

8. LANDSCAPE AND VISUAL IMPACTS

8.1 Introduction

This section of the report outlines the landscape and visual impacts associated with the preferred track alignment from Tai Wai to Lee On, the nine stations and the depot.

The landscape and visual impacts associated with the property developments proposed above Tai Wai Depot, Tai Wai Station, Sha Tin Tau Station, Shek Mun Station and Lee On Station are not addressed in this report.

The assessment initially identifies the existing landscape context within which the stations, depot and alignment corridor will be developed. The locations from which the development would be visible are then described and people in the surrounding areas who would potentially be able to see the proposed development are identified and categorised according to their predicted sensitivity to visual intrusion by the proposed development.

The potential landscape and visual impacts that would result from the development are identified and the level of the potential impacts are assessed as high, medium or low. Measures are identified that would help reduce the level of these potential impacts on the landscape and on the identified visual receivers.

8.2 Legislation, and Planning and Development Control Framework

The assessment of the proposed railway development's landscape and visual impacts has been carried out according to the criteria and methodology in Annexes 10 and 18 respectively of the EIA Technical Memorandum issued under the EIA Ordinance which became law in Hong Kong on 1st April 1998.

In addition, HKPSG (Chapter 10 - Landscape and Conservation) outlines those criteria which should be considered when planning in an urban environment; the Government Circulars pertaining to Tree Preservation are *WBTC 24/94* and *PELB 3/94 Tree preservation* also apply to this assessment.

A review has been undertaken of the statutory land-use and landscape planning designations for the Study Area. The statutory designations are shown on Approved Sha Tin Outline Zoning Plan No. S/ST/12 (May 1999), and Approved Ma On Shan Outline Zoning Plan No. S/MOS/5 (October 1997).

In the Shatin OZP, a railway reserve is indicated for the future provision of MOS Rail, with stations at Tai Wai, Sha Tin Tau, Sha Kok Street, City One and Shek Mun. In the Ma On Shan OZP an alignment for a "Proposed Light Rail Transit System" is indicated.

The proposed MOS Rail follows the alignment in the two OZP's and it is considered that the railway will not cause any conflict with the planning goals of the two OZP's.

8.3 Assessment Methodology

The assessment has initially involved the identification of sources of impact that would be generated by the scheme, i.e. the elements of the construction works and operational procedures that would generate landscape and visual impacts. Site visits have been conducted to gain an overview of the existing landscape (topography, vegetation cover, and landscape features) within which the proposed new railway would be located. Baseline conditions and visually sensitive receivers have been established through site visits and by inspection of topographical maps and aerial photographs. Potential impacts on the landscape and on visual receiver groups have been identified for both the construction and operational stages of the scheme. The identified landscape and visual impacts are described below and assessed into categories of negligible, low, medium or high impacts. The assessment of visual impacts has been determined by the following procedures:

- description of the baseline conditions of the landscape and visual context of the route of the railway within a specific area of land, i.e. 500m either side of the railway alignment;
- description of the nature and extent of the railway development;
- assessment of the potential sensitivity of landscape elements along the route, i.e. whether the element is common or rare, if the element constitutes an area of particular landscape and visual interest, if the element is of statutory importance or of cultural interest;
- identification of the people in the surrounding area who would be potentially able to see the railway development, i.e. visually sensitive receivers;
- assessment of the potential sensitivity of visual receivers which relates to whether the person is at work, at play or at rest. Those who view the impact from their homes are considered to be highly sensitive as the attractiveness or otherwise of the outlook from their home will have a substantial effect on their perception of the quality and acceptability of their home environment and their general quality of life. Those who view the impact from their workplace are considered to be only moderately sensitive as the attractiveness or otherwise of the outlook will have a less important, although still material, effect on their perception of their quality of life. The degree to which this applies depends on whether the workplace is industrial, retail or commercial. Those who view the impact whilst taking part in an outdoor leisure activity may display varying sensitivity depending on the type of leisure activity. Those who view the impact whilst travelling on a public thoroughfare will also display varying sensitivity depending on the speed of travel and whether the view is continuous or occasionally glimpsed;
- assessment of the magnitude or extent of a visual impact depending on a number of factors including: visual context of the impact, the duration of the impact, the distance of the impact from the viewer, the number of viewers; and

- synthesis of the above information leading to an evaluation of the degree of significance of the visual impacts into thresholds of high, medium, low, or negligible. By synthesising the magnitude of the various impacts and the sensitivity of the various receptors it is possible to identify a series of thresholds to be used as a basis for the categorisation of the degree of significance of the impacts in a logical, well reasoned and consistent fashion. *Table 8.3* indicates a rationale for dividing the degree of significance into four thresholds, namely high, medium, low and negligible depending on the combination of negligible low-medium-high magnitude of impacts and a low-medium-high degree of sensitivity of receptors. The inclusion of a 'negligible' magnitude of impact is necessary because a negligible impact is different from a 'low' magnitude of impact. A 'low' magnitude impact will cause a varying degree of resultant visual impact depending on whether the receptor's sensitivity is low, medium or high. However, a negligible magnitude impact will always cause a negligible visual impact, irrespective of the sensitivity of the receptor.

Table 8.3 Relationship Between Receptor Sensitivity and Magnitude in Defining Significance Threshold

Magnitude of Impact	High	Low/Medium	Medium/High	High
	Medium	Low/Medium	Medium	Medium/High
	Low	Negligible/Low	Low/Medium	Low/Medium
	Negligible	Negligible	Negligible	Negligible
		Low	Medium	High
		Receptor Sensitivity		

The following points have also been taken into consideration in the assessment:

- The assessment has been undertaken for all VSR's in existing developments and potential future VSR's in planned and approved developments. At the request of Planning Department, the assessment has also been carried out for potential future VSR's who would be located in plots of land for which the landuse zoning is known but no development is yet approved and/or no programme of development is known. The assessment of impacts upon these

land-use zonings is made for the Operation Phase only and is made on the assumption that these developments are completed prior to the opening of the railway. However, it should be noted that it is much more likely that the railway would be completed before the developments, in which case there would be no assessed impact caused by the railway.

- The assessment of impacts on VSR's in residential developments has been subdivided according to the height of the VSR above the railway. This is because the degree of impact upon the VSR will vary greatly depending on the vertical distance between the railway and the VSR's. VSR's in the upper floors of residential developments close to the alignment will generally suffer negligible visual impacts as they will not be able to see the railway unless they stand at their windows and look directly down. The railway will not visually intrude into their home, nor will it block any key views as the VSR's look down (the viaduct will only block views of the road beneath). On the other hand VSR's living in the lower floors of same development may suffer medium to high impacts depending on the proximity of the viaduct to the block; whether or not there are any intervening screen elements (e.g. trees, projecting podium decks) and whether or not the railway will block existing attractive views. The text and tables describe the impacts on the lower, middle and upper floors of residential developments as well as an overall average impact. The plans indicate only the average impact. The assessed average impact in a development is based on an estimate of the number of VSR's falling into each of the three vertical categories. For example in very tall residential blocks, there will be a large proportion of potential VSR's in the upper floors which experience low or negligible impacts. This will therefore tend to lower the average impact for that development when compared with a lower use development where the majority of VSR's are in the lower and middle floors which they experience higher impacts.
- The definition of "lower", "middle" and "upper" floors is based on the height in metres of the floor above the railway track level, and is consistent throughout the alignment. It is necessary to define the vertical division of VSRs in this way because:
 - the residential developments along the alignment are of widely differing heights, and
 - the residential developments start at different levels in relation to the railway (some are located on higher ground e.g. Saddle Ridge Garden in Ma On Shan).
- The density of urban development along the rail alignment is generally high. Residential developments along the railway alignment in Sha Tin and Ma On Shan consist mainly of densely packed high rise towers above podium developments. The predominant existing view from many of the flats in these developments is therefore one of directly adjacent residential tower blocks, and the visual impact of the Railway has been assessed in this context.

- There are currently no plans for permanent off-site mitigation measures. There are plans, currently under discussion with RSD, for the following temporary re-provision of open space that will be affected during the construction period:
 - 2 basketball courts and 1 tennis court to be located on Sha Tin Tau Road, opposite Chun Shek Estate as mitigation for the temporary impacts on Tsang Tai Uk Recreation Ground.
 - 1 basketball court to be located within Pok Hong Estate as mitigation for the temporary impacts on the Estate recreation facilities along Sha Kok Street. The location of these temporary mitigation areas are shown in Figure 8.5a.
- There are several schools located alongside the alignment. These schools have already been designed so as to minimise visual and noise impacts from adjacent roads. As the railway will be constructed above these roads, the visual impact upon the schools in the operational phase is generally assessed as low.
- The comparative assessment of visual impacts in the operational phase before and after mitigation has taken the following general points into consideration:
 - opportunity for mitigating visual impacts from upper floors is limited to the mitigation resulting from sensitive design of the structures (viaduct, catenary supports, station roofs etc) because ground level landscape measures will not substantially affect such views. 'Before' and 'After' impacts are therefore assessed as being similar.
 - There is greater variation in the 'Before' and 'After' impacts for VSRs in lower floors because the effects of soft landscape mitigation measures (climbers on viaduct columns, tree planting underneath and alongside the viaduct) will be much more evident from these lower floors.
- The assessment of residual impacts is based on the assumption that the landscape mitigation measures proposed in the Landscape Design Strategy Report and Compensatory Tree Planting Proposal will be fully implemented.
- The assessment is based on the general assumption that the funding, implementation, management and maintenance of the mitigation proposals can be satisfactorily resolved. All proposals in this Report are practical and achievable within the known parameters of funding, implementation, management and maintenance. The Kowloon-Canton Railway Corporation will use its best endeavours to resolve any problems that may arise associated with issues of funding, implementation, management and maintenance to ensure that the landscape and visual mitigation proposals are implemented as set out in this Report, as far as the Corporation is able to do within its power.

8.4 Existing Conditions

8.4.1 General Landscape Characteristics

The route of the railway will run along the floor of the Hung Mui Kuk Valley in the east of the New Territories as shown in *Figure 8.4a*. It will start adjacent to the existing Tai Wai Station in the south west of the valley and proceed to Lee On Estate which is located north-east of Ma On Shan. The valley is bordered on both sides by the wooded slopes of Lion Rock Country Park and Ma On Shan Country Park to the south-east and Needle Hill and Cove Hill to the north-west. The route will run broadly parallel to the Shing Mun River Channel and will terminate at Lee On on the eastern shores of the Tolo Harbour.

8.4.2 Nature of the Alignment

Tai Wai Depot, which will be adjacent to the first proposed station at Tai Wai, will be constructed at grade. The passenger route, which will begin at Tai Wai on viaduct, will pass through the curve of the Shing Mun River north-east of Tai Wai station, and will remain on viaduct, elevated at approximately 10-15m above existing ground level, through the areas of Sha Tin Tau, Sha Kok, City One Shatin, over Siu Lek Yuen River Channel and through to Shek Mun. From north of Shek Mun the route will descend to grade to follow Tate's Cairn Highway before rising onto viaduct to cross Tai Shui Hang River Channel. The route then proceeds in an elevated form through the areas of Heng On and Ma On Shan to the final station at Lee On. The overrun tracks from Lee On station will run on viaduct along the northern side of development Area 108 and will terminate to the north-east of Sai Sha Road. There will be no track-side lighting along the railway.





8.4.3 Visual Envelope

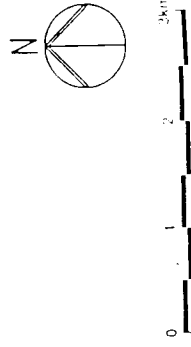
Due to the elevated nature of the majority of the route, the visual envelope will be extensive at certain locations. However, the many high rise residential and commercial blocks close to the alignment will restrict the middle and long distance views of the route within the urban areas. The extent of the visual envelope and the nature of the route are illustrated in *Figure 8.4a*.

8.4.4 The Route Alignment

Tai Wai Depot to Sha Tin Tau Station (Refer to Figure 8.5a)

The site for the Tai Wai Depot is located immediately to the south-west of the existing Tai Wai KCR East Rail Station and within the urban area of Tai Wai. It is bounded on its southern side by Che Kung Miu Road, on its eastern side by Mei Tin Road, on its northern side by the KCR railway and on its western side by Hin Tin Public Swimming Pool that is located opposite Hin Keng Estate. The site for Tai Wai Station is currently on a vacant strip of land in-between the existing Tai Wai Station and the bus terminal.

- LEGEND:**
-  ROUTE OF RAILWAY AT GRADE
 -  ROUTE OF RAILWAY ON VIADUCT
 -  APPROXIMATE ZONE OF VISIBILITY DURING BOTH CONSTRUCTION AND OPERATIONAL PHASE
 -  BOUNDARY OF COUNTRY PARK / NATURE RESERVE



TOLO HARBOUR

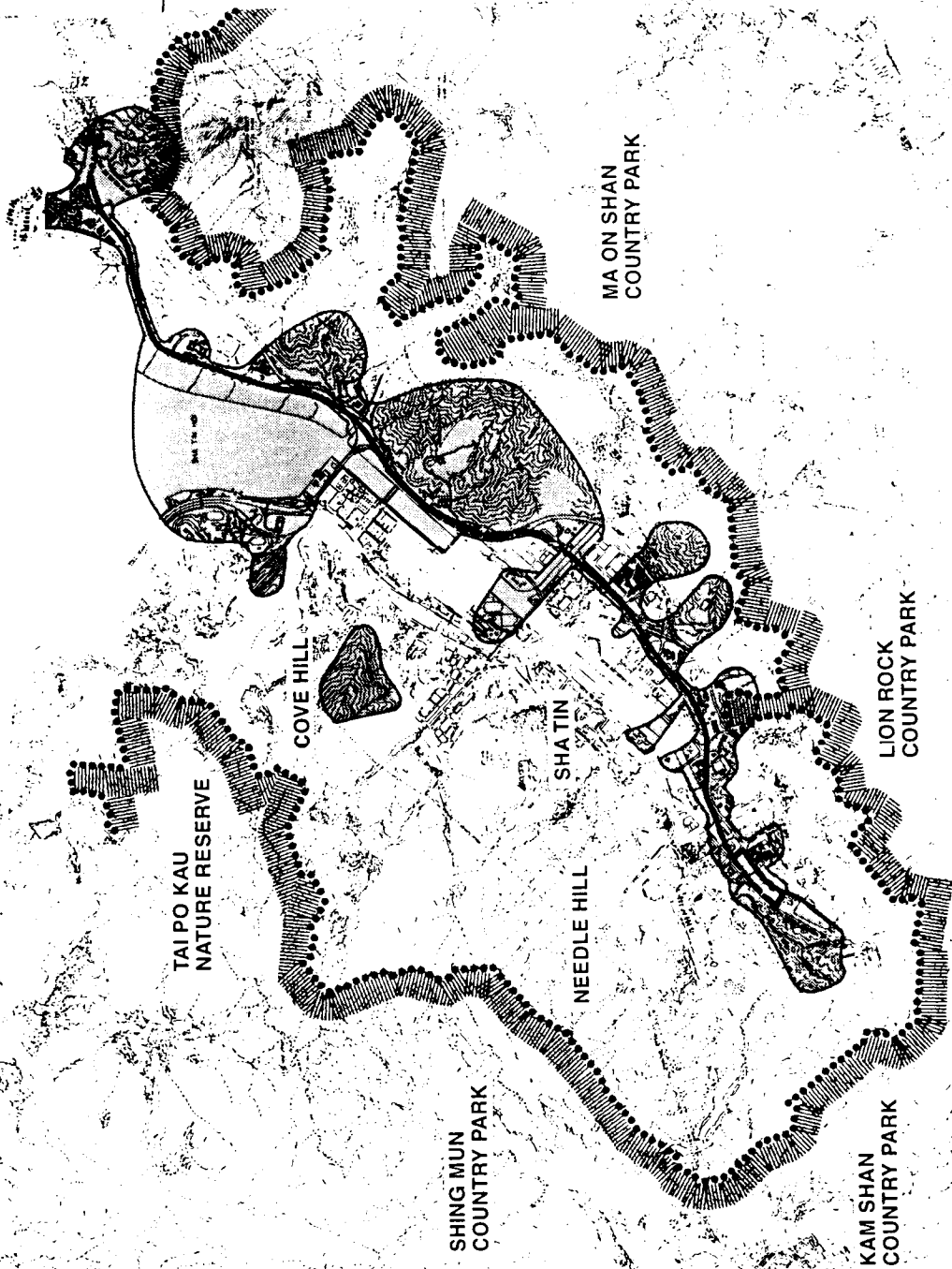
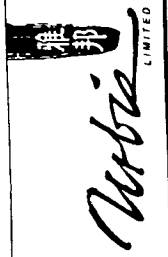


FIGURE 8.4a
TAI WAI TO MA ON SHAN RAIL LINK
VISUAL ENVELOPE



KOWLOON - CANTON
 RAILWAY CORPORATION
 ENVIRONMENT IMPACT ASSESSMENT
 EAST RAIL EXTENSIONS
 TAI WAI TO MA ON SHAN RAIL LINK



Due to the presence of a contractor's compound on the site and the construction works currently being carried out to the roundabout on Che Mui Road/ Mei Tin Road, the landscape quality of the sites for the depot and station is relatively low.

The site for the Depot comprises three distinct parts. The western part of the site is currently occupied by the Hong Kong School of Motoring. The central part of the site is currently used as a sports pitch. The eastern section of the site is, at present, partly used as a cycling area and partly used as a contractor's compound for the recently completed elevated pedestrian walkway above Che Kung Miu Road Roundabout. The embankment adjacent to the tracks of the East Rail KCR railway marks the western boundary of the depot site and is covered in grass and ornamental shrubs. There are some groups of mature and immature trees located on the lower edge of this embankment especially in the western section. Large groups of mature and semi-mature trees are located to the south of the existing Tai Wai KCR station. The sports pitches are grassed and elsewhere there are occasional groups of scrub and patchy grass scattered around the area. A KCR station entrance building, approximately 10m high, is located at the far north-east corner of the site. A cycle track/footpath with associated amenity planting runs along the eastern and southern boundaries.

Visually sensitive receivers for the depot and station site would comprise residents in the high-rise properties of Carado Garden to the south, Grandway and Holford Gardens to the north and Sun Chui estate to the east. The site will also be visible to residents in the low-rise, north facing properties of Tin Sam on Che Kung Miu Road and the users of the Christian Alliance Cheng WG College and the GCC and HKD Lau Pak Lok Secondary School to the north of the site. People using the Hin Tin outdoor swimming pools to the south west of the sites would also have a view of the depot and station. Additionally passengers on East Rail trains passing along the embankment to the north of the site would have a clear view down towards the site as would residents in properties on Sha Tin Heights Road to the west of the site.

On leaving the depot and station site the proposed track alignment passes in a north-easterly direction across the Happy Dragon Recreation Park towards the Shing Mun River Channel. The route alignment in this area initially passes over the south side of the River Channel and then veers due east over the cycle track and walkway adjacent to Che Kung Miu Road before passing along the southern side of a temporary car park which was formerly the site occupied by Sha Tin Temporary Housing Area. It then proceeds in a westerly direction on to the proposed Sha Tin Tau Station.

A large number of residential and institutional developments will have clear views of the viaduct in this section of the alignment. North-east facing properties in Tin Sam and Sun Chui Estate to the south of the alignment would have a direct view of the area as would visitors to the Happy Dragon Recreation Park. Users of five educational institutes: Ng Yuk Secondary School, Sha Tin Tsung Tsin Secondary School, GCC and ITKD Cheong Wong Wai Primary School within the Sun Chui Estate and the Immaculate Heart of Mary Primary School on Che Kung Miu Road and the Sha Tin Government Secondary School on the northern banks of the river channel will also have clear views. Visitors to the Che

Kung Miu Temple will also have a view of the alignment as will cyclists on both sides of the River Channel. Che Kung Miu Temple is a Grade 2 listed building.

Sensitive receivers in this section of the alignment include not only residents of the above developments located along the river channel but also people living in the residential properties on Man Lai Road and Man Lam Road as well as users of the recreational facilities on the River bank, in particular within Sha Tin Central Park. Pedestrians and vehicular traffic on the Lion Rock Tunnel Road bridge will also have clear views of the viaduct at the end of the open vista created by the River.

Sha Tin Tau Station to Sha Kok Street (Refer to Figure 8.5a)

The proposed site for the Sha Tin Tau Station is located within the site formerly occupied by the Sha Tin Wai Temporary Housing Area and now used as a temporary car park. This area is bordered on its southern and western sides by Che Kung Miu Road, on its eastern side by Lion Rock Tunnel Road and on its northern sides by the Shing Mun River Channel and its associated footpath / cycle track. The area is urban in character and the presence of mature trees along the water edge cycle path and lining both sides of Che Kung Miu Road have created a pleasant and medium quality landscape setting for the development. From the station site the railway proceeds on viaduct in an easterly direction passing in-between the junction of Che Kung Miu Road/ Lion Rock Tunnel Road and a wooded mound with several temporary structures located on its slopes. This wooded mound is of *fung shui* significance. The High Rock Christian Camp, at 102 Sha Tin Tau Village, is located on the top of this mound. This building is a Grade 3 listed building.

Views of the proposed Sha Tin Tau Station site and the adjacent sections of the alignment are available from north-east facing properties in Tin Sam and Sun Chui Estate, visitors to the Happy Dragon Recreation Park, and users of five educational institutes either side of the alignment. Visitors to the Che Kung Miu Temple will also have a view of the alignment as will cyclists on both sides of the River Channel, residents of north facing properties of Chun Shek Estate off Che Kung Miu Road, residents in the upper floor of the high rise buildings of Fung Sing Court to the south of the site and those of Hilton Plaza on the opposite side of the river. Additionally visually sensitive receivers in this section of the alignment include not only residents of the above properties but also pedestrians, cyclists on the road and river edge cycle way and other vehicular road-users. From the junction of Che Kung Miu Road/ Lion Rock Tunnel Road the viaduct proceeds over the Tsang Tai Uk Recreation Ground before running parallel to and immediately to the east of Sha Kok Street on its way to Sha Kok Street Station. This recreation ground comprises six tennis courts, a full-size football pitch, a playground and several basketball courts. The boundary of the recreation ground is generally well-vegetated with mature and semi-mature trees and these provide a strong sense of enclosure for this attractive and high quality landscape area. Immediately before reaching Sha Kok Road, the track alignment passes over the access road to Sha Ha Wai village and a footpath / cycle track which connects Sha Kok Street with Lion Rock Tunnel Road. Groups of mature and semi-mature trees line this footpath / cycle track and one particularly large group of

Acacia and Bauhinia trees is located at the junction of this footpath / cycle track and Sha Kok Street. People living in the historic Shan Ha Wai (Tsang Tai Uk) Village as well as users of the Tsang Tai Uk Recreation Ground and the adjacent footpath / cycle track will have clear views of this section of the alignment.

The alignment between Tsang Tai Uk Recreation Ground and Sha Kok Street Station passes over a series of open spaces that are located immediately to the south of Sha Kok Street. These open spaces contain two basketball courts, one large car-parking area and two separate parks / sitting-out spaces. A belt of shrubs and immature trees is located between these facilities and also between the facilities and Sha Kok Street. A cycle track / footpath is also located between these open spaces and Sha Kok Street.

Other visually sensitive receivers will be residents of the low rise north-west facing properties of Sha Tin Tau Village, south facing high rise properties in Jat Min Chuen Estate and north facing properties of Pok Hong Estate both on Sha Kok Street. Users of the three educational institutes on this road will also experience views of the alignment. They are the LST Chan Cho Chak Primary School and Immaculate Heart of Mary College to the north of the alignment and Tin Ka Ping Secondary School to the south.

Sha Kok Street Station to City One Shatin Station (Refer to Figure 8.5b)

The proposed site for Sha Kok Street Station is located in a reserve that was set aside for the proposed MOS development. This reserve comprises a large rectangular area of grass and has immature trees growing along its edges. An elevated walkway (with access ramp) passes across Sha Kok Street at a point immediately to the north of the Sha Kok Street Station site. A wooded mound is located directly to the south of the station site. The area around the reserve is urban in character and dominated by high rise residential developments which include the Jat Min Chuen residential area, the Pok Hong Estate and the Sha Kok Estate. Views of the proposed station site and adjacent sections of alignment will be available from these areas. Other sensitive receivers in this area include pedestrians, park-users, cyclists and other road-users.

From Sha Kok Street Station, the track alignment passes over Shui Chuen Au Street and runs along a large linear and well-vegetated open space on its way to Sha Tin Wai Road. A particularly tall group of trees is located at the junction of Sha Tin Wai Road and Sha Kok Street. Immediately to the south of this open space lies a large football pitch and Sha Tin Wai Village is located up slope of this pitch.

The proposed track alignment heads to the north-west from Sha Tin Wai Road on its way to the City One Shatin Station site located adjacent to Chap Wai Kon Street. A small open space /sitting area and a well-vegetated mound are located immediately to the north-west of Sha Tin Wai Road. This vegetated mound contains six graves on its southern and western edges and is of *fung shui* significance. The proposed track alignment passes over this open space, over the mound and over another open space located to the south-east of the mound before reaching an area of undeveloped ground located to the north of Wong Uk Village. The area to the immediate north of Wong Uk Village is industrial in character

and the alignment passes between the village and two petrol filling stations. An historic Tsz Tong building at Wong Uk (a Grade 2 protected building) is located approximately 500m to the north-west of the proposed alignment and would not be affected by the project. The alignment of the proposed track then reaches a China Light and Power Substation located to the north of Shatin Road. The proposed track alignment then passes over Shatin Road and its well-vegetated embankments on viaduct. Thereafter, the alignment passes over a bus terminus and a small open space located between the bus-terminus and Ngan Shing Street.

Visually sensitive receivers along this section of alignment include the residents of Shatin Park residential blocks, Yue Tin Court, Wong Uk Village, Sha Tin Wai Village and the users of the Prince of Wales Hospital. Other visually sensitive receivers along this section of alignment include pedestrians, park-users, cyclists and other road-users.

City One Shatin Station to Shek Mun Station (Refer to Figure 8.5b)

The site for City One Shatin Station is located at the junction of Ngan Shing Street and Chap Wai Kon Street. The site is located in a long linear reserve set aside for the MOS development immediately to the west and parallel to Chap Wai Kon Street. This railway reserve is currently used as a plant nursery and is well stocked with trees. A footpath / cycle track is located between Chap Wai Kon Street and this nursery. A 1.5m-wide vegetated strip is located immediately inside the boundary fence of the nursery and this strip contains a large number of immature trees. This railway reserve, located between Chap Wai Kon Street and Siu Lek Yuen Road is approximately 600m long. It is bounded to the north-west by Lam Kau Mow Secondary School and the residential developments of Yue Tin Court and City One Plaza. It is bounded to the south-east by a large construction site adjacent to the Prince of Wales Hospital, the City One Fire Station and the Sha Tin Industrial Centre. The railway will pass on viaduct over the junction of Chap Wai Kon Street and Siu Lek Yuen Road before proceeding in a north-easterly direction over a section of Siu Lek Yuen playground and Siu Lek Yuen River Channel both of which run perpendicular to the alignment. At this point the alignment will be visible to residents of north-east facing high rise properties in City On Shatin on Siu Lek Yuen Street and residents of Ravana garden and Kwong Yuen Estate to the distant north.

Construction work on both banks of the river channel have caused severe disruption to the playground under the route of the railway and it is not clear if these works which are associated with Shek Mun Industrial Area will be completed prior to the construction of the railway. The railway then proceeds to the site for the location of Shek Mun Station on the north-eastern side of the river channel.

Sensitive receivers along this section of the alignment include not only users of the above schools, industrial and residential properties but also users of the Siu Lek Yuen playground, pedestrians, cyclists and other vehicular road-users.

Shek Mun Station to Chevalier Gardens Station (Refer to Figure 8.5c)

The site for Shek Mun Station is located within the Shek Mun Industrial Area on a piece of vacant land previously used for the storage of trucks. The Industrial Area is sandwiched in a triangle of land located between the Siu Lek Yuen River Channel, Tate's Cairn Highway and Tai Chung Kiu Road. The station site will be positioned parallel to On Ming Street and to the south-east of the other high-rise industrial buildings within the area. The station will be visible from the residential and industrial properties on Siu Lek Yuen Road as mentioned in the last section, whilst workers within the Industrial area and vehicular traffic on Tate's Cairn Road will also have views. Distant views will also be available from the high-rise north-west facing properties in Kwong Yuen Estate to the south.

On leaving the station site the proposed alignment veers due north and drops to grade to join the Tate's Cairn Highway and passes around the steep wooded slopes of Buffalo Hill within the Ma On Shan Country Park. A reserve, approximately 12m wide has been set aside for the MOS development along the centre of the highway from this point until the track alignment reaches Chevalier Gardens Station. The route remains at grade within the railway reserve until it approaches the Tolo Highway Interchange just south of Tai Shui Hang where it rises onto viaduct to pass over the junction and the Tai Shui Hang River Channel. The section of reserve between the Shek Mun Industrial Estate and Chevalier Gardens is well grassed and has occasional groups of immature trees.

Visually sensitive receivers along this section of alignment include south-east facing residents in the high-rise properties of Pictorial Gardens and Garden Vista, users of Shatin Hospital and several residential properties on A Kung Kok Shan Road on the adjacent north-west facing hillside. Other sensitive receivers along this section of alignment include pedestrians and cyclists on the river edge walkway and road-users on Tate's Cairn Highway.

Chevalier Gardens Station to Heng On Station (Refer to Figures 8.5c and 8.5d)

The site for Chevalier Gardens Station is located within a central reserve that was set aside for the MOS Extension within the Ma On Shan Road corridor. This reserve, approximately 27m wide at the Station site, is well grassed and contains occasional groups of immature trees. An intertwining system of flyovers and slip roads of the Ma On Shan and Sai Sha Road is located approximately 200m to the north of Chevalier Gardens Station. Large areas of grass and shrubs are located underneath and to the side of these structures. The Shing Mun River is located approximately 600m to the west of the site and the recently completed reclamation which is now under construction for high rise residential properties is located between the river and the highway. Dense woodland is located to the east of the highway corridor and this woodland extends up to the middle and upper slopes of the hills that enclose the eastern side of the Shatin Valley.

Visually sensitive receivers would be the north-west facing residential properties of Tai Shui Hang Village and the upper floor properties of the high rise development of

Chevalier Gardens. The relative absence of buildings in this area combined with the relatively flat landform immediately surrounding the site both contribute to a sense of openness in the area. Visually sensitive receivers of the Station site and adjacent sections of alignment include not only residents of the above properties but also pedestrians and hill walkers, as well as cyclists and other road-users.

The proposed track alignment passes on viaduct over the flyover system and joins the Sai Sha Road where it again follows a wide central reservation (with patchy grass cover only in this section) set aside for the MOS Extension. The proposed track alignment then continues north past the site of a proposed residential development that was formerly occupied by the Shing On Temporary Housing Area to the east and across a large road junction / roundabout located immediately to the south-west of the Heng On Estate and from there onwards to the site for the Heng On Station. Vegetated hillsides and occasional residential developments are located in the distance on the western side of the Shing Mun River Channel.

Heng On Station to Ma On Shan Station (Refer to Figure 8.5d)

The site for Heng On Station is located within a central reserve that was set aside for the MOS Extension within the Sai Sha Road corridor. This reserve, approximately 15m wide at the Station site, has a patchy grass cover and is enclosed by railings. The Heng On residential estate is located immediately to the east of the Heng On Station site and the high-rise residential buildings of Kam On Court within this estate overlook the site. Wide belts of tree and shrub planting are located along the boundary of the estate where it fronts the road. Large areas to the west of the Sai Sha Road are set aside for residential development and Government / Institution / Community development. Foundation construction works are in progress in many of these areas. The Chinese YMCA College and the Heng On Estate Community Centre are located between these high-rise buildings and the Sai Sha Road and users of the road will have clear views of the railway viaduct.

The proposed track alignment then continues north on viaduct along the central reserve towards Ma On Shan Station. A large footbridge passes over the central reserve at a point 300m to the north of Heng On Station. Immediately adjacent to this footbridge lies the proposed sports stadium that is currently under construction, which was formerly the site occupied by Hing On Temporary Housing. Large areas of bare undeveloped land surround this Housing Area. The high-rise buildings of the Kam Hay Court adjacent to Yiu On Estate lie to the west of this undeveloped land. To the west of the footbridge lie the Chung On Shopping Centre within the Chung On Estate, Toi Shan Association Wong Tat To Memorial Primary School and Kam Fong Court high rise residential properties to the north. To the east of the alignment the viaduct will be visible from two secondary schools: Tsang Pik Shan Secondary and Ma On Shan St. Joseph's secondary. Visually sensitive receivers in this section of the alignment include not only residents and users of the above properties but also pedestrians, cyclists and other road-users. The alignment then curves in an easterly direction still within the railway central reserve towards the site for Ma On Shan Station.

Ma On Shan Station to Lee On Station and the Overrun Tracks (Refer to Figure 8.5d)

The site for the Ma On Shan Station is located within a central reserve that was set aside for the MOS Extension within the Sai Sha Road corridor. The central portion of this reserve, which varies between 15m and 25m wide at the Station site, is covered with grass. It is however, well-vegetated with trees, grass and shrubs on its periphery and is enclosed by railings. The Sunshine City development which comprises residential towers on podium deck with a bus station / commercial properties below is located immediately to the south of Sai Sha Road, and the Ma On Shan Centre, also including residential towers on a podium deck with commercial properties below, is located immediately to the north of the road. Thereafter, the track alignment continues along the MOS Extension reserve in a easterly direction towards Lee On Station.

Heading east after On Chiu Street, the track alignment passes through an area of residential properties: Villa Athena is to the north and Saddle Ridge Gardens and the Ma On Shan Health Centre are to the south. The central reserve in this section of the route is well vegetated with grass and avenues of immature trees. A cycle track / footpath with associated amenity planting is located along the southern edge of Sai Sha Road. Saddle Ridge Gardens is located on a hill and the slopes leading down to the road are densely vegetated with trees.

The alignment from Villa Athena to Lee On Estate follows the road and will be on viaduct within the reserve over the crest of the hill. The railway will be highly visible from all north facing properties within Saddle Ridge Garden to the south, and south facing properties in Villa Athena to the north. The railway will also be highly visible to road users on Sai Sha Road. The viaduct will also be visible to distant properties in Lee On Estate to the east and from Wu Kai Sha Youth Village to the north, and three villages comprising Wu Kai Sha New village, Kwai Po Lau, and Lok Wo Sha to the north-east.

The track alignment then crosses Kam Ying Road on viaduct along the central reserve, passing the Lee On residential estate which is located on the south-east of Sai Sha Road and also Wu Kai Sha New Village which is located to the north-west of Sai Sha Road. The central reserve in this section of the route is vegetated with grass only. The roadside embankments on the north-western side of Sai Sha Road are well-vegetated with trees and shrubs. This vegetation effectively screens views to the north-west at street-level. On reaching the access road for the Lee On Estate, the track alignment veers east toward the site for Lee On Station. A cycle track / footpath is located along the south-eastern side of Sai Sha Road. From here the alignment passes across an access road and then on past the site for the Lee On Station before terminating approximately 40 m east of Sai Sha Road.

The site for Lee On Station is located approximately 100m to the east of the access road to the Lee On Estate and is located within a former borrow area. This borrow area site comprises a series of flat platforms which are separated by rock outcrops. The platforms are unvegetated except for sparse grass growth, whilst the boundary of this borrow area, where it faces the adjacent roads, is well vegetated with mature and dense tree growth. Clear views of the Station site are available from the Lee On Housing Estate particularly

Landscape and Visual Impacts

from the Kam Lung Court high-rise residential development. Visually sensitive receivers in this section of the alignment include not only residents of the above property but also pedestrians, cyclists and other road-users.

8.5 Construction Impacts

8.5.1 Potential Sources of Impacts

The proposed MOS Extension development will involve the construction of a railway depot, nine stations and approximately 11.5 km of railway track.

The Tai Wai Depot would occupy an area of approximately 600m x 100m. The whole of the depot area would be covered with a roof slab which would be positioned approximately 10m above grade.

All of the nine proposed stations would be developed above-grade. There are two types of station and these would differ in size. Type X is 220m long by 24m wide and Type Y is 200m by 24m wide. All the stations would be covered with a roof structure and the platforms would be located in an island between the tracks. Escalators would be provided for pedestrian access up to the station.

Approximately 3.2 km of the railway track would be developed at grade and the remaining 8.3km would be on viaduct structure. There are two types of viaduct proposed for this development. Firstly, a double track viaduct (approx. 13m wide) and secondly, a single track viaduct (approx. 7m wide). The viaduct would be supported on columns that would be located at intervals varying between 25m to 75m. The sides of the viaduct structure would be approximately 2.5m deep and columns for the support of noise barriers would be fixed, where appropriate, to the sides of this structure.

The proposed development would create varying levels of impact on the physical landscape and on the visual amenity of the surrounding areas during the construction stage. Potential impacts on the physical landscape would result from the following:

- site clearance works involving the removal of existing vegetation and disruption to public open space;
- construction of site access and haul routes;
- excavation works for the construction of foundations and potentially a short section of cut and fill works near Lee On Station;
- storage of existing topsoil for reinstatement works;
- materials stockpiling;
- importation and storage of construction equipment and plant;
- the laying down of utilities, including water, drainage and power; and
- construction of temporary parking areas, on site accommodation and working areas.

The temporary land-take of open space during the Construction Phase will be as follows:

- Tsang Tai Uk Recreation Ground 8.735 sq.m.
- Pok Hang Estate Recreation Facilities 5.327 sq.m.
- Kong Pui Rest Garden 2.838 sq.m.
- Siu Lek Yuen Playground 2.167 sq.m.

The total amount of trees affected by the railway has been identified under a separate consultancy which has identified that 3,451 trees will be affected, of which 265 are recommended to be transplanted and 3,186 trees felled. However, it should be noted that a number of trees to be felled are located in the railway reserve in the centre of Tate's Cairn Highway, Ma On Shan Road and Sai Sha Road. These trees can be considered as temporary landscape treatment until such time as the railway is implemented.

Visual impacts would result from site preparation works together with the implementation of the piling works, concrete batching works, by the presence of construction equipment, traffic movements and the presence of new structures under construction (the stations, the depot, the at-grade rail track and any associated safety-fencing, the viaducts and any associated noise mitigation structures). There would, in addition, be visual impacts at all of the proposed construction sites during the night as a result of the presence of security lighting.

An assessment of the potential landscape and visual impacts during the construction phase is described in the text below. The potential residual visual impacts during the construction stages are summarised in *Table 8.5.1*, and illustrated in *Figures 8.5a-d*. This assessment assumes that the appropriate mitigation measures identified in *Section 8.5.2* would be implemented. The effect of the mitigation measures will be to slightly reduce the potential visual impacts. However due to the anticipated restrictions on land take for both the railway development and for mitigation measures to be implemented, it is likely that the residual impacts will remain high in the short term, at least for the residents of medium to high rise properties living in the vicinity of the railway and station sites.

Table 8.5 lists all the Key Sensitive Receivers in the Construction Phase.

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Key to Table 8.5.1

Types of Visually Sensitive Receivers (VSR's)	=	C -	Commercial
		C/I -	Mixed Commercial/Industrial
		C/R -	Mixed Commercial/Residential
		E -	Institution
		I -	Industrial
		M -	Community
		R -	Residential
			A – Residences at levels 9m or less above track level
			B – Residences at levels 9-24m above track level
			C – Residences at levels 24m or more above track level
		T –	Transport Related
Magnitude of Impact	=	Low, Medium or High	
Receptor Sensitivity	=	Low, Medium or High	
Impact Significance Thresholds	=	Low, Medium or High	
(*For ease of cross-referencing between Tables and Plans, each key VSR is numbered given an Identity Number according to the foregoing categories - see Table 8.5 and column 3 of Table 8.5.1)			

Table 8.5 Summary of The Type and Identity of the Key Visually Sensitive Receivers (VSR's) During Construction Period

No. of VSR	Key Visually Sensitive Receivers (VSR's)
C/I1	Staff at CLP Electric Substation
C/I2	Staff at CLP Electric Substation
C/R2	Residents at the south facing properties of Bayshore Towers
C/R3	Residents at the north facing properties of Sunshine City
C1	Staff and customers at the Petrol Stations
C2	Users at Pok Hong Estate Market
C3	Users at Chung On Shopping Centre
E1	Students and staff at Christian Alliance Cheng W.G.College and GCC & ITKD Lau Pak Lok Secondary School
E2	Students and staff at GCC & ITKD Cheong Wong Wai Primary School, Shatin Tsung Tsai Secondary School and Ng Yuk Secondary School
E3	Students and staff at Immaculate Heart of Mary Primary School and LST Chan Cho Chak Primary School
E4	Students and staffs at SA Tin Ka Ping Primary School
E5	Students and staff at Ecclesia Bible College

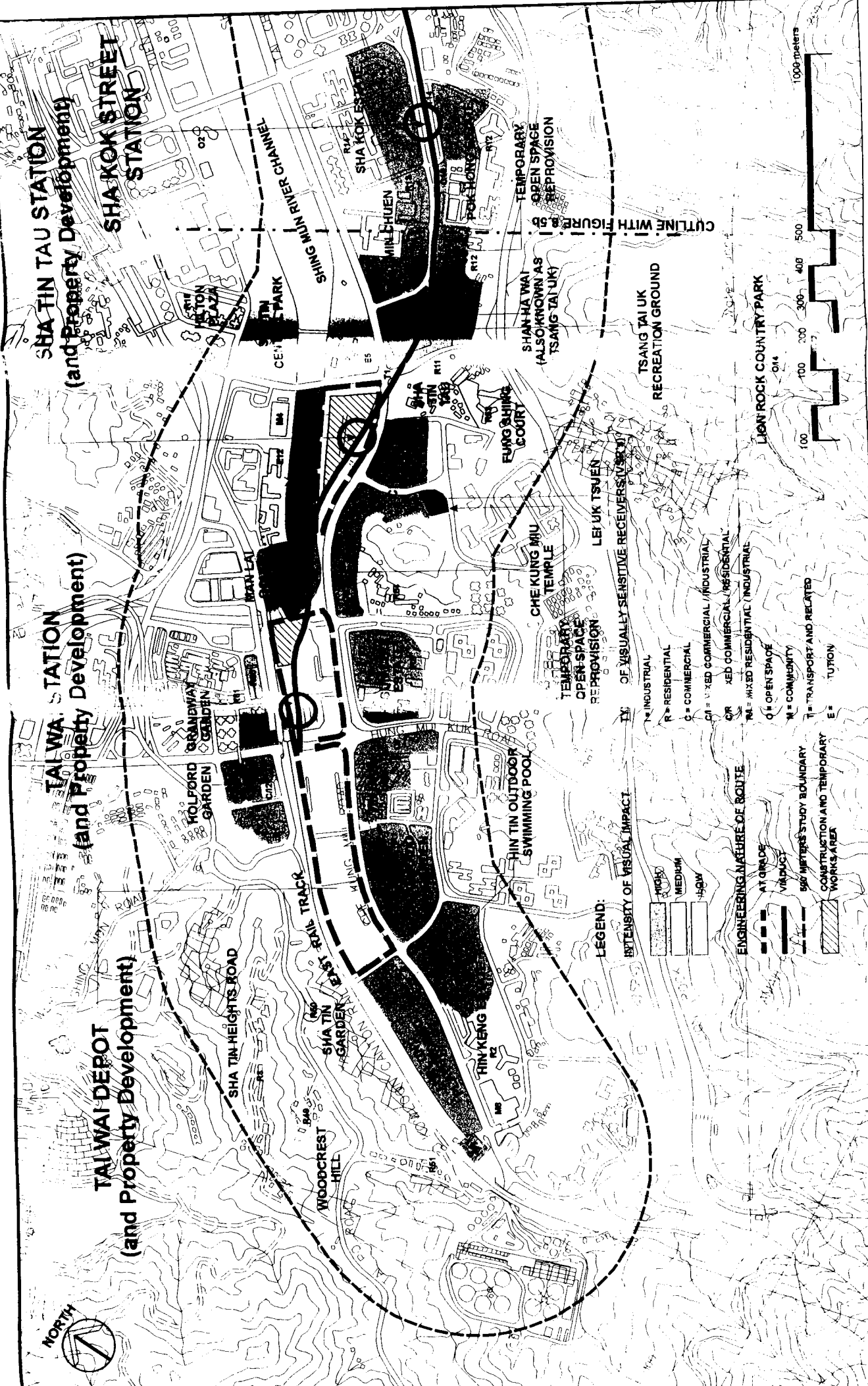
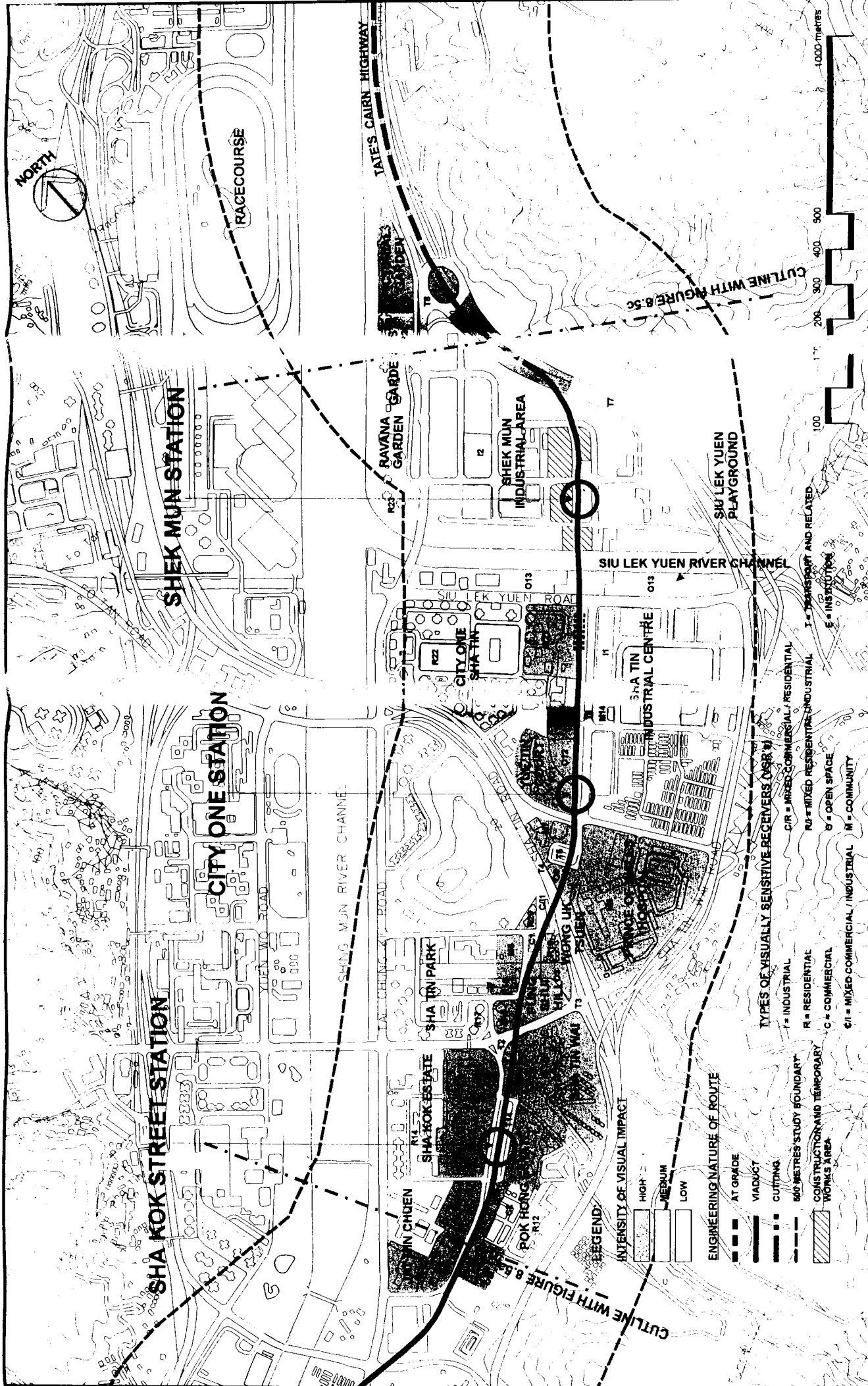


FIGURE 8.5a (Rev. C)
TAI WAI DEPOT TO SHA KOK STREET STATION
RESIDUAL VISUAL IMPACTS DURING CONSTRUCTION PERIOD





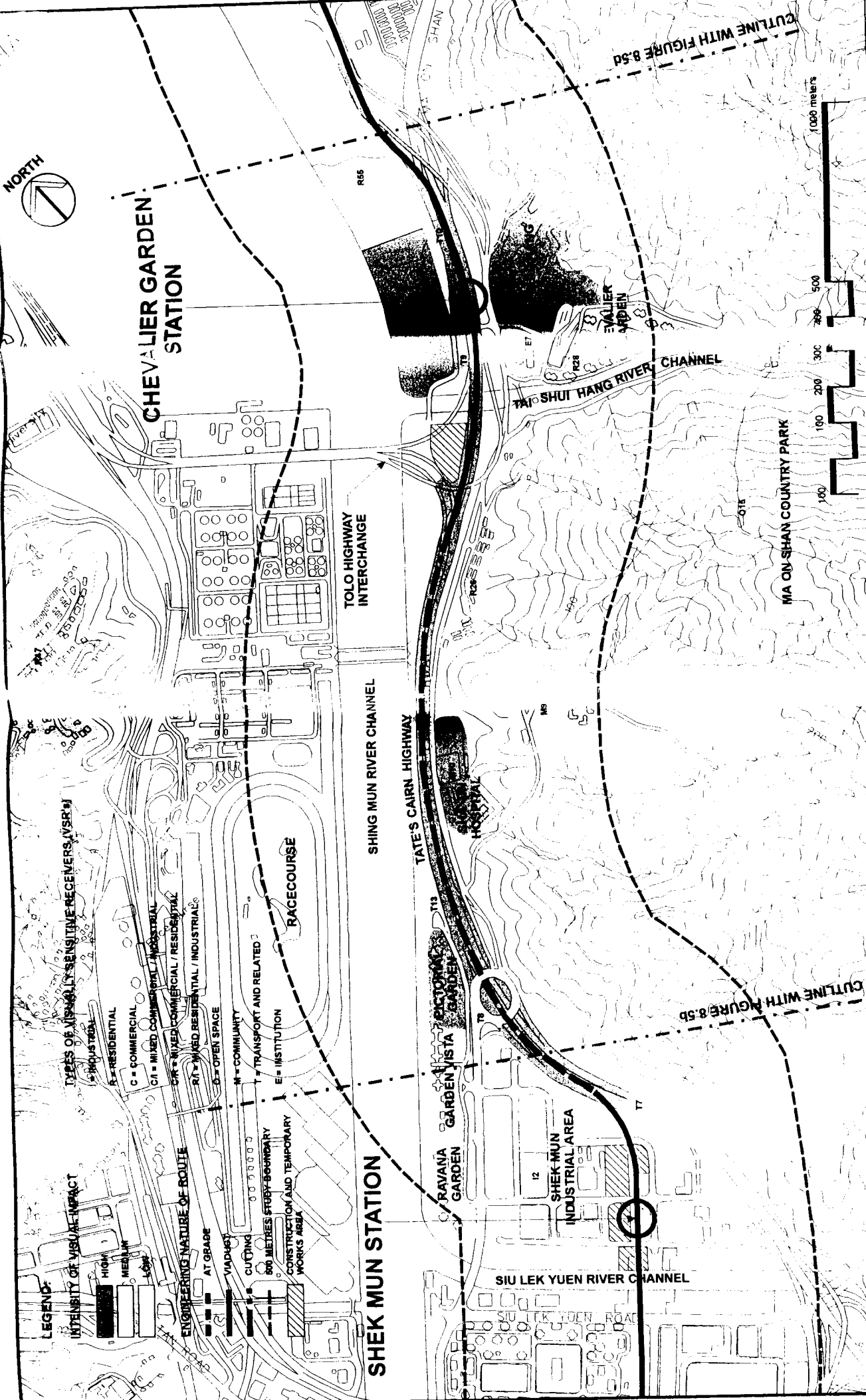
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RAILWAY CORPORATION
ENVIRONMENT IMPACT ASSESSMENT
EAST RAIL EXTENSIONS
TAI WAI TO MA ON SHAN RAIL LINK



FIGURE 8.5b (Rev. B)
SHA KOK STREET STATION TO SHEK MUN STATION
RESIDUAL VISUAL IMPACTS DURING CONSTRUCTION PERIOD



- LEGEND**
- INTENSITY OF VISUAL IMPACT
 - HIGH
 - MEDIUM
 - LOW
 - ENGINEERING NATURE OF ROUTE
 - AT GRADE
 - VIADUCT
 - CUTTING
 - 500 METRES STUDY BOUNDARY
 - CONSTRUCTION AND TEMPORARY WORKS AREA
- TYPES OF VISUALLY SENSITIVE RECEIVERS (OVER 500M)**
- I = INDUSTRIAL
 - R = RESIDENTIAL
 - C = COMMERCIAL
 - CI = MIXED COMMERCIAL / INDUSTRIAL
 - CI-R = MIXED COMMERCIAL / RESIDENTIAL
 - RI = MIXED RESIDENTIAL / INDUSTRIAL
 - OS = OPEN SPACE
 - HI = COMMUNITY
 - T = TRANSPORT AND RELATED
 - E = EDUCATION

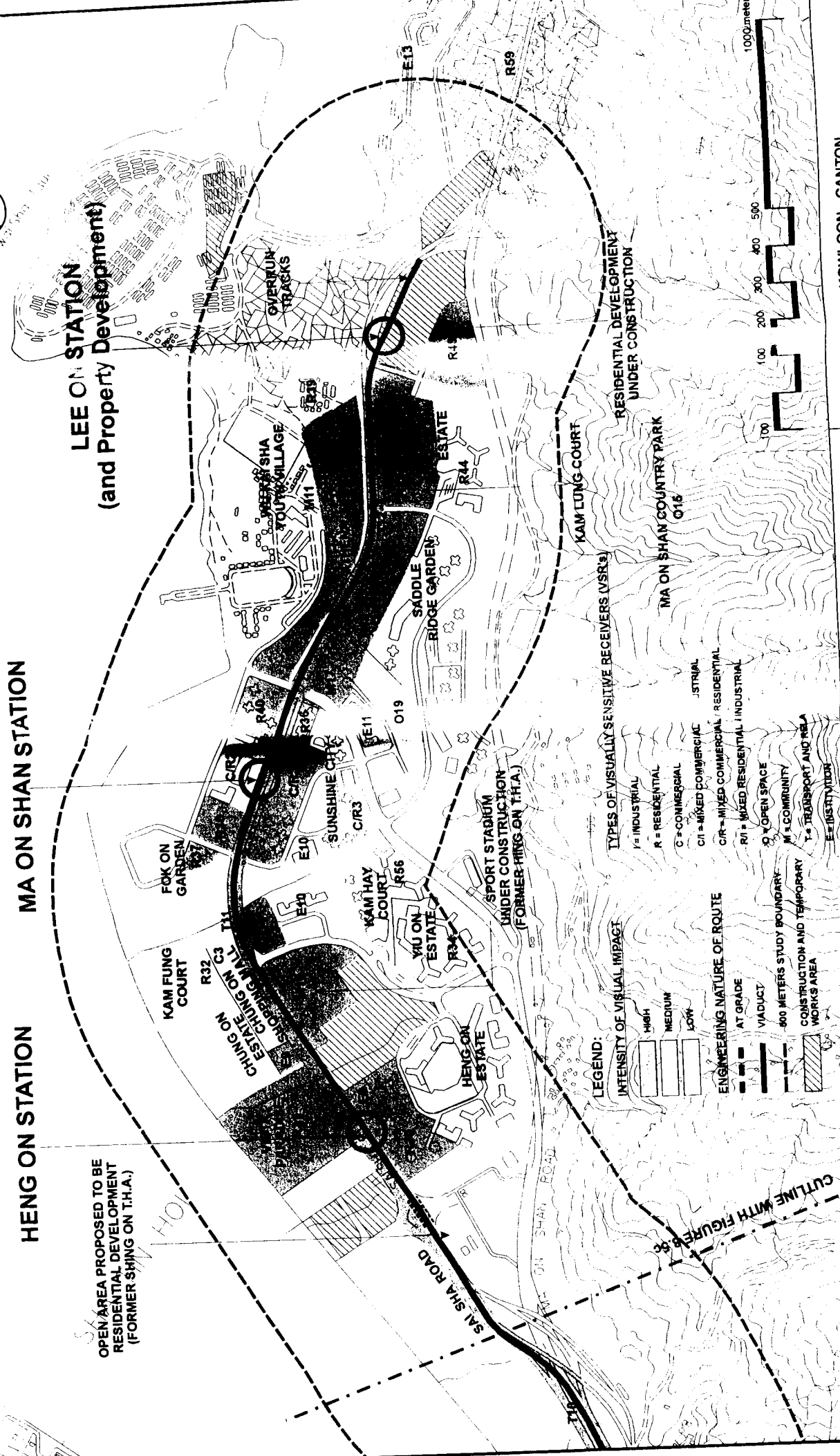


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ENVIRONMENT IMPACT ASSESSMENT
EAST RAIL EXTENSIONS
TAI WAI TO MA ON SHAN RAIL LINK



FIGURE 8.5c (Rev. B)
SHEK MUN STATION TO CHEVALIER GARDEN STATION
RESIDUAL VISUAL IMPACTS DURING CONSTRUCTION PERIOD





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EAST RAIL EXTENSIONS
TAI WAI TO MA ON SHAN RAIL LINK



FIGURE 8.5d (Rev. B)
CHEVALIER GARDEN STATION TO LEE ON STATION OVERRUN TRACKS
RESIDUAL VISUAL IMPACTS DURING CONSTRUCTION PERIOD



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No. of VSR	Key Visually Sensitive Receivers (VSR's)
E6	Students and staff of Lam Kau Mow Secondary School and TWGH Yow Kam Yuen Prevocational School
E7	Students and staff at Tsung Tsin College
E8	Students and staff at Chinese YMCA College
E9	Students and staff at Toi Shan Association Wong Tat To Memorial School
E10	Students and staff at Tsang Pik Shan Secondary School, Fung Yiu King Memorial School, and FDBWA Mrs. Fung Ping Shan Primary School
E11	Students and staff at YCH Tung Chi Ying Memorial Secondary School and TWGH Wong Fung Ling College
E12	Students and staff at Shatin Government Secondary School, Immaculate Heart of Mary Primary School and Caritas Prevocational School
E13	Students and staff at Li Po Chun United World College
I1	Users at Sha Tin Industrial Centre
I2	Users at the east facing properties of Shek Mun Industrial Area
M1	Shatin Plant Quarantine Area and the Government Kennels
M2	Users of Hin Tin Outdoor Swimming Pool
M3	Visitors and staffs at Che Kung Miu Temple
M4	Future visitors and staff at the Cultural Museum currently under construction
M5	Staff and users at Caritas Care & Attention Home
M6	Staff and users at Prince of Wales Hospital
M7	Staff and users at Pamela Youde Child Assessment Centre & Dental School, and Yuen Chau Kok Clinic
M8	Users at Hin Keng Indoor Recreation Centre Complex
M9	Users and staffs at the Cheshire Home
M10	Users and staffs at Shatin Hospital
M11	Users at the Wu Kai Sha Youth Village
M14	Staff at Chap Wai Kon Street Fire Station
M16	Future users at the proposed sport stadium under construction
M17	Staff and users at Ma On Shan Health Centre
O1	Users at Hin Tin playground
O2	Users at Shatin Central Park
O3	Users at Kong Pui Street Rest Garden and the Fung Shui Hill
O4	Users at On Luk Street Garden
O5	Users at Che Kung Miu Road Playground
O6	Users at Tsang Tai Uk Recreation Ground
O7	Users at public open space at Hung Mui Kuk Road
O8	Users at football field at Che Kung Miu Temple
O9	Users at the open space at Ngan Shing Street bus terminus

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No. of VSR	Key Visually Sensitive Receivers (VSR's)
O10	Users at the series of open space at Sha Kok Street
O11	Users at Sha Tin Wai Playground
O12	Users at Yue Tin Court Playground
O13	Users at Siu Lek Yuen Playground
O14	Users at Lion Rock Country Park
O15	Users at Ma On Shan Country Park
O19	Users at the green belt adjacent to Saddle Ridge Garden
R1	Residents at the north facing properties of Carado Garden
R2	Residents at the north facing properties of Hin Keng Estate
R3	Residents at the east facing properties of Shatin Heights Road
R4	Residents at south facing properties of Holford Garden
R5	Residents at south facing properties of Grandway Garden
R6	Residents at the low rise north facing properties of Tin Sam
R7	Residents at the south facing properties of Man Lai Court
R8	Residents at the north facing properties of Sun Chui Estate
R9	Residents at the low rise north facing properties of Lei Uk Tsuen
R10	Residents at north facing properties of Chun Shek Estate
R11	Residents at north facing properties of Sha Tin Tau
R12	Residents at north facing properties of Pok Hong Estate
R13	Residents at south facing properties of Jat Min Chuen
R14	Residents at the south facing properties of Sha Kok Estate
R15	Residents at south facing properties of Hilton Plaza
R16	Residents at the low rise north-west facing properties of Sha Tin Wai
R17	Residents at the south facing properties of Greenwood Garden
R18	Residents at the south facing properties of Shatin Park
R19	Residents at the low rise Wong Uk Village
R20	Residents at the south facing properties of Green Leaves Garden
R21	Residents at south-east facing properties of Yue Tin Court
R22	Residents at south-east facing properties of City One Shatin
R23	Residents at the high rise east facing properties of Ravana Garden
R24	Residents at the high rise east facing properties of Garden Vista
R25	Residents at the high rise east facing properties of Pictorial Garden
R26	Residents at the low rise Shatin Fisherman's Village
R27	Residents at low rise west facing properties of Tai Shui Hang

Landscape and Visual Impact Assessment

No. of VSR	Key Visually Sensitive Receivers (VSR's)
R28	Residents at high rise west facing properties of Chevalier Garden
R29	Future residents at the proposed residential development at Tai Shui Hang currently under construction
R30	Residents at the west facing properties of Heng On Estate
R31	Residents at the east facing properties of Vista Paradise
R32	Residents at the east facing properties of Chung On Estate
R33	Residents at the high rise east facing properties of Kam Fung Court
R34	Residents at the high rise west facing of Yiu On Estate
R35	Residents at the low rise south facing properties of Kwai Po Lau
R36	Residents at the north facing properties of Fu Fai Garden
R37	Residents at the south facing properties of Fok On Garden
R38	Residents at the south facing properties of Tolo Place
R39	Residents at the low rise south facing properties of Lok Wo Sha
R40	Residents at the south facing properties of Ma On Shan Centre
R41	Residents at the south facing properties of Villa Athena
R42	Residents at the north facing properties of Saddle Ridge Garden
R43	Residents at the north facing properties of Kam Lung Court
R44	Residents at the north facing properties of Lee On Estate
R45	Residents at the low rise south facing properties of Wu Kai Sha New Village
R46	Future residents at the proposed residential development currently under construction
R47	Residents at Cove Hill
R49	Residents at the east facing properties of Woodcrest Hill
R50	Residents at the east facing properties of Shatin Garden
R51	Residents at the low rise east facing properties of Blossom Court
R52	Residents at north facing properties of Fung Shing Court
R53	Residents at the low rise north facing properties of Shan Ha Wai (also known as Tsang Tai Uk)
R54	Residents at the low rise north-west facing properties of San Tin Wai
R56	Residents at Kam Hay Court
R59	Residents at Symphony Bay
R60	Residents of the low-rise developments at Tsuen Nam Road
R61	Residents of the low-rise developments at Tai Wai Road
T1	Pedestrians and cyclists at j/o of Lion Rock Tunnel Rd & Chu Kung Miu Road
T2	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Kok Street
T3	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Tin Road
T4	Pedestrians and cyclists at Sha Tin Road

Landscape and Visual Impacts

No. of VSR	Key Visually Sensitive Receivers (VSR's)
T5	Users at the bus terminus at Chap Wai Kon Street
T6	Pedestrians and cyclists at j/o Siu Lek Yuen Road & Chep Wai Kon Road
T7	Users of the Tate's Cairn Highway
T8	Pedestrians and cyclists above Tate's Cairn Highway at Pictorial Garden
T9	Pedestrians and cyclists along Ma On Shan road at the proposed residential development currently under Construction
T10	Users of the Tate's Cairn Highway
T11	Users of Sai Sha Road at Heng On Estate
T12	Users of Sai Sha Road and the surrounding road system at Villa Athena
T13	Pedestrians and cyclists along Tate's Cairn Highway at Shing Mun River Channel
T14	Users at the bus terminus at Sha Kok Street

Table 8.5.1 Residual Visual Impacts During Construction Period

(Note: All impacts are adverse unless otherwise stated)

Source of impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai Depot, overrun track with noise barrier	Residents at the north facing properties of Carado Garden	R1	100m	H	H	M	High	H	H	M	H	H	M	H
Tai Wai Depot, overrun track with noise barrier	Residents at the north facing properties of Hin Keng Estate	R2	30m	H	M	M	High	H	M	M	H	M	M	M
Tai Wai Depot, overrun track with noise barrier	Residents at the east facing properties of Shatin Heights Road	R3	220m	N/A	N/A	L	High	N/A	N/A	L	N/A	N/A	L	L
Tai Wai Station, Tai Wai Depot	Residents at south facing properties of Holford Garden	R4	80m	L	H	M	High	L	H	M	L	H	M	H
Tai Wai Station, Tai Wai Depot	Residents at south facing properties of Grandway Garden	R5	50m	L	H	M	High	L	H	M	L	H	M	H
Tai Wai Station, Tai Wai Depot	Residents at the low rise north facing properties of Tin Sam	R6	20m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	N/A	H
Tai Wai Depot, overrun track with noise barrier	Residents at the east facing properties of Woodcrest Hill	R49	200m	N/A	N/A	L	High	N/A	N/A	L	N/A	N/A	L	L
Tai Wai Depot, overrun track with noise barrier	Residents at the east facing properties of Shatin Garden	R50	110m	N/A	M	M	High	N/A	M	M	N/A	M	M	M
Tai Wai Depot, overrun track with noise barrier	Residents at the low rise east facing properties of Blossom Court	R51	90m	N/A	L	L	High	N/A	L	L	N/A	L	L	L

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai Station, Tai Wai Depot	Staff of CLP Electric Substation	C/12	70m	Low			Low	Low			Low			
Tai Wai Depot, overrun track with noise barrier	Users of Hin Tin playground	O1	0m	High			High	High			High			
Tai Wai Station	Residents of the low-rise developments at Tsuen Nam Road	R60	50m	L	H	N/A	High	L	H	N/A	L	H	N/A	H
Tai Wai Station	Residents of the low-rise developments at Tai Wai Road	R61	70m	L	M	N/A	High	L	M	N/A	L	M	N/A	M
Tai Wai Depot	Users of Che Kung Miu Road Playground	O5	20m	High			High	High			High			
Tai Wai Station, Tai Wai Depot	Users of Hung Mui Kuk Road open space	O7	40m	High			High	High			High			
Tai Wai Station, Tai Wai Depot, Viaduct	Users of Lion Rock Country Park	O14	900m	Low			High	Low			Low			
Tai Wai overrun track with noise barrier	Staff of Shatin Plant Quarantine Area and the Government Kennels	M1	0m	High			Medium	High			High			
Tai Wai Depot, overrun track with noise barrier	Users of Hin Tin Outdoor Swimming Pool	M2	0m	High			High	High			High			

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Source of impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai overrun track with noise barrier	Users of Hin Keng Indoor Recreation Centre Complex	M8	120m	Medium			Medium	Medium			Medium			
Tai Wai Depot	Students and staff of Christian Alliance Cheng W.G.College and GCC & ITKD Lau Pak Lok Secondary School	E1	50m	High			Medium	High			High			
Tai Wai Station, Viaduct	Residents at the south facing properties of Man Lai Court	R7	60m	H	H	N/A	High	H	H	N/A	H	H	H	H
Tai Wai Station, Tai Wai Depot, Viaduct	Residents at the north facing properties of Sun Chui Estate	R8	50m	H	H	M	High	H	H	M	H	H	M	H
Sha Tin Tau Station, Viaduct	Residents at the low rise north facing properties of Lei Uk Tsuen	R9	70m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	N/A	H
Tai Wai Station, Viaduct	Residents at the low rise north-west facing properties of San Tin Wai	R54	150m	M	N/A	N/A	High	M	N/A	N/A	M	N/A	N/A	M
Tai Wai Station, Viaduct	Visitors and staffs of Che Kung Miu Temple	M3	40m	High			High	High			High			
Sha Tin Tau Station, Viaduct	Students and staff of Shatin Government Secondary School, Immaculate Heart of Mary Primary School and Caritas Prevocational School	E12	120m	Medium			Medium	Medium			Medium			

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai Station, Viaduct	Students and staff of GCC & ITKD Cheong Wong Wai Primary School, Shatin Tsung Tsai Secondary School and Ng Yuk Secondary School	E2	50m	High			Medium	High			High			
Tai Wai Station, Viaduct	Users of Che Kung Miu Road Football Field	O8	100m	Medium			High	High			High			
Sha Tin Tau Station	Residents at north facing properties of Chun Shek Estate	R10	60m	H	H	M	High	H	H	M	H	H	M	H
Sha Tin Tau Station, Viaduct	Residents at north facing properties of Sha Tin Tau	R11	40m	M	N/A	N/A	High	M	N/A	N/A	M	N/A	N/A	M
Sha Tin Tau Station, Viaduct	Residents at south facing properties of Hilton Plaza	R15	480m	L	L	L	High	L	L	L	L	L	L	L
Sha Tin Tau Station, Viaduct	Residents at north facing properties of Fung Shing Court	R52	300m	L	M	M	High	L	M	M	L	M	M	M
Viaduct	Residents at the low rise north facing properties of Shan Ha Wai (Also known as Tsang Tai Uk)	R53	80m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	N/A	H
Sha tin Tau Station	Future visitors and staff of the Cultural Museum currently under construction	M4	230m	Medium			High	Medium			Medium			

Landscape and Visual Impact Assessment

Source of impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Sha tin Tau Station	Students and staff of Ecclesia Bible College	E5	250m	Medium			Medium	Medium			Medium			
Sha Tin Tau Station, Viaduct	Users of Shatin Central Park	O2	300m	Medium			High	Medium			Medium			
Viaduct	Users of Tsang Tai Uk Recreation Ground	O6	0m	High			High	High			High			
Viaduct	Users of the series of open space at Sha Kok Street	O10	0m	High			High	High			High			
Sha Tin Tau Station, Viaduct	Pedestrians and cyclists at j/o of Lion Rock Tunnel Rd & Chu Kung Miu Rd	T1	0m	Medium			Medium	Medium			Medium			
Sha Kok Street Station, Viaduct, Viaduct with noise barrier	Residents at north facing properties of Pok Hong Estate NW Section SE Section	R12	60m	H	L	L	High	H	L	L	High	H	L	L
				L	L	L		L	L	L		L	L	
Sha Kok Street Station, Viaduct, Viaduct with noise barrier	Residents at south facing properties of Jat Min Chuen NW Section SW Section	R13	20m	L	L	L	High	H	L	L	High	L	L	L
				H	H	H		H	H	H				

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Sha Kok Street Station, Viaduct,	Residents at the south facing properties of Sha Kok Estate NW Section SW Section	R14	60m	L	L	L	High	L	L	L	L	L	L
				H	H	L		H	H	L	H	H	H
Viaduct	Residents at the low rise north-west facing properties of Sha Tin Wai	R16	60m	H	H	N/A	High	H	H	N/A	H	H	H
Viaduct	Residents at the south facing properties of Greenwood Garden	R17	110m	M	M	L	High	M	M	L	M	M	M
Viaduct	Residents at the south facing properties of Shatin Park	R18	20m	H	H	L	High	H	H	L	H	H	H
Viaduct	Residents at the low rise Wong Uk Village	R19	20m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	H
Viaduct	Residents at the south facing properties of Green Leaves Garden	R20	40m	H	H	L	High	H	H	L	H	H	H
Viaduct with noise barrier	Students and staff of Immaculate Heart of Mary Primary School and LST Chan Cho Chak Primary School	E3	20m	High			Medium	High			High		

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Viaduct with noise barrier	Students and staffs of SA Tin Ka Ping Primary School	E4	30m	High			Medium	High			High		
Viaduct	Staff and customers of the Petrol Stations	C1	5m	Medium			Low	Low			Low		
Viaduct with noise barrier	Users of Pok Hong Estate Market	C2	20m	High			Low	Medium			Medium		
Viaduct	Staff of CLP Electric Substation	C/11	0m	High			Low	Medium			Medium		
Viaduct	Staff and users of Caritas Care & Attention Home	M5	20m	High			High	High			High		
City One Station, Viaduct	Staff and users of Prince of Wales Hospital	M6	50m	High			High	High			High		
City One Station, Viaduct	Staff and users of Pamela Youde Child Assessment Centre & Dental School, and Yuen Chau Kok Clinic	M7	20m	High			High	High			High		
Viaduct	Users of Kong Pui Street Rest Garden and the Fung Shui Hill	O3	0m	High			High	High			High		
Viaduct	Users of the open space at Ngan Shing Street bus terminus	O9	0m	High			High	High			High		
Viaduct	Users of Sha Tin Wai Playground	O11	20m	Medium			High	High			High		

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Kok Street	T2	0m	Medium			Medium	Medium			Medium			
Viaduct	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Tin Road	T3	10m	Medium			Medium	Medium			Medium			
Viaduct	Pedestrians and cyclists at Sha Tin Road	T4	0m	Medium			Medium	Medium			Medium			
Viaduct	Users of the bus terminus at Ngan Shing Street	T5	0m	High			Low	Medium			Medium			
Sha Kok Street Station, Viaduct	Users of the bus terminus at Sha Kok Street	T14	0m	High			Low	Medium			Medium			
City One Station	Residents at south-east facing properties of Yue Tin Court	R21	30m	H	H	L	High	H	H	L	H	H	L	H
City One Station, Viaduct, Viaduct with noise enclosure	Residents at south-east facing properties of City One Shatin NW Section SE Section	R22	45m	M	M	L	High	M	M	L	M	M	L	M H

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Viaduct with noise enclosure	Users of Sha Tin Industrial Centre	I1	30m	Low			Low	Low			Low		
City One Station, Viaduct	Users of Yue Tin Court Playground	O12	40m	Medium			High	High			High		
Viaduct	Users of Siu Lek Yuen Playground	O13	25m	Low			High	Medium			Medium		
Viaduct	Staff of Chap Wai Kon Street Fire Station	M14	60m	Low			Medium	Medium			Medium		
Viaduct	Students and staff of Lam Kau Mow Secondary School and TWGH Yow Kam Yuen Prevocational School	E6	28m	High			Medium	High			High		
City One Station, Viaduct, Viaduct with noise barrier	Pedestrians and cyclists at jo Siu Lek Yuen Road & Chap Wai Kon Road	T6	0m	Medium			Medium	Medium			Medium		
Viaduct, Track alignment at grade	Residents at the high rise east facing properties of Ravana Garden	R23	350m	L	L	L	High	L	L	L	L	L	L
Viaduct, Track alignment at grade	Residents at the high rise east facing properties of Garden Vista	R24	180m	M	M	L	High	M	M	L	M	L	M
Track alignment at grade, Track alignment at grade with noise barrier	Residents at the high rise east facing properties of Pictorial Garden	R25	50m	H	H	L	High	H	H	L	H	L	H
Track alignment at grade	Residents at the low rise Sha Tin Fishermen's New Village	R26	75m	L	N/A	N/A	High	L	N/A	N/A	L	N/A	N/A

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Track alignment at grade	Residents of Cove Hill	R47	850m	N/A	N/A	L	High	N/A	N/A	L	N/A	N/A	L	L
Shek Mun Station, Viaduct	Users of the east facing properties of Shek Mun Industrial Area	I2	95m	Low			Low	Low			Low			
Track alignment at grade	Users and staffs of the Cheshire Home	M9	280m	Low			High	Low			Low			
Track alignment at grade	Users and staffs of Shatin Hospital	M10	450m	High			High	High			High			
Viaduct, Track alignment at grade, Track alignment at grade with noise barrier	Users of the Tate's Cairn Highway	T7	0m	Low/High			Medium	Low/High			Low/High			
Track alignment at grade with noise barrier	Pedestrians and cyclists above Tate's Cairn Highway at Pictorial Garden	T8	0m	Medium			Medium	Medium			Medium			
Track alignment at grade	Pedestrians and cyclists along Tate's Cairn Highway at Shing Mun River Channel	T13	300m	Medium			Medium	Medium			Medium			
Chevalier Garden Station, Viaduct	Residents at low rise west facing properties of Tai Shui Hang	R27	120m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	NA	H
Chevalier Garden Station, Viaduct	Residents at high rise west facing properties of Chevalier Garden	R28	200m	M	M	L	High	M	M	L	M	M	L	M

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Source of impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Chevalier Garden Station, Viaduct	Future residents at the proposed residential development at Tai Shui Hang currently under construction	R29	70m	H	H	L	High	H	H	L	H	H	L	H
Chevalier Garden Station, Viaduct	Students and staff of Tsung Tsin College	E7	85m	Medium			Medium	Medium			Medium			
Chevalier Garden Station, Viaduct	Pedestrians and cyclists along Ma On Shan road at the proposed residential development currently under construction	T9	38m	High			Medium	High			High			
Chevalier Garden Station, Viaduct with noise enclosure	Users of the Tate's Caim Highway	T10	0m	High			Medium	High			High			
Viaduct, Viaduct with noise enclosure	Residents at the west facing properties of Heng On Estate W Section E Section	R30	35m	H	H	L	High	H	H	L	H	H	L	H
Viaduct, Viaduct with noise enclosure	Residents at the east facing properties of Vista Paradise	R31	30m	H	H	L	High	H	H	L	H	H	L	H
Viaduct, Viaduct with noise barrier	Residents at the east facing properties of Chung On Estate	R32	40m	L	M	L	High	L	M	L	L	M	L	L

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Viaduct	Residents at the high rise east facing properties of Kam Fung Court	R33	150m	M	M	L	High	M	M	L	M	M	M
Viaduct with noise barrier	Residents at the high rise west facing of Yiu On Estate	R34	250m	L	M	M	High	L	M	M	L	M	M
Viaduct, Viaduct with noise barrier	Residents of Kam Hay Court	R56	250m	L	M	M	High	L	M	M	L	M	M
Viaduct with noise barrier	Users of Chung On Shopping Centre	C3	40m	High			Low	Medium			Medium		
Viaduct with noise barrier	Future users of the proposed sport stadium currently under construction of former Heng On T.H.A.	M16	30m	High			Medium	High			High		
Heng On Station, Viaduct	Students and staff of Chinese YMCA College	E8	50m	High			Medium	High			High		
Viaduct with noise barrier	Students and staff of Toi Shan Association Wong Tat To Memorial School	E9	40m	High			Medium	High			High		
Viaduct	Students and staff of Tsang Pik Shan Secondary School, Fung Yiu King Memorial School, and FDBWA Mrs Fung Ping Shan Primary School	E10	90m	Medium			Medium	Medium			Medium		

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct	Users of On Luk Street Garden	O4	25m	High			High	High			High			
Viaduct, Viaduct with noise barrier	Users of Sai Sha Road at Heng On Estate	T11	0m	High			Medium	High			High			
Ma On Shan Station, Viaduct	Users and residents of Baysshore Towers	C/R2	15m	H	M	L	High	H	M	L	H	M	L	M
Ma On Shan Station, Viaduct	Users and residents of Sunshine City S Section N Section	C/R3	20m				High							
Viaduct with noise enclosure	Residents at the low rise south facing properties of Kwai Po Lau	R35	80m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	N/A	H
Viaduct	Residents at the north facing properties of Fu Fat Garden	R36	20m	H	H	L	High	H	H	L	H	H	L	H
Viaduct	Residents at the south facing properties of Fok On Garden	R37	60m	H	H	L	High	H	H	L	H	H	L	H
Ma On Shan Station, Viaduct	Residents at the south facing properties of Tolo Place	R38	18m	H	H	L	High	H	H	L	H	H	L	H
Lee On Station, Viaduct with noise enclosure	Residents at the low rise south facing properties of Lok Wo Sha	R39	80m	M	N/A	N/A	High	M	N/A	N/A	M	N/A	N/A	M

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct	Residents at the south facing properties of Ma On Shan Centre	R40	15m	H	H	L	High	H	H	L	H	H	H	
Viaduct	Residents at the south facing properties of Villa Athena	R41	15m	H	M	L	High	H	M	L	H	L	H	
Viaduct	Residents at the north facing properties of Saddle Ridge Garden S Section N Section	R42	70m	N/A N/A	M H	L M	High	N/A N/A	M H	L L	N/A N/A	M H	L L	M H
Viaduct with noise barrier	Residents at the north facing properties of Kam Lung Court	R43	35m	H	M	L	High	H	M	L	H	M	L	H
Viaduct with noise barrier, Lee On Station	Residents at the north facing properties of Lee On Estate S Section N Section	R44	20m	M H	M M	L L	High	M H	M M	L L	M H	M M	L L	M H
Viaduct, Viaduct with noise enclosure	Residents at the low rise south facing properties of Wu Kai Sha New Village	R45	80m	H	N/A	N/A	High	H	N/A	N/A	H	N/A	N/A	H
Lee On Station, Overrun track	Future residents of the proposed residential development currently under construction	R46	10m	H	M	L	High	H	M	L	H	M	L	H

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Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact During Construction Period			Receptor Sensitivity	Impact During Construction Period before Mitigation Measure			Residual Impact During Construction Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Lee On Station, Overrun track	Residents at Symphony Bay	R59	320m	L	M	N/A	HIGH	L	L	N/A	L	L	N/A	L
Lee On Station, Viaduct	Users of Ma On Shan Country Park	O15	600m	Low			High	Low			Low			
Viaduct	Users of the green belt adjacent to Saddle Ridge Garden	O19	80m	Medium/ High			High	Medium/ High			Medium/ High			
Viaduct	Users of the Wu Kai Sha Youth Village	M11	155 m	Medium			High	Medium			Medium			
Viaduct	Users and staff of the Ma On Shan Health Centre	M17	80m	High			High	High			High			
Viaduct	Students and staff of YCH Tung Chi Ying Memorial Secondary School and TWGH Wong Fung Ling College	E11	120 m	Medium			Medium	Medium			Medium			
Lee On Station, Overrun track	Students and staff of Li Po Chun United World College	E13	350m	Low			Medium	Low			Low			
Viaduct, Viaduct with noise enclosure	Users of Sai Sha Road and the surrounding road system at Villa Athena	T12	0m	High			Medium	High			High			

8.5.2 Mitigation Measures in Construction Phase

Recommended mitigation measures for impacts caused during the construction process are as follows:

- Control of night time lighting;
- Erection of decorative screen hoarding;
- Advance planting for screening;
- Minimising the height of temporary buildings;
- Careful positioning of construction plant;
- Regular checks should be carried out to ensure that the work site boundaries are not exceeded and that no damage is being caused to the surrounding areas;
- Temporary construction sites should be restored to standards as good as, or better than, the original condition;
- Replanting of disturbed vegetation should be undertaken and this should use predominantly native plant species;
- Topsoil should be stripped and stored for re-use in the construction of the soft landscape works.
- The locations of work sites associated with the proposed development should be carefully selected to minimise the potential landscape and visual impacts of the proposed construction works; and
- The potential for soil erosion should be reduced at the construction stage by minimising the extent of vegetation disturbance on site and by providing a protective cover (e.g. plastic sheeting or a grass cover established by hydroseeding) over any exposed ground.
- There are plans, currently under discussion with RSD, for the following temporary re-provision of open space that will be affected during the construction period:
 - 2 basketball courts and 1 tennis court to be located on Sha Tin Tau Road, opposite Chun Shek Estate as mitigation for the temporary impacts on Tsang Tai Uk Recreation Ground.
 - 1 basketball court to be located within Pok Hong Estate as mitigation for the temporary impacts on the Estate recreation facilities along Sha Kok Street.

The locations of these temporary mitigation areas are shown in *Figure 8.5a*.

8.5.3 Residual Landscape and Visual Impacts in Construction Phase

The assessment of landscape and visual impacts during the construction period for each of the alignment sections is described below. Visual impacts during the construction period are illustrated in *Figures 8.5a-d*.

Tai Wai Depot to Sha Tin Tau Station (Refer to Figure 8.5a)

Development of a depot and station at Tai Wai would involve the loss of the area used by the Hong Kong School of Motoring in the western part of the site, the central part of the site currently used as a sports pitch and the eastern part of the site which is, at present, partly used as a cycling area and partly as a contractor's compound. The cycling area is much valued by the local population, not only as a recreational facility, but also on account of the open aspect of the site and the wide panorama of the views available of Shatin and its enclosing hillsides. Development of the depot on this site would result in the loss of an open space that contributes greatly to the sense of openness of this part of the Shatin landscape. The loss of these open space areas would represent a high loss in terms of landscape amenity for the local population. The Happy Dragon Recreation Park would be demolished during the construction period and replaced by a public transport interchange and railway related facilities.

Development of the station and depot would involve the loss of some groups of mature and immature trees located close to the embankment, around the sports area and to the south and east of the cycling area. These losses would represent a high impact on the local landscape. There would be further loss of mature and semi-mature trees that are located immediately to the south of the existing Tai Wai KCR Station. Only a limited proportion of the trees located to the north of the existing station would be lost as the track alignment through this area would be a viaduct construction. Trees and other vegetation may be retained beneath and to the side of the structure in this location. Due to the extent of the depot and station site the visual impact, particularly from the high-rise developments, is likely to be great. The depot would be constructed within the footprint of the site and relevant mitigation measures, such as the use of decorative hoarding, would be incorporated during the construction period to reduce visual impacts. Additionally the control of night-time lighting and the use of light baffles should be adopted so as to reduce the impact of overspill lighting on the residents of the adjacent housing areas.

Visually sensitive receivers experiencing a high level of residual impact would be the residents at the lower levels of Hin Keing Estate (R2) and the residents at the lower and middle levels of Carado Garden to the south (R1), the residents at the middle levels of Grandway Garden (R5) and Holford Gardens (R4) and the residents of the low rise north facing properties of Tin Sam (R6) to the north. The residents at the middle floors of the low-rise developments at Tsuen Nam Road (R60) would experience a high level of residual impact. The residents at the lower and middle levels of Sun Chui Estate (R8) to the east would also experience a high level of residual impact, as shown in *Figure 8.5a*. The students and staff of three education institutions to the south: GCC & ITKD Cheong Wong Wai Primary School, Shatin Tsung Tsai Secondary School, and Ng Yuk Secondary

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School (E2), and two others to the north: the Christian Alliance Cheng W.G. College and the GCC and HKD Lau Pak Lok Secondary School (E1) would experience a high degree of visual impact. People using the Hin Tin outdoor swimming pools (M2) and the playground (O1) to the south west of the sites would experience a high level of visual impact as would passengers on East Rail trains passing on the embankment to the north of the site. The staff at the Shatin Plant Quarantine Area and the Government Kennels (M1) would also experience a high level of visual impact. People using the Che Kung Miu Road Playground (O5), and Hung Mui Kuk Road Open Space (O7) to the east of the sites would experience a high level of visual impact.

Residents at the middle and upper levels of Hin Keng Estate to the south would experience medium levels of visual impact. The residents at the middle floors of the low rise developments at Tai Wai Road (R61) would experience a medium level of residual impact. Residents at the upper levels of Carado Garden, Sun Chui Estate (R8), Holford Garden and Grandway Garden, and the residents of Shatin Garden (R50) would also experience medium levels of visual impact. People using the Hin Keng Indoor Recreation Centre Complex (M8) would experience medium level of impact. The residents at the lower floors of the low rise developments at Tsuen Nam Road (R60) and Tai Wai Road (R61) would experience a low level of residual impact. Residents in properties on Sha Tin Heights Road (R3), Woodcrest Hill (R49), and Blossom Court (R51) to the west of the site would experience a low visual impact during the construction period. Residents at the lower levels of Holford Garden and Grandway Garden would experience low levels of visual impact as the existing Tai Wai Station would screen views of the development. The staff at the CLP electric Substation (C/I2) to the north-west of the sites as well as the users of Lion Rock Country Park (O14) to the far east of the sites would also experience a low level of impact.

After leaving the depot and station site, the track alignment would proceed north-east towards the River Channel. The alignment would then proceed across the southern side of the Shing Mun River Channel on a viaduct, and then over the cycle track and walkway adjacent to Che Kung Miu Road.

Residents of Man Lai Court (R7) and properties on Man Lai Road and Man Lam Road would experience a high level of visual impact during the construction period as would users of the cycle tracks on both River banks. The students and staff of the Shatin Government Secondary School, the Immaculate Heart of Mary Primary School and the Caritas Prevocational School (E12) on the northern bank of the channel would experience a medium level of visual impact. The users of the footpath/ cycle track on the southern side of the river and within Sha Tin Central Park (O2) would experience a medium level of visual impact from the construction of viaduct.

In terms of the overall visual impacts of the construction, the elements of the structure which would cause most visual impact within the urban environment would be the viaduct deck and the columns on the south side of the river channel. When viewed from the river edge walkways and from the bridges crossing the river the columns located alongside the river channel would intrude upon the vista created by the banks of the river

causing a high degree of visual impact. There is little that can be done to minimise the temporary visual impact of the construction of the viaduct along the river bank due to the open and wide nature of the channel other than the careful positioning of construction material on the river banks and minimising night-time lighting.

People living in nearby residential developments would have clear views of the construction elements identified above and would experience a medium to high level of visual impact depending on their distance away from the site and the variable quality of their existing views. The visually sensitive receivers experiencing a high level of temporary visual impact would be the residents of Lei Uk Tsuen (R9), the visitors and staff at Che Kung Miu Temple (M3) and the users at the adjacent Che Kung Miu Road Football field (O8). The users of the proposed Cultural Museum (M4) which is currently under construction and the residents of the low-rise north facing properties of San Tin Wai (R54) would experience medium levels of visual impacts. Pedestrians, cyclists and users of the parts of the water edge recreation facilities that would remain during the construction stage would experience medium levels of visual impact. Users of the surrounding road system would, by virtue of their transient nature, experience medium levels of visual impact.

Sha Tin Tau Station and the track alignment between Sha Tin Tau Station and Sha Kok Street Station (Refer to Figure 8.5a)

Development of an elevated station and adjacent sections of track at Sha Tin Tau would involve the loss of approximately 15 mature / semi-mature trees along the southern boundary of the site along Che Kung Miu Road. The station site will be used as the works area for the duration of the construction period and the temporary mitigation measures most relevant to reduce visual impact would be the use of advance planting along the northern boundary adjacent to the river edge walkway for screening. Decorative hoarding along the southern boundary of Che Kung Miu Road would reduce impacts for road users and the low level housing in that area and would minimise land take for the construction of the station.

Visually Sensitive Receivers of the station site that would experience a high degree of impact would be residents at the lower and middle levels of Chun Shek Estate (R10) off Che Kung Miu Road as shown in *Figure 8.5a*. Residents at the upper levels of Chun Shek Estate, and middle and upper levels of the high rise buildings of Fung Sing Court (R52) to the south of the site would experience medium levels of visual impact. Students and staff at Ecclesia Bible College (E5) to east of the site would also experience a medium level of visual impact due to the presence of perimeter tree planting which would part screen the construction works. The residents at the lower levels of Fung Shing Court, and those of Hilton Plaza (R15) on the opposite side of the river would experience a low level of impacts. Other visually sensitive receivers in this section of alignment i.e. pedestrians and cyclists along the river edge, would experience medium levels of visual impact.

The proposed track alignment between Sha Tin Tau Station and the next station at Sha Kok Street heads west over a wooded mound that is located at the junction of Che Kung Miu Road and Lion Rock Tunnel Road. The section of the viaduct (at approximately 17.9 mPD) over these roads is located in an area that has a relatively open aspect and would be particularly visible to surrounding sensitive receivers. These sensitive receivers include users of the adjacent road system who would, partly by virtue of their transient nature, experience medium levels of visual impact. Residents of the low-rise housing of Sha Tin Tau (R11) on the nearby wooded mound would also experience medium levels of visual impacts.

Thereafter, the track alignment passes over the Tsang Tai Uk Recreation Ground (O6) before running parallel to and immediately to the east of Sha Kok Street on its way to Sha Kok Street Station. This recreation ground comprises six tennis courts, a full-size football pitch, a playground and several basketball courts. Some of the tennis courts and structures would have to be relocated as a result of constructing columns within this recreation ground and although there would be no physical impact on the football pitch, at least two of the columns would be located within the safety margin in the south-west corner of the pitch. Groups of mature trees that are located beneath the track alignment, and are either on the boundary of the recreation ground or at the junction of the adjacent footpath / cycle track and Sha Kok Street, would be lost as a result of the construction works. The loss of these trees and recreational facilities would represent a high landscape impact.

The visual impact from the loss of mature vegetation across the recreation ground would be difficult to mitigate. However, the transplanting of trees elsewhere within this area and the use of decorative hoarding and screen planting along the working width of the viaduct would minimise the extent of visual obstruction within the recreation ground and help to screen views of the construction site from surrounding residential blocks. People living in Shan Ha Wai Village (R53) which is also known as Tsang Tai Uk, the lower and middle levels of the south-west section of Jat Min Chuen (R13) and Sha Kok Estate (R14), and the north-west section of Pok Hong Estate (R12), as well as users of the Tsang Tai Uk Recreation Ground (O6) and the adjacent footpath / cycle track would experience a high level of visual impact during the construction period. However, the residents at the upper levels of the south-east section of Jat Min Chuen, Sha Kok Estate, and the north-east section of Pok Hong Estate would experience low levels of visual impact. People living at the south-east section of Jat Min Chuen and Sha Kok Estate, and the south-east section of Pok Hong Estate would also experience low levels of visual impact due to the presence of buildings which would partly screen the construction works.

Development of the proposed railway track between Tsang Tai Uk Recreation Ground and Sha Kok Street would involve construction of a viaduct immediately adjacent to a series of open spaces (O10) that are located immediately to the south of Sha Kok Street. These open spaces contain two basketball courts, one large car-parking area and two separate parks / sitting-out spaces. These construction works would involve the loss of a long belt of shrubs and immature trees that is located between these facilities and Sha Kok Street. This belt of trees and shrubs provides important visual screening to users of

these open spaces and helps visually soften the appearance of this section of street. Loss of this belt of trees and shrubs would represent a high landscape impact to the local area and create a high level of visual impact for residents in Jat Min Chuen Estate and Pok Hong Estate both on Sha Kok Street, as well as the users at these open spaces.

Users of the three educational institutes also on this road: LST Chan Cho Chak Primary School and Immaculate Heart of Mary College (E3) to the north of the alignment and SA Tin Ka Ping Secondary School (E4) to the south would experience high levels of visual impact due to their proximity to the viaduct. Due to the restrictions on space within the ground level urban environment of this section of the route it is likely that temporary mitigation measures will be confined to decorative hoarding.

Sha Kok Street Station and the track alignment between Sha Kok Street Station and City One Shatin (Refer to Figure 8.5b)

The proposed construction of Sha Kok Street station in the grassed reserve located immediately to the south of Shui Chuen Au Street would involve the loss of this large rectangular area of grass and the lines of immature trees growing along its edges. This loss would represent a relatively low landscape impact.

Due to the restrictions on space at ground level around the proposed station site, temporary mitigation measures to reduce the visual impact of the station construction will be confined to decorative hoarding and control of night time lighting. However, the transplanting of trees from the railway reserve into the footpath around the site would also help to screen the overhead structures and reduce the visual intrusion of the construction plant. The visually sensitive receivers in this section of alignment experiencing high levels of visual impact would be the residents of the low-rise north-west facing properties of Sha Tin Wai (R16) to the south, and the users of Sha Tin Wai Playground (O11). User of the Pok Hong Estate Market (C2) and users of Sha Kok Street bus terminus (T14) would experience medium levels of impact. Users of the surrounding road system would, by virtue of their transient nature, also experience medium levels of visual impact.

From Sha Kok Street, the track alignment passes over Shui Chuen Au Street and passes along a large linear and well-vegetated open space on its way to Sha Tin Wai Road. Low level landscape impacts are predicted on this open space as the vegetation that would be lost is mostly grass. However, the loss of the particularly tall group of trees located at the junction of Sha Tin Wai Road and Sha Kok Street would represent a high level landscape impact.

The proposed vertical alignment of the track rises from +14.3m PD at Sha Kok Street to +15.4m PD as it passes over Sha Tin Wai Road. Thereafter, the track alignment passes the Kong Pui Street Rest Garden and the adjacent Fung Shui Hill (03), which comprises a vegetated mound. The proposed viaduct deck would be approximately 17.2mPD as it passes Kong Pui Street Rest Garden, a small open space /sitting area that is located immediately to the north-west of Sha Tin Wai Road. The viaduct supporting columns

would be located within the rest garden and the adjacent Fung Shui Hill, where six graves are located on the western edge of the mound.

This relatively high section of the proposed track would generate a high level of visual impact on the adjacent sensitive receivers as shown in *Figure 8.5b*. These include the residents at the lower and middle levels of Shatin Park (R18), and the users of Kong Pui Street Rest Garden and the Fung Shui Hill (O3). People living at lower and middle levels of Greenwood Garden (R17) would experience a medium level of impacts. The structure would also generate a medium level of visual impact on users of the road system. A re-design of the footpath layouts within this open space would be necessary as some of the proposed viaduct columns would be located within the pedestrian circulation areas. The proposed location of the track above the adjacent Fung Shui Hill, involving the construction of one viaduct supporting column within this important site, would represent a high *fung shui* impact on three of the six graves that are located on the western edge of this area. Construction of these columns would represent a high level landscape impact on this area. Residents at the upper levels of Greenwood Garden and Shatin Park would experience a low level of impacts .

The proposed track alignment then passes adjacent to two petrol stations (C1) and the Caritas Care & Attention Home (M5) at Kong Pui Street. It then passes over the China Light and Power Substation (C/I1) located to the east of Wong Uk Village (R19) and then on over Shatin Road and its well-vegetated embankments. Thereafter, the alignment passes over a small open space (O9) and bus terminus at Chap Wai Kon Street (T5). This alignment would generate a high landscape impact on the adjacent open space as the proposed construction of the columns in this area would involve the loss of a large group of semi-mature trees.

This section of track would generate high levels of visual impact on the residents of the low-rise north facing properties of Wong Uk Village, and the residents at the lower and middle levels of Green Leaves Garden (R20). Screening of the works adjacent to Wong Uk Village would be limited to decorative hoarding due to the proximity of the alignment to the village and the lack of space at ground level. High levels of visual impacts would also be experienced by four medical facilities, these include the Prince of Wales Hospital (M6) to the south, the Caritas Care & Attention Home to the west, the Pamela Youde Child Assessment Centre & Dental School and Yuen Chau Kok Clinic (M7) to the north. The visual impact to the staff and patients that use the lower floors of these buildings would be slightly higher. The users at the small open space adjacent to Ngan Shing Street bus terminus would also experience a high level of visual impact. Staff at the CLP Electric Substation would experience a medium level of visual impact. Other Visually Sensitive Receivers in this section of track that would experience a medium level of impact would be the pedestrians, cyclists and other users of the surrounding road system, users of the bus terminus at Ngan Shing Street Street and adjacent facilities. Due to the open and urban nature of the environment along this section of the route mitigation measures to reduce temporary visual impacts will comprise the control of night time lighting, erection of decorative screen hoarding, minimising the height of temporary buildings and the careful positioning of construction plant. Residents at the upper levels

of Green Leaves Garden would experience a low level of impact. Staff and customers at the petrol station would, by virtue of its nature, also experience low levels of visual impact.

City One Shatin Station and the track alignment between City One Station and Shek Mun Station (Refer to Figure 8.5b)

The proposed development of City One Shatin Station in a long linear reserve set aside for the Ma On Shan Extension would represent a low landscape impact as the area is predominantly hard-paved and used as a temporary plant nursery. However, loss of the trees in the 600m long, 1.5m-wide vegetated strip located immediately inside the boundary fence of the nursery would represent a medium to high landscape impact.

Mitigation measures to reduce the visual impact of the station during construction would be limited due to the space restrictions at ground level. However, decorative hoarding and the transplanting of trees from the nursery to the northern side of the construction site would help to reduce the visibility of the construction works on the adjacent residential area. High visual impacts are still predicted to the students and staff of Lam Kau Mow Secondary School and TWGH Yow Kam Yuen Prevocational School (E6), as would the users of the Yue Tin Court Playground (O12) and the residents at the lower and middle levels of Yue Tin Court (R21) to the north-west of the station site as shown in *Figure 8.5b*. Medium levels of visual impact would be experienced by the staff at Chap Wai Kok Street Fire Station (M14). Low level visual impacts are predicted at the residents at the upper levels of Yue Tin Court, and the adjacent Sha Tin Industrial Centre (I1). Other visually sensitive receivers in this section of the alignment (i.e. pedestrians and cyclists) would experience medium levels of visual impact. Users of the surrounding road system would by virtue of their transient nature, experience medium levels of visual impact.

Between City One Shatin Station and Shek Mun Station the railway will pass on viaduct over the junction of Chap Wai Kon Street and Siu Lek Yuen Road before proceeding in a north-easterly direction over a section of Siu Lek Yuen playground (O13) and the Siu Lek Yuen River Channel both of which run perpendicular to the alignment. A pedestrian/vehicular bridge over the Siu Lek Yuen River channel is currently under construction, which would run adjacent to the proposed track alignment. Residents at the lower level of the south-east section of City One Shatin (R22) on Chap Wai Kon Street would experience a high level of visual impact from the construction works. Medium levels of impact would be experienced by the upper and middle levels of the north-west section and middle levels of south-east section of City One Shatin. Construction work for the viaduct on both banks of the River channel will disrupt the activities of the playground (O13) under the route of the railway and cause medium levels of visual impacts to the users of the Park. Residents at the upper levels of City One Shatin and those of Ravana Garden (R23) to the distant north will experience a low level of temporary visual impact as will workers within the Shek Mun Industrial Area on the western side of the river channel.

The railway then proceeds to Shek Mun Station on the southern side of the Industrial Area.

Shek Mun Station and the track alignment between Shek Mun Station and Chevalier Garden Station (Refer to Figure 8.5c)

Development of Shek Mun Station, in the hard paved area that is currently used for the storage of trucks and containers, would require removal of the small amount of scrub vegetation located along the boundary of the site. This would represent a low landscape impact.

A concentration of industrial buildings within the Shek Mun Industrial Area is located several hundred metres to the north-west and would partly screen the construction of the station site for the residents of the City One Shatin area as shown in *Figure 8.5b*. Users of the nearby industrial buildings (I2), by nature of their daily work, would experience low levels of visual impact. Sensitive receivers along this section of the alignment include not only users of the above residential and industrial properties but also pedestrians and nearby road-users. Pedestrians in the vicinity of the proposed development would experience medium levels of visual impact. Vehicle users on Tate's Cairn Highway to the east of the proposed track alignment would experience low levels of visual impact. The level of visual impact on the highway users that are close to the proposed track alignment would be higher. Pedestrians in the vicinity of the proposed development would experience medium levels of visual impact.

The proposed track alignment then veers due north to join the Tate's Cairn Highway. The proposed viaduct construction would generate low landscape impacts on the 12m wide grassed reserve (with occasional groups of immature trees) that is located along the centre of the highway from this point until the track alignment reaches Chevalier Gardens Station. The proposed track is on a viaduct structure at approximately 18.5 mPD as it joins Tate's Cairn Highway. It then descends gradually to meet ground level at a point close to the roundabout adjacent to Pictorial Gardens (R25). It then remains at ground level until it passes underneath the road flyover system located to the east of Sha Tin Fisherman's Village (R26) at the lower and middle levels.

High levels of visual impact would be experienced by the residents at the lower and middle levels of Pictorial Garden, at the northern end of On King Street as well as the users of Shatin Hospital (M10) as shown in *Figure 8.5(c)*. Medium levels of visual impact are predicted to residents at the lower and middle levels of Garden Vista (R24). Low levels of visual impact would be experienced by the residents at the upper levels of Pictorial Garden and Garden Vista, users and staff at the Cheshire Home (M9), and by the residents of Cover Hill (R47), located to the distant north-west across Shing Mun River Channel. An existing noise barrier is located along the Shatin Fishermen's New Village. This will partly screen the construction impacts, and the residents of the village would experience low levels of visual impacts. Other visually sensitive receivers in this section of the alignment, principally pedestrians and cyclists travelling along Tate's Cairn Highway and besides the Shing Mun River Channel would experience medium levels of

visual impact. Users of the surrounding road system would, in spite of the relatively transient nature of their views, experience high levels of visual impact as the proposed development would be clearly visible and would involve the loss of the vegetated strip in the centre of the road.

It would be difficult to successfully mitigate the temporary visual impacts resulting from the construction of the railway within the central reservation of the Highway as any decorative hoarding or screen planting would impinge on views of a relatively open and attractive landscape and this would overall result in high levels of visual impact to road users. Mitigation measures are limited to the careful positioning of construction plant and minimising the height of temporary buildings to avoid obstruction of surrounding views.

Chevalier Garden Station and the track alignment between Chevalier Garden Station and Heng On Station (Refer to Figures 8.5c and 8.5d)

The elevation of the proposed track rises immediately to the east of the flyover system located near Shatin Fishermen's New Village. It rises from ground level to approximately 22.5 mPD at Chevalier Garden Station, and from where it continues up to 25.7 mPD and then down to 17.9 mPD as it crosses over the flyover system located approximately 440m to the north of the station site.

The proposed development of Chevalier Garden Station in a well-grassed central reserve (with occasional groups of immature trees), approximately 27m wide at the Chevalier Garden Station site, would represent a low level landscape impact. The relative absence of buildings in this area combined with the relatively flat landform immediately surrounding the site both contribute to a sense of openness in this well-vegetated and scenic area. High levels of visual impact are predicted to the residents of Tai Shui Hang Village (R27) which is located in a nearby side valley. High levels of visual impact would also be experienced by the future occupants at the lower and middle levels of the proposed residential development (R29) to the west of Chevalier Garden station which is currently under construction. Medium levels of visual impact are predicted to users of the Ma On Shan Tsung Tsin Secondary School (E7), and residents at the lower and middle levels of Chevalier Garden (R28) to the south. People living at the upper levels of Chevalier Garden and the proposed residential development would experience low levels of impact. Pedestrians and cyclists in this section of the alignment, particularly along the waters edge cycle route, would experience medium levels of visual impact. Pedestrians and cyclists at the proposed station development would experience a high level of visual impact due to their proximity to the construction site. Users of the surrounding road system would, in spite of the transient nature of their views and the presence of an intertwining system of highway flyovers located to the north of Chevalier Garden Station, experience high levels of visual impact. This is because the proposed structure would continue along a long stretch of highway and its location, at high level, would impinge on views of a relatively open and attractive landscape.

The proposed track alignment then passes over the above flyover system and joins the Sai Sha Road where it again follows a wide central reservation (with patchy grass cover only

in this section) set aside for the MOS Extension and from there onwards to the site for the Heng On Station. The viaduct would pass along the site at former Shing On Temporary Housing Area which is currently vacant.

Heng On Station and the track alignment between Heng On Station and Ma On Shan Station (Refer to Figure 8.5d)

Development of Heng On Station (at 20 mPD) within the 15m wide central reserve (with grass cover only) would represent a low level landscape impact. The proposed construction of a footbridge between Heng On Station and the Heng On Estate (R30) would involve the loss of approximately 200m² of tree and shrub planting that is located along the western boundary of the Heng On Estate. This would result in a medium landscape impact.

The Chinese YMCA College (E8) is located between the station site and the high rise residential blocks of Heng On Estate. Users of the institution would experience a high level of visual impact during the construction period as shown in *Figure 8.5d*. High level visual impacts are predicted for the future users at the Sport Stadium (M16), located on the former Hing On Temporary Housing Area which is currently under construction. High level visual impacts are also predicted for residents at the lower and middle levels of Vista Paradise (R31), and the lower and middle levels of the west section and lower levels of the east section of Heng On Estate. Medium levels of visual impact would be experienced by the residents at the middle levels of the east section of Heng On Estate. These visual impacts would be generated, not only by the construction of the Station, but also by the construction of the two associated footbridges. Low level of visual impacts are predicted for the residents at the upper levels of Heng On Estate and Vista Paradise.

Other visually sensitive receivers in this section of the alignment (i.e. pedestrians and cyclists) would experience high levels of visual impact. Users of the Sai Sha Road running directly under the route of the viaduct would experience a high level of visual impact during the construction period. Mitigation measures that could be practically implemented to reduce the temporary visual impacts for receivers to the east of the station site would be the use of decorative hoarding and the transplanting of the trees and shrubs adjacent to the hoarding if possible.

The proposed track alignment then continues north along the central reserve towards Ma On Shan Station. High landscape impacts are predicted along this section of the route as a large number of immature trees would be lost from this reserve as a result of the proposed construction works.

High levels of visual impact are predicted for the users of On Luk Street Rest Garden (04) at the junction of On Luk Street and Sai Sha Road, as well as the students and staff at the Toi Shan Association Wong Tat To Memorial School (E9). Medium level visual impacts will be experienced by the residents at the lower and middle levels of Kam Fung Court (R33), middle levels of Chung On Estate (R32), middle and upper levels of Yiu On Estate (R34) and Kam Hay Court (R56). The users of the Chung On Shopping Centre (C3), the

students and staff at the Tsang Pik Shan Secondary School, Fung Yiu King Memorial School, and FDBWA Mrs Fung Ping Shan Primary School (E10), would also experience medium levels of impact during construction period. People living at the lower and upper levels of Chung On Estate, upper levels of Kam Fung Court, and the lower levels of Yiu One Estate and Kam Hay Court would experience a low level of visual impact. Other visually sensitive receivers in this section of the alignment (i.e. pedestrians and cyclists) would experience high levels of visual impact. The implementation of mitigation measures will be restricted along the alignment due to the location of the railway reserve in the middle of the road. However careful positioning of construction plant within the reserve and minimising the height of temporary buildings to avoid obstruction of views beyond the site, together with the transplanting of the young trees from the reserve to footpaths adjacent to the residential areas would help to partly reduce the visibility of the viaduct construction.

Ma On Shan Station and the track alignment between Ma On Shan and Lee On Station (Refer to Figure 8.5d)

Development of Ma On Shan Station within the 15m to 25m wide central reserve (well vegetated with trees, grass and shrubs) that was set aside for the Ma On Shan Station, would generate high impacts on the physical landscape as a result of the loss of these trees and shrubs. It is unlikely that there will any impact on the three pedestrian footbridges that cross Sai Sha Road in this area.

High visual impacts are predicted for the residents of the adjacent residential developments along the proposed station and track alignment adjacent to Sai Sha Road due to their close proximity to the railway reserve. These include the residents at the lower levels of Bayshore Towers (C/R2), the lower and middle levels of Fu Fai Garden (R36), Fok On Garden (R37), Tolo Place (R38), Ma On Shan Centre (R40) and the north section of Sunshine City (C/R3), as shown in *Figure 8.5d*. The level of visual impact for residents that live on the lower floors of these estates would be particularly high. Residents at the middle levels of Bayshore Tower would experience a medium level of visual impact. Medium levels of visual impacts would also experience by the students and staff at the YCH Tung Chi Ying Memorial Secondary School and TWGH Wong Fung Ling College (E11). Residents at the upper levels of the north section of Sunshine City would experience a low level of visual impacts. Residents at the south section of Sunshine City, and of those at the upper levels of Bayshore Towers, Fu Fai Garden, Fok On Garden, Tolo Garden and Ma On Shan Centre would also experience low levels of visual impact. Pedestrians and cyclists would experience high levels of visual impact. Traffic on the Sai Sha Road running directly under the route of the viaduct would experience a high level of visual impact during the construction period.

From On Chiu Street, the track alignment passes through an area of residential properties. These include Villa Athena (R41) to the north and Saddle Ridge Gardens (R42) to the south. High visual impacts are predicted for the residents at the lower levels of Villa Athena due to their close proximity to the railway reserve, and for users and staff at the Ma On Shan Health Centre (M17) on Sai Sha Road. High level of impacts are also

predicated for the residents at the middle levels of the north section of Saddle Ridge Garden. Medium to high levels of visual impact are predicted for the residents at the middle levels of Villa Athena and the south section of Saddle Ridge Garden, and users of the adjacent greenbelt (O19). Low level of impacts are predicted for the residents at the upper levels of Villa Athena and Saddle Ridge Garden. The central reserve in this section of the route is well-vegetated with grass together with avenues of immature trees. The loss of a high proportion of these trees and shrubs would represent a high impact on the local landscape. Mitigation measures would comprise the control of night time lighting and the use of light baffles to reduce the impact of overspill lighting on the residents of the adjacent housing areas, the careful positioning of construction plant within the reserve and minimising the height of temporary buildings.

From Villa Athena to Lee On Estate (R44) the railway would follow the crest of the hill on viaduct in between the lanes of the Sai Sha Road. Users of Sai Sha Road will experience high temporary visual impacts. Properties in the low levels of Kam Lung Court (R43) to the east, and properties in the low levels of Kam Lung Court to the east, and the low-rise Wu Kai Sha New Village (R45), Kwai Po Lau (P35), to the north-west would experience high levels of visual impact. Lok Wo Sha (R39) would experience medium level of impacts. Medium levels of visual impact are predicted for users of the Wu Kai Sha Youth Village (M11) to the north. Medium levels of visual impact are predicted for the residents at Lok Wo Sha (R39) and the middle levels of Kam Lung Court. Low levels of impact are predicted for the residents at the upper levels of Kam Lung Court.

Mitigation measures would be of limited success for this alignment option, however, the control of night time lighting and the use of light baffles to reduce the impact of overspill lighting on the residents of the adjacent housing areas would reduce the visibility of the construction site.

The track alignment then crosses Kam Ying Road along the central reserve, passing the Lee On residential estate which is located on the south-east of Sai Sha Road and also passing three low-rise villages to the north-west of Sai Sha Road, these include Wu Kai Sha New Village, Kwai Po Lau, and Lok Wo Sha. Having reached the access road for the Lee On Estate (R44), the track alignment veers east toward the site for Lee On Station. A cycle track / footpath is located along the south-eastern side of Sai Sha Road and this route would require diversion during the construction works, at a point located close to the access road to the Lee On housing estate. This diversion would result in a medium landscape impact. The central reserve in this section of the route is vegetated with grass only and development of the proposed railway would generate a low impact on the physical landscape in this area.

Development of Lee On Station within the former borrow area would generate low impacts on the local landscape as only limited excavation works would be required on this largely unvegetated site. However, an area of mature and dense tree growth located along the western edge of this borrow area would be lost to make way for the section of viaduct immediately to the east of the station. This will result in a high landscape impact.

Clear views of the construction works for Lee On Station, its associated transport terminus and the proposed residential development would be available from the Lee On Housing Estate and these would represent high levels of visual impact to those residents who have views of this area. These include the residents at the lower levels of the north section of the Lee On Housing Estate, and the future residents of the residential development (R46) which is currently under construction. High visual impacts would also be generated by the high-rise residential developments on the more distant Saddle Ridge Gardens and Villa Athena. Medium levels of visual impact would be experienced by the residents at the lower and middle levels of the south section of Lee On Estate, and the middle levels of the north section of Lee On Estate and the proposed residential development. Pedestrians and cyclists would experience high levels of visual impact. Users of the surrounding road system would experience high levels of visual impact. People living at the upper levels of Lee On Estate and the proposed residential development would experience low levels of visual impact. Students and staff at Li Po Chun United World College (E13) and the residents at the low rise development of Symphony Bay (R59) to the far north would also experience low levels of visual impact, as would the users at the Ma On Shan Country Park (015) to the distance south-east.

8.6 Operational Impacts

8.6.1 Potential Sources of Impacts

There are no additional landscape impacts that would be generated during the operational stage of the project. The potential visual impacts of the project at the operational stage would be limited to visual impacts of the structures that would be built above ground and the operation of the trains on the proposed viaducts. There will be no track-side lighting along the railway.

The structures include the stations, the interconnecting sections of viaduct, the footbridges associated with the various stations, one or more small substations associated with the power transmission system, and noise barriers and noise enclosures.

The noise barriers required in the vicinity of the Tai Wai Depot comprise the following:

To the north-west of the south-bound (down) track, the following barriers are required:

- A 7.4m high cantilever barrier extending 400m from the southern extreme of the tracks;
- A trackside, 2m high noise barrier along the East Rail connection south of Tai Wai, extending from chainage 10+400 to 900;

In addition to the above, a 500m long, 3m high noise barrier will also be required between the up and down tracks of the MOS Extension between chainages 10+560 to 1060.

In addition to the noise barriers required in the vicinity of the Tai Wai Depot, further barriers and enclosures will be required along the alignment. These are detailed in the following paragraphs.

Landscape and Visual Impacts

To the south of the north-bound (up) track, between Sha Tin Tau Station and Sha Kok Street Station, there will be approximately 160m of 2m high noise barrier above the standard (2.1m high) parapet wall. Between Shek Mun Station and Chevalier Gardens Station there will also be, above the 2.1m high parapet wall, approximately 260m of 3m high noise barrier located on the western side of the southbound (down) track, adjacent to Pictorial Garden. In addition, there will be, to the west of the north-bound (up) track, a 1.5m high noise barrier of approximately 80m length located north of Heng On Station, adjacent to the Chung On Shopping Mall.

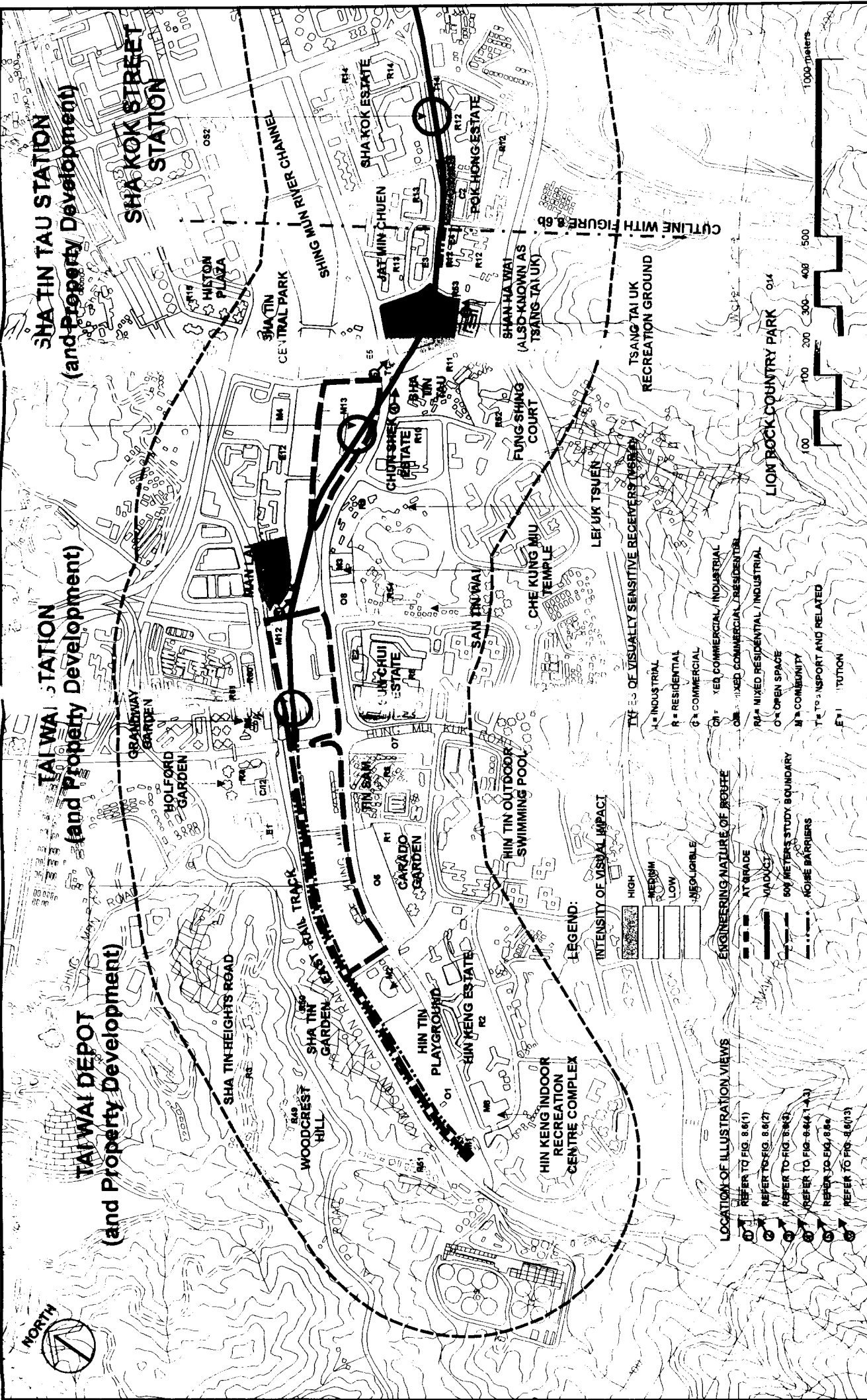
A total of approximately 425m of the alignment would be provided with noise enclosure structures at the track crossovers. Between City One Station and Shek Mun Station there would be a noise enclosure of approximately 130m, which would be 4.7m above the parapet and open on the southern side. This enclosure would be adjacent to the Sha Tin Industrial Centre. Between Heng On and Ma On Shan Station, there would be a noise enclosure structure 1.6m above the parapet, open on the south side, and of approximately 130m length. Between Ma On Shan Station and Lee On Estate Station there would also be a noise enclosure structure of approximately 165m length located adjacent to Lee On Estate. The locations of the noise barriers and enclosures are depicted on *Figures 8.6a-d*. An illustration of a typical noise enclosure is shown in *Figure 8.6(11)*.

The remaining sections of the alignment would be built without noise barriers. The viaduct would generally be built at approximately 15-23m above ground. The viaduct would be supported on columns that would be located at intervals varying between 25m to 75m. The viaduct design will be based very closely on the West Rail viaduct design, the detailed design of which has been approved by ACABAS. The MOS Rail viaduct detail design will also need to be approved by ACABAS. An illustration of the proposed MOS Rail viaduct design is provided in *Figure 8.6(12)*.

The permanent land take of open space will be limited to the area of the columns supporting the viaduct. The exact number and size of the viaduct columns is subject to further detail design, but it is anticipated that the approximate land take will be as follows:

Tsang Tai Uk Recreation Ground	10 sq.m.
Pok Hong Estate Recreation Facilities	10 sq.m.
Kong Pui Rest Garden	5 sq.m.
Siu Lek Yuen Playground	5 sq.m.

The total amount of trees affected by the railway has been identified under a separate consultancy which has identified that 3,451 trees will be affected, of which 265 are recommended to be transplanted and 3,186 trees felled. However, it should be noted that some of the trees to be felled are located in the railway reserve in the centre of Tate's Cairn Highway, Ma On Shan Road and Sai Sha Road. These trees can be considered as being temporary landscape treatment until such time as the railway is implemented, and



KOWLOON - CANTON
RAILWAY CORPORATION
ENVIRONMENT IMPACT ASSESSMENT
EAST RAIL EXTENSIONS
TAI WAI TO MA ON SHAN RAIL LINK



FIGURE 8.6a (Rev. D)
TAI WAI DEPOT TO SHA KOK STREET STATION
RESIDUAL VISUAL IMPACTS AT OPERATION PERIOD



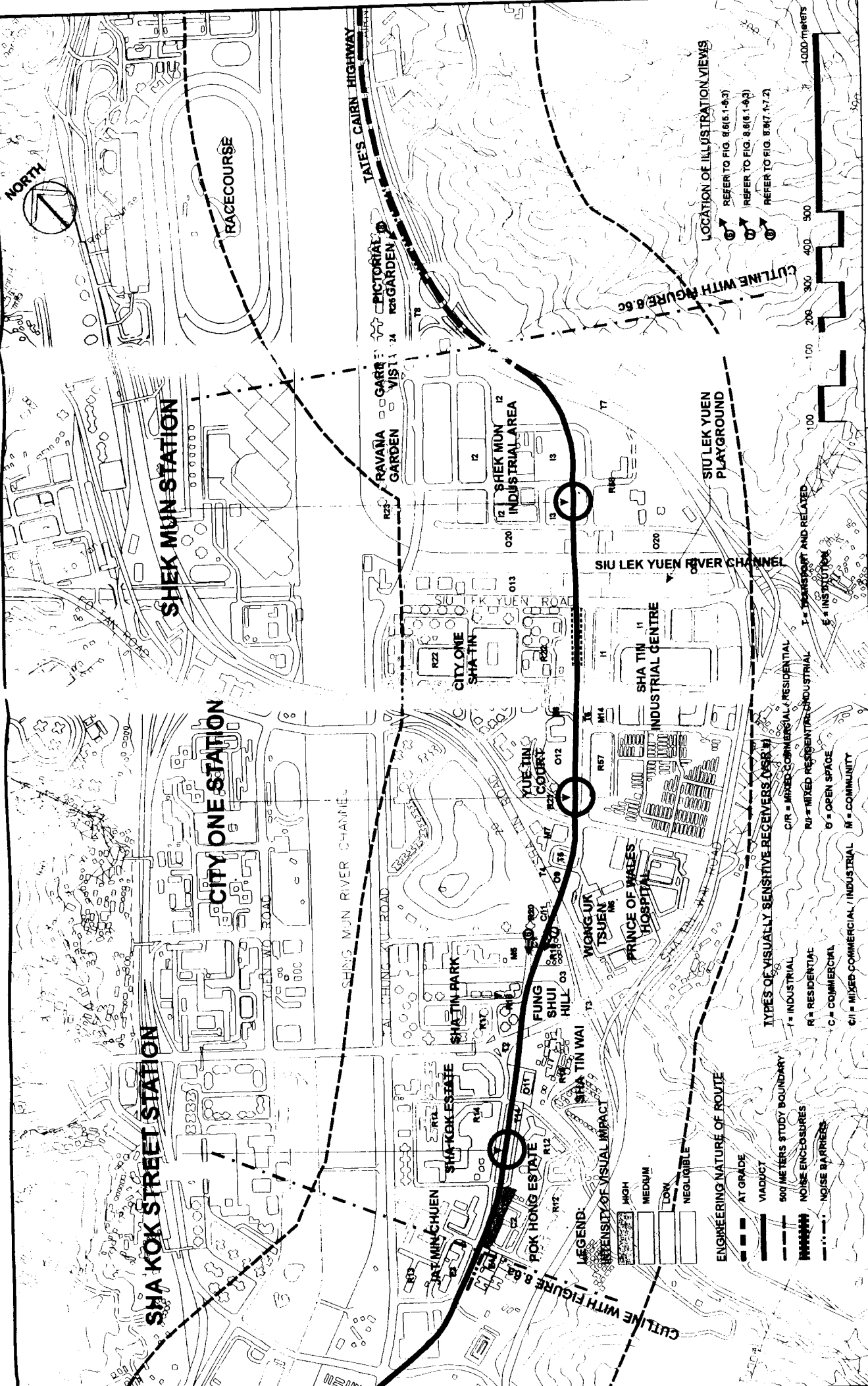
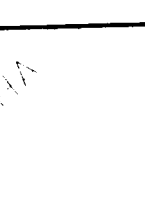
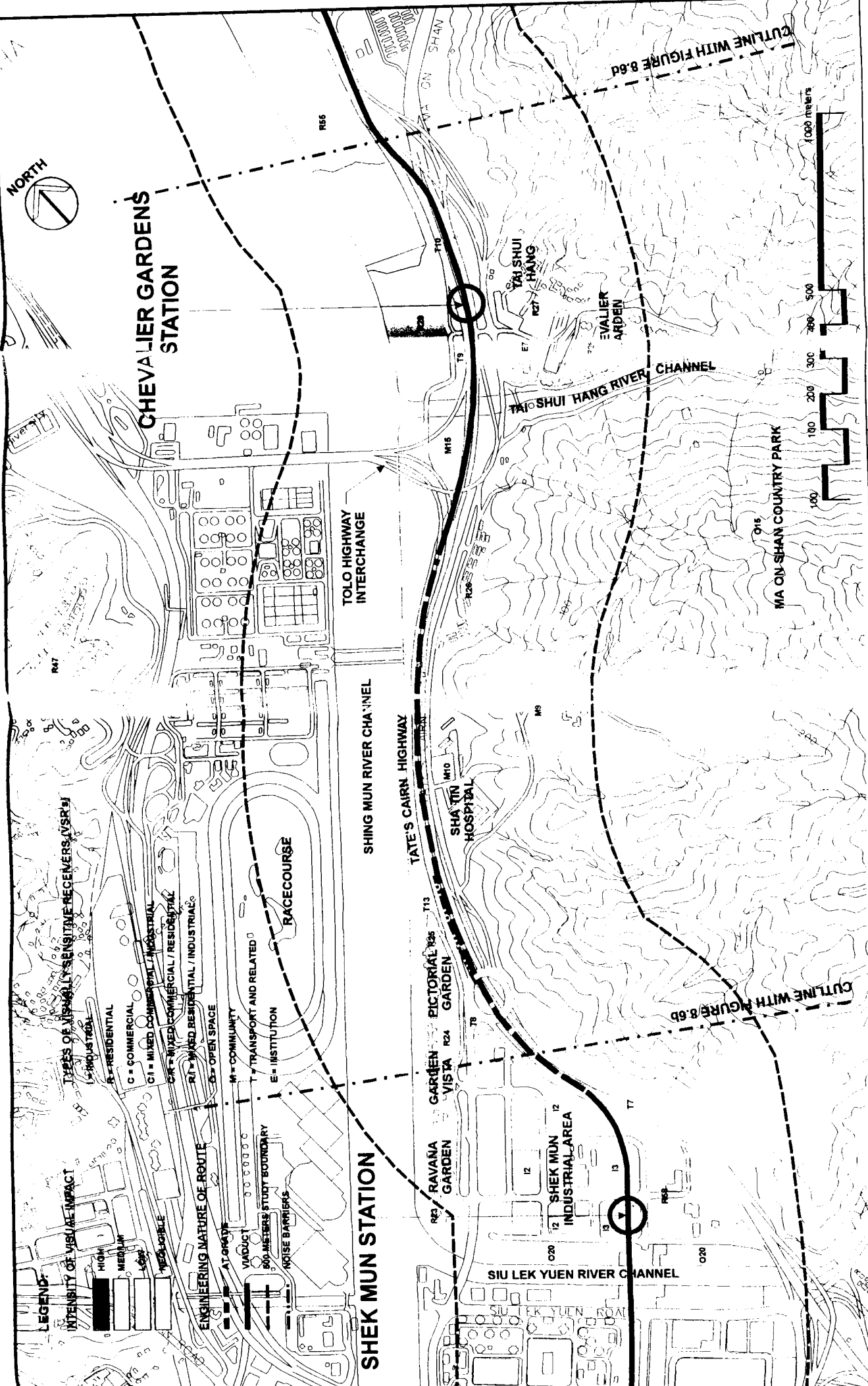


FIGURE 8.6b (Rev. C)
SHA KOK STREET STATION TO SHEK MUN STATION
RESIDUAL VISUAL IMPACTS AT OPERATION PERIOD

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 ENVIRONMENT IMPACT ASSESSMENT
 EAST RAIL EXTENSIONS
 TAI WAI TO MA ON SHAN RAIL LINK



Aruba
 LIMITED



CHEVALIER GARDENS STATION

SHEK MUN STATION

FIGURE 8.6c (Rev. B)
SHEK MUN STATION TO CHEVALIER GARDENS STATION
RESIDUAL VISUAL IMPACTS AT OPERATION PERIOD

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 ENVIRONMENT IMPACT ASSESSMENT
 EAST RAIL EXTENSIONS
 TAI WAI TO MA ON SHAN RAIL LINK



Urban
 LIMITED

- LEGEND:**
- INTENSITY OF VISUAL IMPACT
 - HIGH
 - MEDIUM
 - LOW
 - VEGETABLE
 - ENGINEERING NATURE OF ROUTE
 - AT GRADE
 - VIADUCT
 - 800 METERS STUDY BOUNDARY
 - NOISE BARRIERS
 - TYPES OF VISIBLY SENSITIVE RECEIVERS (VSRs)
 - I - INDUSTRIAL
 - R - RESIDENTIAL
 - C - COMMERCIAL
 - CI - MIXED COMMERCIAL / INDUSTRIAL
 - CR - MIXED COMMERCIAL / RESIDENTIAL
 - RI - MIXED RESIDENTIAL / INDUSTRIAL
 - OS - OPEN SPACE
 - MC - COMMUNITY
 - T - TRANSPORT AND RELATED
 - E - INSTITUTION
 - RACECOURSE
 - SHING MUN RIVER CHANNEL
 - TATE'S CAIRN HIGHWAY
 - RAVANA GARDEN
 - GARDEN VISTA GARDEN
 - SHA TIN HOSPITAL
 - MA ON SHAN COUNTRY PARK
 - SIU LEK YUEN RIVER CHANNEL
 - SHEK MUN INDUSTRIAL AREA
 - TOLO HIGHWAY INTERCHANGE
 - TAI SHUI HANG RIVER CHANNEL



HENG ON STATION

SPORT STADIUM
UNDER CONSTRUCTION
(FORMER HING ON T.H.A.)

MA ON SHAN STATION

OPEN AREA PROPOSED TO BE
RESIDENTIAL DEVELOPMENT
(FORMER SHING ON T.H.A.)

LEE ON STATION
(and Property Development)

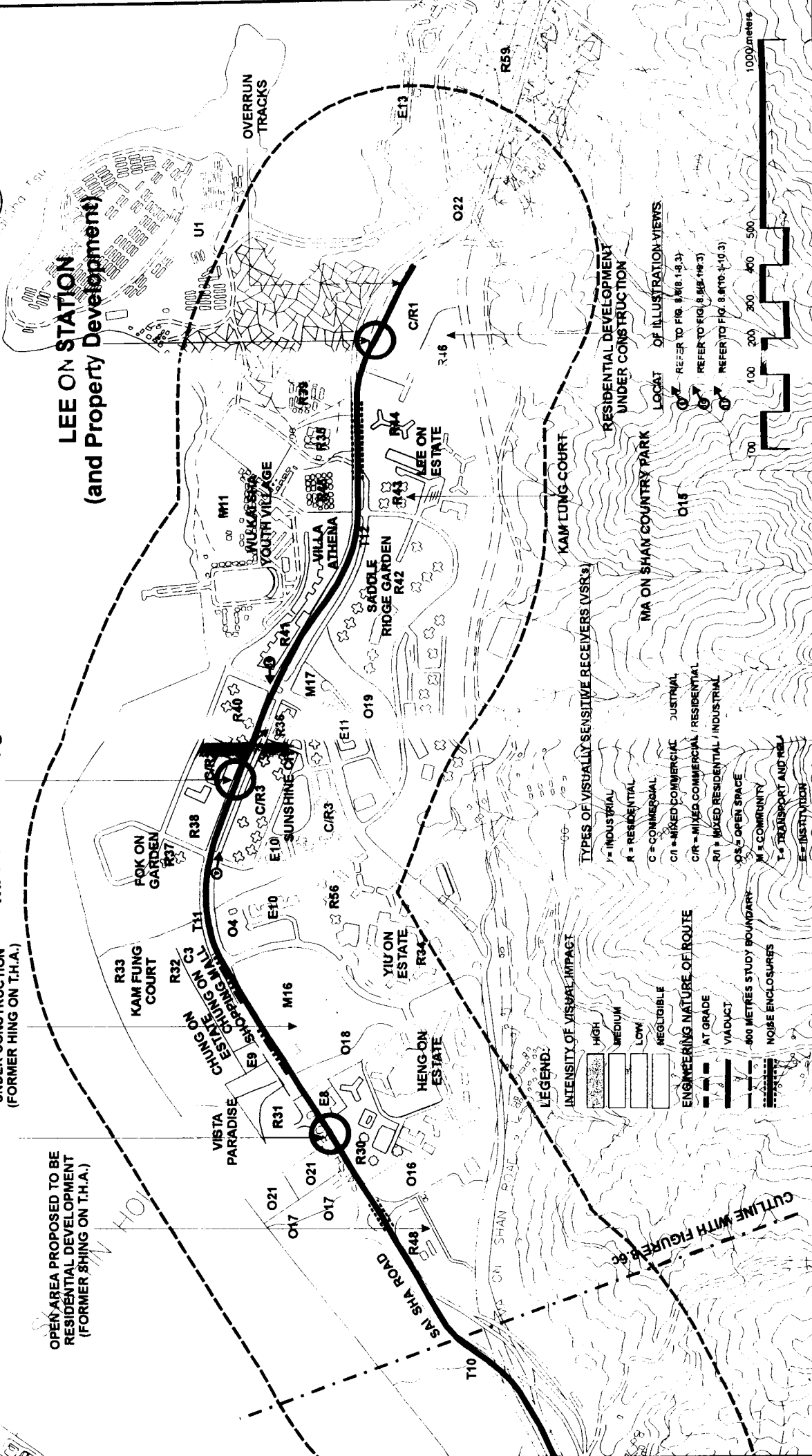


FIGURE 8.6d (Rev. C)
CHEVALIER GARDEN STATION TO LEE ON STATION OVERRUN TRACKS
RESIDUAL VISUAL IMPACTS AT OPERATION PERIOD

KOWLOON - CANTON
RAILWAY CORPORATION
ENVIRONMENT IMPACT ASSESSMENT
EAST RAIL EXTENSIONS
TAI WAI TO MA ON SHAN RAIL LINK



Aruba
LIMITED

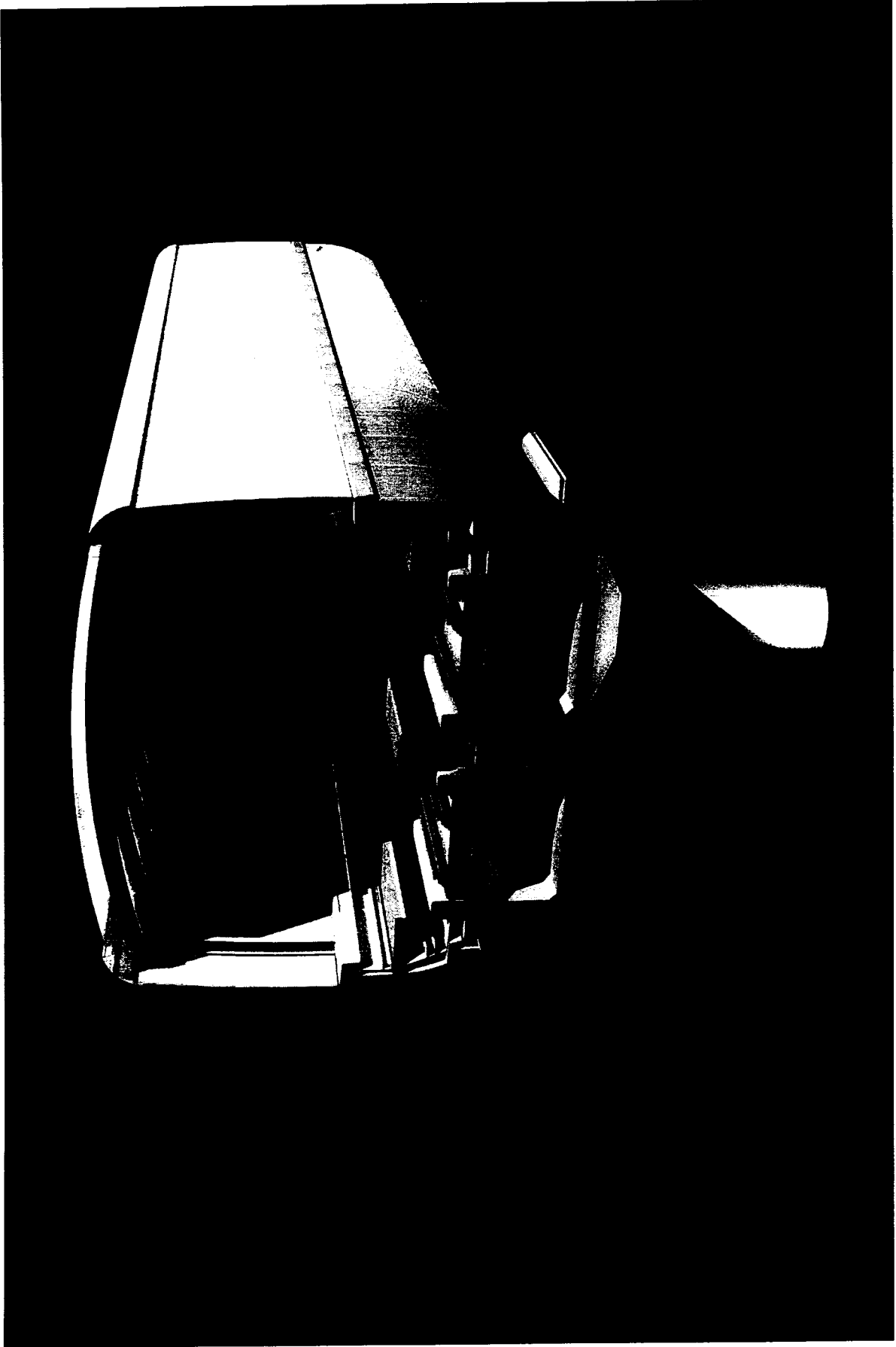
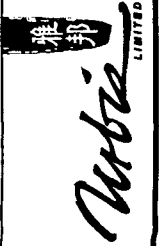
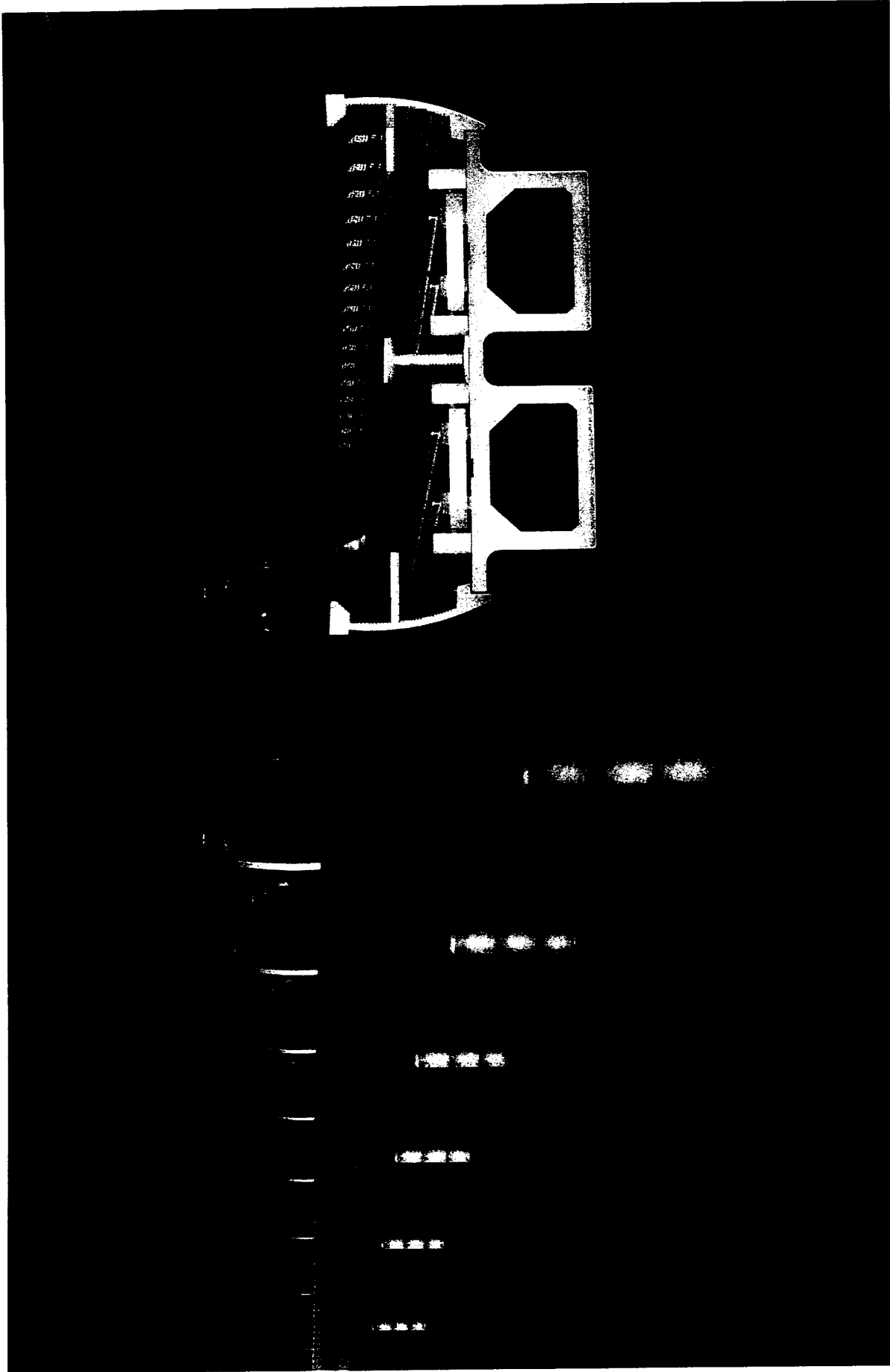


Figure 8.6(11)
Typical Noise Enclosure on Viaduct



**KOWLOON - CANTON
RAILWAY CORPORATION**
ENVIRONMENT IMPACT ASSESSMENT
EAST RAIL EXTENSIONS
TAI WAI TO MA ON SHAN RAIL LINK





**Figure 8.6(12)
Typical Viaduct Detail**

the underlying assumption is that these trees were planted with the knowledge that they would have to be removed when the railway is built.

An assessment of the potential landscape and visual impacts during the operational phase for each of the alignment sections is described in the text below. The potential residual visual impacts during the operational stages are summarised in *Table 8.6.1*, and illustrated in *Figures 8.6a-d*. This assessment assumes that the appropriate mitigation measures identified in Section 8.6.2 would be implemented.

Table 8.6 lists all the Key Sensitive Receivers in the Operation Phase.

Key to Table 8.6.1 Residual Visual Impacts During Construction Period

Types of Visually Sensitive Receivers (VSR's)	=	C -	Commercial
		C/I -	Mixed Commercial/Industrial
		C/R -	Mixed Commercial/Residential
		E -	Institution
		I -	Industrial
		M -	Community
		R -	Residential
			A – Residences at levels 9m or less above track level
			B – Residences at levels 9-24m above track level
			C – Residences at levels 24m or more above track level
		T –	Transport Related
		U -	Undetermined
	Magnitude of Impact	=	Negligible, Low, Medium or High
Receptor Sensitivity	=	Low, Medium or High	
Impact Significance Thresholds	=	Negligible, Low, Medium or High	
(*For ease of cross-referencing between Tables and Plans, each key VSR is numbered given an Identity Number according to the foregoing categories - see Table 8.6 and column 3 of Table 8.6.1)			

Table 8.6 Summary of the Type and identity of the Key visually Sensitive Receivers (VSR's) at Operation Period

No. of VSR	Key Visually Sensitive Receivers (VSR's)
C/I1	Staff at CLP Electric Substation
C/I2	Staff at CLP Electric Substation
C/R1	Commercial/ Residential development is zoned but development program is unknown
C/R2	Residents at the south facing properties of Bayshore Towers
C/R3	Residents at the north facing properties of Sunshine City
C1	Staff and customers at the Petrol Stations

Landscape and Visual Impacts

No. of VSR	Key Visually Sensitive Receivers (VSR's)
C2	Users at Pok Hong Estate Market
C3	Users at Chung On Shopping Centre
E1	Students and staff at Christian Alliance Cheng W.G.College and GCC & ITKD Lau Pak Lok Secondary School
E2	Students and staff at GCC & ITKD Cheong Wong Wai Primary School, Shatin Tsung Tsai Secondary School and Ng Yuk Secondary School
E3	Students and staff at Immaculate Heart of Mary Primary School and LST Chan Cho Chak Primary School
E4	Students and staffs at SA Tin Ka Ping Primary School
E5	Students and staff at Ecclesia Bible College
E6	Students and staff of Lam Kau Mow Secondary School and TWGH Yow Kam Yuen Prevocational School
E7	Students and staff at Tsung Tsin College
E8	Students and staff at Chinese YMCA College
E9	Students and staff at Toi Shan Association Wong Tat To Memorial School
E10	Students and staff at Tsang Pik Shan Secondary School, Fung Yiu King Memorial School, and FDBWA Mrs. Fung Ping Shan Primary School
E11	Students and staff at YCH Tung Chi Ying Memorial Secondary School and TWGH Wong Fung Ling College
E12	Students and staff at Shatin Government Secondary School, Immaculate Heart of Mary Primary School and Caritas Prevocational School
E13	Students and staff at Li Po Chun United World College
I1	Users at Sha Tin Industrial Centre
I2	Users at the east facing properties of Shek Mun Industrial Area
I3	Industrial development is zoned but development program is unknown
M1	Shatin Plant Quarantine Area and the Government Kennels
M2	Users of Hin Tin Outdoor Swimming Pool
M3	Visitors and staffs at Che Kung Miu Temple
M4	Future visitors and staff at the Cultural Museum currently under construction
M5	Staff and users at Caritas Care & Attention Home
M6	Staff and users at Prince of Wales Hospital
M7	Staff and users at Pamela Youde Child Assessment Centre & Dental School, and Yuen Chau Kok Clinic
M8	Users at Hin Keng Indoor Recreation Centre Complex
M9	Users and staffs at the Cheshire Home
M10	Users and staffs at Shatin Hospital
M11	Users at the Wu Kai Sha Youth Village
M12	Community facility is zoned but development program is unknown
M13	Community facility is zoned but development program is unknown
M14	Staff at Chap Wai Kon Street Fire Station

Landscape and Visual Impact Assessment

No. of VSR	Key Visually Sensitive Receivers (VSR's)
M15	Community facility is zoned but development program is unknown
M16	Future users at the proposed sport stadium under construction
M17	Staff and users at Ma On Shan Health Centre
O1	Users at Hin Tin playground
O2	Users at Shatin Central Park
O3	Users at Kong Pui Street Rest Garden and the Fung Shui Hill
O4	Users at On Luk Street Garden
O5	Users at Che Kung Miu Road Playground
O6	Users at Tsang Tai Uk Recreation Ground
O7	Users at public open space at Hung Mui Kuk Road
O8	Users at football field at Che Kung Miu Temple
O9	Users at the open space at Ngan Shing Street bus terminus
O10	Users at the series of open space at Sha Kok Street
O11	Users at Sha Tin Wai Playground
O12	Users at Yue Tin Court Playground
O13	Users at Siu Lek Yuen Playground
O14	Users at Lion Rock Country Park
O15	Users at Ma On Shan Country Park
O16	Open space is zoned but development program is unknown
O17	Open space is zoned but development program is unknown
O18	Open space is zoned but development program is unknown
O19	Users at the green belt adjacent to Saddle Ridge Garden
O20	Open space is zoned but development program is unknown
O21	Open space is zoned but development program is unknown
O22	Future users at the proposed open space at Lo Wo Sha Lane
R1	Residents at the north facing properties of Carado Garden
R2	Residents at the north facing properties of Hin Keng Estate
R3	Residents at the east facing properties of Shatin Heights Road
R4	Residents at south facing properties of Holford Garden
R5	Residents at south facing properties of Grandway Garden
R6	Residents at the low rise north facing properties of Tin Sam
R7	Residents at the south facing properties of Man Lai Court
R8	Residents at the north facing properties of Sun Chui Estate
R9	Residents at the low rise north facing properties of Lei Uk Tsuen

Landscape and Visual Impacts

No. of VSR	Key Visually Sensitive Receivers (VSR's)
R10	Residents at north facing properties of Chun Shek Estate
R11	Residents at north facing properties of Sha Tin Tau
R12	Residents at north facing properties of Pok Hong Estate
R13	Residents at south facing properties of Jat Min Chuen
R14	Residents at the south facing properties of Sha Kok Estate
R15	Residents at south facing properties of Hilton Plaza
R16	Residents at the low rise north-west facing properties of Sha Tin Wai
R17	Residents at the south facing properties of Greenwood Garden
R18	Residents at the south facing properties of Shatin Park
R19	Residents at the low rise Wong Uk Village
R20	Residents at the south facing properties of Green Leaves Garden
R21	Residents at south-east facing properties of Yue Tin Court
R22	Residents at south-east facing properties of City One Shatin
R23	Residents at the high rise east facing properties of Ravana Garden
R24	Residents at the high rise east facing properties of Garden Vista
R25	Residents at the high rise east facing properties of Pictorial Garden
R26	Residents at the low rise Shatin Fisherman's Village
R27	Residents at low rise west facing properties of Tai Shui Hang
R28	Residents at high rise west facing properties of Chevalier Garden
R29	Future residents at the proposed residential development at Tai Shui Hang currently under construction
R30	Residents at the west facing properties of Heng On Estate
R31	Residents at the east facing properties of Vista Paradise
R32	Residents at the east facing properties of Chung On Estate
R33	Residents at the high rise east facing properties of Kam Fung Court
R34	Residents at the high rise west facing of Yiu On Estate
R35	Residents at the low rise south facing properties of Kwai Po Lau
R36	Residents at the north facing properties of Fu Fai Garden
R37	Residents at the south facing properties of Fok On Garden
R38	Residents at the south facing properties of Tolo Place
R39	Residents at the low rise south facing properties of Lok Wo Sha
R40	Residents at the south facing properties of Ma On Shan Centre
R41	Residents at the south facing properties of Villa Athena
R42	Residents at the north facing properties of Saddle Ridge Garden
R43	Residents at the north facing properties of Kam Lung Court

Landscape and Visual Impact Assessment

No. of VSR	Key Visually Sensitive Receivers (VSR's)
R44	Residents at the north facing properties of Lee On Estate
R45	Residents at the low rise south facing properties of Wu Kai Sha New Village
R46	Future residents at the proposed residential development currently under construction
R47	Residents at Cove Hill
R48	Residential development is zoned but development program is unknown
R49	Residents at the east facing properties of Woodcrest Hill
R50	Residents at the east facing properties of Shatin Garden
R51	Residents at the low rise east facing properties of Blossom Court
R52	Residents at north facing properties of Fung Shing Court
R53	Residents at the low rise north facing properties of Shan Ha Wai (also known as Tsang Tai Uk)
R54	Residents at the low rise north-west facing properties of San Tin Wai
R55	Future residents at the proposed residential development at Tai Shui Hang
R56	Residents at Kam Hay Court
R57	Residential development is zoned but development program is unknown
R58	Residential development is zoned but development program is unknown
R59	Residents at Symphony Bay
R60	Residents of the low-rise developments at Tsuen Nam Road
R61	Residents of the low-rise developments at Tai Wai Road
T1	Pedestrians and cyclists at j/o of Lion Rock Tunnel Rd & Chu Kung Miu Rd
T2	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Kok Street
T3	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Tin Road
T4	Pedestrians and cyclists at Sha Tin Road
T5	Users at the bus terminus at Chap Wai Kon Street
T6	Pedestrians and cyclists at j/o Siu Lek Yuen Road & Chep Wai Kon Road
T7	Users of the Tate's Cairn Highway
T8	Pedestrians and cyclists above Tate's Cairn Highway at Pictorial Garden
T9	Pedestrians and cyclists along Ma On Shan road at the proposed residential development currently under Construction
T10	Users of the Tate's Cairn Highway
T11	Users of Sai Sha Road at Heng On Estate
T12	Users of Sai Sha Road and the surrounding road system at Villa Athena
T13	Pedestrians and cyclists along Tate's Cairn Highway at Shing Mun River Channel
T14	Users at the bus terminus at Sha Kok Street
U1	Users at the undetermined land at Whitehead Planning Area (Proposed to be temporary works area during construction period)

(Note: All impacts are adverse unless otherwise stated)

Table 8.6.1 Residual Visual Impacts at Operation Period

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect				
				A	B	C		A	B	C	A	B	C	Ave	
Tai Wai Depot, overrun track with nose barrier	Residents at the north facing properties of Carado Garden	R1	100m	L	L	L	High	L	L	L	L	L	L	L	L
Tai Wai Depot, overrun track with nose barrier	Residents at the north facing properties of Hin Keng Estate	R2	30m	L	L	L	High	L	L	L	L	L	L	L	L
Tai Wai Depot, overrun track with nose barrier	Residents at the east facing properties of Shatin Heights Road	R3	220m	N/A	N/A	N	High	N/A	N/A	N	N/A	N/A	N	N	N
Tai Wai Station, Tai Wai Depot	Residents at south facing properties of Holford Garden	R4	80m	N	M	L	High	N	M	L	N	M	L	L	L
Tai Wai Station, Tai Wai Depot	Residents at south facing properties of Grandway Garden	R5	50m	N	M	L	High	N	M	L	N	M	L	L	L
Tai Wai Station, Tai Wai Depot	Residents at the low rise north facing properties of Tin Sam	R6	20m	L	N/A	N/A	High	L	N/A	N/A	L	N/A	N/A	L	L
Tai Wai Depot, overrun track with nose barrier	Residents at the east facing properties of Woodcrest Hill	R49	200m	N/A	N/A	N	High	N/A	N/A	N	N/A	N/A	N	N	N

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai Depot, overrun track with nose barrier	Residents at the east facing properties of Shatin Garden	R50	110m	N/A	L	L	High	N/A	L	L	N/A	L	L	L
Tai Wai Depot, overrun track with nose barrier	Residents at the low rise east facing properties of Blossom Court	R51	90m	N/A	N	N	High	N/A	N	N	N/A	N	N	N
Tai Wai Station	Residents of the low-rise developments at Tsuen Nam Road	R60	50m	N	M	N/A	High	N	M	N/A	N	M	N/A	L
Tai Wai Station	Residents of the low-rise developments at Tai Wai Road	R61	70m	N	N	N/A	High	N	N	N/A	N	N	N/A	N
Tai Wai Station, Tai Wai Depot	Staff of CLP Electric Substation	C/I2	70m	Negligible			Low	Negligible			Negligible			
Tai Wai Depot, overrun track with nose barrier	Users of Hin Tin playground	O1	0m	Low	Low	Low	High	Medium			Low			
Tai Wai Depot	Users of Che Kung Miu Road Playground	O5	20m	Low	Low	Low	High	Low			Low			
Tai Wai Station, Tai Wai Depot	Users of Hung Mui Kuk Road open space	O7	40m	Low	Low	Low	High	Low			Low			

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai Station, Tai Wai Depot, Viaduct	Users of Lion Rock Country Park	O14	900m	Negligible			High	Negligible			Negligible			
Tai Wai overrun track with nose barrier	Shatin Plant Quarantine Area and the Government Kennels	M1	0m	Low			Medium	Medium			Low			
Tai Wai Depot, overrun track with nose barrier	Users of Hin Tin Outdoor Swimming Pool	M2	0m	Low			High	Medium			Low			
Tai Wai overrun track with nose barrier	Users of Hin Keng Indoor Recreation Centre Complex	M8	120m	Low			Medium	Low			Low			
Tai Wai Depot	Students and staff of Christian Alliance Cheng W.G.College and GCC & ITKD Lau Pak Lok Secondary School	E1	50m	Negligible			Medium	Negligible			Negligible			
Tai Wai Station, Viaduct	Residents at the south facing properties of Man Lai Court	R7	60m	H	M	N/A	High	H	M	N/A	H	M	N/A	H
Tai Wai Station, Tai Wai Depot, Viaduct	Residents at the north facing properties of Sun Chui Estate	R8	50m	M	M	L	High	M	M	L	M	M	L	M
Sha Tin Tau Station, Viaduct	Residents at the low rise north facing properties of Lei Uk Tsuen	R9	70m	H	N/A	N/A	High	H	N/A	N/A	M	N/A	N/A	M

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Tai Wai Station, Viaduct	Residents at the low rise north-west facing properties of San Tin Wai	R54	150m	N	N/A	N/A	High	N	N/A	N/A	N	N/A	N	N
Tai Wai Station, Viaduct	Visitors and staffs of Che Kung Miu Temple	M3	40m		Low		High	Medium				Low		
	Community facility is zoned but development program is unknown	M12	0m				-							
Sha Tin Tau Station, Viaduct	Students and staff of Shatin Government Secondary School, Immaculate Heart of Mary Primary School and Caritas Prevocational School	E12	120m		Low		Medium	Low				Low		
Tai Wai Station, Viaduct	Students and staff of GCC & ITKD Cheong Wong Wai Primary School, Shatin Tsung Tsai Secondary School and Ng Yuk Secondary School	E2	50m		Medium		Medium	Medium				Low		
Tai Wai Station, Viaduct	Users of Che Kung Miu Road Football Field	O8	100m		Low		High	Medium				Low		

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Sha Tin Tau Station	Residents at north facing properties of Chun Shek Estate	R10	60m	-	M	L	High	H	M	L	H	M	L	M
Sha Tin Tau Station, Viaduct	Residents at north facing properties of Sha Tin Tau	R11	40m	Low	N/A	N/A	High	L	N/A	N/A	L	N/A	N/A	L
Sha Tin Tau Station, Viaduct	Residents at south facing properties of Hilton Plaza	R15	480m	N	N	N	High	N	N	N	N	N	N	N
Sha Tin Tau Station, Viaduct	Residents at north facing properties of Fung Shing Court	R52	300m	N	N	N	High	N	N	N	N	N	N	N
Viaduct	Residents at the low rise north facing properties of Shan Ha Wai (Also known as Tsang Tai Uk)	R53	80m	M	N/A	N/A	High	M	N/A	N/A	M	N/A	N/A	M
Sha Tin Tau Station	Future visitors and staff of the Cultural Museum currently under construction	M4	230m	Low			High	Medium			Low			
	Community facility is zoned but the development program is unknown	M13	0m				-							

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Sha Tin Tau Station	Students and staff of Ecclesia Bible College	E5	250m	Negligible			Medium	Negligible			Negligible			
Sha Tin Tau Station, Viaduct	Users of Shatin Central Park	O2	300m	Negligible			High	Negligible			Negligible			
Viaduct	Users of Tsang Tai Uk Recreation Ground	O6	0m	High			High	High			High			
Viaduct	Users of the series of open space at Sha Kok Street	O10	0m	High			High	High			High			
Sha Tin Tau Station, Viaduct	Pedestrians and cyclists at j/o of Lion Rock Tunnel Rd & Chu Kung Miu Rd	T1	0m	low			Medium	Medium			Low			
Sha Kok Street Station, Viaduct, Viaduct with noise barrier	Residents at north facing properties of Pok Hong Estate	R12	60m				High							
	NW Section			H	M	N		H	M	N		H	M	N
	SE Section			N	N	N		N	N	N		N	N	N

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Sha Kok Street Station, Viaduct, Viaduct with noise barrier	Residents at south facing properties of Jat Min Chuen NW Section SW Section	R13	20m	N	N	N	High	N	N	N	N	N	N
				H	M	N		H	L	N	N	L	
Sha Kok Street Station, Viaduct	Residents at the south facing properties of Sha Kok Estate NW Section SW Section	R14	60m	N	N	N	High	N	N	N	N	N	N
				M	L	N		M	L	N	N	L	
Viaduct	Residents at the low rise north-west facing properties of Sha Tin Wai	R16	60m	L	L	N/A	High	L	L	N/A	L	N/A	L
Viaduct	Residents at the south facing properties of Greenwood Garden	R17	110m	N	N	N	High	N	N	N	N	N	N
Viaduct	Residents at the south facing properties of Shatin Park	R18	20m	H	M	N	High	H	M	N	H	M	M

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct	Residents at the low rise Wong Uk Village	R19	20m	H	N/A	N/A	High	H	N/A	N/A	M	N/A	N/A	M
Viaduct	Residents at the south facing properties of Green Leaves Garden	R20	40m	H	M	N	High	H	M	N	H	M	N	M
Viaduct with noise barrier	Students and staff of Immaculate Heart of Mary Primary School and LST Chan Cho Chak Primary School	E3	20m				Medium							
Viaduct with	Students and staffs of SA Tin Ka Ping Primary School	E4	30m				Medium							
Viaduct	Staff and customers of the Petrol Stations	C1	5m				Low							
Viaduct with	Users of Pok Hong Estate Market	C2	20m				Low							
Viaduct	Staff of CLP Electric Substation	C/11	0m				Low							
Viaduct	Staff and users of Caritas Care & Attention Home	M5	20m				High							

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
City One Station, Viaduct	Staff and users of Prince of Wales Hospital	M6	50m	Low			High	Medium				Low	
City One Station, Viaduct	Staff and users of Pamela Youde Child Assessment Centre & Dental School, and Yuen Chau Kok Clinic	M7	20m	Low			High	Medium				Low	
Viaduct	Users of Kong Pui Street Rest Garden and the Fung Shui Hill	O3	0m	Low			High	Medium				Low	
Viaduct	Users of the open space at Ngan Shing Street bus terminus	O9	0m	Medium			High	High				Medium	
Viaduct	Users of Sha Tin Wai Playground	O11	20m	Low			High	Medium				Low	
Viaduct	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Kok Street	T2	0m	Low			Medium	Medium				Low	
Viaduct	Pedestrians and cyclists at j/o of Sha Tin Rural Committee Road & Sha Tin Road	T3	10m	Negligible			Medium	Negligible				Negligible	

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct	Pedestrians and cyclists at Sha Tin Road	T4	0m	Low			Medium	Low			Low			
Viaduct	Users of the bus terminus at Ngan Shing Street	T5	0m	Low			Low	Low			Low			
Sha Kok Street Station, Viaduct	Users of the bus terminus at Sha Kok Street	T14	0m	Low			Low	Low			Low			
city One Station	Residents at south-east facing properties of Yue Tin Court	R21	30m	M	L	N	High	M	L	N	M	L	N	L
City One Station, Viaduct, Viaduct with noise enclosure	Residents at south-east facing properties of City One Shatin NW Section SE Section	R22	45m				High							
City One Station, Viaduct, Viaduct with noise enclosure	Residential development is zoned but development program is unknown	R57	30m	M	L	N	High	M	L	N	M	L	N	L
Viaduct with noise enclosure	Users of Sha Tin Industrial Centre	I1	30m	Negligible / Low			Low	Negligible			Negligible			

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
City One Station, Viaduct	Users of Yue Tin Court Playground	O12	40m	Low			High	Medium			Low		
Viaduct	Users of Siu Lek Yuen Playground	O13	25m	Negligible			High	Negligible			Negligible		
	Open space development is zoned but development program is unknown	O20	0m	-			-	-			-		
Viaduct	Staff of Chap Wai Kon Street Fire Station	M14	60m	Negligible			Medium	Negligible			Negligible		
Viaduct	Students and staff of Lam Kau Mow Secondary School and TWGH Yow Kam Yuen Prevocational School	E6	28m	Low			Medium	Low			Low		
City One Station, Viaduct, Viaduct with noise enclosure	Pedestrians and cyclists at j/o Siu Lek Yuen Road & Chep Wai Kon Road	T6	0m	Low			Medium	Medium			Low		
Viaduct, Track alignment at grade	Residents at the high rise east facing properties of Ravana Garden	R23	350m	N	N	N	High	N	N	N	N	N	

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect				
				A	B	C		A	B	C	A	B	C	Ave	
Viaduct, Track alignment at grade	Residents at the high rise east facing properties of Garden Vista	R24	180m	N	L	N	High	N	L	N	N	N	L	N	N
Track alignment at grade, Track alignment at grade with noise barrier	Residents at the high rise east facing properties of Pictorial Garden	R25	50m	L	L	N	High	L	L	N	L	L	N	N	L
Track alignment at grade	Residents at the low rise Shatin Fishermen's New Village	R26	75m	N	N/A	N/A	High	N	N/A	N/A	N	N/A	N/A	N/A	N
Track alignment at grade	Residents of Cove Hill	R47	850m	N/A	N	N	High	N/A	N	N	N/A	N	N	N	N
Shek Mun Station, Viaduct	Residential development is zoned but development program is unknown	R58	60m	M	M	N	High	M	M	N	M	L	N	N	L
Shek Mun Station, Viaduct	Users of the east facing properties of Shek Mun Industrial Area	I2	95m	Low			Low	Low			Negligible				
	Industrial development is zoned but development program is unknown	I3	0m	-			-	-			-				

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Track alignment at grade	Users and staffs of the Cheshire Home	M9	280m	Negligible			High	Negligible			Negligible			
Track alignment at grade	Users and staffs of Shatin Hospital	M10	450m	Low			High	Low			Low			
Viaduct, Track alignment at grade, Track alignment at grade with noise barrier	Users of the Tate's Cairn Highway	T7	0m	Negligible / Low			Medium	Negligible / Low			Negligible / Low			
	Pedestrians and cyclists above Tate's Cairn Highway at Pictorial Garden	T8	0m	Negligible			Medium	Negligible			Negligible			
Track alignment at grade	Pedestrians and cyclists along Tate's Cairn Highway at Shing Mun River Channel	T13	300m	Negligible			Medium	Negligible			Negligible			
Chevalier Garden Station, Viaduct	Residents at low rise west facing properties of Tai Shui Hang	R27	120m	L	N/A	N/A	High	L	N/A	N/A	L	N/A	N/A	L
Chevalier Garden Station, Viaduct	Residents at high rise west facing properties of Chevalier Garden	R28	200m	N	N	N	High	N	N	N	N	N	N	N

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Chevalier Garden Station, Viaduct	Future residents of the proposed Residential Development currently under construction	R29	70m	H	M	N	High	H	M	N	M	M	N	M
Chevalier Garden Station, Viaduct	Residential development is zoned but development program is unknown	R55	40m	H	M	N	High	M	M	N	M	L	N	L
Chevalier Garden Station, Viaduct	Students and staff of Tsung Tsin College	E7	85m	Medium			Medium	Medium			Low			
	Community facility is zoned but development program is unknown	M15	30m	-			-	-			-			
	Open space is zoned but development program is unknown	O16	10m	-			-	-			-			
	Open space is zoned but development program is unknown	O17	50m	-			-	-			-			
	Open space is zoned but development program is unknown	O21	50m	-			-	-			-			

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Chevalier Garden Station, Viaduct	Pedestrians and cyclists along Ma On Shan road at the proposed Residential Development currently under Construction	T9	38m	Low	Low	Medium	Medium	Medium	Low	Low	Low	Low	
Chevalier Garden Station, Viaduct, Viaduct with noise enclosure	Users of the Tate's Cairn Highway	T10	0m	Low	Low	Medium	Medium	Low	Low	Low	Low	Low	
Development of Heng On Station and the adjacent track alignment	Residential development is zoned but development program is unknown	R48	40m	H M N	M N	High	M M N	M M N	M L N	M L N	M L N	L	
Viaduct, Viaduct with noise enclosure	Residents at the west facing properties of Heng On Estate E Section W Section	R30	35m	N H N M	N M N	High	N H N M	N M N	N M N	N M N	N M N	N M	

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect								
				A	B	C		A	B	C	A	B	C	Ave					
Viaduct, Viaduct with noise enclosure	Residents at the east facing properties of Vista Paradise W Section E Section	R31	30m	N	N	N	High	N	N	N	N	N	N	N	N	N	N	N	N
Viaduct, Viaduct with noise barrier	Residents at the east facing properties of Chung On Estate	R32	40m	N	M	N	High	N	M	N	N	N	M	N	M	N	N	N	L
Viaduct	Residents at the high rise east facing properties of Kam Fung Court	R33	150m	L	L	N	High	L	L	N	N	L	L	L	N	N	N	N	L
Viaduct, Viaduct with noise barrier	Residents at the high rise west facing of Yiu On Estate	R34	350m	N	N	N	High	N	N	N	N	N	N	N	N	N	N	N	N
Viaduct, Viaduct with noise barrier	Residents of Kam Hay Court	R56	250m	L	L	L	High	L	L	L	L	L	L	L	L	L	L	L	L
Viaduct with noise barrier	Users of Chung On Shopping Centre	C3	40m	Medium			Low	Low			Low								

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Viaduct with noise barrier	Future users and residents of the proposed sport stadium currently under construction of former Hing On T.H.A.	M16	30m	Medium	Medium	Medium	Medium	Medium	Medium	Low	Low	Low	
Heng On Station, Viaduct	Students and staff of Chinese YMCA College	E8	50m	Medium	Medium	Medium	Medium	Medium	Medium	Low	Low	Low	
Viaduct with noise barrier	Students and staff of Toi Shan Association Wong Tat To Memorial School	E9	40m	High	High	Medium	Medium	High	High	Medium	Medium	Medium	
Viaduct	Students and staff of Tsang Pik Shan Secondary School, Fung Yiu King Memorial School, and FDBWA Mrs Fung Ping Shan Primary School	E10	90m	Negligible	Negligible	Medium	Medium	Negligible	Negligible	Negligible	Negligible	Negligible	
Viaduct	Users at On Luk Street Garden	O4	25m	Low	Low	High	High	Medium	Medium	Low	Low	Low	
	Open space is zoned but development program is unknown	O18	50m	-	-	-	-	-	-	-	-	-	

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct, Viaduct with noise barrier	Users of Sai Sha Road at Heng On Estate	T11	0m	Low			Medium	Low			Low			
Development of Ma On Shan Station, Lee On Station and track alignment between Ma On Shan Station and Lee On Station	Commercial/residential development is zoned but development program is unknown	C/R1	0m	N	L	N	High	N	L	N	N	L	N	N
Ma On Shan Station, Viaduct	Users and residents of the north facing properties of Bayshore	C/R2	15m	M	L	N	High	M	L	N	M	M	N	M
Ma On Shan Station, Viaduct	Users and residents of the north facing properties of Sunshine City S Section N Section	C/R3	20m	N	N	N	High	N	N	N	N	N	N	N
Viaduct with noise enclosure	Residents at the low rise south facing properties of Kwai Po Lau	R35	80m	L	N/A	N/A	High	L	N/A	N/A	N	N/A	N/A	N

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect				
				A	B	C		A	B	C	A	B	C	Ave	
Viaduct	Residents at the north facing properties of Fu Fai Garden	R36	20m	H	M	N	High	H	M	N	M	M	N	M	M
Viaduct	Residents at the south facing properties of Fok On Garden	R37	60m	H	M	N	High	M	M	N	M	M	N	M	M
Ma On Shan Station, Viaduct	Residents at the south facing properties of Tolo Place	R38	18m	H	M	N	High	H	M	N	M	M	N	M	M
Lee On Station, Viaduct with noise enclosure	Residents at the low rise south facing properties of Lok Wo Sha	R39	80m	N	N/A	N/A	High	N	N/A	N/A	N	N/A	N/A	N	N
Viaduct	Residents at the south facing properties of Ma On Shan Centre	R40	15m	H	M	N	High	H	M	N	M	M	N	M	M
Viaduct	Residents at the south facing properties of Villa Athena	R41	15m	M	L	N	High	M	L	N	M	M	N	M	M
Viaduct	Residents at the north facing properties of Saddle Ridge Garden S Section N Section	R42	70m	N/A	N	N	High	N/A	N	N	N/A	N	N	N	N

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect			
				A	B	C		A	B	C	A	B	C	Ave
Viaduct with noise enclosure	Residents at the north facing properties of Kam Lung Court	R43	35m	M	L	N	High	M	L	N	M	L	N	L
Viaduct with noise enclosure, Lee On Station	Residents at the north facing properties of Lee On Estate S Section N Section	R44	20m	N	N	N	High	N	N	N	M	N	N	N
Viaduct, Viaduct with noise enclosure	Residents at the low rise south facing properties of Wu Kai Sha New Village	R45	80m	L	N/A	N/A	High	L	N/A	N/A	L	N/A	N/A	L
Lee On Station, Overrun Track	Future residents of the proposed Residential Development currently under construction	R46	10m	N	L	N	High	N	L	N	N	L	N	L
Lee On Station, Overrun Track	Residents at Symphony Bay	R59	320m	N	N	N/A	High	N	N	N/A	N	N	N/A	N
Lee on Station, Viaduct	Users of Ma On Shan Country Park	O15	600m	Negligible			High	Negligible			Negligible			

Landscape and Visual Impacts

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect		
				A	B	C		A	B	C	A	B	C
Viaduct	Users of the green belt adjacent to Saddle Ridge Garden	O19	80m	Low			High	Medium				Low	
Lee On Station, Overrun Track	Future users of the proposed open space at Lo Wo Sha Lane	O22	80m	Low			High	Medium				Low	
Viaduct	Users of the Wu Kai Sha Youth Village	M11	155m	Negligible			High	Negligible				Negligible	
Viaduct	Users and staff of Ma On Shan Health Centre	M17	80m	Low			Medium	Medium				Low	
Viaduct	Students and staff at YCH Tung Chi Ying Memorial Secondary School and TWGH Wong Fung Ling College	E11	120m	Negligible			Medium	Negligible				Negligible	
Lee On Station, Overrun Track	Students and staff of Li Po Chun United World College	E13	350m	Negligible			Medium	Negligible				Negligible	
Viaduct, Viaduct with noise enclosure	Users of Sai Sha Road and the surrounding road system at Villa Athena	T12	0m	Low			Medium	Low				Low	

Landscape and Visual Impact Assessment

Source of Impacts	Key Visually Sensitive Receivers (VSR'S)	Type and Identity No. of VSR*	Minimum Distance Between VSR and Sources	Magnitude of Impact at Operation Period			Receptor Sensitivity	Impact at Operation Period before Mitigation Measures			Residual Impact at Operation Period after Mitigation Measures take effect					
				A	B	C		A	B	C	A	B	C	Ave		
Lee On Station, Overrun Track	Users of the undetermined land at Whitehead Planning Area	U1	520m	A	B	C	High	A	B	C	Negligible	A	B	C	Ave	Negligible

8.6.2 Mitigation Measures During the Operational Phase

Landscape and visual impact mitigation measures arising during the operational phase and to be incorporated within the permanent landscape design proposals should include the following:

- The size and extent of noise barriers should be reduced as much as possible. Where noise barriers/enclosures are unavoidable, they should be integrated with the viaduct design to create a harmonious whole, or if they are at grade, they should be designed to blend into the surrounding environment as far as possible;
- Footpath and cycle track diversions should be provided to minimise impact on pedestrian and vehicular movements;
- The external appearance of all above-ground structures should be carefully detailed in terms of form, colour and finishes such that they are visually integrated as much as possible into the surrounding landscape. This applies, in particular to the stations, viaduct structures and the proposed noise mitigation structures as these elements would be the most visually dominant elements. The width of the viaduct sides and supporting columns should be minimised as far as possible to provide a 'lightness' of appearance. The form and surface detailing of these structures should be carefully considered to reduce their apparent mass;
- The use of high safety fences along the railway should be avoided wherever possible to minimise adverse visual intrusion on the landscape. This applies particularly along the central reserve within Ma On Shan Road as this is an area of attractive open landscape;
- Tree and shrub planting should be implemented within the railway reserve, below the viaduct, as so to compensate for lost trees and to soften the visual impact of the viaduct. Tree species should be selected on the basis of their ultimate height, so that they do not physically interfere with the viaduct. The KCRC has commissioned a separate consultancy to prepare a Compensatory Planting Proposal to compensate for felled trees. This consultancy has identified that 3,600 trees of "standard" to "heavy standard" size can be planted along the alignment.
- Climbing plants should be used to soften the appearance of viaduct columns.

8.6.3 Residual Landscape and Visual Impacts in Operation Phase

Tai Wai Depot to Sha Tin Tau Station (Refer to Figure 8.6a)

Tai Wai Depot would be developed on an area identified in Sha Tin OZP as a Railway Depot Comprehensive Development Area, and Tai Wai Station would be developed on an adjacent area zoned as G/K. However, these areas are currently occupied by a variety of temporary low density uses with an open aspect that contributes greatly to the sense of

openness of this part of the Shatin landscape. The loss of these open areas would represent a high loss in terms of landscape amenity for the local population and a substantial change in the landscape character of the area. Due to the extent of the proposed depot and station, the visual impact is likely to be great. However, the Sha Tin OZP does allow for these developments so they would be in keeping with the planning intentions for the area. *Figure 8.6(1)* shows the extent of the proposed Tai Wai Station and Depot.

Visually Sensitive Receivers experiencing a medium level of visual impact would be the residents at the lower and middle levels of Sun Chui Estate (R8) to the south and the middle levels of Holford Garden (R4) and Grandway Garden (R5) to the north. Visually Sensitive Receivers experiencing a low level of visual impact would be the users of the Che Kung Miu Road Playground (O5), the Hung Mui Kuk Road Playground (O7), the Hin Keng Indoor Recreation Centre Complex (M8) and the residents of the high rise north facing properties in Carado Garden (R1) and the Hin King Estate (R2), as well as the residents in the low rise, the north facing properties of Tin Sam (R6) on Che Kung Miu Road, Shatin Garden (R50), and the upper levels of Sun Chui Estate. The other Visually Sensitive Receivers experiencing a low level of visual impact would be the residents at the upper levels of Grandway (R5) and Holford Garden (R4) to the north. The staff of the Shatin Plant Quarantine Area and the Government Kennels (M1), and the people using Hin Tin playground (O1) and the outdoor swimming pool (M2) to the south-west of the site would also experience a low visual impacts as would passengers on the East Rail trains passing along the existing embankment to the north of the site. The staff and pupils of three education institutions to the south: GCC & ITKD Cheong Wong Wai Primary School, Shatin Tsung Tsai Secondary School, and Ng Yuk Secondary (E2) would also experience a low level of visual impact. Residents in properties on Shatin Heights Road (R3), Woodcrest Hill (R49), and Blossom Court (R51) to the west and the staff and pupils of the Christian Alliance Cheng W.G. College and the GCC & ITKD Lau Pak Lok Secondary School (E1), and the staff at the CLP electric Substation (C/I2) to the north of the site would experience negligible degrees of visual impact during the operational period. The other visually sensitive receivers experiencing a negligible level of impact would be the residents at the lower levels of Holford Garden and Grandway Garden due to the fact that views of the development would be obscured by the existing Tai Wai Station. Users of the Lion Rock Country Park (O14) to the far east of the site would also experience negligible degrees of visual impact as shown in *Figure 8.6a*

After leaving the depot and station site, the track alignment would proceed north-east towards the River Channel. The alignment would then proceed over the southern side of the Shing Mun River Channel on a viaduct, with the track alignment then passing over the cycle track and walkway adjacent to Che Kung Miu Road. A typical cross section of the twin track viaduct is shown in *Figure 8.6.1a*.

Residents at the lower levels of Man Lai Court (R7) to the north would experience high levels of visual impact. *Figure 8.6(2)* illustrates how the viaduct would appear at Shing Mun River. The visually sensitive receivers experiencing a medium level of impact would be the resident at the middle levels of Man Lai Court, the low-rise properties of Lei

Uk Tsuen (R9), and the pedestrians, cyclists and users of the parts of the water edge recreation facilities. The staff and pupils of the Shatin Government Secondary School, the Immaculate Heart of Mary Primary School and the Caritas Prevocational School (E12) on the northern bank of the river channel would experience a low level of visual impact. Visitors and staff of the Che Kung Miu Temple (M3), and users of the Che Kung Miu Road Football Field (O8) would also experience a low level of visual impact. Users of the surrounding road system would, by virtue of their transient nature, experience low levels of visual impact. Users of the footpath/cycle track on the southern bank would also experience a low level of visual impact from the viaduct deck and the columns.

The visually sensitive receivers experiencing a negligible level of impact would be the residents of the low-rise properties of San Tin Wai (R54).

Sha Tin Tau Station and the track alignment between Sha Tin Tau Station and Sha Kok Street Station (Refer to Figure 8.6a)

The elevated Sha Tin Tau Station and the adjacent sections of the track would be located along the southern edge of the existing car park along the northern bound carriageway of Che Kung Miu Road at the junction of Sha Tin Tau Road. The station platform of Sha Tin Tau Station would be approximately 19.1m PD. Adjacent to the station concourse, a proposed pedestrian subway will be connected to the existing pedestrian subway. A segment of Che Kung Miu Road, at the eastern end of the station, would be reconstructed.

Visually Sensitive Receivers that would experience a high level of visual impacts would be the residents at the lower levels of Chun Shek Estate (R10) off Che Kung Miu road as shown in *Figure 8.6a*. People living at the middle levels of Chun Shek Estate would experience a medium degree of impact. *Figure 8.6(3)* illustrates how the viaduct would appear adjacent to Chun Shek Estate. Low visual impacts are predicted for the residents at the upper levels of Chun Shek Estate, the low-rise properties of Sha Tin Tau (R11), and the future users of the Cultural Museum (M4) currently under construction on the northern bank of the river channel. Staff and the pupils at the Ecclesia Bible College (E5) for Religious Studies, situated to the north-east of the site, would experience a negligible level of visual impact due to the presence of perimeter tree planting which would partly screen the permanent structures. Other Visually Sensitive Receivers experiencing a negligible level of visual impact would be the residents of the high rise buildings of Fung Sing Court (R52) to the south of the site, and those of Hilton Plaza (R15) on the opposite side of the river, and pedestrians within Shatin Central Park (O2). The pedestrians and cyclists along the river edge on the southern bank would experience a low level of visual impact. Users of the surrounding road system would, by virtue of their transient nature, also experience low levels of visual impact.

After leaving the station site, the track alignment would proceed east toward the next station at Sha Kok Street and would pass over the wooded mound that is located at the junction of Che Kung Miu Road and Lion Rock Tunnel Road. The section of the viaduct will be at approximately 17.5m PD, and located in an area that has a relatively open aspect. The residents of the low-rise housing estates of Sha Tin Tau, located on the

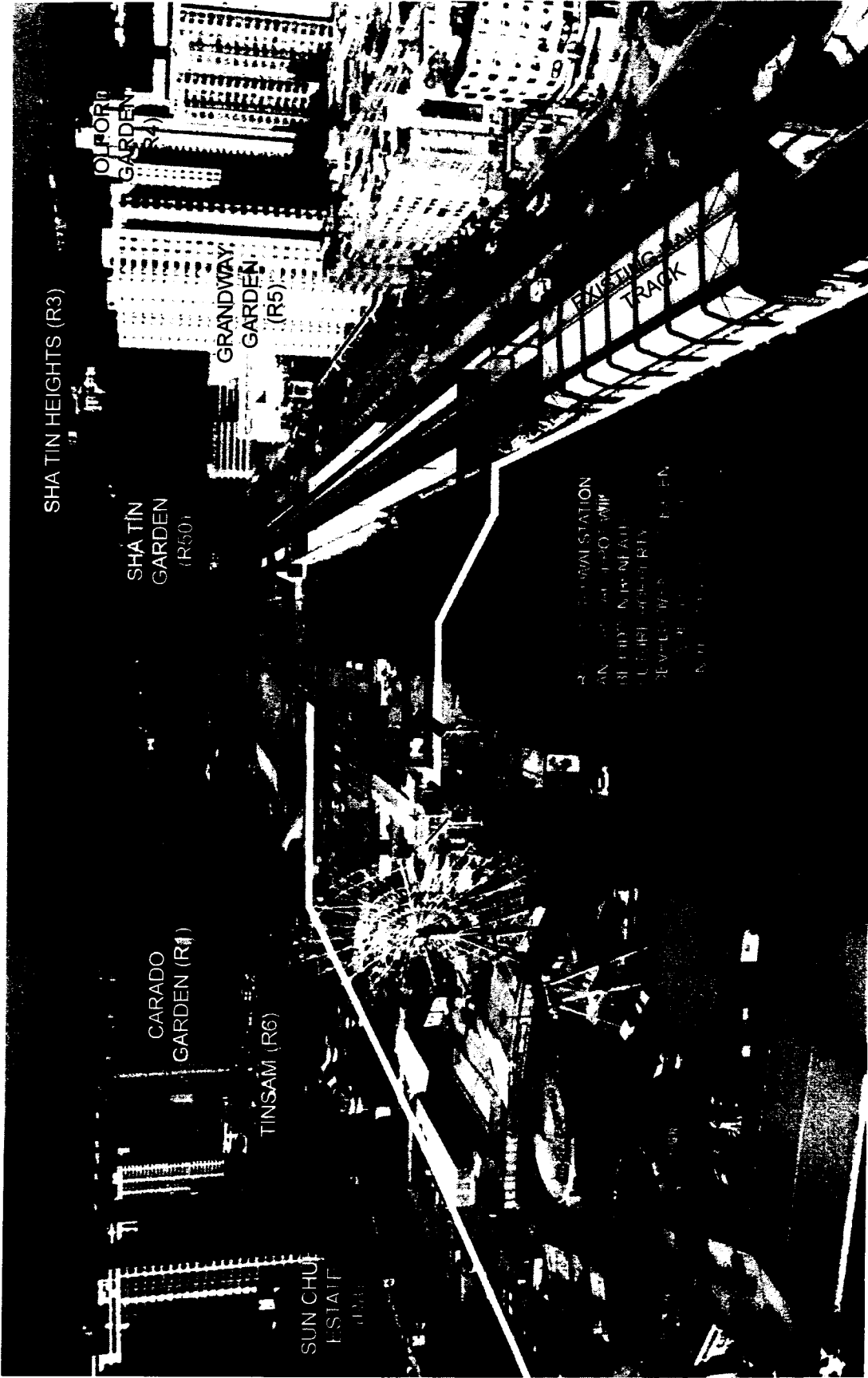
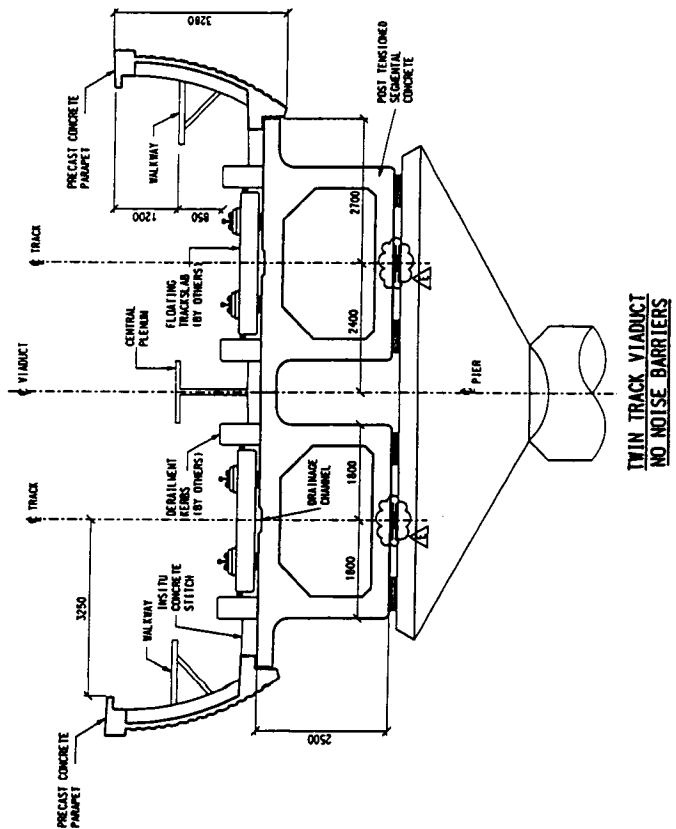


FIGURE 8.6(1)
View of Extent of Tai Wai Station and Tai Wai Depot



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 EAST RAIL EXTENSIONS
 TAI WAI TO MA ON SHAN RAIL LINK

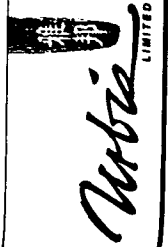


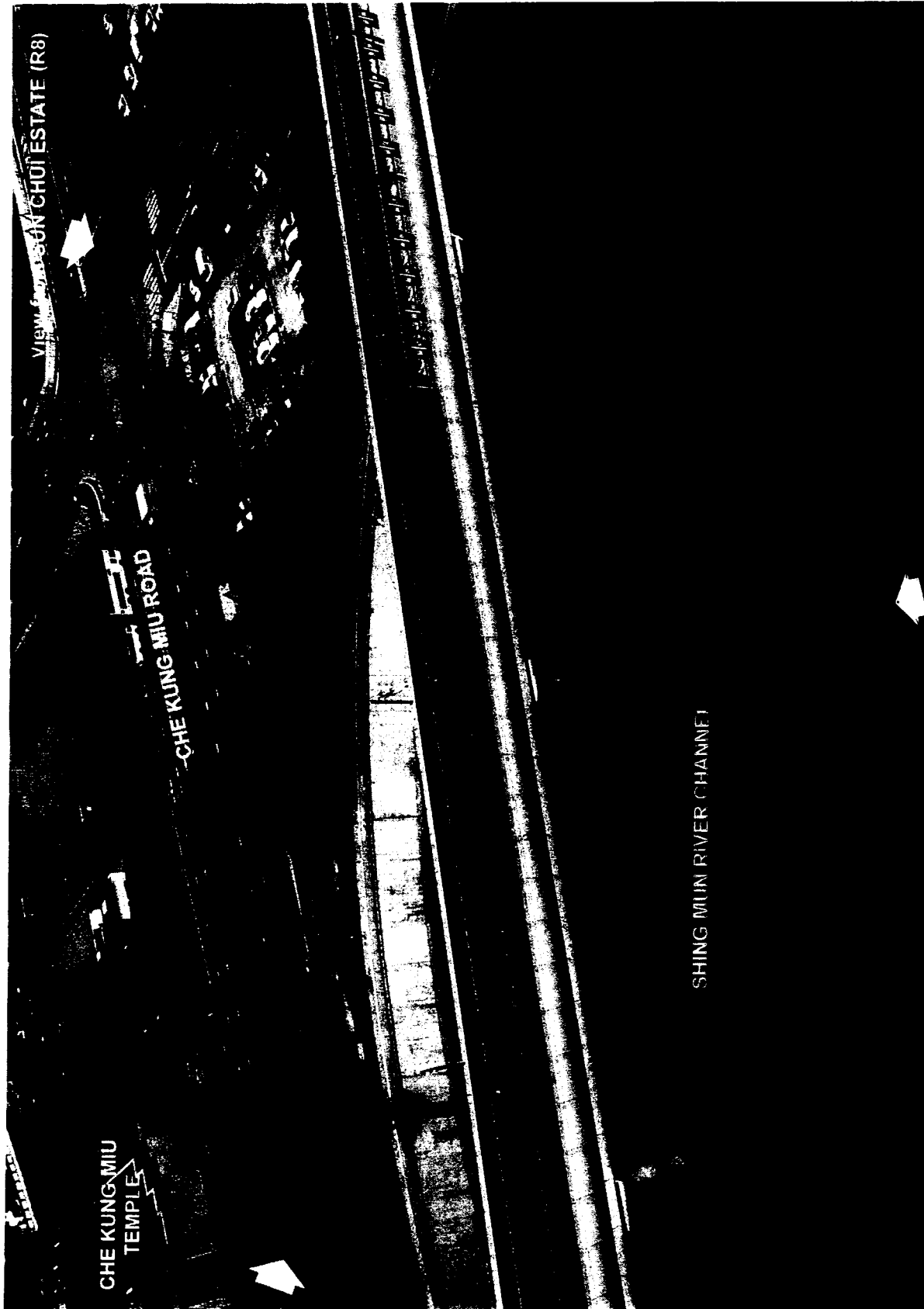


**TWIN TRACK VIADUCT
NO NOISE BARRIERS**



FIGURE 8.6.1a
TYPICAL CROSS SECTIONS OF TWIN TRACK DECKS





View from
CHUN SHEK
ESTATE
(R10)

View from MAN LAI COURT (R7)

Figure 8.6(2)
View of Viaduct at Shing Mun River Channel



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CHUN SHEK ESTATE (R10)

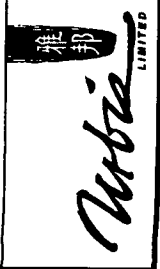
View from THE FOOTBRIDGE
ADJACENT TO MAN LAI COURT

View from
MAN LAI
COURT
(R7)

Figure 8.6(3)
View of Viaduct Showing Adjacent Chun Shek Estate



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nearby wooded mound, would experience low level visual impacts. The users of the adjacent road system would, by virtue of their transient nature, experience low levels of visual impact.

Thereafter, the track alignment passes over the Tsang Tai Uk Recreation Ground (O6), at the junction of Lion Rock Tunnel Road and Tai Chung Kiu Road, before running parallel to the east of Sha Kok Street on its way to Sha Kok Street Station. This recreation ground comprises six tennis courts, a full-size football pitch, a playground and several basketball courts. The affected facilities will be reprovided during the operational phase to a revised layout, within the existing boundary, so as to avoid the viaduct columns. Users of the Tsang Tai Uk Recreation Ground and the adjacent footpath/cycle track would experience a high level of visual impact. *Figure 8.6e* illustrates how the viaduct would appear over the playground after mitigation measures have been implemented. Medium levels of visual impact would be experienced by the residents at the low-rise north facing properties of Shan Ha Wai, also known as Tsang Tai Uk (R53).

Development of the proposed railway track between Tsang Tai Uk Recreation Ground and Sha Kok Street would involve construction of a viaduct which passes over a series of open spaces (O10) to the south of Sha Kok Street. These open spaces contain two basketball court, a large car park and two separate parks/ sitting areas. Existing car park and ball courts will be re-opened at the operational phase.

Staff and pupils of the SA Tin Ka Ping Secondary School (E4) on Sha Kok Street, to the south of the station, would experience medium levels of visual impact due to their proximity to the viaduct. Staff and pupils of the two educational institutes on Sha Kok Street to the north of the alignment: LST Chan Cho Chak Primary School and Immaculate Heart of Mary College (E3) would experience low levels of visual impact.

High level of visual impacts would be experienced by the lower levels of the north-west section of Pok Hong Estate (R12), south-west section of Jat Min Chuen (R13). Medium levels of impacts would be experienced by the middle levels of the north-west section of Pok Hong Estate, and lower levels of the south-west of Sha Kok Estate (R14). Low levels of impacts would be experienced by the middle levels of the south-west section of Sha Kok Estate and Jat Min Chuen.

The south-east section of Pok Hong Estate, north-west section Jat Min Chuen and Sha Kok Estate would experience negligible levels of visual impact, as would residents at the upper levels of the north-west section of Pok Hong Estate, the south-west section of Jat Min Chuen and Sha Kok Estate. The users of the Pok Hong Estate Market (C2) would experience a negligible level of visual impact. Pedestrians/ cyclists along Sha Kok Street would experience low levels of visual impact. Users of the surrounding road system would, by virtue of their transient nature, experience low levels of visual impact. *Figure 8.6(4.1-4.3)* illustrates how the viaduct would appear at Sha Tin Tau and adjacent to Jat Min Chuen before, upon and 10 years after implementation of the proposed mitigation measure.

Sha Kok Street Station to City One Station and the track alignment between Sha Kok Street Station and City On Station (Refer to Figure 8.6b)

Sha Kok Station would be located within the grassed reserve immediately to the south of Shiu Chuen Au Street, and adjacent to the existing footbridge across Sha Kok Street. The proposed station platform would be at approximately 16.5m PD. The existing footbridge and the existing bus terminus would be maintained during the operational period. The residents adjacent to the station at Pok Hong Estate and Sha Kok Estate would experience low to negligible level of visual impacts, the level of impact experienced by residents who live closer to the station would be higher. Users of the bus terminus at Sha Kok Street (T14) would experience a low level of visual impact.

After leaving the station site, the track alignment passes over Shui Chuen Au Street and passes along a large linear and well vegetated open space on its way to Sha Tin Wai Road. The column for the viaduct would be located within the open space. Thereafter, the track alignment passes over Sha Tin Wai Road, and the Kong Pui Street Rest Garden (O3). The proposed viaduct deck will be at approximately 17.2m PD as it passes the Kong Pui Street Rest Garden. The viaduct's supporting columns would be located within the rest garden and the adjacent Fung Shui Hill, where six graves are located on the western edge of the mound. However, all graves would be maintained during the operational phase.

Residents at the lower levels of Shatin Park (R18) would experience a high level of impacts. Residents at the middle level of the same development would experience a medium level of impacts. The users at the Sha Tin Wai Playground (O11), and the residents of Sha Tin Wai (R16) would experience a low degree of visual impact. Residents at the upper levels of Shatin Park, and of the south facing properties of Greenwood Garden (R17) would experience negligible levels of impact. Users of the rest garden and the adjacent Fung Shui Hill (O3) would experience low levels of visual impact, as would the pedestrians and cyclists at the junction of Sha Tin Rural Committee Road and Sha Kok Street. The staff and customers at the petrol stations would experience negligible level of impact. *Figures 8.6(5.1-5.3)* illustrate how the viaduct would appear in the vicinity of the Fung Shui Hill before, upon and 10 years after the implementation of the proposed mitigation measures.

The proposed track alignment then proceeds north-east passes over the China Light and Power Substation (C/I1) located to the east of Wong Uk Village (R19) and then on over Shatin Road and its well-vegetated embankment. The proposed track will be at approximately at 21.2m PD as it passes over Shatin Road. Thereafter, the alignment passes over a small open space and the bus terminus at Ngan Shing Street. The bus terminus and the access road will be maintained during the operational phase.

Residents at the lower levels of Green Leaves Garden (R20) would experience a high level of impacts. This section of track would generate medium levels of visual impact for the residents occupying the low-rise north facing properties within Wong Uk Village, and the middle levels of Green Leaves Garden (R20). *Figure 8.6(6.1-6.3)* illustrate how the

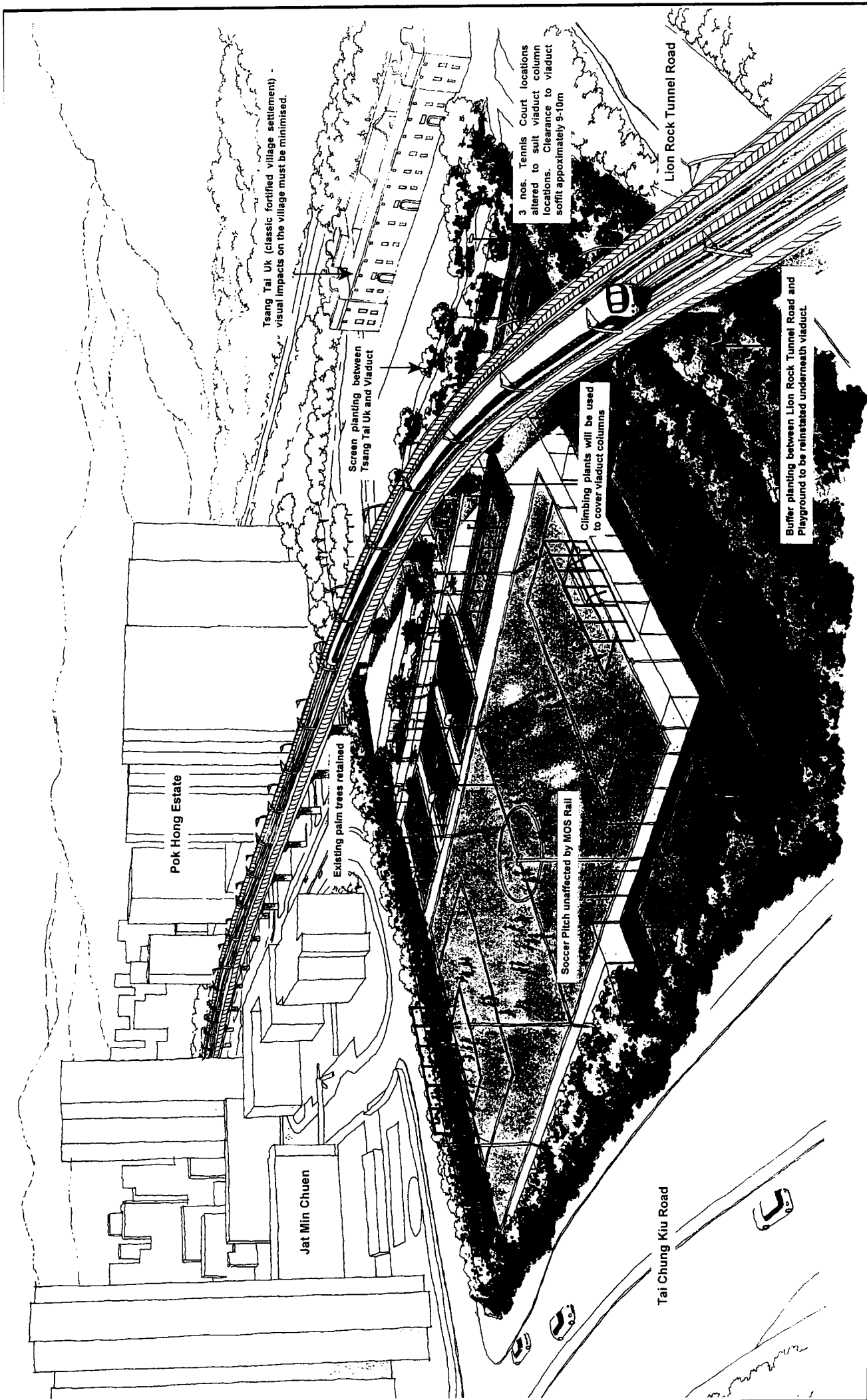
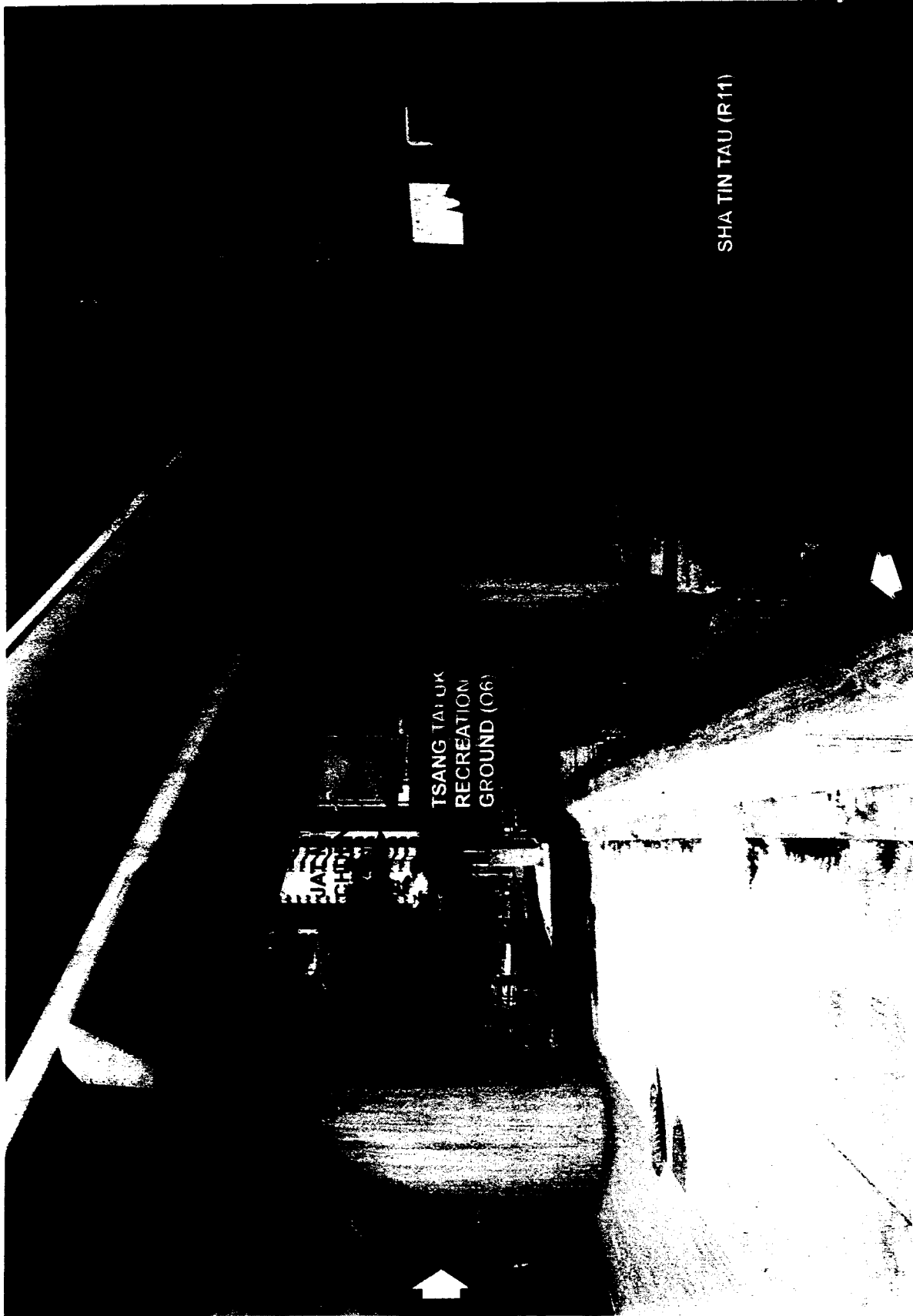


FIGURE 8.6e
VIEW OF VIADUCT AT TSANG TAI UK PLAYGROUND



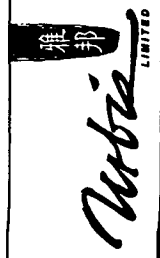
View from CHUN SHEK ESTATE (R10)

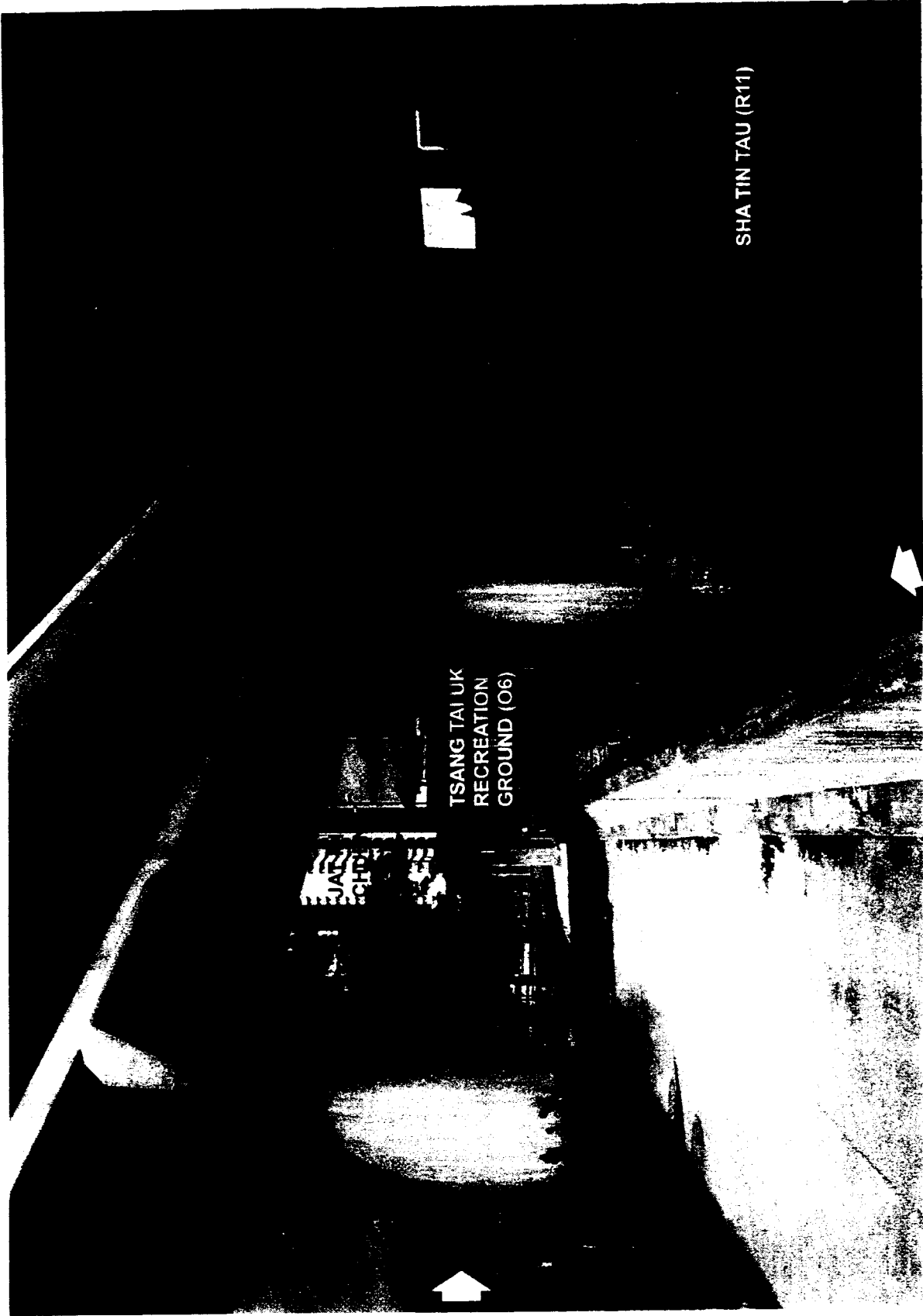
Figure 8.6(4.1)

View of Viaduct Showing Adjacent Jat Min Chuen Before Mitigation



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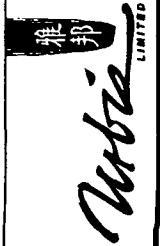




View from CHUN SHEK ESTATE (R10)

Figure 8.6(4.2)

View of Viaduct Showing Adjacent Jat Min Chuen Day One After Mitigation



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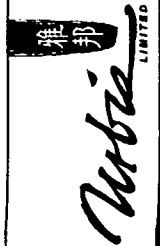
View from
SHING MUN
RIVER

SHA TIN TAU (R11)

View from CHUN SHEK ESTATE (R10)

Figure 8.6(4.3)

View of Viaduct Showing Adjacent Jat Min Chuen 10 Years After Mitigation



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View from
GREEN
LEAVES
GARDEN
(R20)

Figure 8.6(5.1)
View of Viaduct at Fung Shui Hill Before Mitigation



View from
GREEN
LEAVES
GARDEN
(R20)



Figure 8.6(5.2)
View of Viaduct at Fung Shui Hill Day One After Mitigation



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View from
GREEN
LEAVES
GARDEN
(R20)

POK HONG
ESTATE (R12)

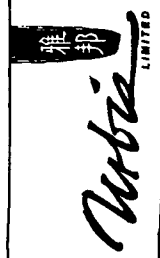
FUNG SHUI
HILL

WONG
TSUEN (R1a)

Figure 8.6(5.3)

View of Viaduct at Fung Shui Hill 10 Years After Mitigation

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WONG UK TSUEN (R19)

SHA TIN
PARK (R18)



Figure 8.6(6.1)
View of Viaduct at Wong Uk Village Before Mitigation



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WONG UK TSUEN (R19)

SHA TIN
PARK (R18)



Figure 8.6(6.2)
View of Viaduct at Wong Uk Village Day One After Mitigation



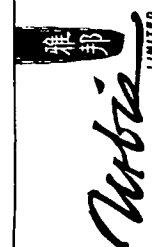
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WONG UK TSUEN (R19)

SHA TIN
PARK (R18)



**Figure 8.6(6.3)
View of Viaduct at Wong Uk Village 10 Years After Mitigation**



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viaduct would appear at Wong Uk Village before, upon and 10 years after the implementation of the proposed mitigation measures. The users of the open space adjacent to the Ngan Shing Street Bus Terminus (O9) would also experience a medium level of visual impact. Low levels of visual impact are predicted for staff at the CLP Electric Substation, and users and staff of the medical facilities along this section of track alignment, namely the Prince of Wales Hospital (M6), the Caritas Care & Attention Home (M5), the Pamela Youde Child Assessment Centre & Dental School, and Yuen Chau Kok Clinic (M7). The visual impact experienced by the residents, staff and patients of the lower floors of these buildings would be slightly higher. Other Visually Sensitive Receivers along this section of the alignment that would experience a low level of impact would be the pedestrians, cyclists, and users of the bus terminus at Ngan Shing Street (T5) and the adjacent facilities. Users of the surrounding road system would, by virtue of their transient nature, experience low levels of visual impact. Pedestrians and cyclists at the junction of Sha Tin Rural Committee Road and Sha Tin Road would experience negligible levels of visual impact. The residents at the upper levels of Green Leaves Garden would also experience negligible levels of visual impact.

City One Station to Shek Mun Station and the track alignment between City One Station and Shek Mun Station (Refer to Figure 8.6b)

The proposed development of City One Station is in a long linear reserve set aside for the MOS Extension. The area is predominantly hard-paved and used as a temporary plant nursery. The proposed station development will be at approximately 14.2m PD. For the operational phase, a proposed footbridge would pass over Chap Wai Kon Street.

Medium levels of visual impact are predicted for the residents at the lower levels of Yue Tin Court, the south-east section of City One Shatin and the future residents at the proposed residential development at the junction of Chap Wai Kon Street and Ngan Shing Street (R57). Users of the Yue Tin Court Playground (O12) and residents at the middle levels of Yue Tin Court (R21), south-east section of City One Shatin (R22), and the proposed residential development (R57) would experience low levels of visual impact. The staff and pupils of Lam Kau Mow Secondary School and Tung Wah Group of Hospitals and Yow Kam Yuen Pre-vocational School (E6) would also experience low levels of impact. Negligible levels of impact are predicted for the residents at the upper levels of Yue Tin Court, south-east section of City One Shatin, and the proposed residential development (R57). Residents at north-west section of City One Shatin would also experience negligible levels of impact. Negligible levels of visual impact are also predicted for employees at the Shatin Industrial Centre (I1) and staff at the Chap Wai Kon Street Fire Station (M14). Other Visually Sensitive Receivers at the station development that would experience a low level of visual impact during the operational phase would be the pedestrians and the cyclists. Users of the surrounding road system would, by virtue of their transient nature, experience low levels of visual impact.

Between the sites for City One Station and Shek Mun Station the railway will pass on viaduct over the junction of Chap Wai Kon Street and Siu Lek Yuen Road before proceeding in the north-easterly direction over a section of Siu Lek Yuen Playground

(O13) and Siu Lek Yuen River Channel both of which run perpendicular to the alignment. The proposed viaduct will be at approximately 15.0m PD as it passes over the Siu Lek Yuen River Channel. A pedestrian/ vehicular bridge over the Siu Lek Yuen River Channel is currently under construction, which would be parallel to the proposed track alignment.

Users of the playground on the western side of the river channel would experience negligible levels of visual impact. Residents of Ravana Garden (R23), to the distant north, and the Shatin Industrial Areas to the distant south would experience a negligible level of visual impact during the operational phase.

Shek Mun Station to Chevalier Garden (Refer to Figure 8.6c)

The site of Shek Mun Station comprises three hard paved areas. The southern and central part of the area that located on both sides of On Muk Street are currently used for the storage of trucks and containers. Across On Lai Street, the northern part of the site is currently used by the Highways Department as a construction compound. The proposed station development would be at approximately 15.0m PD. A section of On Muk Street and On Kwan Road would be reconstructed, and the end section of On Lai Street at the junction of On Ming Street would be closed permanently during the operational phase.

A concentration of industrial buildings within the Shek Mun Industrial Area is located several hundred metres to the west and would part screen the development for residents located at the northern end of City One Shatin. Therefore, the proposed station would general a negligible level of visual impact on the north-east section of City One Shatin to the distant west. Users of the nearby industrial buildings (I2), by nature of their daily work, would experience negligible levels of visual impact. A residential development is zoned at the vacant land adjacent to the station. Medium level of impact is predicted to the future residents at the lower levels. Low level of impact is predicted to those live at middle levels, and negligible level of impact is predicted to those live a upper levels. Visually Sensitive Receivers of the proposed station also include the pedestrians, and nearby road-users who are predicted to experience negligible to low levels of visual impact. Users of the surrounding road system including vehicles on the Tate's Cairn Highway would, by virtue of their transient nature, also experience negligible to low levels of visual impact.

After leaving Shek Mun Station, the proposed track alignment would veer due north to join the Tate's Cairn Highway. The railway would pass on viaduct over the 12m wide grassed reserve that is located along the centre of the highway from this point until the track alignment reaches Chevalier Garden Station. The proposed viaduct deck would be at approximately 18.2m PD as it joint the Highway. It then descends gradually down to approximately 7.2m PD to meet the level of the highway at a point close to the roundabout adjacent to Pictorial Gardens. It then remains at the level of highway until it passes underneath the road flyover system located to the north-east of Shatin Fisherman's Village. Figures 8.6 (7.1-7.2) illustrate how the track alignment appears at Tate's Cairn Highway. Thereafter, the track alignment climbs to approximately 10.0m PD as its passes



Figure 8.6(7.1)
View of Tate's Cairn Highway



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View from SHEK MUN
INDUSTRIAL AREA (I2)



View from
RAVANA
GARDEN
(R23)

View from
GARDEN
VISTA
(R24)

View from PICTORIAL GARDEN (R25)

Figure 8.6(7.2)
View of Viaduct and the Noise Barrier at Tate's Cairn Highway

over the nullah which run perpendicular to the Tate's Cairn Highway. From there it continues up to approximately 13.4m PD as it passes over Hang Shun Street located approximately 80m to the north of the Chevalier Garden Station site. The currently vacant site at the Tolo Highway Interchange is earmarked to be a community facility, although it would be temporary works area during construction phase.

Visually Sensitive Receivers along this section of the proposed alignment who would experience a low degree of visual impact would be the residents at the middle levels of Garden Vista (R24), the lower and middle levels of Pictorial Garden (R25) phase II and III, at the northern end of On King Street as well as the users of Shatin Hospital (M10). Negligible levels of visual impact are predicted to be experienced by the residents at the lower and upper levels of Garden Vista, the upper levels of Pictorial Gardens. An existing noise barrier is located along the Shatin Fishermen's New Village (R26) and the residents of the village would also experience negligible levels of visual impact. The users of the Cheshire Home (M9) to the distant east would therefore experience negligible levels of visual impact, as would the residents at Cover Hill (R47) to the distance north-west, across the Shing Mun River Channel. Pedestrians and cyclists using the Tate's Cairn Highway and travelling adjacent to the Shing Mun River Channel would experience negligible levels of visual impact. Users of the surrounding road system would, in spite of the relatively transient nature of their view, experience low levels of visual impact as the proposed track alignment would be clearly visible. Pedestrians and cyclists on Sai Sha Road would experience negligible levels of visual impact.

Chevalier Garden Station to Heng On Station (Refer to Figures 8.6c and 8.6d)

The proposed development of the Chevalier Garden Station within a well-grassed central reserve, would represent a low level landscape impact. The proposed station would be at approximately 18.25m PD. A large scale residential development is currently under construction to the south of the proposed station. A proposed pedestrian subway underneath both Hang Tak Street and Ma On Shan Road would be provided at the operational phase.

Medium levels of visual impact are predicted for the future residents at the lower and middle levels of the proposed residential development (R29) adjacent to the proposed station, which is currently under construction. Low levels of visual impact are predicted for the users of the Ma On Shan Tsung Tsim Secondary School (E7), as well as on the residents of low-rise properties of Tai Shui Hang (R27) which is located in a nearby side valley. This is on account of the visual screening provided by nearby landform and vegetation. Negligible levels of visual impact are predicted for the residents of Chevalier Garden (R28). Negligible level of impacts are also predicted for future residents at the upper levels of the proposed development (R29). A residential development (R55) is zoned adjacent to the proposed residential development which is currently under construction (R29). Medium level of impact is predicted to the future residents live at the lower levels, low level of impact is predicted to those live at the middle levels, and negligible level of impact is predicted to those live at the upper levels. Pedestrians and cyclists in this section of the alignment also would experience low levels of visual

impacts. Users of the surrounding road system would, in spite of the transient nature of their views and the presence of an intertwining system of highway flyovers located to the north of Chevalier Garden Station, experience low levels of visual impact. This is because the proposed structure would continue along a long stretch of highway and its location at high level would impinge on views of a relatively open and attractive landscape.

The proposed track alignment then passes over the Ma On Shan Road and joins the Sai Sha Road where it again follows a wide central reservation set aside for the MOS Extension and from there onwards to the site of the Heng On Station. The viaduct deck would be at approximately 23.4m PD as it joins the Sai Sha Road. It then descends gradually down to approximately 17.6m PD as it passes over the roundabout at the junction of Sai Sha Road and Hang Fai Street, which is located south of Heng On Station. This section of the track alignment passes a vacant site which was formerly Shing On T.H.A A residential development (R48) is zoned at the vacant site. Medium level of impact is predicted to the future residents live at the lower levels, low level of impact is predicted to those live at the middle levels, and negligible level of impact is predicted to those live at the upper levels. The track alignment then passes a series of zoned open spaces on both sides of Sai Sha Road. Users of the surrounding road system of Sai Sha Road would experience low level of visual impacts.

Heng On Station to Ma On Shan Station (Refer to Figure 8.6d)

Heng On Station, with its platforms at approximately 15.7mPD, would be developed within the 15m wide vegetated central reserve of Sai Sha Road. A proposed footbridge between Heng On Station and the Heng On Estate will be provided for the operational phase.

The residents at the lower and middle levels of the Vista Paradise (R31) and the west section of Heng On Estate (R30), the new residential development to the north-west of the proposed station would experience medium to low levels of visual impact. These visual impacts would be generated, not only by the proposed station, but also by the proposed associated footbridges. The staff and pupils of the Chinese YMCA College (E8) would experience a low level of visual impact. People living at the upper levels of the west section of Heng On Estate, and the east section of Vista Paradise would experience negligible level of impacts, as would the residents of the east section of Heng On Estate, and the west section of Vista Paradise. The pedestrians and cyclists would experience low levels of visual impacts. Users of Sai Sha Road, which will run directly under the route of the viaduct, would also experience a low level of visual impact at during the operational period.

After leaving the station, the proposed track alignment then continues north along the central reserve towards Ma On Shan Station, and would pass over the existing footbridge adjacent to the Toi Shan Association Memorial School on Sai Sha Road at approximately 21.5m PD. Thereafter, the track alignment passes over Hang Hong Street at

approximately 20.0mPD. and then over the junction of On Luk Street and On Yuen Street.

The staff and pupils of Toi Shan Association Memorial School (E9) would experience medium levels of visual impact. Medium levels of visual impacts are also predicted for residents at the middle levels of Chung On Estate (R32), and the lower and middle levels of Fok On Garden (R37). Low level visual impacts are predicted to be experienced by the future users of the proposed sport stadium (M16) development, formerly the Hing On T.H.A., that is currently under construction, as well as the residents at the lower and middle levels of Kam Fung Court (R33), the west facing properties of Kam Hay Court (R56), the users of the adjacent Chung On Shopping Centre (C3), and users of the On Luk Street Rest Garden located at the junction of On Luk Street and On Yuen Street (O4). Visually Sensitive Receivers within this section of the proposed alignment who would experience a negligible degree of impact would be the students and staff of the Tsang Pik Shan Secondary School, the Fun Yiu King Memorial School, and the FDBWA Mrs Fung Ping Shan Primary School (E10), together with residents of Yiu On Estate (R34) to the east. Residents at the lower and upper levels of Chung On Estate, and the upper levels of Kam Fung Court and Fok On Garden would also experience a negligible level of impacts. Users of Sai Sha Road, which runs directly under the route of the viaduct, would experience a low level of visual impact during the operational period.

Ma On Shan Station to Lee On Station (Refer to Figure 8.6d)

Development of the Ma On Shan Station will be within the 15m to 25m wide central reserve of Sai Sha Road that has been set aside for this purpose. The proposed station platform would be at approximately 23.3mPD, and the proposed track alignment would pass over the existing footbridge between Sunshine City (C/R3) and Tolo Place (R38). A proposed footbridge would connect the station with the commercial/residential development of Sunshine City and Bayshore Towers (C/R2). It is unlikely that there will be any impact on the two existing pedestrian footbridges that cross Sai Sha Road in this area. *Figures 8.6(8.1-8.3) and 8.6(9.1-9.3)* illustrate how the station and viaduct would appear at Sai Sha Road before, upon, and 10 years after implementation of mitigation measures.

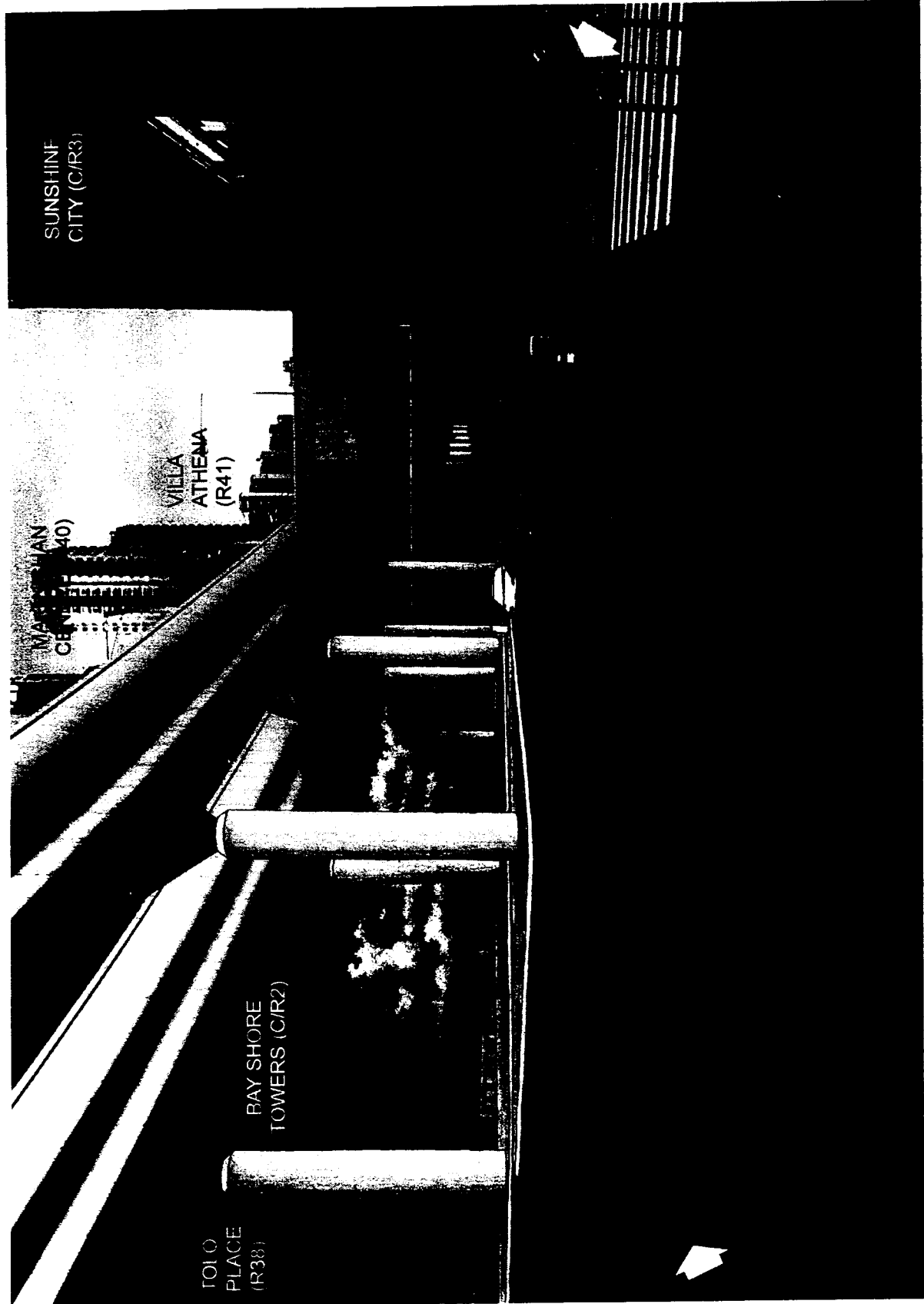
Due to their proximity to the railway reserve, a high visual impact is predicted for the residents at the lower levels of Ma On Shan Centre (R40). Medium visual impacts are predicted for residents at the lower levels of the developments adjacent to the proposed station and track alignment along Sai Sha Road, these include the residents of Bayshore Towers, Tolo Place, and Fu Fai Garden (R36). Medium levels of visual impact are expected to be experienced by residents who live on the middle levels of these developments, these include Bayshore Towers, Fu Fai Garden, Tolo Place, Ma On Shan Centre, and the north section of Sunshine City. Visually Sensitive Receivers who would experience a negligible degree of visual impact from the proposed station would be the residents at the upper levels of the development adjacent to the proposed station. These include Bayshore Towers, Sunshine City, Fu Fai Garden, Tolo Place and Ma On Shan Centre. The residents at the south section of Sunshine City would experience negligible

level of impact. The staff and pupils of the YCH Tung Chi Ying Memorial Secondary School and the TWGH Wong Fung Ling College (E11) would also experience a negligible degree of visual impact. Pedestrians and cyclists would experience low level of visual impacts. Traffic on Sai Sha Road, which runs directly under the route of the viaduct, also would experience a low level of visual impact during the operational phase. *Figure 8.61-n* illustrate how the viaduct would appear at Ma On Shan Road Village before, upon and 10 years after the implementation of the proposed mitigation measures.

After leaving the station, the proposed track alignment within the well vegetated central reserve passes over the existing footbridge between Fu Fai Garden and Ma On Shan Centre at approximately 22.5m PD. From On Chiu Street, the track alignment passes through an area of residential properties at approximately 29.0m PD, these include Villa Athena (R41) to the north and Saddle Ridge Garden (R42) together with the Ma On Shan Health Centre (M17) and the greenbelt (O19) to the south. From Villa Athena to Lee On Estate, the railway would follow the crest of the hill on viaduct in between the lanes of Sai Sha Road. *Figure 8.6(10.1-10.3)* illustrates how the viaduct appear at Sai Sha Road before, upon and 10 years after implementation of mitigation measures. Thereafter, the track alignment then crosses Kam Ying Road along the central reserve, passing the Lee On residential estate which is located on the south-east of Sai Sha Road and also passing three villages located to the north-west of Sai Sha Road, these include the Wu Kai Sha New Village (R45), Kwai Po Lau (R35), and Lok Wo Sha. The viaduct deck would be at approximately 32.0m PD as it passes Kam Ying Road. Having reached the access road for the Lee On Estate, the track alignment veers due toward the site for Lee On Station.

Medium levels of visual impact are predicted for the residents at the lower and middle levels of Villa Athena, and Kam Lung Court. Low levels of visual impacts are predicted for the residents at the middle levels of the north section of Saddle Ridge Garden, as well as the low-rise south facing properties in Wu Kai Sha New Village, and the users at the Ma On Shan Health Centre and the adjacent greenbelt. Residents of the south section of Saddle Ridge Garden would experience negligible to low levels of visual impact. Residents at the upper levels of the north section of Saddle Ridge Garden, Villa Athena, and Kam Lung Court would also experience negligible levels of impact. Properties in Wu Kai Sha Youth Village (M11), the low-rise properties of Kwai Po Lau and Lo Wo Sha to the north would also experience negligible levels of visual impact. The pedestrians and cyclists travelling adjacent to this section of track alignment would experience low levels of visual impact. Traffic on the Sai Sha Road, which runs directly under the route of the viaduct, would also experience a low level of visual impact during the operational phase.

The Lee On Station development will be within the former borrow pit area. Limited excavation works would be required at this largely unvegetated site. The proposed station platform would be at approximately 24.35m PD. A proposed public transport interchange would be provided adjacent to the station at Sai On Street at operation period.



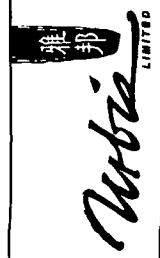
View from
YIU ON
ESTATE
(34)

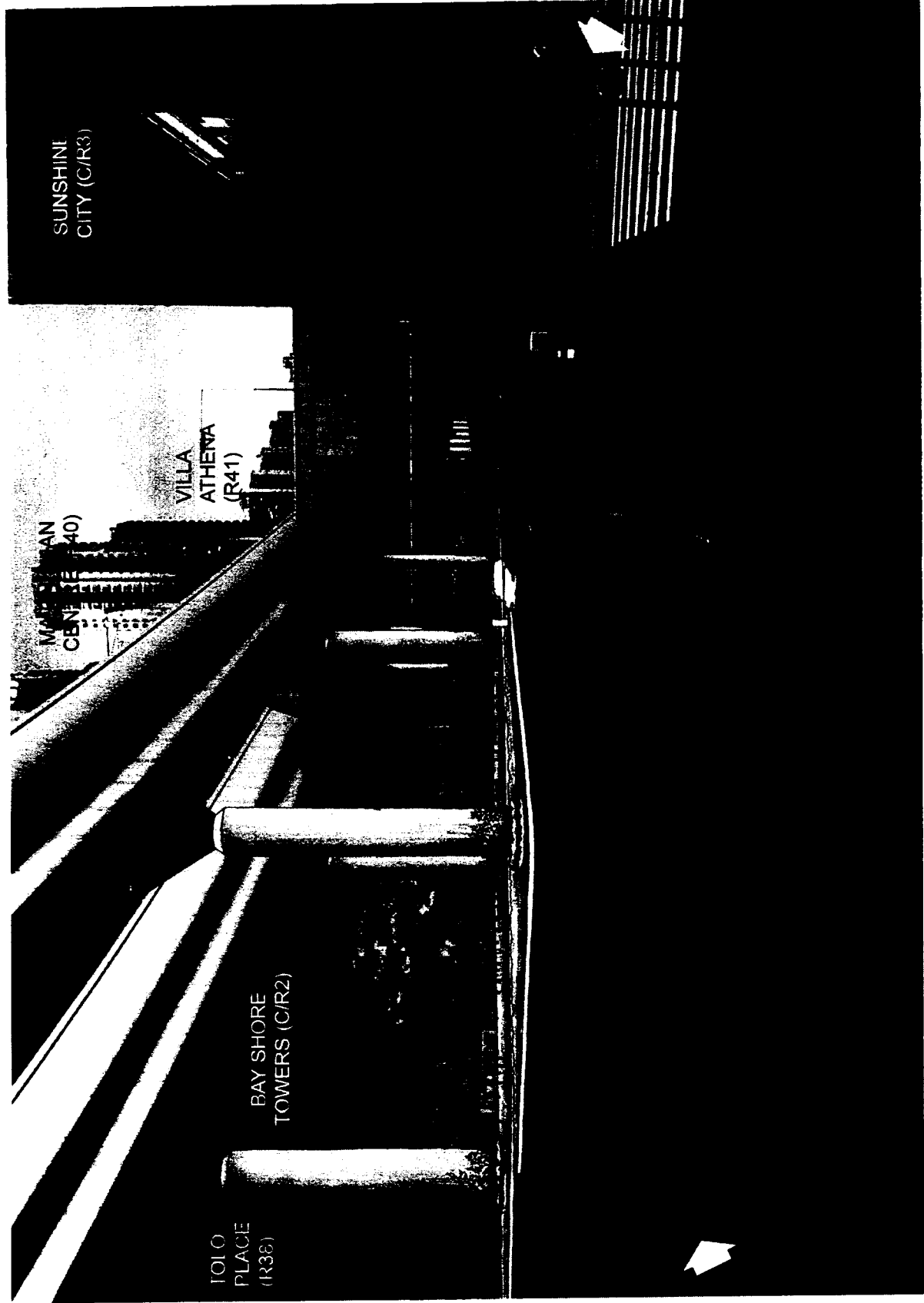
View from
CHUNG ON
ESTATE
(R32)

Figure 8.6(8.1)
View 1 of Viaduct at Sai Sha Road Before Mitigation



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JOLO PLACE
(R36)

BAY SHORE
TOWERS (C/R2)

MANTAN
CENTRE (40)

VILLA
ATHENA
(R41)

SUNSHINE
CITY (C/R3)

View from
CHUNG ON
ESTATE
(R32)

View from
YIU ON
ESTATE
(34)

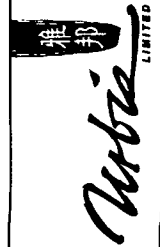
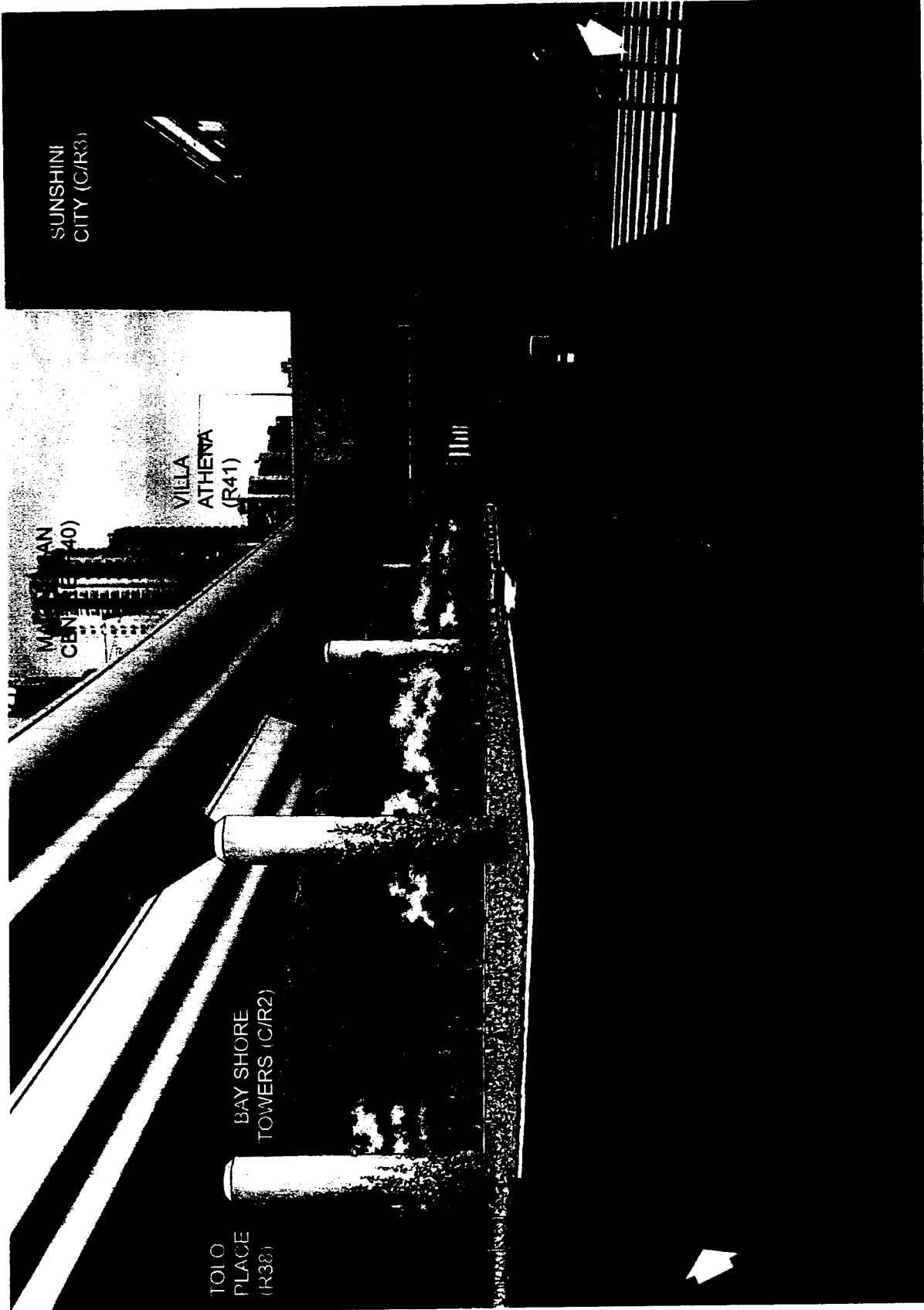


Figure 8.6(8.2)
View 1 of Viaduct at Sai Sha Road Day One After Mitigation



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SUNSHINE CITY (C/R3)

View from
YIU ON
ESTATE
(34)

MAY HAN
CENTRE (R40)

VILLA
ATHENA
(R41)

TOLO
PLACE
(R38)

BAY SHORE
TOWERS (C/R2)

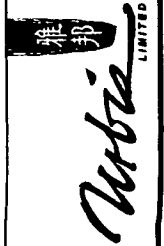
View from
CHUNG ON
ESTATE
(R32)



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Figure 8.6(B.3)
View 1 of Viaduct at Sal Sha Road 10 Years After Mitigation





View from
SADDLE RIDGE
GARDEN (R42)

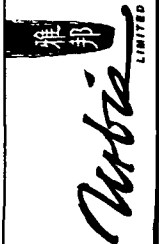
View from
VILLA ATHENA (R41)



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Figure 8.6(9.1)
View of Ma On Shan Station at Sai Sha Road Before Mitigation





View from
SADDLE RIDGE
GARDEN (R42)

View from
VILLA ATHENA (R41)



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Figure 8.6(9.2)
View of Ma On Shan Station at Sai Sha Road Day One After Mitigation





View from
SADDLE RIDGE
GARDEN (R42)

View from
VILLA ATHENA (R41)

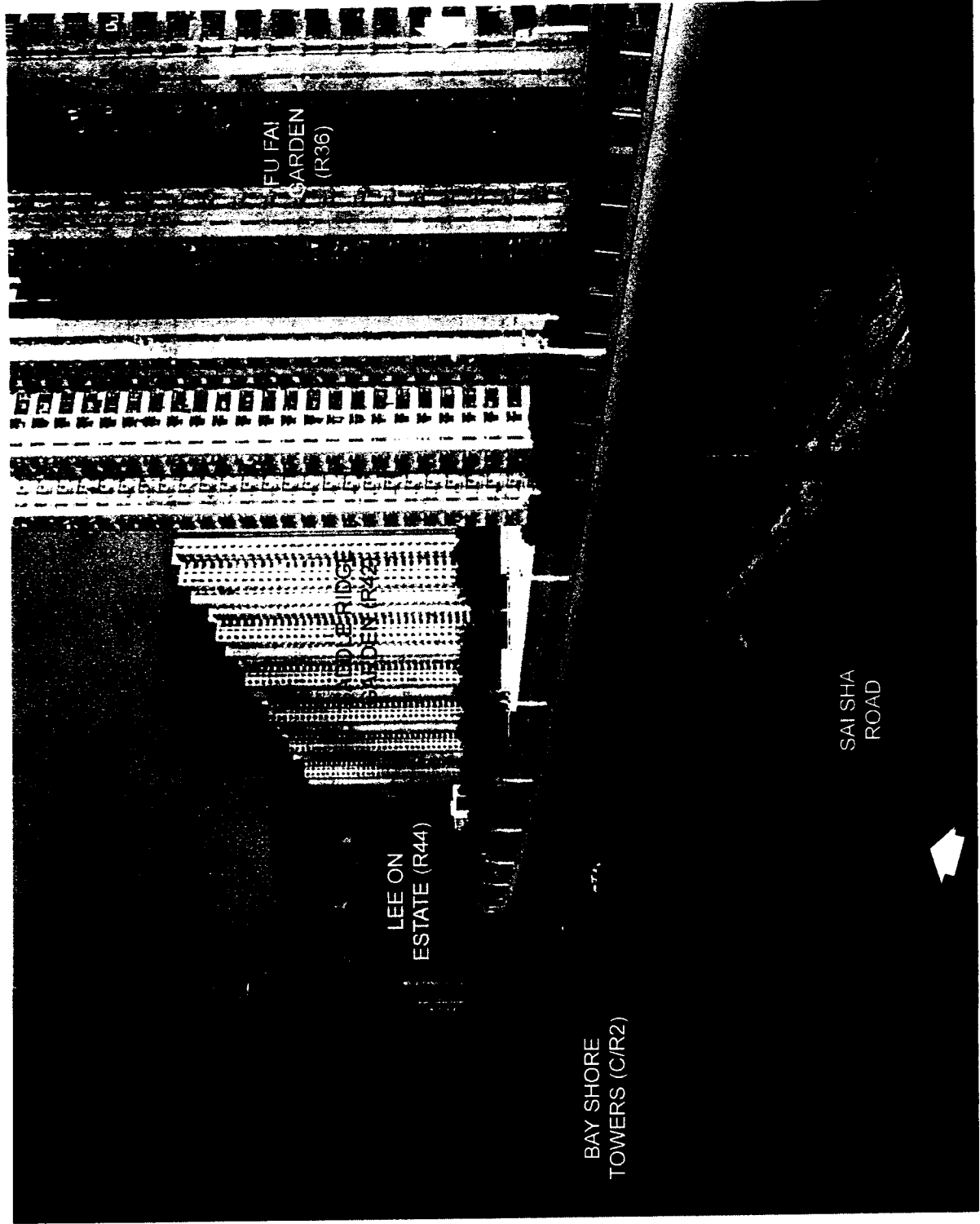


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Figure 8.6(9.3)
View of Ma On Shan Station at Sal Sha Road 10 Years After Mitigation





View from
SUNSHING CITY
(C/R3)

FU FAI
GARDEN
(R36)

LEE ON
ESTATE (R44)

BAY SHORE
TOWERS (C/R2)

SAI SHA
ROAD

View from BAY SHORE TOWERS (C/R2)

Figure 8.6(10.1)
View 2 of Viaduct at Sai Sha Road Before Mitigation



View from
SUNSHING CITY
(C/R3)

FU FAI
ARDEN
(R36)

SANDRIDGE
GARDEN (R42)

LEE ON
ESTATE (R44)

BAY SHORE
TOWERS (C/R2)

SAI SHA
ROAD

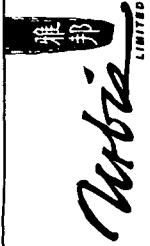
View from BAY SHORE TOWERS (C/R2)

Figure 8.6(10.2)

View 2 of Viaduct at Sai Sha Road Day One After Mitigation



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View from
SUNSHING CITY
(C/R3)

FU FAI
GARDEN
(R36)

SAID RIDGE
GARDEN (R42)

LEE ON
ESTATE (R44)

BAY SHORE
TOWERS (C/R2)

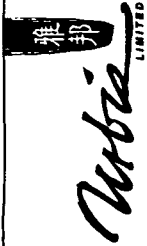
SAI SHA
ROAD

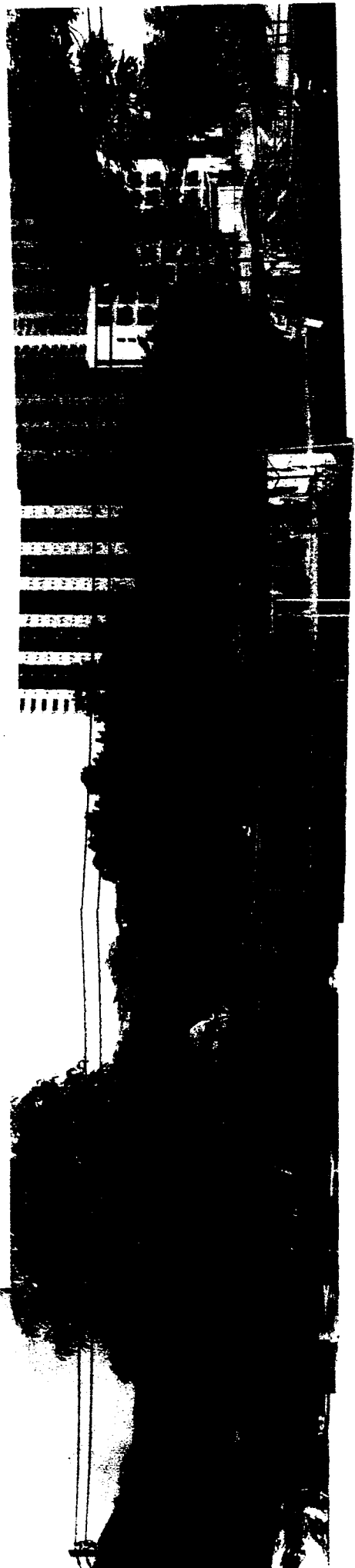
View from BAY SHORE TOWERS (C/R2)

Figure 8.6(10.3)
View 2 of Viaduct at Sai Sha Road 10 Years After Mitigation



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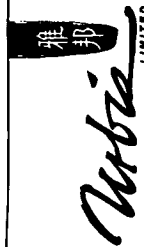
EXISTING CONDITION



10 YEARS AFTER IMPLEMENTATION OF MITIGATION MEASURE

FIGURE 8.6(13)

Before and After Views of the Viaduct from Tsang Tai Uk Village



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The residents at the lower and middle levels of the north section of the Lee On Estate (R44) would experience medium levels of visual impact. Residents at the middle levels of the new residential development (R46) on the southern hillside which is currently under construction would experience a low level of visual impact. People living at the south section of Lee On Estate, the upper levels of the north section, and the lower and upper levels of the proposed residential development (R46) would experience negligible levels of impact. A mixed commercial and residential development (C/R1) is zoned on top of the station development. Negligible level of impact is predicted to the future residents live at the lower levels, low level of impact is predicted to those live at the middle levels, and negligible level of impact is also predicted to those live at the upper levels. The future users of the proposed open space at Lok Wo Sha Lane would experience low level of impact. Future user of the Whiteheads Planning Area would experience negligible levels of visual impact. Students and staff of the Li Po Chun United World College (E13) and the residents at the low-rise development of Symphony Bay (R59) would also experience a negligible level of impact, as would users of the Ma On Shan Country Park (O15) to the distance south-east. Pedestrians and cyclists would experience low levels of visual impact. Users of the surrounding road system would experience low levels of visual impact due to their transient nature and the visual screening of the Lee On Station site that is provided by vegetation on the edge of the borrow area.

8.7 CONCLUSIONS

The proposed development would, in general, generate high impacts on the physical landscape due to the loss of amenity trees, particularly mature specimens. However, the Compensatory Planting Proposal prepared by the Corporations consultants would involve planting 3,600 trees which will largely compensate for this loss in the long term.

The proposed elevated stations, and viaducts would generate varying visual impacts on the surrounding areas and their populations depending on the horizontal and vertical proximity of the VSR's to the railway. A large proportion of the population live in flats that would be sufficiently elevated above the railway viaduct that they would not be able to see the railway unless they stood directly at their windows and looked straight down. Consequently they would suffer only low to negligible visual impact. On the other hand, VSR's in low-rise developments and the lower floors of high-rise developments would potentially suffer greater impacts due to an increased potential to see the railway from their homes.

However, there is a significant potential to mitigate the impacts on the lower floors of developments through the implementation of landscape and visual mitigation measures such as sensitive viaduct design, tree planting and climber planting against columns. It is considered that implementation of the proposed visual impact mitigation measures would reduce predicted impacts to acceptable levels and the railway would become an accepted part of the urban scene. Therefore it is considered that, in the terms of Annex 10 of the EIAO TM, that the landscape and visual impacts are acceptable with mitigation measures.