

SECTION B

4. EXISTING ENVIRONMENT AND SENSITIVE RECEIVERS

4.1 Noise

4.1.1 Baseline Conditions

From site inspections the existing ambient noise within each of the EPIW Study areas is dominated by local road traffic. Based on the general trend in Hong Kong for traffic flows to grow in the future as well as the planned growth for the North West New Territories, the existing noise baseline (i.e. without the EPIWs) would be likely to increase.

There are no major fixed industrial noises in the vicinity affecting the noise baseline and the existing LRT lines in Yuen Long, Tin Shui Wai and Tuen Mun generally influence localised corridors along the routes. These noise sources would, by design, be controlled at source by the stringent criteria given by the NCO to achieve acceptable levels at pre-existing sensitive properties. Subsequent property development would be required to implement appropriate mitigation through the planning approval process to meet the same criteria.

The planned West Rail alignment and future extensions of the LRT will also be strictly controlled by the NCO and EIAO and therefore it is concluded that that the baseline noise environment within the EPIWs will be dominated by road traffic noise.

4.1.2 Noise Sensitive Receivers

Representative NSRs, including existing properties and future developments, have been identified within a spatial scope of 300m from the Project boundaries and are shown by *Figures 4.1a-c*. The identified NSRs in Yuen Long, Tin Shui Wai and Tuen Mun Centre are listed in *Tables 4.1a-c* below and have been selected according to *Annex 13 (Guidelines for Noise Assessment)* of the EIA O TM.

4.1.2.1 Yuen Long

Table 4.1a - Identified Noise Sensitive Receivers in Yuen Long

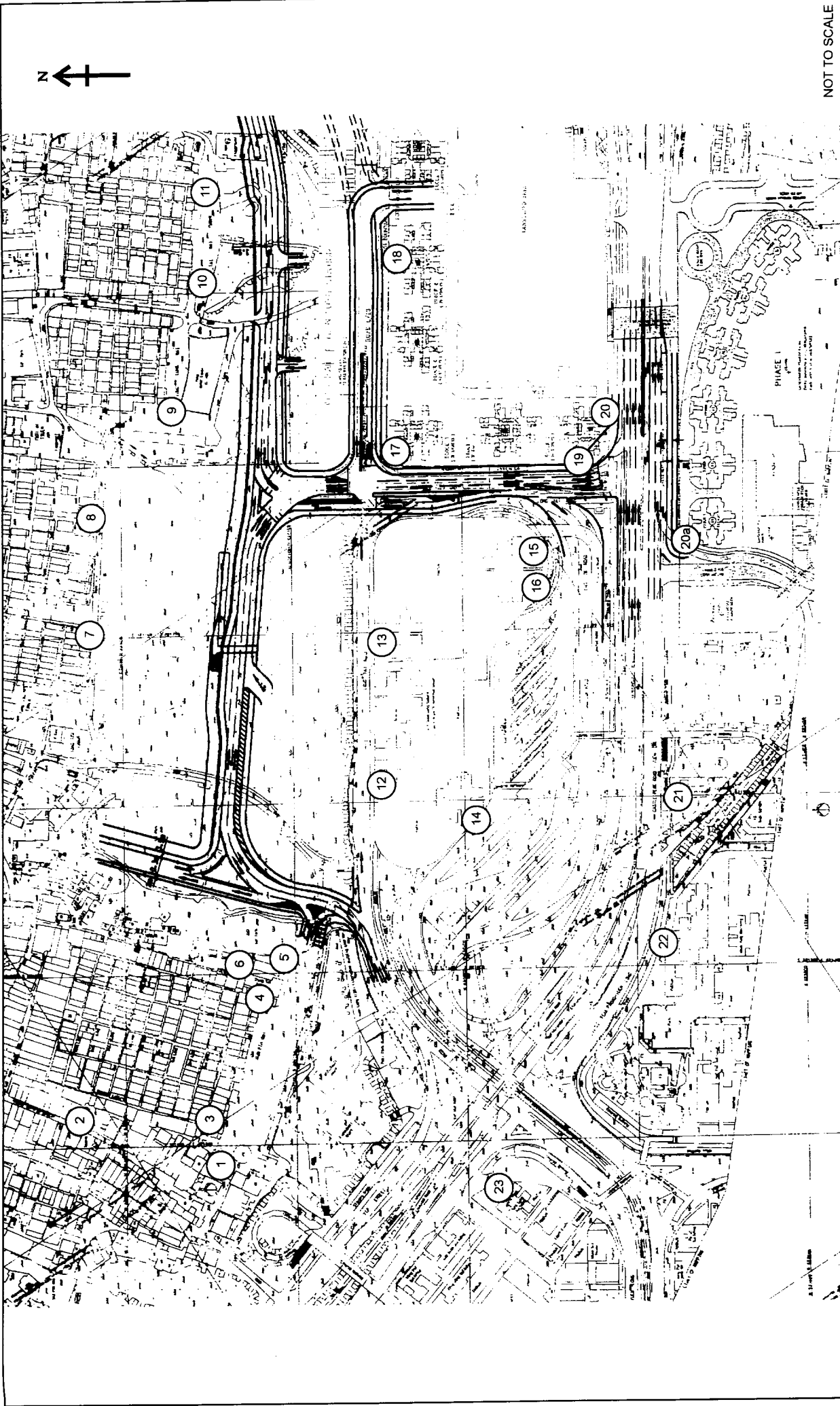
NSR	Description
1	Nam Pin Wai (west)
2	Tai Wong Temple - Nam Pin Wai
3	Nam Pin Wai (south-west)
4	Nam Pin Wai (south)
5	Shung Tak School

NSR	Description
6	Nam Pin Wai (east)
7	Tung Tau Tsuen
8	Tsoi Uk Tsuen
9	Ying Lung Wai
10	Tai Wai Tsuen (west)
11	Tai Wai Tsuen (east)
12	Sun Yuen Long Centre (north-west)
13	Sun Yuen Long Centre (north-east)
14	Sun Yuen Long Centre (west)
15	Sun Yuen Long Centre (south)
16	Sun Yuen Long Centre (south)
17	Future Residential Development Area 15 (north-west)
18	Future Residential Development Area 15 (north-east)
19	Future Residential Development Area 15 (south-west)
20	Future Residential Development Area 15 (south)
20a	Future Residential Development Area 12 (north)
21	Shap Pat Heung Rural Committee Building
22	Cheong Wai
23	Far East Consortium Yuen Long Building

The existing noise climate is dominated by the traffic on Castle Peak Road, Long Yat Road, Long Yip Street and Yuen Long On Lok Road. Without the project, the identified NSRs are affected mainly from traffic noise. In addition, noise from the LRT and the opened public transport interchange are also potential sources of noise which will contribute to the baseline environment.

The residential towers proposed above the future West Rail Yuen Long Station and PTI/CDA site have been excluded from this assessment as they will be designed with appropriate mitigation to ensure adverse road traffic noise impacts will not occur.

The CDA sites in Yuen Long Areas 15 and 12 which are surrounded by Castle Peak Road, Long Yat Road and Road 6/L3, have been planned for future residential development prior to the gazettal of West Rail (and the EPIWs). As such, these developments have been identified as NSRs. The extent of mitigation measures to be provided by the developer of these two sites in respect of the adjacent highways is based upon the latest Section 16 applications for these sites. With this information, this EIA will take account of these proposals and the planning criteria adopted during the approval of the site layout to recommend additional measures where required in accordance with *Planning, Environment and Lands Bureau Technical Circular no. 10/98: Procedures for EIA of Development Projects and Projects*, issued by Works Bureau in October 1998.



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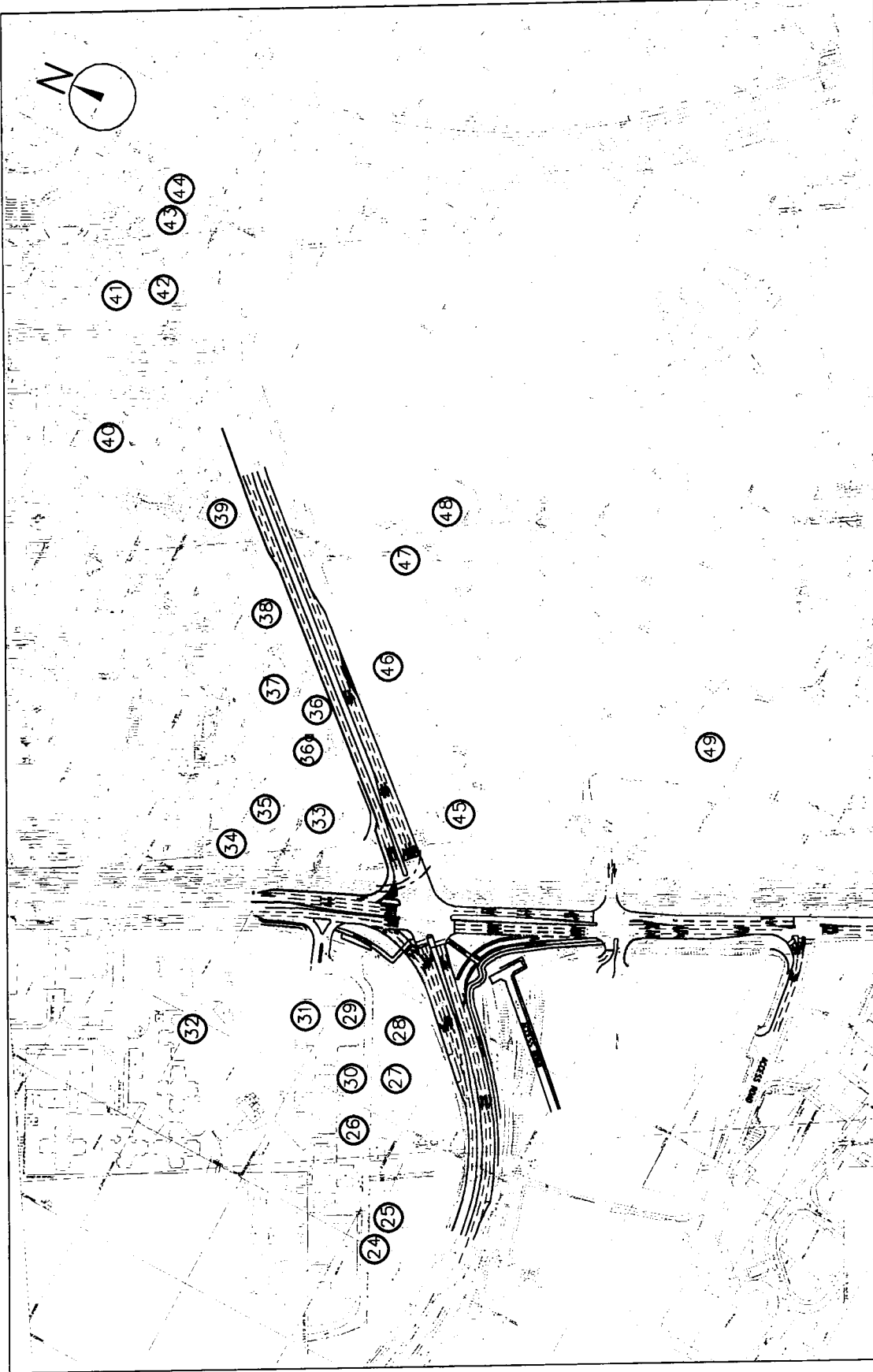
LOCATION OF NOISE SENSITIVE RECEIVERS IN YUEN LONG

FIGURE 4.1a



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LOCATION OF NOISE SENSITIVE RECEIVERS IN TIN SHUIWAI FIGURE 4.1b

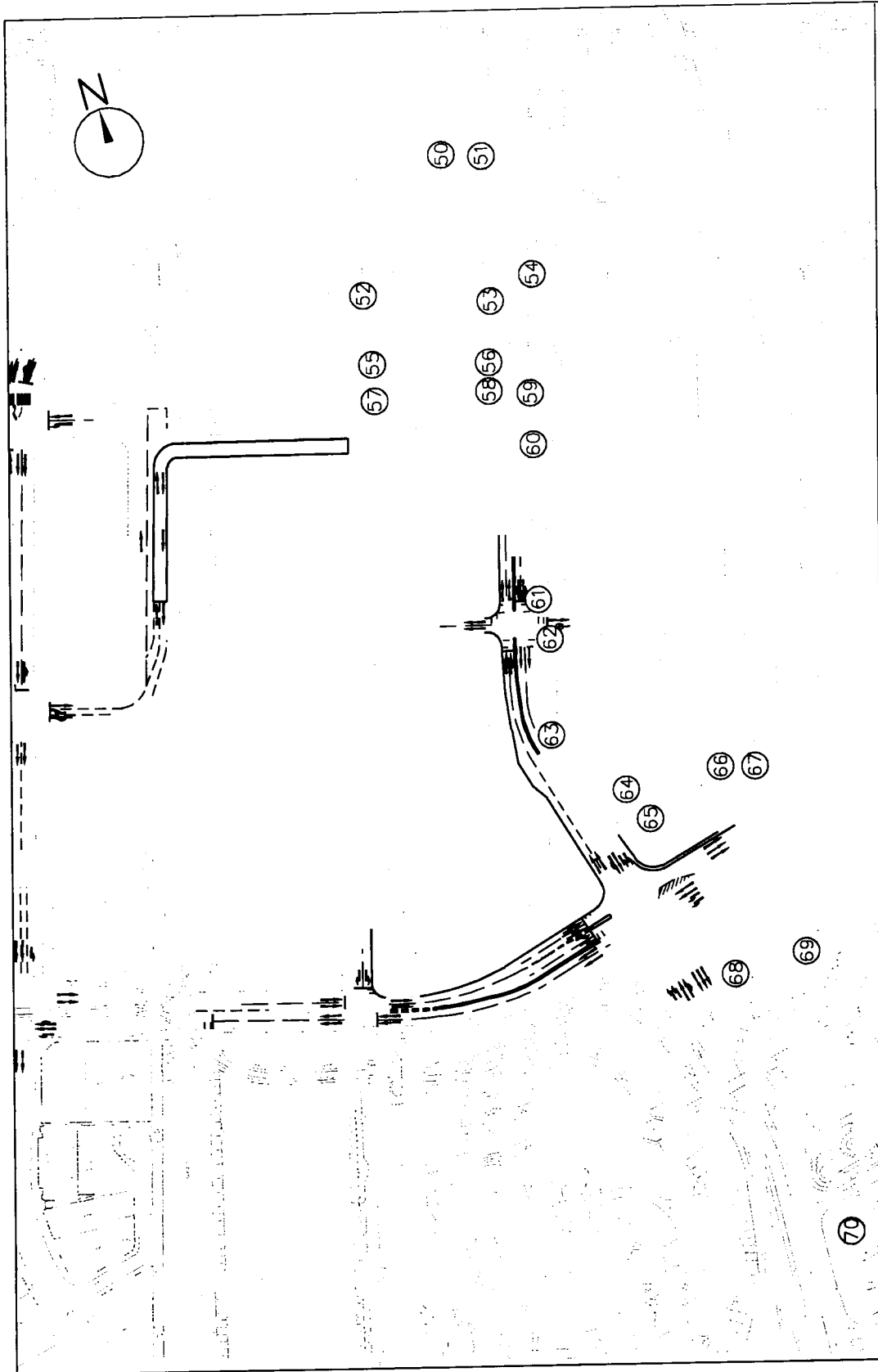
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LOCATION OF NOISE SENSITIVE RECEIVERS IN TUEN MUN CENTRE FIGURE 4.1c

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According to *KCRC West Rail EIA FAR*, noise insulation has been proposed for Shung Tak School during construction of West Rail to reduce the predicted noise impacts. Assessment of noise will also be made for this NSR to check the adequacy of the noise mitigation measures.

4.1.2.2 Tin Shui Wai

Table 4.1b - Identified Noise Sensitive Receivers in Tin Shui Wai

NSR	Description
24	Proposed Secondary School (west)
25	Proposed Secondary School (south)
26	Tin Shing Court (west)
27	Proposed Primary School
28	Proposed Primary School (east)
29	Tin Shing Court (east)
30	Tin Shing Court (south)
31	Tin Shing Court (east)
32	Tin Shing Court (north)
33	QE School Old Student's Association Primary School
34	Yiu Hong House (west)
35	Yiu Hong House (east)
36	Yiu Foo House (south) – Tin Yiu Estate
36a	Yiu Foo House (west) – Tin Yiu Estate
37	Yiu Foo House (north) – Tin Yiu Estate
38	Yiu Yat House – Tin Yiu Estate
39	Yau Hong House
40	Yau Ning House
41	Tin Tsz Estate (west)
42	Tin Tsz Estate (south)
43	Tin Tsz Estate (south)
44	Tin Tsz Estate (east)
45	TWGHs Kwok Yat Wai College
46	Residence in Ping Shan (west)
47	Residence in Ping Shan (north)
48	Residence in Ping Shan (east)
49	Sheung Cheung Wai

The main sources of noise in Tin Shui Wai originates from the traffic on Tin Fuk Road, Ping Ha Road, Tin Yiu Road and the LRT line. Existing NSRs are currently affected by these sources.

The proposed primary and secondary schools in Tin Shui Wai Area 3 (immediately north west of Ping Ha Road/Tin Yiu Road junction) have also been included in this assessment as NSRs. From information available from Education Department (ED), these schools have not, as yet, been planned with noise insulation.

However, TWGH's Kwok Yat Wai College will be provided with noise insulation by the Education Department (ED)/KCRC in connection with the construction of the Tin Shui Wai West Rail Station and for tackling the existing baseline traffic noise problems. Noise insulation and air conditioners were also noted at QE School Old Student's Association Primary School during a site visit. The adequacy of indirect measures adopted for these schools will be reviewed during the detailed design stage.

During the operational phase of the Project, NSR 46 (Residence in Ping Shan West) will be resumed for LRT extension development and this NSR has thus been taken out in subsequent assessment.

4.1.2.3 Tuen Mun Centre

Table 4.1c - Identified Noise Sensitive Receivers in Tuen Mun Centre

NSR	Description
50	Hong Lai Garden (west)
51	Hong Lai Garden (east)
52	Hong King Building
53	Bit Hing Building
54	Honeley Court
55	St Simon's Lui Ming Choi Secondary School (south-west)
56	St Simon's Lui Ming Choi Secondary School (south-east)
57	St Simon's Lui Ming Choi Secondary School (south-west)
58	St Simon's Lui Ming Choi Secondary School (south-east)
59	Tuen Mun Mansion
60	Tai Hing Building
61	Koon Hing Building
62	Ming Wai Building (north)
63	Ming Wai Building (south)
64	Castle Peak Catholic Primary School (west façade)
65	Castle Peak Catholic Primary School (south façade)
66	Top Court
67	Man Shing Building
68	Kam Wah Garden (west)
69	Kam Wah Garden (north)
70	The Trend Plaza

Existing NSRs are affected by the traffic noise from Pui To Road, Tuen Mun Road and Castle Peak Road. The LRT lines on both sides of Tuen Mun River Channel will also contribute to the background noise levels.

Following the gazettal approval for KCRC's development of the Tuen Mun Centre West Rail Station, the Ho Fuk Tong Primary School and those residences within the San Fat Estate will be resumed. These existing NSRs will therefore be excluded from this assessment.

With reference to *KCRC West Rail FAR*, noise insulation has been proposed for St Simon's Lui Ming Choi Secondary School during construction of West Rail to reduce the predicted noise impacts. In addition, this school will also be upgraded, and noise abatement measures will be provided by ED to address the existing baseline traffic noise issues. The adequacy of indirect measures adopted for this school will be reviewed during the detailed design stage.

4.2 Air Quality

4.2.1 Baseline Conditions

The existing landuses within the study areas of Yuen Long, Tin Shui Wai and Tuen Mun Centre include residential developments, schools and industrial premises. Recreational uses are also found in Tuen Mun.

In accordance with *EPD's Draft Guidelines for Local-scale Air Quality Assessment Using Models*, the monitored air quality data in the Yuen Long, Tin Shui Wai and Tuen Mun areas are classified as Rural/New Development categories. The concentrations of pollutants based on the annual average of EPD's fixed monitoring station for the years 1992 to 1996 have been calculated and the background air quality for Rural/New Development Areas are summarised in *Table 4.2a*. Background CO levels have not been provided in the guidelines and annual average CO data for 1996 of Kwai Chung Monitoring Station was used to indicate the CO background. This background data will be considered in the impact assessment for the operational phase of the EPIWs.

Table 4.2a Background Air Quality of Yuen Long, Tin Shui Wai and Tuen Mun Centre (μgm^{-3})

Pollutant	Annual Average
NO ₂ ⁽ⁱ⁾	39
RSP ⁽ⁱ⁾	51
TSP ⁽ⁱ⁾	87
CO ⁽ⁱⁱ⁾	490

Note:

(i) Data based on *EPD's Draft Guidelines for Local-scale Air Quality Assessment Using Models*

(ii) Monitored at Kwai Chung Monitoring Station

4.2.2 Air Sensitive Receivers

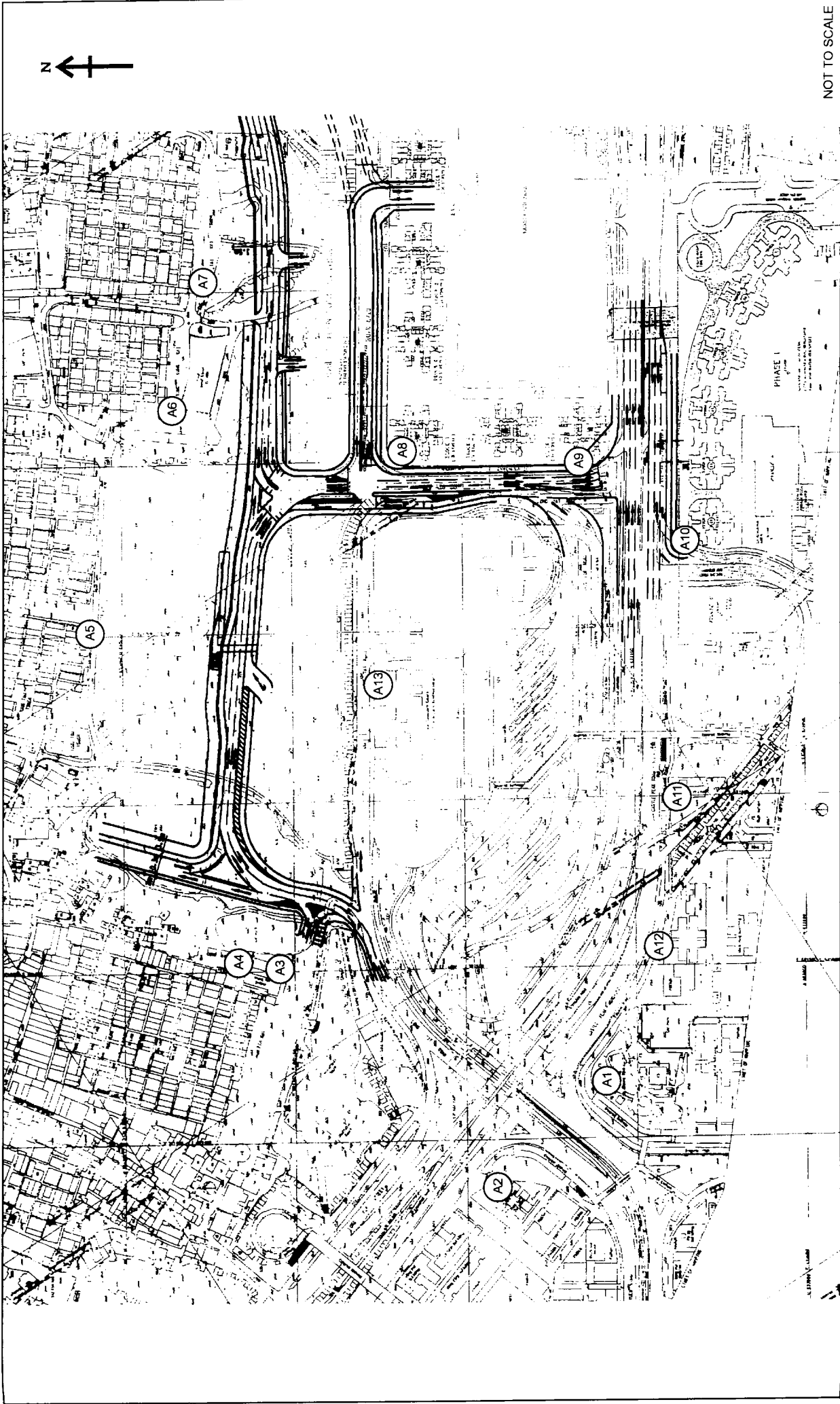
In accordance with the Study Brief, the spatial scope for the assessment of air quality is defined as 500m from the project boundary. The assessment includes representative *Air Sensitive Receivers* (ASR) which are defined by *Annex 12* of the EIA O TM as the following: domestic premises, hotel, hostel, hospital, clinic, nursery, temporary housing accommodation, school, educational institution, office, factory, shop, shopping centre, place of public worship, library, court of law, sports stadium and performing arts centre. Any premises which are considered to have similar sensitivity to these landuses will also be considered as an ASR. In accordance with *Annex 12*, representative ASRs in Yuen Long, Tin Shui Wai and Tuen Mun Centre have been identified and are listed in *Tables 4.2b-d* together with the horizontal separation distance from the EPIWs: the locations of ASRs are presented by *Figures 4.2a-c*.

Table 4.2b Identified Representative Air Sensitive Receivers in Yuen Long

Air Sensitive Receivers	Description	Horizontal Distances (m)
A1	Fung Cheung Road Garden	120
A2	Far East Consortium Yuen Long Building	120
A3	Shung Tak School	30
A4	No.7, Nam Pin Wai	30
A5	Tung Tau Tsuen	60
A6	No.5, Ying Lung Wai	50
A7	No.30, Tai Wai Tsuen	40
A8	Proposed Residential Development, Block 9	5
A9	Proposed Residential Development, Block 11	5
A10	Proposed Development in Area 12	5
A11	Proposed Development in Area 12	70
A12	Cheong Wai Building	160
A13	Sun Yuen Long Centre	60

Table 4.2c Identified Representative Air Sensitive Receivers in Tin Shui Wai

Air Sensitive Receivers	Description	Horizontal Distance (m)
A14	Proposed Primary School	10
A15	Planned Residential Development	20
A16	Yiu Hong House	14
A17	QE School Old Student's Association Primary School	10
A18	Yiu Foo House	14
A19	TWGHs Kwok Yat Wai College	35



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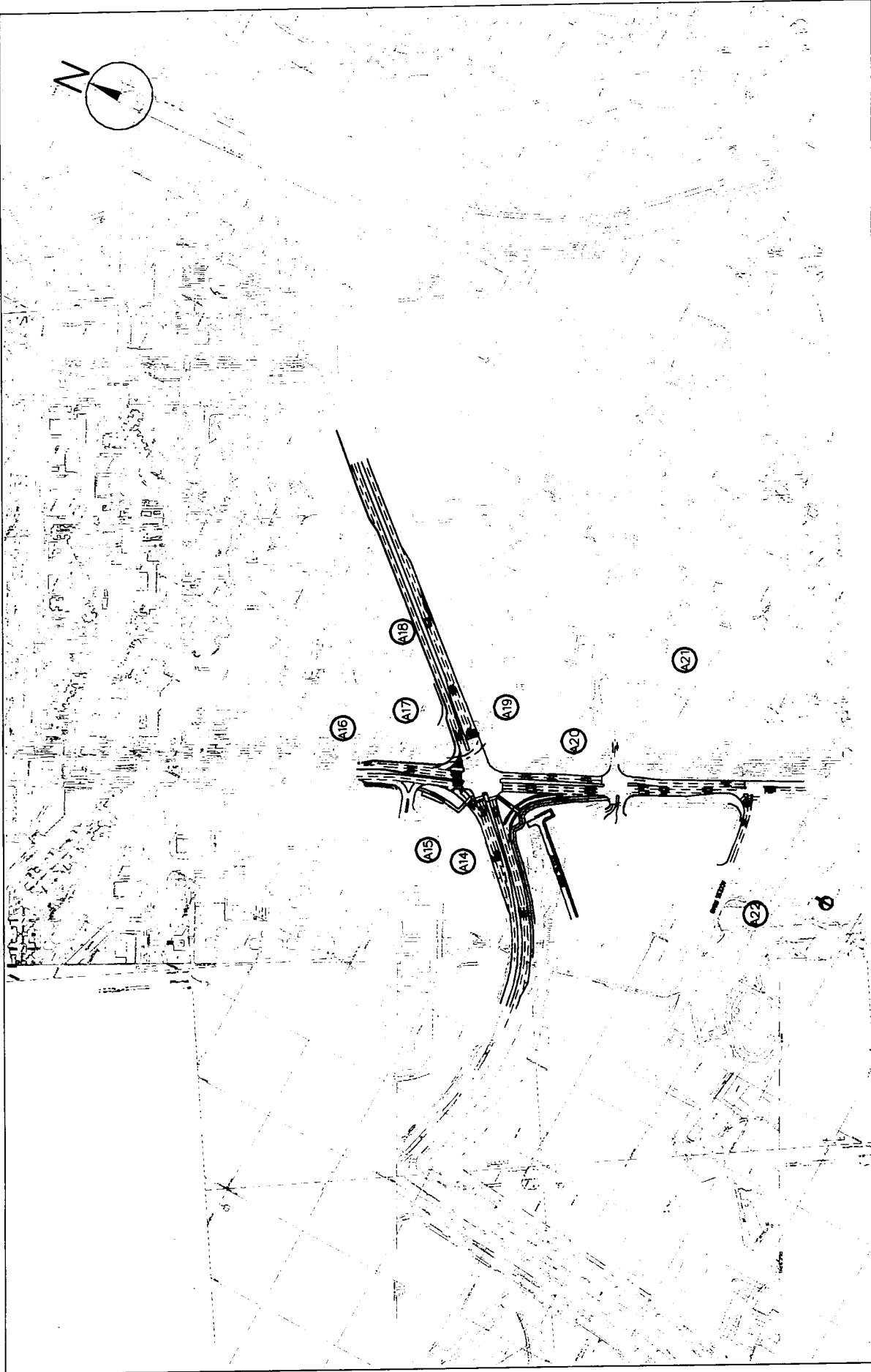


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FIGURE 4.2a

LOCATION OF AIR SENSITIVE RECEIVERS IN YUEN LONG



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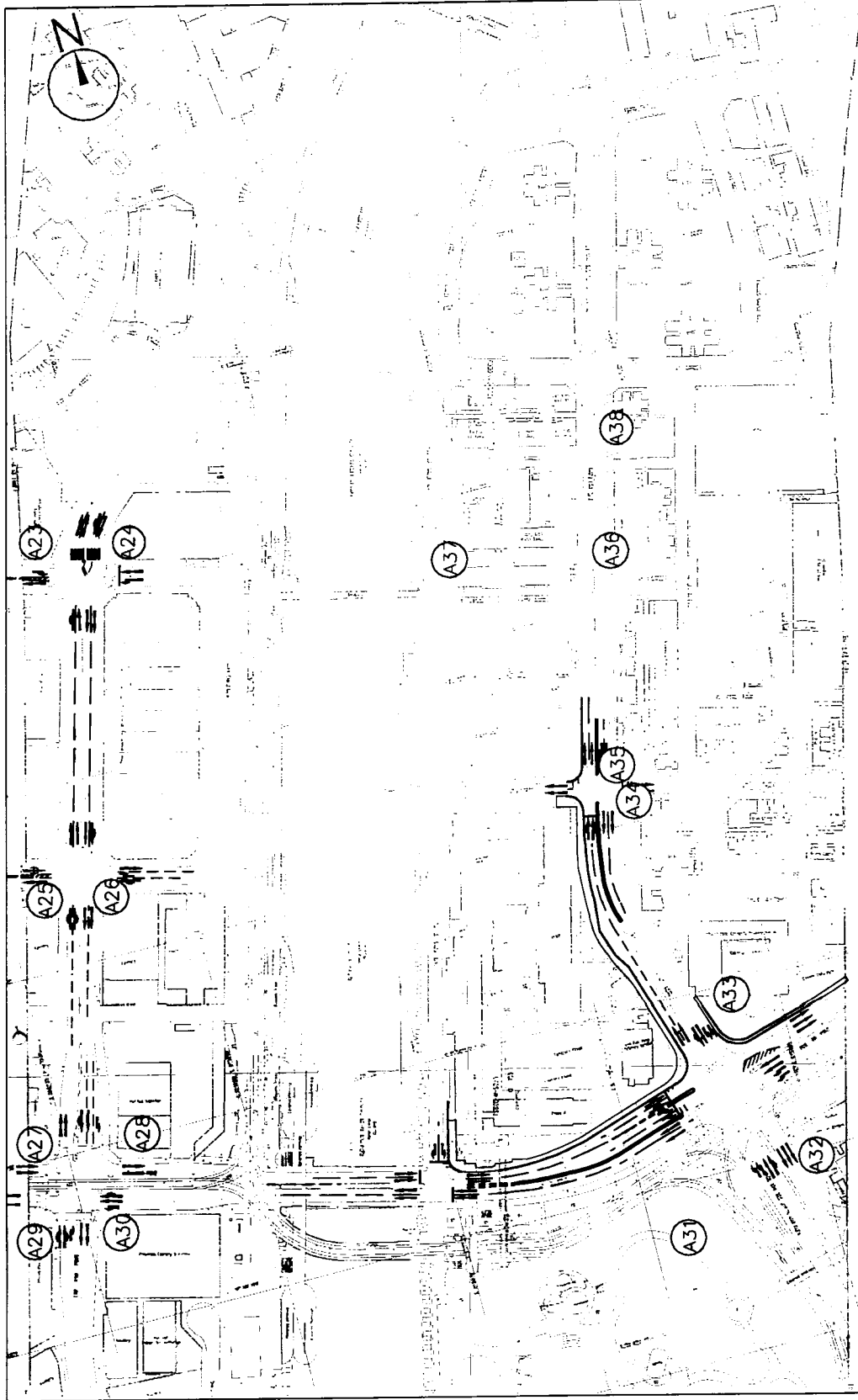
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FIGURE 4.2b

LOCATION OF AIR SENSITIVE RECEIVERS IN TIN SHUI WAI

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LOCATION OF AIR SENSITIVE RECEIVERS IN TUEN MUN CENTRE FIGURE 4.2C

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Air Sensitive Receivers	Description	Horizontal Distance (m)
A20	Indoor Sport Hall	25
A21	Sheung Cheung Wai	130
A22	Factory	51

Table 4.2d Identified Representative Air Sensitive Receivers in Tuen Mun Centre

Air Sensitive Receivers	Description	Horizontal Distance (m)
A23	Tung Ah Factory	10
A24	Tung Ming Building	15
A25	Tak Wing Industrial Building	10
A26	Yau Shing Industrial Building	10
A27	Fire Station	10
A28	Police Station	15
A29	Lek Sin Industrial Centre	15
A30	Choi Sing Industrial Building	15
A31	Tuen Mun Town Park	60
A32	Kam Wah Garden Block 1	43
A33	Castle Peak Catholic Primary School	38
A34	Ming Wai Building	15
A35	Koon Hing Building	10
A36	Tuen Mun Mansion	90
A37	St Simon's Lui Ming Choi Secondary School	90
A38	Honey Court	150

4.3 Water Quality

4.3.1 Baseline Conditions

In general, the streams along the West Rail Phase I alignment are grossly polluted by discharges from livestock farms, unsewered villages and, in some cases, industrial establishments. The existing downstream water quality is generally poor, and EPIW construction activities should not cause any further deterioration in baseline conditions.

Site investigations were conducted during the West Rail Phase I EIA to check for any recent changes in water quality and any noticeable discharge sources. During site visits, no ground water abstraction points were found within the alignment of West Rail and EPIW study area. It is therefore unlikely that any ground water catchment falls within the EPIW study area.

4.3.1.1 Yuen Long Creek and Tin Shui Wai Nullah

Yuen Long Creek has a length of 60 km and a catchment area of 26.7 km². It begins at Tai Lam Country Park and passes through Yuen Long new town as a 12 km long open nullah before discharging into Inner Deep Bay. The relatively limited dispersive capacity of Inner Deep Bay exacerbates the sedimentation and retention of pollutants at the lower part of the creek during in-coming tides.

Tin Shui Wai nullah is part of the Tin Shui Wai drainage basin that drains into the Inner Deep Bay. The water quality of Tin Shui Wai Nullah varied from "fair" to "good" in 1997, as reported in the EPD's River Water Quality in Hong Kong in 1997.

The water quality of Yuen Long Creek and Tin Shui Wai nullah is regularly monitored by EPD's river water monitoring programme. Monitoring stations YL3 and YL4 are located downstream of the tributary of the Yuen Long Creek which will be crossed by the proposed alignment of the Yuen Long and Long Ping sections. Stations TSR1 and TSR2 are relevant to the Tin Shui Wai section. A summary of EPD monitoring data (for 1997) for the closest monitoring stations, YL3, YL4, TSR1 and TSR2 is given in *Table 4.3a*.

Table 4.3a Summary Statistics of 1997 Water Quality of Yuen Long Creek (YL) and Tin Shui Wai Nullah (TSR)

Parameter	YL3	YL4	TSR1	TSR2	WQOs for inland waters of Deep Bay WCZ
DO (% Saturation)	n.a.	n.a.	n.a.	n.a.	n.a.
DO (mg/l)	3.2 (0.5-6.9)	2.8 (1.1-6.6)	7.6 (5.9-17.3)	10.5 (7.8-15.5)	4 mg/l
BOD5 (mg/l)	91.0 (7.0-290.0)	82.0 (19.0-140.0)	14.0 (3.0-76.0)	3.0 (1.0-7.0)	3 mg/l
COD (mg/l)	99.0 (13.0-310.0)	60.0 (19.0-290.0)	19.0 (11.0-130.0)	14.0 (4.0-41.0)	15 mg/l
Oil and Grease (mg/l)	10.5 (0.5-84.0)	8.8 (0.7-33.0)	0.8 (0.5-7.6)	0.5 (0.5-1.2)	n.a.
SS (mg/l)	130.0 (13.0-310.0)	76.0 (24.0-220.0)	30.0 (7.0-140.0)	15.0 (5.0-93.0)	Annual median 20 mg/l
Turbidity (NTU)	n.a.	n.a.	n.a.	n.a.	n.a.
Ammoniacal N (mg/l)	24.50 (2.60-38.00)	6.0 (2.8-10.0)	2.5 (0.36-11.0)	0.46 (0.12-10.0)	n.a.
Total Kjeldahl N (mg/l)	37.00 (3.40-60.00)	9.30 (5.50-16.00)	4.20 (0.78-20.00)	1.20 (0.23-14.00)	n.a.
Total P (mg/l)	7.40	1.50	0.88	0.17	n.a.

Parameter	YL3	YL4	TSR1	TSR2	WQOs for inland waters of Deep Bay WCZ
	(0.69-15.00)	(0.84-2.10)	(0.19-3.90)	(0.05-1.70)	
pH value	7.4	7.3	8.2	8.2	6.5 - 8.5
	(7.3-7.8)	(7.1-7.8)	(7.6-9.6)	(7.6-9.5)	
Flow (l/s)	256	209	NM	28	n.a.
	(52-1,104)	(52-276)		(3-570)	

Notes:

1. Data presented are annual arithmetic means, except where specified otherwise.
2. Data enclosed in brackets are ranges.
3. NM indicates no measurement taken
4. n.a. = not available

Source: EPD River Water Quality in Hong Kong 1997

The water quality of Yuen Long Creek was very bad, reflected in non-compliance with the WQOs throughout 1996, with high annual means of BOD₅, COD and SS levels, and low DO. There are a number of livestock waste discharges and industrial effluent discharges in the catchment which adversely affect water quality.

The water quality of Tin Shui Wai Nullah also suffers from pollution with a number of livestock waste and industrial effluent polluting discharges having been identified in the catchment.

4.3.1.2 Tuen Mun River

The 38 km long Tuen Mun River has a catchment of about 16.5 km². The upstream section of the river passes through Lam Tei, San Hing Tsuen and Fu Tei where the West Rail alignment will be parallel to the Tuen Mun River. There are six monitoring stations (TN1-TN6) along the Tuen Mun River monitored by EPD and located close to the alignment and a summary of EPD monitoring data (for 1997) for these six stations is given in *Table 4.3b*.

The monitoring data for 1997 showed that the water quality of the lower section (TN3-TN6) of the river was better than the upper sections (TN1-TN2). However, the overall water quality is poor, reflected in non-compliance with the WQOs for DO, BOD₅ and COD, as well as SS on occasions.

4.3.2 Water Sensitive Receivers (WSRs)

Potential WSRs likely to be affected by the EPIW construction works comprise surface waters, including Yuen Long Creek, Tin Shui Wai Nullah and Tuen Mun River and fish/duck ponds near the Yuen Long, and Tin Shui Wai Stations.

Table 4.3b Summary Statistics of 1997 Water Quality of Tuen Mun River

Parameter	TN1	TN2	TN3	TN4	TN5	TN6	WQOs for inland waters of Deep Bay WCZ
DO (% Saturation)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DO (mg/l)	4.0 (1.9-7.9)	9.2 (7.5-11.5)	4.4 (0.5-9.5)	4.5 (2.3-7.2)	4.5 (0.6-8.5)	5.2 (2.8-8.6)	4 mg/l
BOD5 (mg/l)	31 (11-120)	5 (1-15)	4 (2-14)	5 (2-11)	5 (2-12)	2 (1-6)	3 mg/l
COD (mg/l)	48 (13-120)	18 (6-77)	135 (44-280)	107 (8-270)	130 (12-310)	140 (20-350)	15 mg/l
Oil and Grease (mg/l)	2.3 (0.5-25.0)	1.0 (0.5-3.7)	0.5 (0.5-1.3)	0.5 (0.5-1.2)	0.5 (0.5-1.6)	0.5 (0.5-1.1)	n.a.
SS (mg/l)	29 (12-320)	12 (4-3,500)	6 (3-29)	8 (5-25)	7 (4-22)	5 (3-25)	Annual median 20 mg/l
Turbidity (NTU)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ammoniacal N (mg/l)	9.55 (0.39-31.00)	1.75 (0.19-8.40)	0.56 (0.07-1.50)	0.55 (0.24-1.20)	0.59 (0.10-1.50)	0.44 (0.23-0.76)	n.a.
Total Kjeldahl N (mg/l)	12.00 (0.72-38.00)	2.25 (0.26-13.00)	0.96 (0.74-2.00)	1.05 (0.72-2.10)	1.03 (0.41-2.00)	0.82 (0.54-1.20)	n.a.
Total P (mg/l)	1.80 (0.21-3.90)	0.47 (0.06-3.40)	0.15 (0.07-0.32)	0.17 (0.09-0.26)	0.16 (0.07-0.38)	0.12 (0.07-0.38)	n.a.
pH value	8.0 (7.5-8.2)	7.6 (7.1-9.9)	7.6 (7.4-8.2)	7.7 (7.4-8.3)	7.6 (7.5-8.4)	7.3 (7.0-7.9)	6.5 - 8.5
Flow (l/s)	85 (30-1,100)	27 (8-162)	NM	NM	NM	NM	n.a.

Notes:

1. Data presented are annual arithmetic means, except where specified otherwise.
2. Data enclosed in brackets are ranges.
3. NM indicates no measurement taken
4. n.a. = not available

Source: EPD River Water Quality in Hong Kong 1997

4.4 Landscape and Visual

4.4.1 *Baseline Landscape and Visual Conditions at Yuen Long Station*

4.4.1.1 **Planning Context**

The study site lies in the east of Yuen Long New Town. As the focal point of existing and planned transport networks in the region the town is considered suitable for development into the Regional Centre of the North West N.T. The south and east of the existing built-up area are the areas where new development is proposed in the form of higher order commercial and residential development.

The study site centres on the existing LRT terminus and commercial residential development. This is surrounded by land zoned as 'CDA' on the Yuen Long OZP No. S/YL/5. CDAs 12 and 15 located north and south of Castle Peak Road are intended for comprehensive commercial and residential development. The CDA to the south of the LRT terminus is the site of a proposed Public Transport Interchange with associated commercial and residential development and the CDA to the north is the site of the proposed KCRC West Rail Station. Further north land is zoned as 'V' (village type development) reflecting the existing village landuse. Two areas zoned as open space ('O') lie to the north and west of the LRT terminus.

4.4.2 *Baseline Landscape and Visual Conditions at Tin Shui Wai*

4.4.2.1 **Planning Context**

Tin Shui Wai is a New Town in the North west N.T. built in the last decade on flat land reclaimed from fishponds. The intention was to create a well designed New Town of open character and engineering infrastructure and building works have been completed for a population of 150,000 people. Further development to the north is planned.

The study site lies on the southern edge of the existing development. Ping Ha Road and Tin Fuk Road lie on the boundary of the OZP. Land to the north is zoned 'R/A' (Residential Group A) on the Tin Shui Wai OZP No. S/TSW/3 and new school and residential estate construction is currently in progress. To the north west lie the existing residential areas of Tin Yiu Estate and Tin Yau Court. Land to the south of Ping Ha Road outside the OZP consists largely of open storage merging into village development. Land to the south west of Ping Ha Road is the proposed site of the West Rail Station and associated Public Transport Interchange. Land to the south east of Tin Fuk Road is the proposed site of a new LRT station and stabling yards. The existing Kwok Yat Wai College north east of Sheung Cheung Wai is to remain.

4.4.3 Baseline Landscape and Visual Conditions at Tuen Mun

4.4.3.1 Planning Context

The study site lies centrally within the urban core of Tuen Mun New Town and straddles the Tuen Mun River Channel. Landuses surrounding the site are well established and any future proposals will involve the redevelopment of existing development.

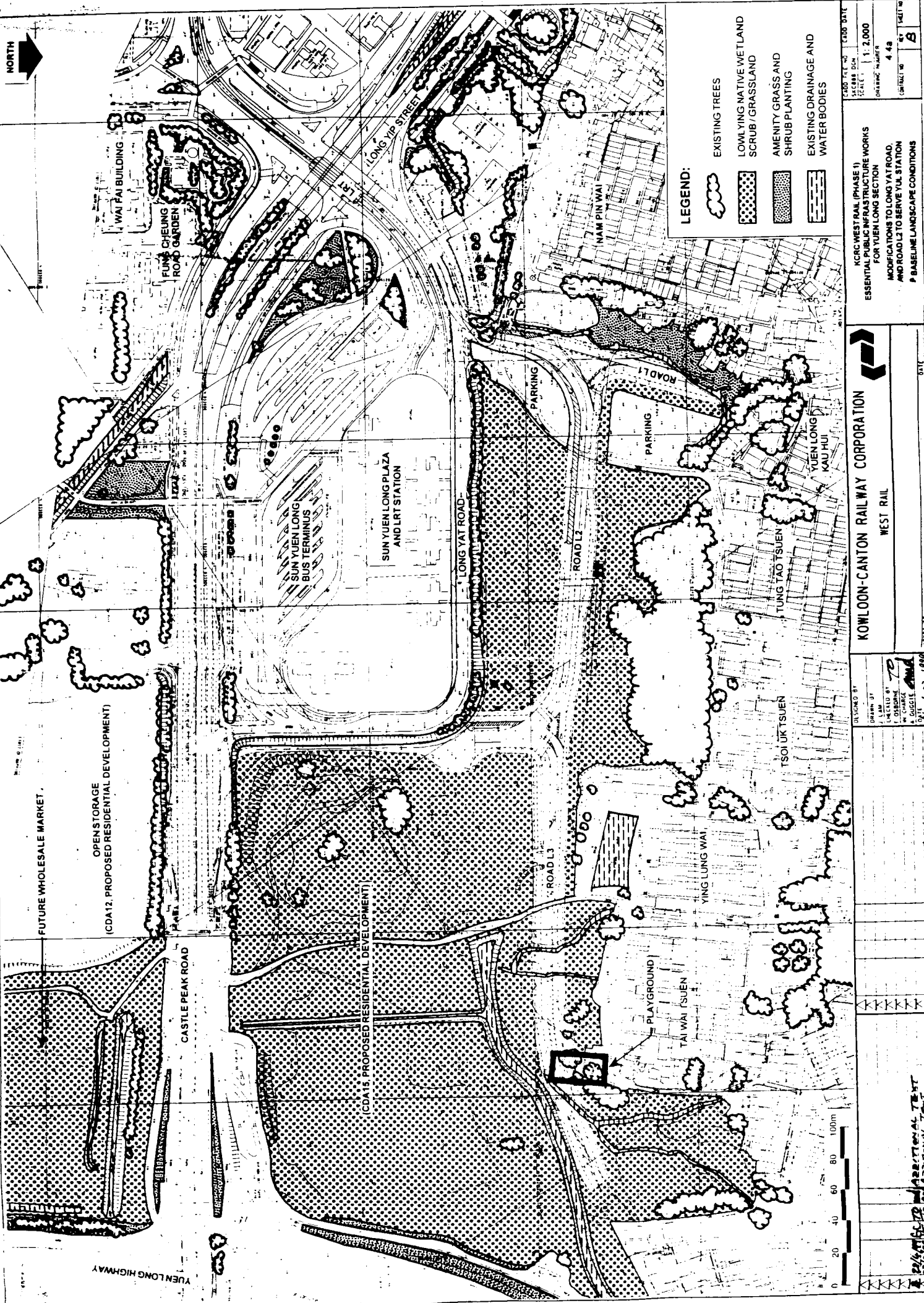
The land to the west of the Tuen Mun River is zoned 'I' (Industrial) on the Tuen Mun OZP No.S/TM/11 and consists of existing dense industrial development and public service facilities (fire, police and ambulance stations). To the west of the River and south of Pui To Road the land is zoned as open space ('O') and is occupied by Tuen Mun Town Park. East of this, land is zoned as commercial and residential ('C/R') and is occupied by the Tuen Mun Cultural Square development. North of Pui To Road and east of the River land is zoned as 'Residential Group A' ('R/A') and is occupied by existing housing estates, commercial uses and schools. The San Fat Estate is the site of the proposed West Rail Station and Public Transport Interchange with associated commercial and residential development.

4.4.4 Baseline Landscape and Visual Conditions at Yuen Long Station

4.4.4.1 Landscape Resources at Yuen Long Station

The surrounding landscape resources at Yuen Long Station are illustrated by *Figure 4.4a 'Baseline Landscape Conditions'* and *Figures 4.4b and 4.4c 'Site Photographs'* and comprise:

- naturalised scrub and woodland to the southern boundary of Tung Tau Tsuen;
- a village pond at Ying Lung Wai;
- playground and mature trees at Tai Wai Tsuen;
- open grassland (agricultural land no longer in active use) between Tai Wai Tsuen, Ying Lung Wai, Tung Tau Tsuen and Castle Peak Road;
- mature roadside trees along southern edge of Castle Peak Road adjacent to open storage;
- mature embankment tree planting along northern edge of Long Yip Street;
- mature trees adjacent to the northern end of the Castle Peak Road pedestrian footbridge;
- tree planting at Sun Yuen Long Centre Bus Terminus;
- Fung Cheung Road Garden south west of Yuen Long Centre adjacent to Wai Fai Building; and
- traditional low rise village development at Nam Pin Wai, Yuen Long Kau Hui, Tung Tau Tsuen, Tsoi Uk Tsuen, Ying Lung Wai and Tai Wai Tsuen.



- LEGEND:**
- EXISTING TREES
 - LOW LYING NATIVE WETLAND SCRUB / GRASSLAND
 - AMENITY GRASS AND SHRUB PLANTING
 - EXISTING DRAINAGE AND WATER BODIES

PROJECT NO.	COND DATE
SECRETARY	
SCALE	1:2,000
DRAWING NUMBER	448
DATE	87
SHEET NO.	A

KCR WEST RAIL (PHASE 1)
 ESSENTIAL PUBLIC INFRASTRUCTURE WORKS
 FOR YUEN LONG SECTION
 MODIFICATIONS TO LONG YAT ROAD,
 AND ROAD L3 TO SERVE YUEN LONG
 & BASELINE LANDSCAPE CONDITIONS

KOWLOON-CANTON RAILWAY CORPORATION
 WEST RAIL

DESIGNED BY
 DRAWN BY
 CHECKED BY
 APPROVED BY
 DATE

DATE: 1999
 APPROVED BY: [Signature]
 DATE: 1999



FUTURE WHOLESALE MARKET.
 (CDA12, PROPOSED RESIDENTIAL DEVELOPMENT)

OPEN STORAGE
 (CDA12, PROPOSED RESIDENTIAL DEVELOPMENT)

(CDA 15, PROPOSED RESIDENTIAL DEVELOPMENT)

PLAYGROUND
 TAI WAI TSUEN

YUEN LONG
 KAU HUI

TUNG TAO TSUEN

TSOI UK TSUEN

SUN YUEN LONG
 BUS TERMINUS

SUN YUEN LONG PLAZA
 AND LRT STATION

PARKING

PARKING

PARKING

WAI FAI BUILDING

FUNG CHEUNG
 ROAD GARDEN

LONG YAT STREET

NAM PIN WAI

ROAD L3

ROAD L1

ROAD L2

CASTLE PEAK ROAD

YUEN LONG HIGHWAY

YUEN LONG HIGHWAY

YUEN LONG HIGHWAY



AL

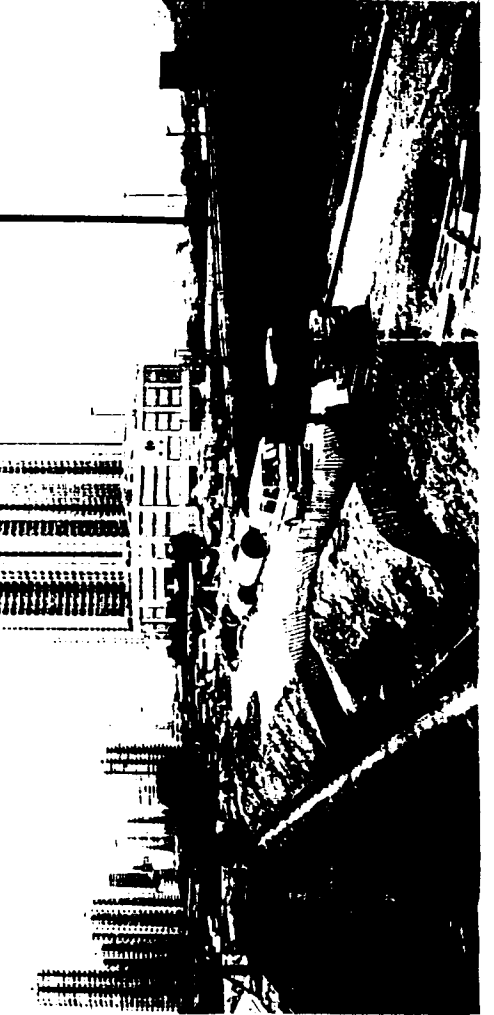
CASTLE PEAK ROAD ROUNDABOUT
SLIP ROAD

SUN YUEN LONG PLAZA

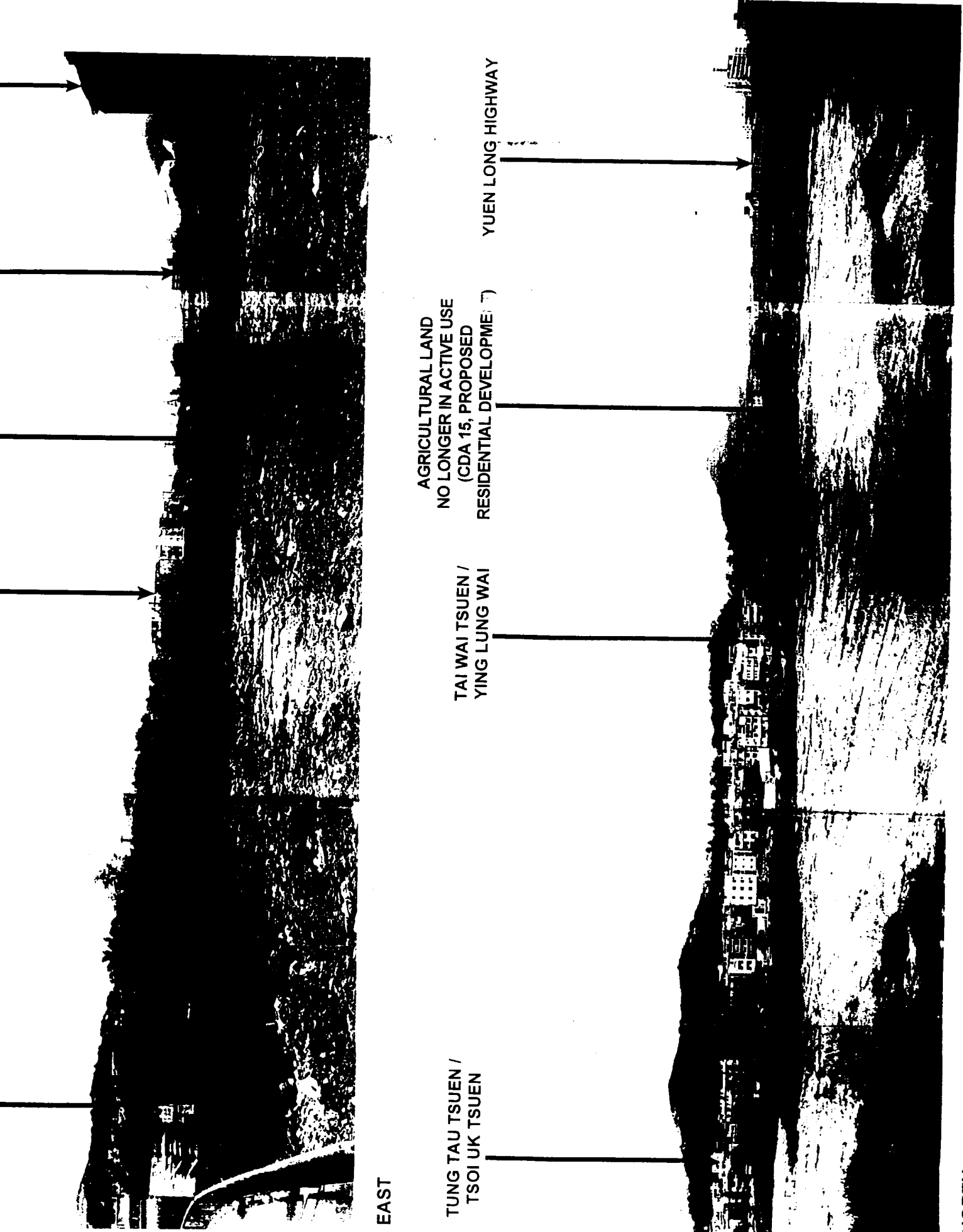
T YUEN LONG
LOWER BLOCKS

PUMPING STATION

TONG TAU TSUEN / TSOI UK TSUEN



VIEW FROM LONG YAT ROAD LOOKING NORTH-EAST



EAST

TUNG TAU TSUEN /
TSOI UK TSUEN

TAI WAI TSUEN /
YING LUNG WAI

AGRICULTURAL LAND
NO LONGER IN ACTIVE USE
(CDA 15, PROPOSED
RESIDENTIAL DEVELOPMENT)

YUEN LONG HIGHWAY

NORTH

4.4.4.2 Landscape and Visual Character

The proposed Yuen Long Station site lies within a transitional landscape of traditional low rise village development to the north and the modern high rise residential, commercial and industrial fabric of Yuen Long to the south west. An extensive corridor of open area (agricultural land no longer in active use) is located between the villages and Castle Peak Road 250m to the south. The western half of the open area has been developed for the Sun Yuen Long Centre and Bus Terminus, which visually dominates both the villages to the north and the Castle Peak Road corridor to the south. The eastern half is zoned "CDA" in Area 15 on the draft Yuen Long OZP No. S/YL/5 and is the site of a proposed residential development.

Topography within the study area is flat and the landscape character is open and degraded. Space to the south of the village is not maintained and is criss-crossed randomly by dirt tracks and footpaths. Land on the southern periphery of the villages is used for car parking and open storage. An extensive tract of previously agricultural land to the south of Castle Peak Road is currently being used for lorry parking and open storage, but it is zoned "CDA" in Area 12 on the draft Yuen Long OZP No. S/YL/5 and a major residential development is proposed for the site. Land to the east is the site of a new wholesale food market under construction.

4.4.4.3 Zone of Visual Influence of EPIW at Yuen Long Station

The zone of visual influence (ZVI) and the Visually Sensitive Receivers (VSR's) found within the ZVI are illustrated on *Figure 4.4d 'Visually Sensitive Receivers at Yuen Long'*.

The ZVI is delineated to the north by the southern boundaries of the village development north of the Sun Yuen Long Centre. Roads L1 and L2 will be clearly visible across open grassland from Tai Wai Tsuen and Ying Lung Wai though vegetation will screen the majority of views from Tung Tau Tsuen and Tsoi Uk Tsuen.

The ZVI is delineated to the east by the north bound carriageway of the Yuen Long Highway which is elevated on embankment. However, views from traffic are screened by noise barriers north of the roundabout junction at Castle Peak Road.

The roadworks will be visible from residents above the proposed PTI south of Sun Yuen Long Centre, from the residents in the proposed development in CDA15, and from pedestrians and cyclists along Castle peak road. South of Castle Peak Road the roadworks will be visible from residents in the proposed development in CDA12 and residents in the existing tower blocks to the west.

The ZVI is delineated to the west by the north east facing facades of residential tower blocks south west of the Sun Yuen Long Centre and along the elevated east bound carriageway of Castle Peak Road. To the north the ZVI includes the east facing facade of the Far East Construction Yuen Long Building and the eastern edge of Nam Pin Wai.

4.4.5 Baseline Landscape and Visual Conditions at Tin Shui Wai

4.4.5.1 Landscape Resources at Tin Shui Wai

The surrounding landscape resources at Tin Shui Wai are illustrated on *Figure 4.4e 'Baseline Landscape Conditions'* and *Figures 4.4f and 4.4g 'Site Photographs'* and comprise:

- mature vegetation including trees and shrubs along the south boundary of Tin Yiu Estate;
- mature vegetation including trees and shrubs along the south-west boundary of Queen Elizabeth Primary School;
- palm trees within Tin Fuk Road and Ping Ha Road central medians;
- mature trees along the northern boundary of the open storage area adjacent to Tin Fuk Road;
- traditional Chinese-style pagoda within Tsui Shing Lau, and part of the Ping Shan Heritage Trail;
- mature woodland across the undulating hills south-east of the open storage area and Tsui Shing Lau;
- woodland and agricultural land south of TWGH Kwok Yat Wai College;
- mature trees around the north-east corner of the vacant land adjacent to Tin Fuk Road/Ping Ha Road interchange; and
- mature trees on the highway embankments around the south-east corner of the construction site (proposed school and HOS development in Tin Shui Wai Area 3) adjacent to Tin Fuk Road/Ping Ha Road Interchange.

4.4.5.2 Landscape and Visual Character

The subject site is located on each side of the Ping Ha Road/Tin Fuk Road interchange and is divided into four separate character zones.

To the north east are located the high rise residential tower blocks of Tin Yiu Estate with a generous allocation of landscaped open area and podium planting. On the southern boundary of the estate, adjacent to Tin Fuk Road, is a footpath with mature and semi-mature vegetation effectively screening Tin Fuk Road from residents and pedestrians at ground level. Between the footpath and the road the LRT reserve forms a wide grass verge. In the south west corner of Tin Yiu Estate the Queen Elizabeth Primary School is screened from the adjacent interchange by mature trees planted along its south western boundary.

Tin Fuk Road is a dual carriageway with palm trees accommodated in the central median. A pedestrian footbridge links the Tin Yiu Estate with scattered village development and open storage to the south east. Much of the land in this area has recently undergone a

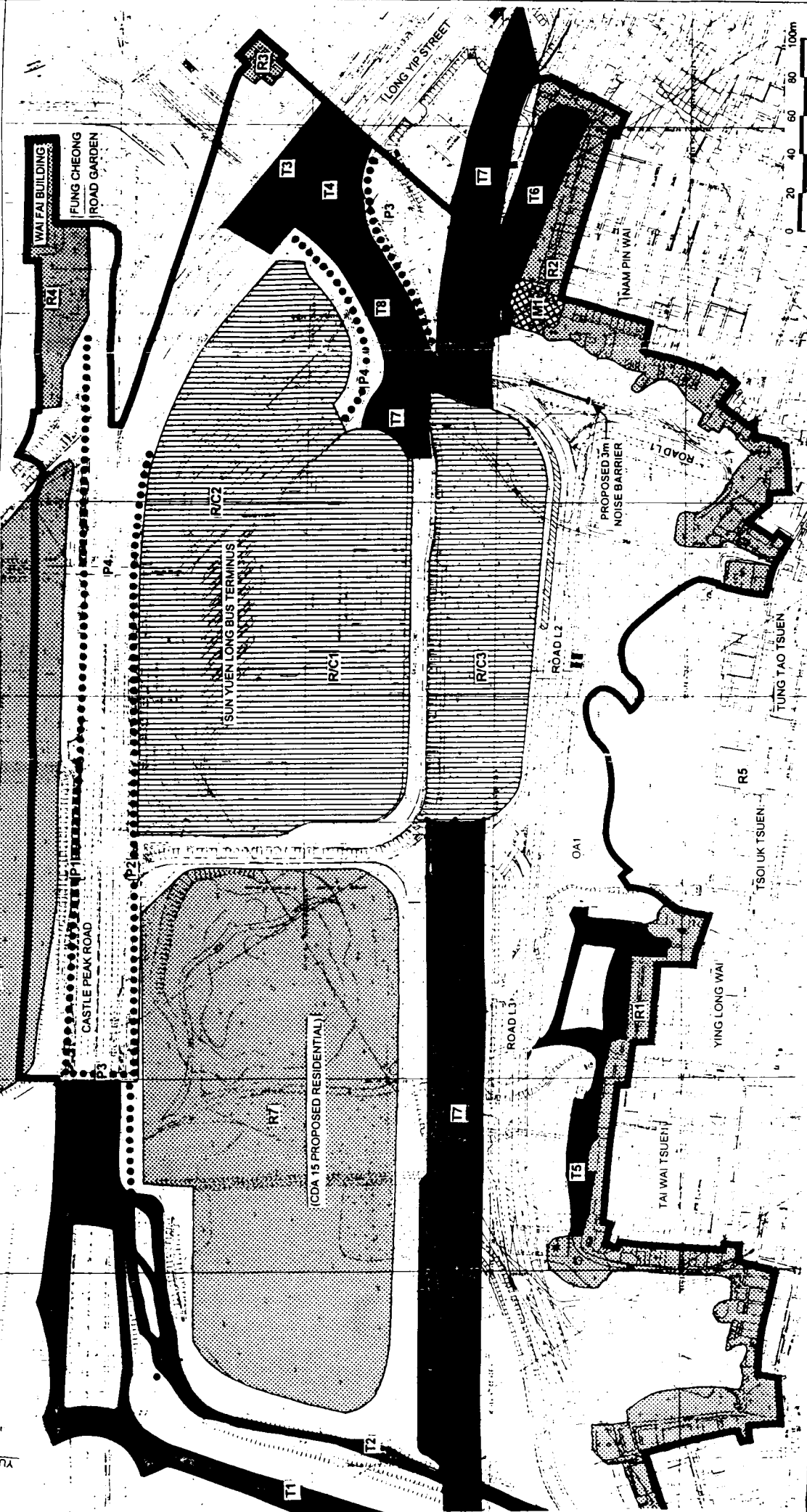


LEGEND:

- ZONE OF VISUAL INFLUENCE
- KEY TO VISUALLY SENSITIVE RECEIVERS:
- RESIDENTIAL
 - R1 TAI WAI TSUEN / YING LONG WAI
 - R2 NAM PIN WAI
 - R3 FAR EAST CONSTRUCTION
 - R4 YUEN LONG BUILDING
 - R5 FAR EAST YUEN LONG
 - R6 SUNG TAI TSUEN / TSOI UK TSUEN
 - R7 CDA 12 PROPOSED RESIDENTIAL
 - R8 CDA 15 PROPOSED RESIDENTIAL
 - COMMUNITY
 - MT SHING TAI SCHOOL
 - OPEN AREA
 - OAI AGRICULTURAL LAND NO LONGER IN ACTIVE USE

- RESIDENTIAL / COMMERCIAL
 - RC1 CENTRE
 - RC2 RESIDENTS OF PROPOSED WEST RAIL DEVELOPMENT ABOVE
 - RC3 RESIDENTS OF PROPOSED WEST RAIL DEVELOPMENT ABOVE YUEN LONG STATION
- TRAIL SPORT
 - T1 YUEN LONG HIGHWAY AND CASTLE PEAK ROAD SOUTH
 - T2 CASTLE PEAK ROAD NORTH
 - T3 CASTLE PEAK ROAD FOOTBRIDGE
 - T4 LONG YAT ROAD
 - T5 YING LONG WAI ACCESS ROAD AND PARKING
 - T6 NAM PIN WAI ACCESS ROAD
 - T7 WEST PARK
 - T8 PASSENGERS ON LRT

- PEDESTRIAN CYCLIST
 - P1 CASTLE PEAK ROAD SOUTH
 - P2 CASTLE PEAK ROAD NORTH
 - P3 CASTLE PEAK ROAD FOOTBRIDGE
 - P4 SOUTHERN P1 FOOTBRIDGE



PROJECT NO: 12000
 SCALE: 1:2,000
 DRAWING NUMBER: 4.40
 CONTRACT NO: 87/001/0

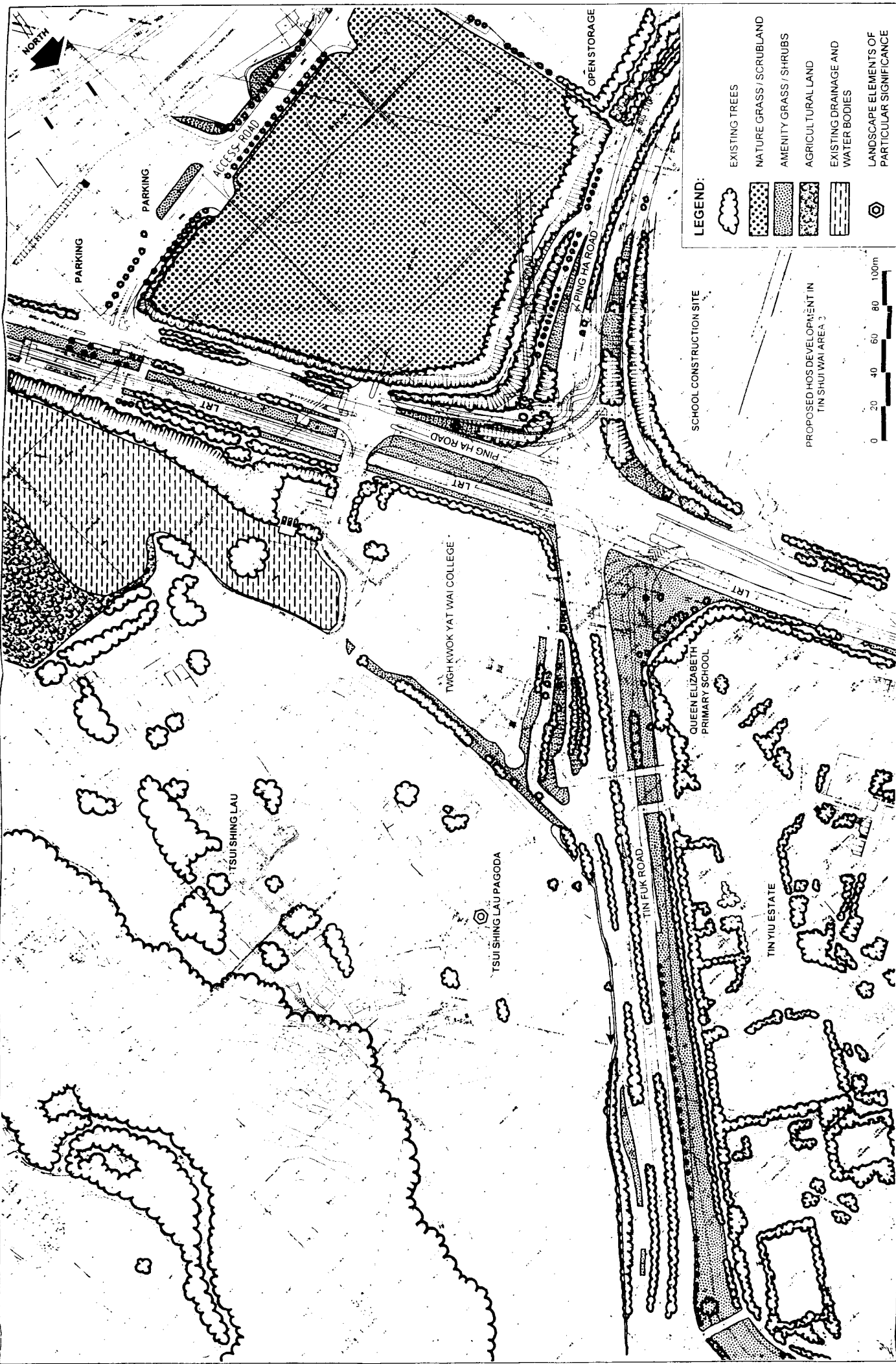
KCRC WEST RAIL (PHASE 1)
 ESSENTIAL PUBLIC INFRASTRUCTURE WORKS
 FOR YUEN LONG SECTION
 MODIFICATIONS TO LONG YAT ROAD
 AND ROAD L2 TO SERVE YUEN LONG
 VISUALLY SENSITIVE RECEIVERS AT
 YUEN LONG

DESIGNED BY: [Signature]
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 IN CHARGE: [Signature]
 DATE: 11/1/97

DATE: 11/1/97

TITLE AMENDED -
 PS 3 REVISED
 PS 4 REVISED
 PS 5 REVISED
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KOWLOON-CANTON RAILWAY CORPORATION
 WEST RAIL



- LEGEND:**
- EXISTING TREES
 - NATURE GRASS / SCRUBLAND
 - AMENITY GRASS / SHRUBS
 - AGRICULTURAL LAND
 - EXISTING DRAINAGE AND WATER BODIES
 - LANDSCAPE ELEMENTS OF PARTICULAR SIGNIFICANCE

0 20 40 60 80 100m

PROPOSED HOS DEVELOPMENT IN TIN SHUI WAI AREA 3

<p>KOWLOON-CANTON RAILWAY CORPORATION</p> <p>WEST RAIL</p>		<p>DATE: 11/01/2011</p> <p>SCALE: 1:2,000</p> <p>PROJECT NO: 448</p> <p>REV: 1</p>	
		<p>PROJECT NO: 448</p> <p>SCALE: 1:2,000</p> <p>PROJECT NO: 448</p> <p>REV: 1</p>	
<p>KCRC WEST RAIL (PHASE 1)</p> <p>ESSENTIAL PUBLIC INFRASTRUCTURE WORKS</p> <p>FOR YUEN LONG SECTION</p> <p>MODIFICATIONS TO TIN FUK ROAD, PING HA ROAD AND TIN YIU ROAD TO SERVE THIS STATION</p> <p>BASELINE LANDSCAPE CONDITIONS</p>		<p>DATE: 11/01/2011</p> <p>SCALE: 1:2,000</p> <p>PROJECT NO: 448</p> <p>REV: 1</p>	
<p>DATE: 11/01/2011</p> <p>SCALE: 1:2,000</p> <p>PROJECT NO: 448</p> <p>REV: 1</p>		<p>DATE: 11/01/2011</p> <p>SCALE: 1:2,000</p> <p>PROJECT NO: 448</p> <p>REV: 1</p>	

TEST AMENDED

ADDITONAL

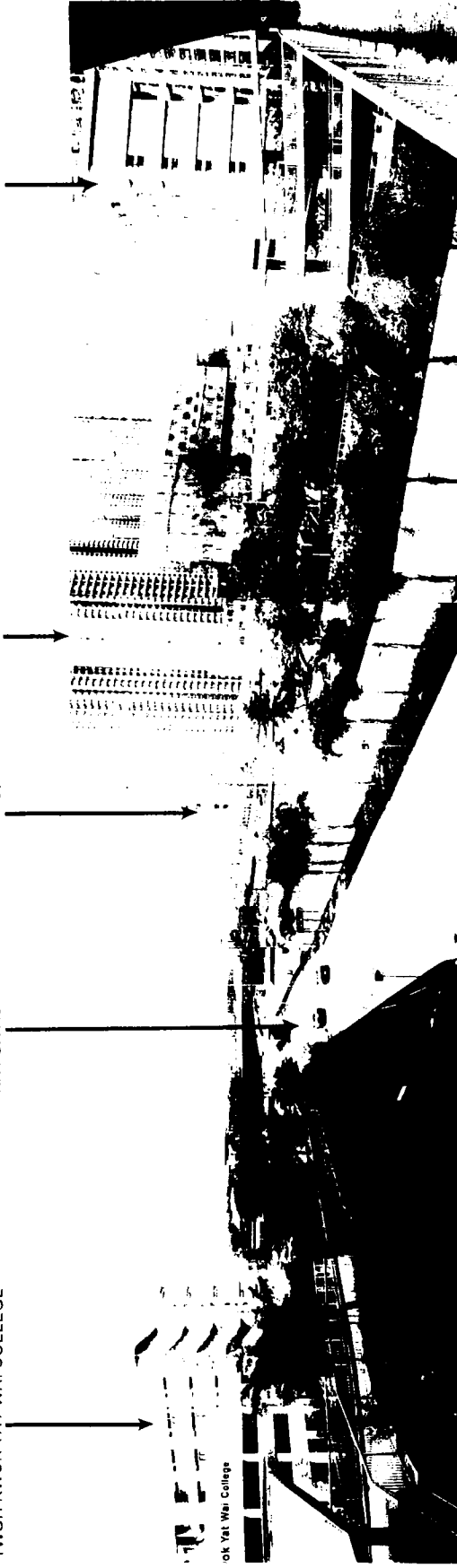
TWGH KWOK YAT WAI COLLEGE

TIN FUK ROAD

SCHOOL UNIT
CONSTRUCT

PROPOSED HOS DEVELOPMENT
IN TIN SHUI WAI AREA 3

QUEEN ELIZABETH
PRIMARY SCHOOL

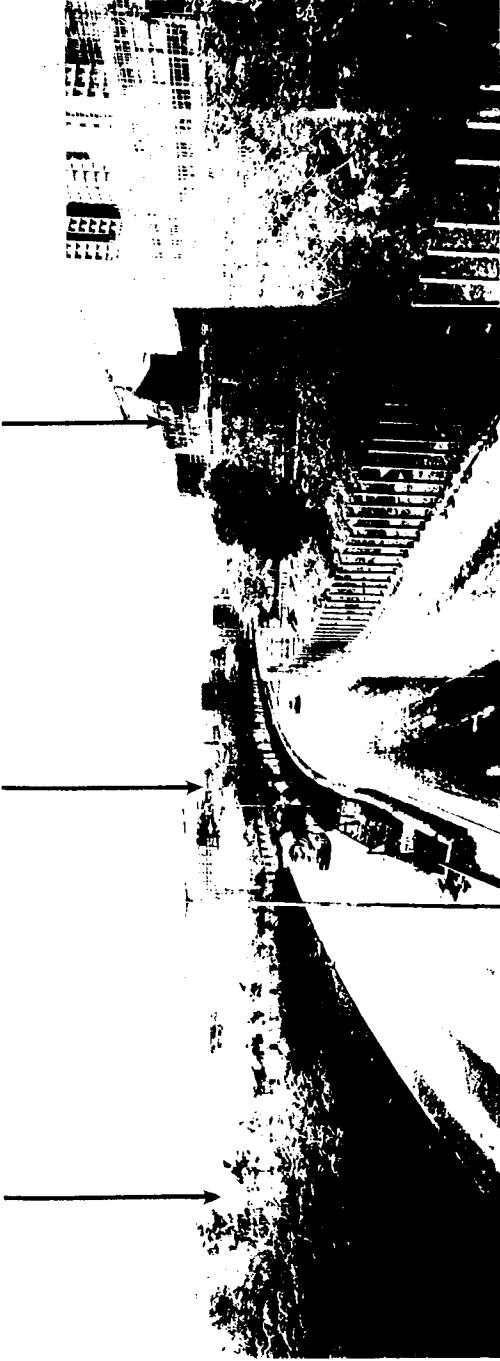


VIEW FROM TIN FUK ROAD FOOTBRIDGE LOOKING SOUTH-WEST

FUTURE PUBLIC TRANSPORT
INTERCHANGE

CONTAINER STORAGE

SCHOOL UNDER CONSTRUCTION



VIEW FROM PING HA ROAD FOOTBRIDGE LOOKING SOUTH-WEST



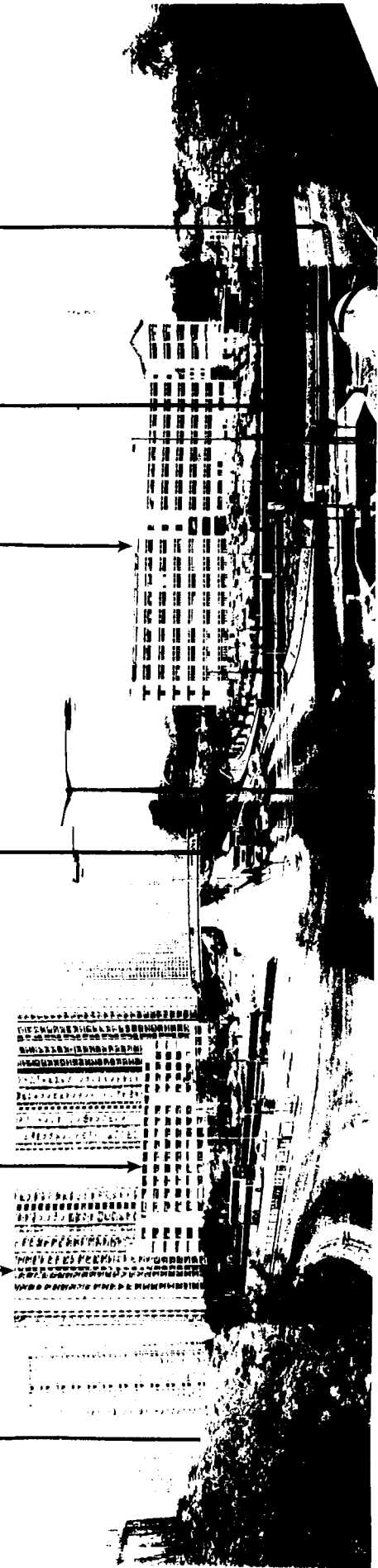
KOWLOON-CANTON RAILWAY CORPORATION
WEST RAIL

DATE: 10/10/2011
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 SCALE: 1:1000

KCR WEST RAIL PHASE 1
 ESSENTIAL PUBLIC INFRASTRUCTURE WORKS
 FOR YUEN LONG SECTION
 MODIFICATIONS TO TIN FUK ROAD
 AND TIN YU ROAD TO SERVE THE STATION
 SITE PLAN TO GRAB-45

1:1000 TO BE AMENDED

TIN YIU ROAD
 TIN YIU ESTATE
 QUEEN ELIZABETH
 PRIMARY SCHOOL
 TIN FUK ROAD
 TWGH KWOK YAT WAI COLLEGE LRT
 PING HA ROAD



VIEW OF JUNCTION LOOKING NORTH-EAST

TIN YIU ESTATE
 TIN FUK ROAD
 OPEN STORAGE
 TSUI SHING LAU PAGODA
 RESIDENTIAL



VIEW FROM TIN FUK ROAD LOOKING NORTH-EAST

KOWLOON-CANTON RAILWAY CORPORATION
 WEST RAIL

KCRC WEST RAIL PHASE 11
 ESSENTIAL PUBLIC INFRASTRUCTURE WORKS
 FOR YUEN LONG SECTION
 MODIFICATIONS TO TIN FUK ROAD
 NG HA ROAD AND TIN YIU ROAD TO SERVE THIS STATION
 SITE PHOTOGRAPHS

2016/09 TO EAST ASIAN

transition from agricultural use to car parking and open storage. The space has a degraded character and is the location for a proposed LRT station. An elevated railway will be located along the northern boundary of the area adjacent to Tin Fuk Road, thereby reducing visual impacts to villagers caused by road junction works. Land to the south of the villages and open storage sites is undulating and densely vegetated. TWGH Kwok Yat Wai College is located at the north west corner of the area adjacent to the Tin Fuk Road/Ping Ha Road interchange.

To the south west of Ping Ha Road is a large vacant site with mature vegetation along its roadside boundaries. The LRT alignment runs north-south along Ping Ha Road and Hang Mei Station is located south west of Kwok Tai Prevocational School. The vacant site is the location for a proposed public transport interchange and is connected to the north by a footbridge across Ping Ha Road.

The area to the north-west (Tin Shui Wai Area 3) is currently being developed with an HOS development and a school under construction. Development is likely to be similar to the Tin Yiu Estate in the east. A mature band of vegetation is located upon embankments adjacent to the Tin Fuk Road/Ping Ha Road interchange at the south east corner of the site.

4.4.5.3 Zone of Visual Influence at Tin Shui Wai

The zone of visual influence (ZVI) and the Visually Sensitive Receivers (VSR's) found within the ZVI are illustrated by *Figure 4.4h 'Sensitive Visual Receivers at Tin Shui Wai Station'*.

The roadworks at Tin Shui Wai will be visible from adjacent footpaths, cycle tracks and the road carriageways themselves. Additional visual vantage points, from which there will be a limited opportunity for screening, will be proposed pedestrian footbridges over Tin Fuk Road, Tin Fuk Road/Ping Ha Road junction, Ping Ha Road and Ping Ha Road South.

Road junction developments including noise barriers, pedestrian footbridges and re-aligned carriageways, will be particularly visible from upper south facing floors of towers along the southern edge of Tin Yiu Estate. Existing mature vegetation will provide screening to lower floors within the estate. Direct views of the revised Tin Fuk Road/Ping Ha Road junction will be possible from the upper south-west facing floors of Queen Elizabeth Primary School.

Village development and open land to the south east will only receive distant filtered views of the road and junction due primarily to an at-grade LRT alignment and an elevated West Rail viaduct which will pass along its northern boundary. Partial views of the Tin Fuk Road/Ping Ha Road junction will be available from upper west and north facing floors of TWGH Kwok Yat Wai College.

There are no direct VSRs, except vehicular traffic and pedestrians, within the south west area of the subject site. Distant views of the revised road alignment will be possible from

the Hang Mei LRT station south west of TWGH Kwok Yat Wai College and from car parking directly west of the station.

Direct views of the revised road layout will be possible from new residential towers north west of the Tin Fuk Road/Ping Ha Road interchange, and from the proposed school directly south. Views will initially be unscreened due to the loss of mature vegetation along the south-eastern boundary of the construction site.

4.4.6 Baseline Landscape and Visual conditions at Tuen Mun

4.4.6.1 Landscape Resources at Tuen Mun.

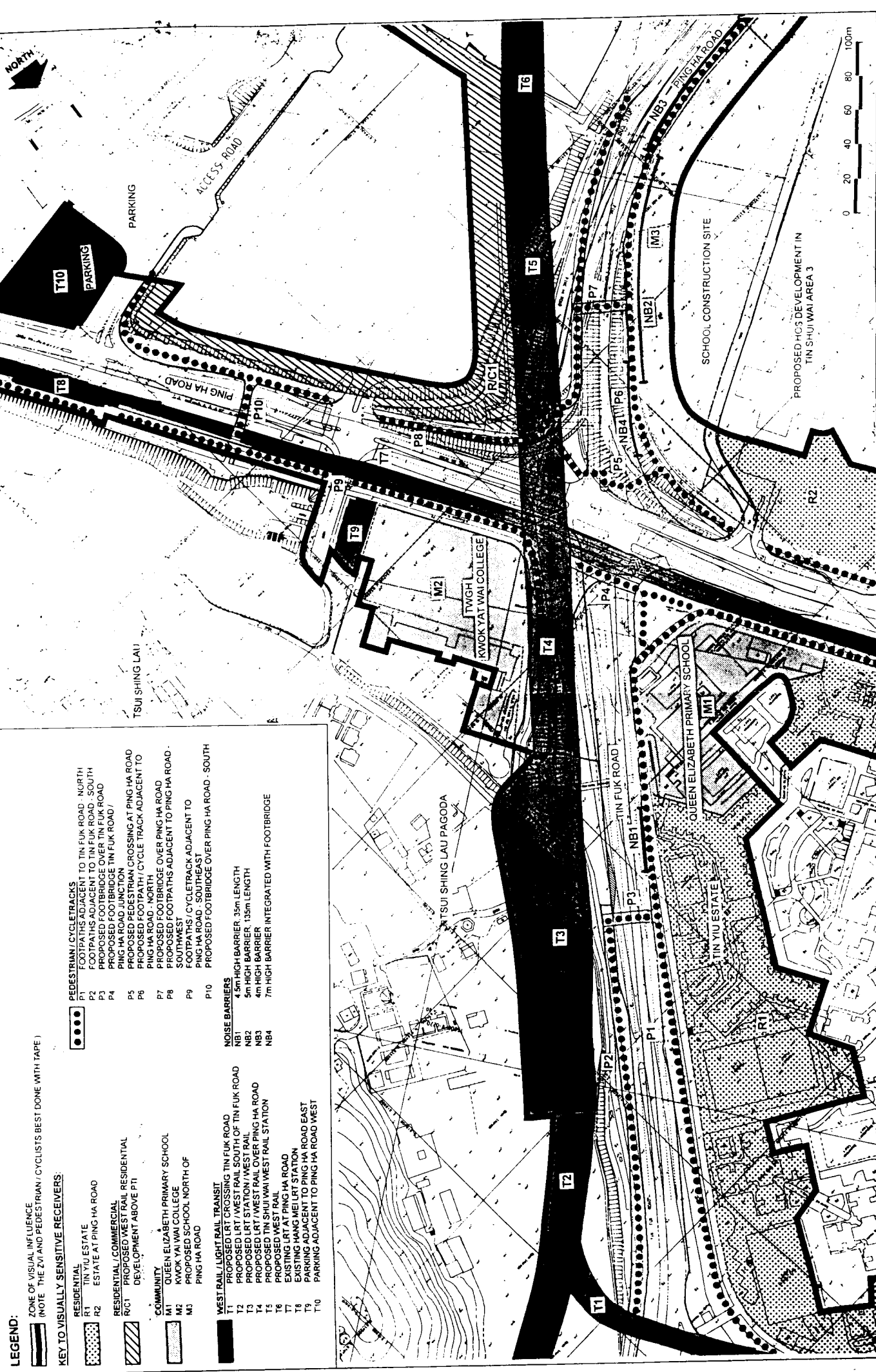
The surrounding landscape resources at Tuen Mun are illustrated by *Figure 4.4i 'Baseline Landscape Conditions'* and *Figures 4.4j and 4.4k 'Site Photographs'* and comprise:

- Tuen Mun Town Park;
- Tuen Mun River and associated riverside walkways and cycletracks;
- children's play areas and seating areas south of San Fat Estate adjacent to Pui To Road
- Deacon Chui Park;
- playgrounds and park north of Yan Ching Street;
- street tree planting at the bus stop east of Tuen Mun Heung Sze Wui Road;
- planting beneath footbridge at San Fat LRT Station;
- street tree planting along Pui To Road west of Tuen Mun River; and
- street tree planting along Tsun Wen Road.

4.4.6.2 Landscape and Visual Character at Tuen Mun

The proposed road works lie within the densely developed urban area of Tuen Mun. The site is divided in a north-south direction by the Tuen Mun River, a 60 m wide channelled watercourse affording open vistas in an otherwise built-up area. The Pui To road bridge, the LRT river crossing and associated footbridges forms a focal point to the area. The river forms a distinct boundary in terms of land use and visual character.

To the west of the river lies dense, drab industrial and service development (Police, Fire and Ambulance stations) in multi-storey blocks. The LRT runs north-south down the west river bank as far as Pui To Road where it divides east and west. South of Pui To Road a small riverside park provides a green transition from built-up area to river. East of the river Pui To Road curves north east and is crossed at right angles by Tuen Mun Heung Sze Wui Road. To the south is Tuen Mun Town Park, an extensive high quality green open area fronting onto a riverside promenade with cycle-track. East of Tuen Mun Heung Sze Wui Road is an area of dense commercial and residential development with large shopping plazas supporting podiums and residential tower blocks. North of Pui To Road

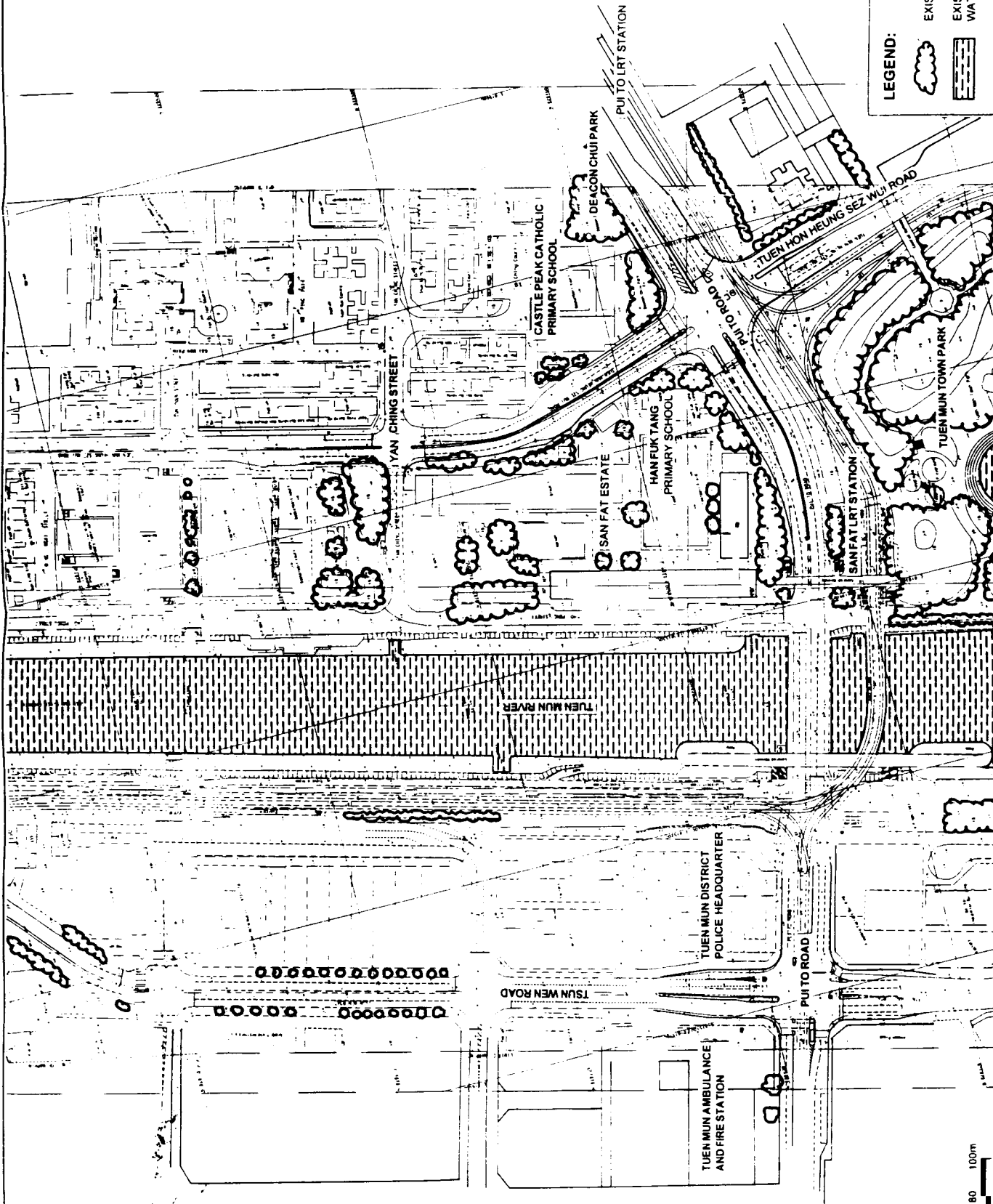


- LEGEND:**
- ZONE OF VISUAL INFLUENCE (NOTE THE ZVI AND PEDESTRIAN / CYCLISTS BEST DONE WITH TAPE)
 - KEY TO VISUALLY SENSITIVE RECEIVERS:
 - RESIDENTIAL
 - R1 TIN YIU ESTATE
 - R2 ESTATE AT PING HA ROAD
 - RESIDENTIAL / COMMERCIAL DEVELOPMENT ABOVE P11
 - COMMUNITY
 - M1 QUEEN ELIZABETH PRIMARY SCHOOL
 - M2 KWOK YAT WAI COLLEGE
 - M3 PROPOSED SCHOOL NORTH OF PING HA ROAD
 - WEST RAIL / LIGHT RAIL TRANSIT
 - T1 PROPOSED LRT CROSSING TIN FUK ROAD
 - T2 PROPOSED LRT WEST RAIL SOUTH OF TIN FUK ROAD
 - T3 PROPOSED LRT STATION / WEST RAIL
 - T4 PROPOSED LRT / WEST RAIL OVER PING HA ROAD
 - T5 PROPOSED TIN SHUI WAI WEST RAIL STATION
 - T6 PROPOSED WEST RAIL
 - T7 EXISTING LRT AT PING HA ROAD
 - T8 EXISTING HANG MEI LRT STATION
 - T9 PARKING ADJACENT TO PING HA ROAD EAST
 - T10 PARKING ADJACENT TO PING HA ROAD WEST
 - PEDESTRIAN / CYCLE TRACKS
 - P1 FOOTPATHS ADJACENT TO TIN FUK ROAD - NORTH
 - P2 FOOTPATHS ADJACENT TO TIN FUK ROAD - SOUTH
 - P3 PROPOSED FOOTBRIDGE OVER TIN FUK ROAD
 - P4 PROPOSED FOOTBRIDGE OVER TIN FUK ROAD
 - P5 PING HA ROAD JUNCTION
 - P6 PROPOSED PEDESTRIAN CROSSING AT PING HA ROAD
 - P7 PROPOSED PEDESTRIAN CROSSING OVER PING HA ROAD - NORTH
 - P8 PROPOSED PEDESTRIAN CROSSING OVER PING HA ROAD - SOUTH
 - P9 PROPOSED FOOTPATHS ADJACENT TO PING HA ROAD - WEST
 - P10 PROPOSED FOOTPATHS / CYCLE TRACK ADJACENT TO PING HA ROAD - SOUTH/EAST
 - NOISE BARRIERS
 - NB1 4.5m HIGH BARRIER, 35m LENGTH
 - NB2 5m HIGH BARRIER, 135m LENGTH
 - NB3 4m HIGH BARRIER
 - NB4 7m HIGH BARRIER INTEGRATED WITH FOOTBRIDGE

REV	DATE	BY	CHK	APP	DESCRIPTION
1	22/1/19	W. CHARGE	W. CHARGE		NOISE BARRIER AMENDED TO WEST RAIL
2	22/1/19	W. CHARGE	W. CHARGE		NOISE BARRIER AMENDED TO WEST RAIL
3	22/1/19	W. CHARGE	W. CHARGE		NOISE BARRIER AMENDED TO WEST RAIL
4	22/1/19	W. CHARGE	W. CHARGE		NOISE BARRIER AMENDED TO WEST RAIL
5	22/1/19	W. CHARGE	W. CHARGE		NOISE BARRIER AMENDED TO WEST RAIL

DESIGNED BY	DATE	SCALE	PROJECT NO.	DATE
DRAWN BY	DATE	SCALE	PROJECT NO.	DATE
CHECKED BY	DATE	SCALE	PROJECT NO.	DATE
APPROVED BY	DATE	SCALE	PROJECT NO.	DATE

KOWLOON-CANTON RAILWAY CORPORATION		WEST RAIL	
KCR WEST RAIL (PHASE 1) ESSENTIAL PUBLIC INFRASTRUCTURE WORKS FOR YUEN LONG SECTION			
MODIFICATIONS TO TIN FUK ROAD, PING HA ROAD AND TIN YIU ROAD TO SERVE TS STATION VISUALLY SENSITIVE RECEIVERS AT TIN SHUI WAI			



LEGEND:

- EXISTING TREES
- EXISTING DRAINAGE AND WATER BODIES

PROJECT NO.	1000	DATE	1/97
SCALE	1:2,000	DATE	1/97
PROJECT NAME	KCR WEST RAIL (PHASE 1) ESSENTIAL PUBLIC INFRASTRUCTURE WORKS FOR TUEN MUN LONG SECTION		
PROJECT NO.	1000	DATE	1/97
SCALE	1:2,000	DATE	1/97
PROJECT NAME	KCR WEST RAIL (PHASE 1) ESSENTIAL PUBLIC INFRASTRUCTURE WORKS FOR TUEN MUN LONG SECTION		
PROJECT NO.	1000	DATE	1/97
SCALE	1:2,000	DATE	1/97
PROJECT NAME	KCR WEST RAIL (PHASE 1) ESSENTIAL PUBLIC INFRASTRUCTURE WORKS FOR TUEN MUN LONG SECTION		

KOWLOON-CANTON RAILWAY CORPORATION

WEST RAIL

BASELINE LANDSCAPE CONDITIONS PLAN

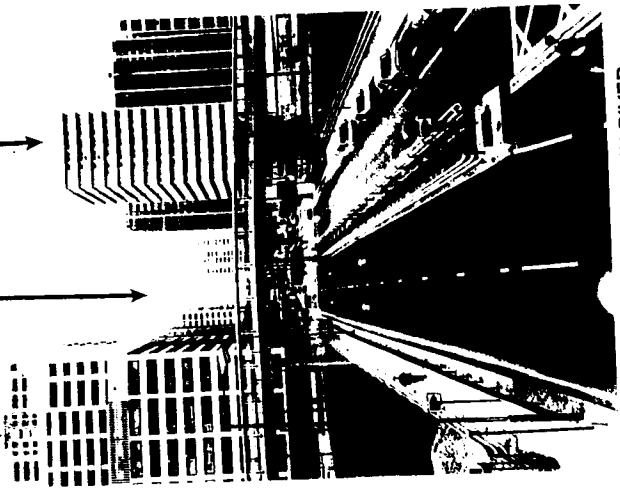
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APPROVED BY	1000	DATE	1/97
PROJECT NO.	1000	DATE	1/97
SCALE	1:2,000	DATE	1/97
PROJECT NAME	KCR WEST RAIL (PHASE 1) ESSENTIAL PUBLIC INFRASTRUCTURE WORKS FOR TUEN MUN LONG SECTION		



INDUSTRIAL BLOCK

PUI TO ROAD

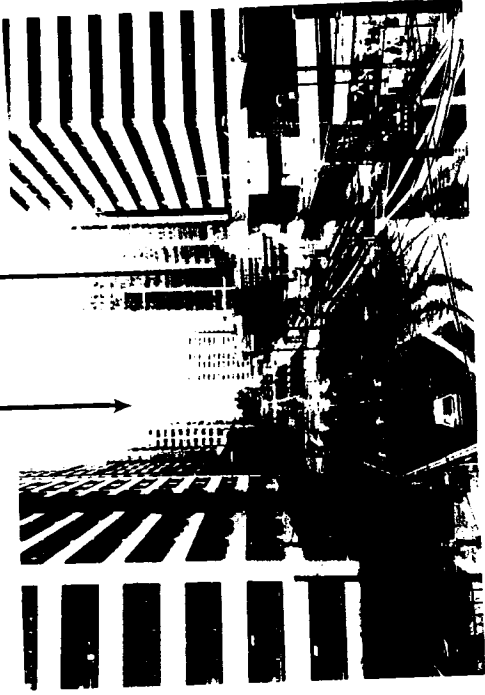
TUEN MUN DISTRICT POLICE HEADQUARTER



VIEW WEST ACROSS TUEN MUN RIVER DOWN PO TUI ROAD

PUI TO ROAD

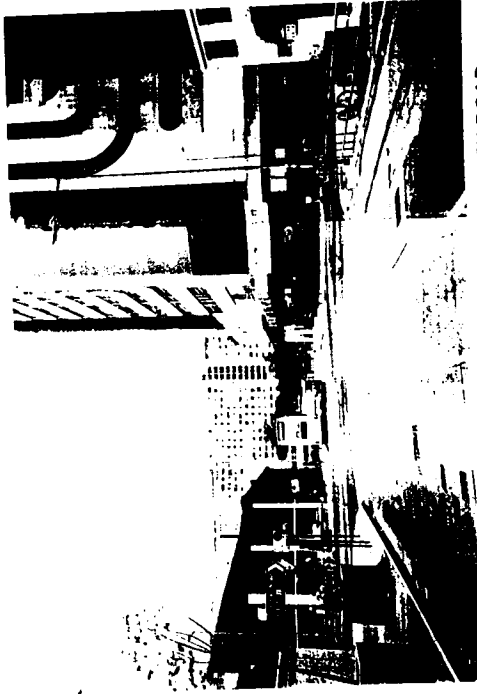
TUEN MUN DIVISIONAL FIRE STATION



VIEW WEST DOWN PUI TO ROAD



VIEW SOUTH DOWN TSUN WEN ROAD



VIEW EAST TO TUEN MUN RIVER ACROSS TSUN WEN ROAD

REV.	DATE	BY	SUB.	APP.	DESCRIPTION

DESIGNED BY
T. OSEORNE

DRAWN BY
T. OSEORNE

CHECKED BY
T. OSEORNE

IN CHARGE
A. DUGGIE

DATE
04/03/97

KOWLOON-CANTON RAILWAY CORPORATION

WEST RAIL

IMPROVEMENTS TO TUEN MUN HEUNG SZE WUI ROAD,
YAN CHING STREET, PUI TO ROAD, HO PONG STREET AND
KIN FUNG CIRCUIT SERVING TMC STATION

SITE PHOTOGRAPHS

COORD. FILE NO. CAD003A

SCALE

DRAWING NUMBER
4 4

CONTING. NO.
REV. SHEET NO.

is an ageing public housing estate with courtyards and a landscaped fringe. North and east of Tuen Mun Heung Sze Wui Road is an area of mixed commercial and residential uses with a large Catholic school and church and Deacon Chui Park fringing Pui To Road.

The existing roads and LRT system form significant visual elements and physical barriers to circulation. Large footbridges either side of the river and linking Tuen Mun Town Park to the east over Tuen Mun Heung Sze Wui Road allow pedestrians open views across the road, LRT system and river. Pui To Road rises east onto a flyover with pedestrian circulation beneath.

4.4.6.3 Zone of Visual Influence at Tuen Mun

The zone of visual influence (ZVI) and the Visually Sensitive Receivers (VSR's) found within the ZVI are illustrated by *Figure 4.41 'Sensitive Visual Receivers at Tuen Mun'*.

The ZVI of the roadworks is tightly defined by the built form of Tuen Mun and to the west of the Tuen Mun River largely reflects the street pattern. To the east of the river the pattern of development is more relaxed and a greater proportion of open area is reflected in a more extensive ZVI.

To the west of the Tuen Mun River the major VSR's are the Police, Fire and Ambulance stations north of Pui To Road. Pedestrians using Tsun Wen Road, Tin Hau Road and Pui To Road will also be affected. The surrounding industrial development is not considered a sensitive receiver. At the riverside the roadworks will be seen by users of the open area south of the bridge crossings, pedestrians and cyclists on the road and footbridges and pedestrians and cyclists on the riverside paths to the north and also passengers on the LRT.

East of the river and south of Pui To Road the roadworks will be visible from Tuen Mun Park and riverside promenade. Pedestrians and LRT passengers will have direct views from the footbridge and Pui To LRT Station. Views from the commercial plazas are limited but residents in the apartment blocks above will have clear views. LRT passengers on the Tuen Mun Heung Sze Wui Road and Pui To Road lines will also have direct views. North of the river the existing residential areas and open area's will be redeveloped as part of the West Rail station complex. Users of this complex will have views of the roadworks along Pui To Road and Tuen Mun Heung Sze Wui Road. Residents and pedestrians in the mixed commercial and residential area north-east of Tuen Mun Heung Sze Wui Road will also have views of the roadworks. Visual impact on Deacon Chui Park is only slight as the adjacent flyover of Pui To Road provides an effective screen.

4.4.7 Visually Sensitive Receivers

4.4.7.1 Visually Sensitive Receivers at Yuen Long

4.4.7.1.1 Visually Sensitive Receivers during the Construction Phase

Visually Sensitive Receivers (VSRs) associated with the Yuen Long Station access roads development during the Construction Phase are illustrated on *Figure 4.4d* and are listed below:

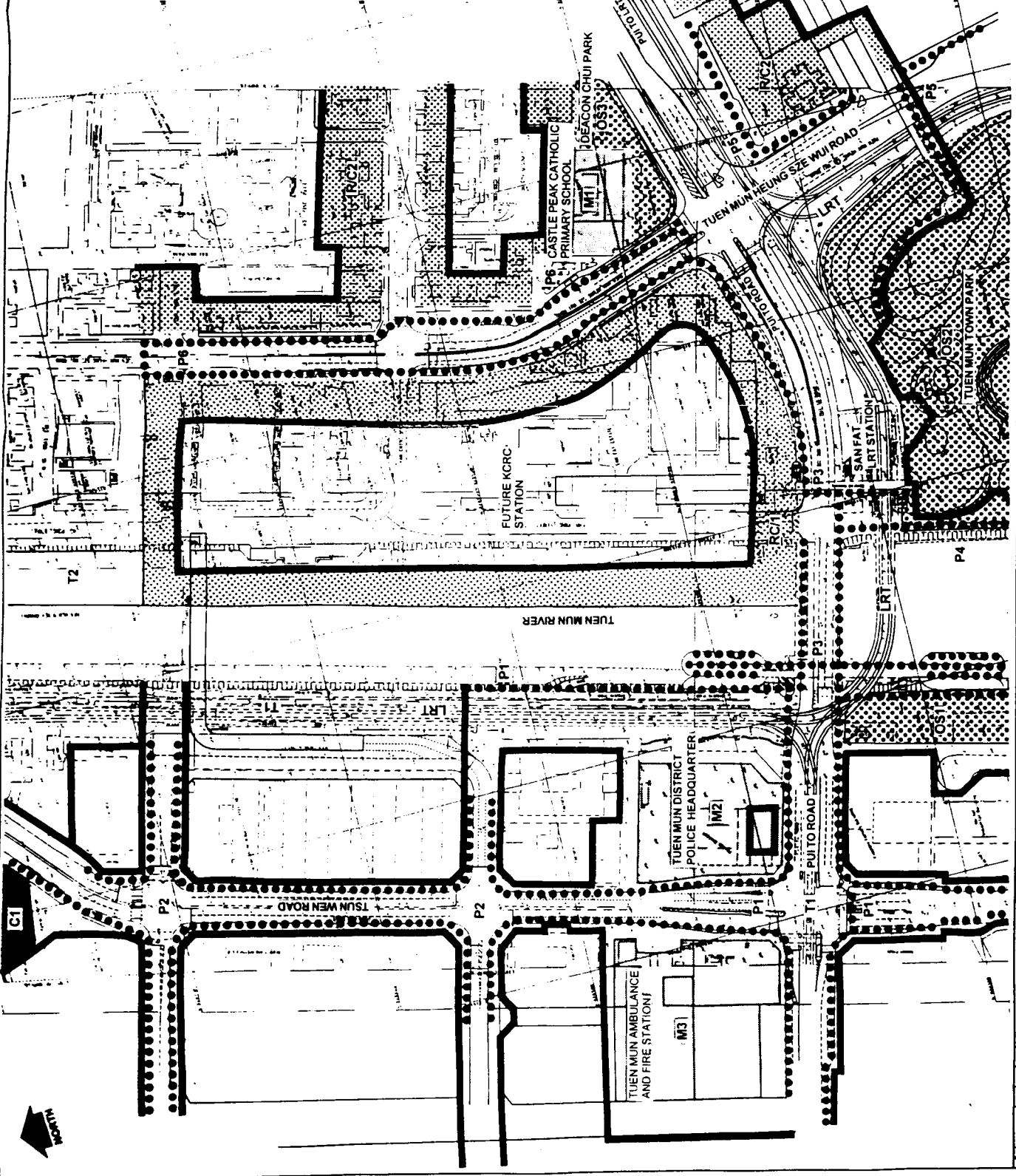
- motorists, passengers and cyclists on Castle Peak Road, cycle track, footpaths and footbridges;
- residents and users of the Sun Yuen Long Centre;
- passengers at the Sun Yuen Long Centre Bus Terminus and LRT depot;
- residents and workers at developments located within Yuen Long to the south-west;
- residents at the villages of Yuen Long Kau Hui, Nam Pin Wai, Tsoi Uk Tsuen, Ying Lung Wai and Tai Wai Tsuen
- users of the open space between village developments to the north and Castle Peak Road to the south;
- residents at the Far East Construction Yuen Long Building;
- motorists, passengers and pedestrians on Long Yat Road;
- students and teachers at Shung Tak School.

4.4.7.1.2 Visually Sensitive Receivers during the Operational Phase

Visually Sensitive Receivers (VSRs) associated with the Yuen Long Station access roads development during the Operational Phase are illustrated on *Figure 4.4d* and are listed below:

- motorists, passengers and cyclists on Castle Peak Road, cycle track, footpaths and footbridges;
- residents and users of the Sun Yuen Long Centre;
- residents in the CDA12 development;
- residents in the CDA15 development;
- passengers at the Sun Yuen Long Centre Bus Terminus and LRT depot;
- residents of the proposed West Rail property developments above Yuen Long station and the PTI south of the Sun Yuen Long Centre;
- residents and workers at developments located within Yuen Long to the south-west;

- LEGEND:**
- ▬ ZONE OF VISUAL INFLUENCE
 - ○ ○ ○ KEY TO VISUALLY SENSITIVE RECEIVERS:
 - PEDESTRIAN CIRCULATION
 - P1 PEDESTRIANS ALONG PUI TO ROAD, TIN HAU ROAD AND TSUN WEN ROAD
 - P2 PEDESTRIANS ALONG TSUN WEN ROAD
 - P3 PEDESTRIANS ON FOOTBRIDGES
 - P4 PEDESTRIANS ALONG TUEN MUN RIVER PROMENADE EAST BANK
 - P5 PEDESTRIANS SOUTH-EAST OF PUI TO ROAD AND TUEN MUN HEUNG SZE WUI ROAD
 - P6 PEDESTRIANS ALONG TUEN MUN HEUNG SZE WUI ROAD
 - COMMUNITY
 - M1 STUDENTS AND TEACHERS IN CASTLE PEAK CATHOLIC PRIMARY SCHOOL
 - M2 WORKERS AT TUEN MUN DISTRICT POLICE HEADQUARTER
 - M3 WORKERS AT TUEN MUN AMBULANCE AND FIRE DEPARTMENT
 - OPEN SPACE
 - OS1 USERS OF RIVERSIDE OPEN SPACE SOUTH OF ROADBRIDGE, WEST RIVER BANK
 - OS2 USERS OF TUEN MUN TOWN PARK
 - OS3 USERS OF DEACON CHUI PARK
 - RESIDENTIAL / COMMERCIAL
 - RC1 RESIDENTS AND USERS OF PROPOSED TUEN MUN WEST RAIL STATION DEVELOPMENT
 - RC2 RESIDENTS AND SHOPPERS AT COMMERCIAL AND RESIDENTIAL BLOCKS ALONG EAST SIDE OF TUEN MUN HEUNG SZE WUI ROAD
 - COMMERCIAL
 - C1 WORKERS AND DRIVERS AT PETROL STATION
 - TRANSPORT
 - T1 LRT PASSENGERS ALONG PUI TO ROAD
 - T2 WEST RAIL ALIGNMENT



DESIGNED BY I. CHONG		DRAWN BY I. CHONG		CHECKED BY I. CHONG		IN CHARGE A. NG		DATE 1/5/11		PROJECT NO. KCR-WEST RAIL (PHASE 1)		SHEET NO. 1		SCALE 1:2,000		DATE 4/4		PROJECT NAME KOWLOON-CANTON RAILWAY CORPORATION	
DESIGNED BY I. CHONG										DRAWN BY I. CHONG									
CHECKED BY I. CHONG										IN CHARGE A. NG									
DATE 1/5/11										PROJECT NO. KCR-WEST RAIL (PHASE 1)									
SHEET NO. 1										SCALE 1:2,000									
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PROJECT NAME KOWLOON-CANTON RAILWAY CORPORATION										SHEET NO. 1									
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DATE 4/4										PROJECT NAME KOWLOON-CANTON RAILWAY CORPORATION									
PROJECT NO. KCR-WEST RAIL (PHASE 1)										SHEET NO. 1									
SCALE 1:2,000										DATE 4/4									
PROJECT NAME KOWLOON-CANTON RAILWAY CORPORATION										SHEET NO. 1									

- residents at the villages of Yuen Long Kau Hui, Nam Pin Wai, Tsoi Uk Tsuen, Ying Lung Wai and Tai Wai Tsuen
- users of the open space between village developments to the north and Castle Peak Road to the south;
- residents at the Far East Construction Yuen Long Building;
- motorists, passengers and pedestrians on Long Yat Road;
- passengers on West Rail; and
- students and teachers at Shung Tak School.

4.4.7.2 Visually Sensitive Receivers at Tin Shui Wai

4.4.7.2.1 Visually Sensitive Receivers during the Construction Phase

Visually Sensitive Receivers (VSRs) associated with the Tin Shui Wai Station road works during the Construction Phase are illustrated on *Figure 4.4h* and are listed below:

- residents at Tin Yiu Estate;
- residents of the proposed HOS development in Tin Shui Wai Area 3;
- motorists, passengers, cyclists and pedestrians on Tin Fuk Road, Ping Ha Road and adjacent footpaths, cycle tracks and footbridges;
- students and teachers at TWGH Kwok Yat Wai College;
- students and teachers at Queen Elizabeth Primary School;
- students and teachers at proposed school north of Ping Ha Road; and
- passengers on LRT at Ping Ha Road including Hang Mei Station.

4.4.7.2.2 Visually Sensitive Receivers during the Operational Phase

Visually Sensitive Receivers (VSRs) associated with the Tin Shui Wai Station road works during the Operational Phase are illustrated on *Figure 4.4h* and are listed below:

- residents at Tin Yiu Estate;
- residents of proposed HOS development in Tin Shui Wai Area 3.;
- residents of proposed West Rail residential development above proposed PTI at Ping Ha Road;
- motorists, passengers, cyclists and pedestrians on Tin Fuk Road, Ping Ha Road and adjacent footpaths, cycle tracks and footbridges;
- passengers on the proposed LRT and West Rail alignments along the southern side of Tin Fuk Road and Ping Ha Road;
- passengers on the proposed LRT and West Rail stations at Tin Fuk Road;
- students and teachers at TWGH Kwok Yat Wai College;

- students and teachers at Queen Elizabeth Primary School;
- students and teachers at proposed school north of Ping Ha Road; and
- passengers on LRT at Ping Ha Road including Hang Mei Station.

4.4.7.3 Visually Sensitive Receivers at Tuen Mun

4.4.7.3.1 Visually Sensitive Receivers during the Construction Phase

Visually Sensitive Receivers (VSRs) associated with the Tuen Mun road improvement works during the Construction Phase are illustrated on *Figure 4.41* and are listed below:

- workers at the Fire, Ambulance and Police Stations at Pui To Road;
- pedestrians on Pui To and Tsun Wen Roads;
- LRT passengers on Pui To Road and at San Fat and Pui To LRT Stations;
- pedestrians and cyclists on the western riverside footpaths and cycleways;
- pedestrians on the Pui To Road footbridges;
- users of the Tuen Mun Town Park;
- LRT passengers and pedestrians on Tuen Mun Heung Sze Wui Road and footbridge;
- residents in tower blocks east of Tuen Mun Heung Sze Wui Road;

4.4.7.3.2 Visually Sensitive Receivers during the Operational Phase

Visually Sensitive Receivers (VSRs) associated with the Tuen Mun road improvement works during the Operational Phase are illustrated on *Figure 4.41* and are listed below:

- workers at the Fire, Ambulance and Police Stations at Pui To Road;
- pedestrians on Pui To and Tsun Wen Roads;
- LRT passengers on Pui To Road and at San Fat and Pui To LRT Stations;
- pedestrians and cyclists on the western riverside footpaths and cycleways;
- pedestrians on the Pui To Road footbridges;
- users of the Tuen Mun Town Park;
- LRT passengers and pedestrians on Tuen Mun Heung Sze Wui Road and footbridge;
- residents in tower blocks east of Tuen Mun Heung Sze Wui Road;
- travellers, residents and shoppers in the proposed West Rail Station complex;
- students and teachers at the Castle Peak Catholic Primary School;
- residents and shoppers north of Castle Peak Catholic Primary School; and

4.5 Cultural and Heritage

4.5.1 Existing Conditions

No buildings or structures of known historical interest are to be directly impacted by the EPIW's. However, the *Tsui Shing Lau Pagoda* is located some 40 m south of Tin Shui Wai West Rail station from Tin Fuk Road, and is the only historical pagoda still standing in Hong Kong. Local tradition credits Tang Yin-tung, a member of the 7th generation of the Tang clan, as having built the Pagoda in 1486 during the Ming Dynasty. The three storey Pagoda is six-sided and built of grey brick with granite blocks around the entrance doorway; it is said to have been originally seven storeys high. Although To Ti and Kwan Tai are worshipped at Tsui Shing Lau, the Pagoda is said to principally serve a *fung shui* purpose and is associated with a number of *fung shui* elements within the local landscape, including the *fung shui* hill at Hang Mei Tsuen to the east.

Preliminary data gathering during the West Rail EIA has shown that no known archaeological sites will be directly affected by the EPIW's or indeed the West Rail Phase I alignment.