

STADIUM DESIGN GUIDE – TABLE OF CONTENTS

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1.0 Introduction

This design guide provides design principles to assist in achieving an appropriately high quality stadium development that makes a positive contribution to the public environment.

A stadium is strongly differentiated in shape and form from all other likely types of building in the central city. It can, by its formal quality and the value of the public facility that it provides, set the context for future development in this part of the city. It should also allow for connection to and be part of a coherent and comprehensive space structure within the surrounding area.

The stadium site is ideally suited for its intended use, being large, flat and also close enough to the city to be identified with its centre and to facilitate excellent access to all modes of public transport. Furthermore this site at the harbour's edge, defining a major arterial route into the city, provides an ideal setting for a building that by virtue of its scale and function alone will become a major landmark and make a positive contribution to the urban form and image of the city.

2.0 Intention of the Design Guide

The general intention of this design guide is to facilitate the development of a major regional stadium in the central area of the city with consideration of the quality of the public environment both in the local and city-wide context.

It aims to identify the significant ways in which new development can contribute positively to the public environment and is based on the premise that the unique form and scale of a stadium will enhance rather than detract from the urban form of the city.

Such a large building and its attendant structures should not adversely affect either the inhabitants of the central city or the wider community. The design guide provides a means of avoiding, mitigating or remedying adverse effects that may stem from inappropriate design.

While the applicant is required to demonstrate through the design of new development, a commitment to enhancing the public environment in the local and city wide context, beyond this intention and in general accordance with the design guidelines, a degree of flexibility is given to designers in the preparation of development proposals.

No precise formula exists for ensuring the skilful and innovative design of buildings. However, the provisions of this design guide require that some clear urban design principles are observed. Applicants will be required to demonstrate that the provisions of this design guide have been acknowledged and interpreted and the objectives satisfied.

3.0 General Design Guidelines

Analysis

A general public quality underlying the design of buildings is that of legibility. This refers to the degree to which the appearance of a building assists an observer to develop an understanding of the nature and location of various activities located within it and of the general architectural intention or concept that determines the overall design of the building.

In addition it must be recognised that while an individual building may have its own distinct identity within the city, it is also part of the collective environment that has built up over time and contains various identifiable patterns. The qualities of continuity and recognition of the definable characteristics of physical context should be acknowledged in the design of any individual building within the city. Knowledge and understanding of context will lead to informed design decisions, whether those decisions are to complement or contrast with that context.

Finally the visual qualities of a building should be considered in whole as well as in part. The design of new building should not simply result from a collage of the various specific design guidelines that make up this guide. Each building should have its own inherent architectural integrity and a considered relationship to its place within the local street environment and the city in general.

Objectives

- O1** To achieve a stadium and associated buildings that have a visual presence, architectural expression and quality that is consistent with their public significance.
- O2** To make a considered, positive and enriching contribution to the visual and experiential quality of the central city.

Guidelines

The external design of the stadium should take account of the following general criteria:

- G1** Special purpose sports stadia, events or exhibition buildings and their associated and ancillary structures should be based on a coherent architectural concept. They should have a dynamic quality that suitably expresses their significance as important public gathering places and local or citywide landmarks, and their common role as the public face of Wellington to the wider world through mass media transmission of the events within them.
- G2** New development should not be seen as occurring in isolation. Its design should recognise the place that it occupies within both the local streetscape and the overall cityscape. This is not a requirement to mirror established patterns or design types but rather the impetus to recognise the relationship that development will have with its physical context and its role within the city. Factors to consider might include but are not limited to:

- the structure and spatial definition of the present and potential future street and public space system
- the role of a stadium in visually marking an important corner on a major arterial route into and from the central city
- the unique nature of the stadium building type
- the city wide public significance of a stadium
- the physical character of existing buildings and structures in the adjacent area.

G3 While the architectural composition of any stadium building will have integrity in its own right, it will also integrate the other design criteria of this guide.

G4 Significant internal spaces within buildings should be expressed in the external appearance of the facade except where it can be clearly demonstrated that this is inconsistent with an otherwise acceptable overall aesthetic concept.

4.0 Guidelines for Design Contexts

Analysis

The criteria that follow address the design of all development on the stadium site, its visual impact and effect at various heights on the character and quality of existing and new public spaces formed, and on the city as a whole.

Design Contexts

The requirements of the street context as set out in this guide will apply up to a height of 27m.

There is a special visual relationship between the space of a street and the buildings that edge it. The building frontages affect the usability and quality of public space, and should be designed to support the public environment. The design of street facades will be required to recognise the speed of travel and close proximity of the street level observer. There is also a special collective relationship between buildings at street level, where they are seen in close physical association with one another.

A series of further design criteria described in the neighbourhood and skyline context, will apply to all parts of the stadium that are prominent in views from the wider neighbourhood and on the skyline of the city.

This second design context acknowledges a visual relationship beyond the immediate range of the street, and considers views from the interiors of nearby buildings. It also acknowledges views from other parts of the central area, the surrounding hillside suburbs and the main rail, road and sea approaches to the city.

The stadium site is in a part of the central city characterised by generally low and medium-rise buildings. The stadium building type however, requires ancillary elements such as lighting towers which may rise significantly above the 27m height limit of the adjoining areas. This is visually appropriate given the public status and significance of such a building, its location in the city foreground and at the harbours edge, its necessary role in defining an important corner, and its potential contribution as a landmark visual event on an important entrance route to the city.

Potential stadium roof structural elements, a roof perhaps increasing in height towards the stadium centre and covering all or part of the stadium, and potential lighting and video towers may all be expressed on the skyline. A stadium development will be visually prominent, and the amphitheatre will have a presence influencing the overall form of the city and its collective image.

Guidelines for Street Context

Objectives

- 01** To visually relate to the context of existing street frontages.
- 02** To respond to the perceptual needs of people walking at ground level on immediately adjacent streets.

- 03** To promote visual interest, avoiding monotonous, bland and excessively repetitive building frontages at the street edge.
- 04** To positively define and support pedestrian use of existing or new public open spaces including streets.
- 05** To avoid the visual domination of street edges by large areas of car parking.

Guidelines

The street context applies to all stadium buildings from ground to a height of 27m above ground level.

- G1** Facades built to the street edge should complement the existing appearance of a collective street frontage where this frontage has:
 - well established patterns of related or consistent building proportions
 - a collection of typical or repeated architectural details or window patterns
 - a consistent massing of frontage heights and widths.
- G2** A stadium, being a unique and distinctive building type will be necessarily differentiated from its surroundings. Its frontage design should have a considered relationship to the major compositional elements and imagery of its immediate street context.

This relationship may be complement, or alternatively contrast where development of landmark potential is important.
- G3** Where there is little or no established building pattern or scale in an existing street, buildings should introduce sound design precedents with careful consideration of the observable scale and dimensions of context, creating visual interest at street level and positively defining and shaping streets and public spaces.
- G4** Buildings should be articulated to give viewers at street level visual clues as to their scale, relative size and dimensions.
- G5** The large, simple form buildings likely as part of stadium development require consideration of detail, texture, contrast and the effects of light and shadow on their surfaces to promote visual interest and diversity.
 - Buildings should use projecting or recessed surfaces or elements to set up clear three-dimensional modelling that will give shape and depth to the building facade.
 - Buildings may use surface finishes, colours or patterns to achieve contrast.
 - Discrete architectural or structural elements may be articulated to set up a contrast between foreground and background elements of the design.
 - Articulation might include the ordering of various architectural elements of a building frontage into hierarchies of relative importance in the facade and the organisation of frontage elements into overall vertical and/or horizontal compositions.

- G6** Signage including advertising should be used in a way that develops visual interest on the stadium facades. It may be extensive, large in scale and capable of being read from other parts of the city. Signage may be included on the horizontal plane of the roof. It should always be designed as an integral part of the building and not applied in an adhoc manner.
- G7** In recognition of its size and unique plan form, the stadium will not be required to be consistently built to the street edge. Its edges must nevertheless positively define public open space, particularly at the bend in the Quays and along the Aotea and Waterloo Quay frontages.
- G8** Those parts of buildings fronting public spaces such as pedestrian accessways and streets should:
- present a positive front, including an entrance or entrances to the space
 - define a clear edge to the space
 - provide, where possible, ground floor activities that support the public use of the space
 - introduce a layered transition between the private interiors of the building and the public space it edges.
- G9** Large areas of open parking should be located away from the street edge wherever this is possible. If this is not reasonably practicable then parking at street edges should be suitably screened with trees or other hard or soft landscape elements of a scale and visual quality enhance the appearance of the street edges as seen from the important streets leading into the city. Such landscape elements should complement and enhance important views of the stadium from adjoining streets and public spaces rather than obscure these views.

Guidelines for Neighbourhood and Skyline Context

The neighbourhood and skyline context applies to all parts of the stadium development that have a visual presence in the wider neighbourhood and on the skyline.

Objectives

- O1** To develop the landmark quality of the stadium as an important public building.
- O2** To promote the efficient use and development of natural and physical resources in Residential Areas.
- O3** To promote visual interest with recognition of viewing distance and duration.

Guidelines

- G1** A stadium should introduce sound design precedents in this area where the established pattern is weak and there are few reference points. To achieve this the building should:
- express visual clues as to its special nature and function as seen from vantage points around the central city and from approaches to the city
 - provide a strong, distinctive and appropriately sculptural skyline form with the use of devices such as variation in the composition or massing of major elements, or provision of an expressive roof form or structure and the considered design and visual integration of structural and other secondary visual elements that rise above its main roof.
- G2** The stadium should enhance the quality of experience of entrance to the city by being located at and emphasising the bend at the junction of Aotea and Waterloo Quays. It should establish a strong and dynamic visual presence and by contrasting height, form and siting, be visible from along Aotea and Waterloo Quays.
- G3** The lighting design of the stadium should be designed to enhance its landmark status at night.
- G4** Within the skyline context, it becomes important that the building's silhouette reads strongly against a background of sky or the rest of the city. Attention should be paid to the design strategies that will achieve a distinctive and interesting profile in order to make a positive contribution to the skyline of the city. Views from the air and on and across the harbour should be considered.
- G5** The building should promote visual interest and diversity when viewed from a distance through the use of techniques such as large scale contrast between materials and elements, pattern and elevational modelling. These measures should recognise that the greater viewing distance in the neighbourhood and skyline context demands large scale articulation. They also offer the potential for greater abstraction or design simplicity of detail but only where this detail is not likely to be viewed at close range.

5.0 Guidelines for Building Tops

Analysis

The top of a stadium would be highly visible because of its elevation and large plan dimensions. It will make an appreciable contribution to the overall urban form of the city.

The roofs of all large floor plate buildings create significant visual impacts regardless of their height, especially when these are viewed from elevated sites around the city. In this respect, low rise buildings with extensive plan dimensions - such as a stadium - can produce more significant consequences than tall buildings which have small footprints.

The substantial horizontal bulk that is part of the main body of a typical stadium is likely to rise above the tops of adjacent buildings. Structural elements and services such as lighting and video replay screens may potentially extend significantly further. The roof surfaces and planes, parapet edge and associated structures will substantially influence the overall appearance of the stadium. Lighting will determine the image of the building at night and potentially enhance its status as a regional landmark.

Not only will the top of the stadium be large and visible from other parts of the city including from important approaches to the city by land, sea and air, it will also be a significant visual element in the foreground to the harbour when viewed from hillside suburbs and multi-storey development to the west and north.

Objectives

- O1** To make a positive contribution to the skyline and roofscape of the city.
- O2** To recognise and enhance the landmark status of a stadium roof or roof edge and associated elements.

Guidelines

The composition and appearance of building tops will vary but the following design criteria will consistently apply:

- G1** The architectural treatment of the stadium roof and should be a carefully considered and integral part of the overall form and composition.
- G2** Although the roof surfaces and edge profiles of buildings other than the stadium amphitheatre will have lesser visual impact on the overall form and distant views of the central city, their design and composition is still important and needs to be considered as part of their overall design. Emphasis should be placed on their design and appearance as viewed from the entrance routes to the city.
- G3** Building tops should be articulated with modelling, contrasting surface treatments or other architectural devices to as appropriate, contribute to an intricate or visually dynamic roofscape, and to avoid areas that are over-large and clearly and inappropriately “out of scale”.
- G4** Stadium development lighting should be designed to make a positive contribution to the night time appearance or “nightscape” of the city.

6.0 Guidelines for Building Bulk

Analysis

The stadium site is in an area characterised by large warehouse type buildings. The horizontal scale of many of these buildings is not far removed from that of a regional stadium. A stadium is likely to be higher than most buildings in its immediate context, but not necessarily higher than many of the movable structures associated with the adjacent wharf.

In any event, the scale and in particular, the special plan form will differentiate a stadium from its neighbours. This differentiation will be accentuated by the stadium being most probably a discrete object set in a field of open space.

A stadium possesses a special function and desirable landmark status within the city. Despite this, a stadium building is liable to be of such a size that modification of the effect of bulk may be required to give an appropriate sense of scale and visual complexity. This is particularly important in the local street context. The distant view should also be considered and in this case, any effects of excessive bulk ameliorated with manipulation of large scale form elements.

The stadium will be monumental in scale and will, and should, be visible from afar. In one sense it is appropriate that a monumental building expresses its true size. At the level of the street, some kind of dimensional relationship with more ordinary structures nearby (and even with human stature) is also called for. Measures to attenuate the visual effect of bulk at various levels of detail need only be applied if the stadium's sheer unrelieved visual mass is likely to unduly dominate adjacent public spaces or appear excessively intrusive within the wider context of the city.

Buildings other than the stadium amphitheatre will, by virtue of their lesser size, be inherently less visually bulky. However their design must also be considered to avoid any adverse effects on surrounding areas of unrelieved dominating visual bulk.

Objective

- O1** To prevent excessive visual dominance of the local street context through unrelieved building bulk while recognising the unique landmark status of a regional sports stadium.

Guidelines

Where a building or part of a building is out of scale, and is liable to overwhelm or excessively visually dominate the adjoining public environment, some or all of the following design techniques may be used to modify the visual impacts of bulk.

- G1** Use surface finishes, colours or patterns to set up a contrast between foreground and background elements of the building facade.
- G2** Model the facade to introduce visual relief, with the scale of the modelled elements relating to the distances from which the relevant parts of the building are customarily viewed.

- G3** Where the overall bulk of a proposed development would undermine an established and valued contextual scale, relate scale or size defining elements to the relevant dimensions in the existing context.

- G4** Introduce setbacks, steps or other variations in the overall form of the building with the expression of structure, floor levels, circulation, significant spaces or blocks of accommodation.

7.0 Guidelines for Access and Connection

Analysis

A sports stadium generates an occasional very high demand for pedestrian access both from the city and various public transport connections. The existing footpath link along Waterloo Quay is neither sufficiently wide nor of a quality which invites pedestrian use.

This route in particular, notwithstanding the potential development of pedestrian access through the precinct adjoining the stadium site, will be visually, even if not actually, the main link with the central city.

In addition to provision of adequate capacity, development of pedestrian routes requires consideration of the design of the adjacent edges of buildings and the spaces that front them to ensure that they are both amenable to pedestrian use and visually prominent. In particular, Waterloo Quay demands visual recognition of its status as a major entrance route into the city.

While improved public access is necessary along the street edge, the scale of the stadium activity and potential numbers of users will necessitate other access routes. Potential routes to parking in the port area, high level connection direct to the Railway Station and potential access over the railway lines to Thorndon Quay will ameliorate crowding at peak loading times. The maximisation of connection to other areas offers the opportunity to improve accessibility to previously remote parts of the central city and should be encouraged for this reason also.

The nature of future development adjacent to the stadium site is uncertain. It will however be of benefit to the stadium, to adjoining areas, and to the city as a whole, if development of the stadium anticipates the development of an adjoining public space structure. Stadium development should not preclude future pedestrian and vehicle links to this in appropriate locations.

The effectiveness of public access routes is dependent not only on their capacity and the connections that they offer, but also on the quality of the spaces that they create.

Design should recognise not only issues such as safety (from crime as well as physical accident) and shelter but also the speed at which pedestrians experience such an environment. Environments experienced at relatively low speeds demand visual intricacy or small scale diversity and activity in the buildings at street edges if monotony is to be avoided. In contrast, motorists travelling past at much higher speeds perceive much less of the detail and will respond to the larger scale patterns apparent in the streetscape.

Objectives

- 01** To provide good pedestrian access between the stadium and other parts of the central city including sources of public transport.
- 02** To create public space and accessways that actively support rather than simply allow access for people on foot.
- 03** To provide improved public pedestrian access parallel to or along the edge of Waterloo Quay.

- 04** To allow for connection to and integration into any future public space structures in adjacent areas.

Guidelines

- G1** Develop a number of public routes, designed as part of a wider public space structure to deal effectively with expected peak pedestrian loads.
- G2** Design access routes to the stadium to be integrated into the city's public space structure and freely and obviously available for continuous public use.
- G3** Spatially define and accentuate the edge of Waterloo Quay in order to strengthen the connection between the central city and the stadium. Design measures may include the considered location of building frontages or the use of rows of large scale planting to visually accentuate this edge and the physical and visual connection.
- G4** Provide a wide public footpath along the edge of Waterloo Quay and design with consideration of improving shelter, reducing dominance of this edge by traffic and improving the visual quality and experience of using this route on foot.
- G5** Provide pedestrian amenities, shelter and street furniture along the edges of streets and accessways to facilitate pleasant and convenient use by pedestrians.
- G6** Wherever possible ensure building fronts with entrances, windows and activity define the edges of accessways and public spaces. Large blank walls and uninhabited spaces that do not contribute vitality or interest to the edges of spaces should be avoided.
- G7** Consider personal safety issues when designing public carparking buildings, and elevated pedestrian accessways. Refer to the Guidelines for Design Against Crime.
- G8** Allow for potential connection to a public space structure within the adjoining Northern Gateway Precinct. In doing so, design to allow both vehicle and pedestrian connection wherever this is appropriate.