due to their distance from the site, their similar aspect to chosen viewpoints but that are at a greater distance from the site, and their predominance of other existing visual features including Port Botany.

Impacts have been assessed from identified view points and consider the scale of change based on these following considerations:

Component	Comment	Visual Impact Rating
Extent of area affected	– Where will the proposed development be seen from and by whom? Proximity to amenity	Negligible Low Moderate-Low Moderate High-Moderate High
Physical visual function	– How does the setting of the project (urban, rural etc.) influence the assessment approach?	
Duration of Effect	– Will there be impacts during the day and night or during different seasons? How long	
Extent of alteration	– Will the amenity of receptors be reduced by shadowing, overlooking, and character contrast?	
Effects and Impacts	– Effects and impacts - what views and viewers will be affected, and to what extent, with and without mitigation measures?	
Proposed mitigation	– to what extent can the visibility and/or appearance be modified by screening or integration?	

Terms used in this report

The following provides a brief description of the terms which have been used within this report as informed by *Guideline for Landscape Character and Visual Impact Assessment* prepared by Transport for NSW

- Landscape character: The aggregate of built, natural and cultural aspects that make up an area and provide its unique sense of place. Landscape in this context is taken to include all aspects of a tract of land - the built, planted and natural topographical and ecological features
- Magnitude: The physical scale of the project, how distant it is and the contrast it presents to the existing condition. Magnitude will also need to consider cumulative impact, which is a consideration of the result of the incremental impact of the proposal when added to other past, current and known likely future activity.
- Sensitivity: The qualities of an area, the number and type of receivers and how sensitive the existing character of the setting is to the proposed nature of change. The design quality of the proposed development does not make the area less sensitive to change but instead affects the magnitude of the impact.
- View: The sight or prospect of some landscape or scene
- Visual catchment: The extent of the area that the proposal will be visible from
- Visual impact: The impacts on the views from residences and other public places
- Visual impact rating: A visual impact rating is determined by cross-referencing magnitude with sensitivity and is measured in the following grades:
  + Negligible
  + Low
  + Moderate-Low
  + Moderate
  + High-Moderate
  + High

Assessment Criteria

Sensitivity

The sensitivity of a landscape character zone or view and its capacity to absorb change. Combined with magnitude, sensitivity provides a measurement of impact.

Sensitivity considers the significance and quality of the existing view, and how this relates to the number and type of receivers likely to be impacted by change.

Viewpoints which experience low levels of usage, short dwellings periods, or are not considered high quality due to presence of existing disturbances are able to absorb a higher degree of change.

The following examples are provided as a guide:

- Residential context - Low capacity to absorb change due to potential impacts on day-to-day lives of local residents. High sensitivity.
- Industrial context - High capacity to absorb change due to dynamic use patterns, limited hours of high use levels and regular change within character area. Typically self-contained built form with limited views in/out. Low sensitivity.
- Commercial context - High to moderate capacity to absorb change depending on land use and built form character. May include office blocks or low-rise business parks. Moderate to low sensitivity depending on type.
- Open space context - Highly varied capacity to absorb change depending on open space typology and character. An expansive open space dominated by views to further green areas will have a low capacity to absorb change. A linear pedestrian link in an urban context may have a high capacity to absorb change if it is in a dynamic location with competing demands on users. High to Low sensitivity depending on character.
- Transport corridor - High to moderate capacity to absorb change depending on surrounding character and context. As a dynamic environment typically experienced from a moving position, transport corridors can tolerate high levels of change and are typically expected to continually change and adapt. Low sensitivity.

Mitigation

In response to the evaluation of key viewpoints which reveal their sensitivity and characteristics, mitigation opportunities are highlighted to be integrated into the Master Plan design process.

The most effective mitigation response is to create a whole of site built form response which will inherently blend into its landscape and respond to contextual conditions.

Further mitigation may be required to soften, obscure, and screen proposed built form, to be integrated into the Master Plan upon the completion of the concept phase.

Suggestions have been made for landscape mitigation measures, orientation and scale of built form, positioning of buildings, and consideration of materiality which could potentially reduce the expected visual impact of the proposal.

Artist impressions have been prepared for four key views to assess the expected visual impact of the proposal if the suggested mitigation measures were followed.

Magnitude

The scale, form and character of a development proposal. In the case of visual assessment also how far the proposal is from the viewer. Combined with sensitivity, magnitude provides a measurement of impact.

Magnitude is assessed by determining the overall significance of the each view. It can be summarised simply as the level of change proposed.

The following factors are key measurements to be taken into consideration:

- Existing screening
- Apparent size (often determined by distance between the viewer and the proposal)
- Visual context - Presence (or absence) of any items which provide context and scale to the proposal.

Sensitivity \ Magnitude	High	Moderate	Low	Negligible
High	High	High-Moderate	Moderate	Negligible
Moderate	High-Moderate	Moderate	Moderate-Low	Negligible
Low	Moderate	Moderate-Low	Low	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible