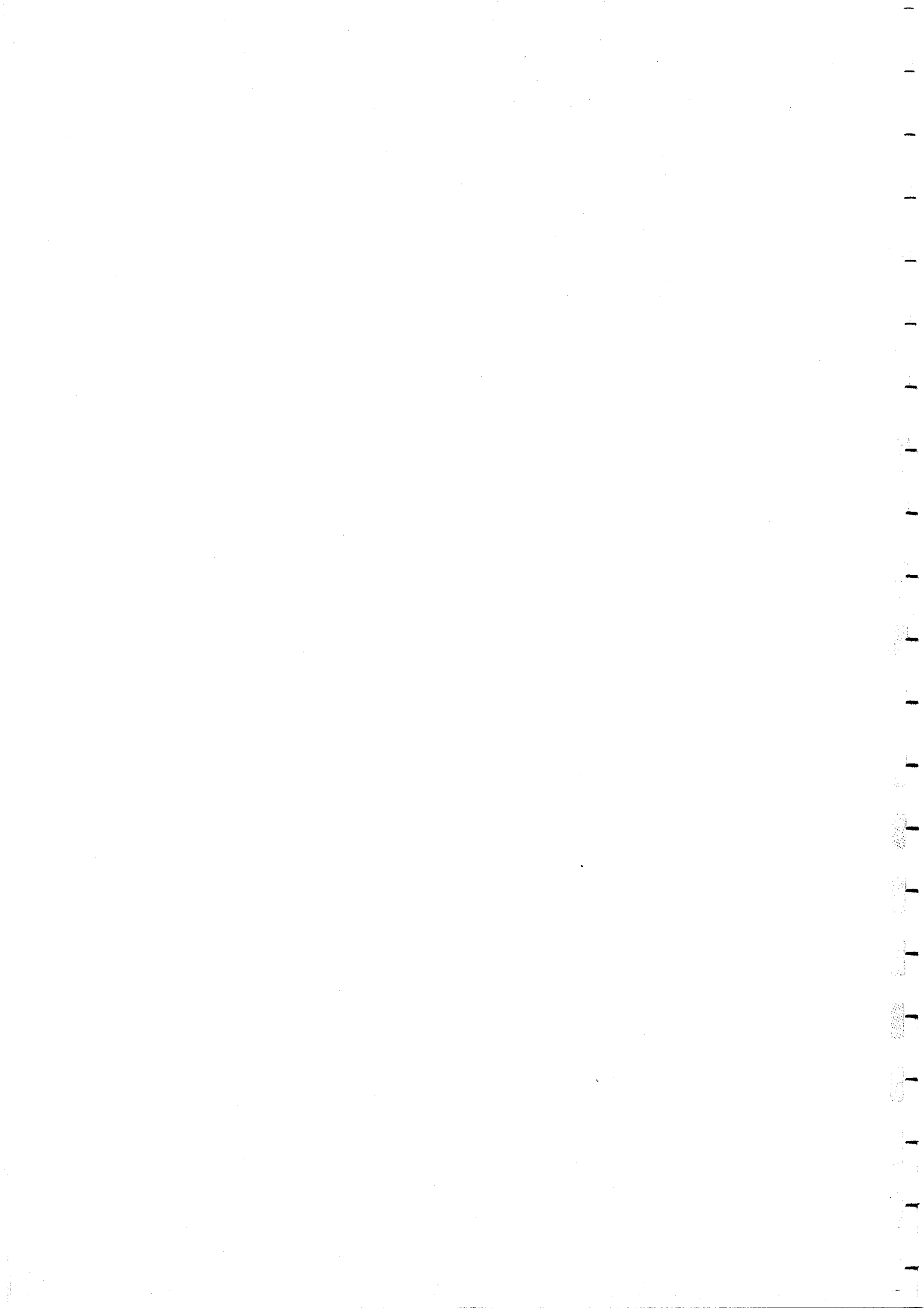


Appendix V

***Landscape & Visual Impact Assessment for
Redesign of HOK
Extended Overrun Tunnel***



V.1 Introduction

The contents of Appendix V has been provided by the MTRC Consultant for the EOT Project.

Not used.

Mass Transit Railway
Corporation Ltd

**Consultancy
Agreement No. 5018
Redesign of HOK
Extended Overrun
Tunnel**

Landscape and Visual
Impact Assessment
Report

Ove Arup & Partners Hong Kong Ltd
Consulting Engineers

Mass Transit Railway Corporation Ltd

CONSULTANCY AGREEMENT NO. 5018

Redesign of HOK Extended Overrun Tunnel

Landscape and Visual Impact Assessment
Report No. OAP/23068/019 Rev. G

June 2001

Ove Arup & Partners Hong Kong Ltd Consulting Engineers
Level 5, Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong
Telephone +852 2528 3031 Facsimile +852 2268-3963
Website www.arup.com

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1.0 Introduction

1.1 The objective of this report is to identify the existing and proposed landscape elements and their visual quality within the limits of the zone of visual influence of the study area and provide an evaluation of the impact on the landscape and visual aspects due to the proposed ventilation structure for the Extended Overrun Tunnel. The assessment will cover the landscape and visual impact on the surrounding stage of the life cycle throughout the project.

1.2 Although this project is not considered to be a designated project under the EIAO the methodology adopted for the proposed structure conforms to the requirements of the Environmental Impact Assessment Ordinance and consists of:

- A definition of the scope and contents of the proposed structure
- A comprehensive description of the baseline landscape and visual character
- Review of relevant planning and development control
- Identification of the potential landscape and visual impacts and prediction of its magnitude and extent of impact
- Recommendations on mitigation measures

1.3 The purpose of the EOT ventilation structure is to provide ventilation and smoke extraction to the MTR tunnels. This structure also serves as a maintenance and fireman access to the below ground plant rooms.

The proposed ventilation structure will be half-located on the existing temporary park to the north of the Central Barracks on Lung Wui Road and half on the CRIII reclamation.

All external louvres are set 6.0m above the ground level (as required by FSD). The area immediately around the vents beyond the project site will be landscaped.

1.4 MTR is responsible to fund the Extended Overrun Tunnel (EOT) and the Ventilation Structure Project. To minimize the unnecessary land take, most of the EOT and connecting vent ducts are below ground. It is envisaged that only the land with the ventilation structure above ground will be acquired and maintained by the Corporation. The project site for the EOT will be limited to the ventilation structure itself.

The construction of the EOT and the vent shafts will be entrusted to TDD as part of their CRIII Contract. The anticipated programme for the entrusted EOF works in the CRIII contract is between August 2002 and March 2007.

1.5 This assessment report is using the existing background and design context as the proposed design and recommended in the CRIII studies prepared by TDD as a basis to evaluate the likely impact of the proposed ventilation structure to the surroundings. Careful consideration is also given to the design of this proposed project to ensure the visual and landscape impact is acceptable. This report also considers the scenario of Promenade landscape works being delayed and the proposed mitigation measures.

2.0 Scope of Study

2.1 In setting the scope of the landscape and visual impact assessment for the ventilation structure within CRIII, the following aspects will be considered:

- Project site description
- CRIII landscape design
- Proposed development
- Level of details required for baseline studies
- Key viewpoints to be covered
- System to be used for judging the significance of the impact
- Other development if cumulative impacts are to be assessed
- Impact Assessment
- Recommended mitigation measures

2.3 The baseline study will present an appraisal of the landscape and visual resources proposed under CRIII in the project site area. It will focus on the sensitivity of the landscape and visual impact on the visual receiver due to the ventilation structure and its ability to accommodate changes.

2.3 The visual impact assessment will identify and predict the type and extent of visual impacts relating to :

- Visual compatibility with surroundings
- Visual interference
- Improvement of visual quality
- Glare from direct or indirect sunlight or manmade light source

In assessing visual impacts, all possible viewpoints will be studied. Typical key viewpoints will be selected at activity nodes.

2.4 The limits of the zone of visual influence, study area and view locations are indicated in Figure 1. The subject study area is physically enclosed and visually characterized by the following elements;

- Northern Boundary – Views to the north are dominated by Victoria Harbour and Kowloon Peninsula. The harbour resource lends the site an open character which varies according to climate and visibility.
- Eastern Boundary – The Hong Kong Convention and Exhibition Centre provides an articulated, generally horizontal, visual back drop which contrasts with the vertical linear facades of the Conrad Hyatt Hotel and Central Plaza in Wanchai.

- Southern Boundary – The Central Barracks to the south of Lung Wui Road with low rise development behind the granite fence wall provides a robust backdrop to the site. It allows visual permeability to the high rise development along the southern edge of Harcourt Road and Connaught Road Central with a glimpse of Victoria Peak.

- Western Boundary – The Jardine House and Exchange Square has closed the distant views to the west.

2.5 The project site at present is part of the temporary park alongside Victoria Harbour. This area will form the southern portion of the project site. The northern part of the site will have to be reclaimed from the Victoria Harbour as part of the CRIII reclamation project.

The existing area comprises planter beds with palm trees on a grass lawn, hard paved area with concrete paving blocks lined with amenity lighting.

It should be noted that all existing landscape elements within the project site would have been removed under CRIII reclamation project.

2.6 The assessment will identify the impacts of the proposed ventilation structure upon the resources that make up the landscape, upon the character of that landscape and upon the visual amenity of that area, and any anticipated design constraints to the future promenade and other planned uses, due to the proposed ventilation structure.

Key issues relating to landscape impact of the proposal will include:

- Impacts upon the landscape character and resource within the site and the proposed landscape framework in the surrounding area.

Key issues relating to the visual impact of the proposal will include:

- Impact upon VSRs due to the proposed ventilation structure during the operation stage.
- Interference of views to Victoria Harbour due to the proposed development.

2.7 For the purpose of this VIA report on the proposed ventilation structure the following photomontage views are established as the principal viewpoints.

- View south from Victoria Harbour
- View south west from Expo Drive (at grade)
- View south from proposed waterfront promenade
- View west from Lung Wui Road (at grade)
- View north west across Tamar site from Wan Chai
- View east from Lung Wui Road (at grade)

See attached figure 1 which indicates the principal viewpoints.

Several scenarios have been examined to cover the life cycle throughout the project and are illustrated in the photomontages as attached. The scenario with a possible programme mismatch between Promenade landscaping and the MTR vent shafts is also considered and included in these photomontages enclosed at the back of the report.

Photomontage

- Figure A Existing View South From Victoria Harbour
- Figure A-1 View South From Victoria Harbour (Day 1 With Minimum Mitigation if there is a programme delay on Promenade landscape works)
- Figure A-2 View South From Victoria Harbour (Day 1 with Promenade Landscaping)
- Figure A-3 View South From Victoria Harbour (Year 10 With Promenade Landscaping Proposal)
- Figure B Existing View South From Expo Drive
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3.0 Drawings and Figures

3.1 Drawings and Figures

The following drawings and figures are enclosed at the back of the report:

• Location Plan	EOT/B/03/OAP/A10/001	Rev. D
• Ground Level Plan	EOT/B/03/OAP/A10/002	Rev. D
• Sections/Elevations	EOT/B/03/OAP/A10/004	Rev. D
• Sections/Elevations	EOT/B/03/OAP/A10/005	Rev. D
• Eastern Ventilation Structure Elevations	EOT/B/03/OAP/A10/006	Rev. B
• Western Ventilaion Structure Elevations	EOT/B/03/OAP/A10/007	Rev. B
• Site Plan	EOT/B/03/OAP/A10/008	Rev. E
• Zone of Visual Influence, Study Area and View Location	Figure 1	Rev. C
• Master Landscape Plan CRIII	Figure 2	Rev. B
• Landscape Plan	Figure 3	Rev. C

4.0 Methodology for Assessment of Landscape and Visual Impact

- 4.1 Landscape impacts can be positive or negative. They are assessed at two levels :
- Impacts upon individual landscape features and resources; and
 - Impacts upon landscape character
- 4.2 Landscape impacts are assessed as a function of the magnitude of change and the sensitivity of the landscape resource or landscape character. Landscape sensitivity and magnitude of change are assessed as high, medium or low. Landscape impacts are assessed subsequent to the implementation of prescribed mitigation measures at both construction and operational stages.
- Landscape sensitivity is the ability of the landscape resource or character to accommodate change without prejudice to the quality of that resource.
 - Magnitude of change is the degree of degradation or intrusion on the landscape element on which it may be possible to affect through landscape or environment enhancement
- 4.3 Impacts are assessed as very substantial, substantial, moderate, slight moderate, slight or very slight (positive or negative). Insignificant impacts are termed negligible. A matrix is used to assess landscape impacts and is shown in the Table below :

Landscape Impact Characteristic (Positive or Negative)

Sensitivity	High	Medium	Low
Magnitude	Very substantial to substantial	Substantial to moderate	Moderate
High	Substantial to moderate	Moderate	Moderate to slight
Moderate	Moderate	Moderate to slight	Slight to very slight
Low	Negligible	Negligible	Negligible
Negligible			

- 4.4 Visual impacts can be positive or negative and are defined as a function of the sensitivity of a receiver and the magnitude of the change to that receiver's existing view.
- 4.5 The assessment of visual impacts is structured by receiver sensitivity. Visually Sensitive Receivers (VSRs) are identified through the definition of the structure's zone of visual influence or ZVI (i.e. the area within which views of the structure are possible). For the purpose of this study, receivers have been grouped into the following categories :
- Residential - Those people who would view the proposal from their home
 - Occupational - Those people who would view the proposal from their workplace
 - Travellers - Those people who would view the proposal from their vehicles or on foot

Recreational - Those people who would view the proposal whilst engaging in recreational activities

- 4.6 The sensitivity of receivers to visual impacts is influenced by the immediate context of the viewer, the activity in which they are engaged and the value that they attach to this location in particular. Receivers are categorised as being of high, medium or low sensitivity to visual impacts.
- 4.7 Those who view the proposal from their homes are considered to be highly sensitive to any visual intrusion. This is because the attractiveness, or otherwise, of the view would have a notable effect on a resident's general quality of life and acceptability of their home environment.
- 4.8 Those people who view the scheme from their workplace are considered relatively less sensitive to visual intrusion. This is because they are employed in activities where visual outlook plays a less important role in the perception of the quality of the working environment. They are classified as a low sensitivity group.
- 4.9 For those who view the scheme whilst engaging in outdoor leisure pursuits, visual sensitivity varies depending on the type of recreational activity. Those taking a stroll in a park, for example, would be classified as a high sensitivity group compared to football players who would have a low sensitivity rating.
- 4.10 For those people who view the scheme from public thoroughfares, the degree of visual intrusion experienced depends on the speed of travel and whether views are continuous or only occasional. Generally, the slower the speed of travel and the more continuous the viewing experience, then the greater the degree of sensitivity.
- 4.11 The criteria used to determine the sensitivity of VSR are given below :
- value of existing views
 - availability and amenity of alternative views
 - the number of visual receivers
 - the category or type of visual receivers as discussed above
 - the landscape context of the proposed development
 - the particular visual backdrop from specific viewpoints of VSR
- 4.12 The criteria used to determine the magnitude of change to a view are given below :
- degree of change of views
 - the nature of the proposed development and its compatibility with the surrounding landscape
 - proximity of receivers
 - the length and duration of time the proposed development is in view

- the particular visual backdrop to the development from key viewpoints of VSR
- the nature of the proposed development and its compatibility with the surrounding landscape
- degree of visibility of the proposed development by VSR
- the landscape context of the proposed development

4.13 Impacts are assessed as very substantial, substantial, moderate, slight or very slight. Insubstantial impacts are termed negligible. A matrix is used to assess visual impacts and is shown in the Table below :

Visual Impact Characteristic (Positive or Negative)

Sensitivity Magnitude	High	Medium	Low
High	Very substantial to substantial	Substantial to moderate	Moderate
Moderate	Substantial to moderate	Moderate	Moderate to slight
Low	Moderate	Moderate to slight	Slight to very slight
Negligible	Negligible	Negligible	Negligible

5.0 Baseline Study and Planned Landscape Framework

5.1 Baseline Study

5.1.1 The project site is situated at the central reclamation area immediately to the north of the Central Barracks north of Lung Wui Road. At present, part of the site is located at the temporary park with palm trees grown on grass lawn in planter beds. Amenity facilities such as lighting, seats and litter bins to provide an intimate open space along the waterfront. The site is orientated in an east-west direction, and is bound on the south side by Lung Wui Road at the present time. In the future, this road will be re-aligned and is referred to as Road P-2. To the immediate north and east is the proposed waterfront promenade. To the western side will be the proposed Festival Market Development (CDE4).

5.1.2 Lung Wui Road is located to the immediate south of the project site. It follows an east-west alignment approximately 40 metres south of the existing sea wall. Views of the Victoria Harbour and Kowloon Peninsula are at present obstructed by perimeter fencing at the Heliport site and the Servicemen's Guides Association but are open across the temporary park to the west. Streetscape character is enhanced by recent tree planting and concrete block paving, both of which are of a higher quality along the southern pavement.

5.1.3 A planned access between the Central Barracks and the PLA Berth will be located to the immediate east. This reserve will restrict any possible tree planting to provide a natural canopy.

5.1.4 Prior to the construction stage of the proposed ventilation structure, the landscape elements on the temporary park will be removed as part of the CRIII reclamation works.

5.2 Planning and Development Control Review

The Current OZP S/H24/3 provides building and building height control. There is a maximum height restriction of 25mPD. The study area falls within an area zoned other Specified Uses (2) annotated as waterfront related commercial and leisure uses". Under the Town Planning Ordinance, planning permission from the Town Planning Board will not be required for the proposed ventilation structure, as it is gazetted as "ancillary facilities to the Extended Overrun Tunnel" under the Railway Ordinance.

5.2.1 After the CRIII reclamation and completion of the promenade, the whole promenade area will be landscaped and will function as a territorial and tourist resource and is envisaged to provide areas for passive or informal recreation activities and conduits for pedestrian circulation, promoting pedestrian movement from the existing development area to the waterfront.

5.2.2 Based on CRIII Comprehensive Feasibility Study for Minimum Option Report, the promenade landscape elements proposed will work in concert defining and articulating the various activity areas. The materials will reflect the maritime character envisaged for the development. Use of street furniture, bold open spaces and simple tree planting patterns will help emphasise the nautical theme of the environment.

5.2.3 A unit paver and the paving patterning, in combination with other landscape elements, including planting, will also help create a more human sense of scale for the space.

5.2.4 Double rows of large canopy trees will define the promenade edge area with a double row of palms forming the secondary edge. The large canopy trees will provide much of the shade requirements of the space and seating elements will be principally located under these. The palm foliage will also create a dramatic landscape effect with the foliage contrasting against the surrounding built elements. Palms in pavement areas will allow maximum circulation whilst providing foliage overhead.

5.3 Summary

5.3.1 The project site comprises components which are transitional in nature. There is a lack of physical and visual integration among the existing land use. The streetscape is generally of low quality and suffers from a lack of mature landscape planting. However, upon full implementation of the CRIII Reclamation project, the subject vent shaft will be sited within a waterfront promenade which is to be designed with high landscape and visual qualities of international standard.

The proposed CRIII Master Landscape Plan has set out the landscape treatment to the overall Promenade area. This forms the background for use in the LVIA report. A similar theme to the Promenade Landscape design shall be used to cover the area around the ventilation structure.

6.0 Planning and Development Control Review

- 6.1 The Current OZP S/H24/3 provides building use and building height control. The project site falls within an area zoned "Other Specified Uses (2)" annotated as "Waterfront related Commercial and Leisure Uses" which has a maximum building height restriction of 25mPD. Under the Town Planning Ordinance, planning permission from the Town Planning Board will not be required for the proposed ventilation structure, as it is gazetted as "Ancillary facilities to the Extended Overrun Tunnel" under the Railway Ordinance.

7.0 Landscape Impact Assessment

7.1 Introduction

This assessment seeks to address potential landscape impacts which may be caused by the proposed ventilation structure for the Extended Overrun Tunnel. Long term impact will result from permanent changes to the landscape character of the study area. In particular the area will be dominated by the CRIII Master Landscape Proposals. It is envisaged that the landscaping works for the Promenade will follow after the CRIII reclamation works. If there is a delay to the Promenade Landscape works, it is recommended that the works area will be hydroseeded to provide an initial ground cover pending the implementation of the landscape work.

7.2 Sources of landscape impacts

7.2.1 Construction Stage

The construction stage landscape assessment is included in the main body of Volume 1 of the CRIII EIA report and will not be covered here.

7.2.2 Operational Stage

The source of the operational stage landscape impact is the existence of the ventilation structure of the Extended Overrun Tunnel.

7.3 Prediction and Evaluation of Landscape Impacts

7.3.1 Operational Stage

The landscape impacts at the operational stage (refer to Table 1) will include impacts upon landscape resources and landscape character as follows:

- Moderate adverse impacts upon landscape character and resources on the future waterfront promenade user due to the implementation of additional landscape areas to the area surrounding the project site incorporating consistent design themes which maintain the overall character of the area.
- Slight adverse impacts upon landscape character and resources of the Lung Wui Road users due to the implementation of CRIII landscaping and the articulated building form of the ventilation structure within the study area.
- Slight adverse impact upon landscape character and resources of the residential block of the Central Barracks due to the implementation of the amenity planting screening the ventilation structure.

7.4 Landscape Mitigation Measures

7.4.1 The attached Figure 2 illustrates the Master Landscape Plan for CRIII which we believe the same design theme should be used to cover the surrounding area around the vent shafts for design consistency. Generally, the landscape mitigation measures seek to minimise potential impacts of the structures development, to blend the edges of the new structures into the

landscape pattern of the surrounding area, and provide compensation in the form of environmental improvements to off-set the adverse effects of the proposed development. This includes the following:

- Set back of the ventilation structure away from the promenade
- Provision of adequate soil depth (min. 2m) around ventilation structure to allow tree planting
- Sensitive treatment and design in the external finish of the structures to reduce the adverse impact on the character of the high quality waterfront settings

7.4.2 The Landscape Plan (Figure 3) aims to provide the maximum level of landscape and visual mitigation to the area surrounding the project site and, in so doing, results in predominantly less negative landscape and visual impacts at the operational stage.

7.4.3 Operational Stage

Operational stage landscape mitigation measures should include :

- provision of a legible, integrated pedestrian circulation pavement linking the adjoining areas, and providing a high quality hard and soft landscape treatment
- provision of a high quality maintenance standard for the planting works to secure the required landscape quality
- provision of setting back the ventilation structure away from the promenade
- provision of adequate soil depth (min. 2m) around ventilation structure to allow tree planting
- Provision of sensitive treatment and design in the external finish of the structure to reduce the adverse impact on the character of the high quality waterfront setting

7.5 Residual Landscape Impacts

A residual landscape impact is defined as a negative impact which cannot be mitigated after all practical methods of mitigation have been implemented, in this situation the Landscape Impact would be considered as slight adverse of the situation when the landscape work and CRIII work programme mismatch.

7.6 Landscape mitigation measure at Day 1 (if Promenade landscape work is delayed)

It is demonstrated from the above that with the existing CRIII landscape master plan design, the proposed ventilation structure will have minimum landscape impact in the overall study area. We have also considered the possible programme mis-match if the promenade landscape works is delayed. In this case, it is proposed that CRIII areas around the ventilation structure and the roads are to be hydroseeded. This will give a more acceptable visual impression for the overall area. See Figures A1, B1, C1, D1 E1 and F1.

The Landscape Impact would be considered as slight adverse when the landscape work and CRIII work programme is mismatched. Otherwise, all the identified landscape impact at the operation stage has been resolved with no residual impact.

8.0 Visual Impact Assessment

8.1 The visual impact study seeks to address potential visual impacts which may be caused by the ventilation structure. Sources of impact will be based upon the reclamation and construction programme and subsequently upon the design and disposition of the development itself. In reviewing the visual impacts upon existing baseline character zones, the following assumptions have been made :

- the maximum height of the structure will be 13.7m (18.7mpd)
- breaking up the solid and void elements of elevations into components to reduce the apparent height of the structure will achieve a distinctive profile allowing flexibility for an interesting built form
- generally, any new structure or development will contain finishes and fixtures of a higher quality than exist in the current environment and will take into account its waterfront setting
- set back of the ventilation structure away from the promenade

The removal of constraint for screen planting in the left over space around the ventilation structures has also been considered in the temporary situation where there is a programme delay to the CRIII Promenade Landscaping.

8.2 The Zones of Visual Influence (ZVIs) are indicated on Figure 1. Primary Visually Sensitive Receivers (VSRs) indicated are not intended to be exhaustive and it is likely that some adjacent developments will also view the project site. Distant views of the project site will not be possible due to the adjacent development height.

8.3 Direct views of the project site will be available from VSRs in the following locations:

- Development to the south of the project site including the Central Barracks
- Development to the east of the project site including the Grand Hyatt Hotel and the Hong Kong Convention and Exhibition Centre
- Development to the west including Exchange Square, One International Finance Centre and the proposed No. 2 IFC
- Development located on the southern tip of the Kowloon Peninsula including the Regent Hotel, Sheraton Hotel, New World Centre and Star House
- Promenade areas adjacent to clock tower, Star Ferry Pier, HK Cultural Centre and HK Museum of Art at Tsim Sha Tsui waterfront
- Star Ferries travelling to/from Central to Tsim Sha Tsui
- Star Ferries travelling to/from Wan Chai to Tsim Sha Tsui
- Additional marine traffic within Victoria Harbour including pleasure craft
- Drivers and pedestrians on Lung Wui Road
- Future VSR in the proposed waterfront promenade

8.4 Sources of Visual Impact

8.4.1 The primary source of visual impacts will be the interference of views of the existing waterfront due to the project site.

8.4.2 Construction Stage

The construction stage visual impact assessment is included in Volume 1 of the CRIII EIA Report and will not be covered here.

8.4.3 Operational Stage

The source of visual impacts during the operational stage will be the new low, ventilation structure in the study area

8.5 Prediction and Evaluation of Visual Impacts

8.5.1 Operation Stage

Visual impacts during the Operation Stage are indicated in Table 2. Due to the nature of the ventilation structure proposed, visual impacts are expected to be associated with the proposed development, they are assessed as follows:

- Interference of views to the waterfront from north facing VSRs within the lower floors of the residential blocks of the Central Barracks due to the 13.7m (18.7mpd) ventilation structure, resulting in moderate adverse visual impacts
- Localized impact on the design of the future waterfront promenade

8.5.2 Slight adverse visual impact will be felt by VSRs, especially pedestrians located at street level of Lung Wui Road and the visitors to the future waterfront promenade, City Hall, the Furana Hotel, Bank of America Tower, The PLA Forces Hong Kong Building, Citic Tower in Central and Admiralty and Hong Kong Convention and Exhibition Centre in Wanchai.

8.5.3 Negligible visual impact will be felt by VSRs located in the following locations in Tsim Sha Tsui, Victoria Harbour, Admiralty and Wanchai area :

- Developments located on the southern tip of the Kowloon Peninsula including the Regent Hotel, Sheraton Hotel, New World Centre and Star House;
- Promenade areas adjacent to the clock tower, Star Ferry Pier, HK Cultural Centre and HK Museum of Art at Tsim Sha Tsui waterfront;
- Star Ferries travelling to/from Central to Tsim Sha Tsui;
- Star Ferries travelling to/from Wan Chai to Tsim Sha Tsui; and
- Additional marine traffic within Victoria Harbour including pleasure craft;
- Grand Hyatt Hotel, Hong Kong Art Centre

8.6 Visual Mitigation Measures

8.6.1 Operational Stage

Operational stage visual mitigation measures include:

- A maximum building height of approximately 13.7m (18.7mpd) will be maintained for the ventilation structure
- Breaking up the solid and void elements of elevations into components to reduce the apparent height of the ventilation structure will achieve a distinctive profile allowing flexibility for an interesting built form
- Locating the ventilation structures away from the waterfront promenade and setting them back from the road
- Adopting high quality finishes to blend in with the future environment
- Minimizing the footprint and height of the structure

8.7 Residual Visual Impacts

8.7.1 Residual visual impact is defined as the impact remaining after all practical methods of mitigation have been implemented. Residual visual impacts will include the following :

Moderate negative impacts due to the interference of views of the Victoria Harbour from north facing VSRs within the lower floors of the residential blocks of the Central Barracks due to the 13.7m (18.7mpd) high ventilation structure.

9.0 Conclusions and Recommendations

9.1 Landscape Impacts

9.1.1 The provision of amenity planting in CR111 would reduce the negative landscape impact from very substantial in the construction stage to slight adverse in the operational stage.

9.1.2 The landscape treatment as proposed for CR111 shall be used to cover to the area surrounding the project site. This will also help to screen the visual impact caused by the ventilation structure during operation stage.

9.2 Visual Impacts

9.2.1 The interference of view of the waterfront from the south will remain as a very slight residual impact, it is considered an acceptable impact without which the numerous positive landscape impacts would not be achievable.

9.2.2 Interference of the view of Victoria Harbour from the south will be caused by the ventilation structure which has a maximum height at the apex of the roof of 13.7m which is at level 18.7mPD. To reduce this impact the elevation is broken up into solid and void components as follows: from ground floor up to 6m in height the creation of a solid base, and from 6m to 13.7m creation of voids by the use of louvres. This reduces the apparent height of the structure. With the generally open and low rise nature of development set within a landscape framework, the majority of visual impacts are expected to be reduced to slight adverse.

9.2.3 The solid lower portion of the structure will be clad in granite set out in 'stretcher bond' and laid in a slight incline to echo the language of a sea wall. The upper portion will be bronze louvres all round. Dummy louvres are provided facing road P-2 and the Central Barracks. Refer to drawing BOT/B/03/OAP/A10/006 and 007.

9.2.4 To adopt a simplified low key, building mass, low in height to avoid the effect of creating a series of 'chimneys'.

9.2.5 Mature tree planting compatible with that proposed in the CR111 Landscape Master Plan shall be used to cover the area surrounding the ventilation structure. All elevations of the structure will be viewed from a distance as predominantly a series of voids with trees in the foreground and hence this will reduce the visual impact at street level.

9.2.6 The use of earth colour and natural materials at the lower more solid portion of the vent shaft will provide a base and visual background for the plants.

9.2.7 The introduction of a curved roof will help in softening the hard horizontal edges of all louvres and reduce the visual impact of the prominent edges of the structure facing the north and south.

9.2.8 Locating the vent structure away from the promenade and set back from the road, adopting high quality finishes, and minimizing the footprint and particularly the height all help to reduce the visual impact.

9.3 Conclusion

9.3.1 It is considered that both the landscape and visual impacts associated with ventilation structure are acceptable with mitigation measures and in compliance with Annex 10 of the EIA-TM. The project will complement the landscape and visual character of its setting and will follow the relevant planning objectives.

Table 1

Landscape Impact

Table 1 Landscape Impact

Landscape Character Zone	Source of Impact	Magnitude of Change		Landscape Sensitivity	Impact Characteristic during Construction Phase after Implementation of Mitigation Measure	Impact Characteristic during Operation Phase after Implementation of Mitigation Measure
		Construction	Operation			
Lung Wui Road	Construction of ventilation shaft	-	Low	Low	-	Slight Positive
Future waterfront promenade	Construction of ventilation shaft	-	Low	Medium	-	Moderate to slight Positive
Central Barracks	Construction of ventilation shaft	-	Low	Medium	-	Moderate to Slight Positive

Table 2

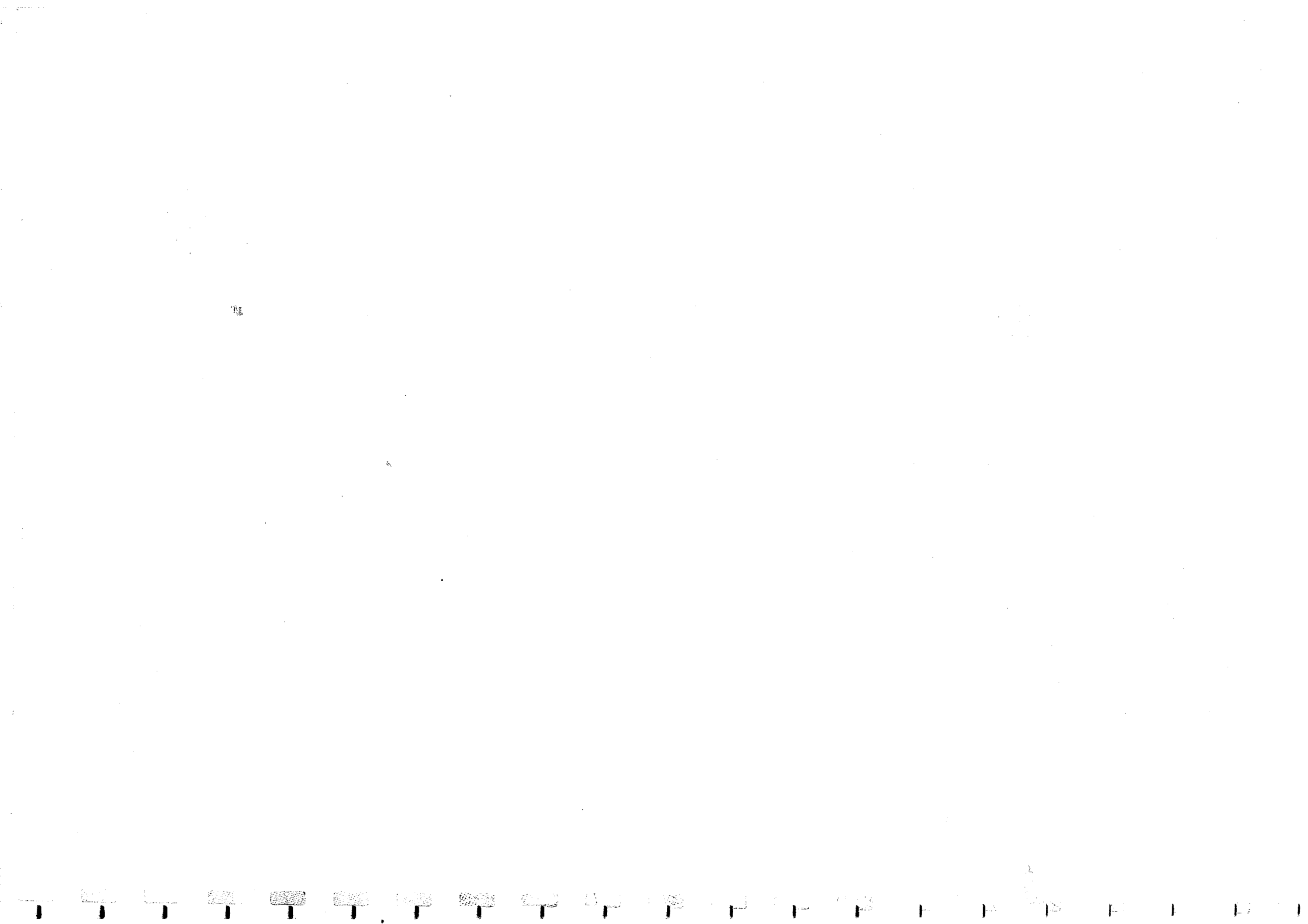
Visual Impact Assessment

Table 2 Visual Impacts

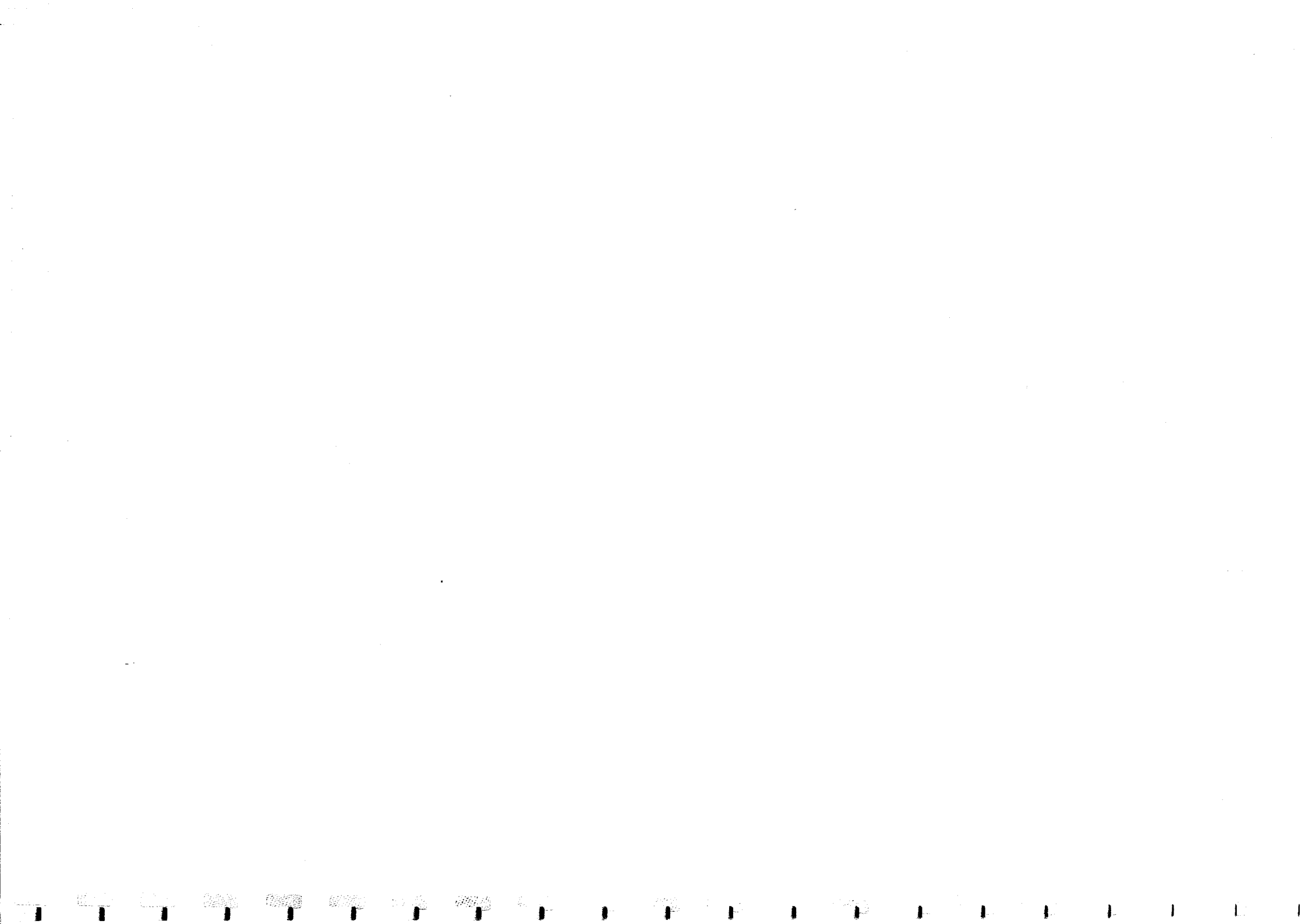
Key Visually Sensitive Receivers (VSRs)	Type of VSR	Value of existing views	Availability of amenity of alternative views	Receiver Sensitivity	Distance between VSR and Project Site	Magnitude of Change		Impact Characteristic during construction phase after implementation of Mitigation Measures	Impact Characteristic during Operation phase after implementation of Mitigation Measures
						Construction	Operation		
Primary VSRs (Development)									
Hong Kong Convention and Exhibition Centre	G/IC	Low	High	Low	800M	-	Low	-	Slight Positive
Grand Hyatt Hotel	H	Low	High	Low	800M	-	Negligible	-	Negligible
Hong Kong Arts Centre	G/IC	Medium	Medium	Low	700M	-	Negligible	-	Negligible
Citic Tower	C	Medium	Medium	Low	400M	-	Low	-	Slight Positive
Central Barracks	G/IC	Low	Low	High	60M	-	Low	-	Moderate Positive
Bank of America Tower	C	Low	High	Low	200M	-	Low	-	Slight Positive
PLA Forces Hong Kong Building	G/IC	Low	High	Low	100M	-	Low	-	Slight Positive
Furama Hotel	H	Low	Medium	Low	250M	-	Low	-	Slight Positive
Primary VSRs – Transport									
Expo Drive	T1	Low	Medium	Low	800M	-	Negligible	-	Negligible
Convention Avenue	T2	Low	Medium	Low	700M	-	Negligible	-	Negligible
Lung Wui Road	T5	Low	Low	Medium	5M	-	Low	-	Moderate to Slight Positive
Future waterfront promenade	T	-	High	High	0M	-	Low	-	Moderate Positive
Secondary VSRs and Kowloon Peninsula									
TST promenade area adjacent to clock tower, Star Ferry Pier, HK Cultural Centre, and HK Museum of Art		Low	High	Low	1.3KM	-	Negligible	-	Negligible
Regent Hotel, Sheraton Hotel, New World Centre, and Star House		Low	High	Low	1.7KM	-	Negligible	-	Negligible
Star Ferries travelling to/from Central to TST	M1	Low	High	Low	0 – 1.0KM	-	Negligible	-	Negligible
Star Ferries travelling to/from Wan Chai to TST	M1	Low	High	Low	1 – 1.2KM	-	Negligible	-	Negligible
Additional marine traffic within Victoria Harbour including pleasure craft	M1	Low	High	Low	0 – 1.2KM	-	Negligible	-	Negligible

Key: For The Type of VSR Refer to CR III EIA Report

Drawings



Photomontages





Photomontage

View South From Victoria Harbour

Day 1 with Minimum Mitigation if there is a programme delay on Promenade Landscape Works

Figure A-1



Photomontage

View South From Victoria Harbour

Day 1 With Promenade Landscaping

Figure A-2

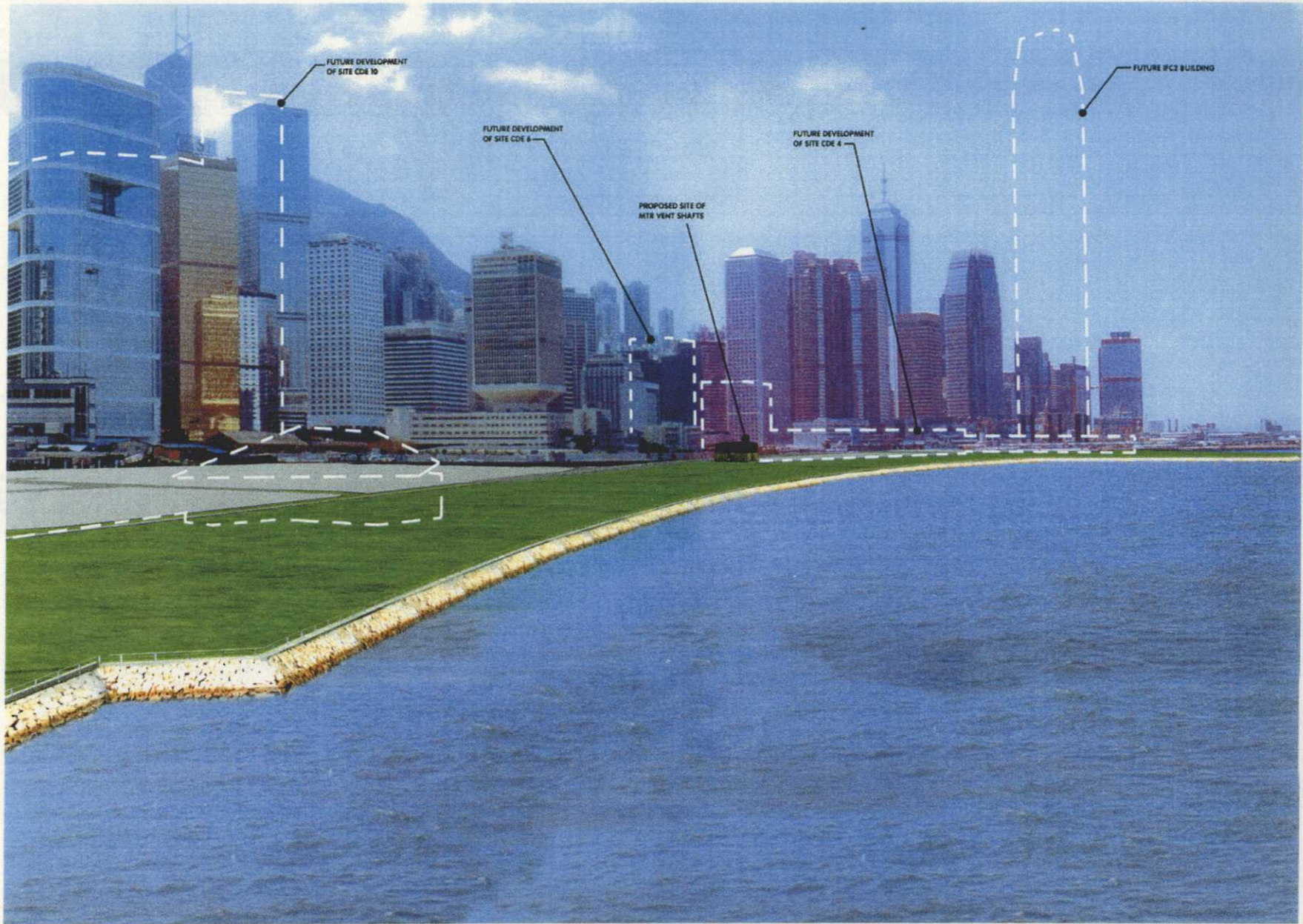


Photomontage

View South From Victoria Harbour

Year 10 With Promenade Landscape Proposal

Figure A-3

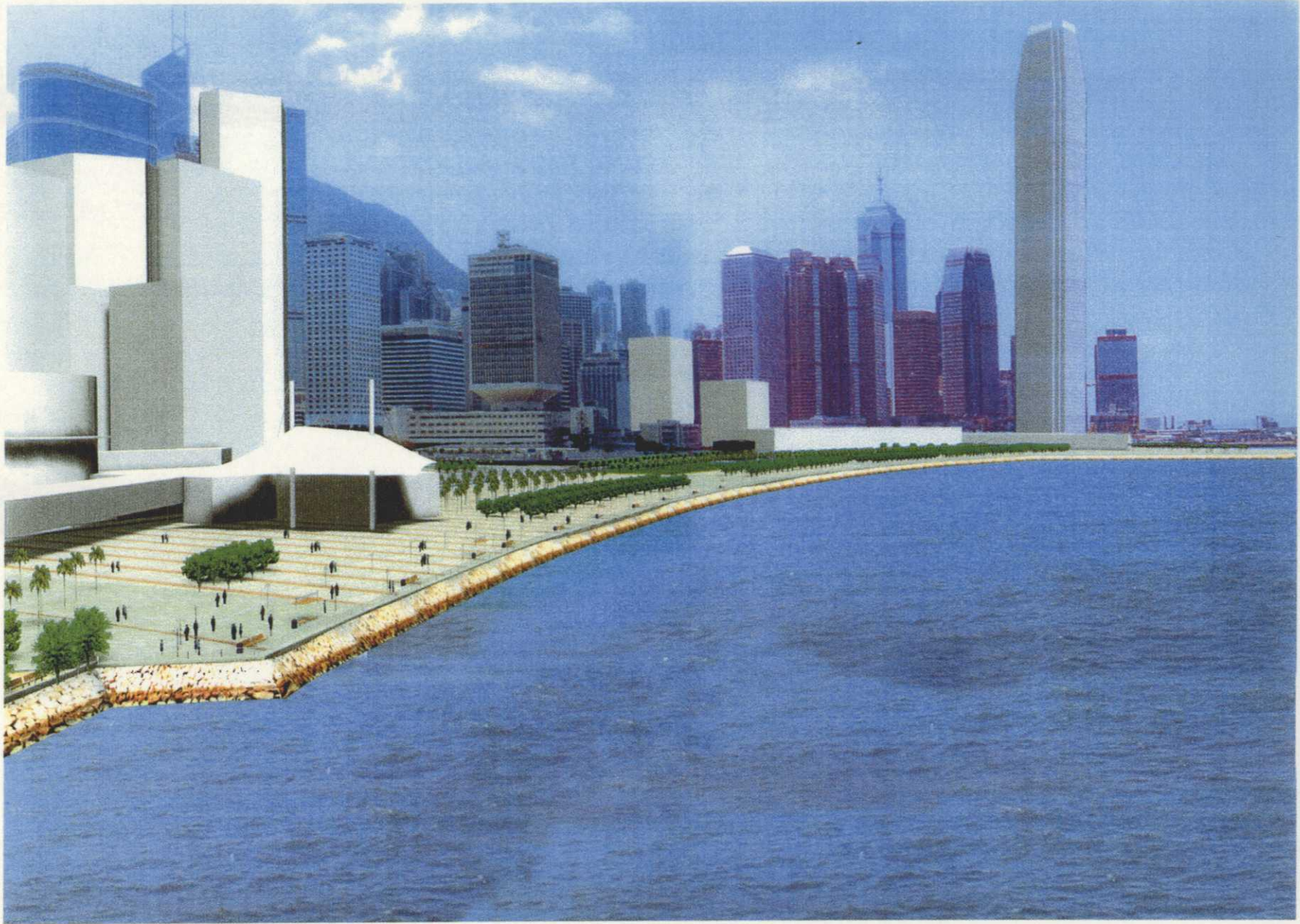


Photomontage

View South West From Expo Drive (At Grade)

Day 1 with Minimum Mitigation if there is a programme delay on Promenade Landscape Works

Figure B-1



Photomontage

View South West From Expo Drive (At Grade)

Day 1 With Promenade Landscaping

Figure B-2

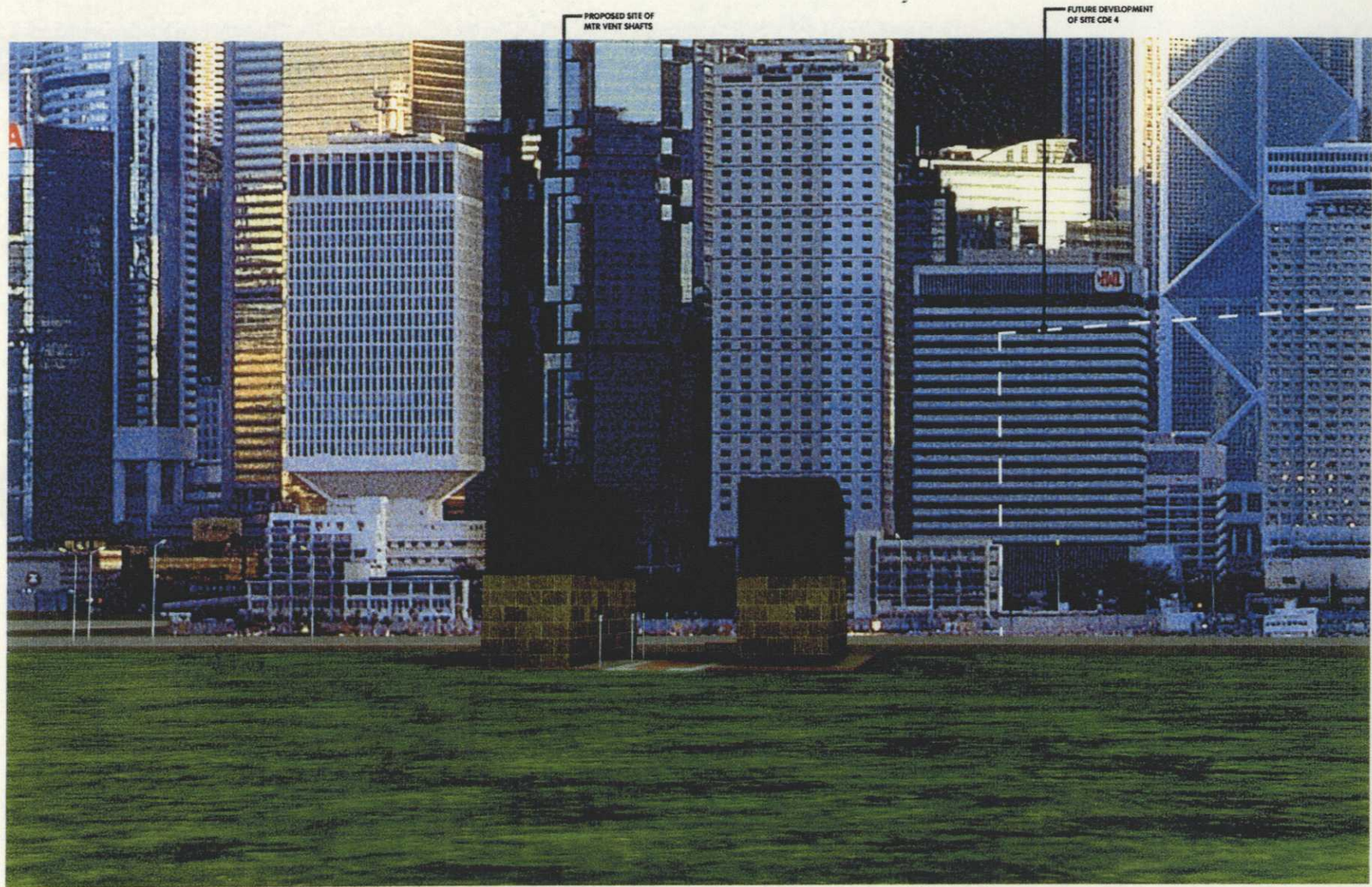


Photomontage

View South West From Expo Drive (At Grade)

Year 10 With Promenade Landscape Proposal

Figure B-3

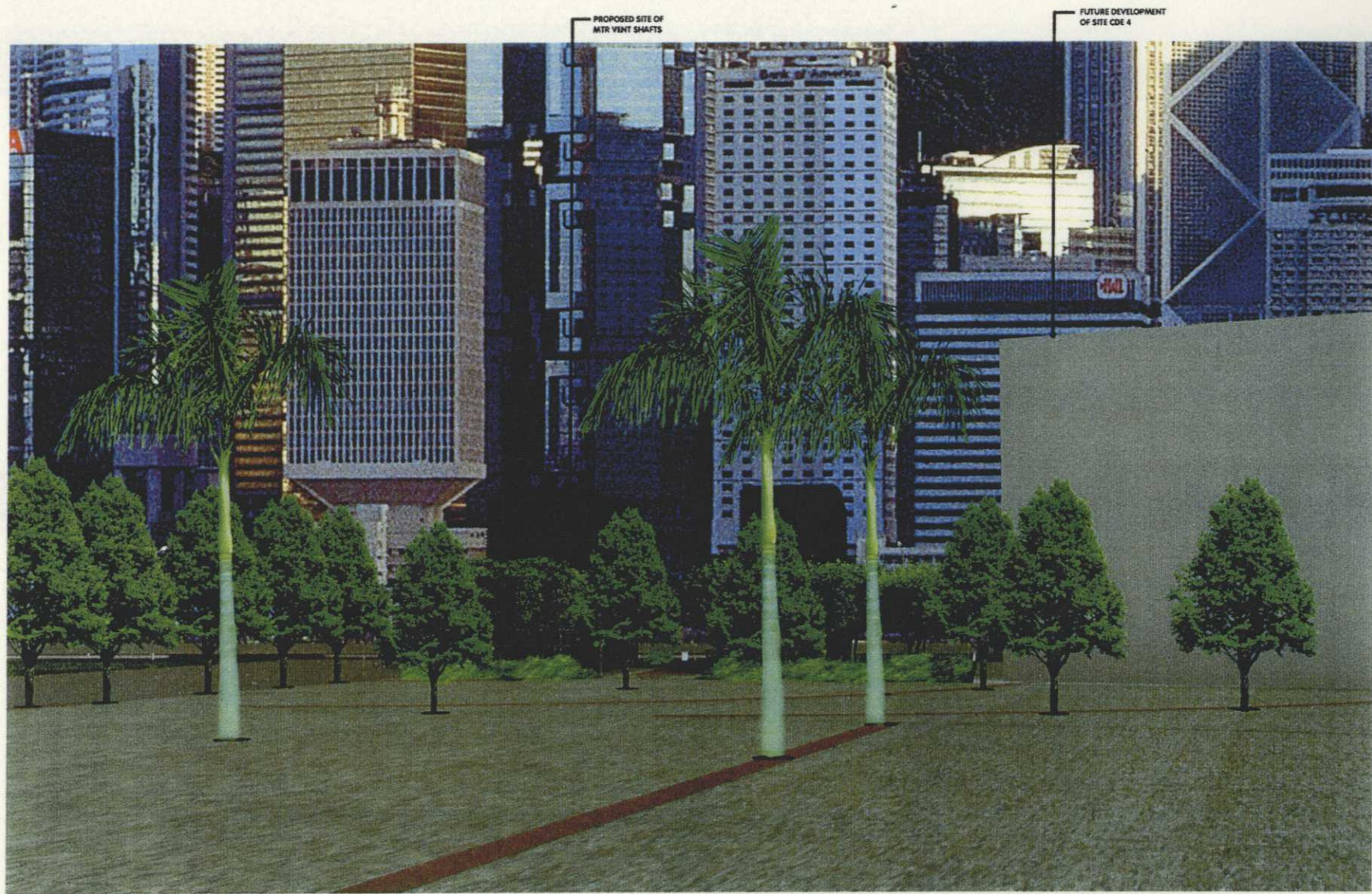


Photomontage

View From Promenade

Day 1 with Minimum Mitigation if there is a programme delay on Promenade Landscape Works

Figure C-1



Photomontage

View From Promenade

Day 1 With Promenade Landscaping

Figure C-2

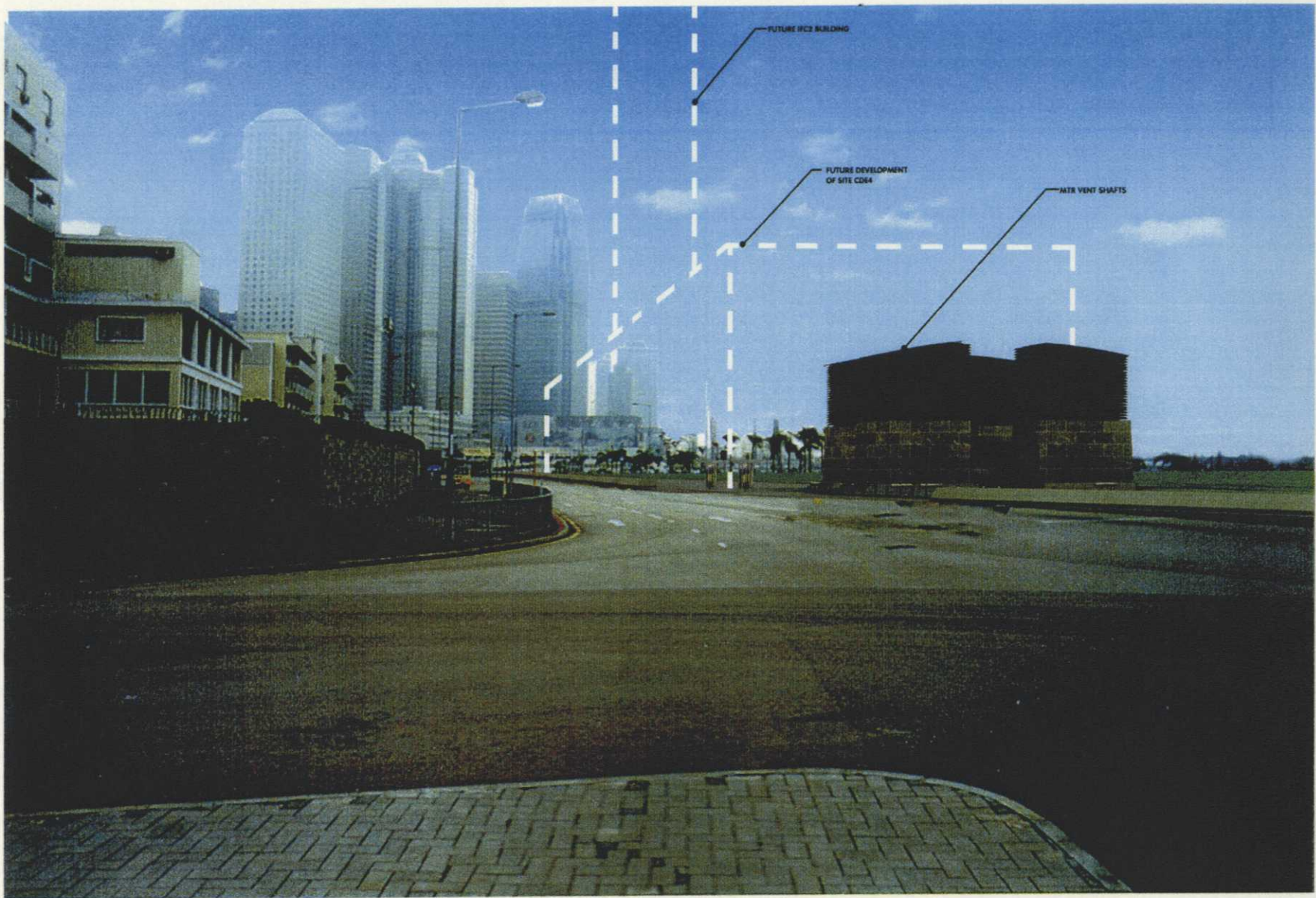


Photomontage

View From Promenade

Year 10 With Promenade Landscape Proposal

Figure C-3



Photomontage

View West From Lung Wui Road (At Grade)

Day 1 with Minimum Mitigation if there is a programme delay on Promenade Landscape Works

Figure D-1

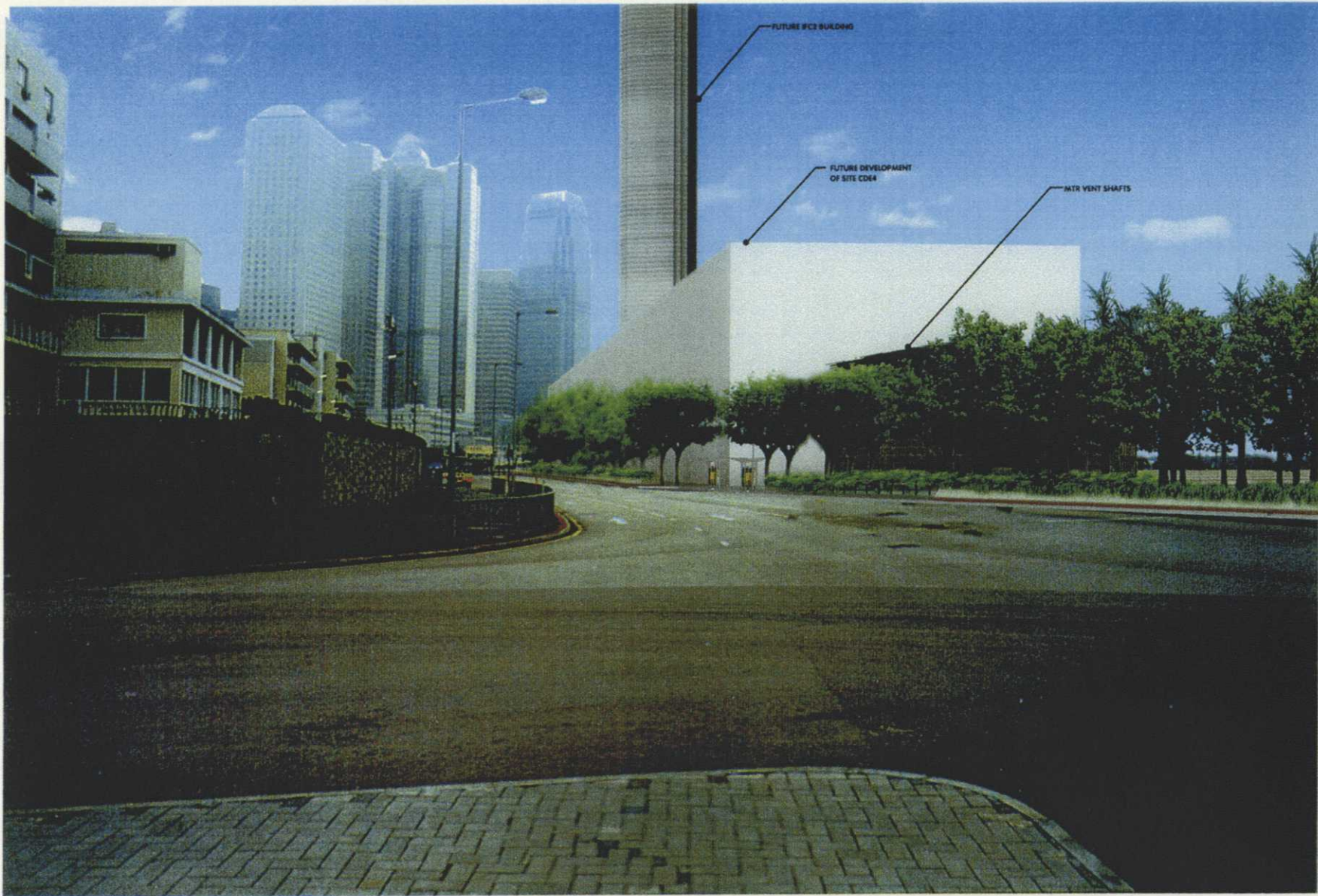


Photomontage

View West From Lung Wui Road (At Grade)

Day 1 With Promenade Landscaping

Figure D-2



Photomontage

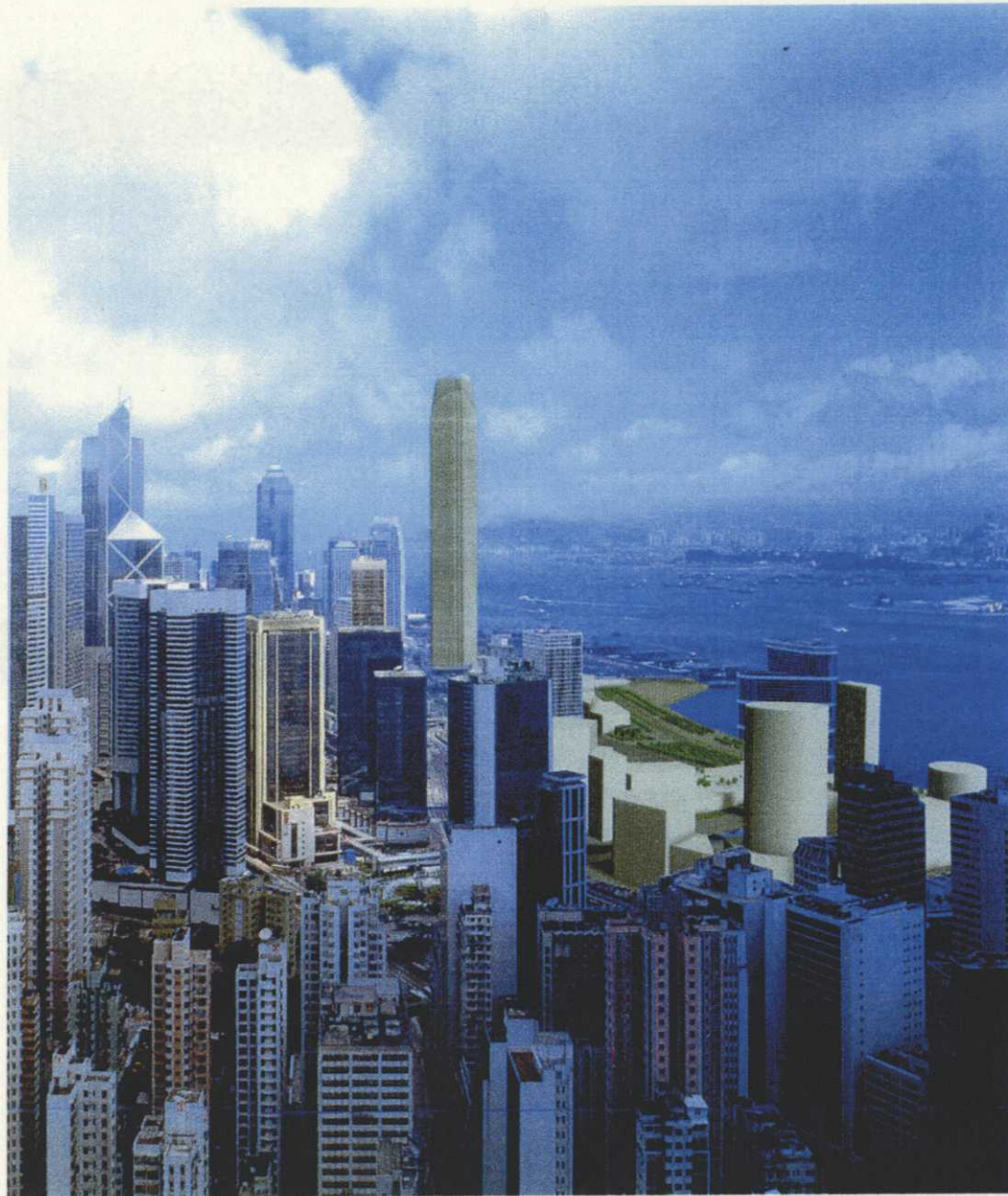
View West From Lung Wui Road (At Grade)

Year 10 With Promenade Landscape Proposal

Figure D-3



Photomontage View North West Across Tamar Site From Wanchai Day 1 with Minimum Mitigation if there is a programme delay on Promenade Landscape Works Figure E-1



Photomontage View North West Across Tamar Site From Wanchai Day 1 With Promenade Landscaping Figure E-2



Photomontage View North West Across Tamar Site From Wanchai Year 10 With Promenade Landscape Proposal Figure E-3

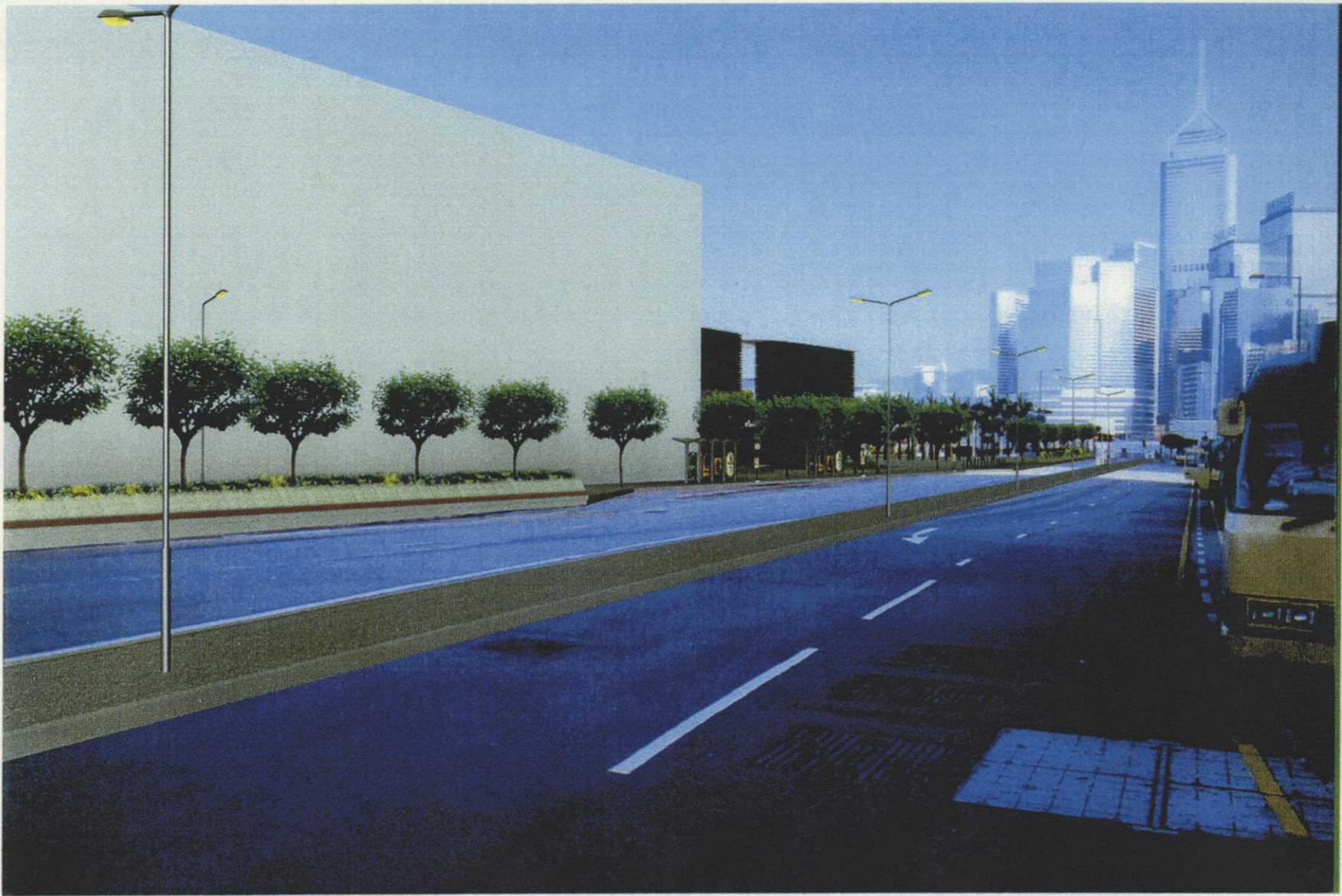


Photomontage

View East From Lung Wui Road (At Grade)

Day 1 with Minimum Mitigation if there is a programme delay on Promenade Landscape Works

Figure F-1



Photomontage

View East From Lung Wui Road (At Grade)

Day 1 With Promenade Landscaping

Figure F-2



Photomontage

View East From Lung Wui Road (At Grade)

Year 10 With Promenade Landscape Proposal

Figure F-3