Kai Tak Development
Urban Design Guidelines and Manual
for the GIC Sites

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1.0 INTRODUCTION

1.1 Background and Objectives

Background

The latest approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/6 covers a land area of approximately 323 hectares. The plan incorporated a number of urban design parameters which reflect the planning vision and the planning theme adopted for the Kai Tak Development (KTD). The preceding, in combination with current planning intentions, intend to facilitate the transformation of the KTD into the "Heritage, Green, Sports and Tourism Hub of Hong Kong".

Objectives

The overall objective of the Kai Tak Development Urban Design Guidelines and Manuals (UDGMs) is to set out a design framework and approach that will circumscribe the broad form, arrangement, massing and appearance of development within the KTD. This will be represented in five separate manuals that separately outline recommended urban design parameters for the following categories of development:

- **Grid Neighbourhood (GN)**
- **Domestic Sites (other than GN and RP)**
- **Private Non-Domestic Sites (other than GN and RP)**
- **Government, Institution or Community (G/IC) Sites**
- **The Runway Precinct (RP)**

Figure 1.1 Kai Tak Development Landscape Master Plan

1.0 INTRODUCTION

1.2 Overall Planning Vision

"A distinguished, vibrant, attractive and people-oriented Kai Tak by Victoria Harbour."

Throughout the years, Kai Tak has undergone many transformations. Its original and most memorable function was as one of the world's busiest international airports. Following the move of the airport to Chek Lap Kok, Kai Tak has since been subject to several detailed planning exercises that have sought to achieve its redevelopment into a centre point for living, work, leisure and transport.

1.3 Overall Urban Design Framework for Kai Tak

The KTD is formed of six identified sub-districts (or Precincts) which are planned to be interlinked by a distinctive open space and connectivity system. The principal Precincts consists of Grid Neighbourhood, Kai Tak Sports Park, Metro Park, Runway Precinct, Tourism and Leisure Hub and South Apron Corner. The following key urban design and landscape principles have been identified and adopted under the proposed Kai Tak Urban Design Framework:

- **Connecting Neighbourhoods**
- **Creating Nodes**
- **Activating the Harbour-front**
- **Creating a Pedestrian Friendly Environment**
- **Creating a Dynamic Skyline**
- **Celebrating Views**
- **Celebrating Gateways**
- **Creating "A Green Web for Sustainable Development"**

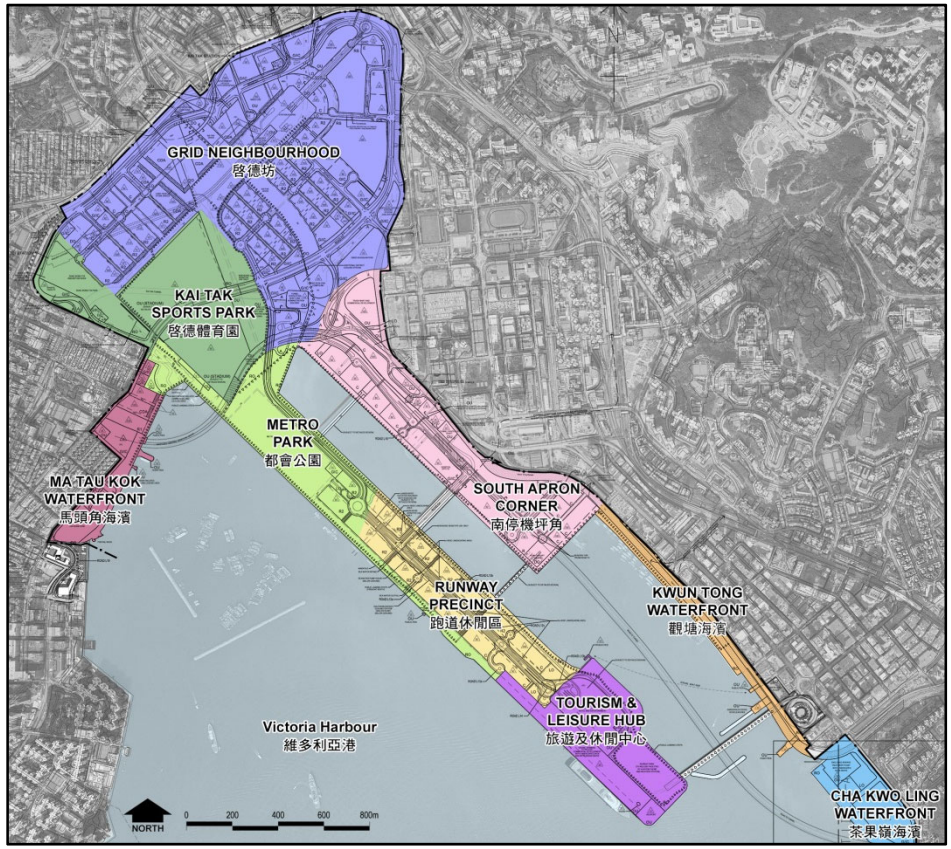


Figure 1.2 Kai Tak Development Sub-Areas Plan

1.0 INTRODUCTION

1.4 Purpose of the Urban Design Guidelines and Manuals for the Kai Tak Development

Who are these documents for and how are they to be used

The urban design requirements and development control parameters outlined in the individual UDGM are intended to assist architects and relevant professionals and practitioners to understand and realise the design and development vision for the KTD. The design parameters circumscribe a set of control parameters and design approaches that specify a proposed range and quality of treatments that should be applied to realise the design vision and quality to be achieved within the KTD.

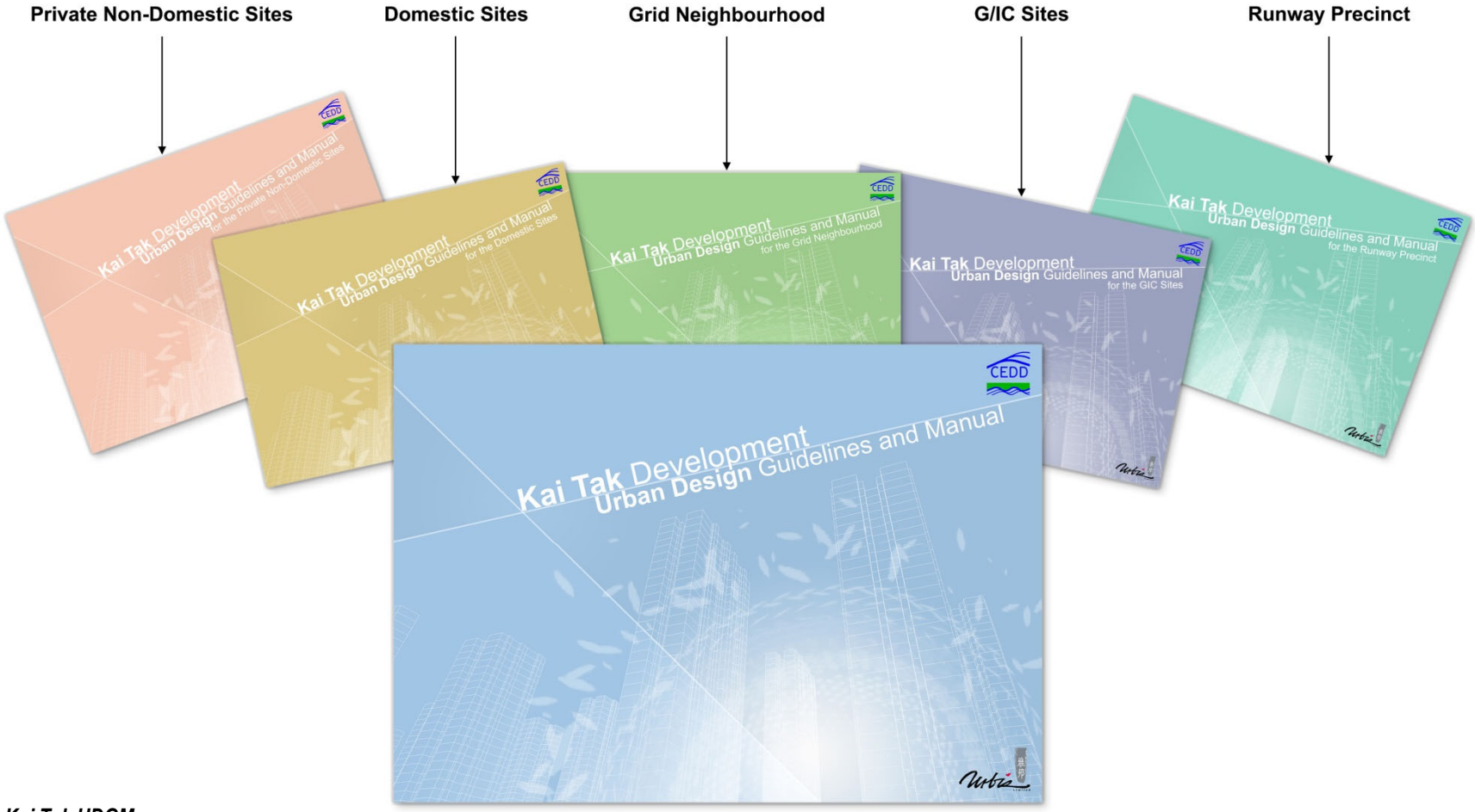


Figure 1.3 Kai Tak UDGMs

1.0 INTRODUCTION

1.5 Principal Functions of the Urban Design Guidelines and Manuals

The principal function of each of the UDGM is to achieve a coherent overall design of high quality. Worked examples are provided to illustrate the application of guidelines with the aim of ensuring consistency in the visual expression of all types of urban development within the KTD. The specific purposes of each manual are as follows:

1. Grid Neighbourhood Manual: outlines a range of proposed urban design control parameters that are specifically applicable to the developments at the Grid Neighbourhood, including provision relating to proposed residential low blocks, high blocks, and a retail belt fronting the Station Square.

2. Domestic Sites Manual: outlines a range of proposed lease conditions and urban design control parameters that are specifically applicable to the domestic developments other than the Grid Neighbourhood and the Runway Precinct, including provisions relating to all residential developments and the retail belt fronting the Station Square and the Kai Tak Sports Park.

3. Private Non-Domestic Sites Manual: outlines a range of proposed urban design control parameters that are specifically applicable to the private non-domestic developments, including provisions relating to all private non-domestic developments fronting Prince Edward Road East (PERE).

4. Government, Institution or Community (G/IC) Sites Manual: outlines a range of proposed urban design control parameters relating to all Government developments and the relationship and interface with the surrounding developments.

5. Runway Precinct Sites Manual: outlines a range of proposed urban design parameters relating to all residential and commercial developments along the Runway and the relationship and interface with the prominent waterfront promenade.

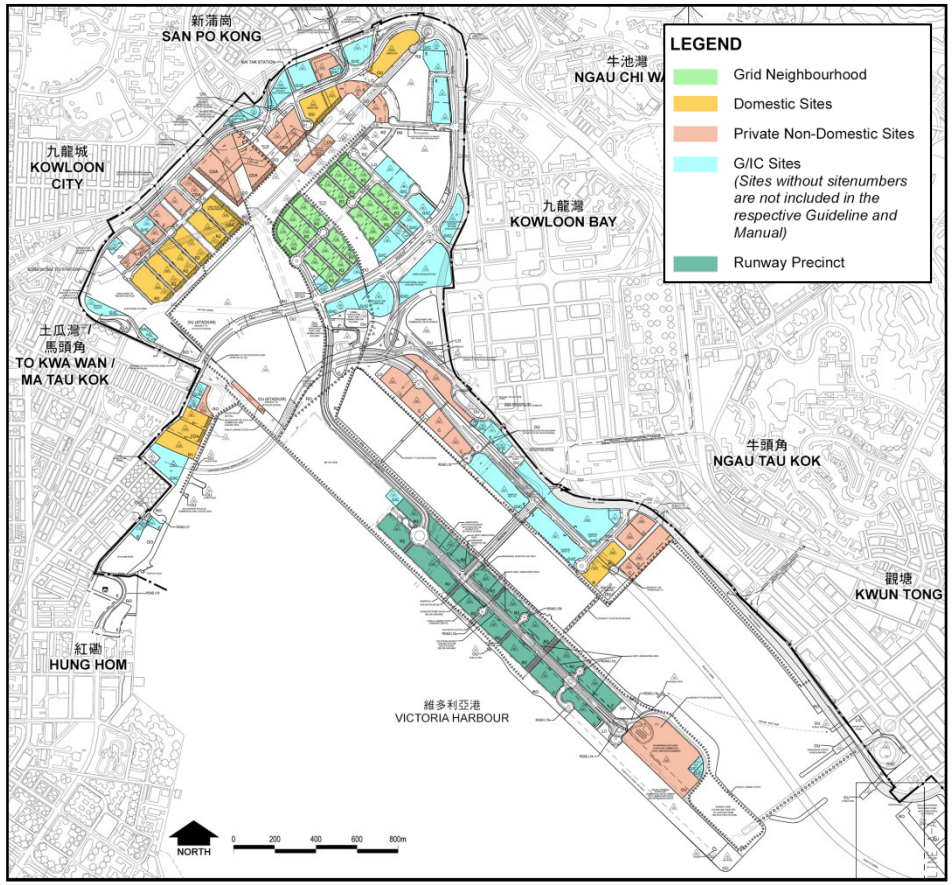


Figure 1.4 Development sites addressed by the UDGMs

1.0 INTRODUCTION

The individual UDGM prepared for the Grid Neighbourhood, Domestic Sites, Private Non-Domestic Sites, G/IC Sites and Runway Precinct outline recommended urban design and control parameters. These have had regard to various design studies that have been undertaken for the KTD and have made specific reference to those undertaken for each category of development or location.

The following chapters specifically address the design parameters that are specifically applicable to G/IC Sites in the KTD.

Figure 1.5 Site Reference Plan indicating development sites addressed by each UDGM

2.0

PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

2.1 Introduction

The latest approved Kai Tak OZP No. S/K22/6 already incorporates a number of design parameters that reflect an agreed planning vision and planning theme that are intended to facilitate the development of Kai Tak into an area that is more pleasant and environmentally sustainable than many existing districts in Hong Kong. This being said the Government does, however, consider that there is room for the introduction of more strategic and comprehensive mechanisms that are capable of guiding the realisation of urban design and landscape initiatives within the Kai Tak Development Area (KTDA) to achieve a high quality coherent overall design.

The proposed control parameters for the G/IC sites in Kai Tak extend to include provisions relating all Government developments and the relationship and interface with the surrounding developments. Its aim is to provide engineering control to guide the design of streetscape and associated streetscape furniture in the KTDA and to create a visual identity that encapsulates the planning vision of realising Kai Tak as a “distinguished, vibrant, attractive and people-oriented community by Victoria Harbour”. This manual should be read in conjunction with the **Design Guidelines For Kai Tak Promenade**. (Published Aug 2018 on KTD Office Website)

The following section proposes Engineering Conditions that are suitable for G/IC development and to achieve the planning vision for the KTDA which envisages the realisation of a “distinguished, vibrant, attractive and people-orientated community by Victoria Harbour” (**Appendix A**). The achievement of this vision necessitates that the development parameters recommended under the studies cited above are translated and consolidated into a set of “technical design control parameters and illustrative examples” for government, institute and community facilities. The principal purpose of the parameters is to achieve a coherent urban development of good quality.

The parameters are intended to be comprehensive and accordingly address the majority of elements found within the pedestrian zone. These include façade treatments, façade reflectivity, visual permeability, and colonnade and canopy design, control of projections and advertising signs and chromatic treatments, etc. The intention is to have a consistent approach to design and the employment of an appropriate suite of materials that are capable of realising the planning vision for the KTDA.

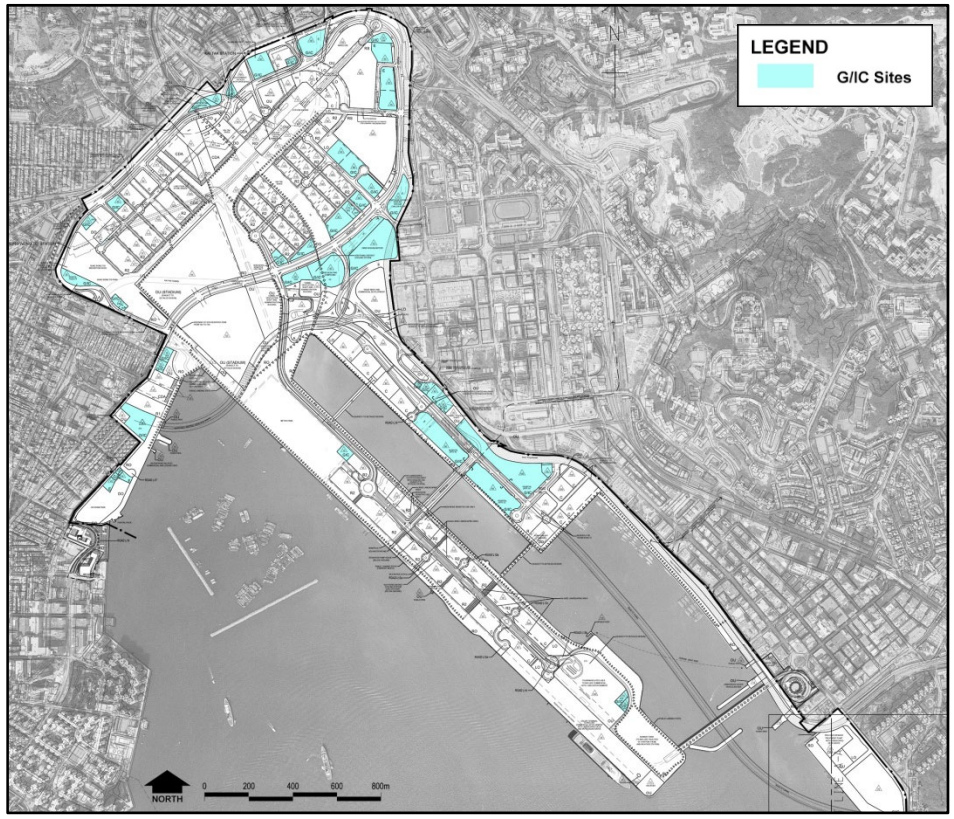


Figure 2.1 Site Reference Plan indicating the G/IC sites within the KTDA

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

2.2 Purpose of Engineering Conditions

This guideline outlined the recommendations in respect of urban design control parameters that have arisen from various KTDA studies. These parameters were then assessed against prevailing statutory requirements and guidelines including the Buildings Ordinance, the OZP, Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP), particularly PNAP APP-152, and the Hong Kong Planning Standards and Guidelines (HKPSG) to identify any potential divergence or variance. The proposed control parameters aim to control fence wall, NBAs and level of greening. The majority of parameters are already regulated under the OZP (refer to **Appendix A**).

The planning intention of the "G" zone is to reserve sites for provision of Government facilities in Kai Tak. The "IC" zone included the institution and community facilities not operated by the Government. Some of these G/IC facilities are also intended to serve the surrounding districts. All "E" zones are reserved for school sites. Generally, no maximum site coverage and plot ratio (PR) are prescribed for G/IC sites unless otherwise specified.

2.3 Proposed Engineering Conditions for the Government, Institution or Community Sites

Fence Wall

To enhance the penetration and circulation of the prevailing wind within individual development sites the prevailing OZP advocates that permeable fence walls should be promoted. Where a fence wall is used within a G/IC site, it is advocated that the following condition should be adopted and applied:

"All boundary walls and fences fronting pedestrian streets shall be appropriately designed to achieve visual and physical porosity of not less than 50% of the surface area across their entire length per linear metre from 1 metre from the general formation level of adjacent pedestrian street / footpaths or land".

Non-Building Areas (NBAs)

No specific mention has been made in the Explanatory Statement (ES) of the OZP in relation to development conditions that should be applied to NBAs in G/IC sites in Kai Tak. This is considered to be an omission and as such it is proposed that the following be applied to the NBAs:

- Except with the prior written consent of the Director of Lands, no building or structure shall be erected or constructed within the NBAs except the following:
  - Boundary walls or fences or both, provided that if the boundary walls or fences or both shall front onto pedestrian street, road or path, such boundary walls or fences or both shall be erected or constructed in all respects to the satisfaction of the Director of Lands to achieve visual and physical porosity of not less than 50% along the horizontal plane per linear metre from one metre above the general formation level of the adjacent pedestrian street, road or path; and landscaping features and associated facilities.

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Greening

Greening requirements are stipulated in the OZP, PNAP APP-152, and HKPSG. It was established however, that a precise greening requirement needs to be stipulated under engineering conditions for Sites 1L4 and 1J3 within which a 5 metres building setback from the Kai Tak River is imposed. In this regard the following control parameter is proposed:

- Greening shall be provided within the 5 metres building setback within each site located along the edges of the proposed Kai Tak River for Sites 1L4 and 1J3.

2.4 Current Outline Zoning Plan Provisions Extending to the Government, Institution or Community Sites

This section summarises the requirements and conditions stipulated under the current OZP that are applicable to the G/IC zones in Kai Tak. (Refer to **Appendix C**)

Outline Zoning Plan Provisions Affecting the Government, Institution or Community Sites in Kai Tak

Building height (BH) restrictions are imposed on a number of sites. For the cluster of G/IC sites with in the North Apron Precinct (i.e. Sites 1D1, 1D3 to 1D6 and 1C1), the following BH is permitted:

Site Reference	Proposed Land Use	Maximum Permitted Height
1C1	Government Office - Police Headquarters	90mPD
1D1	Electricity Substation	15mPD
1D3	Government Office - Inland Revenue Department	80mPD (BH restrictions of 1D3 relaxed from 60mPD to 80mPD by the Town Planning Board on 17.4.2015 vide Application No. A/K22/16.)
1D4	Government Office - Trade and Industry Tower	15mPD-100mPD
1D5	Sewage Pumping Station	15mPD
1D6	Drainage Services Department Desilting Compound	15mPD

Two “G/IC” sites between the PERE and Concorde Road are designated for Government offices development to create a cluster for Government services. One has been developed as the Trade and Industry Tower at Site 1D4, which is connected with the developments in San Po Kong by a curvilinear landscaped elevated walkway. Another site at 1D3 has been earmarked for the reprovisioning of the Inland Revenue Department originally accommodated in Wan Chai. The Government offices cluster will enable the Government services to be more accessible to both the existing and future population.

A “G/IC” site at Site 1N1 abutting Shing Kai Road is designated for the existing Electrical and Mechanical Services Department (EMSD) Headquarters. Three sites at Sites 3C1(A), 3C1(B) and 3C1(C) to the south of Kwun Tong Bypass in the South Apron Corner are reserved for hospital developments (i.e. Hong Kong Children's Hospital and New Acute Hospital) to serve the East Kowloon area and surrounding districts.

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Site Reference	Proposed Land Use	Maximum Permitted Height
2A9	Sewage Pumping Station	15mPD
2A5(A)	Sub-divisional Fire Station, Ambulance Depot with Departmental Quarters	45mPD
2C2	Electricity Substation	15mPD
2C3	Refuse Collection Point	15mPD

To maximise the greening opportunities within sites designated for Government building projects, Sites 2A9, 2C2 and 2C3 it is recommended that vertical greening facing the open space is provided. This should apply a minimum greenery coverage of 20% calculated against the net site area. Site 2A5(A) with 3 metres NBA setback facing the pedestrian street is recommended to be consistently treated with appropriate landscape features as are Sites 2A5(B) and 2A4 with a view to achieve a cohesive design throughout the North Apron.

Innovative and sustainable greening design is recommended to be applied within Sites 2C2 and 2C3.

Greenery coverage should preferably to be provided at grade. Other forms of greenery such as roof-top greening are also recommended as far as practical within all the G/IC sites.

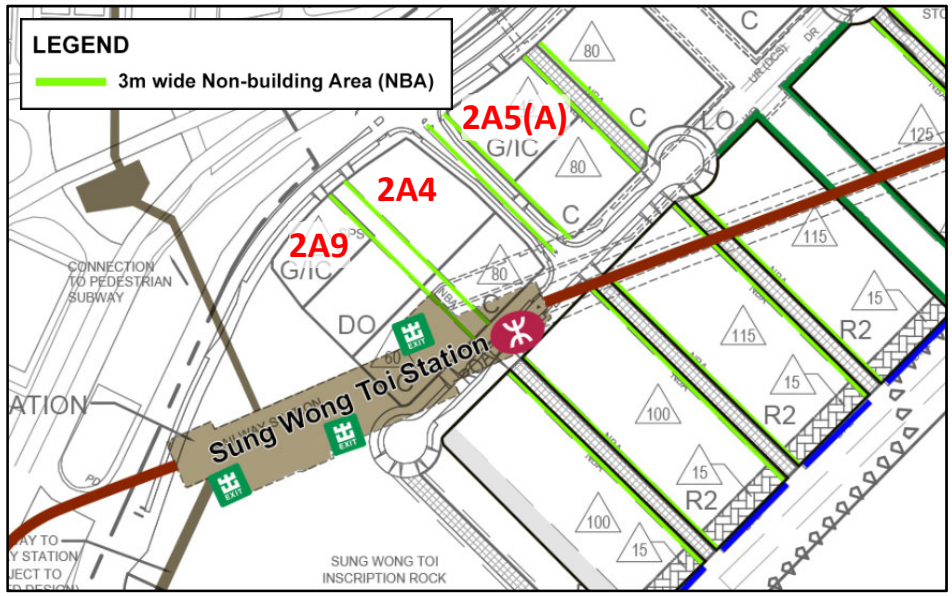


Figure 2.2 Site 2A5(A) with 3 metres NBA setback facing the pedestrian street is recommended to enable the application of consistent and appropriate landscape features within the in North Apron Precinct.

Figure 2.3 Example of innovative design of Electricity Substation at Chun Yat Street, Tseung Kwan O

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Site Reference	Proposed Land Use	Maximum Permitted Height
1A2	Secondary School	45mPD
1A3	Primary School	45mPD
1A4	Primary School	45mPD
1B2	Primary School	45mPD
1B3	Secondary School	45mPD
1B4	Primary School	45mPD
5C3	Primary School	45mPD
5C4	Primary School	45mPD
5C5*	Special School	8 Storeys
5C6*	Secondary School	8 Storeys

** Sites 5C5 and 5C6 falls under Hung Hom OZP and subject to BH restrictions of 8 storeys*

Throughout Kai Tak, a total of six primary and two secondary school sites have been planned in the KTD to meet the needs of the existing and planned population. Two existing primary schools are located near Hoi Sham Park. Two other primary schools are already in operation since September 2016 and there is another proposed secondary school near Kai Ching Estate. Two primary and one secondary schools are planned in the vicinity of Tak Long Estate in the Grid Neighbourhood. In addition, there are two proposed special schools at Sung On Street and one planned secondary school site near Chi Kiang Street falling outside the KTD in the adjacent Hung Hom district to serve the Kai Tak area.

A greening ratio of 30% calculated against the total site area will be applied to all "E" zones within the KTD. This will include a minimum of 20% at grade greening of the total site area and 20% roof level greening of the total roof area.

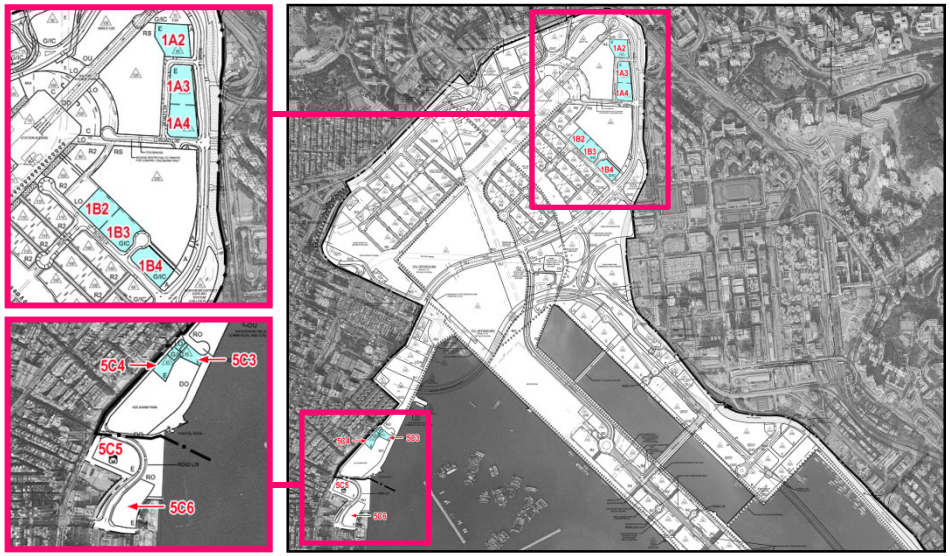


Figure 2.4 School sites in the KTD

Figure 2.5

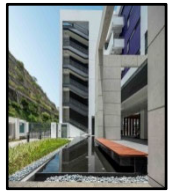


Figure 2.6

Examples of innovative and sustainable school design: School for Social Development for Girls at Choi Hing Road, Kwun Tong, Kowloon

Figure 2.7

Figure 2.8

Innovative school design at Site 1A4 of the KTD in operation since 2016

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Site Reference	Proposed Land Use	Maximum Permitted Height
1J1	Major Library & Integrated Family Service Centre	60mPD
1J2	Sewage Pumping Station	15mPD
1J3	Indoor Recreation Centre and Social Security Field Unit	30mPD
1J4	Refuse Collection Point	15mPD
1L4	Electricity Substation	30mPD
1L5	Sewage Pumping Station	15mPD

To create a linear park open space, buildings within the Sites 1L4 and 1J3 will be setback 5 metres from the boundary facing the Kai Tak River, to create a uniform edge with the adjacent residential sites along the river park's edge.

Site Reference	Proposed Land Use	Maximum Permitted Height
1N1	Government Office - EMSD Headquarters	70mPD
1N2	District Cooling System Northern Plant	15mPD
1P1	Drainage Services Department desilting Compound and Additional District Cooling System	45mPD
1P4	Electricity Substation	40mPD

As mentioned previously, Site 1N2 is to accommodate a district cooling system plant site to the east of the Grid Neighbourhood. Located at an entrance of Kai Tak from Kowloon Bay, this system plant provides valuable opportunity to demonstrate to the public the merits of this environmentally friendly initiative.

Site Reference	Proposed Land Use	Maximum Permitted Height
3A1	Animal Management Centre	80mPD
3A3	Kowloon Bay Sewage Interception Station	45mPD
3A5	Refuse Collection Point	15mPD
3C1A	Hospital & Specialist Clinic	100mPD
3C1B	Hospital & Specialist Clinic	60mPD
3C1C	Hospital	60mPD
3C2	Sub-divisional Fire Station and Ambulance Facility	45mPD

A NBA is specified in Site 3C1 abutting Road L18 for accommodation of a multi-cell box culvert.

2.0 PROPOSED ENGINEERING CONDITIONS FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Site Reference	Proposed Land Use	Maximum Permitted Height
4D5	Electricity Substation	15mPD
4D6	Sewage Pumping Station	15mPD
4E3	Sewage Pumping Station	15mPD
4E4	Salt Water Pumping Station	15mPD
5A1	Sewage Pumping Station	15mPD
5A2	Electricity Substation	15mPD
5B2	Public Transport Interchange	15mPD
5C1	Refuse Collection Point	15mPD
5C2	Electricity Substation	15mPD

Whilst there are new populations in the KTD, and new sewerage works are proposed to connect the existing trunk sewers along Hoi Bun Road, Kwun Tong Intermediate Pumping Station, Kwun Tong Preliminary Treatment Works (KTPTW) and To Kwa Wan Preliminary Treatment Works (TKWPTW) respectively and conveyance tunnels from KTPTW and TKWPTW to Stonecutters Island Sewage Treatment Works. A total of seven sewage pumping stations are proposed within the KTD.

Sites 4E3 and 4E4 to the north of the Site 4E1 close to the landscape deck at the upper portion of Road D3 are reserved for two half-sunken sewage pumping stations at Site 4E3 and salt water pumping station at Site 4E4. The design of the two stations should be integrated with the Metro Park, and their at-grade level should be allowed for public use as far as possible. Necessary mitigation measures should be provided to ameliorate the possible impacts to the surroundings respective to each site.

A greening ratio of 30% of the total site area of each site will be applied to all “G” and “IC” sites within the KTD. This will include a minimum of 20% at-grade greening of the total site area and 20% roof level greening of the total roof area.

As per the provision of the current OZP, no new development, addition and or modification, redevelopment in excess of the maximum BH in terms of metres above Principal Datum (mPD) as stipulated on the plan. (Refer to **Appendix C**)

Figure 2.9

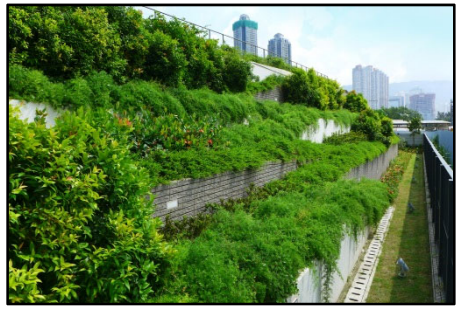


Figure 2.10

Figure 2.11

The above Figures depict the innovative half-sunken design of the Kowloon City No. 1 and No. 2 Sewage Pumping Stations which have been utilised to ameliorate their respective visual impacts

3.0

GENERAL OVERVIEW AND WAY FORWARD FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

3.0 GENERAL OVERVIEW AND WAY FORWARD FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

3.1 Overview of the Control Parameters for the Government, Institution or Community Sites

The preceding section has outlined design control provisions applicable to the G/IC sites. The next section outlines urban design guidelines for the sites that are illustrated using explanatory diagrams and reference images. These are intended to assist architects, relevant professionals and practitioners to understand how to meet the prescribed control requirements and parameters. The parameters mainly focus on the pedestrian zone and focus on such aspects as ambient tone, visual permeability at street level, façade treatments, external works, fence wall design and feature lighting etc. to ensure that an urban design framework is established that will achieve the best possible outcome. (Refer to **Appendix B** for definitions pertaining to the parameters)

4.0

URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.1 Streetscape Design for the Government, Institution or Community Sites

This section outlines the Streetscape Design Principles for all the NBAs, setbacks and pedestrian streets adjacent to all the G/IC sites in Kai Tak, including areas in the North Apron, the South Apron and the Runway Precinct.

There are many different types of Government sites within Kai Tak that provides different services for the whole district. They can be broken down into seven categories:

- Government Offices;
- Public Recreation Facilities;
- Public Services;
- Public Utilities Amenities;
- Schools;
- Public Transport Interchange (PTI); and
- Undesignated

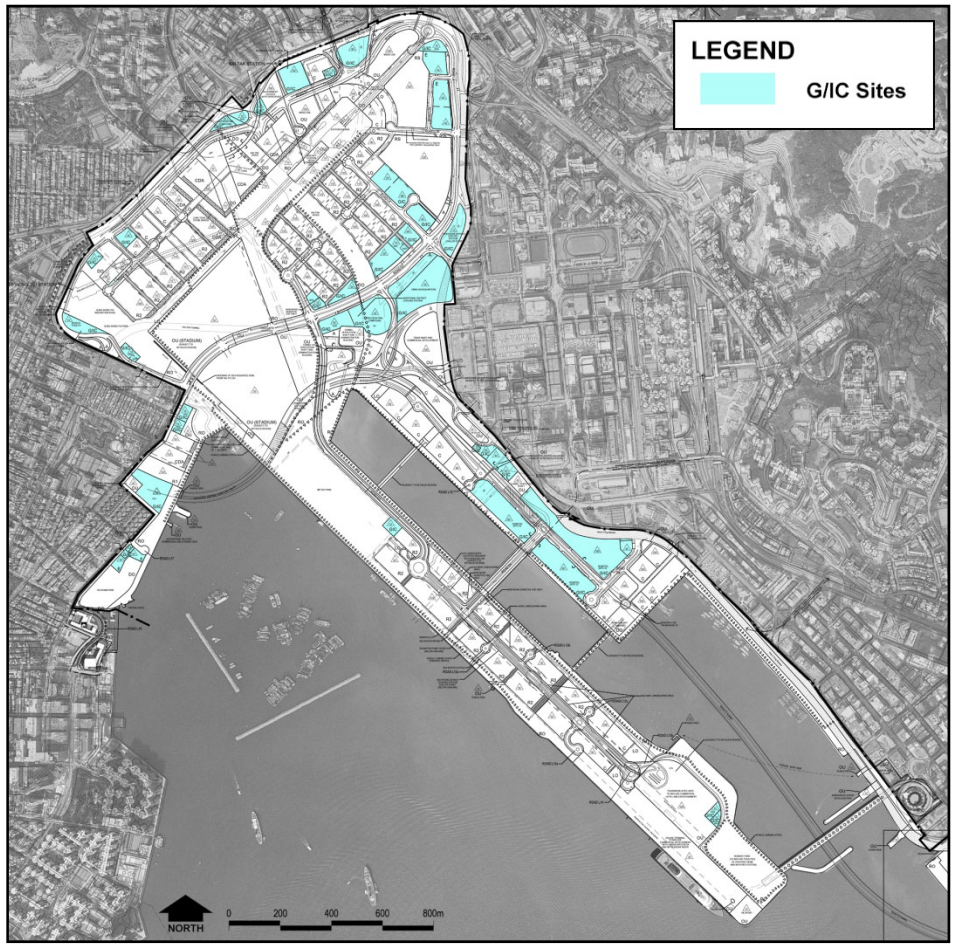


Figure 4.1 Site Reference Plan indicating the G/IC sites within the KTDA

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

The following table, with reference to the current approved Kai Tak OZP No. S/K22/6 and approved Hung Hom OZP No. S/K9/26, outlines the categories of G/IC sites within the KTDA.

Land Use Categories	Zone	Use Specification
Government Offices	1C1	Government Office (Police Headquarters) in the North Apron
	1D3	Government Office (Inland Revenue Tower)
	1D4	Government Office (Trade and Industry Tower)
	1N1	Government Office (EMSD Headquarters)
Public Recreation Facilities	1J3	Indoor Recreation Centre and Social Security Field Unit
	1L4	Electricity Substation
Public Services	3A1	Animal Management Centre
	1J1	Major Library & Integrated Family Service Centre
	3C1(A-C)	New Acute Hospital
	3C2	Sub-divisional Fire Station and Ambulance Facility
Public Utilities Amenities	1D1, 1P4, 2C2, 5A2, 4D5, 5C2	Electricity Substation
	1D5, 1J2, 1L5, 4D6, 2A9, 4E3, 5A1	Sewage Pumping Station
	1D6, 1P1, 3A3	Drainage Services Department Desilting Compounds, Kowloon Bay Sewage Interception Station
	1J4, 2C3, 3A5, 5C1	Refuse Collection Point
	4E4	Salt Water Pumping Station
	1N2	District Cooling System Northern Plant
School	1A2, 1B3, 5C6*	Secondary School
	1A3, 1A4, 1B2, 1B4, 5C3, 5C4	Primary School
	5C5*	Special School
Public Transport Interchange	5B2	Public Transport Interchange

* *Sites 5C5 and 5C6 falls under Hung Hom OZP and subject to BH restrictions of 8 storeys*

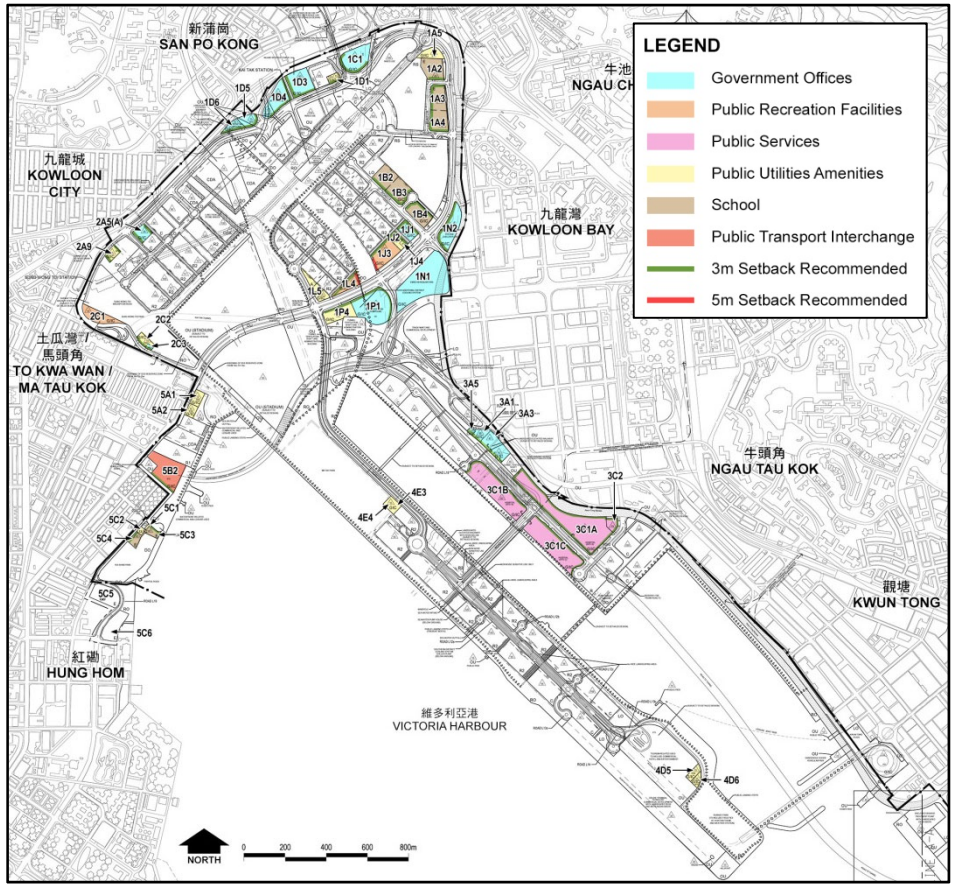


Figure 4.2 Site Reference Plan indicating all seven types of the G/IC sites within the KTDA

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

OBJECTIVE

The streetscape design for the G/IC sites should engender an identity and ambiance consistent with the rest of the developments in Kai Tak. They should promote connectivity and the creation of quality spaces.

Government Offices Cluster – Government Offices and Departmental Headquarters

Recommended:

- Incorporate elevated and at grade pedestrian connections in the Government cluster to provide a more direct, convenient and weather-sheltered route for pedestrians;
- A minimum setback of 3 metres is suggested for all the G/IC sites adjacent to pedestrian streets or roads to engender an identity and ambiance consistent with the rest of the developments in Kai Tak.
- A 3 metres setback should be imposed on Site 1D1 upon redevelopment;
- Maximise footway widths to create space for pedestrians, tree planting and co-ordinated street furniture;
- To provide an innovative, multi-level pedestrian circulation system facilitating pedestrian movement, shopping, subway access, and enjoyment of open space in the face of an integrated Government complex; and
- Integrated streetscape and shared open space for the Government office buildings.

Acceptable:

- Create a vibrant urban space at the interface of the Government sites and adjacent sites;
- Use streetscape layout and content to improve security for Government properties and the pedestrians using them (e.g. clear visibility, attractive security barriers, pedestrian lighting; and
- A contrast in paving material should be used to indicate to users the transition from one area to the next.

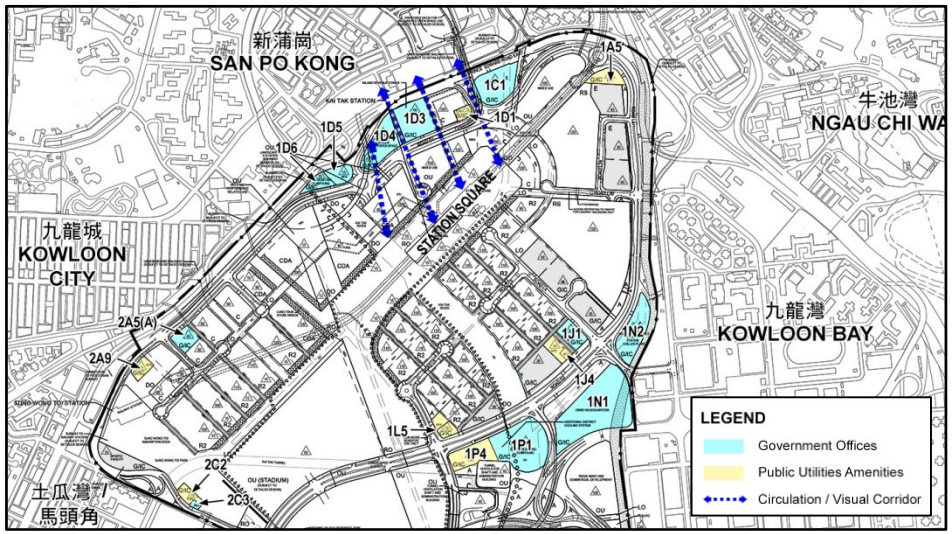


Figure 4.3 Location of the Government office cluster in the North Apron

Figure 4.4 Water features can be used to act as a focal points and a magnet for social activity

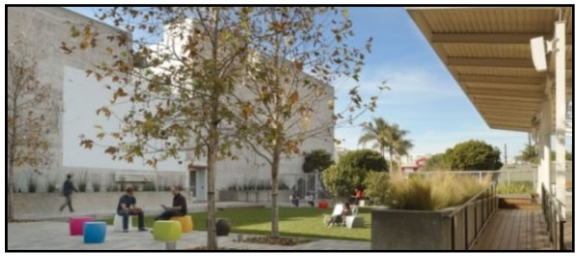


Figure 4.5 Reference quality streetscapes – Integrated streetscape and shared open space should be applied in the environs of the Government office buildings

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

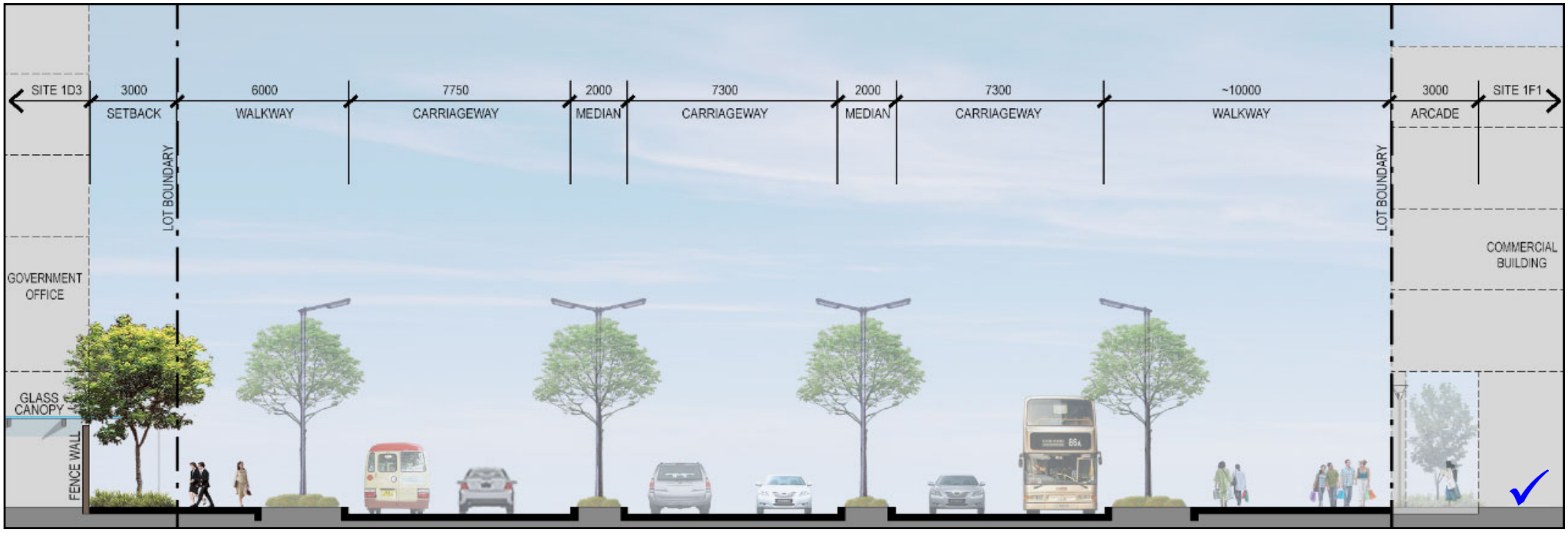
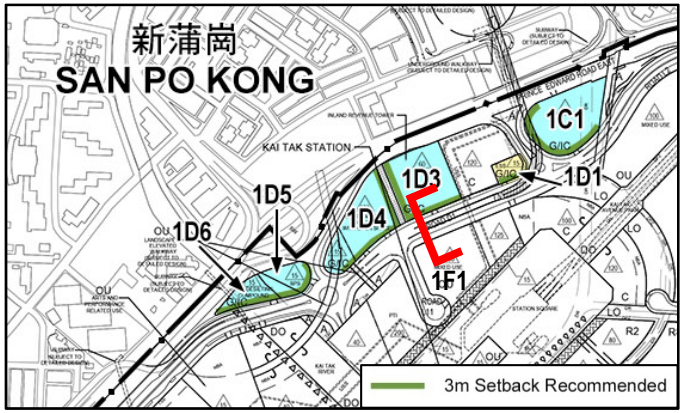


Figure 4.6 A minimum setback of 3 metres dedicated for planting is recommended for all the Government sites in Kai Tak adjacent to pedestrian streets or roads. The intention of this setback is to maximise planting of trees and shrubs for the interface of the pedestrian walkway to enhance legibility and add vibrancy to the public realm.



4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Avoid "wall effect" development by maintaining visual permeability to the PERE;
- Avoid separated discontinued open spaces within the government office cluster;
- Avoid boundary walls separating each of the Government buildings;
- All development should avoid overshadowing open space and adjacent developments;
- Monotonous blank building walls should be avoided;
- Inconsistent paving design should be avoided i.e. materials, size, colours, textures and patterns; and
- Avoid long / continuous fencing along the interface of Government sites and NBAs.

Figure 4.7 Small unit paving

Figure 4.8 Inconsistent paving and multi coloured tactile strips

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

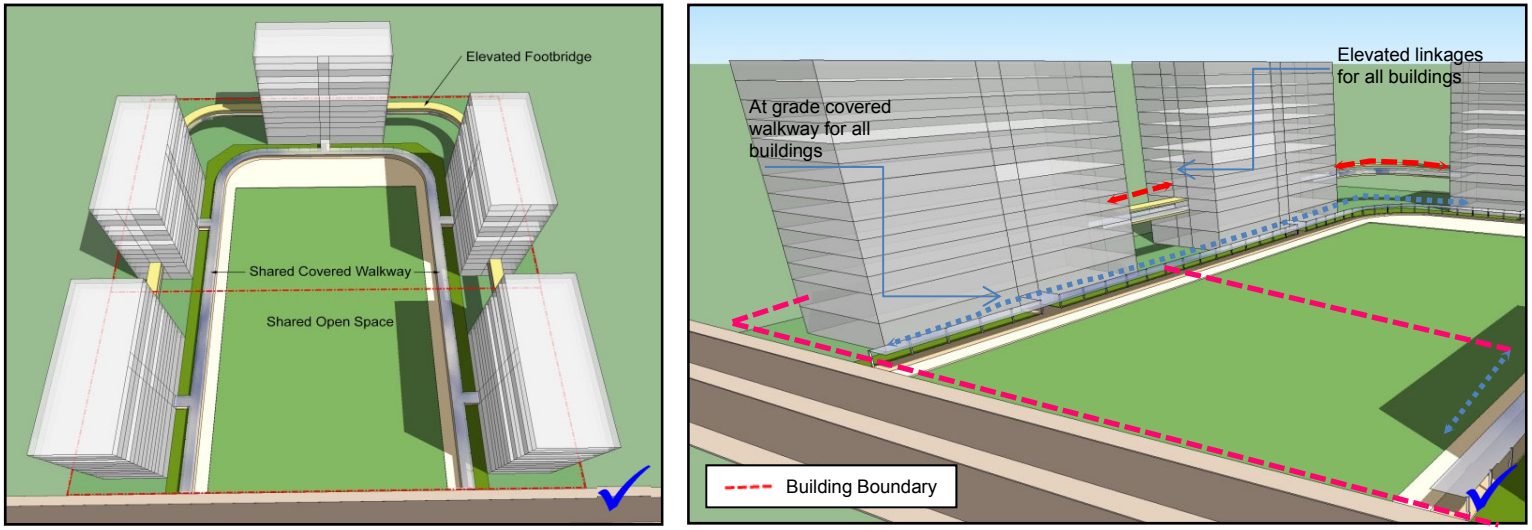


Figure 4.9 Incorporate elevated linkage and at grade pedestrian connections among Government clusters to provide, as far as possible, integrated sheltered circulation networks.

Figure 4.10 Separate discontinuous open spaces and boundary wall / fences separating each of the Government buildings should be avoided

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Streetscape Design for 5m Wide Non-Building Area (NBA) Facing the Kai Tak River

This section outlines the Streetscape Principles for all pedestrian streets facing the Kai Tak River. The asset provided by the Kai Tak River should be fully exploited for its value as a passive recreational space for all sites in Kai Tak including Government Sites 1L4 and 1J3. It can act as both a view and air corridor, and as a connection to the waterfront.

Its location running through the heart of the site means that both banks of the river can complement each other with appropriate setbacks that can be treated consistently with appropriate landscape features. Parallel connections along the Kai Tak River's edge serve many different users and provide public access to the waterfront, opening up views, and re-engaging the rivers as part of the public realm.

OBJECTIVE

Maximise the waterfront for public enjoyment

Recommended:

- Provide a 5 metres setback adjacent to the Kai Tak River for riverine edge greening;
- These setbacks should be treated consistently with appropriate landscape features that compliment the Kai Tak River;
- Promote pedestrian-oriented environments that efficiently integrate public spaces and maximise the waterfront for public enjoyment;

Acceptable:

- Activate the waterfront by ensuring development along the riverfront is disposed in such a way to maximise waterfront views; and
- Locate light fixtures, litter bins, signage, and other necessities discretely.

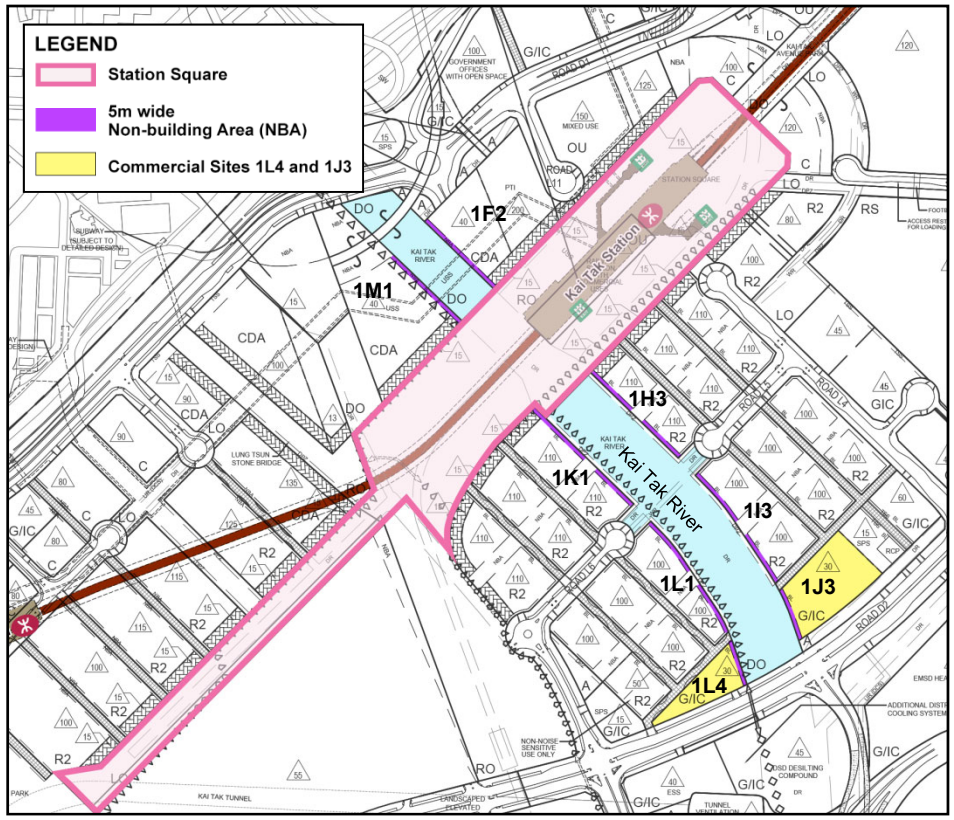


Figure 4.11 Recommended setbacks for development sites along the Kai Tak River to signify and delineate the prominent image in the locality

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Avoid railings along the Kai Tak waterfront save where they are provided for safety;
- Avoid large continuous blank façade facing the Kai Tak River;
- Avoid inconsistent and untidy appearance of paving material use throughout the whole KTD;
- Fenced off areas should as far as practicable be avoided;
- Discontinuous pedestrian linkage to the Kai Tak River; and
- Avoid long / continuous fencing along the blank wall façade especially the interface of Government sites and NBAs unless absolutely essential.
- Avoid on street and on site clutter

Figure 4.13 Avoid long continuous fence walls

Figure 4.12 Avoid extreme contrasts in boundary demarcation paving. Contrasts should be subtle.

Figure 4.14 Avoid inconsistent paving material

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Public Transport Interchange – Ma Tau Kok Waterfront and North Apron

Recommended:

- The sites reserved for public interchange should include an open attractive design which establishes a comfortable and legible relationship between the adjacent land uses and the interchange complex;
- Provide 3 metres setbacks adjacent to pedestrian streets, open space or roads to engender an identity and ambiance consistent with the rest of the developments in Kai Tak; and
- A covered walkway extending from the ferry pier to the edge of the PTI at Ma Tau Kok waterfront is recommended.

Acceptable:

- Strategically locate street furniture to ensure footways are clutter free. Co-ordinate street furniture e.g. signals and signs on street light columns; and
- A complimentary façade appearance and colour tone that match the developments along the waterfront are recommended for consistency.

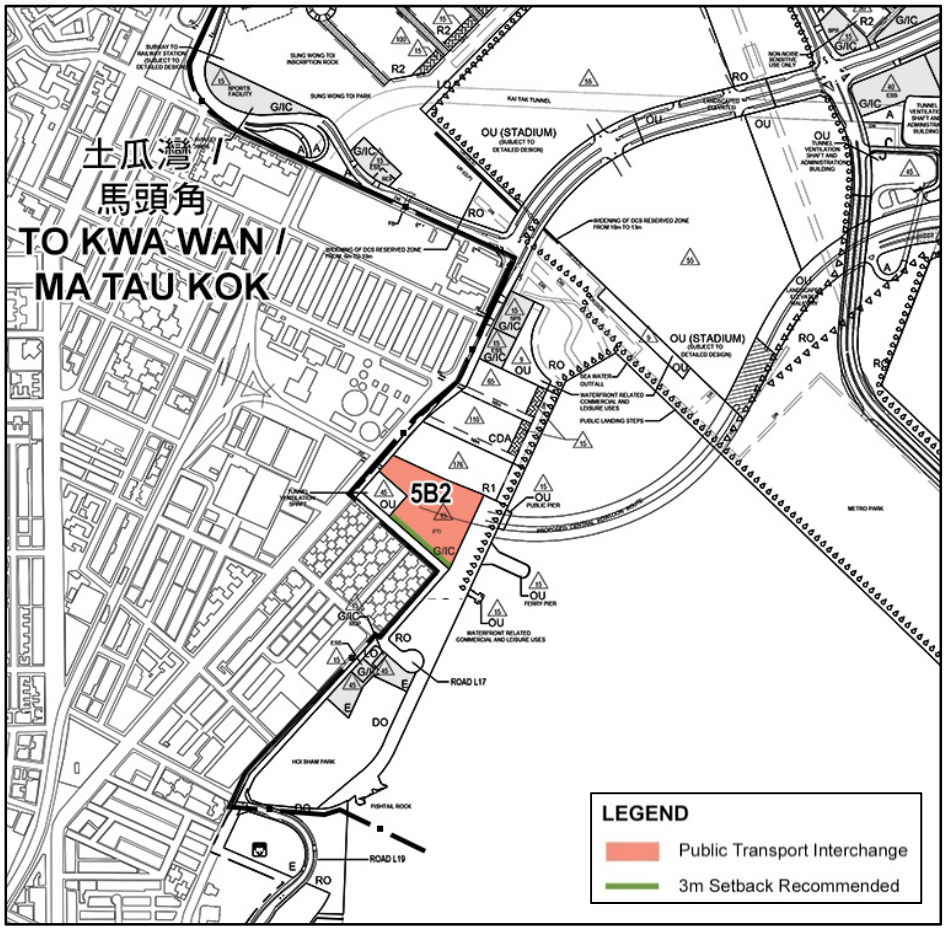


Figure 4.15 PTI within the KTDA

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Avoid "wall effect" development by maintaining visual permeability to PERE;
- All development should avoid overshadowing open space and adjacent developments;
- Avoid broken pedestrian connections to the Station Square and the waterfront promenade;
- Inconsistent paving design should be avoided i.e. materials, size, colours, textures and patterns; and
- Avoid long / continuous fence walls along the interface of Government sites and NBAs unless necessary.

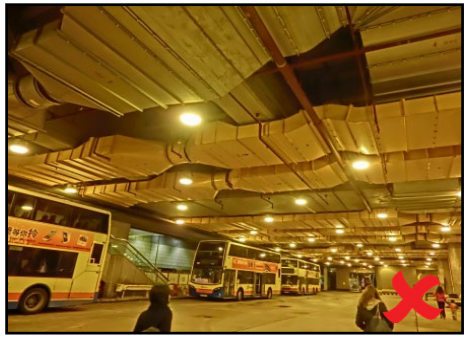


Figure 4.16

Figure 4.17

Examples in Hong Kong of uncovered terminus which provide no protection for users and undercover examples with undesirable lighting and interior finishes

Figure 4.18 The state of the art Hamburg Poppenbüttel Station is a integrated PTI with bus and train stations

Figure 4.19 Kowloon Tong Suffolk Road PTI

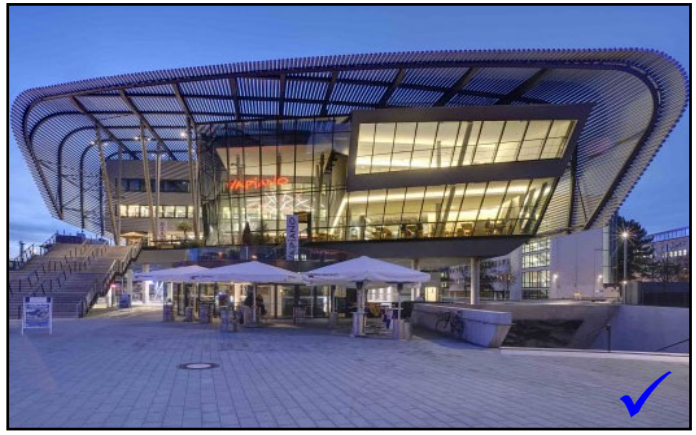
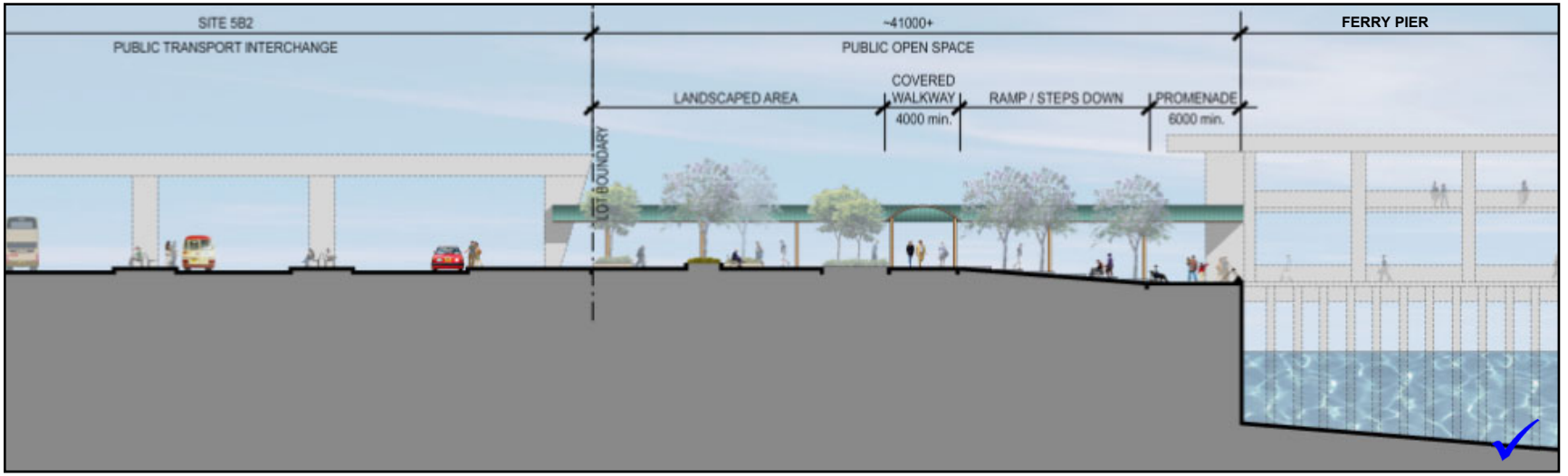


Figure 4.20 The Central Bus Terminal in Munich and the bus station in Hamburg illustrate good examples of user friendly design shade and lighting provide for a comfortable environment

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES



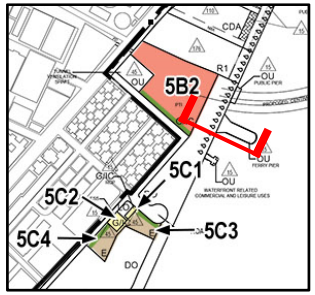


Figure 4.21

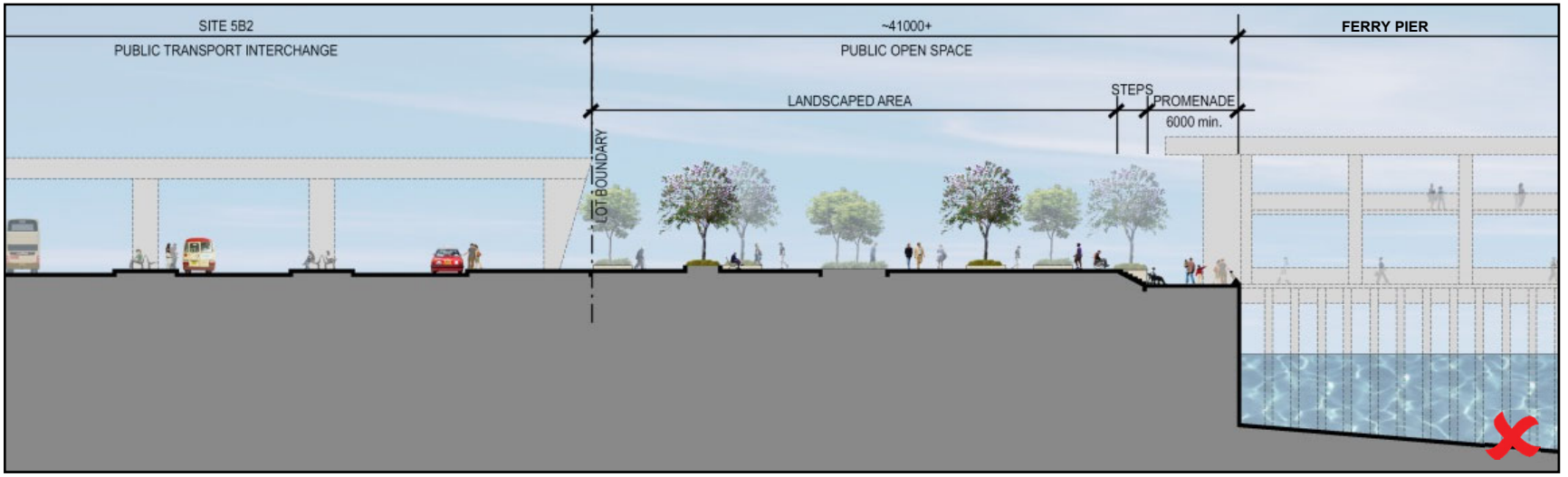


Figure 4.22

The above Figures indicate the inclusion of a recommended covered walkway extending from the ferry pier to the edge of the PTI at Ma Tau Kok waterfront

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Public Utilities Amenities – Electricity Substations, Sewage Pumping Stations, Drainage Services Department Desilting Compounds, Kowloon Bay Sewage Interception Station, Refuse Collection Points and the District Cooling System Northern Plant.

Recommended:

- To minimise the visual impacts to the development in the surrounding and to reserve more recreation area for public enjoyment, the massing of all G/IC facilitates should be scrutinised to reduce building footprints and BH. Underground space solutions should be employed where practicable;
- Provide 3 metres setbacks adjacent to pedestrian streets and roads to engender an identity and ambiance consistent with the rest of the developments in Kai Tak;
- Given the nature of these facilities, the inclusion of fence walls will be inevitable. Appropriate planting around the buildings should, however, be provided to soften the traditional appearance of concrete exterior of the buildings; and
- The design of public facilities should adopt colour tones and material that are sympathetic to the nearby developments.

Acceptable:

- Provide planting that promotes visual relief and that acts as a visual barrier between public services facilities and the public realm; and
- Utilise colour tones that compliment the areas in which public amenity facilities are located.

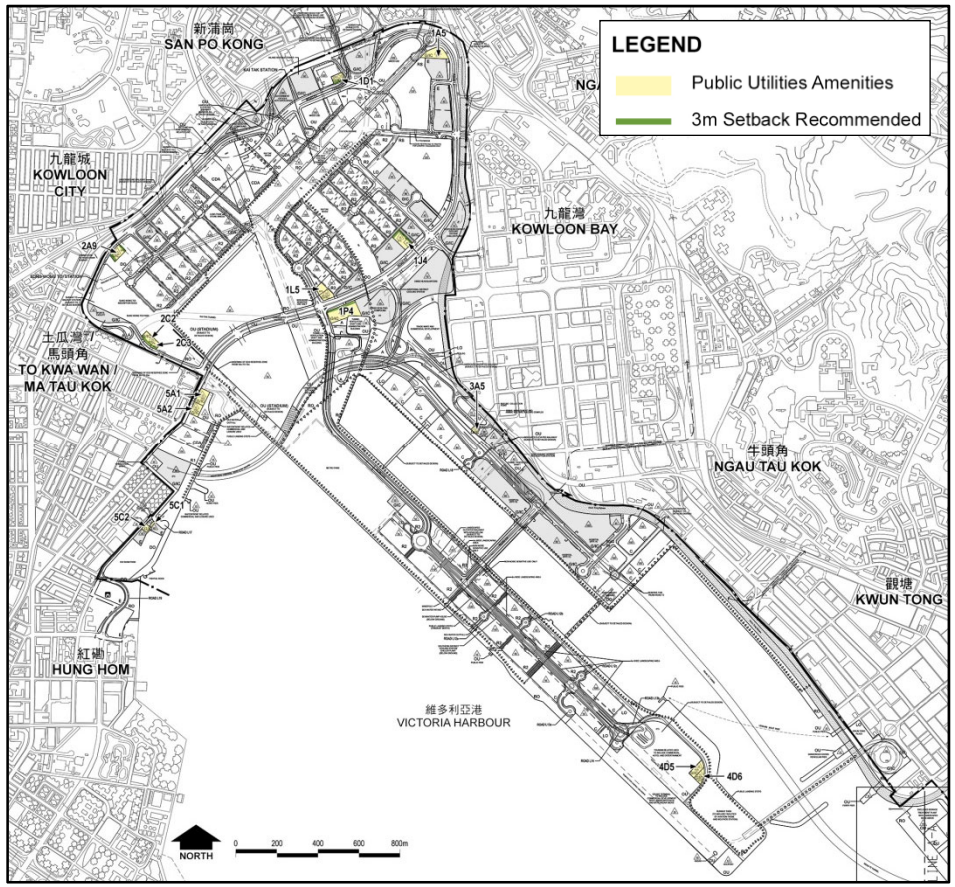


Figure 4.23 Public utilities amenities within the KTDA

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Avoid "wall effect" development by maintaining visual permeability to surrounding;
- All development should avoid overshadowing open space and adjacent developments;
- Avoid heavy wire panel fences around the building;
- Inconsistent paving design should be avoided i.e. materials, size, colours, textures and patterns; and
- Avoid long / continuous fencing along the interface of Government sites and NBAs unless necessary.

Figure 4.24

Figure 4.25

Figure 4.26

Figure 4.27

Figure 4.28

Figure 4.29

Examples of acceptable and avoided features for design of public utilities

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

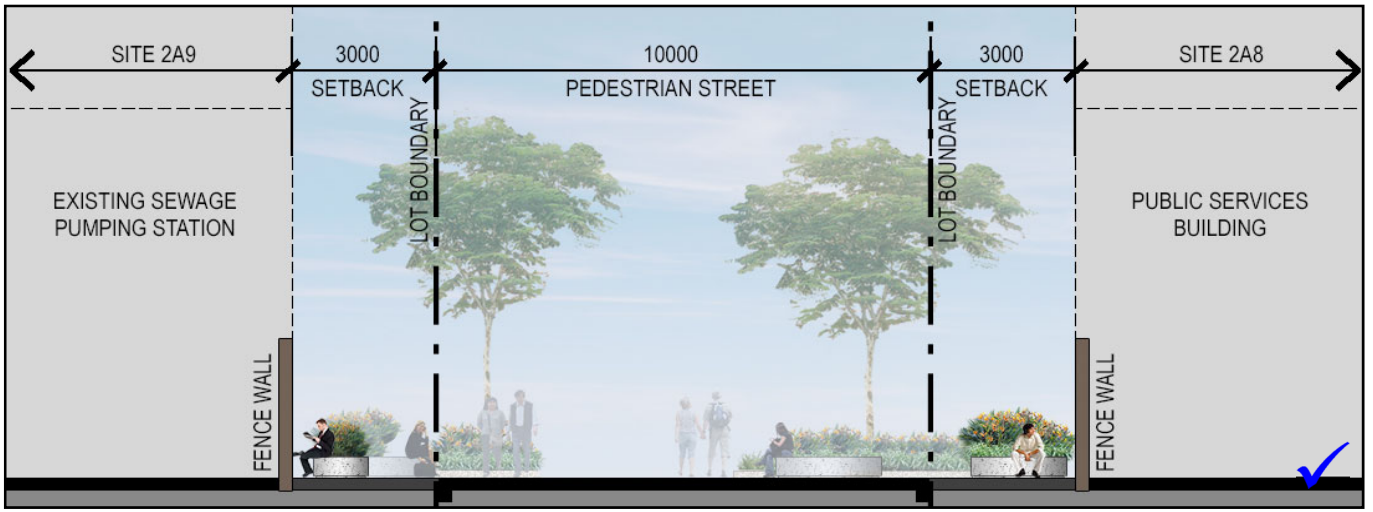


Figure 4.30

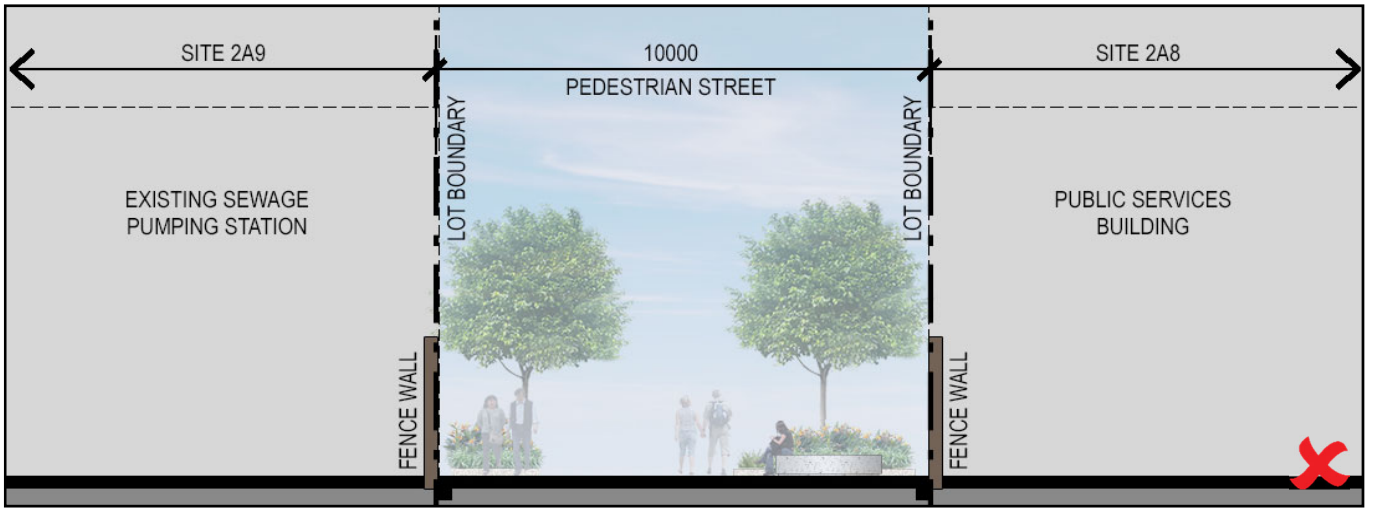


Figure 4.31

Provide a minimum setback of 3 metres dedicated for planting for all the Government sites in Kai Tak. The intention of this setback is to maximise tree and shrub planting at the interface of the pedestrian walkway to enhance legibility and to enhance the visual quality of the public realm.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

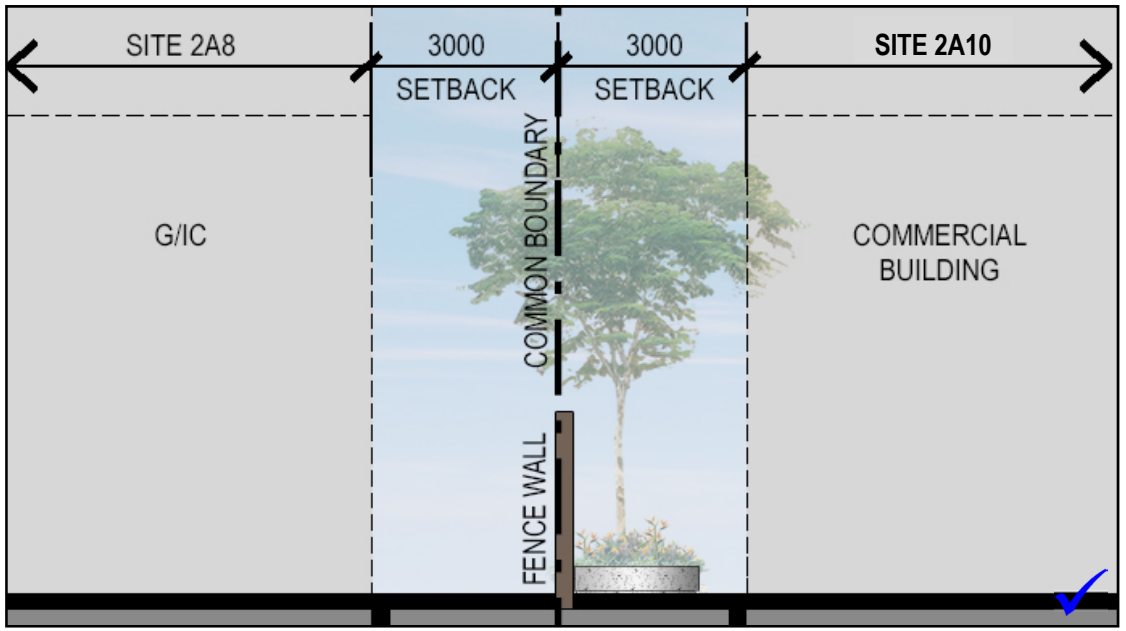


Figure 4.32 For the common boundary between the G/IC facilities and private residential / commercial development. A minimum setback of 3 metres from common boundary is recommended. Where a fence wall is required a minimum of 50% porosity should be achieved facing the private development to engender an identity and ambiance consistent with the rest of the developments in Kai Tak.

Figure 4.33

Figure 4.34

Figure 4.35

Figure 4.36

The above Figures indicate preferred design applications. Where practicable, solid walls between common boundaries should be avoided.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Public Services – Social Welfare Facilities, Animal Management Centre (AMC), Divisional Police Station Sub-divisional Fire Station, Ambulance Depot with Departmental Quarters and Hospital & Specialist Clinic.

Recommended:

- To promote vibrancy and public enjoyment, sites which abut the promenade should maximise building setbacks as far as possible;
- Provide 3 metres setbacks adjacent to pedestrian streets or roads to engender an identity and ambiance consistent with the rest of the developments in Kai Tak;
- Sites within the Grid Neighbourhood and Area 2 should provide 3 metres wide greening setbacks from pedestrian streets and roads to achieve a coherent streetscape design pattern for the area; and
- Sites should have a stable and legible internal / external circulation infrastructure that parallels the systems of public spaces, streets and rights-of-way for movement, services and maintenance.

Acceptable:

- The design of these public facilities should compliment the colour tones and material adopted in the surrounding context;
- Given the waterfront setting of some sites, it is recommended that these facilities should be setback as far as possible from the promenade to maximise space that can be committed to public enjoyment; and
- Provide planting to maximise shading, provide visual comfort, and create a visual and noise barrier between public service facilities and adjacent development.

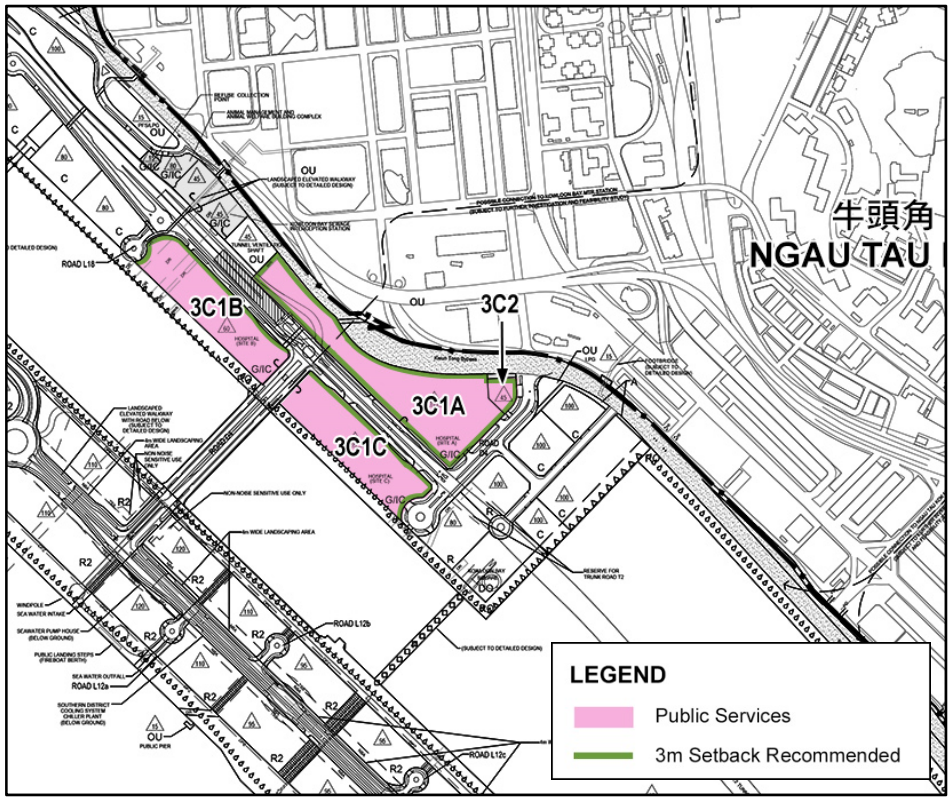


Figure 4.37 Public services facilities within the KTDA

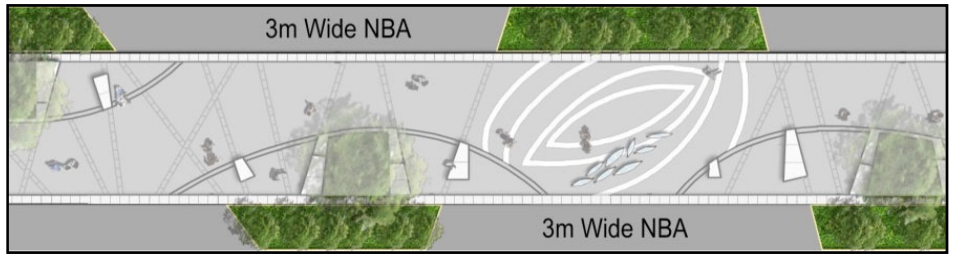


Figure 4.38 Pedestrian street with 3 metres wide NBA

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

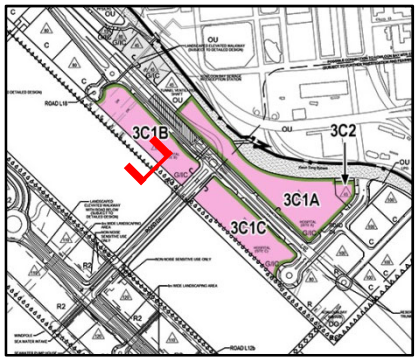
- Avoid "wall effects" in the building form and layout;
- All development should avoid overshadowing open space and adjacent developments;
- Avoid heavy chain link fencing around buildings;
- Inconsistent paving design should be avoided i.e. materials, size, colours, textures and patterns;
- Avoid podium like structure within the whole Kai Tak;
- Avoid long / continuous fencing along the interface of Government sites and NBAs unless necessary; and
- Each facility should omit the distinctive appearance of being institutional. The design should seek to employ light aesthetically pleasing finishes that are consistent with the proposed theme proposed by the Public Creatives strategy and in the genre of the contemporary sleek contemporary architectural and urban design approach proposed for the KTDA.

Figure 4.39 Queen Mary Hospital presently includes an unattractive, homogenous brutalist building façade.

Figure 4.40 Tin Shui Wai (Tin Yip Road) Community Health Centre adopts light textured finishes

Figure 4.41 Prince of Wales Hospital with podium and "wall effect" development located in Sha Tin, Hong Kong.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES



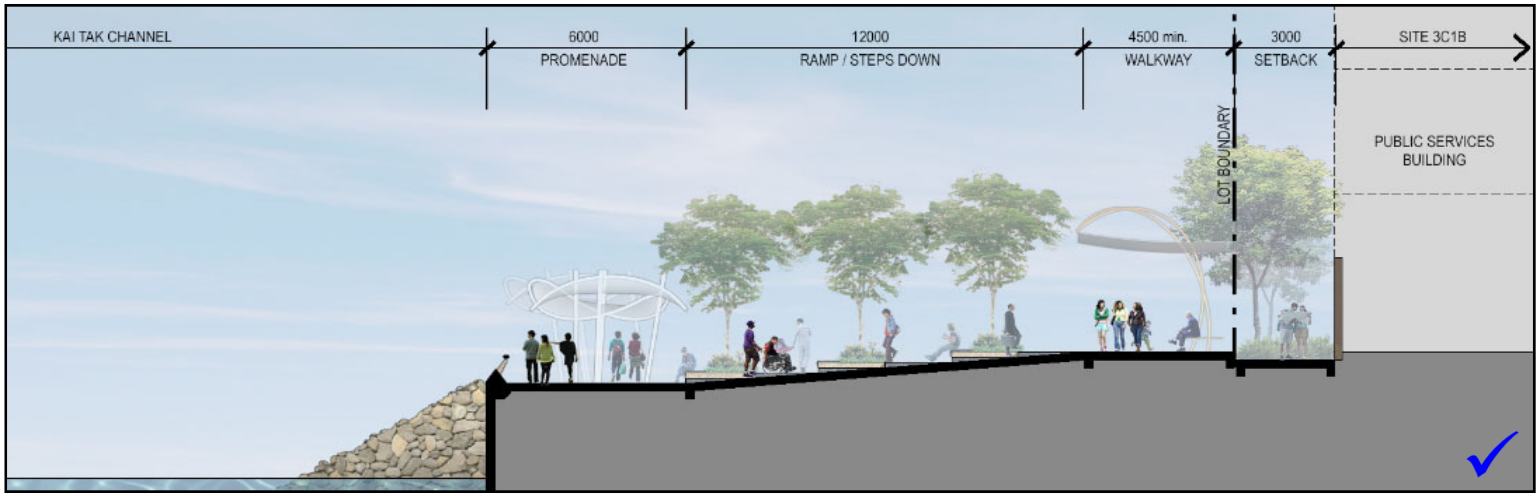


Figure 4.42

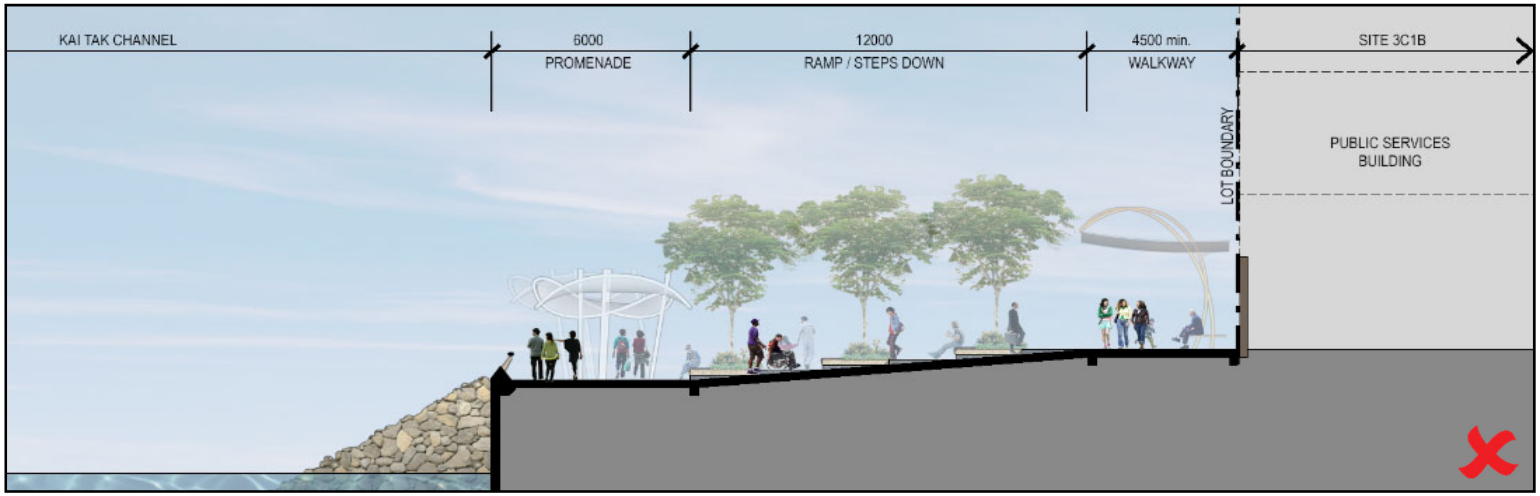
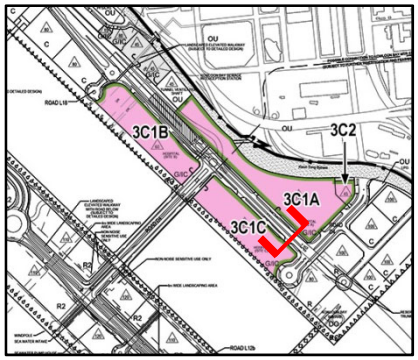


Figure 4.43

The above Figures indicate the preferred and proposed minimum setback of 3 metres dedicated to planting which is recommended for all the Government sites along the waterfront edges of Kai Tak against the undesirable no setback option which is not advocated.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES



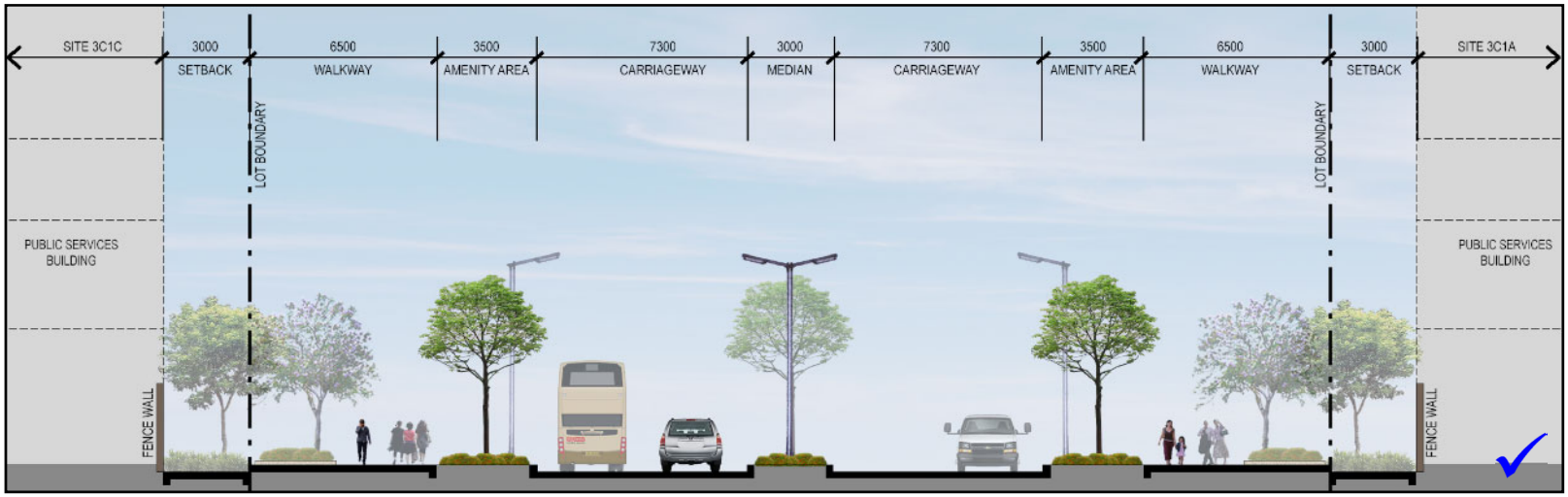


Figure 4.44

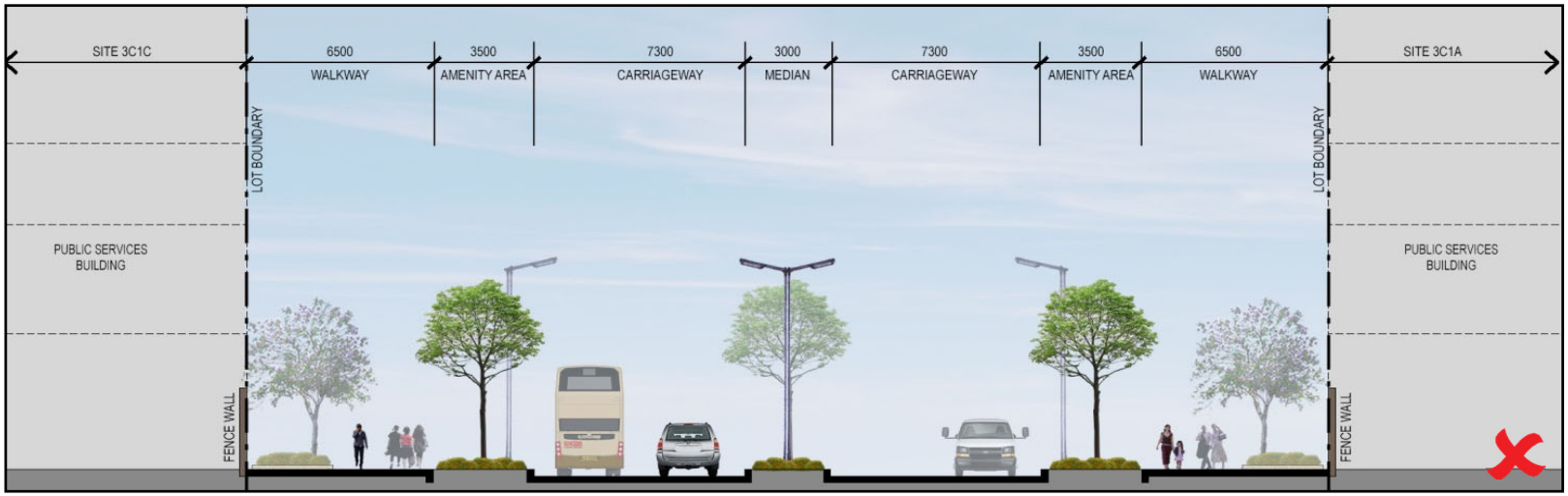


Figure 4.45

A minimum setback of 3 metres dedicated to planting is recommended for all the Government sites in Kai Tak. The intention of this setback (as opposed to the opposite situation depicted in Figure 4.45) is to maximise planting of trees and shrubs within the interface of the pedestrian walkway to enhance legibility and enhance the quality of the public realm.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

School Sites – Primary Schools, Secondary Schools and a Special School

Recommended:

- Provide 3 metres setbacks adjacent to pedestrian streets or roads to engender an identity and ambiance consistent with the rest of the developments in Kai Tak;
- Use a combination of tree planting and shrubs to screen off fence walls;
- Encourage fence walls to be located at the inside of the 3 metres wide NBA;
- The design of the schools should match the colour tones and material adopted in the surrounding context; and
- Given some sites front the waterfront, development of these school sites should maximise building setback as far as practically possible from the promenade with the objective to maximise the open space integration with the waterfront promenade.

Acceptable:

- Encourage the use of similar façade treatments for all school sites within Kai Tak to create the sense of identity;
- Where a fence wall is needed a minimum of 50% porosity should be achieved facing the pedestrian street;
- Encourage planting that can provide shading and visual comfort for users; and
- Adoption of complimentary colour tone with that of the surrounding context and colour tones.

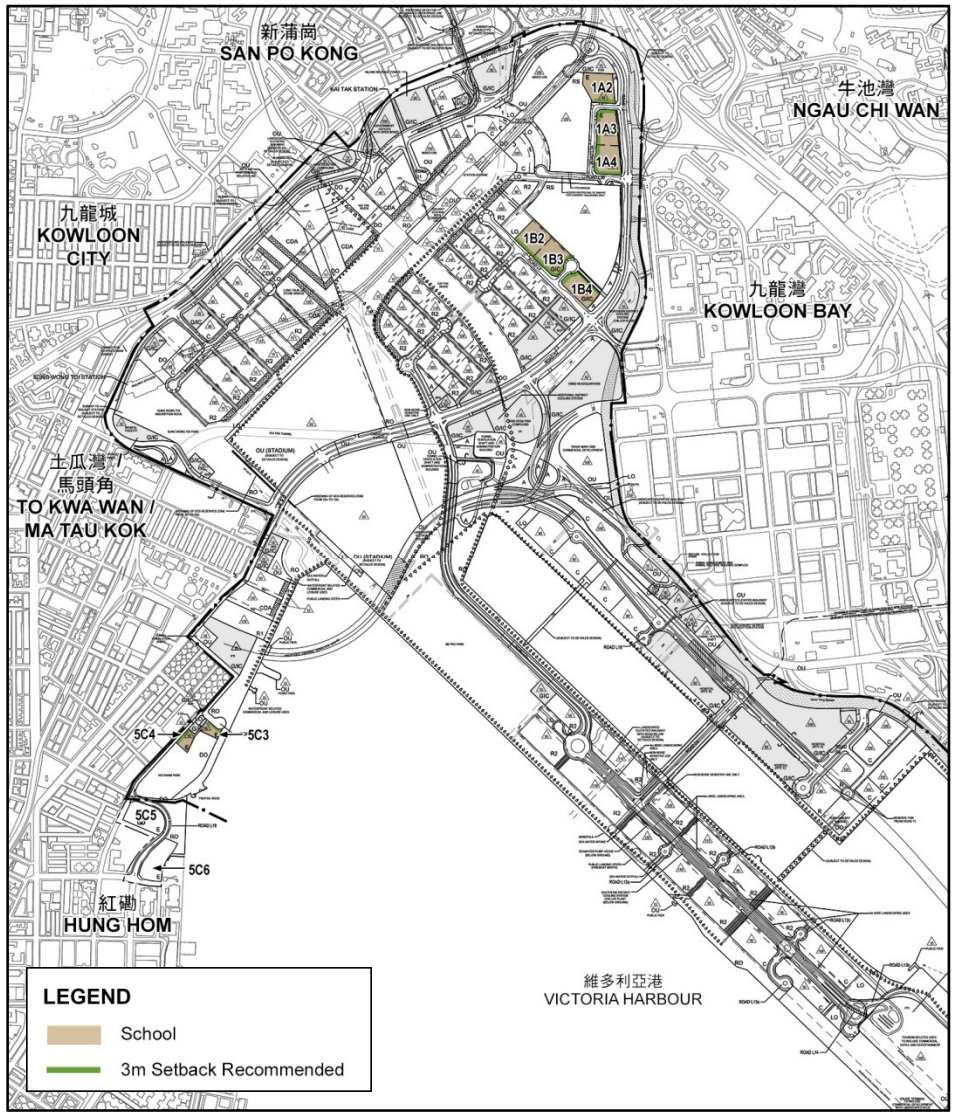
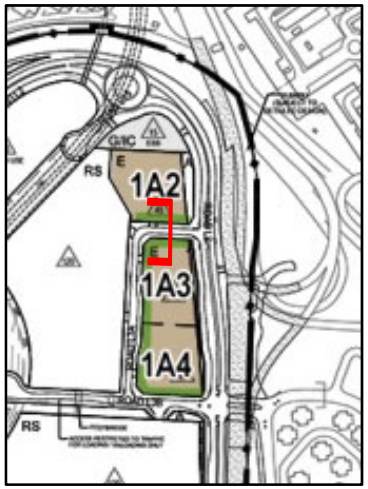
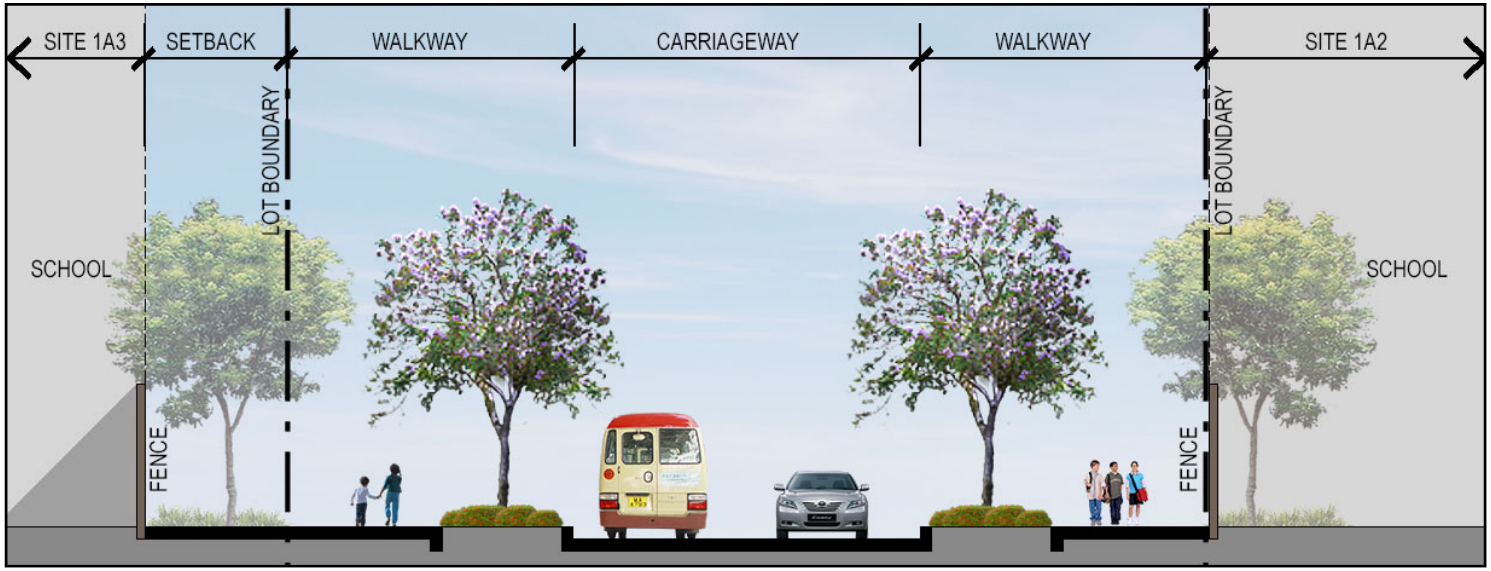


Figure 4.46 School sites within the KTDA

Figures 4.48 to 4.50 Government Training Complex for Juveniles in Tuen Mun

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES





Figures 4.47 A minimum setback of 3 metres dedicated to planting is recommended for all the Government sites and schools in Kai Tak

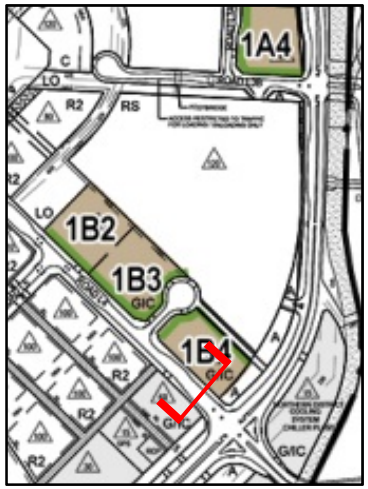
Figure 4.48

Figure 4.49

Figure 4.50

Tuen Mun Children and Juvenile Home depicted in Figures 4.48 to 4.50 adopts a range of architectural and landscape treatments that combine to limit the intrusiveness of the development

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES



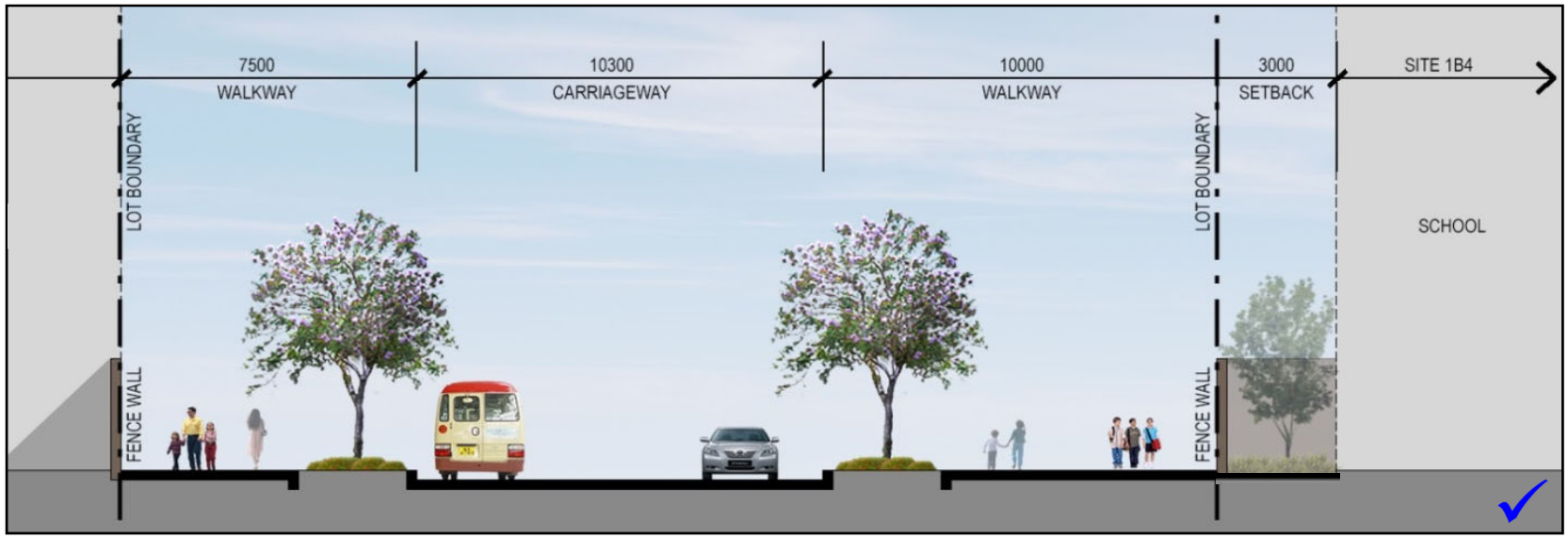


Figure 4.51 The location of the fence wall on the lot boundary is acceptable given a minimum of 50% porosity is required

Figure 4.52

Figure 4.53

The above Figures indicate preferred fencing applications that are visually permeable

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Avoid the monotonous appearance of uninterrupted walls and fences from dominating the pedestrian streets;
- Double fence walls for any common boundary between two G/IC sites;
- The use of mixing incompatible materials with adjacent G/IC development;
- Inconsistent paving design should be avoided i.e. materials, size, colours, textures and patterns; and
- Each school should not reflect treatments that overtly reflect their institutional purpose. Architectural treatments should be unique. Repetitive building forms should be avoided.

Figure 4.54

Figure 4.55

The application of monotonous utilitarian walls that dominate the pedestrian realm are to be avoided

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.2 Permeability and Legibility

Visual permeability refers to the extent of provision made within a given layout to permit through views. Conversely legibility refers to the extent to which the public can orientate themselves and navigate and understand how a place works. Legibility also infers that spaces and buildings are sufficiently distinctive and that they are capable of conveying a sense of place. The opportunity for improving legibility and permeability and their effectiveness will vary from place to place. It is assumed however, that the objective in each sub district will remain the same.

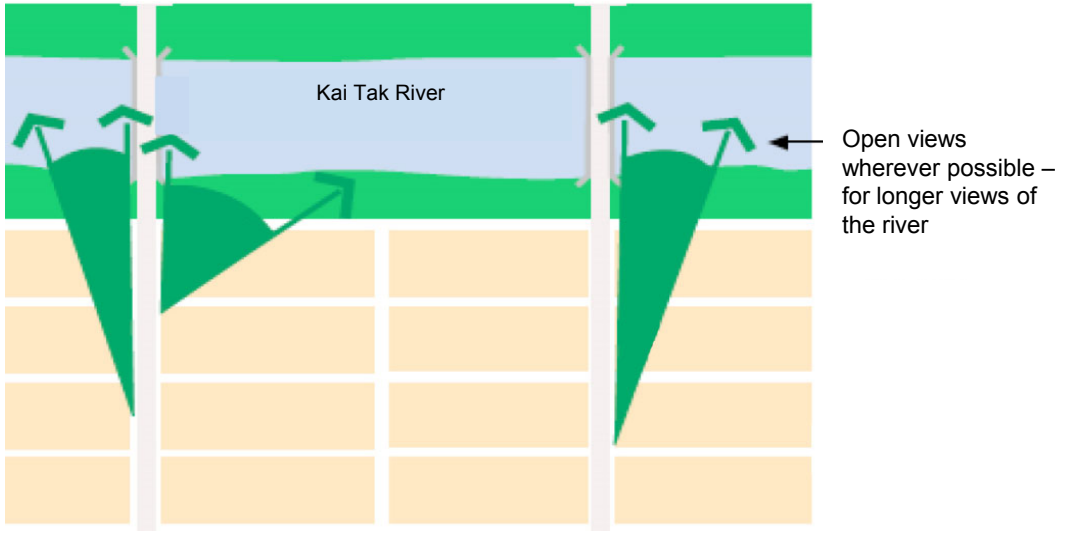


Figure 4.56 Open view corridors to Kai Tak River

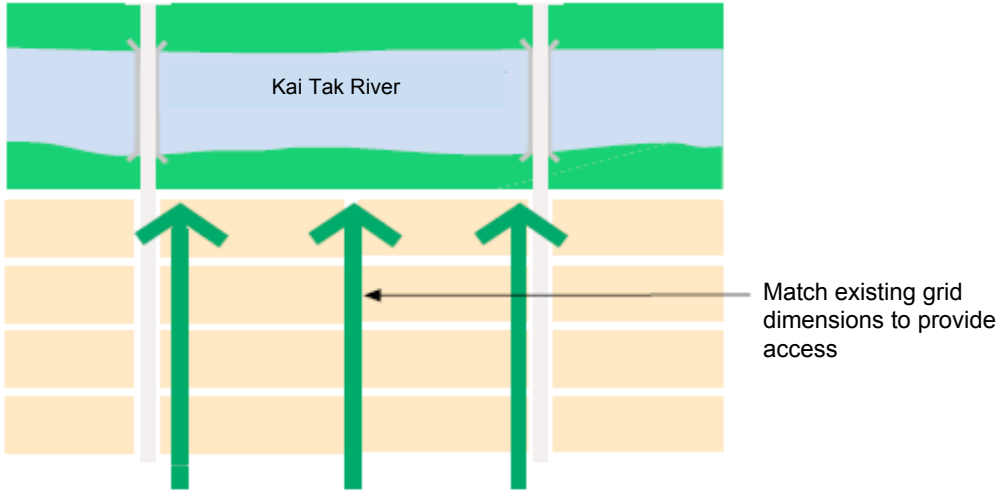


Figure 4.57 Maintain grid pattern with direct access to the riverfront

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

OBJECTIVE

The layout and design of the development should provide a readable and clear distinction between public, communal and private areas.

Recommended:

- The highest degree of visual permeability and legibility should be enshrined throughout Kai Tak. This can be achieved by ensuring minimal physical barriers are included in the pedestrian streets / dedicated pedestrian zones / setbacks / NBAs;
- Design priority should be given to the enhancement of the pedestrian experience and should seek to create inviting, human-scaled environments that function as community living spaces rather than simply transportation corridors. It is recommended that at the junctions of pedestrian streets, roads and openings a change in paving material is utilised to demarcate the interface of the public and private realm and to enhance legibility;
- Where planting is provided within the setbacks and NBAs adjacent to pedestrian streets and roads the location of trees and plants should be specifically placed and organised to delineate points and routes of access and circulation; and
- Fence walls should be located inside individual 3 metres wide NBAs.

Figure 4.58

Figure 4.59

Acceptable:

- Contrasts in the colour / material and / or design of paving can be used to direct access to the Kai Tak waterfront. As visitors approach from pedestrian streets, a difference in paving material and design can help to indicate they are moving from one area to the next; and
- Contrasts in colour / material and or / design of paving can also be used to distinguish between public and private spaces, particularly at the interface of the 3 metres NBA within the domestic lots and the adjacent public pedestrian streets.

To Be Avoided:

- Visual and physical access should not be hindered or blocked in any way. The use of solid and non-porous gates or boundary walls should be avoided at the openings of the pedestrian streets or along the interface of the NBA and pedestrian streets; and
- The inclusion of a fence wall with less than 50% porosity adjacent to a pedestrian street for the entire length of the 3 metres wide NBA. This will restrict pedestrian movements and erode the permeability and legibility within the sites.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

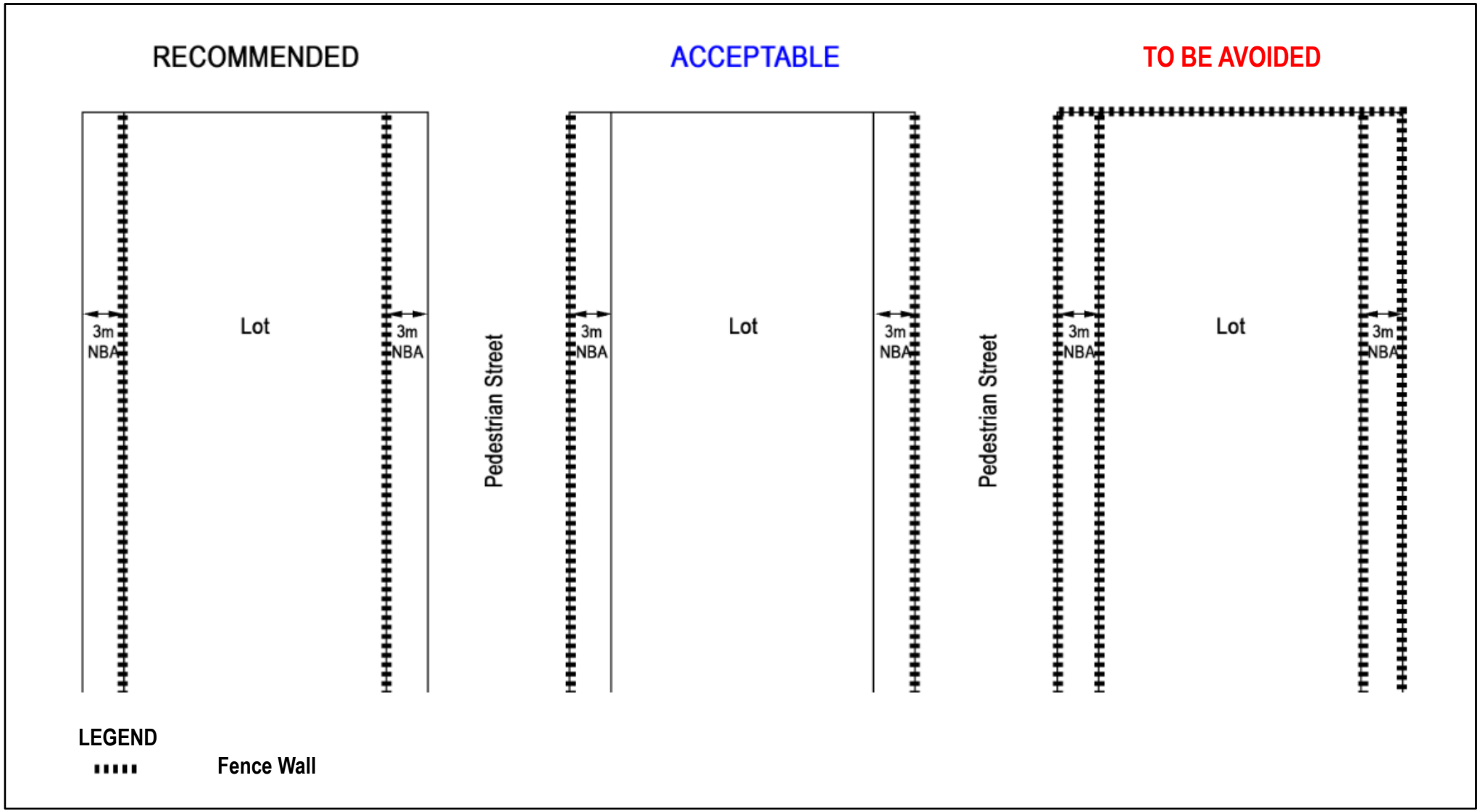


Figure 4.60 A 3 metres setback dedicated for planting is generally recommended for all the Government sites in Kai Tak. The intention of this setback is to maximise planting of trees and shrubs for the interface of the pedestrian walkway to enhance legibility and adds vibrancy to the public realm.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

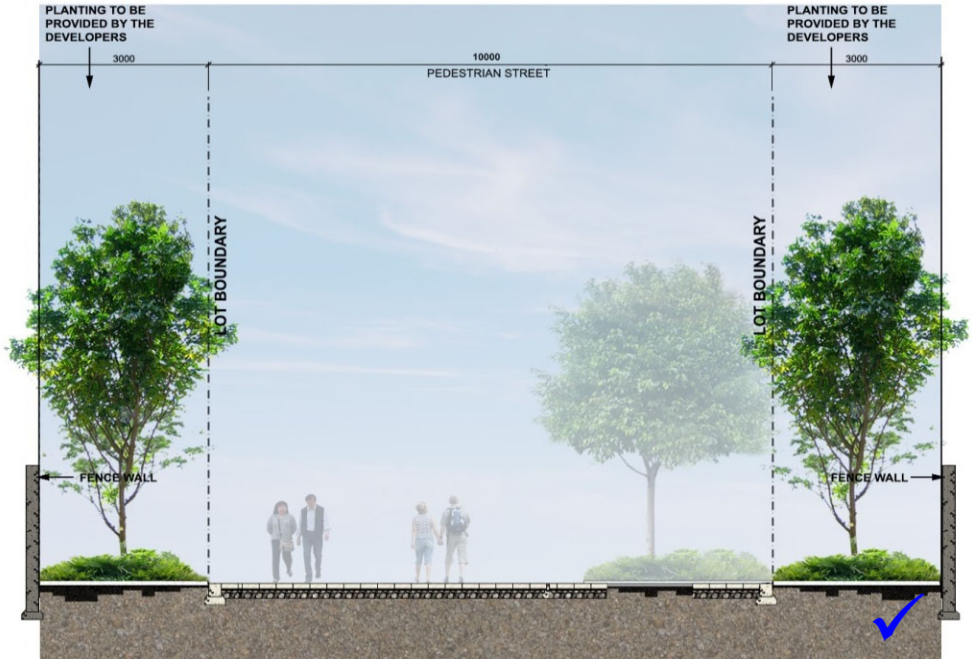


Figure 4.61 The highest degree of visual permeability and legibility should be enshrined throughout Kai Tak. This is to ensure no physical barriers are included in the pedestrian streets / dedicated pedestrian zones / setbacks / NBAs. This includes gates, landscape features or fence walls. If a fence wall is unavoidable, a minimum of 50% porosity should be achieved facing the pedestrian street. Fence walls should also be located on the inside of the 3 metres wide NBA to optimise permeability.

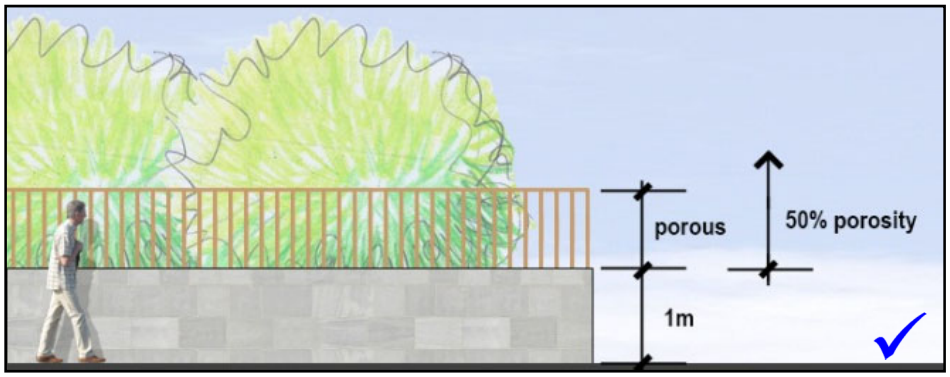


Figure 4.62 The fence wall with a minimum of 50% porosity is acceptable facing the pedestrian street

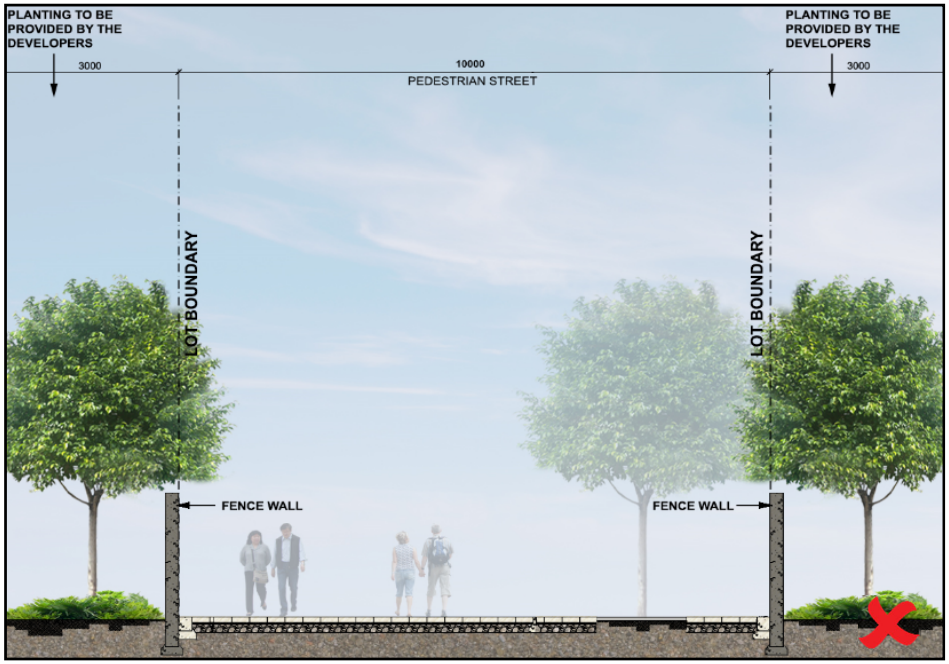


Figure 4.63 Fence walls adjacent to a pedestrian street with less than 50% porosity should be avoided

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

North Apron – Area 2

The North Apron is characterised by a series of pedestrian streets, setbacks, NBAs and dedicated pedestrian zones. Each of the Government sites and the adjoining residential / commercial sites need to be carefully treated to avoid adverse interface issues.

A 3 metres wide setback is included in Sites 2A8 and 2A9 abutting the pedestrian street within the North Apron. For consistency, it is proposed that the planting and hardscape treatments of the NBAs within the G/IC sites remain the same as the Commercial sites. (Refer to Working Paper for commercial sites under this Study). The location of trees and plants should be specifically placed and organised to delineate points and routes of access and circulation which will serve to improve the physical and visual permeability for pedestrians.

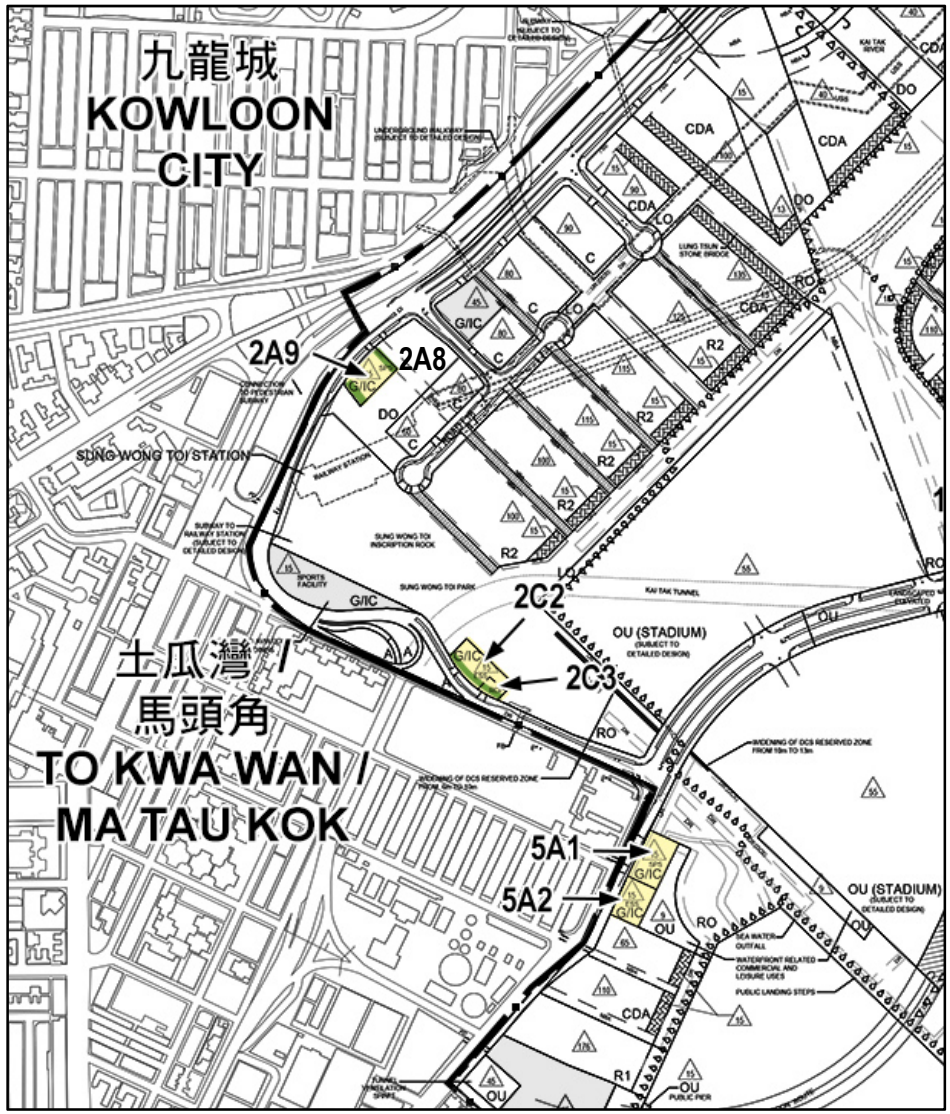


Figure 4.64 Street Typology - North Apron – Area 2 – G/IC Sites

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

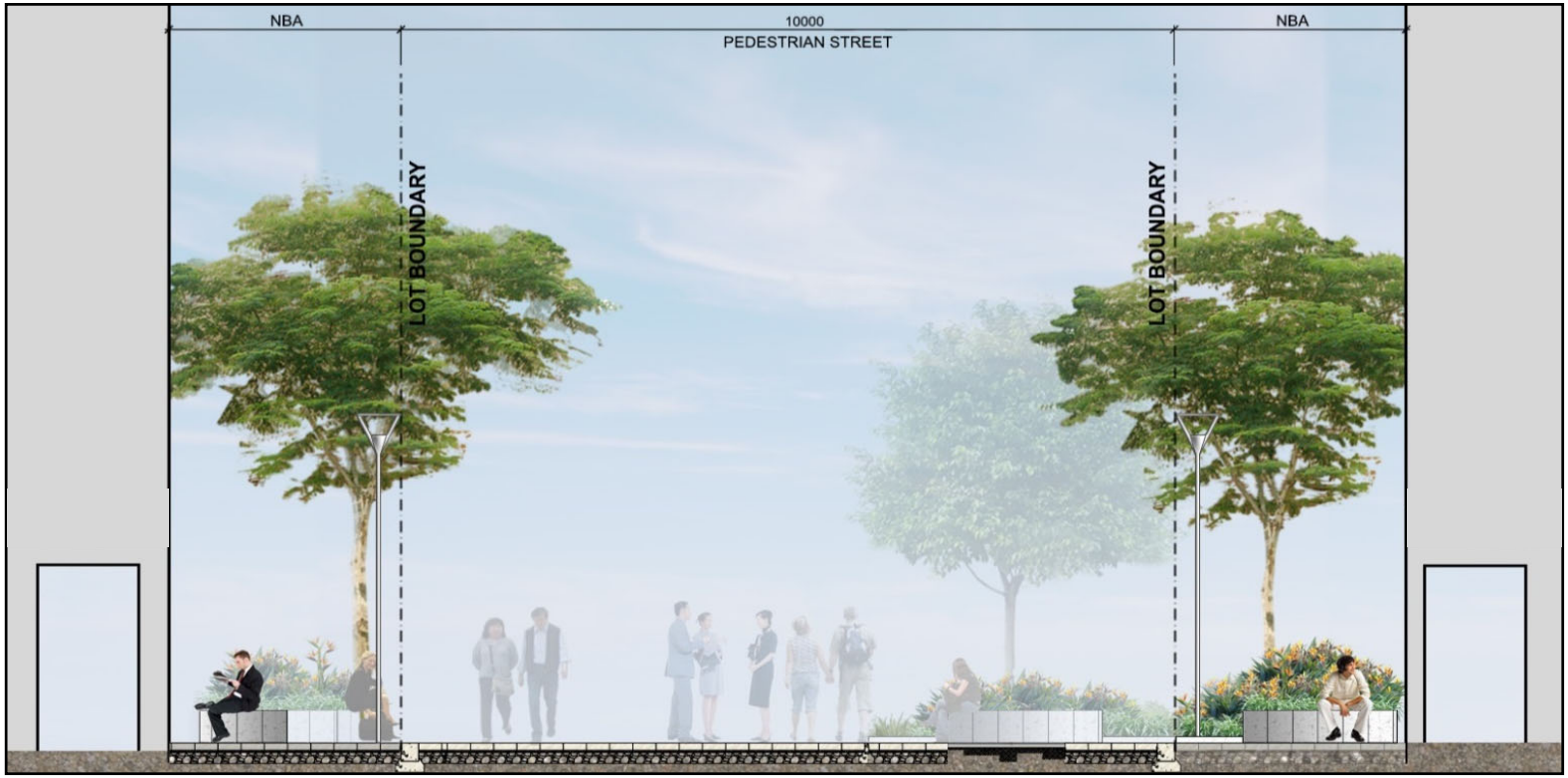


Figure 4.65

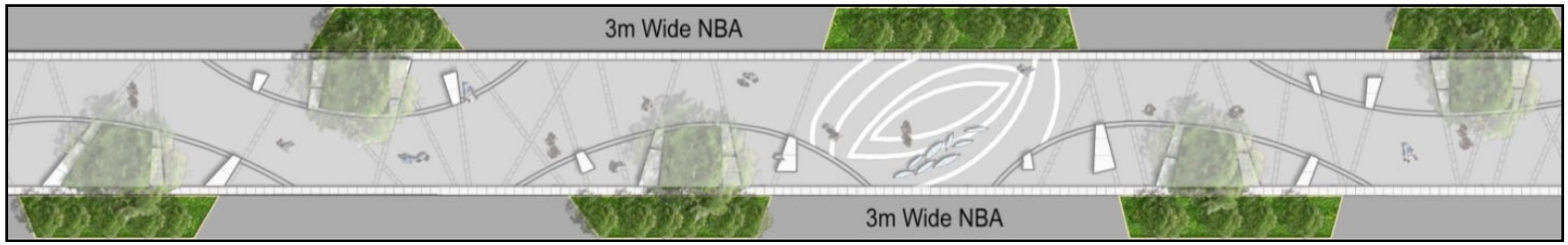


Figure 4.66

Recommended interface treatments for the pedestrian streets with NBAs and the Government sites within Area 2 in the North Apron. Openings within the NBAs to Government sites should be free from physical barriers. Intermittent seating is permissible within the NBAs.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Government Offices and School Clusters in the North Apron

It is recommended that the Government office sites include interconnected pedestrian linkages where possible and it is recommended to provide more efficient facility sharing, comprehensive open space and comfortable circulation for visitors and workers.

It is recommended that the building layout and arrangement does not prohibit sufficient airflow to penetrate into the Station Square and should avoid the creation of monotonous 'wall effect' development that often results when a number of high-rise buildings stand side by side.

The location of trees and plants should be specifically placed and organised to delineate points and routes of access and circulation which will serve to improve legibility and visual permeability for pedestrians.

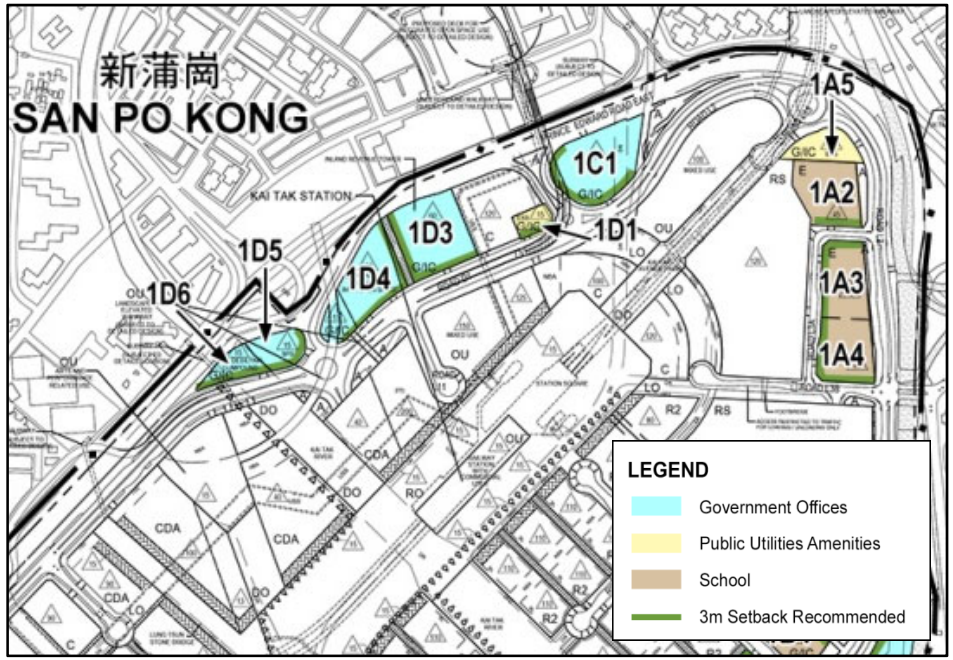


Figure 4.67 A minimum setback of 3 metres is suggested for all the G/IC sites to engender an identity and ambiance consistent with the rest of the developments in Kai Tak. A setback for Site 1D1 could be provided upon redevelopment.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Existing Electrical and Mechanical Services Department (EMSD), Animal Management Centre, New Acute Hospital (NAH), Utilities Services and other Government Sites in the South Apron

The majority of the Government facilities are concentrated in the South Apron. The AMC is planned at Site 3A1 which was earmarked for the like-to-like reprovisioning of Agriculture, Fisheries and Conservation Department's AMC at Mok Cheong Street.

In the South Apron, three sites have been reserved for the development of NAH (Sites 3C1A and 3C1B) and Hong Kong Children's Hospital (Site 3C1C). An NBA is specified in Site 3C1 abutting Road L18 for the accommodation of a multi-cell box culvert. The BH restrictions of Site 3C1A would be of 100mPD to serve the East Kowloon area and surrounding districts. Site 3A5 is planned for the Refuse Collection Point located to the left alongside the new AMC. A "G/IC" site abutting Shing Kai Road is designated for the existing EMSD Headquarters.

Lower BH restrictions with height bands ranging from 15mPD, 30mPD, 45mPD and 60mPD are imposed on these "G/IC" sites in South Apron. Sites reserved for EMSD Headquarters, police headquarters, Government offices, Hong Kong Children's Hospital and NAH will be subject to relatively higher BH restrictions ranging from 60mPD to 100mPD.

Sites located adjacent to the South Apron Corner waterfront should provide access to the waterfront promenade and enjoy sea views. These sites should provide a setback from the promenade to offer the opportunity to create a continuous promenade for public enjoyment which will serve to enhance visual permeability and legibility with reference to the Design Guidelines for Kai Tak Promenade. (Published in Aug 2018 on KTD's Website)

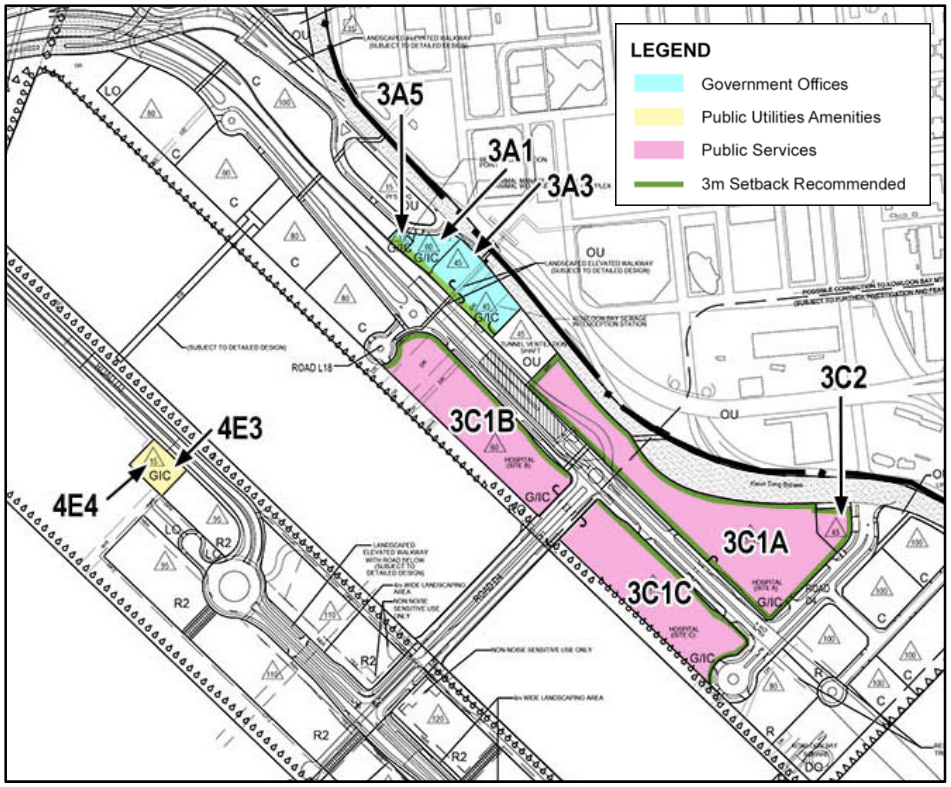


Figure 4.68 A 3 metres setback is recommended for all the G/IC sites adjacent to roads or pedestrian streets to engender an identity and ambiance consistent with the rest of the developments in Kai Tak.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Recreation, Public Amenities and Schools in the Grid Neighbourhood

To maximise open space, development within Sites 1L4 and 1J3 should be setback by 5 metres from the boundary facing the Kai Tak River, to create a uniform edge with the adjacent residential sites along the river park's edge.

Site 1J3 has been reserved for an Indoor Recreation Centre and Social Security Field Unit and Site 1L4 has been reserved as a Electricity Substation.

In general, all the G/IC sites designated on the periphery of the Grid Neighbourhood have been developed in clusters to provide more efficient facility sharing, comprehensive open space and comfortable circulation for local residential and other visitors in the KTD.

Easy and continuous pedestrian circulation along and through the area should be provided to create a strong physical and visual relationship between the Kai Tak River frontage, public recreation facilities and adjoining residential areas is recommended.

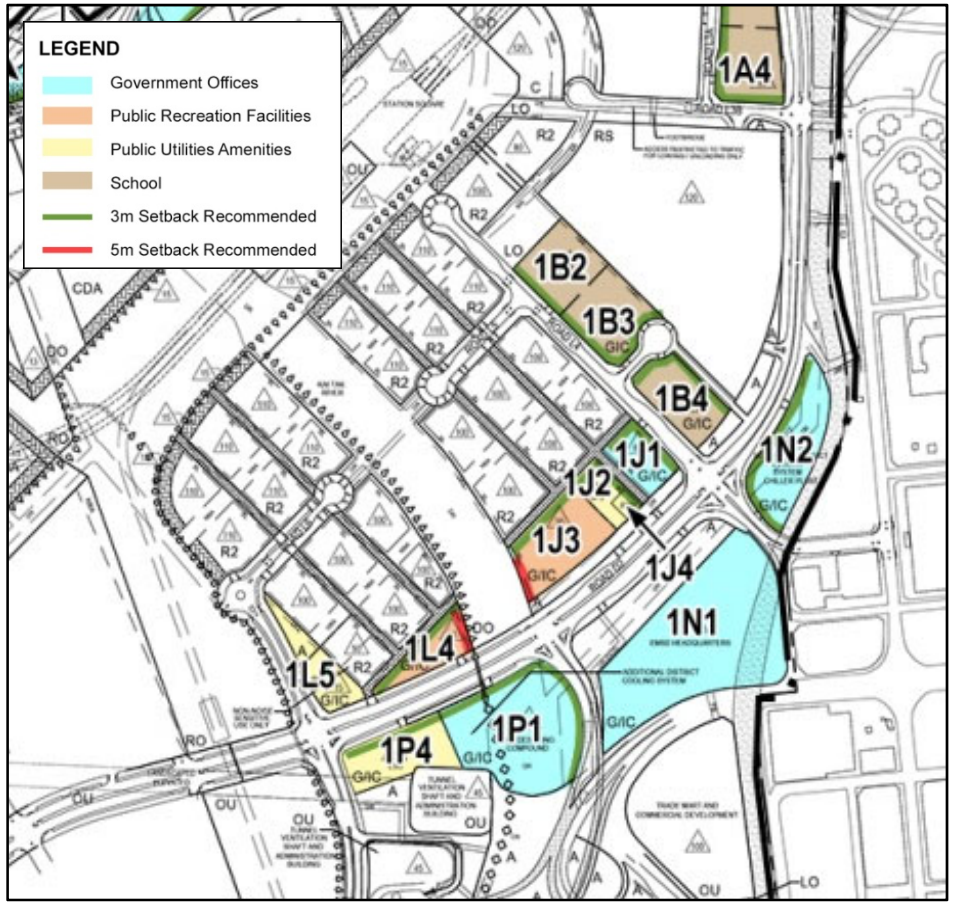


Figure 4.69 A 3 metres setback is recommended for all the G/IC sites adjacent to roads or pedestrian streets to engender an identity and ambiance consistent with the rest of the developments in Kai Tak.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Public Recreation Facilities – indoor recreation centre, a library and social welfare facilities

Easy and continuous pedestrian circulation within and through the area should be provided to create a strong physical and visual relationship between the Kai Tak River frontage, public recreation facilities and adjoining residential areas.

An open attractive environment for the recreational sites that enhances visitor's experience and encourage public use of the facilities creating a sense of scale, continuity and definition which establishes a comfortable and legible relationship between the Kai Tak riverfront and the buildings.

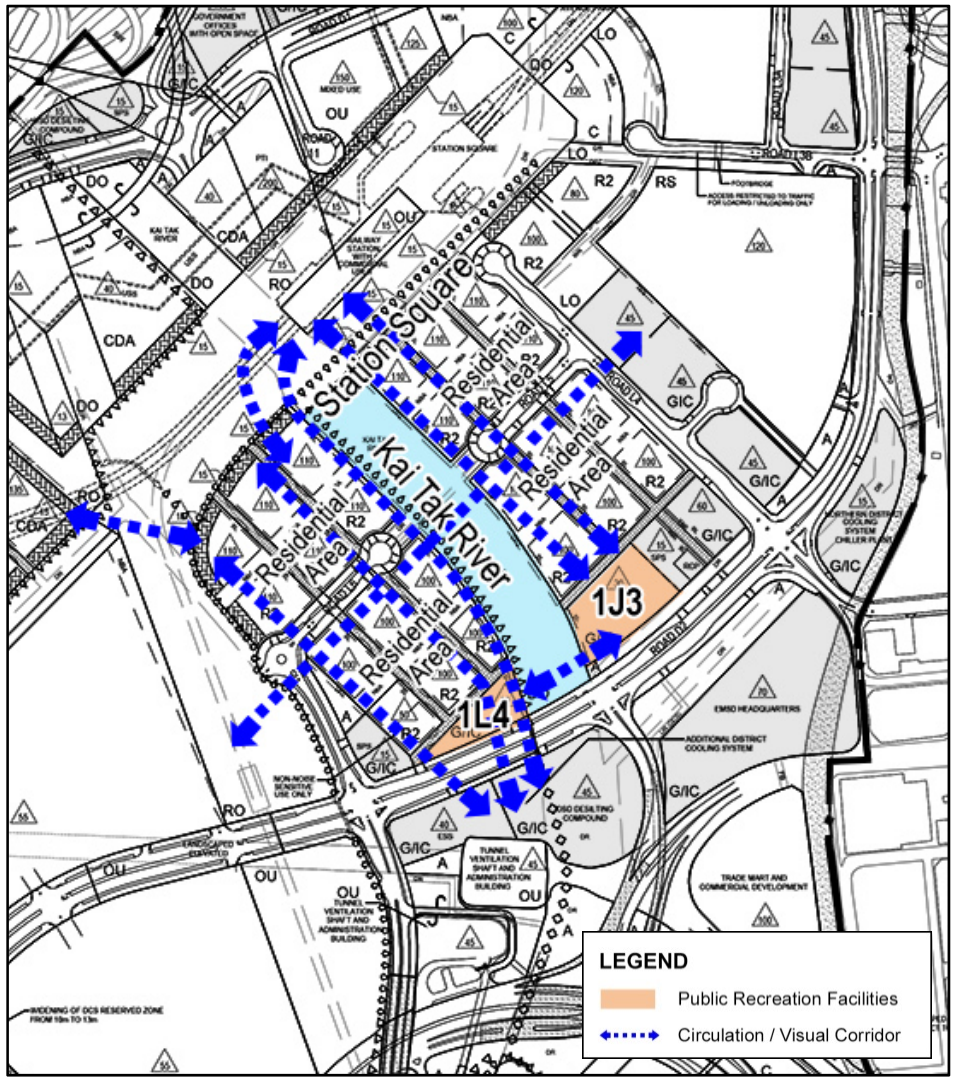


Figure 4.70 Location of public recreation facilities in the Grid Neighbourhood with possible linkages across the Kai Tak River

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

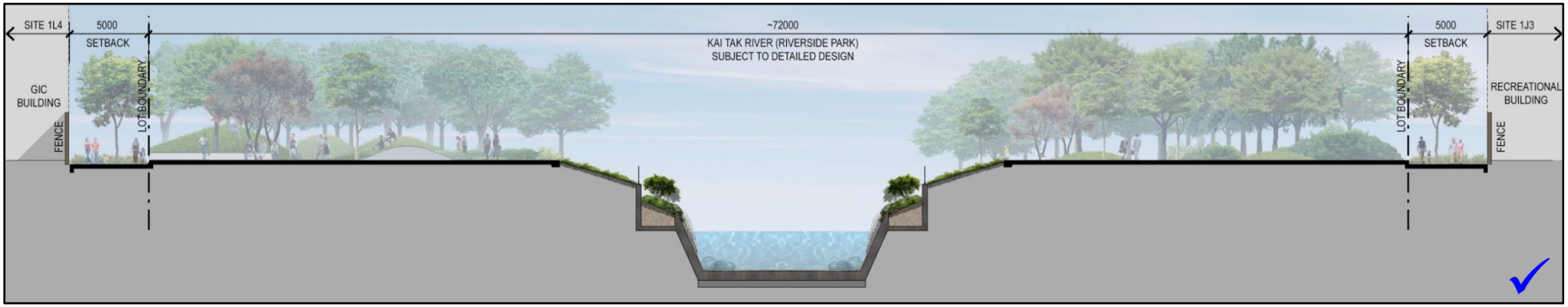


Figure 4.71

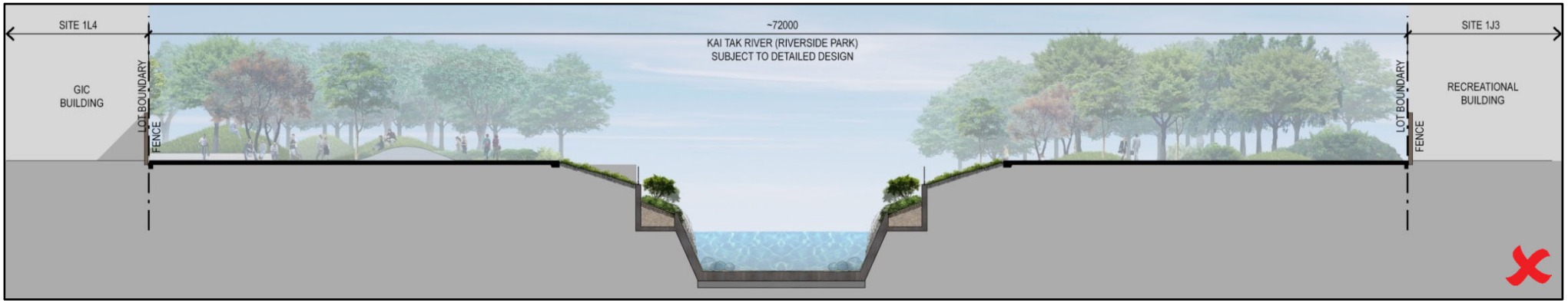


Figure 4.72

A minimum setback of 5 metres is recommended for planting and pedestrian circulation for Sites 1L4 and 1J3 to enhance legibility and add vibrancy

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Public Utilities Services, Public Transport Interchange and Schools – Mau Tau Kok Waterfront

The Ma Tau Kok waterfront promenade is part of the 11km long and generally 20 to 30 metres wide continuous landscaped promenade planned. This connects Ma Tau Kok, Kai Tak, Kwun Tong and Cha Kwo Ling waterfronts. These Government sites should provide pleasant views to the harbourfront and the promenade.

The G/IC sites on the promenade promote pedestrian-oriented environments and where practicable maximise the waterfront for public enjoyment.

The interface of the G/IC sites and the promenade needs careful consideration to ensure the transition between the two areas is not restricted in any way. The highest degree of visual permeability and legibility should be enshrined throughout the promenade. Within visual corridors the location of trees and plants can be specifically placed and organised to delineate points and routes of access and circulation and to define spaces of separate character and function within the visual corridor. The recommended 3 metres setback shall be subject to landscape treatments. It is intended to create and strengthen the relationship with visual corridors in streetscape context.

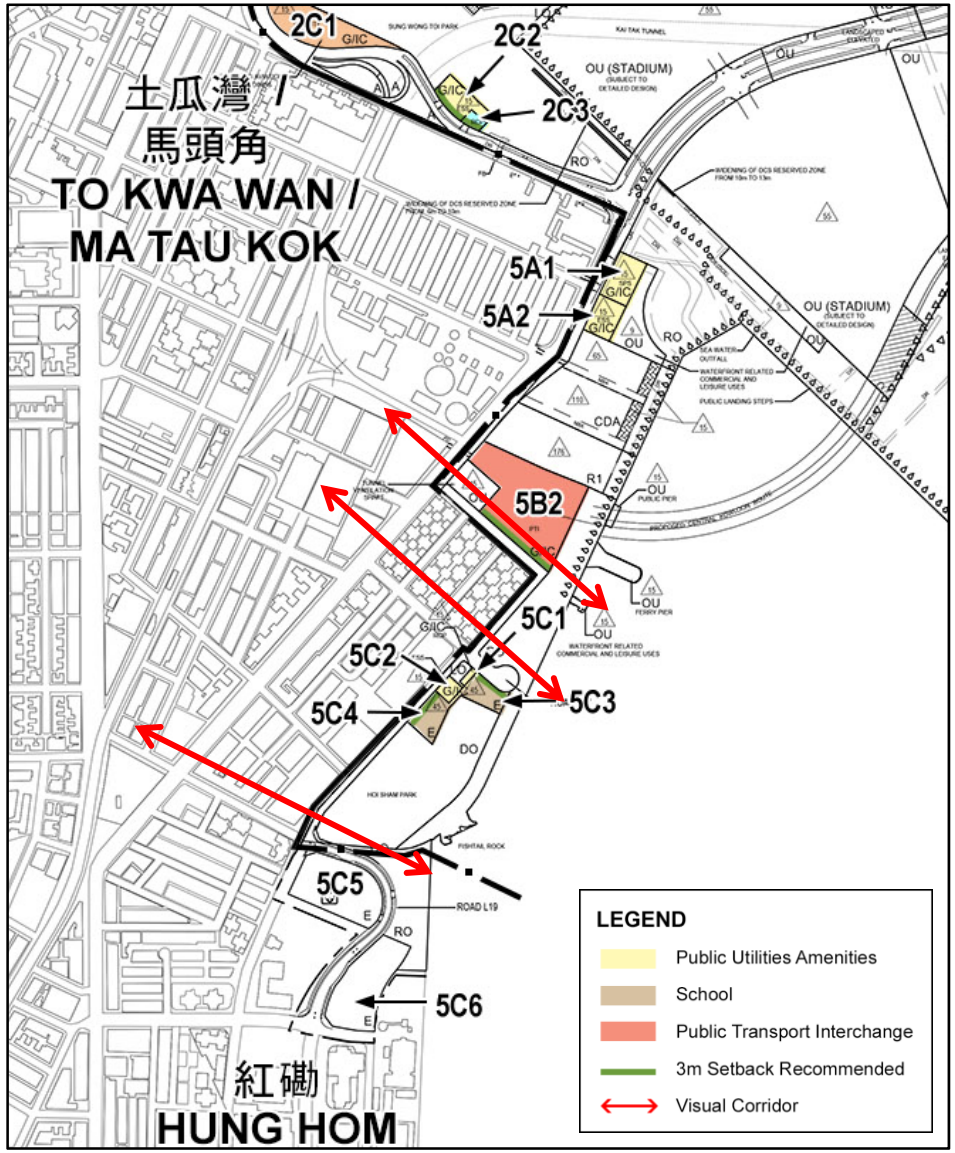


Figure 4.73 Location of public recreation facilities in the Ma Tau Kok area

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Public Utilities Services – Sewage Pumping Station and Electricity Substation – Runway Precinct

It is recommended that these sites provide appropriate plantings within the sites to enhance the visual amenity for the public.

The layout and design of the development should provide a readable and clear distinction between public, communal and private areas.

Given the nature of these uses will require the need for gates and / or fence walls, where possible the use of solid and non-porous gates or boundary walls should be avoided, particularly at the interface of the site with the adjacent site which is intended for tourism related activities.

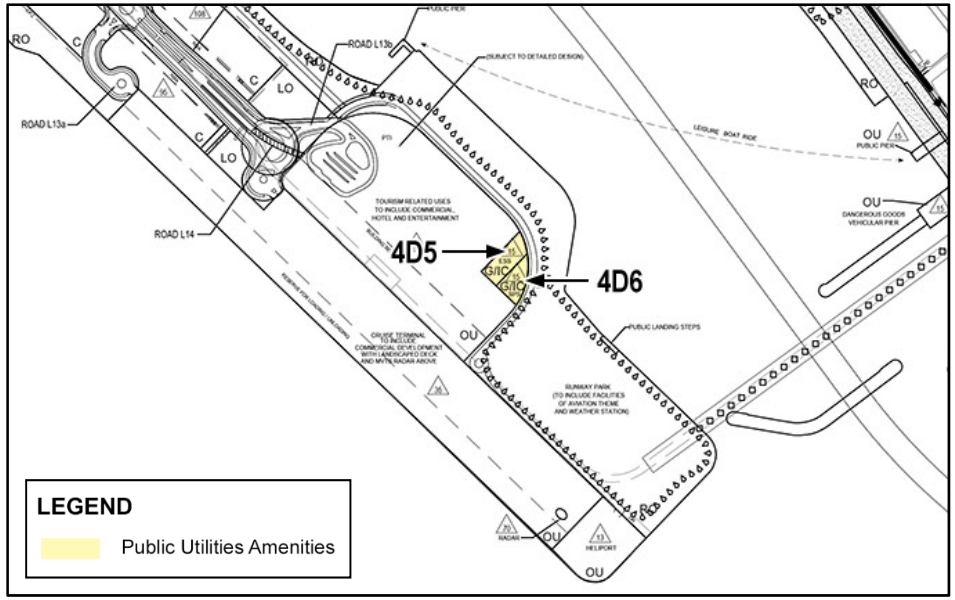


Figure 4.74 Location of public utilities amenities at the runway tip

Figure 4.75 Sheung Wan Pumping Station with roof top greening

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.3 Ambient Tone and Colour for All Government, Institution or Community Sites

This section outlines the ambient tone and recommended colour schemes for each areas within Kai Tak. The use of tones and colours when applied in a specific area can help to create a strong sense of place and make an area more visually appealing. Tone refers to the lightness or darkness of an object and is often considered as one of the most powerful design elements given the impact it can have in defining a building and / or an area.

It is recommended that the colour scheme developed by the Public Creatives Study Consultants be used for the G/IC Sites.

The recommended colour scheme features eight main colours and six highlight colours.

The choice of colours is inspired by the core values of Kai Tak, namely Connecting, Natural / Healthy, Future-driven, Strong-rooted, Energetic and Open / Welcoming. The colours follow and recognise the roots of what Kai Tak was and what it will be in the future. Following this line of thought, the colours are connected and displayed in harmony with the society and urban structures (architectural constructions, park and leisure environments, and business areas etc.) without being overpowering.

Main Colours

The four main colours are Pantone 427C and Pantone 409C, Pantone 333C and Pantone 2747C, each with a lighter shade for more variation (Pantone Cool Gray 1C, Pantone 406C, Pantone 331C and Pantone 300C). The grey tone series are applicable to 3D items and the other colours are applicable to 2D items.

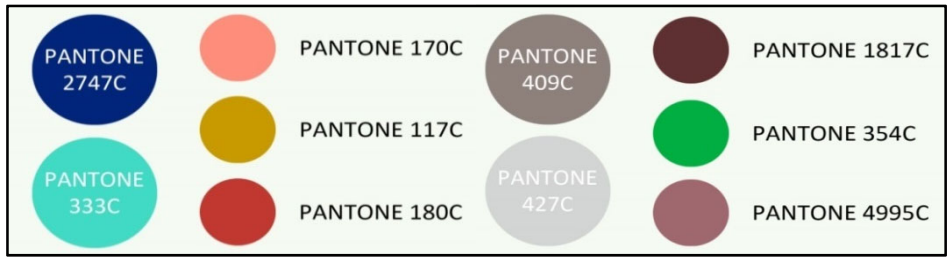


Figure 4.76 Recommendation by Public Creatives Study

Highlight Colours

To enrich the colour range and bring vibrancy to the colour scheme for Kai Tak, colours from the eco system around a *Ficus subpisocarpa* tree have been chosen as highlight colours. The highlight colours have a variety of colour intensities which supplement the main colours. The six highlight colours (Pantone 170C, Pantone 117C, Pantone 180C, Pantone 1817C, Pantone 354C and Pantone 4995C) can be used in any combination with the main colours.

The Public Creatives Study Consultant also proposed that a sense of place could be further enhanced by simply selecting suitable colour tones for the area or development. The main colours and highlight colours of the Study on Public Creatives can be observed as accents to the ambient tone and colour of the Urban Design Control and Guidelines.

Government buildings have always sought to be architecturally pleasing, so the selection of an appropriate colour tone together with the façade treatments are pertinent to success.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

OBJECTIVE

Ensure the tone and colour selected relates in a responsive way with the public realm in terms of strong visual recognition and provide a distinctive identity for the Government sites.

Recommended:

- Where there is a mix of land uses on a site, the use of carefully considered colour contrasts can be adopted to help identify different land uses, stimulate visual interest and ensure a monotonous design is avoided;
- Ensure the tone and colour selected throughout the development provides increased aesthetics and amenity to the Government sites.
- The colours and tones selected should contribute to the character of the building and its surrounding area; and
- The tone and colour of Government buildings within the same area should be consistent and complement one another.

Acceptable:

- Ensure all the elements of the building (roof / decks / stonework etc.) complement one another; and
- A variety of colours and physical embellishments can be applied to developments to generate a range of aesthetically subtle façades. The above illustrates examples of colour treated timber, coloured balconies, dual coloured tiled façades and steel or clear / coloured glass which can all contribute to creating a sense of place. Such materials and colour tones are recommended.

To Be Avoided:

- Using lurid colours;
- Giving service entrances and main entrances the same colour scheme. This can distract from pedestrian entrances which should be the focal point of the building; and
- Highlighting vents / pipes – these should be the same colour as the main wall.

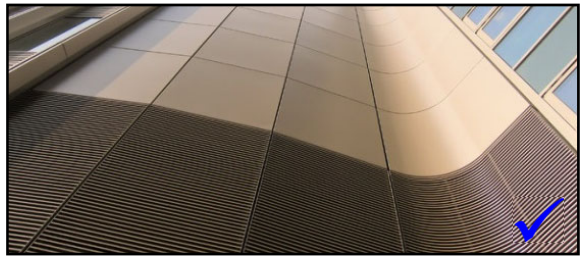


Figure 4.77 Subtle changes in the façade of the main buildings stimulate visual interest

Figure 4.78 Variation of façade tones with stone cladding rather than traditional glass and steel skin

Figure 4.79 Avoid using lurid colours and complicated colour coordination

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.4 Façade Treatments for the Government, Institution or Community Sites

The considered architectural design of building façades and the utilisation of appropriate materials can contribute significantly to creating an inviting and sophisticated environment.

A carefully conceived approach to façade design can contribute to cementing a sense of continuity and cohesion when viewed against the backdrop of a skyline, and at the level of human interaction at grade within the public and private realm. This section outline the general guideline of building façade treatment that can be adopted in Government for the following categories:

- **Government Offices**
- **Public Recreation Facilities**
- **Public Services**
- **Public Utilities Amenities**
- **Schools**
- **Public Transport Interchange**

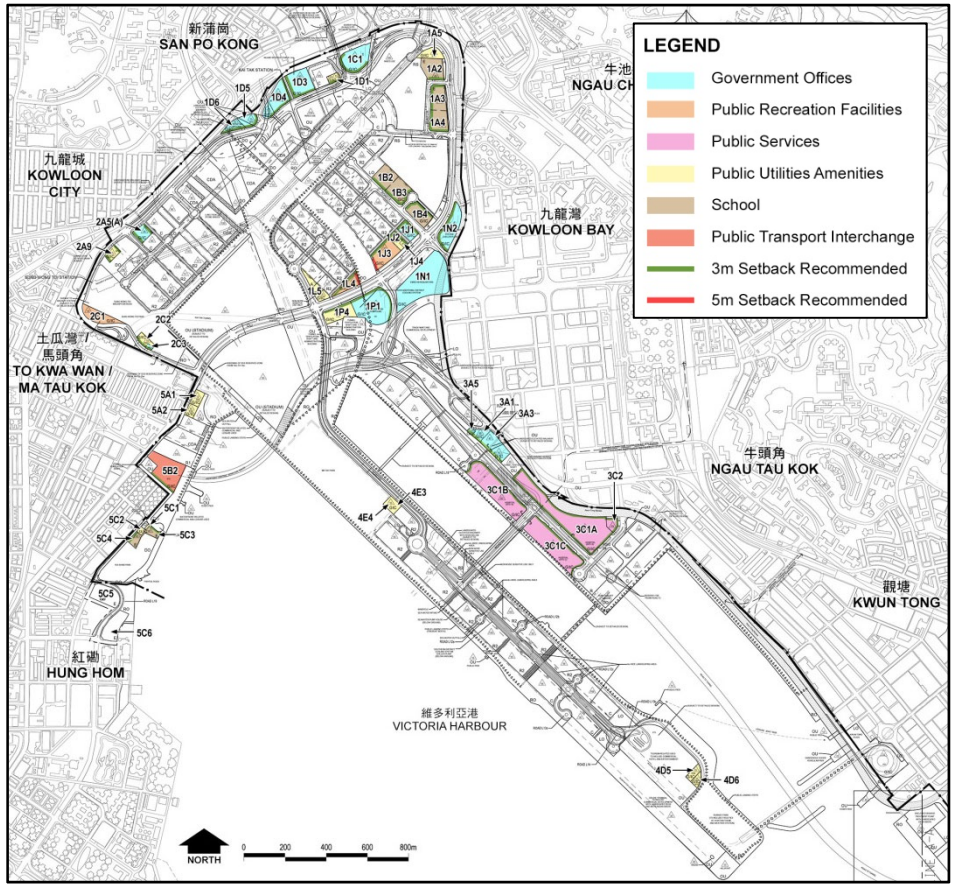


Figure 4.80 Site Reference Plan indicating all seven types of the G/IC sites within the KTDA

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Recommended:

- Encourage the front or side of façades along the street frontage to provide convenient public access from building entrances to public streets;
- Utilise natural materials that are non-reflective;
- Provide relief to long building façades [vertical or horizontal] through vertical and horizontal elements such as entrances, window patterns or other specific building articulations. These elements should provide visual interest for pedestrians when viewed from public streets;
- Design corner façades to address both street frontages with equal importance.

Acceptable:

- Consideration should be given to how certain colours and finishes withstand weather;
- Contrasting elements may be used to highlight building details. Elements should however architecturally coordinate and not overpower the main building elevation; and
- The exterior material should be durable and require little maintenance. Timber look and glass façades are light and subtle, providing a visual contrast which is aesthetically pleasing and makes for a simple yet sophisticated working environment.

Figure 4.81 A glass reinforced concrete screen that takes its inspiration from heritage of the region of India and rendering the building very energy efficient. Designed as a corporate office headquarters in South India.

Figure 4.82 Los Angeles Police Department Headquarters - A modern office building with a near-optimal window-to-wall area for high rating energy and daylight performance

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Limit the number of building materials used on the façade. As a general rule, use no more than three different types of materials on a single façade;
- Materials that are not consistent with the rest of the KTD should be avoided; and
- Excessive long blank façades should be avoided. This will detract from the experience and appearance of an active streetscape for pedestrians.

Figure 4.83 Office building with dark glazing in Edinburgh, Scotland

Figure 4.84 Delhi Police Headquarters in India with substantial building mass with no air ventilation penetration or breaks along the entire extent of the façade

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

a) Public Recreation Facilities - Recreation Centre, a Library and Social Welfare Facilities

Recommended:

- Changes in material should generally occur when there is a change in the plane of the façade. If possible, the change in materials and colour should occur on inside corners of the building. If a change is proposed along the line of a single plane, a pronounced expansion joint should be used to define a clear separation;
- High Visible Transmittance (VT) glazing in a neutral or soft colour helps make windows more effectively link to the outside world;
- All sides of the façade shall be designed with similar architectural elements, materials, and colours as the front façade. However, the design of side and rear façades may be simpler, more casual, and more utilitarian in nature;
- When windows will be near occupants, insulating glazing is the best choice for comfort; and
- Design corner façades to address street frontages with equal importance.

Acceptable:

- Provide visual relief to long building façades [vertical or horizontal] through vertical and horizontal elements such as entrances, window patterns or other specific building articulations. These elements should provide visual interest for pedestrians when viewed from public streets; and
- The exterior material should be durable and require little maintenance. Wood and glass façades are light and subtle, providing a visual contrast which is aesthetically pleasing and makes for a simple yet sophisticated working environment.

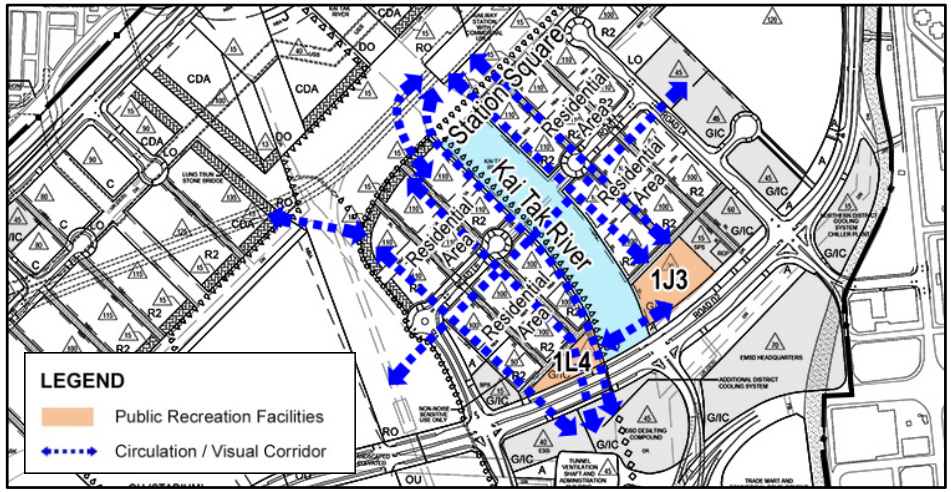


Figure 4.85 Site reference for the G/IC sites

Figure 4.86 Library in Sechelt, Canada - The use of glass provides a degree visual relief to the building and breaks up the building bulk

Figure 4.87 Example of interesting porous façade treatments for recreation facilities

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Excessive long blank façades should be avoided. This will detract from the experience and appearance of an active streetscape for pedestrians;
- Façade design should not be overly complicated or monotonous and should respect the functions of the intended uses;
- Fluorescent, neon and backlit aluminium signs on primary fascia's should be avoided;
- Mirror and tinted glass should be avoided on upper floor façades; and
- Bare featureless concrete façades should also be avoided.

Figure 4.88 Sports Hall in Korea with excessive long blank façades

Figure 4.89 Scotland Sports and Leisure Centre with excessive long blank façades

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

b) Public Transport Interchange

Recommended:

- Continuity in the appearance and quality of façade treatments should be adopted as a general principal for the design of public transport facilities in particular of each station structure's exterior. This is critical in contributing to such promoting pedestrian interest and ensuring a quality environment;
- It is suggested that terminus structures / bus shelters frontages are enhanced through architectural treatments such as projected canopies, shading devices and clearly defined advertisement and waiting areas etc. to enable passenger comfort. This will also add vitality and interest to the public realm, encourage natural ventilation and create a quality edge for public facilities;
- This will also seek to ensure an appropriate level of overlooking and natural surveillance is achieved which in turn engenders a sense of security; and
- The texture and appearance of exterior façade detailing should relate to the human scale as it is vital that the interaction between the buildings makes a positive contribution to the public realm and the public domain.

Figure 4.90 Example of contemporary PTI design incorporating projected canopies in France

Figure 4.91 Site reference for PTI in Area 5

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Acceptable:

- Durable modern low maintenance materials such as aluminium, zinc or sheet metal is acceptable. These types of finishes and / or detailing can contribute the visual variety and if subtly combined to soften the visual appearance of buildings. Appropriate colour tones should be selected in line with those recommended by the Public Creatives Study;
- The use of a contemporary design style incorporating steel and glass as principle elements with man-made surfaces from recycled materials are also advocated; and
- The combination of materials, detailing and treatments can enhance visual variety and the quality of the built environment.

To Be Avoided:

- Avoid traditional transport interchange settings in Kai Tak to create a special identity; and
- Avoid open uncovered transport interchange design that provides little visual relief.

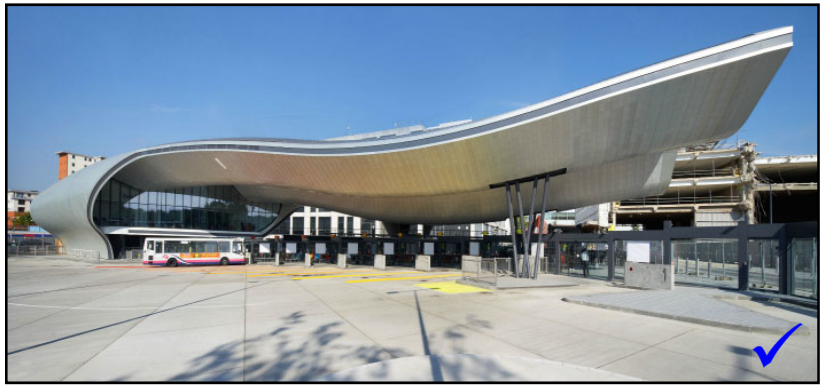


Figure 4.93 Modern PTI design, UK

Figures 4.92 Bus Terminus at Sheung Shui Station

Figures 4.94 Bus Terminus at and Kwun Tong

Examples of bus terminus in Hong Kong

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

c) Public Utilities Amenities – Electricity Substations, Sewage Pumping Stations, Drainage Services Department Desilting Compounds, Kowloon Bay Sewage Interception Station, Refuse Collection Points (RCP) and the District Cooling System Northern Plant

Recommended:

- Encourage the front or side of façades along the street frontage to provide convenient public access from building entrances to public streets;
- Encourage the use of plantings, and where possible vertical greens walls, to enhance the overall visual appearance of buildings;
- Provide relief to long building façades [vertical or horizontal] through vertical and horizontal elements such as entrances, window patterns or other specific building articulations. These elements should provide visual interest for pedestrians when viewed from public streets; and
- Design corner façade to address both street frontages with equal importance.

Figure 4.95 Contemporary RCP design in Hong Kong

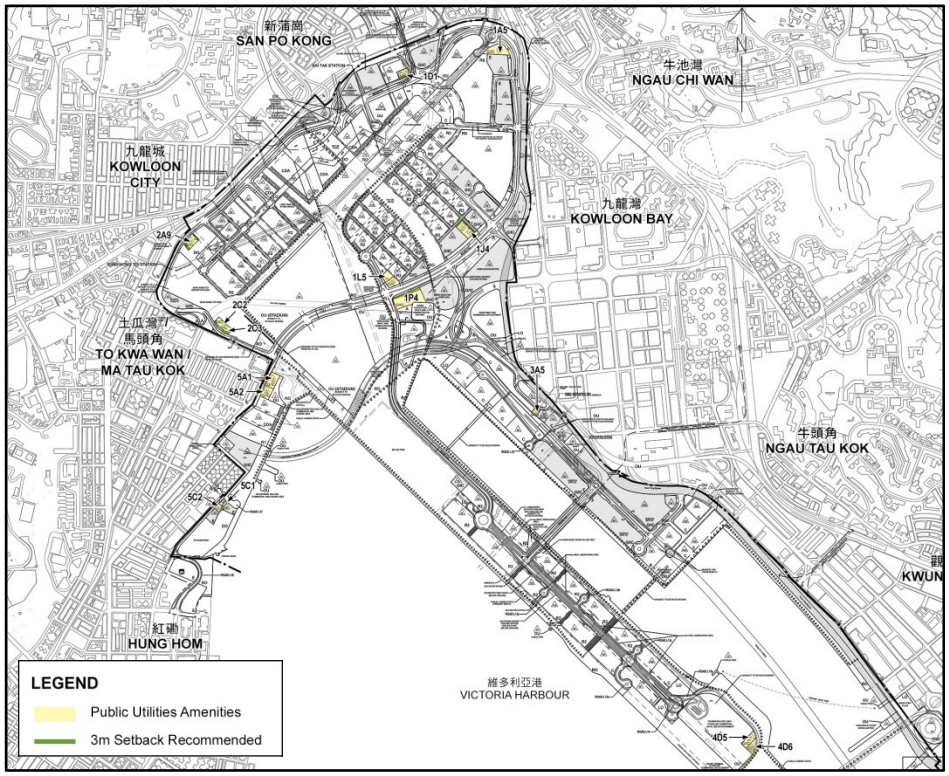


Figure 4.96 Site reference for public utilities amenities in the KTD

Figure 4.97 A two-layer façade of glass, metal, and wood-composite panels to create visual interest and shielding off sensitive uses.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Acceptable:

Street facing building façades, as well as all façades that front a plaza or pedestrian walkway, should be articulated to improve the quality of the design. Appropriate methods of articulation include, but are not limited to, the followings:

- Increasing the number and / or size of window openings;
- Creating a defined building cap or roofline;
- Providing stylized windows and doors;
- Creating a defined base for the building; and
- Providing three-dimensional expression lines (vertical and horizontal) between the floors of the structure and around storefronts and window openings.

To Be Avoided:

- Avoid traditional fences / gates as far as possible; and
- Muted and soft colours are encouraged. Extensively bold, bright, fluorescent, and neon colours should be avoided.

Figure 4.98

Figure 4.99

Figure 4.100

Figure 4.101

Figure 4.102

Figure 4.103

Examples of acceptable and avoided features for design of public utilities

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

d) Public Services – Animal Management Centre, Divisional Police Station, Ambulance Depot with Departmental Quarters and Hospital

Recommended:

- Continuity in the appearance and quality of façade treatments should be ensured as a general principal at all levels but in particular at the lower floors of each building's exterior. This is critical in contributing to such promoting pedestrian interest and ensuring a quality environment;
- façades need to ingeniously adapt in the building context and provide internal comfort at the same time; and
- It is suggested that building frontages are enhanced through architectural treatments such as balconies, bay windows clearly defined entrances and windows etc. This will add vitality and interest to the public realm and create a quality edge of sites.

Acceptable:

- Durable modern low maintenance materials such as stone and brick, are also encouraged. These types of finishes and / or detailing can contribute the visual variety and if subtlety combined to soften the visual appearance of buildings. Appropriate colour tones should be selected in line with those recommended by the Public Creatives Study;
- Façade treatments of a contemporary style incorporating steel and glass as principle elements are also advocated; and
- The combination of materials, detailing and treatments can enhance visual variety and the quality of the built environment.

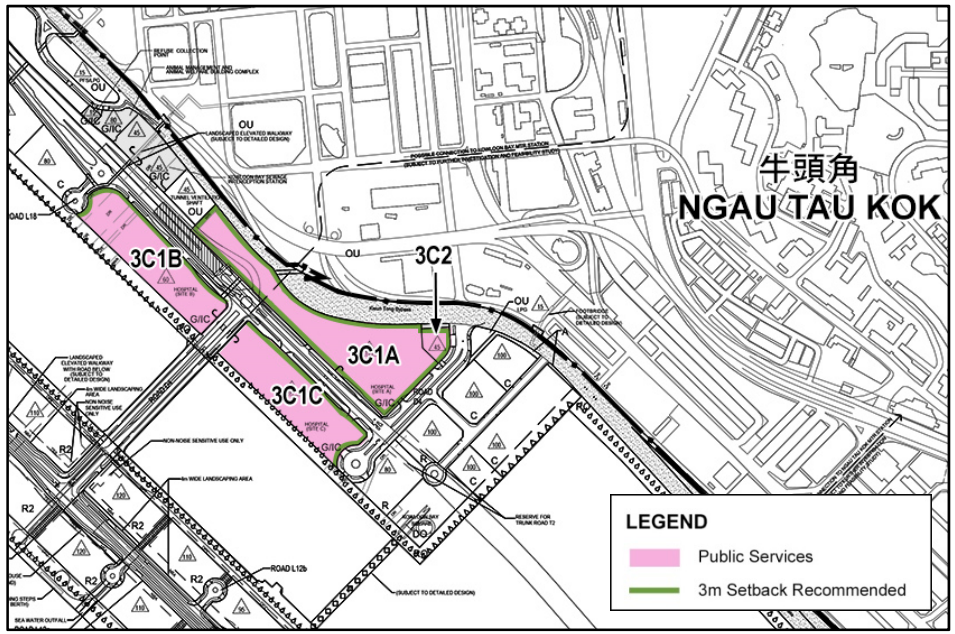


Figure 4.104 Site reference for public services in the KTD

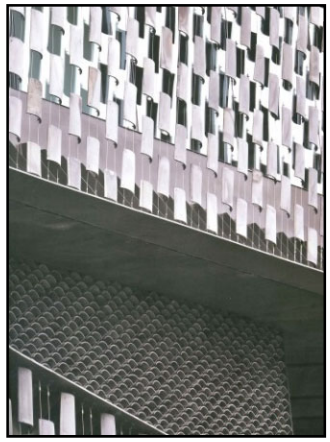


Figure 4.105

Figure 4.106

Examples of combination of materials, detailing and treatments can enhance visual variety and the quality of the built environment.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

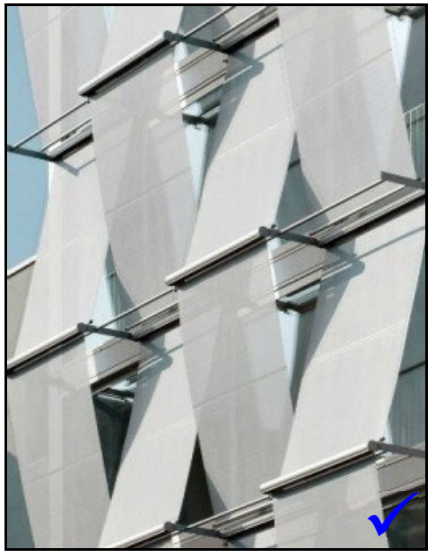
- Façades shall be designed with both solid surfaces and window openings to avoid the creation of blank walls and glass curtain walls. Blank walls on all façades that front a park, street, avenue, alley, plaza, or other public spaces should be avoided; and
- Avoid an imbalance between thermal and visual comfort in the design of the façade.

Figure 4.107

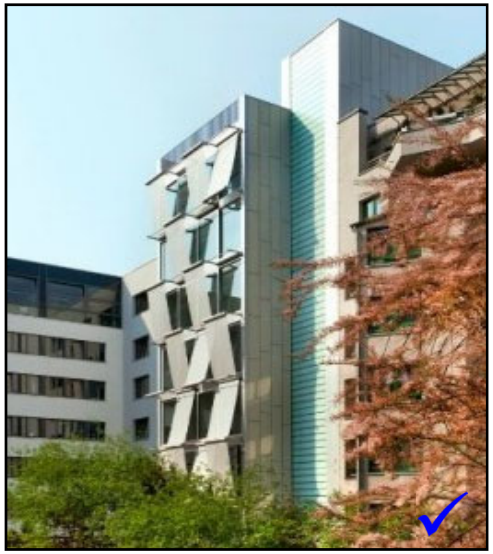
Figure 4.108

Avoid façade design that does not empathise with other developments in Kai Tak

Figure 4.109 The poor lasting material such as de-tiled façade of the UT Conference Centre in USA should be avoided. The building was once decorated with distinctive, blue-glazed tiles.



Figures 4.110



Figures 4.111

Berlin office building features two different high-performance façades - glass, wood and textiles combine to implying the intertwining of the garden and the city.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

e) School Sites – Primary Schools, Secondary Schools and a Special School

Recommended:

- Finish materials that give a feeling of permanence and quality and that have relatively low maintenance costs should be used on façades;
- Secondary entrances and windows are strongly encouraged on rear façades that are adjacent to parking facilities;
- Continuity in the appearance and quality of façade treatments should be ensured as a general principal at all levels but in particular at the lower floors of each building's exterior. This is critical in contributing to such promoting pedestrian interest and ensuring a quality environment; and
- It is suggested that building frontages are enhanced through architectural treatments such as balconies, bay windows clearly defined entrances and windows etc. This will add vitality and interest to the public realm and create a quality edge of sites.

Acceptable:

- Durable modern low maintenance materials such as stone and brick, are also encouraged. These types of finishes and / or detailing can contribute the visual variety and if subtlety combined to soften the visual appearance of buildings. Appropriate colour tones should be selected in line with those recommended by the Public Creatives Study;
- Façade treatments of a contemporary style incorporating steel and glass as principle elements are also advocated; and
- The combination of materials, detailing and treatments can enhance visual variety and the quality of the built environment.

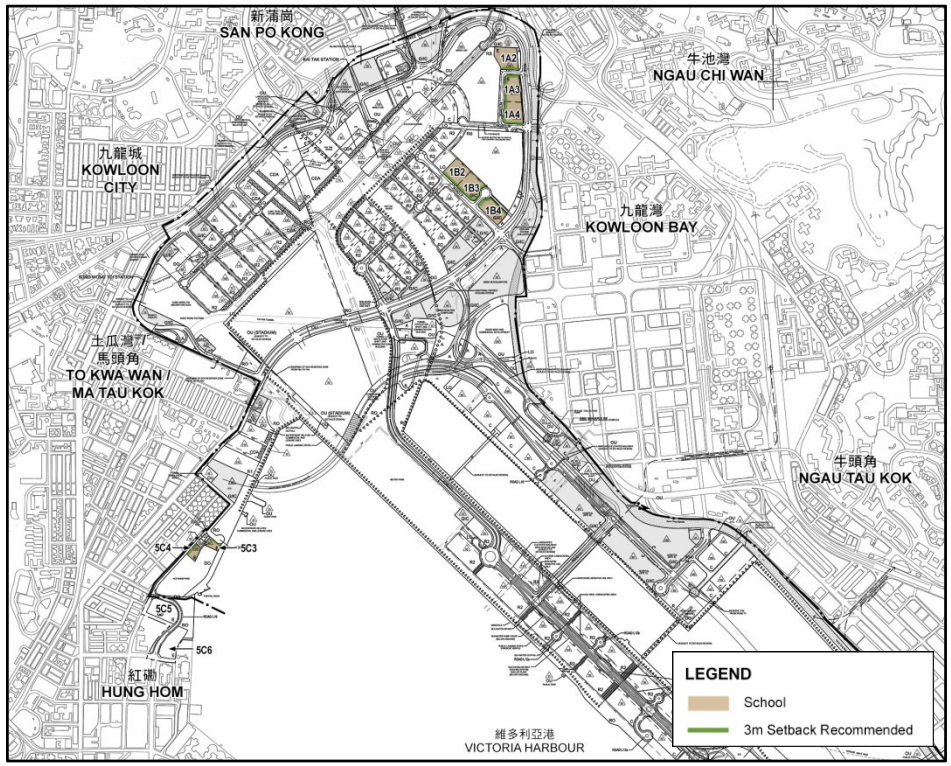


Figure 4.112 School sites in Kai Tak

Figure 4.113

Figure 4.114

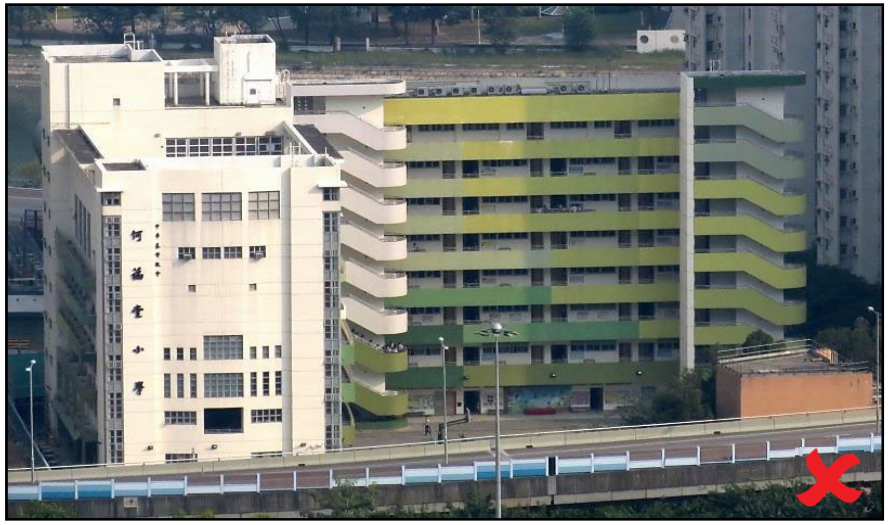
Example design of public schools in Hong Kong

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Façades shall be designed with both solid surfaces and window openings to avoid the creation of blank walls and glass curtain walls. Blank walls on all façades that front a park, street, avenue, alley, plaza, or other public spaces should be avoided;
- Stairways design for the school shall have a design that is compatible with overall structure. Stairs shall not have a tacked-on appearance or look like their design was an addition or afterthought; and
- Bare featureless concrete façades should also be avoided.

Figures 4.115 Islamic Dharwood Pau Memorial Primary School (Hong Kong)



Figures 4.116 Hoh Fuk Tong Primary School (Hong Kong)

Examples of bare featureless concrete façades and treatments that are not recommended

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.5 Reflectivity, Colour and Transparency of Glazing

A quality public realm is essential to achieving an attractive and active neighbourhood experience at the human scale. There are many principles associated in generating a high quality pedestrian environment in our cities, and one involves the creation of an interesting streetscape that engages our senses. The following sections outline the preferred and acceptable parameters relating to the reflectivity, colour and transparency of glazing at the pedestrian realm, to ensure an enhanced pedestrian realm is provided. The design features to be avoided are also outlined.

There are many benefits related to the functionality of glazing on façades including:

- Enhanced sun protection and cooling load control while improving thermal comfort and providing most of the light needed with daylighting;
- Enhanced air quality and reduced cooling loads using natural ventilation schemes employing the façade as an active air control element;
- Reduced operating costs by minimising lighting, cooling and heating energy use by optimising the daylighting-thermal tradeoffs; and
- Improved indoor environments leading to enhanced occupant health, comfort and performance.

Striking a Balance: Glazing is a classic design element that requires achieving a balance between thermal comfort, energy efficiency, and light quality (all of which require small window areas) and the equally important desire for views, daylight, and outdoor visual connectivity (all of which benefit from large vision-glass areas). Less window / curtain wall area equates to higher system performance low-cost solutions. Alternatively new glazing products can ameliorate thermal effects. It is recommended that a balance between glazing quantity and quality is achieved.

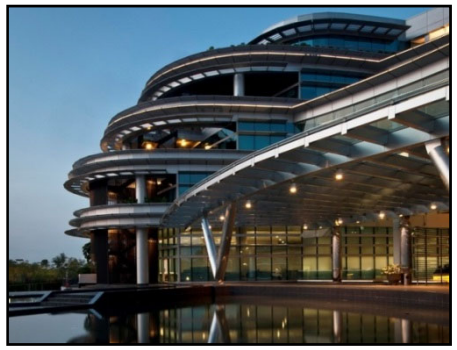


Figure 4.117 A modern office building with a near-optimal window-to-wall area for high rating energy and daylight performance in Boston, MA

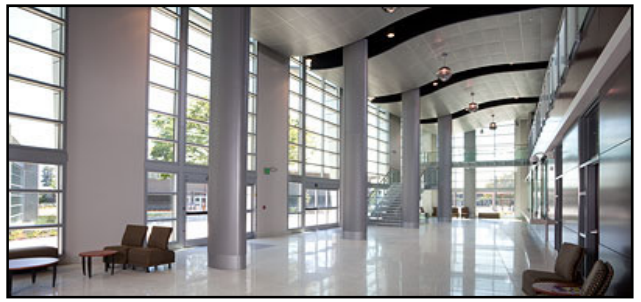


Figure 4.118

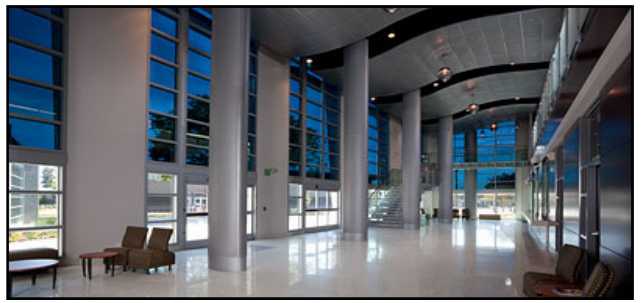


Figure 4.119

The Chabot College Community and Student Services Centre, USA: Atrium windows tint automatically throughout the day to control glare and solar heat into the interior space.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Recommended:

- Use largely transparent façades at the lower levels and adjacent to the streetscape where ground floor retail, commercial, community or other Government uses occur to promote streetscape activity;
- Lobbies and other common spaces should exhibit higher transparency in their façade treatments and should provide a visual connection to the pedestrian realm;
- Ensure visibility into buildings from ground level façades facing public streets and the pedestrian realm. Walls should be highly transparent with windows and doors making up at least 50% of the façade;
- Dual-pane insulating glazing usually provides more comfort as it improves acoustic performance and offers greater flexibility in product selection. New, energy-efficient buildings should use insulating glazing;
- Vary glazing selection by façade, if possible. A lower Solar Heat Gain Coefficient* (SHGC) on the South, East and especially West windows will reduce the cooling load;
- High Visual Transmittance** (VT) glazing in a neutral or soft colour helps make windows more effectively link to the outside world;
- Take any exterior shading into account when selecting appropriate glazing, as this reduces the importance of a low glazing SHGC;
- When windows will be near occupants, insulating glazing is the best choice for comfort;
- The use of reflective roof surface materials with high solar and thermal reflectivity is encouraged to help reduce urban heat island effect;
- The ground floor façade should have more area dedicated to transparent window and door openings than the upper floors; and
- Choose a spectrally selective glazing. For glare control, moderate VT (50-70%) is a good starting point. The larger the windows, the more critical the glare control and the lower the desirable VT.

Remarks:

* *Refers to the increase in temperature in a space, object or structure that results from solar radiation. The amount of solar gain increases with the strength of the sun, and with the ability of any intervening material to transmit or resist the radiation.*

** *A higher VT means there is more daylight in a space which, if designed properly, can offset electric lighting and its associated cooling loads.*

Figure 4.120 Phoenix Central Library, Arizona – The "sails" on north façade help reduce sky glare and undesirable direct-beam solar radiation when the rising and setting sun strikes the north façade. The shading means that high-VT glazing can be used, which allows more daylight to penetrate the interior.

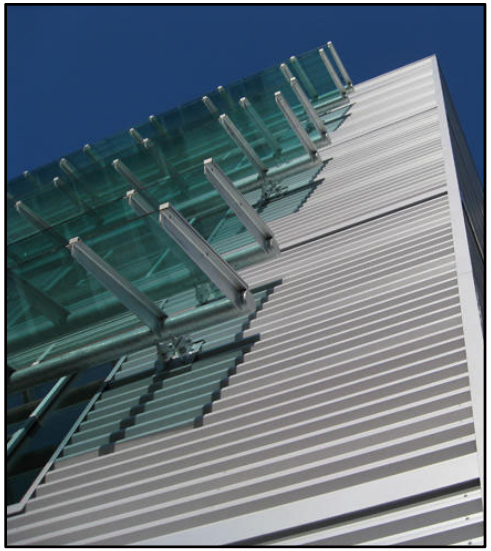


Figure 4.121 The Terry Thomas building, Seattle – Fixed exterior tinted glass overhangs help to reduce solar heat gain while allowing daylight into the interior spaces.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Acceptable:

- For public sites, extend glazing to the ground to avoid blank walls; and
- Large areas of glazing which extend from floor to ceiling are recommended for office developments as this can provide excellent views out of the space and good levels of natural light.

Figure 4.122 Sha Tin Government Offices provides a good example of an acceptable exterior façade finish

Figure 4.123 Cyberport Hong Kong is enhanced with external solar shading finishes

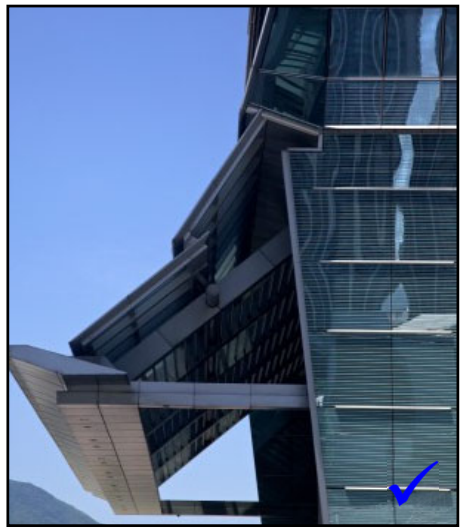


Figure 4.124 The Bank of China building: An example of how reflective glazing can achieve a visual effect in commercial areas

Figure 4.125 Three Pacific Place, Admiralty - building with reflective blue glazing that enable good levels of natural light

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Dark glazing: Many dark glazing finishes block more light than heat, and therefore only minimally reduce cooling load. Additionally, dark glass can produce a gloomy internal atmosphere. Dark glass not only reduces daylight, it also increases occupant discomfort on a sunny day. The glass absorbs solar energy and heats it up, turning it into a virtual furnace for anyone sitting nearby. Solar control is now available in much clearer glazing treatments;

- Tinted glass as it erodes the quality of the streetscape by hiding what lies behind buildings and simultaneously contributes to heating the urban environment by reflecting the sun back into the street and sidewalk;

- Relying only on glazing to reduce heat gain and discomfort. If direct solar beams come into the building, they still create a mechanical cooling load and discomfort for occupants in their path. Exterior shading combined with a good glazing selection is the best window strategy. Interior shading options can also help control solar heat gain; and

- Low visible transmittance glazing such as bronze, grey, or reflective-film windows were often used in office buildings of the past as they reduced solar heat gain but that problem has been overcome by modern spectrally selective (SS) windows which allow for significant daylighting and psychological benefits while avoiding overheating during sunny days.

Figure 4.126 Blue-green tinted glazing used in the building above to increase privacy has an adverse visual impact that is not proposed as desirable

Figure 4.127 Office building with dark glazing in Dubai is of a type that is not considered to be desirable

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.6 Control of Signs and Projections

The use of extravagant graphic elements and signs in the urban areas of Hong Kong is generally recognised as a cultural symbolism which contributes greatly to the townscape and totally dominates the character of area in Hong Kong. This type of information system transmits messages in as direct a form as possible with respect to restrictions, rules, activities and places.

OBJECTIVE

Throughout Kai Tak, several types of information must be conveyed to the public including, directional signage, street name signage and Government facilities building signage. Whilst well-designed graphic symbols apply to certain categories particularly those concerning safety, controls should not seek to inhibit the flamboyant use of advertising signs except with regard to certain building and dimensional constraints.

GOVERNMENT BUILDINGS

Recommended:

- Signage should be clear, concise and easily legible; and
- Material and design of signage should be consistent with the rest of the Government development in Kai Tak.

Acceptable:

- Flush Wall signs should avoid covering any window or door openings, or any prominent architectural features / detailing;
- Directional and information signage helps to provide clear directions to appropriate destinations, services and community facilities; and
- Signs should avoid detracting from the desirable character of the setting in which they are located.

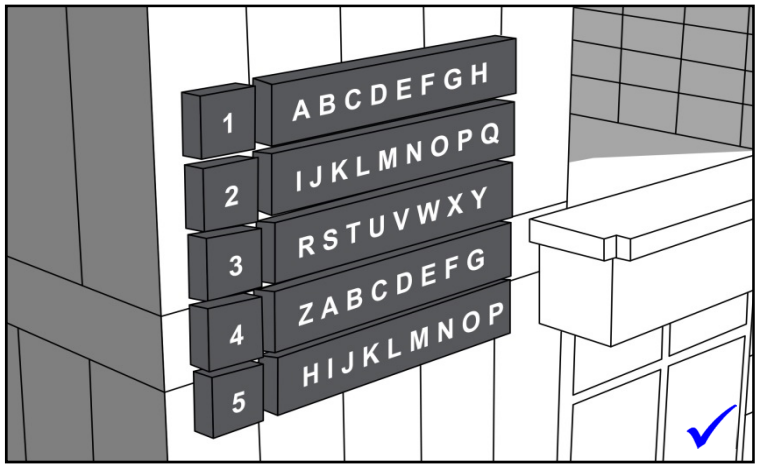


Figure 4.128

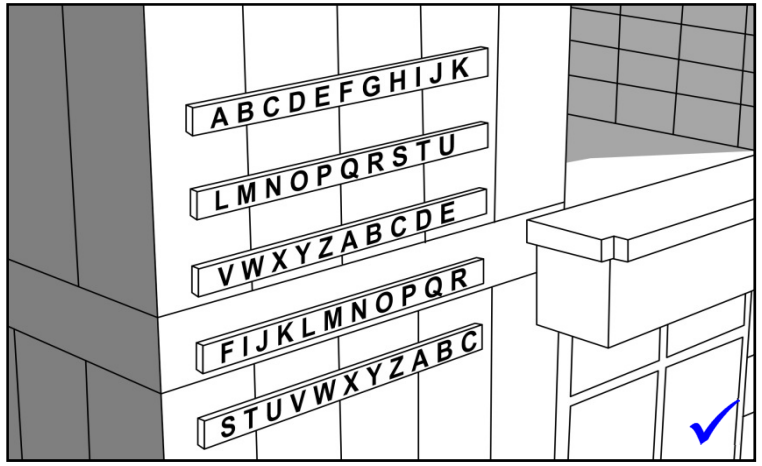


Figure 4.129

Signage should of an appropriate size and scale and easily identifiable

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Limit the use of directional signage to minimise visual clutter;
- Signs should not flash, revolve, move or contain mechanisms that give the impression of movement;
- Signage extending over a carriageway is discouraged in line with Transport Department's advice; and
- Directional signs that are likely to obstruct the view of traffic, or likely to unduly distract the attention of road users.

Remarks:
Sign lettering and background shall be in line with Hong Kong Planning Standards and Guidelines, Transport Department and any other official standards.

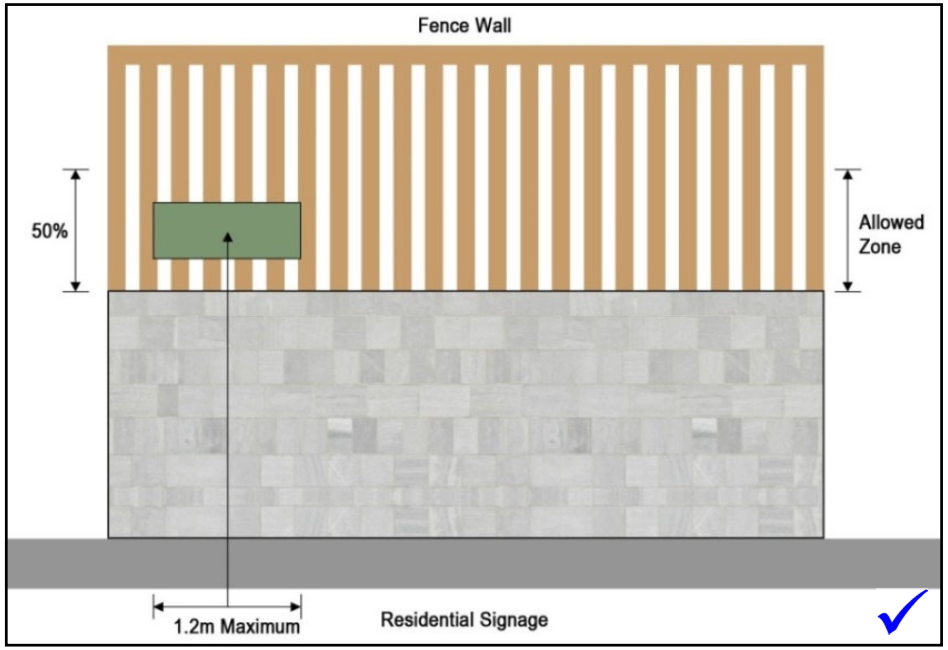


Figure 4.130 Signage on fence walls or gates should make reference to the Public Creatives Study's Recommendations

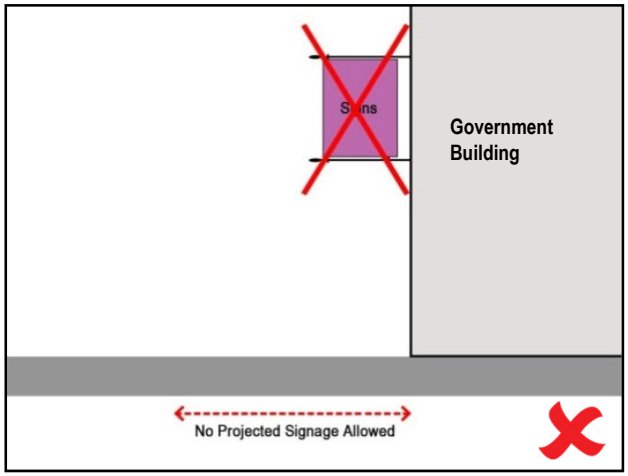


Figure 4.131

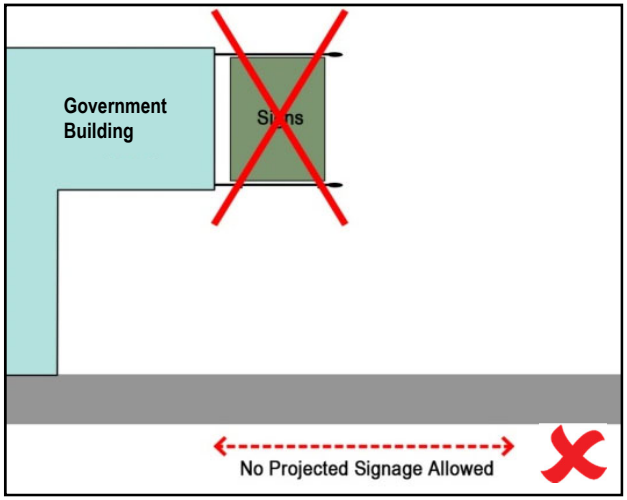


Figure 4.132

As depicted in the Figures above signage projecting over streets and pedestrian walkways should be avoided

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

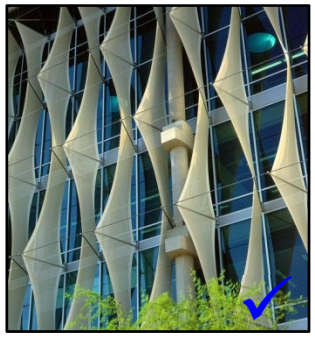
4.7 Projections and Cornices

OBJECTIVE

Building projections can extend to include design feature such as cornices, eaves, shading devices, sills and belt courses and other architectural features. These features should be designed in accordance with the standards set forth in related guidelines and ordinance. In Government building projections such as vertical bay (projecting for architectural interest) cornice, bay windows etc. serve similar features that increase either the floor area of the building or the volume of space enclosed by the building above grade, is recommended and shall be limited as follows:

Recommended:

- A minimum vertical clearance of 3.5 metres from the sidewalk is recommended along the perimeters of each development site fronting the Station Square and the Multi-purpose Sports Complex;
- Every opening placed on an external wall above the ground floor of any building shall be protected by a barrier which shall be not less than 1.1 metres high. The lowermost 150mm of such barrier shall be built solid.



Figures 4.133

Figures 4.134

Projections, shading devices and other detail features can contribute significantly to enhancing visual interest, architectural texture and variety

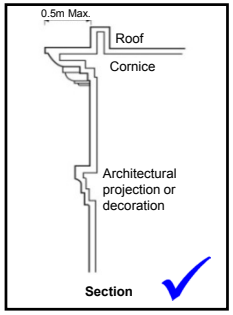
Acceptable:

- Projections may be placed within the curtilage of each site and serve to promote diversity of detail and variety on building façades; and
- The barrier provided should be so designed as to minimise the risk of people or objects falling, rolling, sliding or slipping through gaps in the barrier, or people climbing over the barrier.

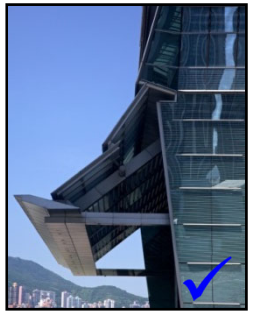
To Be Avoided:

- No projection should overhang an NBA or a place for public circulation;
- Roof overhangs, such as cornices, and eaves, may extend out from the façade of the building. However, roof overhangs shall not extend over a neighbouring parcel or more than 1 metre over a public sidewalk;
- No pipes (including water and drain pipes) or gutters, or the appurtenances of such pipes or gutters facing pedestrian street; and
- Avoid excessive projection of cornices, shading devices or any kind of excessive visual and physical impact.

Remarks:
Projections, cornices and balconies shall be in line with Buildings Ordinance & Regulations of Hong Kong any other official standards which are applicable to the design.



Figures 4.135



Figures 4.136

Illustration of types of projections that can be used. Diagram depicts projections and shading devices and visual projection designs that could be employed.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.8 External Works

External works refers to external structures that are not the main part of the building block structure. These include retaining walls, fence walls, awnings, balconies, pipes and lighting etc. Previously, the architecture of older buildings did not make provision for air conditioning units. The following provides some guidelines for external works that are to be considered for buildings facing the pedestrians streets.

OBJECTIVE

To ensure external works avoid visual clutter on the façades of buildings facing the pedestrian street, the retail belt and the Station Square.

Recommended:

- Building materials for exterior works should be selected for their functional and aesthetic quality, and should exhibit qualities of workmanship, durability, longevity and ease of maintenance;
- Gutters and downspouts should be screened or inside pipe duct of the building; and
- Air conditioning units should be screened appropriately where practical to protect the privacy of neighbours. Timber lattices and other semi permeable screens can be utilised as long as their finish, form and treatment is consistent with the design of buildings.

Acceptable:

- Reference should be made to the Building (Planning) Regulations as well as all other relevant legislation and guidelines for acceptable parameters relating to screening of air conditioning units, pipes and gutters, lumen levels etc.; and
- Gutters and downspouts shall match either the trim or body colour of the structure.

To Be Avoided:

- Visual clutter created by external works should be avoided. (e.g. clothes drying racks);
- The location of equipment (lights, utility infrastructure etc.) within the pedestrian zone that causes visual or physical intrusion should also be avoided.

Figure 4.137 Lui Kei Education Services Centre in Wan Chai

Figure 4.138 St. Paul's Convent School in Causeway Bay

Untreated services, air conditioning, pipelines and utility infrastructure can significantly undermine the architectural and visual quality of development.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.9 Fence Wall Design and Permeability

The character of street frontages in developments is often significantly affected by perimeter walls and fences. It is recommended to minimise the usage of fence wall for all Government buildings in Kai Tak. However, for sites where a fence wall is unavoidable, some restrictions should be applied to the height, materials and transparency of fences as they can determine the levels of visibility and outlook, informal surveillance, privacy, security and frontage activity. It is to enhance the visual permeability and porosity throughout Kai Tak as a whole and the porosity of the fence wall and related requirements should be specified in lease conditions.

OBJECTIVE

To enhance penetration of prevailing wind within individual development sites and in line with the proposals under the Kai Tak OZP, greater permeability of fence walls is advocated.

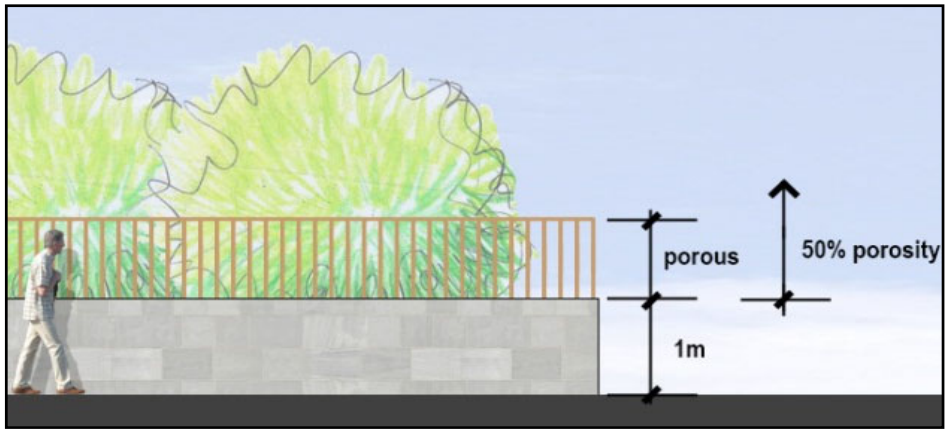


Figure 4.139 50% porosity is recommended for all fence wall designs within the KTD

Recommended:

- All boundary walls and fences fronting pedestrian streets and vehicular streets shall be appropriately designed to achieve visual and physical porosity of not less than 50% of the surface area across their entire length per linear metre from 1 metre from the average formation level of adjacent roads / footpaths or land.

Figure 4.140

Figure 4.141

Visually porous fence walls that enhance openness and visual permeability are recommended.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Acceptable:

- To engender an impression of openness and permeability through the application of different materials, front fences (and fences onto open space) should be highly visible and / or partially transparent; and
- The materials utilised in the construction of fence walls should be consistent with and respectful of the architectural form and treatment of buildings and shall also have specific regard to hard and soft landscape treatments employed in the public realm.

To Be Avoided:

- The creation of fortress like environments;
- Avoid using invasive species to ensure plants will not become overgrown as it will reduce the porosity of the fence wall; and
- To maintain the porosity of the fence wall design planting that grows to a height above 1 metre is generally discouraged.

Figure 4.142 Front fences (and fences onto open space) should be highly visible and / or partially transparent

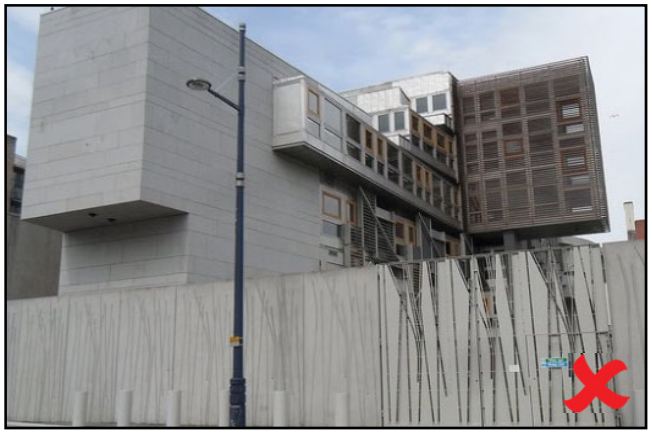


Figure 4.143

Figure 4.144

Avoid Blank façade fence walls and fence walls that are obstructed by overgrown planting

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.10 Feature Lighting

Well lit pedestrian spaces are generally safer and unthreatening. Care needs, however, to be taken to avoid unnecessary light pollution. Lighting can be provided by overhead street lamps (sometimes best mounted on buildings), as well as from bollards, feature lights, building and façade lights and shop windows.

OBJECTIVE:

Activating coordinated lighting fixtures that deliver safe and comfortable lighting levels should be provided.

Recommended:

- Lighting (exterior building and landscape) shall be directed away from adjacent properties and roadways, and shielded as necessary. In particular, no light shall be directed at the window of a residential unit either within or adjacent to a project;
- Recommended to provide well-designed architectural and landscape lighting, all exterior lighting (building and landscape) should be integrated with the building design, create a sense of safety, encourage pedestrian activity after dark, and support retail belt's nightlife;
- Ensure lights are correctly adjusted so that they only illuminate the surface intended and do not throw light onto neighbouring property;
- Lighting within the NBAs, setbacks and pedestrian streets should be of a pedestrian scale and should generally not exceed 5 metres in height, with close regular spacing;
- Special feature lighting should only be provided along the pedestrian street, waterfront promenade or open space areas;
- Landscape feature lighting should be of a character and scale that relates to the pedestrian and highlights special landscape features;
- All exterior lighting should be shielded effectively especially in Government sites to reduce sky glow, glare and eliminate light being cast into the night sky. The intrusion of bright lighting or poorly directed lights may cause serious adverse effects to neighbouring properties, which will likely affect the neighbours' amenity. A typical example would be an inconsiderately directed security light shining into a bedroom window; and
- Security lighting should be of a design similar to feature lighting.

Figure 4.145

Figure 4.146

Figure 4.147

Shielded exterior lighting and security lighting that is integrated into the architecture and landscape can help promote natural surveillance and add visual interest to the area whilst avoiding glare

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Acceptable:

- The shape and colour of lights can also generate three-dimensional sculptures, transforming the perception of a place and dramatically painting its night landscape. Generally, the more light, the more encouragement of night time activities which can be applied to the area around the Station Square;
- To reduce street clutter, lighting units could be mounted on fence wall or buildings, although this will require easements to be secured from the property owners;
- Appropriate security lights for G/IC facilities is considered acceptable;
- Security lights should be correctly adjusted so that they only pick up the movement of persons in the area intended and not beyond;
- Direct light downwards;
- Reduce the effects of glare main beam angles of all lights should be below 70 degrees; and
- For an all-night porch light a 9W lamp is more than adequate in most situations.

To Be Avoided:

- Avoid potential reflectivity and exterior glare on adjacent properties or roadways with solar panel lighting;
- Design lighting to avoid glare through full cut-off light fixtures and ensure lighting does not spill over onto adjacent properties.
- Abrupt changes in light levels;
- Contributing to light pollution;
- Colour changes mid-block. The colour / tone output of street light bulbs should be coordinated on a street-by-street basis;
- Lighting obstacles, such as planters or street furniture that have to be negotiated by drivers and by people on foot;
- Excessive glare from security lights for G/IC facilities; and
- Avoid installing equipment which spreads light above the horizontal.

Figure 4.148

Figure 4.149

Examples of mounted wall lighting

Figure 4.150

Figure 4.151

Examples of preferred fence wall lighting

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

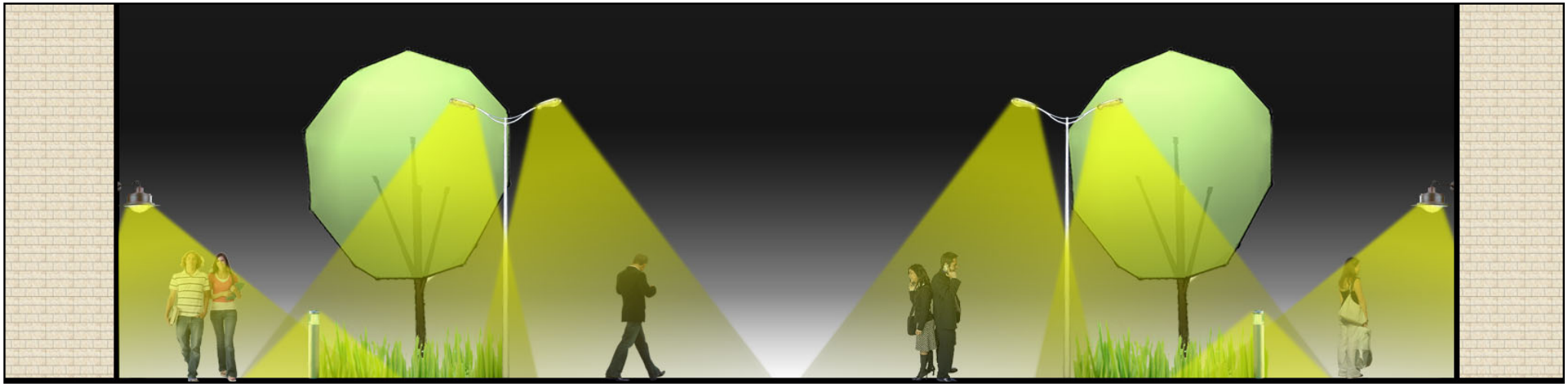


Figure 4.152 A practical example of the impact of uniformity of light, the uniformity of light distribution is vital to reduce glare. Glare control is particularly important when select the lighting applications.

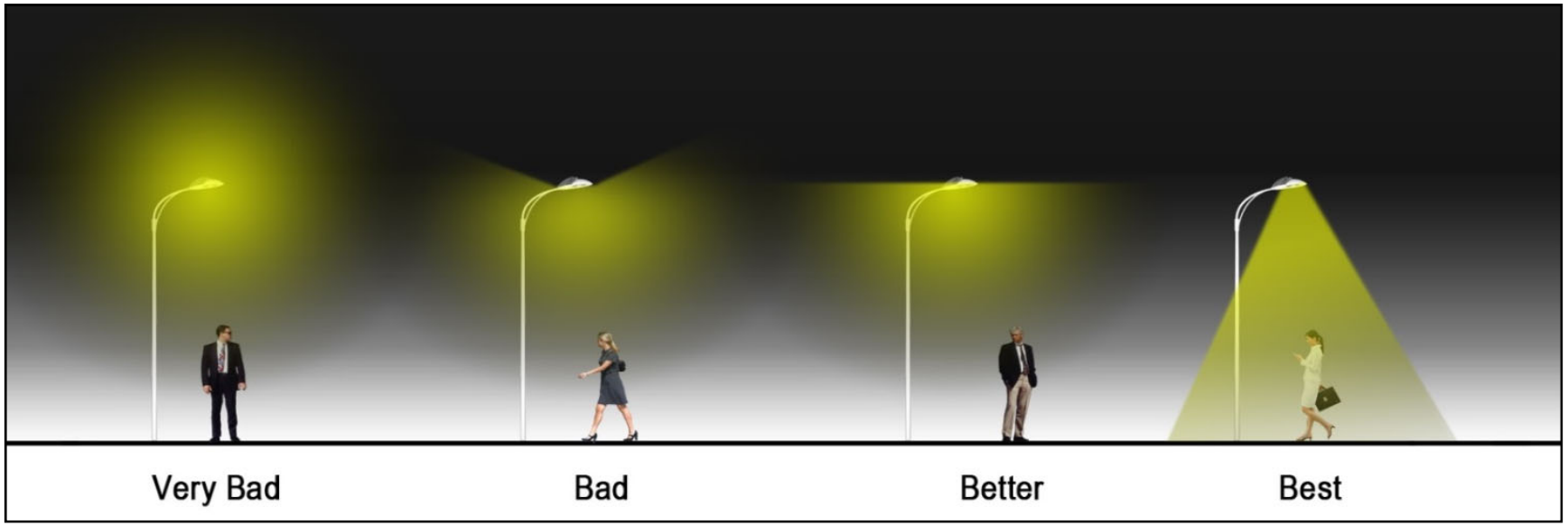


Figure 4.153 Examples of various types of lighting that provide ranges of illumination

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

4.11 Greening

OBJECTIVE

The greening and landscape design within Kai Tak shall encompass aesthetic design, distinct characters, innovative and creative proposals that would make the Kai Tak District a world class destination and a lively and attractive place to visit. Under this very requirement, open spaces, pedestrian ways, the Kai Tak River, railway, underground shopping street (USS) / subway system, footbridges as well as various Government offices, recreational and public facilities developments shall be suitably and architecturally inter-mingled so as to create people flow and synergy.

Recommended:

- Provide a major contribution in the site to the green continuum within the street network;
- Incorporate a continuous tree line avenue within the development site;
- The hard landscape treatments for internal roads shall be modern and contemporary and fitted into a family of Kai Tak streetscape design styles;
- Use of recyclable landscape elements and materials with low to medium levels of maintenance should be adopted as far as possible;
- Tree planting shall be a major feature of the roadside landscape;
- Planting character shall vary in terms of layout, form, texture and colour that tally with the Kai Tak's Landscape Master Plan;
- All trees shall be firmly within specialist guying systems and root barriers shall be installed;
- Planter beds should preferably be continuous with internal width as wide as practicable; and
- Instead of individual trees pits, planters are usually preferred. Soil corridor free of underground utilities should be provided along the street planting areas.

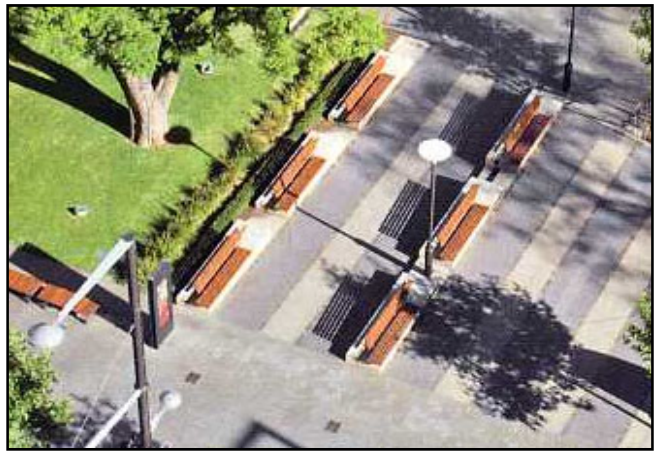


Figure 4.154 Possible planting and seating arrangements

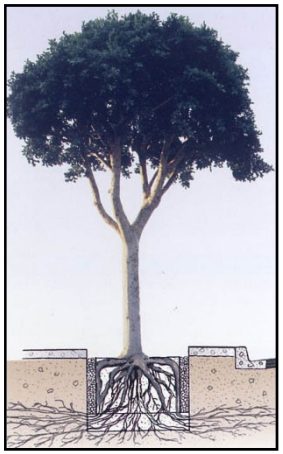


Figure 4.155 Example of root control barriers

Figure 4.156

Figure 4.157

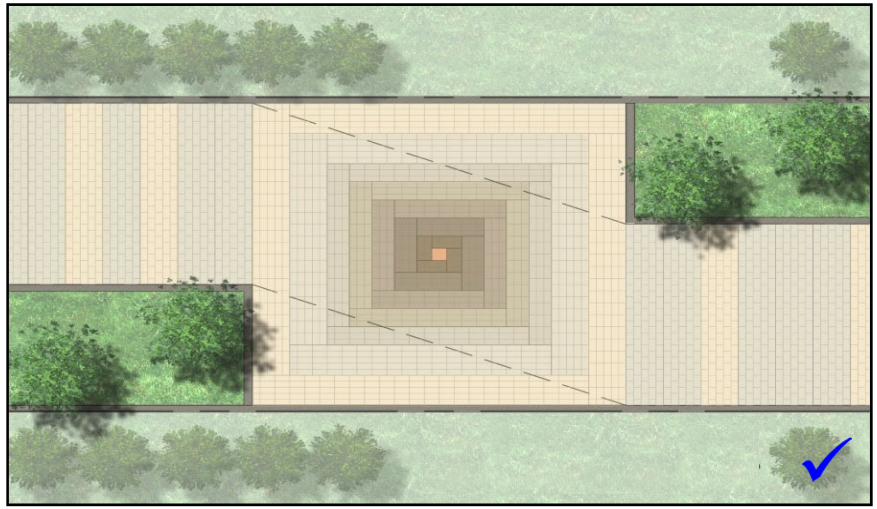
Examples of root control barriers of strong and flexible panels with T-Grid reinforcement. These should be installed along pavements to protect them against tree root penetration.

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

Acceptable:

- As a general guideline, at least 1.2 metres of soil depth (excluding drainage provision) should be provided at grade to enable tree planting within areas designated for greening. A minimum of 300mm soil depth is typically provided at roof areas designated for extensive greening treatments. The actual soil depths nevertheless shall depend on the types of planting selected as well as constraints of a specific site;
- The design of landscape treatments need to fit in with the Kai Tak Master Plan. The effects of plant size and form at maturity, seasonal changes, textures and colours all need to be considered in the design;
- Plant growth rates and the length of time required for planting to reach the desired visual screening or aesthetic effect should also influence plant selection;
- The greenery areas could be at ground level, podium level, sky gardens, slopes, vertical walls, roof of the buildings, etc. For the purpose of calculating countable greenery areas should be built in or fixed permanently to buildings with recommended minimum soil depths of 1,200mm for trees, 600mm for shrubs / climbers / bamboos and 300mm for grass / groundcovers;
- Continuous planting areas instead of fragmented areas should be designed, where practicable. For proprietary greening systems on roofs, sky gardens, vertical greening, etc. the soil provision is subject to performance based criteria; and
- The inference of the overall greening ratio requirement is that greening can be provided at all levels (including roof level) and in the form of green walls (i.e. vertical greening). Vertical greening should not however be deductible from the minimum extent of greening that is to be provided at grade.

Figure 4.158 Example of continuous planning area



Figures 4.159 Indicative Layout Plan

4.0 URBAN DESIGN GUIDELINES FOR THE GOVERNMENT, INSTITUTION OR COMMUNITY SITES

To Be Avoided:

- Avoid poor landscape treatments that incorporate complicated designs, they are expensive and difficult to maintain;
- Avoid poor plant selection and soil quality; low success rates; planting blocking views for drivers or pedestrians; and poor maintenance arising from poor accessibility for contractors;
- Avoid planting thorny species within Kai Tak as these could lead to complaints. This includes roses, thorny fruit trees and cactus;
- Avoid selection of trees with root systems that could damage roads and footpaths, avoid plants that are thorny or spiky and that could injure pedestrians, avoid plants that grow tall enough to contact electricity and broadband cables, avoid plants that would overhang the footpath where they could interfere with pedestrians and children in strollers, avoid plants with toxic foliage, flowers, fruit or nuts;
- The minimum headroom for planting areas under elevated structures is 2,500mm and situated adjacent to an access path. Planting of trees should be avoided at these areas.
- Avoid using invasive species to ensure adverse environmental impacts do not occur;
- Minimise the need for benching as it can be visually jarring and creates areas that are hard to maintain; and
- Cut and fill batters should be feathered into the natural landform and geometric profiles avoided unless it is a deliberate design feature.

Remarks:

* *Appropriate control / enforceable requirements that have been incorporated by Lands Department through land lease and land allocation documents.*

* *Interpretation of greening ratio will be based on PNAP APP-152 and applicable to all project sites within the Kai Tak Development according to Planning Department.*

* *Planting species and themes should take reference from the Kai Tak Landscape Master Plan.*

Figure 4.160 Example of planting blocking views for drivers or pedestrians; and poor maintenance arising from poor accessibility for contractors.

Figure 4.161 Avoid selection of trees with root systems that could damage roads and footpaths

5.0

OVERVIEW

5.0 OVERVIEW

The preceding sections have outlined design guidelines that are specifically advocated for G/IC sites within the KTD. They are intended to be applied in a flexible manner and their interpretation, and application should not be rigid but encourage creative solutions.

The core aim of the UDGMs is to assist architects, designers and planners etc. with the information and support they need to achieve a consistent high level of urban design throughout the development and helping to meet with the identified design control parameters.

It is intended that they can assist in meeting with the aspirations of the people who will live and work in Kai Tak, and serve to inform both first and last impressions for visitors.

In summary, the UDGMs aims to raise the quality and consistency of the design of streets and spaces of the development and G/IC sites, and to widen the range and quality of the purposes they serve by:

- Introducing a more standardised approach to their design and appearance; and
- Improving consistency and coordination of the planning and execution of works.

Remarks:
Compliance with all relevant Guidelines and Regulations is required.

Appendices

Appendix A: Recommended Engineering Conditions for the Government, Institution or Community Development Sites

Fence Walls

LC1 – All boundary walls and fences fronting pedestrian streets shall be appropriately designed to achieve visual and physical porosity of no less than 50% of the surface area across their entire length per linear metre from 1 metre from the general formation of adjacent pedestrian streets / footpaths or land.

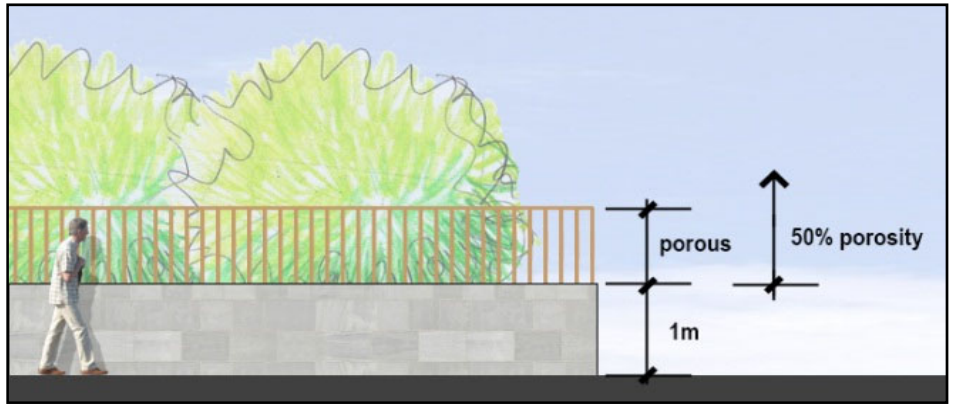
Non-Building Area

LC2 – Except with the prior written consent of the Director of Lands, no building or structure shall be erected or constructed within the NBAs except the following:

- Boundary walls or fences or both, provided that if the boundary walls or fences or both shall front onto pedestrian street, road or path, such boundary walls or fences or both shall be erected or constructed in all respects to the satisfaction of the Director of Lands to achieve visual and physical porosity of no less than 50% along the horizontal plane per linear metre from 1 metre above the general formation level of the adjacent pedestrian street, road or path; and landscaping features and associated facilities.

Greening

LC3 – Greening shall be provided within the 5 metres building setback within each site located along the edges of the proposed Kai Tak River for Sites 1L4 and 1J3.



Appendix B: Definitions

Pedestrian Zone: An area that abuts or has visual connection with a street or public pedestrian way / public open space accessible from a street, and the top soil level, or the top level of the frame or stack in the case of vertical greening, is within a level up to 15 metres above such street and / or is provided at ground level or levels easily accessible to pedestrians which includes greenery areas at street level and at level above street if such level is accessible to pedestrians directly from a street.

Fence Wall Porosity: Is the extent of visual and physical porosity along the horizontal plane across their entire length per linear metre from one metre from the general formation level of adjacent roads / footpaths or land. Specifications are imposed to ensure that perimeter walls do not constitutive physically dominant or visually adverse elements within the built environment and enclose spaces to the extent that visual permeability is affected.

Greening: can be interpreted within the broader definition of landscape; generally refers to the appearance of the land cover. It includes components such as shapes, textures and colours, and their combinations to create distinctive patterns and pictures – HKPSG Ch4. Greening refers to the inclusion of soft landscape treatments at a specific given ratio on a horizontal or vertical plane within a given site and around, on, and upon a building within that site. Horizontal greening is typically applied at ground or roof level. Vertical greening refers to greening applied using a range of techniques to the vertical plane of a building (i.e. upon the façade).

Non-Building Areas

The ES of the latest approved Kai Tak OZP No. S/K22/6 gazetted on May 2018 stipulates the purpose of the NBAs:

"…areas…of different widths…designated in various zones to serve multi purposes including the enhancement of air ventilation, improvement of visual permeability and the promotion of urban design concepts".

Whilst the realization of these objectives infers a presumption against development the OZP does allow that the following will be permitted NBAs:

- Landscaping and street furniture;
- Underground structures; and
- Fence or boundary walls with high visual / air porosity along the boundaries of residential sites.

The OZP states clearly that only "under exceptional circumstances" would a minor relaxation be considered by the Town Planning Board (the Board) on application under section 16 of the Town Planning Ordinance".

For the purposes of developing clauses for inclusion in engineering conditions it is important that there should be no ambiguity with respect to the realization of the planning intention behind NBAs. As such, and for the purposes of certainty there shall be a presumption against development within an NBA save for hard and soft landscape treatments and the construction of a physically and a visually porous fence wall, gate, or fence as specified in the engineering conditions. (Refer **Appendix A**)

Appendix C: Current Outline Zoning Plan Provisions Extending to the Government, Institution or Community Development Sites

Outline Zoning Plan Provisions Affecting the Government, Institution or Community Sites in Kai Tak

Height restrictions are imposed on a number of sites. For the cluster of G/IC sites in the North Apron (Sites 1D1-6 and 1C1) the following height is permitted:

Site Reference	Proposed Land Use	Maximum Permitted Height
1C1	Police Headquarters	90mPD
1D1	Electricity Substation	15mPD
1D3	Government Office - Inland Revenue Tower	80mPD (BH restrictions of Site 1D3 relaxed from 60mPD to 80mPD by the Town Planning Board on 17.4.2015 vide Application No. A/K22/16)
1D4	Government Office	15mPD-100mPD
1D5	Sewage Pumping Station	15mPD
1D6	Drainage Services Department Desilting Compound	15mPD

Site 1D3 has been earmarked for the reprovisioning of the Inland Revenue Department originally accommodated in Wan Chai. The Government offices cluster will enable the Government services to be more accessible to both the existing and future population. The design intent at Site 1D3 is to integrate the USS with the Government office development above. Flexibility should be allowed to remove / relocate the public access (lifts / staircases) within the site if desirable. As such, the areas dedicated for public access will be included in the PR calculation for the future Government office development.

Site Reference	Proposed Land Use	Maximum Permitted Height
2A9	Sewage Pumping Station	15mPD
2C2	Electricity Sub Station	15mPD
2C3	Refuse Collection Point	15mPD

Site 2A9 include 3 metres wide NBAs abutting the pedestrian street within the North Apron. It is proposed that the planting and hardscape treatments of the NBAs within the G/IC sites remain consistent with the adjacent Commercial sites.

Appendix C: Current Outline Zoning Plan Provisions Extending to the Government, Institution or Community Development Sites

Outline Zoning Plan Provisions Affecting the Government, Institution or Community Sites in Kai Tak

Throughout Kai Tak, schools have been developed in clusters to provide flexibility for facility sharing in future.

Site Reference	Proposed Land Use	Maximum Permitted Height
1A2	Secondary School	45mPD
1A3	Primary School	45mPD
1A4	Primary School	45mPD
1B2	Primary School	45mPD
1B3	Secondary School	45mPD
1B4	Primary School	45mPD
5C3	Primary School	45mPD
5C4	Primary School	45mPD
5C5*	Special School	8 Storeys
5C6*	Secondary School	8 Storeys

** Sites 5C5 and 5C6 falls under Hung Hom OZP and subject to BH restrictions of 8 storeys*

A greening ratio of 30% of the total site area will be applied to all "E" zones within the KTD. This will include a minimum of 20% at grade greening of the total site area and 20% roof level greening of the total roof area.

In order to create a linear park open space, buildings within the Sites 1L4 and 1J3 will be setback 5 metres from the boundary facing the Kai Tak River, to create a uniform edge with the adjacent residential sites along the river park's edge.

Site Reference	Proposed Land Use	Maximum Permitted Height
1J1	Major Library & Integrated Family Service Centre	60mPD
1J2	Sewage Pumping Station	15mPD
1J3	Indoor Recreation Centre & Social Security Field Unit	30mPD
1J4	Refuse Collection Point	15mPD
1L4	Electricity Substation	30mPD
1L5	Sewage Pumping Station	15mPD

Appendix C: Current Outline Zoning Plan Provisions Extending to the Government, Institution or Community Development Sites

Outline Zoning Plan Provisions Affecting the Government, Institution or Community Sites in Kai Tak

As mentioned previously, Site 1N2 is to accommodate a district cooling system plant site to the east of the Grid Neighbourhood. Located at an entrance of Kai Tak from Kowloon Bay, this system plant provides valuable opportunity to demonstrate to the public the merits of this environmentally friendly initiative.

Site Reference	Proposed Land Use	Maximum Permitted Height
1N1	EMSD Headquarters	70mPD
1N2	District Cooling System Northern Plant	15mPD
1P1	Drainage Services Department Desilting Compound	45mPD
1P4	Electricity Substation	40mPD

A NBA is specified in Site 3C1 abutting Road L18 for accommodation of a multi-cell box culvert.

Site Reference	Proposed Land Use	Maximum Permitted Height
3A1	Animal Management Centre	80mPD
3A3	Kowloon Bay Sewage Interception Station	45mPD
3A5	Refuse Collection Point	15mPD
3C1A	New Acute Hospital	100mPD
3C1B	New Acute Hospital	60mPD
3C1C	Hong Kong Children's Hospital	60mPD
3C2	Sub-divisional Fire Station and Ambulance Facility	45mPD

Appendix C: Current Outline Zoning Plan Provisions Extending to the Government, Institution or Community Development Sites

Outline Zoning Plan Provisions Affecting the Government, Institution or Community Sites in Kai Tak

A greening ratio of 30% of the individual total site areas will be applied to all "G" and "IC" sites within the KTD. This will include a minimum of 20% at-grade greening of the total site area and 20% roof level greening of the total roof area.

As per the provision of the current OZP, no new development, addition and or modification, redevelopment in excess of the maximum BHs in terms of metres above Principal Datum (mPD) as stipulated on the plan.

Based on the individual merits of a development or redevelopment proposal, minor relaxation of the gross floor area, the percentage of gross floor area for arts and performance related uses and BH restrictions may be considered by the Board on application under section 16 of the Town Planning Ordinance.

Under exceptional circumstances, for a development or redevelopment proposal, minor relaxation of the NBA restriction as stipulated on the plan may be considered by the Board on application under section 16 of the Town Planning Ordinance.

Site Reference	Proposed Land Use	Maximum Permitted Height
3A1	Animal Management Centre	80mPD
3A3	Kowloon Bay Sewage Interception Station	45mPD
3A5	Refuse Collection Point	15mPD
3C1A	New Acute Hospital	100mPD
3C1B	New Acute Hospital	60mPD
3C1C	Hong Kong Children's Hospital	60mPD
3C2	Sub-divisional Fire Station and Ambulance Facility	45mPD