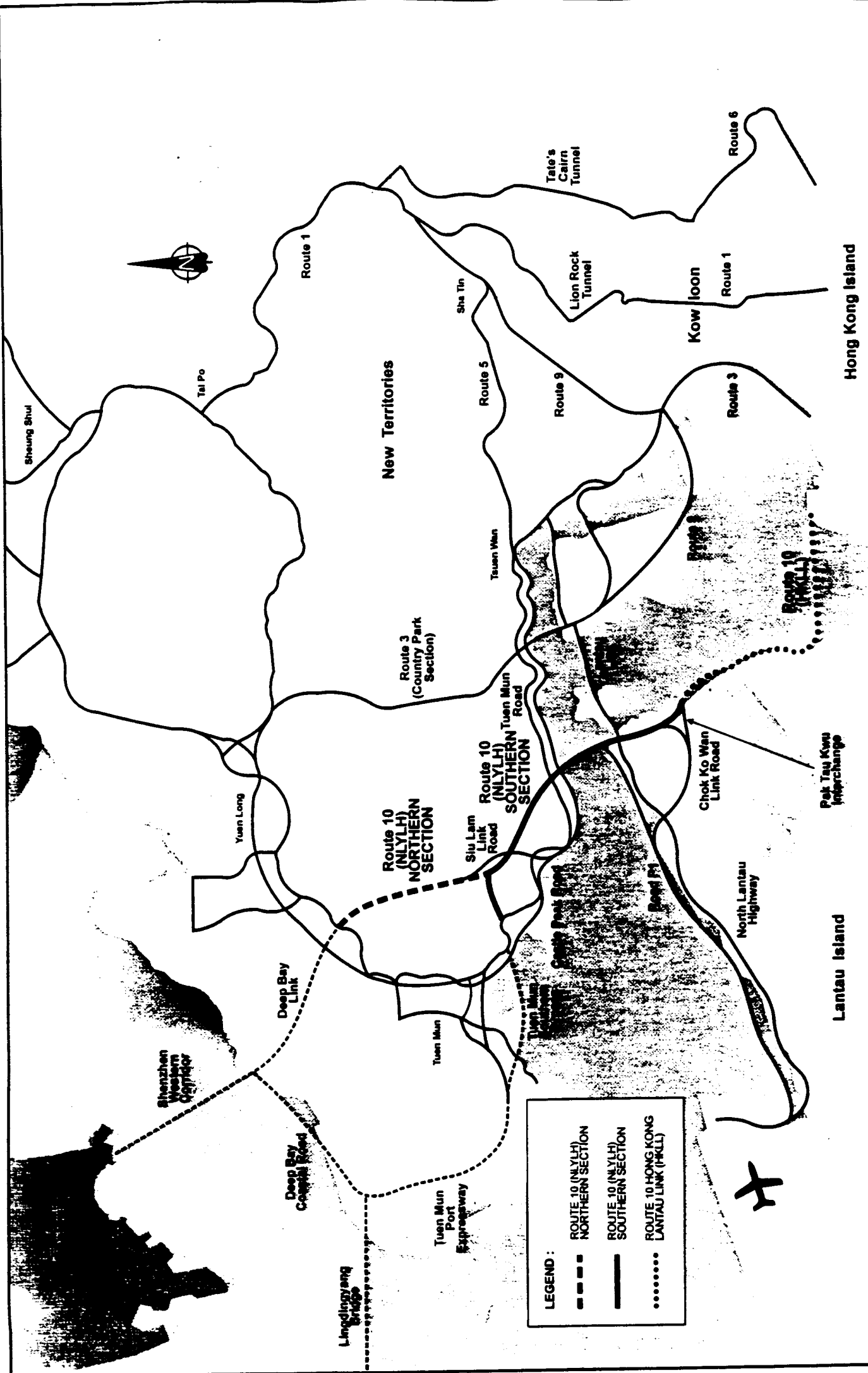


FIGURES



LEGEND :

--- --	ROUTE 10 (NLYLH) NORTHERN SECTION
—	ROUTE 10 (NLYLH) SOUTHERN SECTION
.....	ROUTE 10 HONG KONG LANTAU LINK (HKLL)



Figure No. 1.1

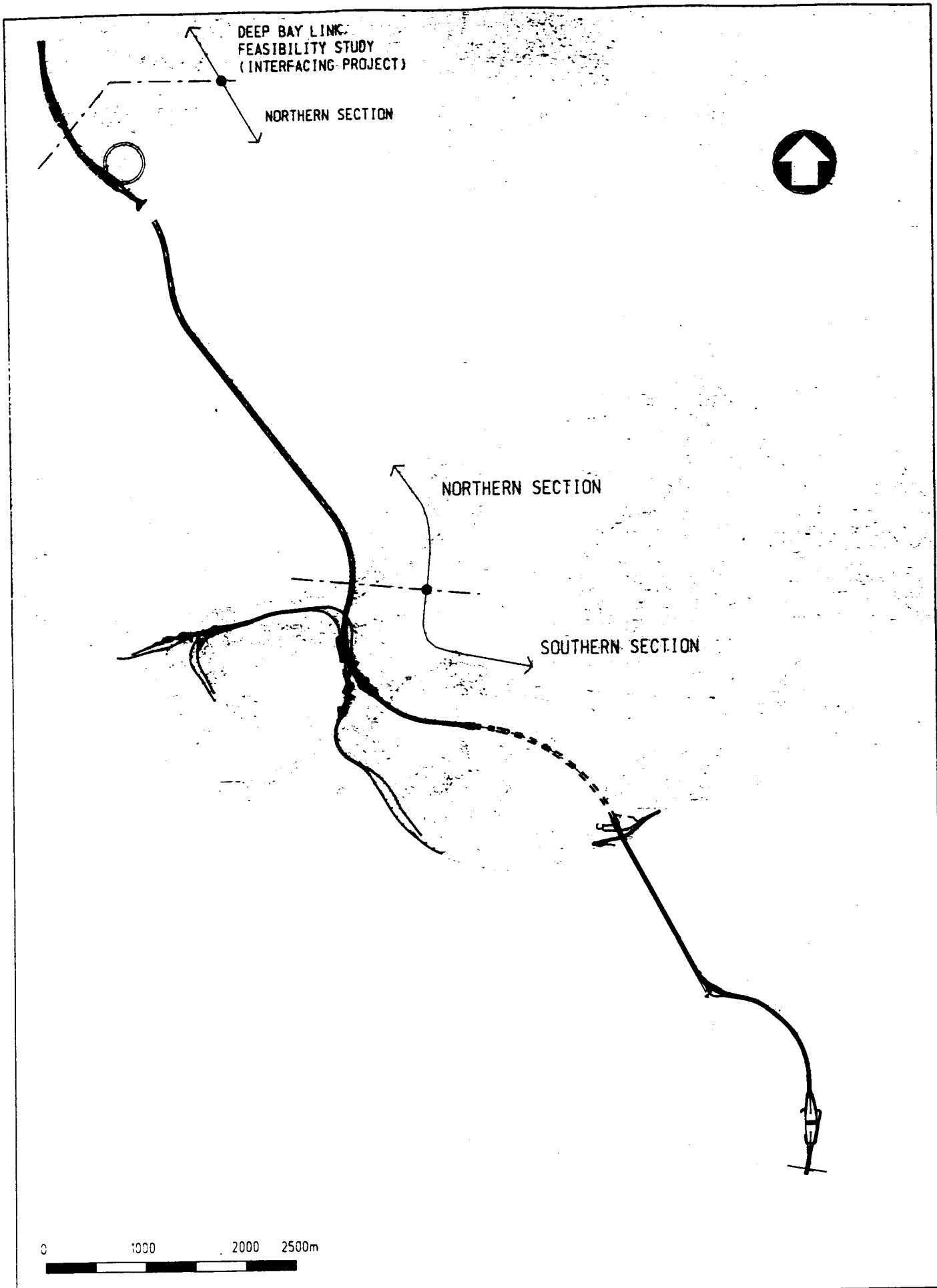
Title
STRATEGIC SETTING OF ROUTE 10 HIGHWAY

Title

Hong Kong Island

Lantau Island





Title
ROUTE 10 (NLYLH) ALIGNMENT
(SOUTHERN & NORTHERN SECTIONS)

FIGURE 1.2

CAD File : I:\PRO\524\NORTH\PREL\HYD\REP\FIG1-2



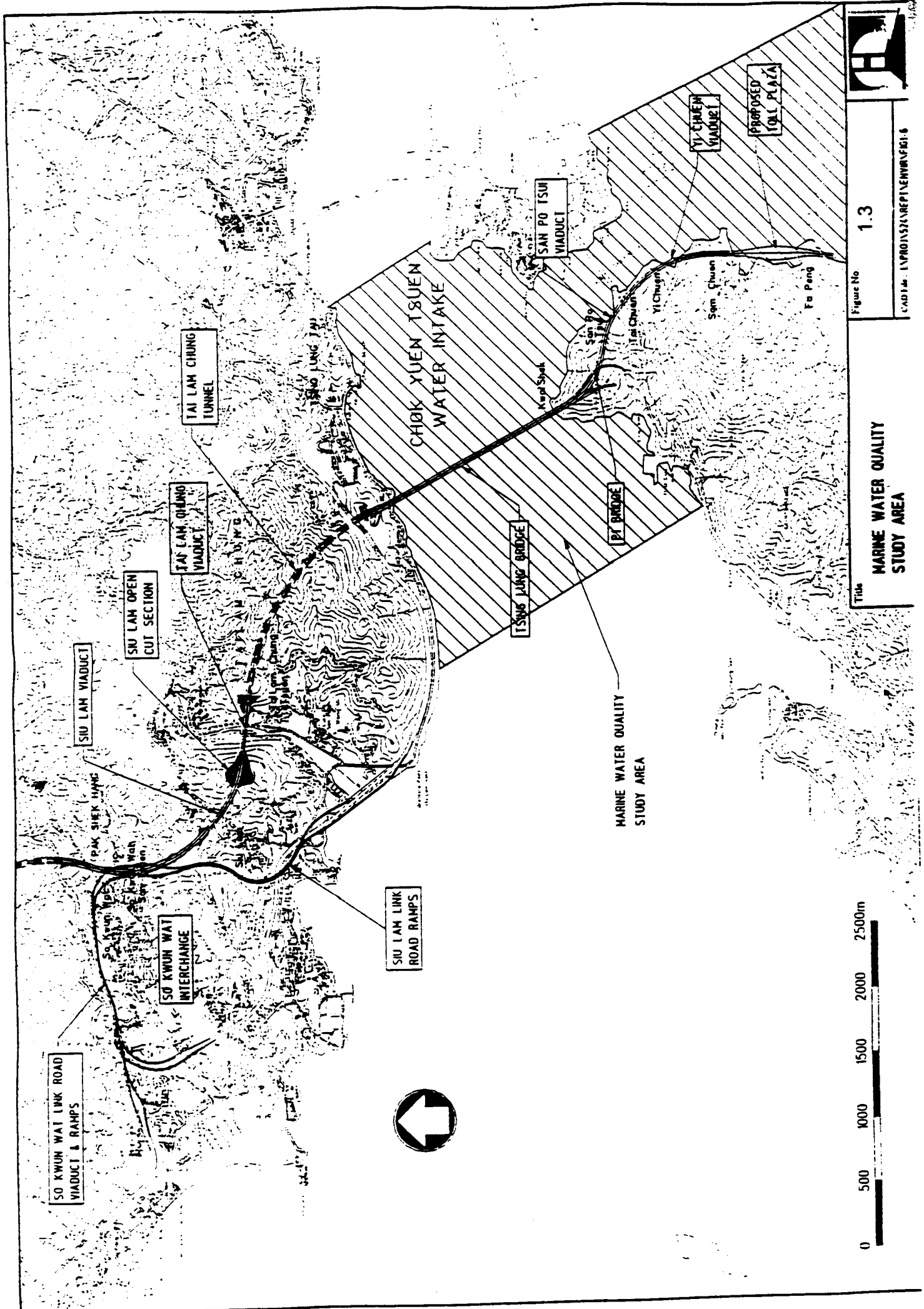


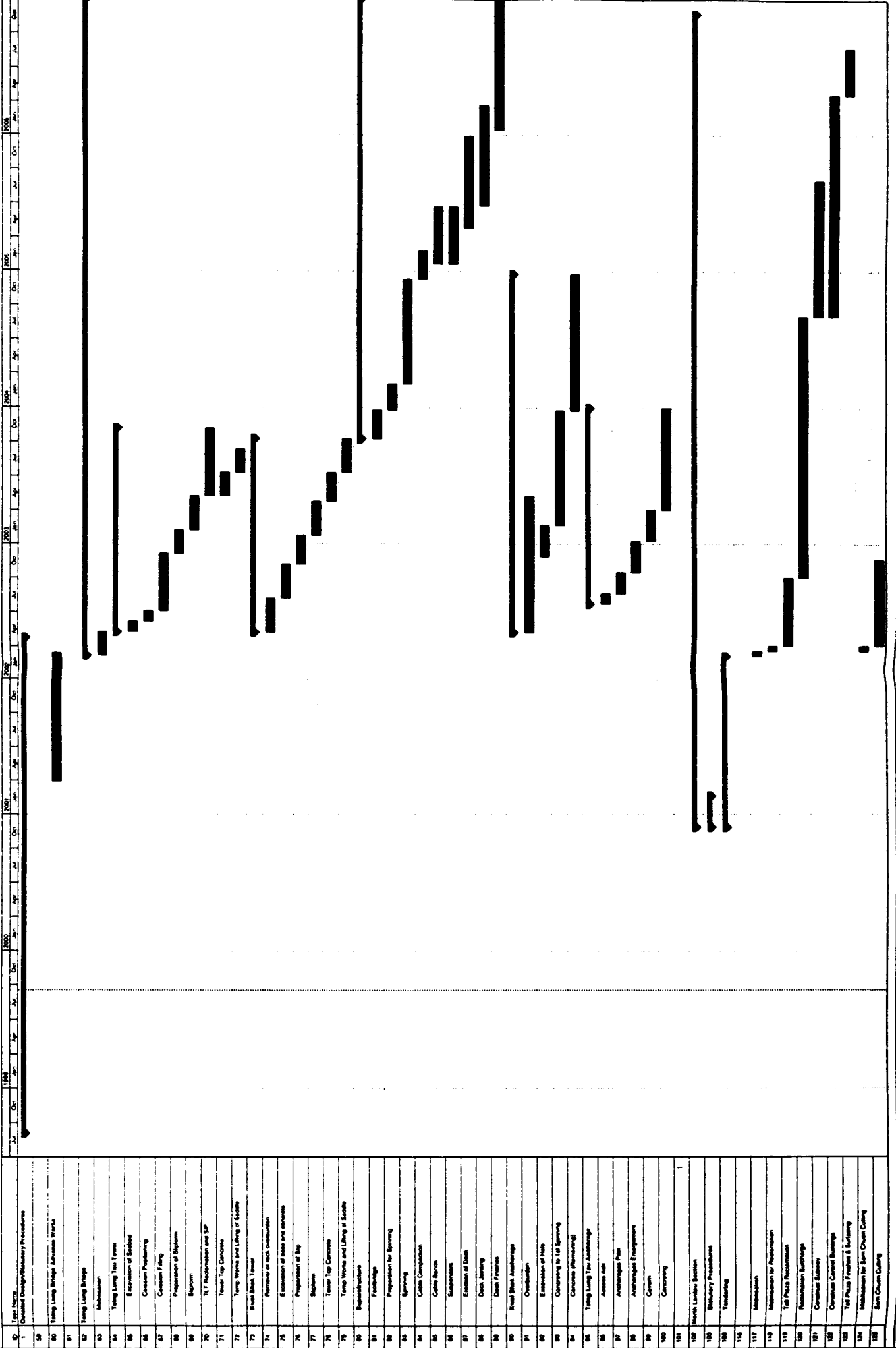
Figure No 1.3

Title
MARINE WATER QUALITY STUDY AREA

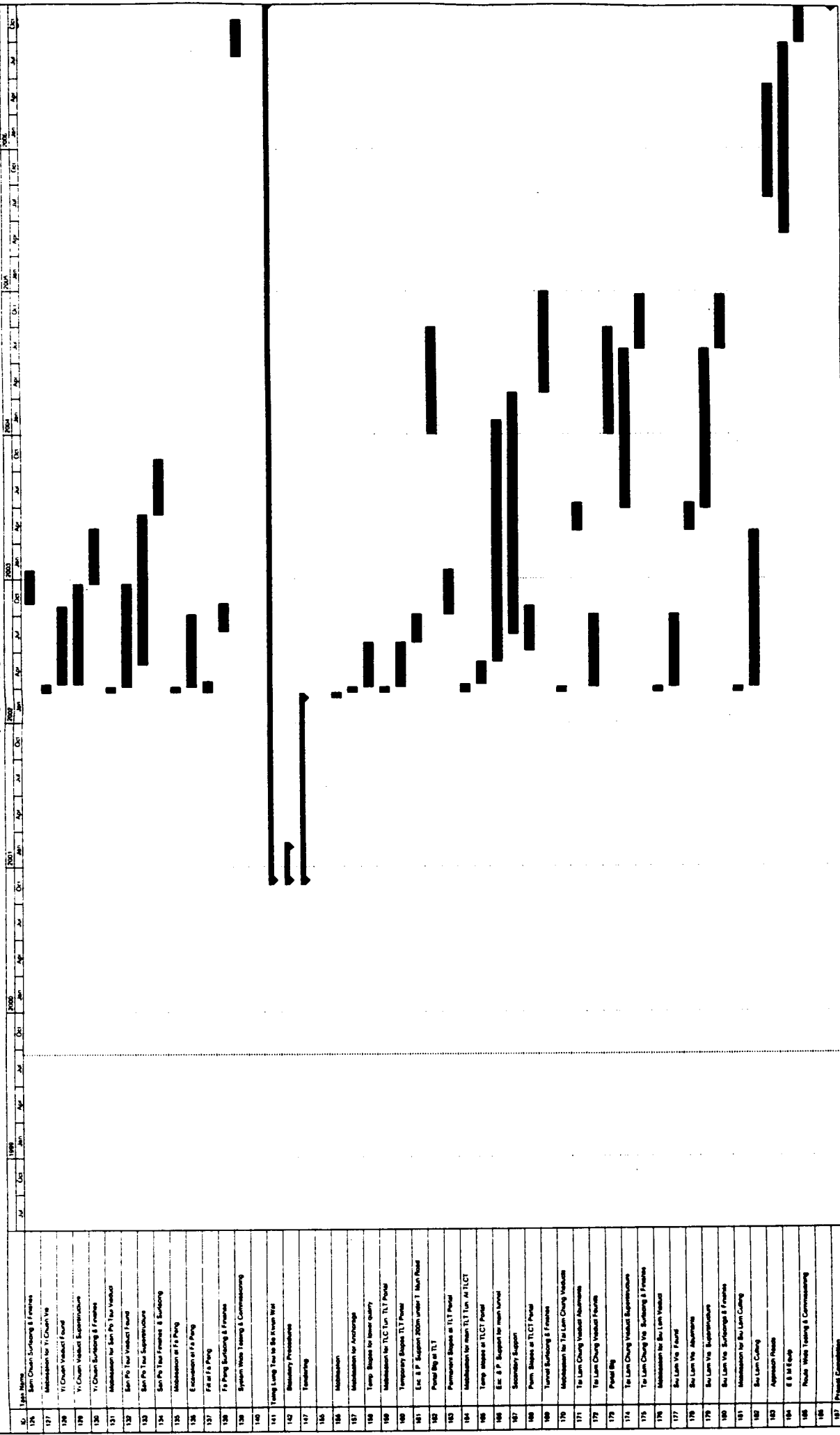
0 500 1000 1500 2000 2500m

CAD: M:\PROJ52\REP\EN\WV\FG1.6

Agreement No. CE 80377
 Route 10, 1000 to 10000 Highway
 Preparation and Final Design Assignment
 Preliminary Construction Programme



Agreement No. CE B2/87
 Route 10 - North Lantau to Yuen Long Highway
 Investigation and Preliminary Design Assignment
 Preliminary Construction Programme



Notes

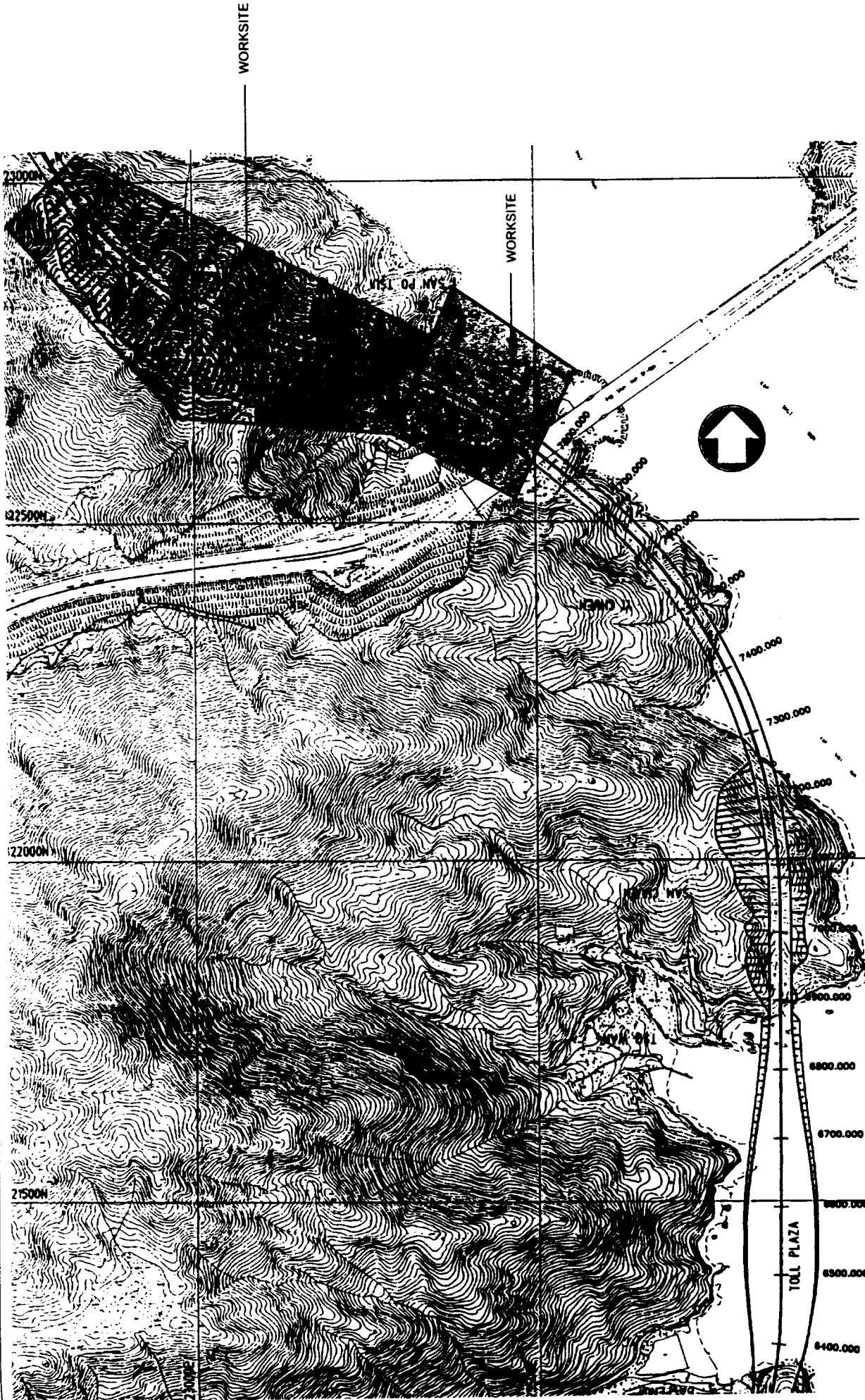
1. Programme has been developed for use in the EIA and scheduling has been undertaken to produce a worst case scenario.



Figure No. 2.2

CAD File: C1777s

LOCATION OF MAJOR WORKSITES
(NORTH LANTAU)



1 : 5000



Figure No. 2.3

CAD File: C1777's1

LOCATION OF MAJOR WORKSITES (TSING LUNG TAU)

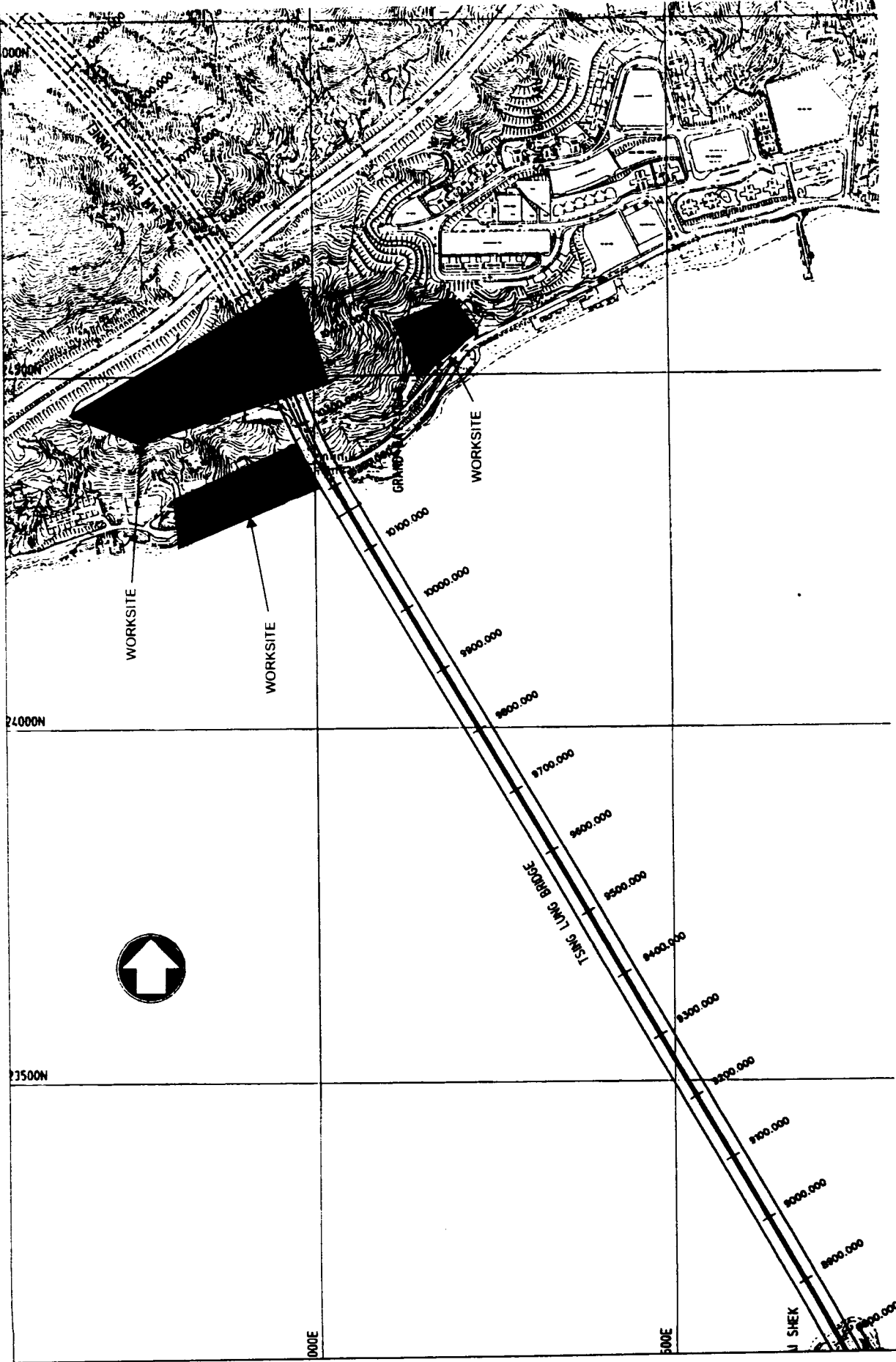
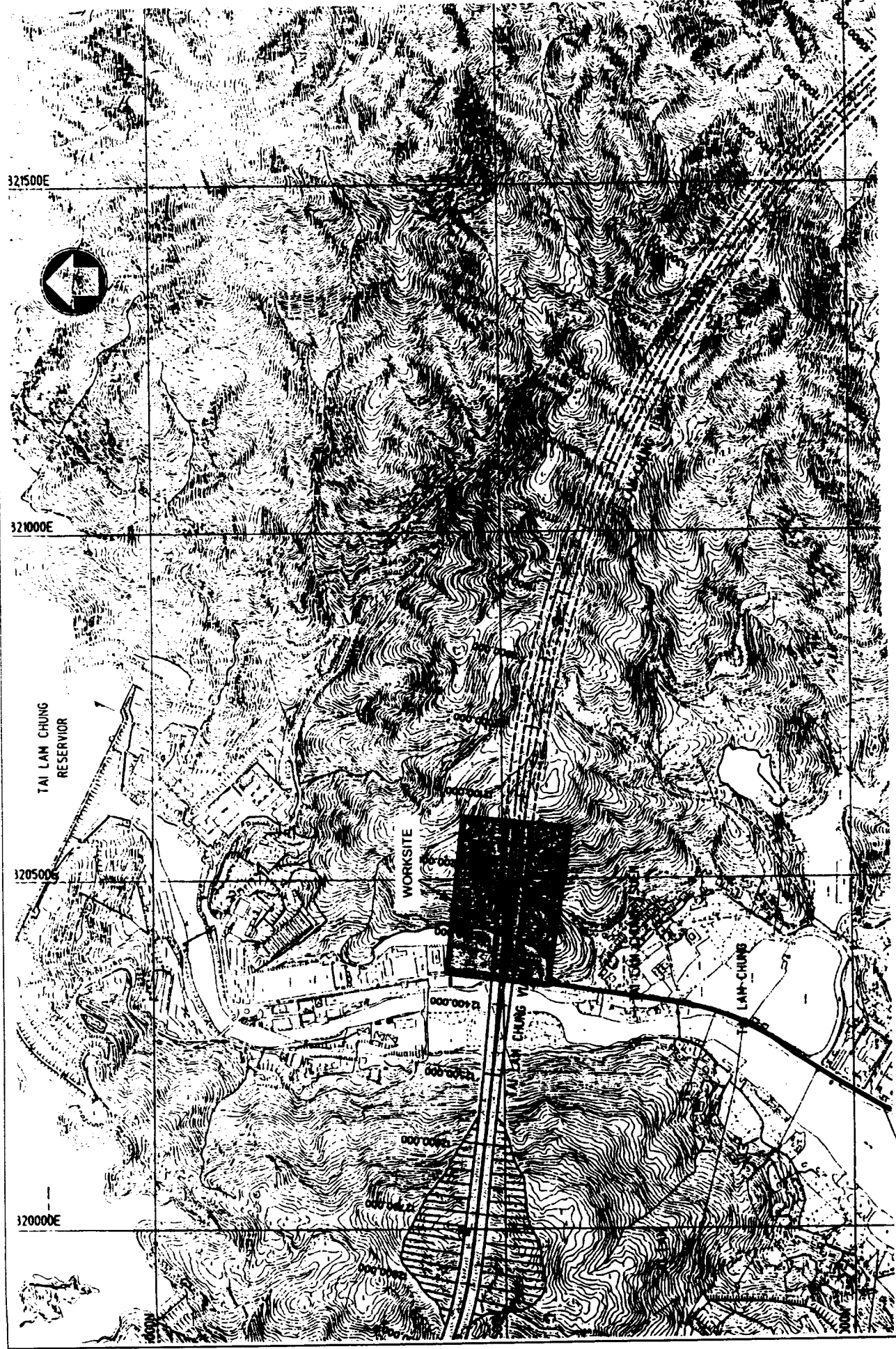


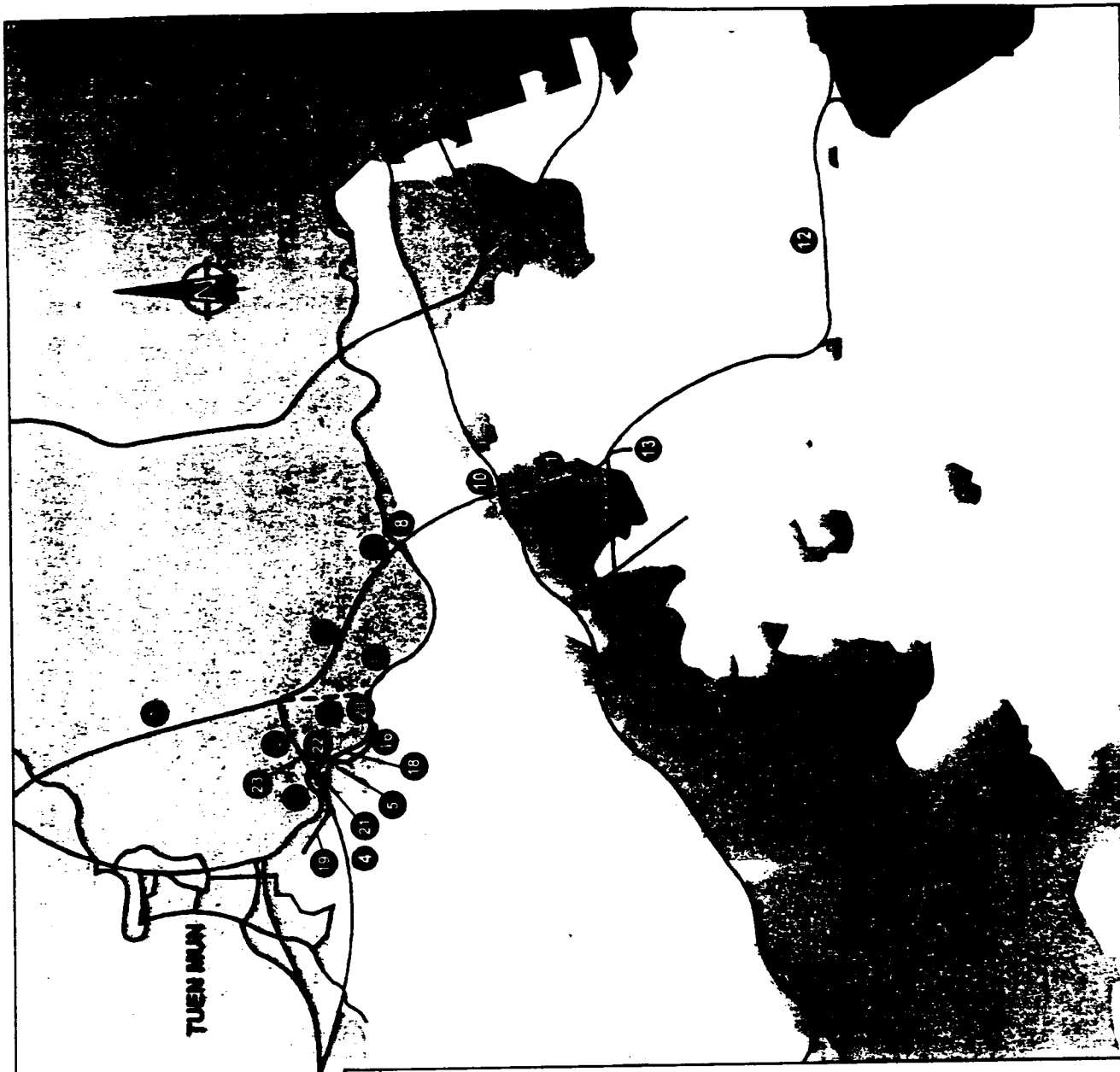


Figure No. 2.4

CAD File: C:1777&2

LOCATION OF MAJOR WORKSITES
(TAI LAM CHUNG)





TUEN MUN

KEY

	DIRECTION	TRAFFIC (VEH/HR)
1	NB / SB	4840 / 4680
2	EB / WB	3260 / 3420
3	NB / SB	4870 / 4390
4	NB / SB	4660 / 4730
5	EB / WB	4450 / 4660
6	NB / SB	5010 / 4800
7	EB / WB	4320 / 4700
8	EB / WB	2200 / 2270
9	EBWB	5180 / 5150
10	NB / SB	4970 / 4840
11	NB / SB	3520 / 3500
12	NB / SB	2880 / 3100
13	NB / SB	5170 / 5030
14	NB / SB	2210 / 2130
15	WB / EB	4700 / 4320
16	WB / EB	4710 / 4430
17	WB / EB	2390 / 2210
18	EB / WB	4710 / 4430
19	EB / WB	2390 / 2210
20	EB / WB	4670 / 4550
21	EB / WB	1730 / 1640
22	EB / WB	2390 / 2210
23	EB / WB	2390 / 2210

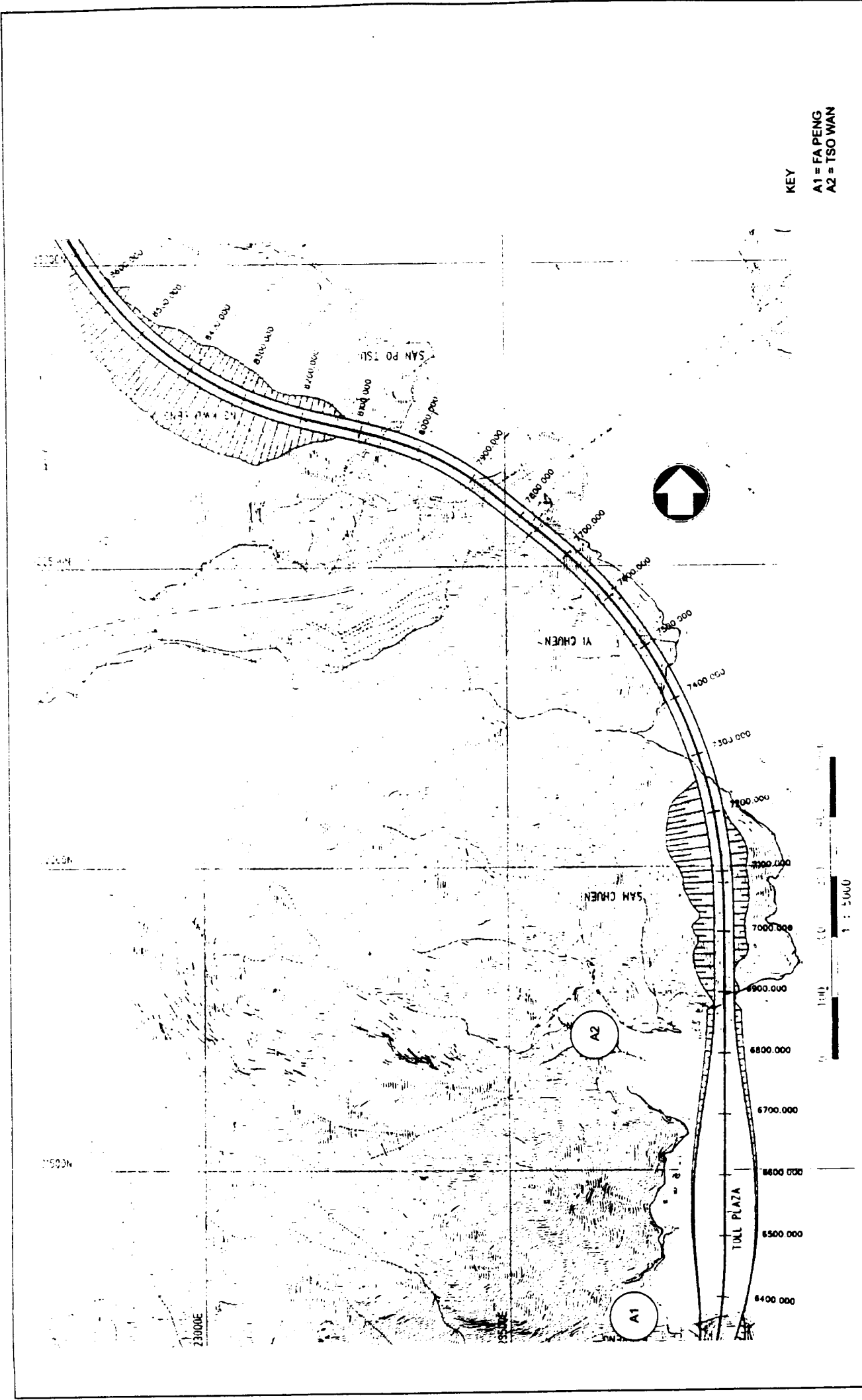


Figure No 3 1

CAD File: C1777X1

LOCATION OF ASRS (NORTH LANTAU)

KEY
A1 = FA PENG
A2 = TSO WAN





KEY
A3 - HK GARDEN
A4 - SQUATTER AREA
NORTHWEST TO
HK GARDEN
P1 - PROPOSED
DEVELOPMENT

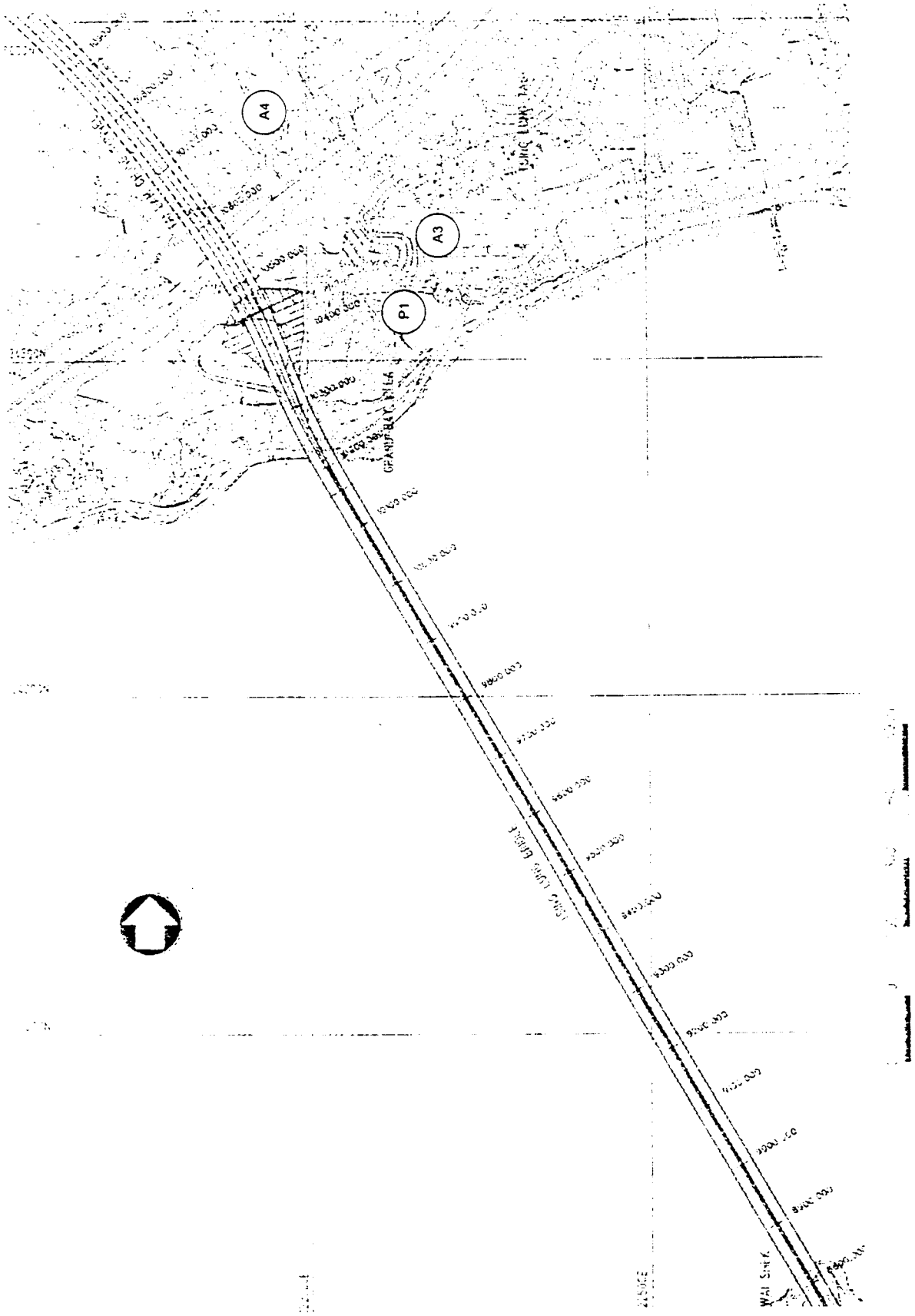


Figure No. 3.2

CAD File: C1777x48

LOCATION OF ASRs
(TSING LUNG TAU)



Figure No. 3.3

CAD File: C177719

LOCATION OF ASRs (TAI LAM CHUNG)

- KEY
- A7 = CORRECTIONAL INSTITUTION (STAFF QUARTERS)
 - A8 = CLINIC
 - A9 = TAI LAM CHUNG TSUEN
 - A10 = SCATTERED DEVELOPMENT AT WEST OF TLC RD
 - A11 = CDA TO THE SOUTH OF TLC VIADUCT
 - A12 = V ZONE TO THE SOUTH OF TLC VIADUCT

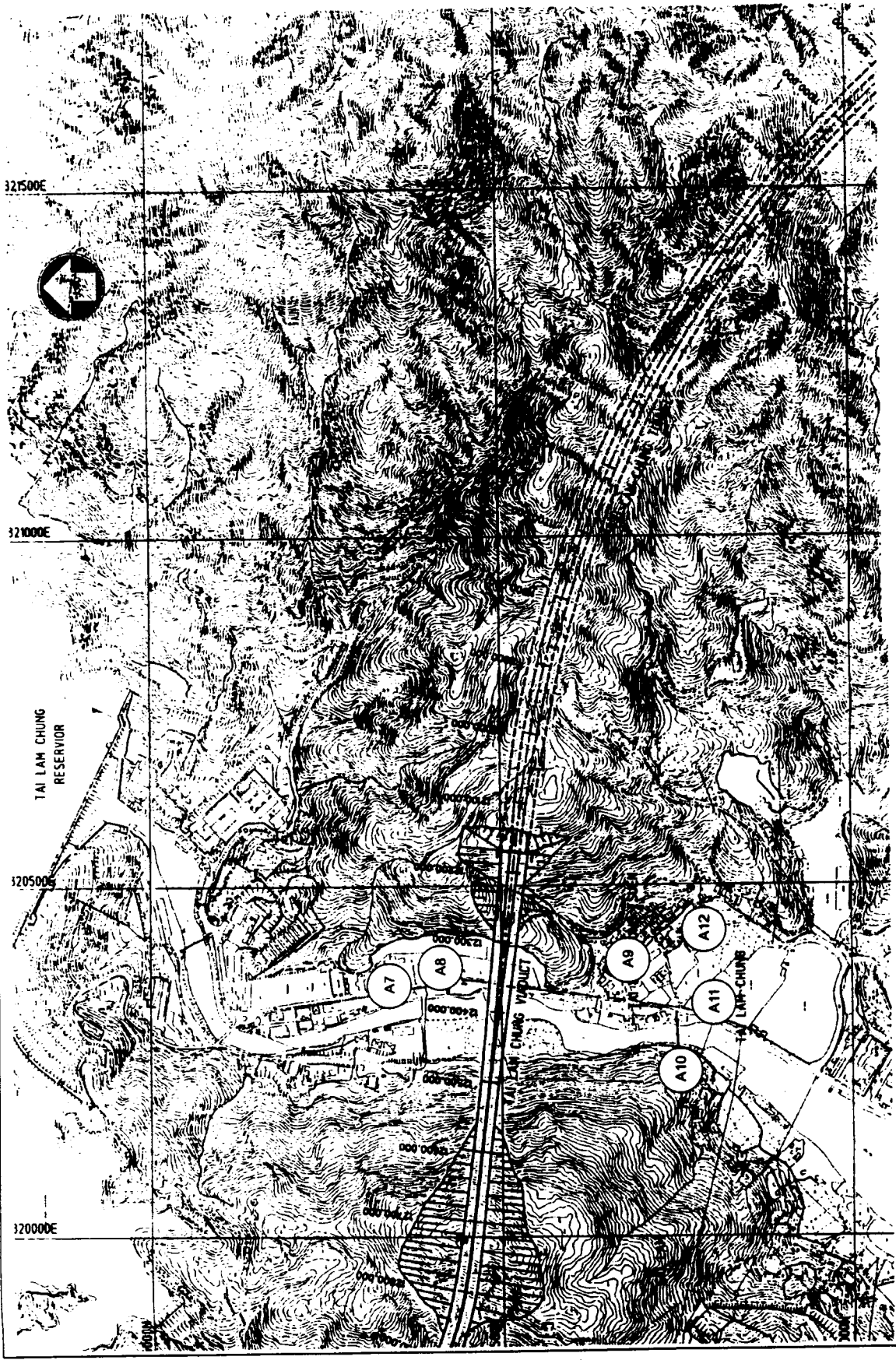


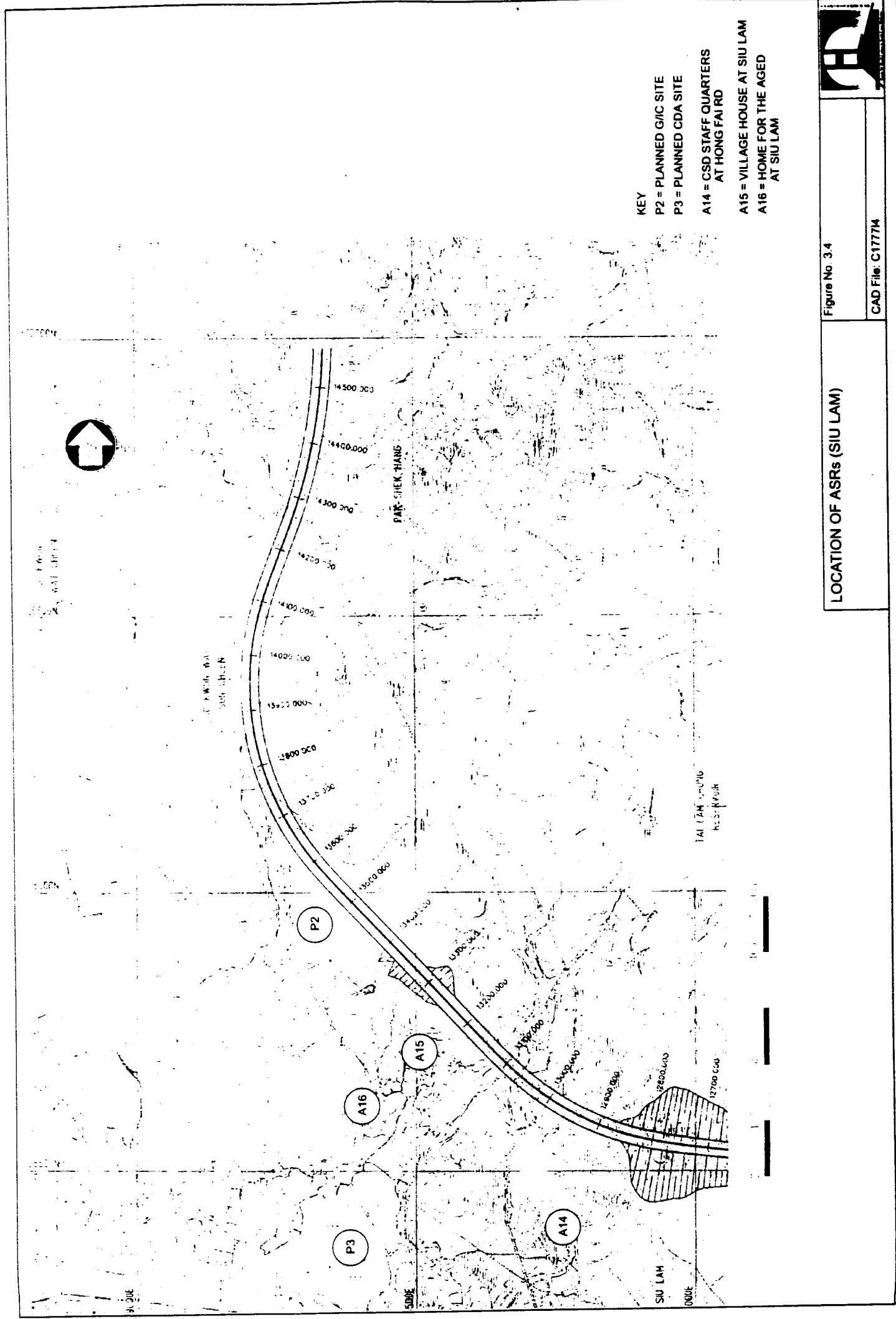


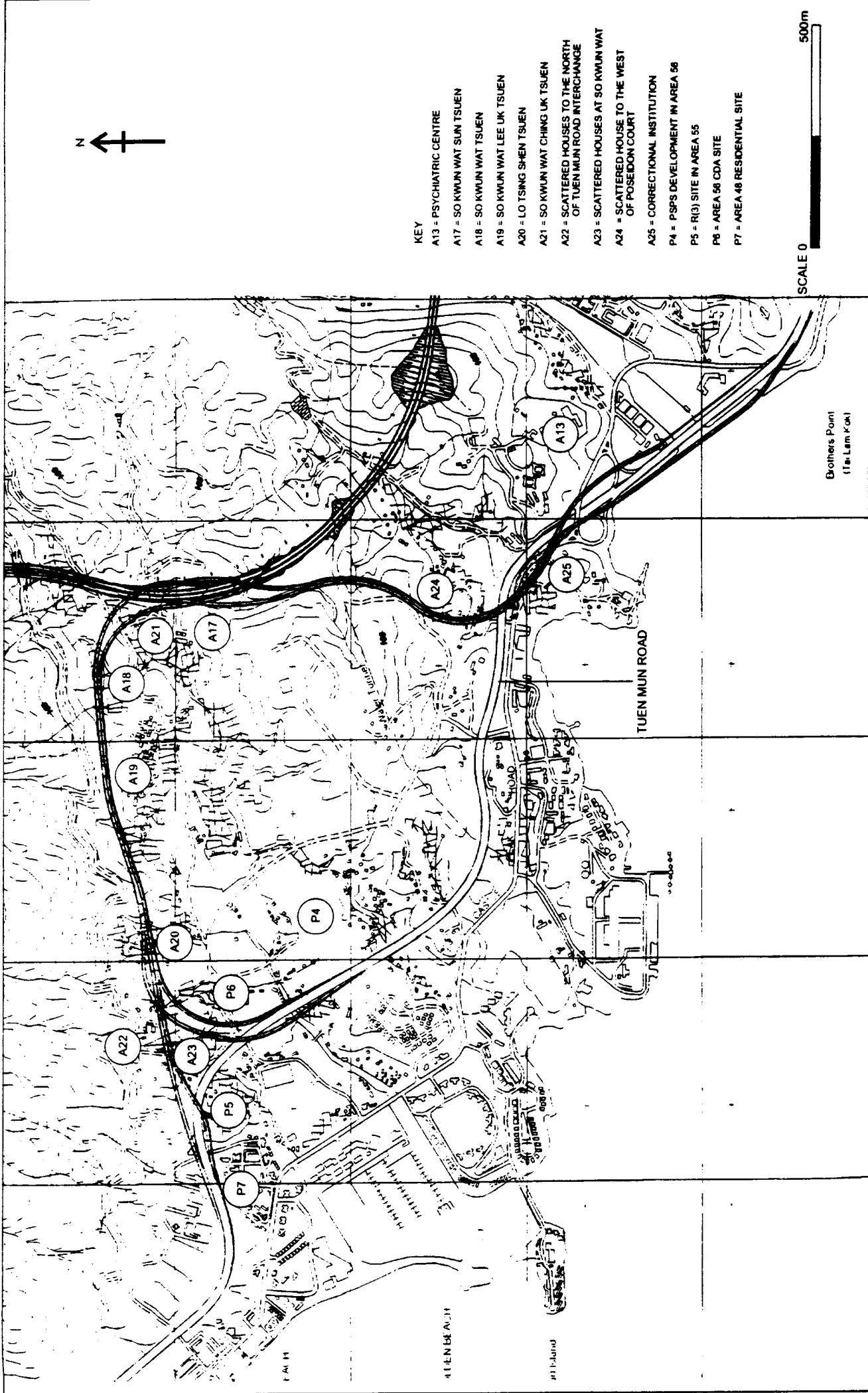
Figure No. 3.4

CAD File: C17774

LOCATION OF ASRs (SIU LAM)

- KEY
- P2 = PLANNED G/C SITE
 - P3 = PLANNED CDA SITE
 - A14 = CSD STAFF QUARTERS AT HONG FAI RD
 - A15 = VILLAGE HOUSE AT SIU LAM
 - A16 = HOME FOR THE AGED AT SIU LAM





- KEY
- A13 - PSYCHIATRIC CENTRE
 - A17 - SO KWUN WAT SUN TSUEN
 - A18 - SO KWUN WAT TSUEN
 - A19 - SO KWUN WAT LEE UK TSUEN
 - A20 - LO TSING SHEN TSUEN
 - A21 - SO KWUN WAT CHING UK TSUEN
 - A22 - SCATTERED HOUSES TO THE NORTH OF TUEN MUN ROAD INTERCHANGE
 - A23 - SCATTERED HOUSES AT SO KWUN WAT
 - A24 - SCATTERED HOUSE TO THE WEST OF POSEIDON COURT
 - A25 - CORRECTIONAL INSTITUTION
 - P4 - PSPS DEVELOPMENT IN AREA 56
 - P5 - R(3) SITE IN AREA 55
 - P6 - AREA 56 CDA SITE
 - P7 - AREA 48 RESIDENTIAL SITE

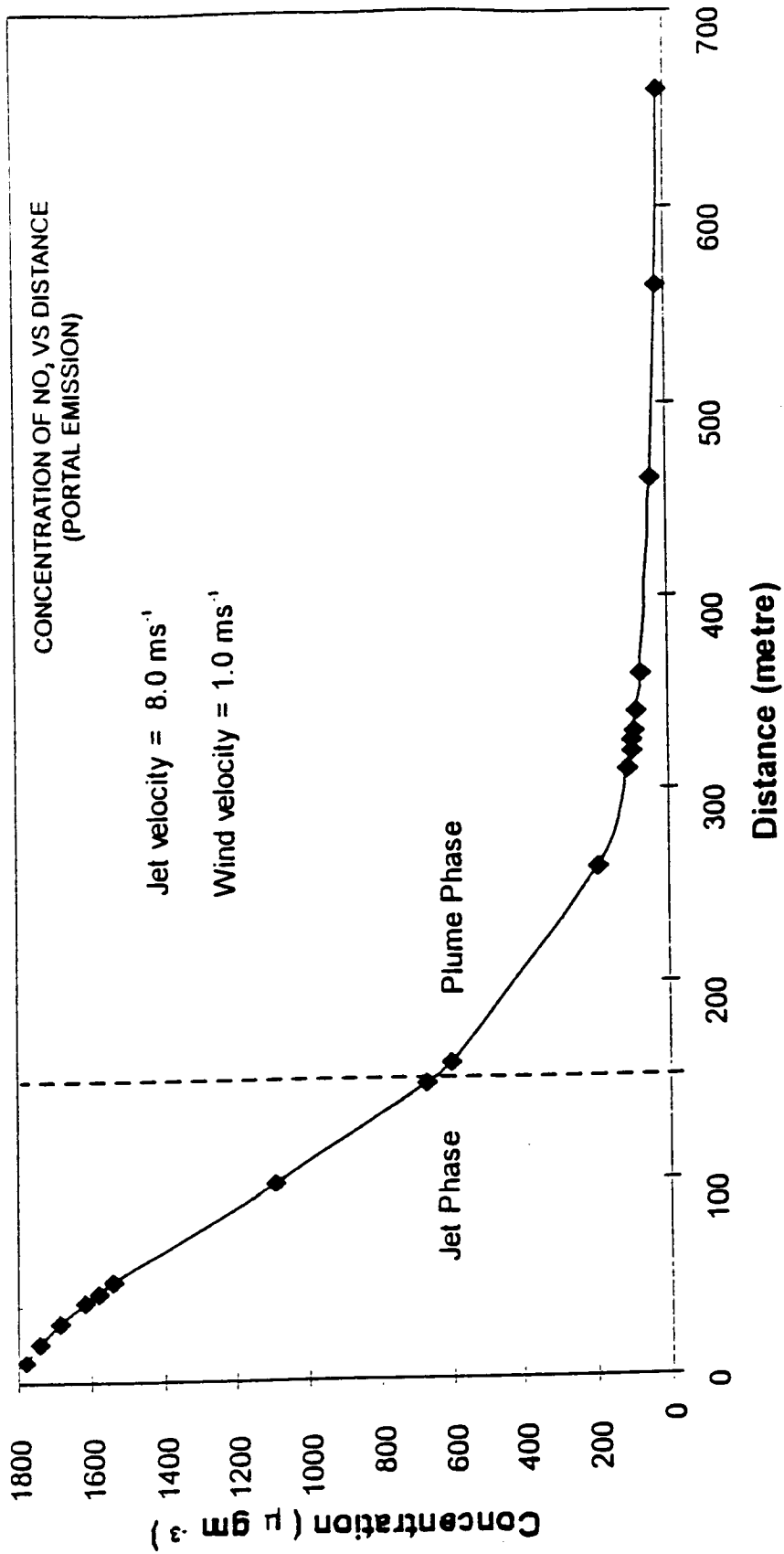
SCALE 0 500m

Figure No. 3 5

LOCATION OF ASRS
(SO KWUN WAT)

CAD File: C1777p4

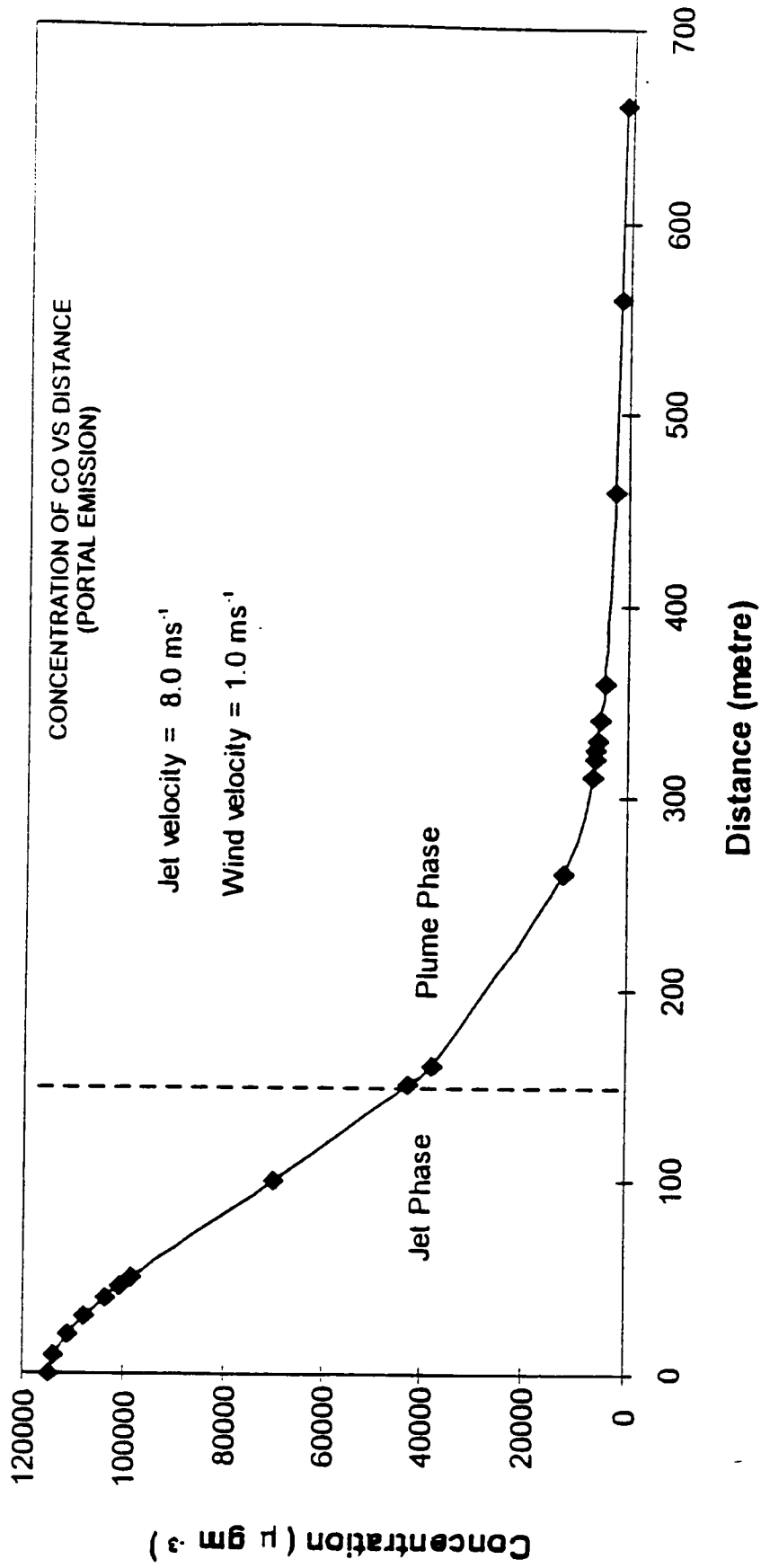




CONCENTRATION OF NO₂ AT VARIOUS DISTANCE FROM THE TUNNEL PORTAL

Figure No 3 6





CONCENTRATION OF CO AT VARIOUS DISTANCE FROM THE TUNNEL PORTAL

Figure No 3.7

CAD File: C177701



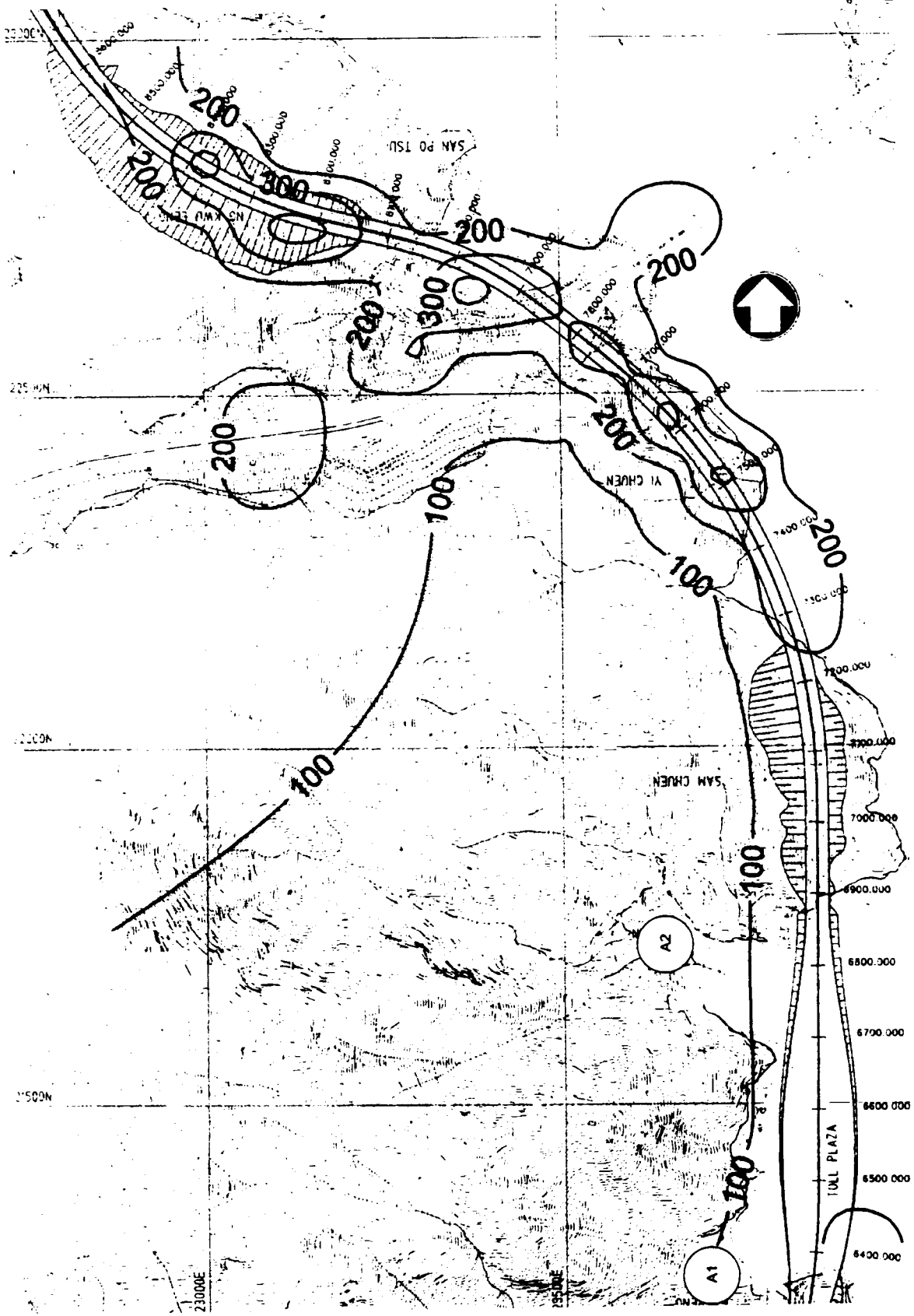
KEY
AQO CRITERIA (NO2) 300µgm³
UNIT IN µgm³



Figure No. 3.8

CAD File: C177L1

HOURLY NO₂ CONTOUR AT
ALIGNMENT LEVEL (LANTAU)

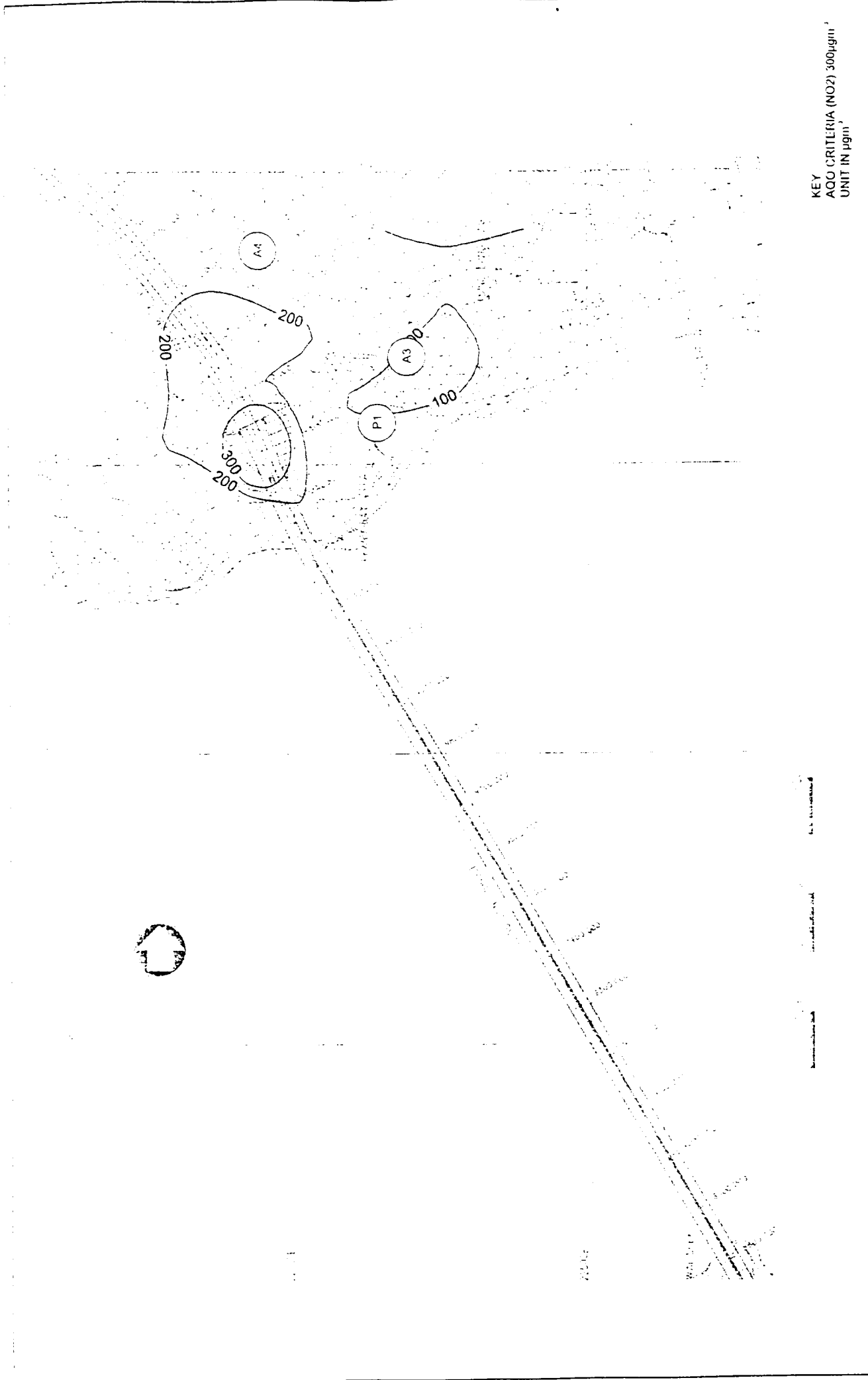


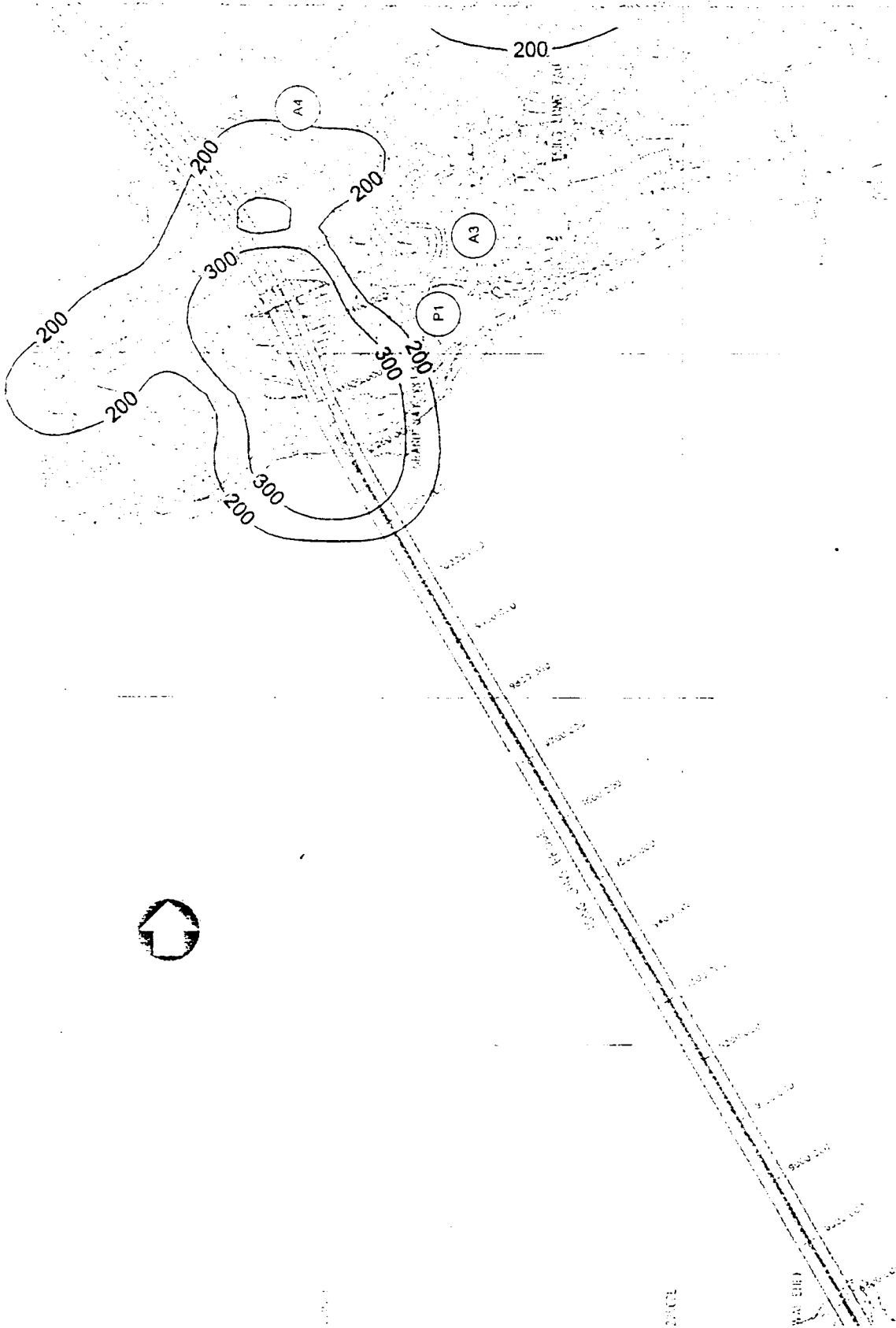
KEY
A00 CRITLIRIA (NO2) 300µg/m³
UNIT IN µg/m³

Figure No. 3.9

CAD File: C1777L2

HOURLY NO. CONTOUR AT GROUND
LEVEL (TSING LUNG TAU)





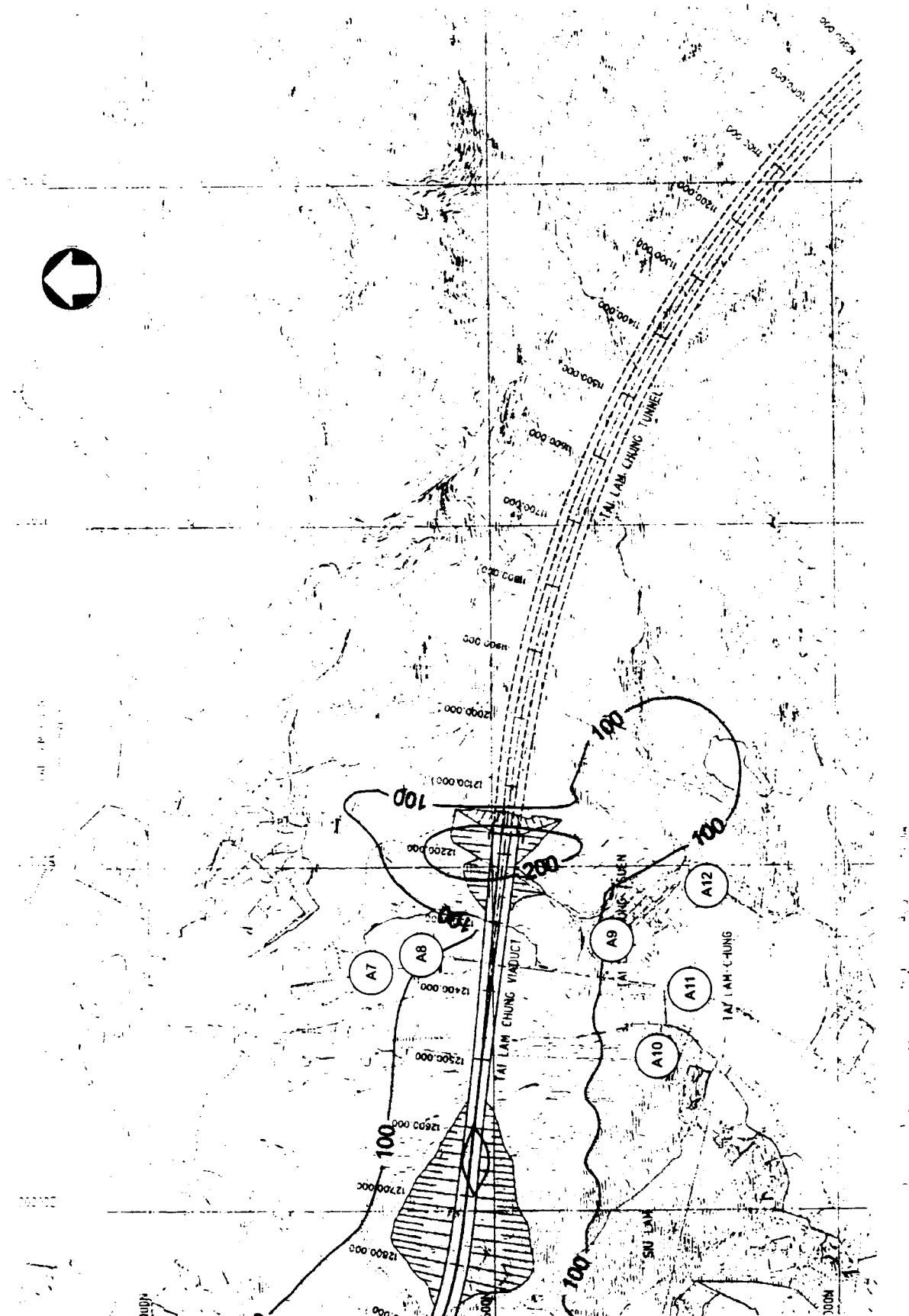
KEY
 A3 = HK GARDEN
 A4 = SQUATTER AREA
 P1 = PROPOSED(R/C) SITE
 AQO CRITERIA (NO2) 300µg/m³
 UNIT IN µg/m³

CONTOUR OF CUMULATIVE HOURLY
 NO2 CONCENTRATION AT
 ALIGNMENT LEVEL
 (TSING LUNG TAU)

Figure No. 3.10

CAD File C:177/r1





- KEY
- A7 = CORRECTIONAL INSTITUTION (STAFF QUARTERS)
 - A8 = CLINIC
 - A9 = TAI LAM CHUNG TSUEN
 - A10 = SCATTERED DEVELOPMENT AT WEST OF TLC RD
 - A11 = CDA TO THE SOUTH OF TLC VIADUCT
 - A12 = V ZONE TO THE SOUTH OF TLC VIADUCT
- ACO CRITERIA (NO₂) 300µg/m³
UNIT IN µg/m³

CONTOUR OF CUMULATIVE HOURLY NO₂ CONCENTRATION AT GROUND LEVEL (TAI LAM CHUNG)

Figure No. 3.11

CAD File: C17772

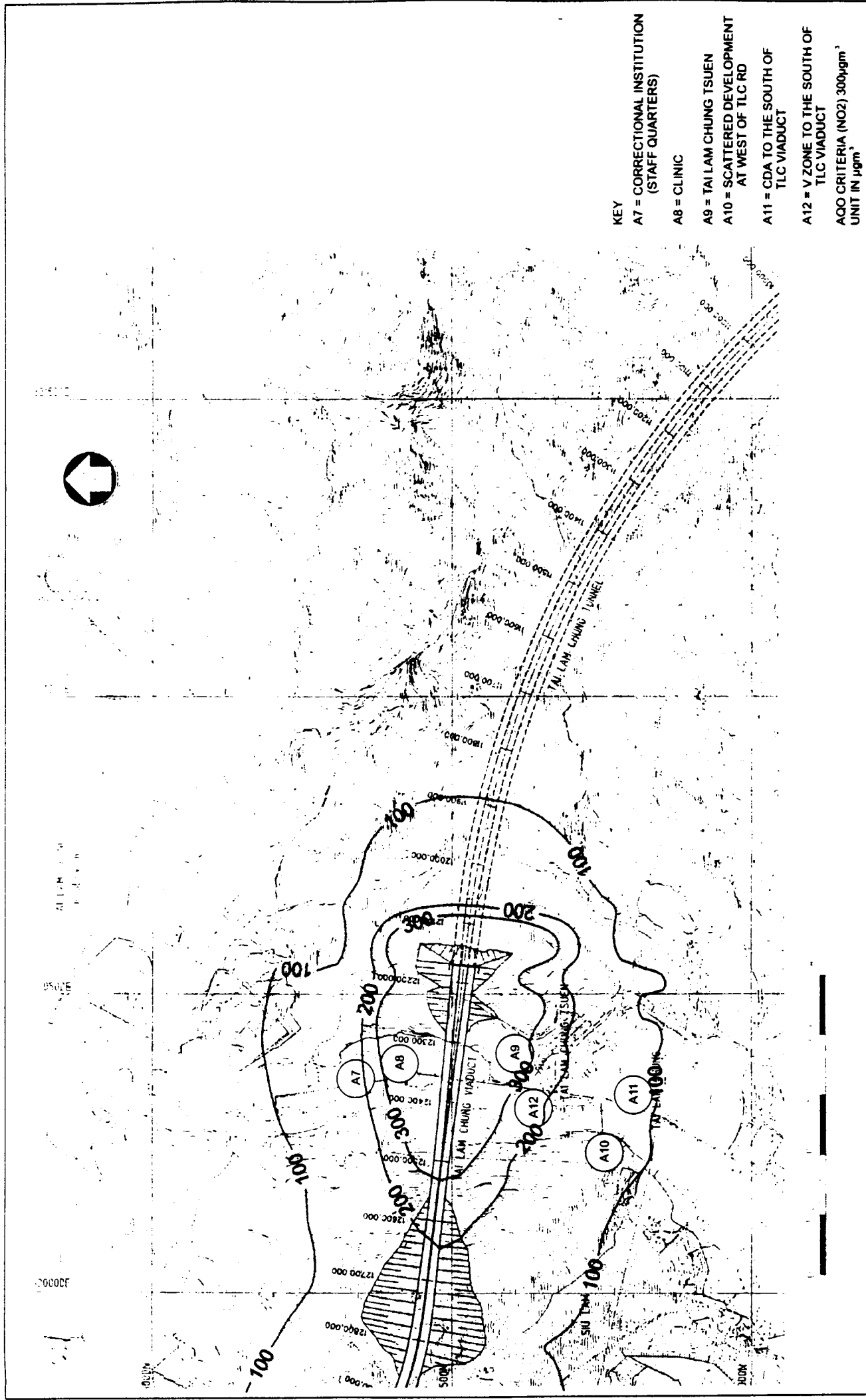


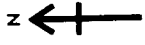


Figure No. 3.12
CAD File: C1777r

**CONTOUR OF CUMULATIVE HOURLY
NO2 CONCENTRATION AT ALIGNMENT
LEVEL (TAI LAM CHUNG)**

- KEY**
- A7 = CORRECTIONAL INSTITUTION (STAFF QUARTERS)
 - A8 = CLINIC
 - A9 = TAI LAM CHUNG TSUEN
 - A10 = SCATTERED DEVELOPMENT AT WEST OF TLC RD
 - A11 = CDA TO THE SOUTH OF TLC VIADUCT
 - A12 = V ZONE TO THE SOUTH OF TLC VIADUCT
- AOO CRITERIA (NO2) 300µg/m³
UNIT IN µg/m³





KEY

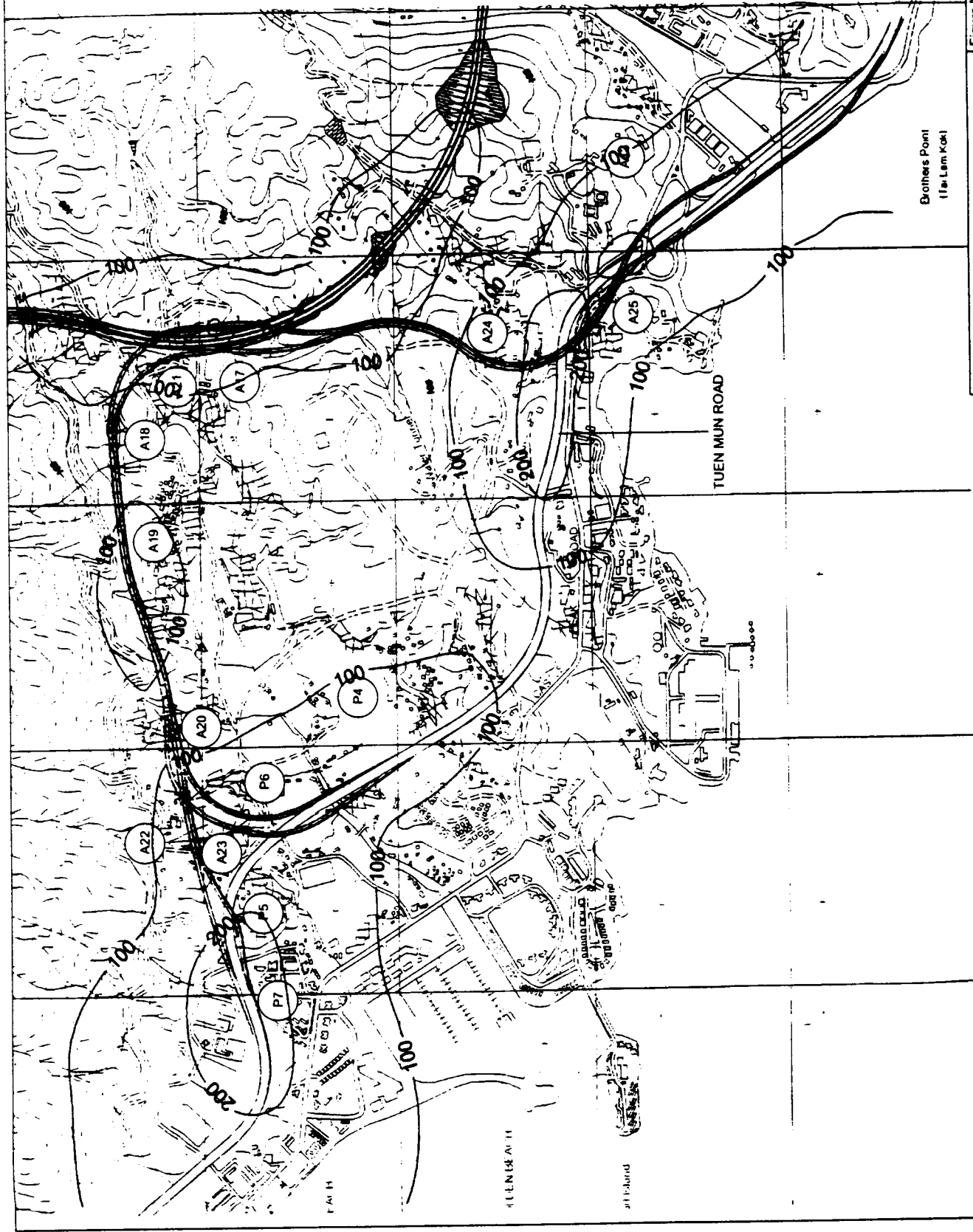
- A13 = PSYCHIATRIC CENTRE
 - A17 = SO KWUN WAT SUN TSUEN
 - A18 = SO KWUN WAT TSUEN
 - A19 = SO KWUN WAT LEE UK TSUEN
 - A20 = LO TSING SHEN TSUEN
 - A21 = SO KWUN WAT CHING UK TSUEN
 - A22 = SCATTERED HOUSES TO THE NORTH OF TUEN MUN ROAD INTERCHANGE
 - A23 = SCATTERED HOUSES AT SO KWUN WAT
 - A24 = SCATTERED HOUSE TO THE WEST OF POSEIDON COURT
 - A25 = CORRECTIONAL INSTITUTION
 - P4 = PSPS DEVELOPMENT IN AREA 56
 - P5 = R(C) SITE IN AREA 55
 - P6 = AREA 56 CDA SITE
 - P7 = AREA 48 RESIDENTIAL SITE
- AOO CRITERIA (NO₂) 300µgm³
UNIT IN µgm³

SCALE 0 500m



HOURLY NO₂ CONTOUR AT ALIGNMENT Figure No. 3.13
LEVEL (SO KWUN WAT)

CAD File: C177714



Brothers Point
(I.e. Lam Kok)

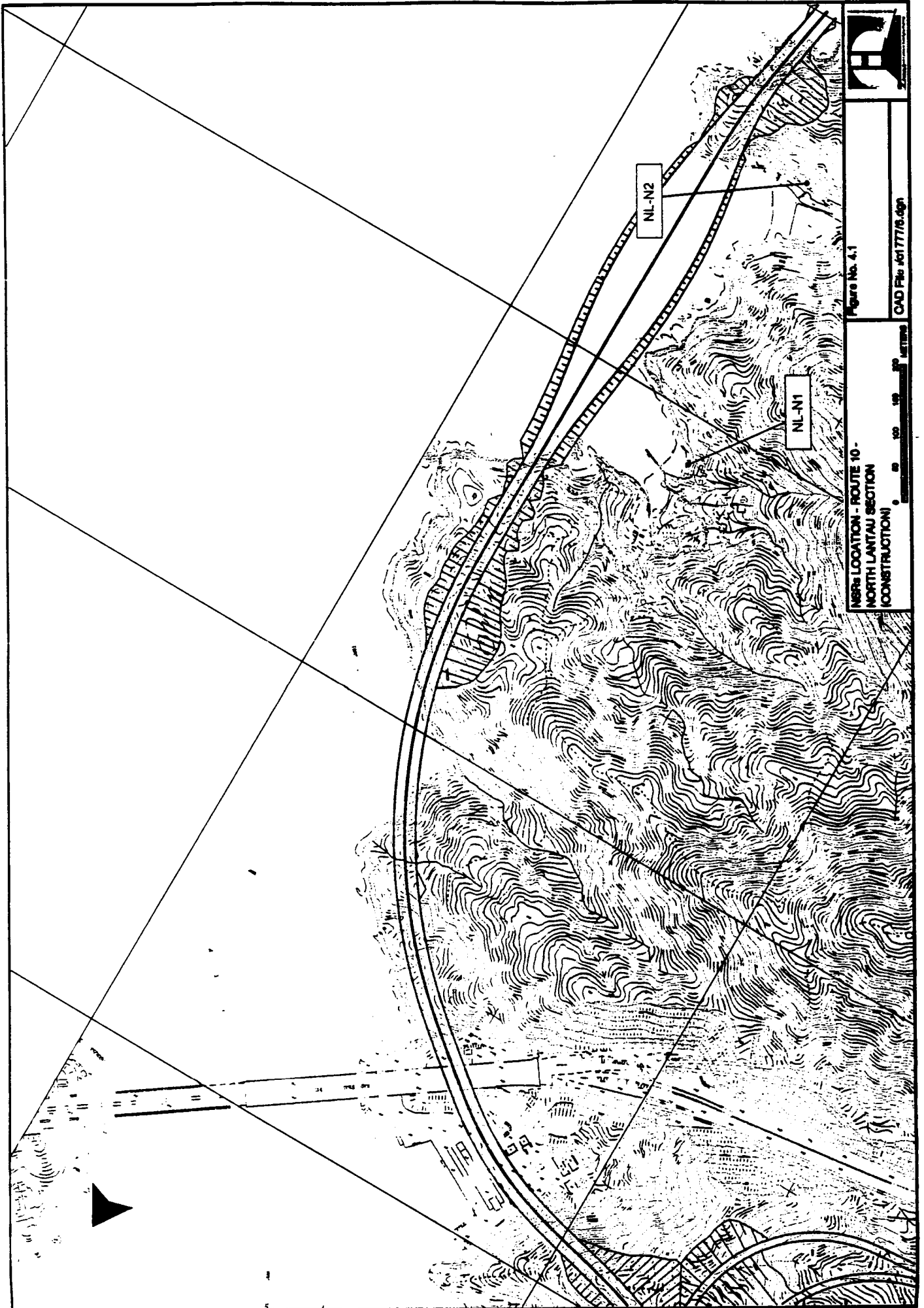


Figure No. 4.1

NSRR LOCATION - ROUTE 10 -
NORTH LANTAU SECTION
(CONSTRUCTION)

CAD File: 4017776.dgn



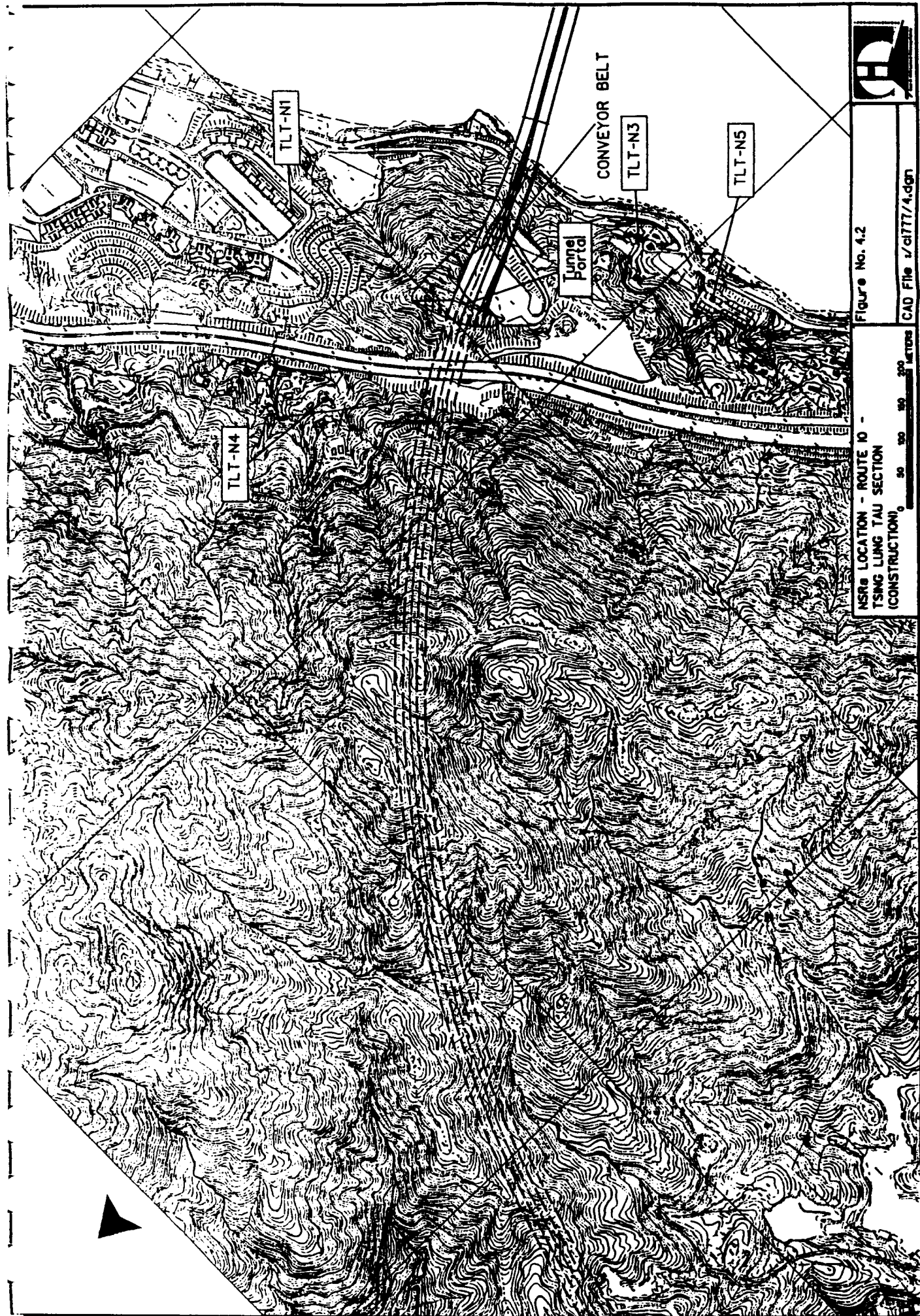


Figure No. 4.2

CAD File :/c1777/4.dgn

NSR# LOCATION - ROUTE 10 -
TSING LUNG TAU SECTION
(CONSTRUCTION)

0 50 100 150 200 METERS



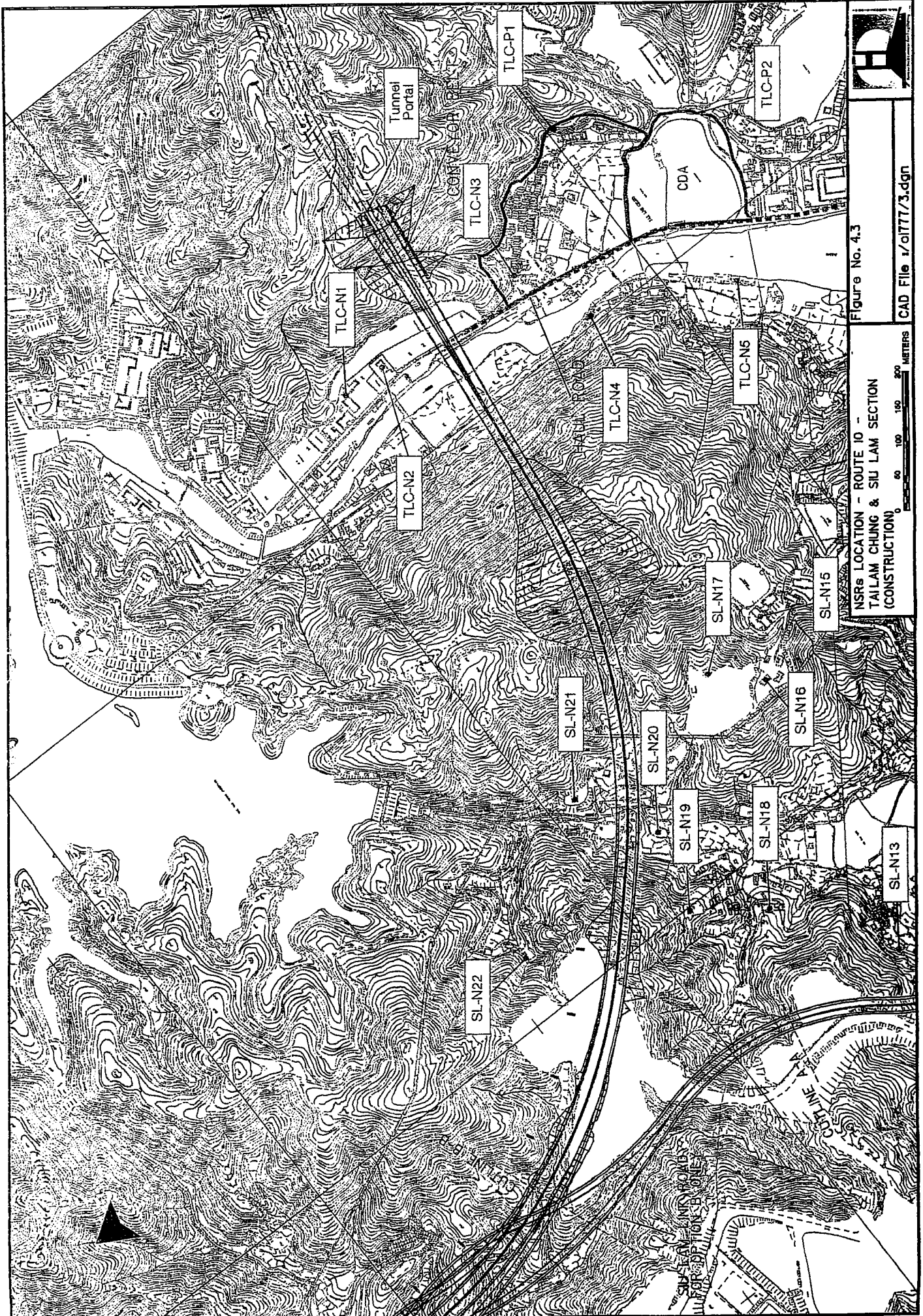


Figure No. 4.3

NSRs LOCATION - ROUTE 10 -
TAILAM CHUNG & SIU LAM SECTION
(CONSTRUCTION)

CAD File: r/c1777/3.dgn



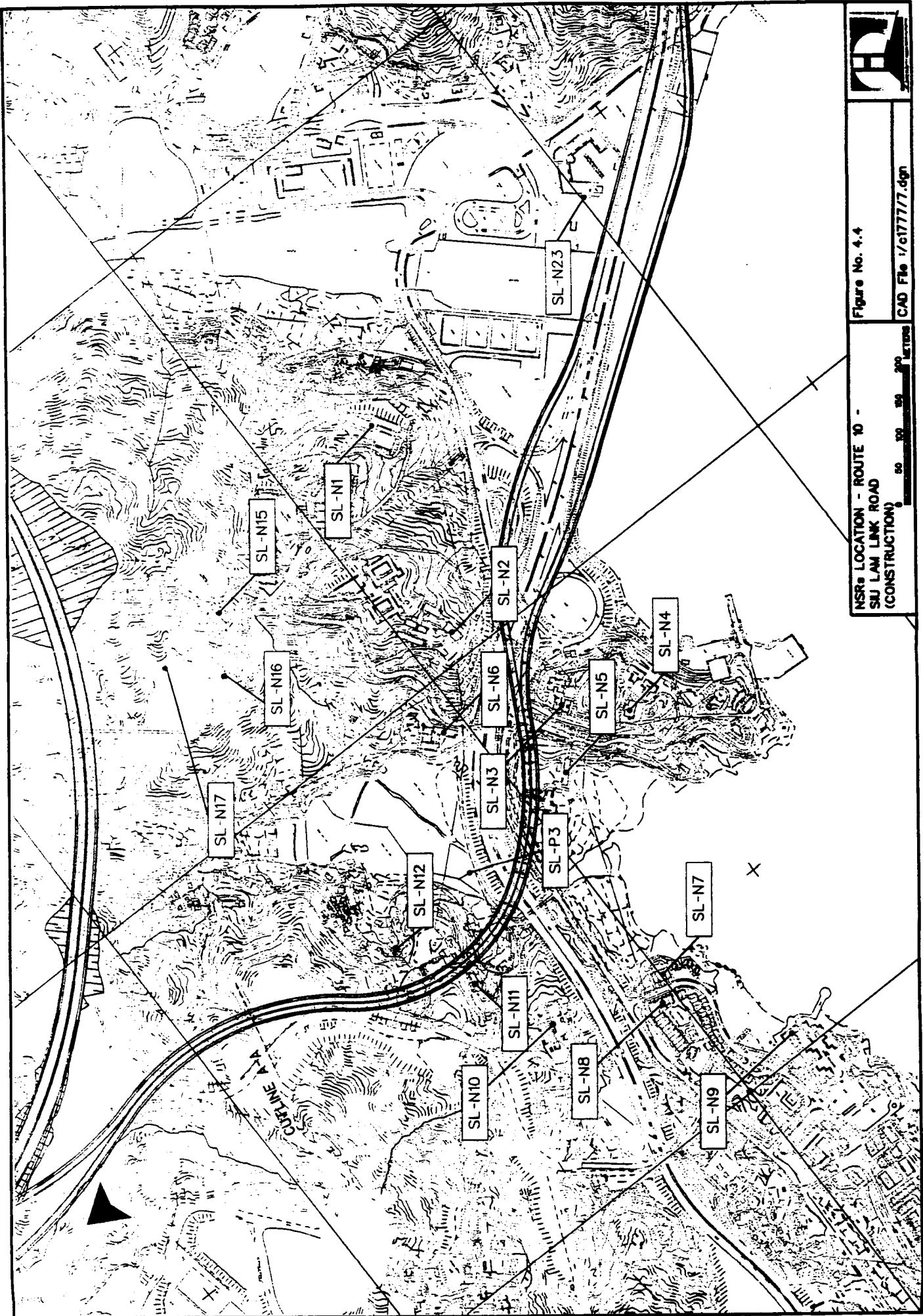


Figure No. 4.4

NSR's LOCATION - ROUTE 10 -
 SU LAM LINK ROAD
 (CONSTRUCTION)

CAD File :/c177777.dgn



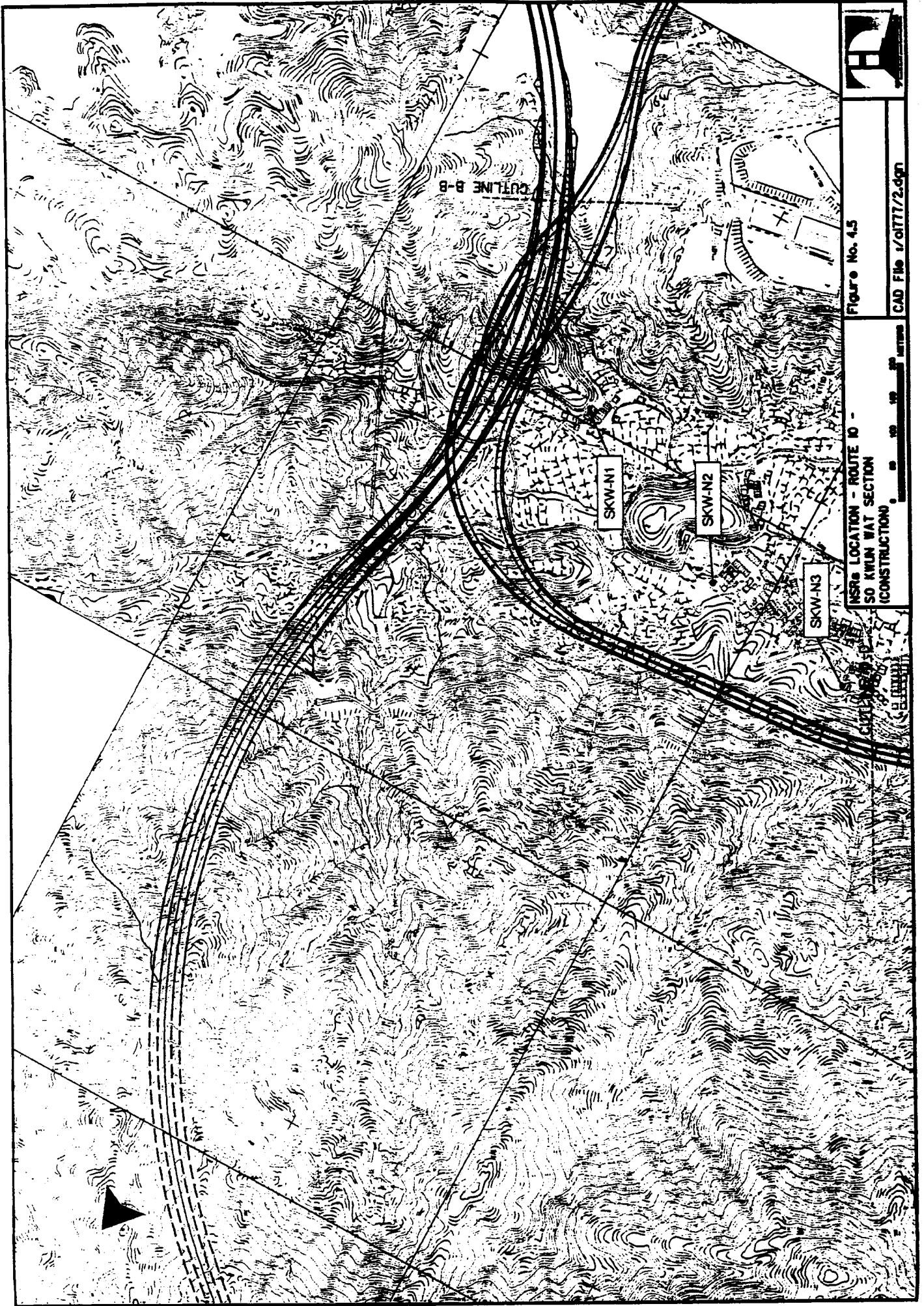


Figure No. 4.5

NSRb LOCATION - ROUTE 10 -
SO KWUN WAT SECTION
(CONSTRUCTION)

CAD File 1/cit77/2.dgn

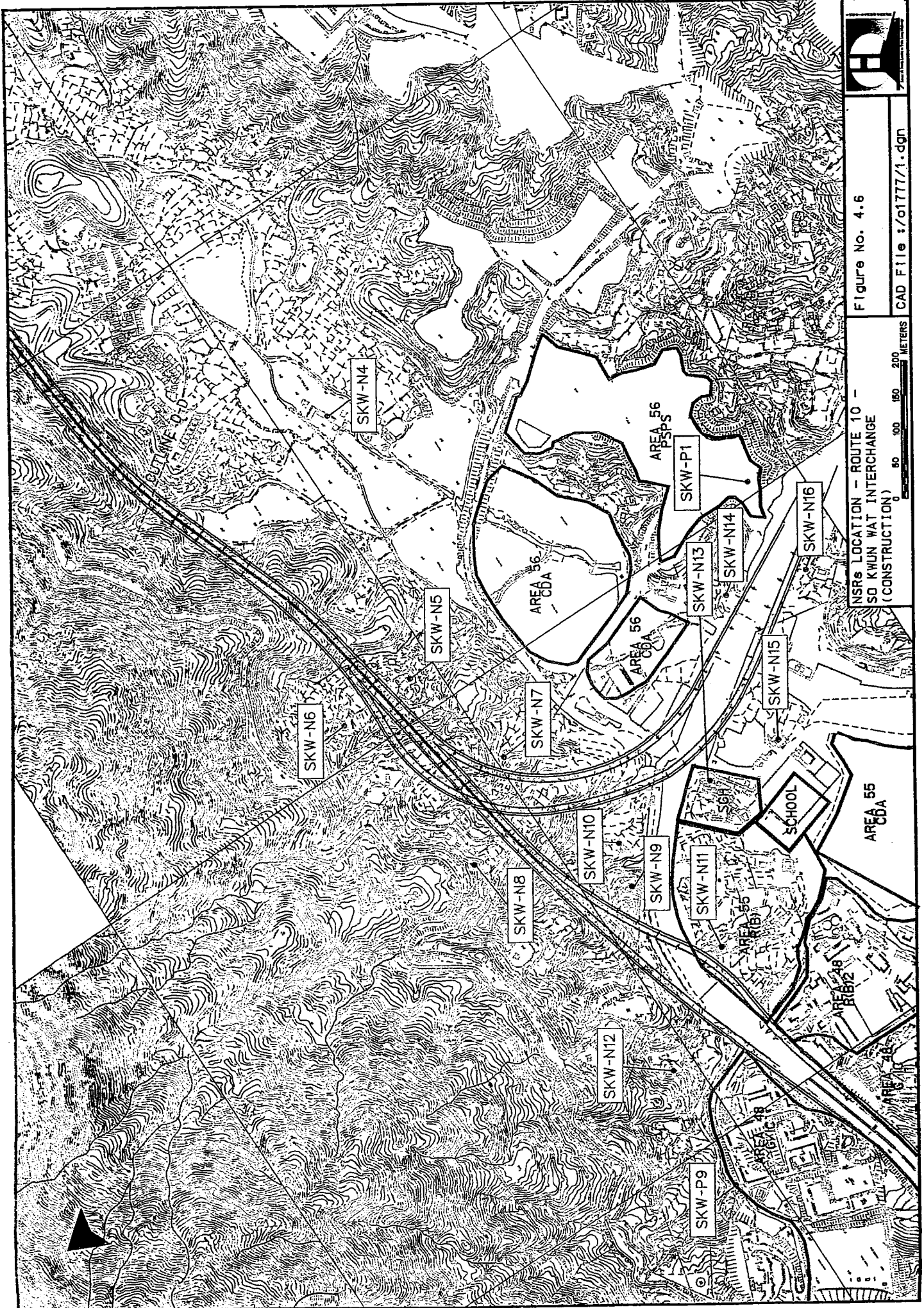
0 10 20 30 meters

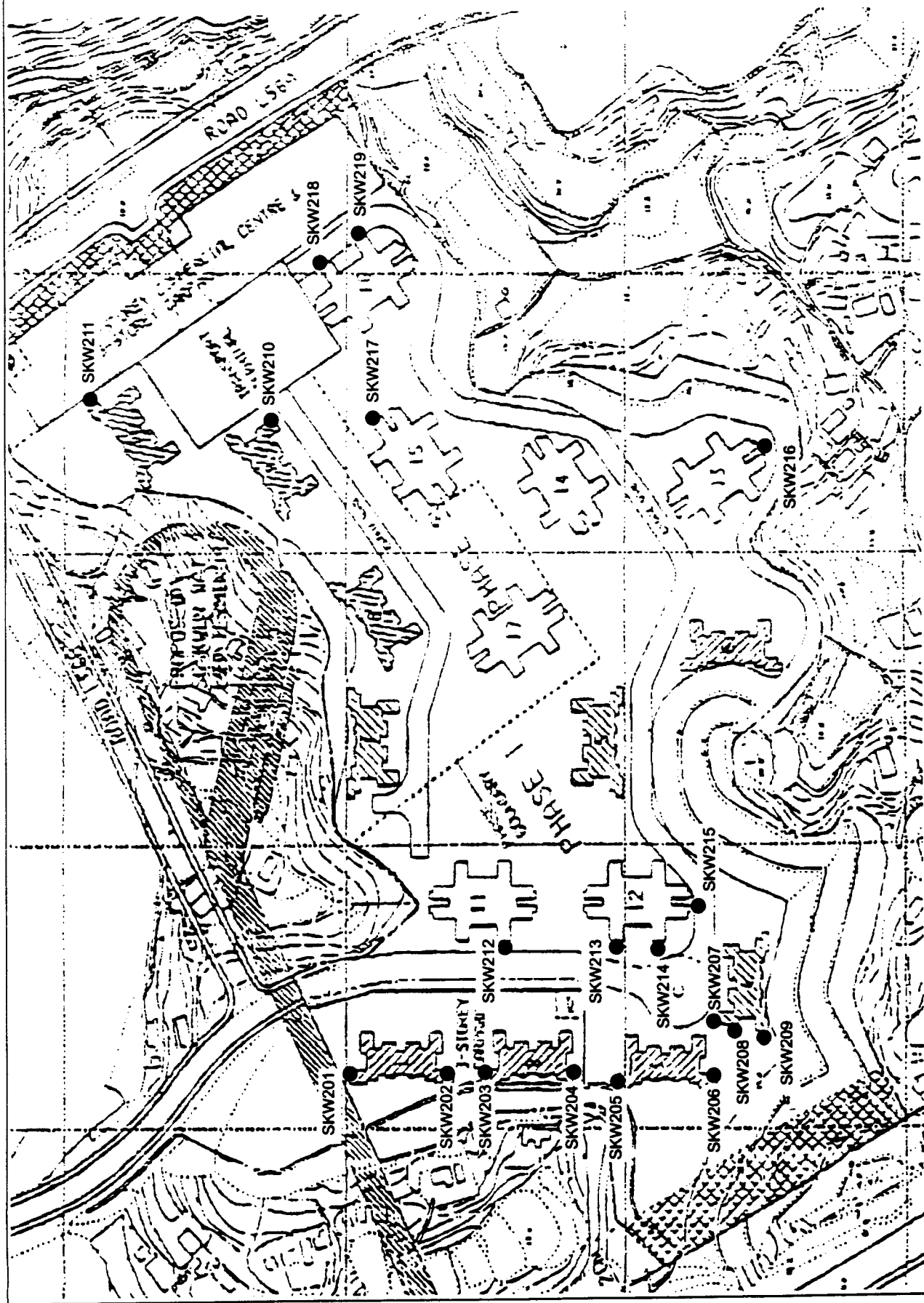


Figure No. 4.6

NSR6 LOCATION - ROUTE 10 -
SO KWUN WAT INTERCHANGE
(CONSTRUCTION)

CAD File : /o1777/1.dgn





KEY
 [Symbol] 35 - STOREY
 [Symbol] 40 - STOREY

NSR LOCATIONS FOR AREA 56 PSPS SITE AT
 SO KWUN WAT

Figure No. 4.6a

CAD File: C177X42





ID	Task Name
1	North Lantau
2	Toll Plaza reclamation
3	reclamation surcharge
4	construct subway
5	construct control building
6	toll plaza finishes & surfacing
7	Sam Chuen Cutting
8	Sam Chuen surfacing & finishes
9	Yi Chuen Viaduct foundation
10	Yi Chuen viaduct superstructure
11	Yi Cheun surfacing & finishes
12	San Po Tsui Viaduct foundation
13	San Po Tsui superstructure
14	San Po Tsui surfacing & finishes
15	excavation at Fa Peng
16	M at Fa Peng
17	Fa Peng surfacing & finishes

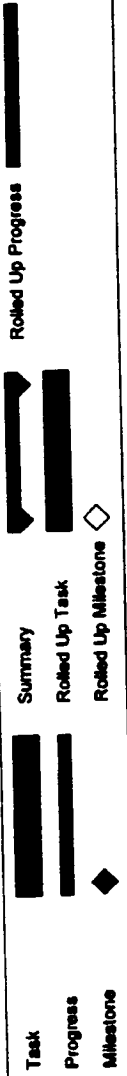
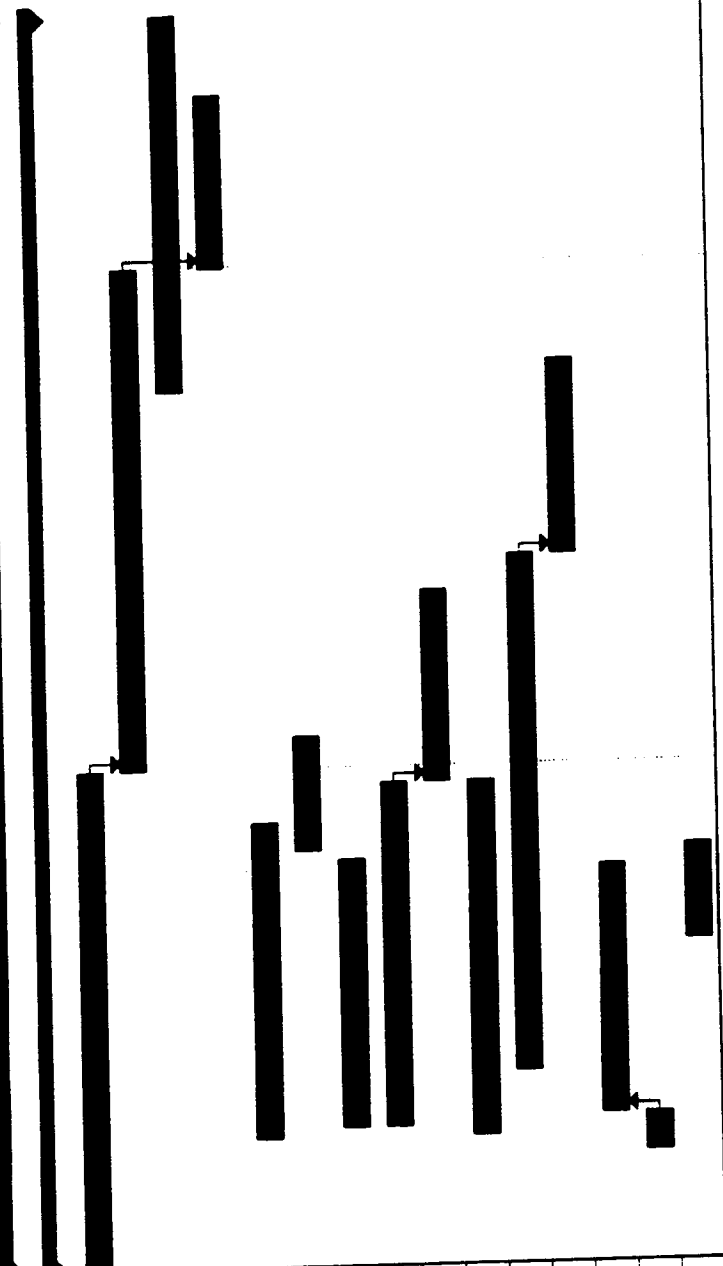


Figure No. 4.7

CONSTRUCTION PROGRAMME

CAD File: 1777x10

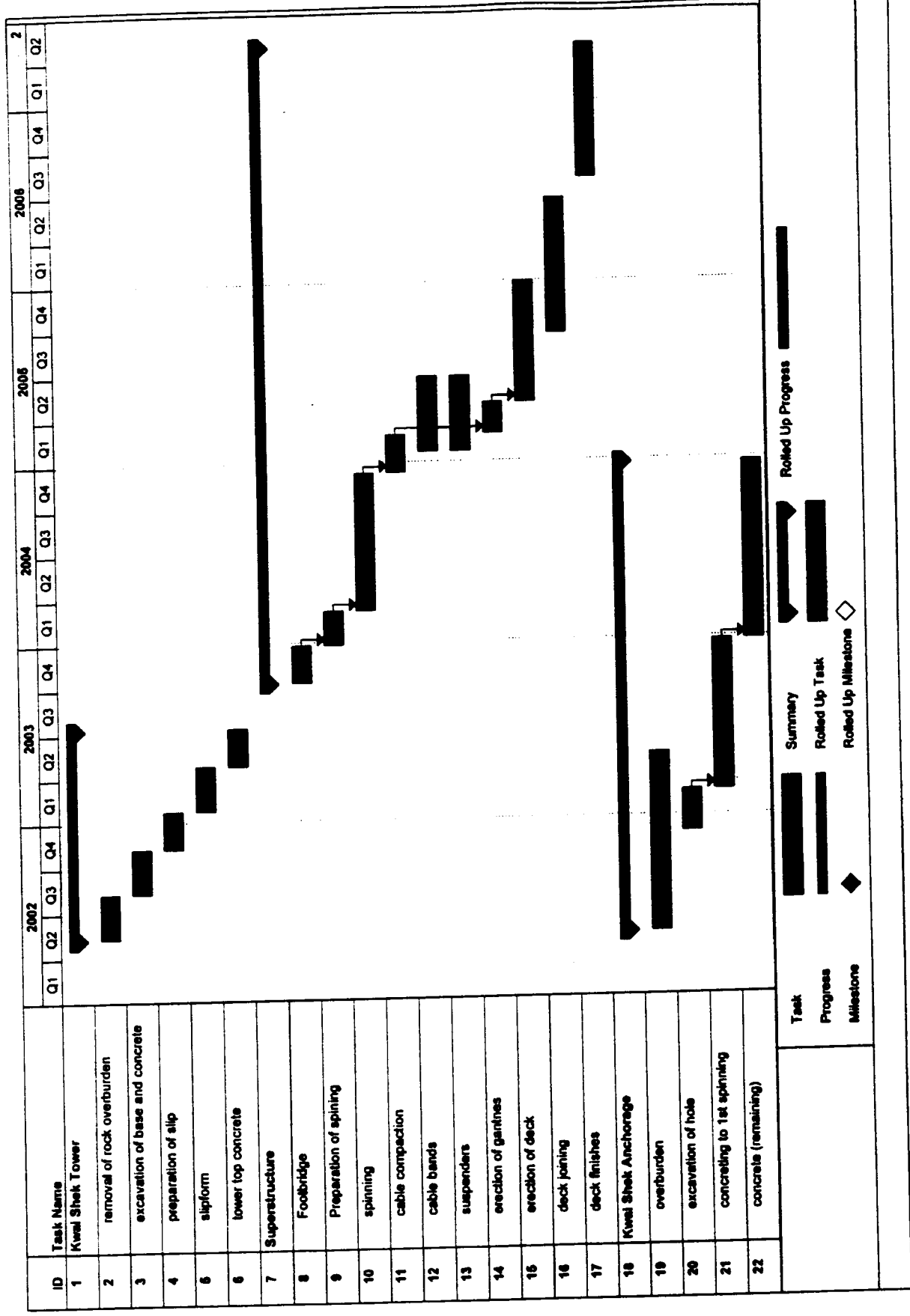


Figure No.4.8

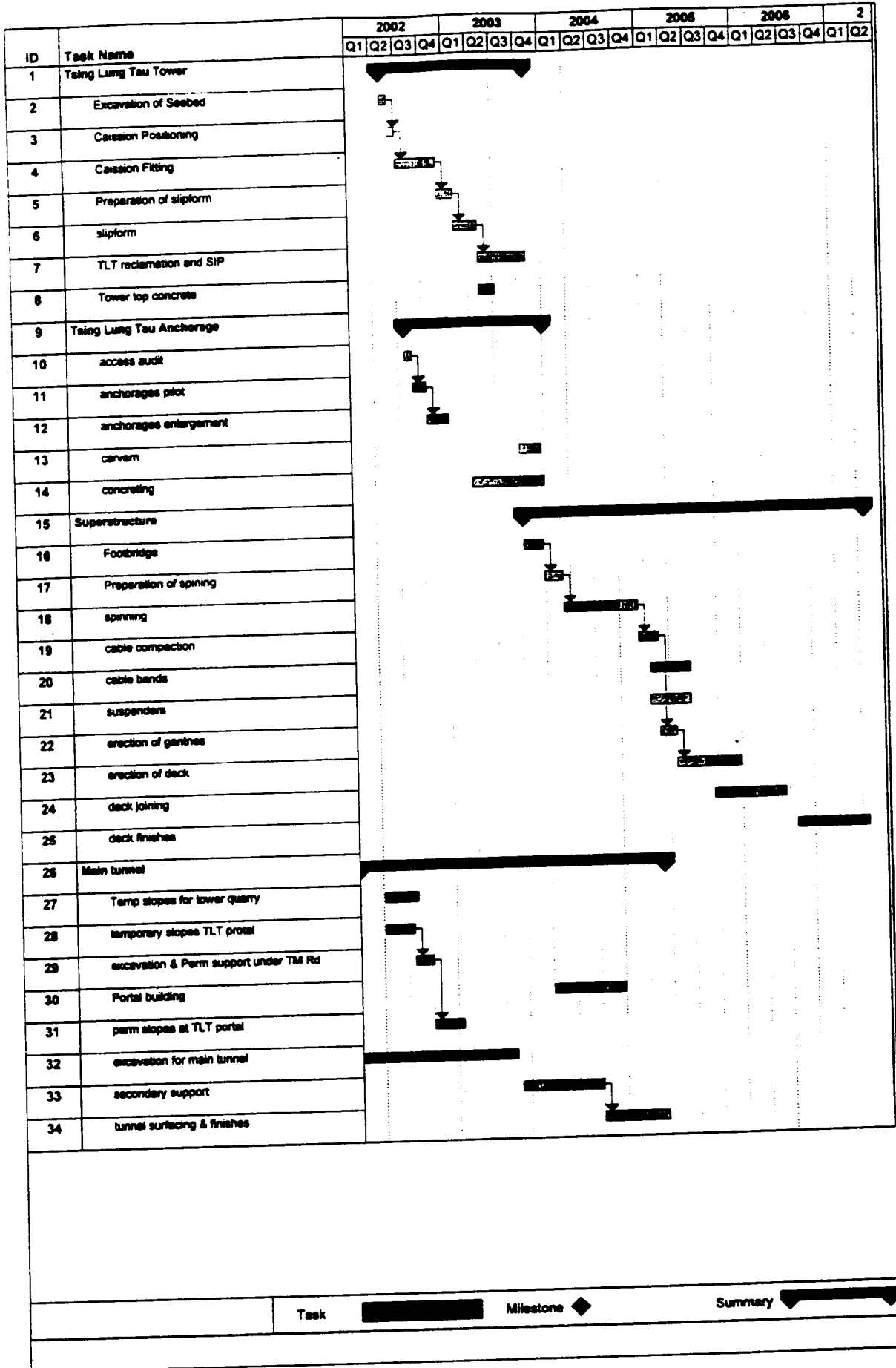
CAD File:1777x11

CONSTRUCTION PROGRAMME

Task [Symbol] Summary [Symbol] Rolled Up Progress [Symbol]

Progress [Symbol] Rolled Up Task [Symbol]

Milestones [Symbol] Rolled Up Milestone [Symbol]



Task [] Milestone [] Summary []



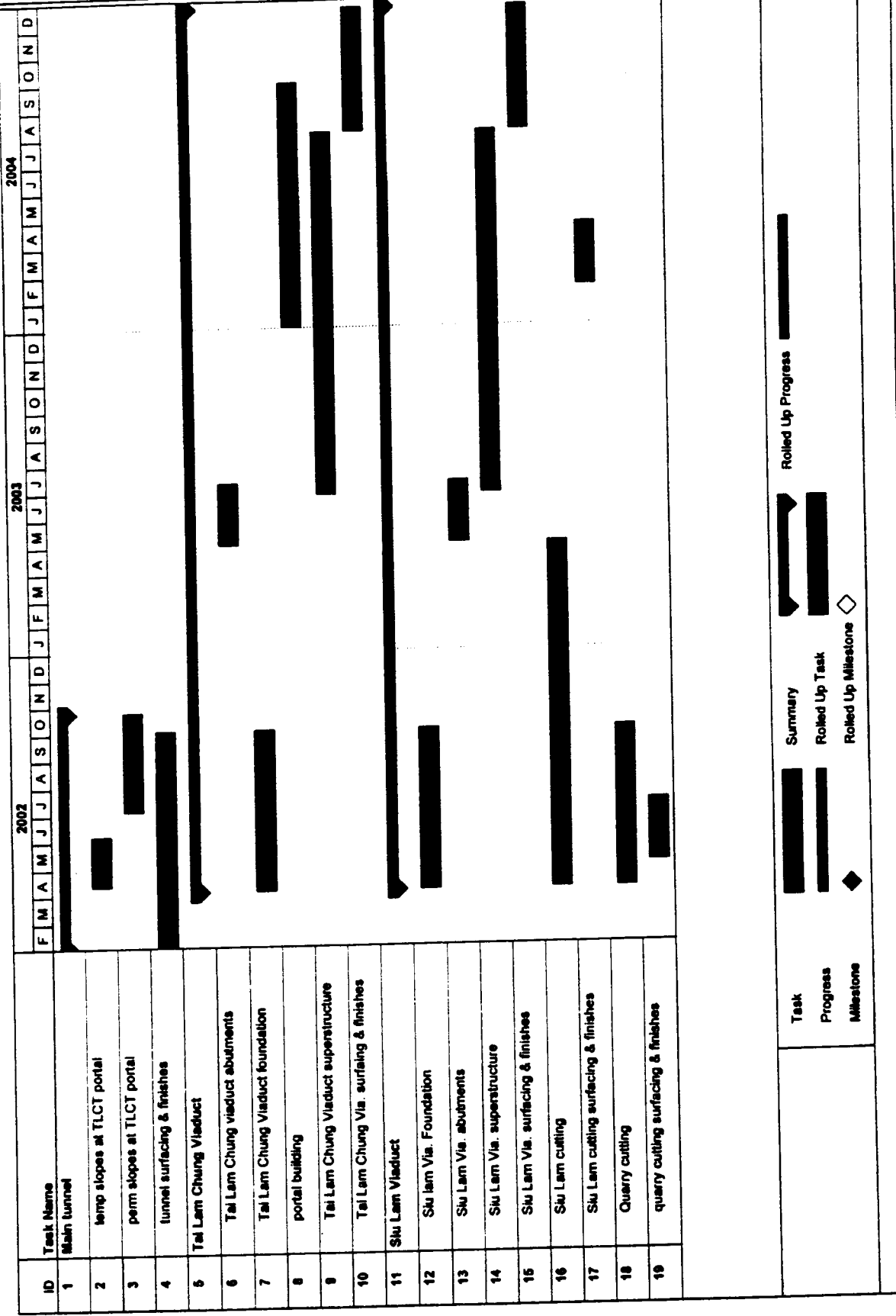
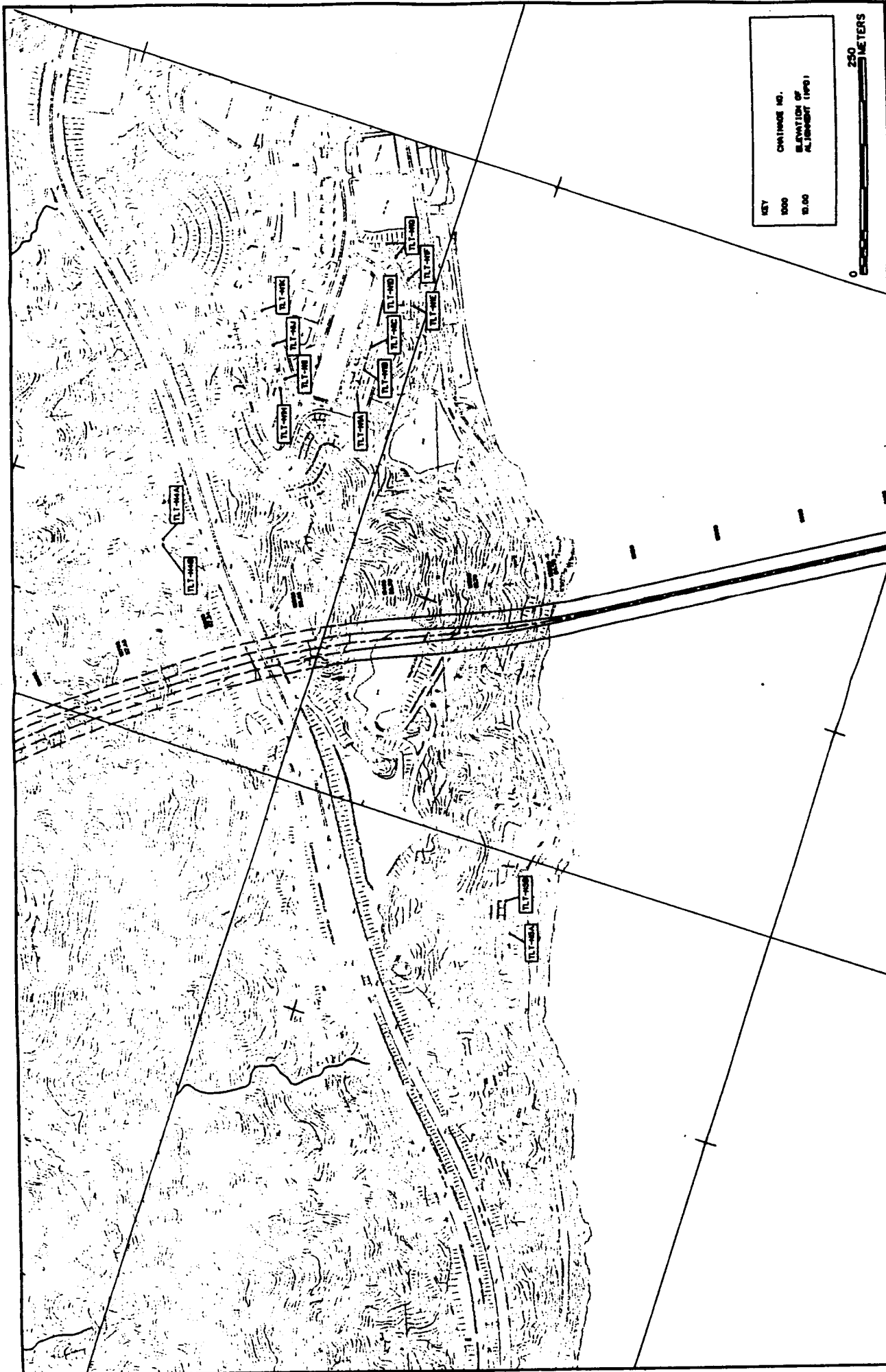


Figure No. 4.10
CAD File: 1777x13

CONSTRUCTION PROGRAMME

Task	[Redacted]	Summary	[Redacted]	Rolled Up Progress	[Redacted]
Progress	[Redacted]	Rolled Up Task	[Redacted]		
Milestone	[Redacted]	Rolled Up Milestone	[Redacted]		



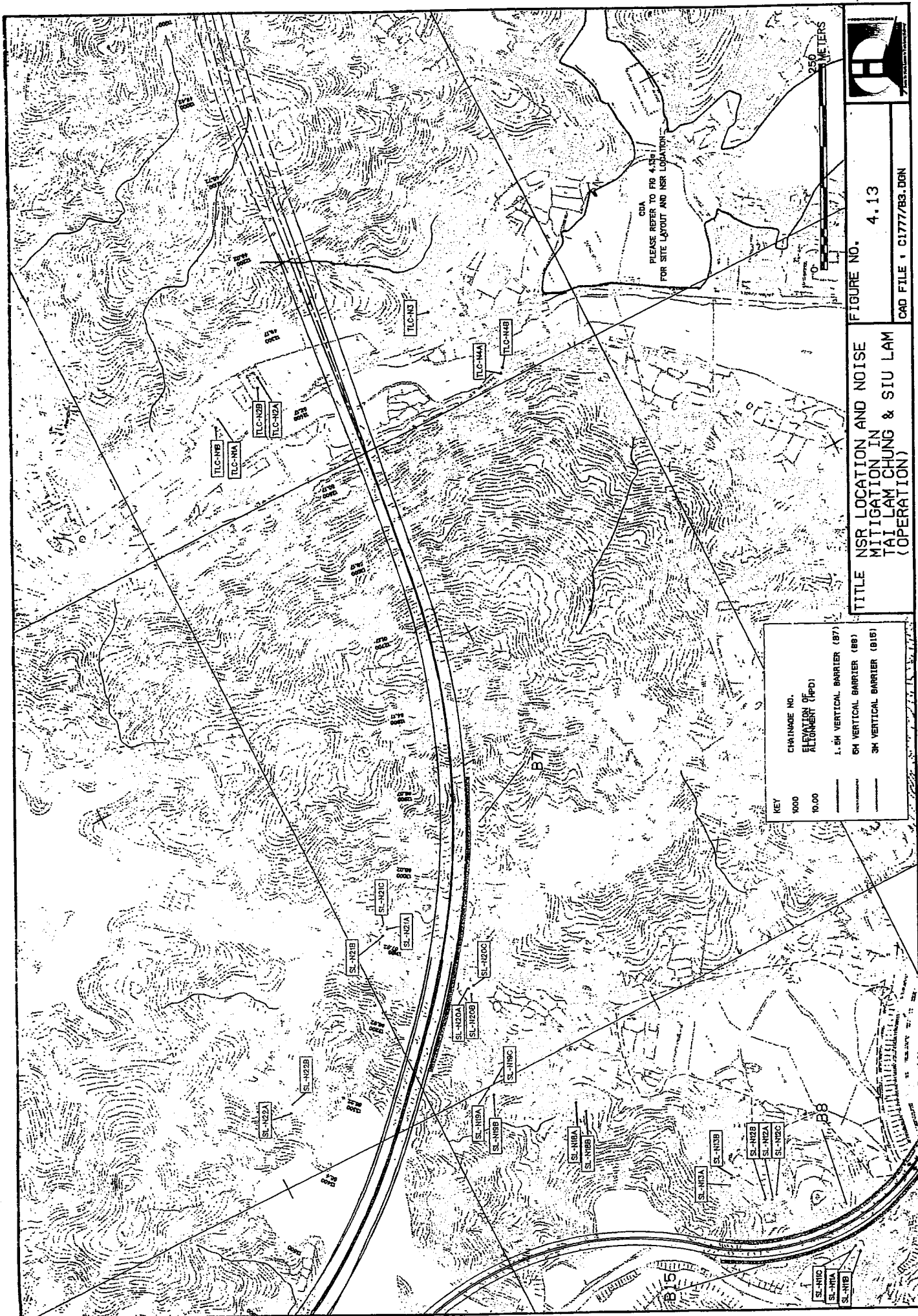
KEY
 000 CHANGE NO.
 01.00 ELEVATION OF
 ALIGNMENT (M)

0 250 METERS



FIGURE NO. 4.12
 CAD FILE #/C1777/82.DGN

TITLE
 NSR LOCATION IN
 TSING LUNG TAU (OPERATION)



KEY	CHAINAGE NO.	ELEVATION OF ALIGNMENT (HPD)	1.5M VERTICAL BARRIER (B7)	5M VERTICAL BARRIER (B8)	3M VERTICAL BARRIER (B16)
	000				
	10.00				

TITLE NSR LOCATION AND NOISE MITIGATION IN TAI LAM CHUNG & SIU LAM (OPERATION)

FIGURE NO. 4.13



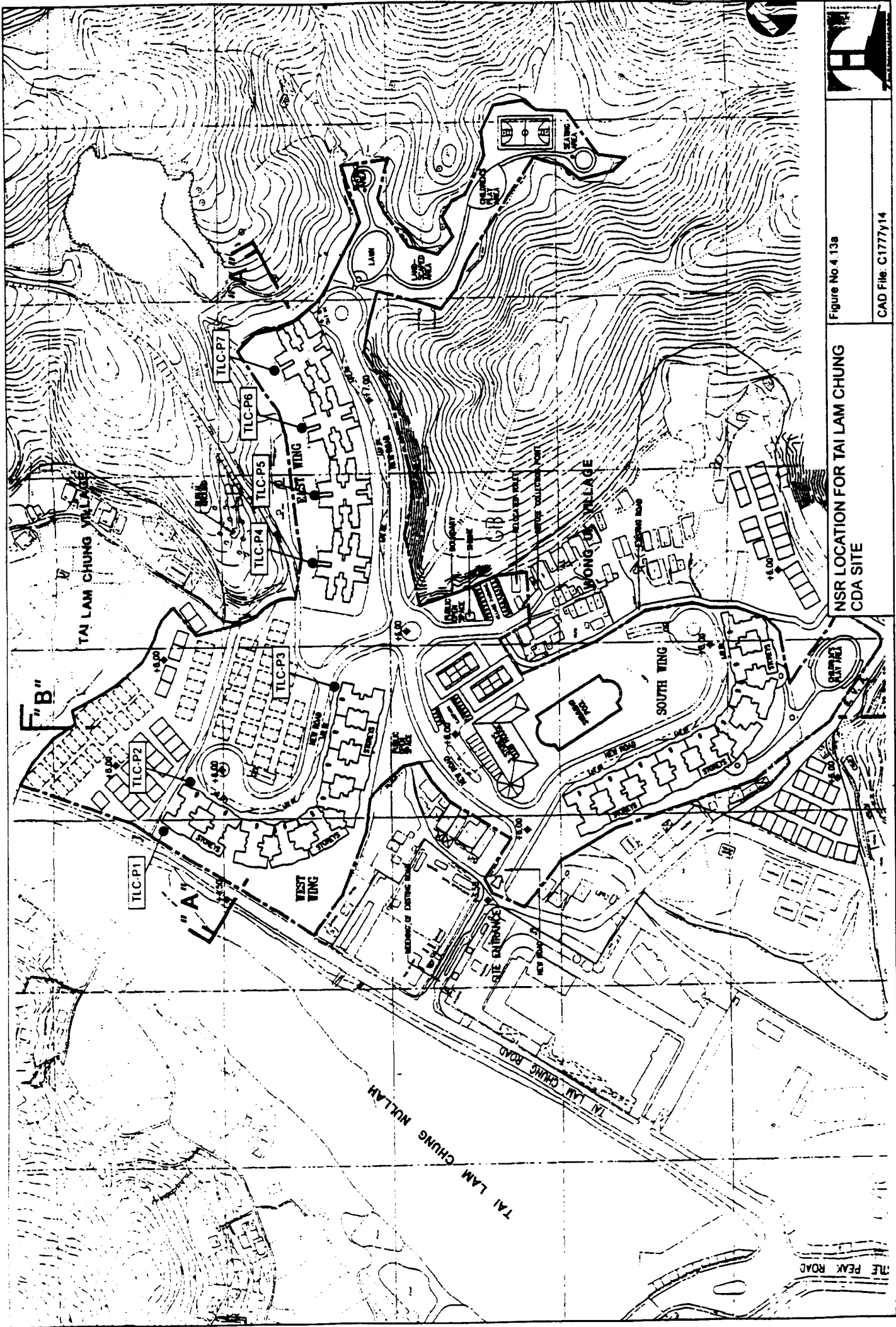


Figure No. 4-13a

NSR LOCATION FOR TAI LAM CHUNG
CDA SITE

CAD File: C1777y14



THE PEAK ROAD

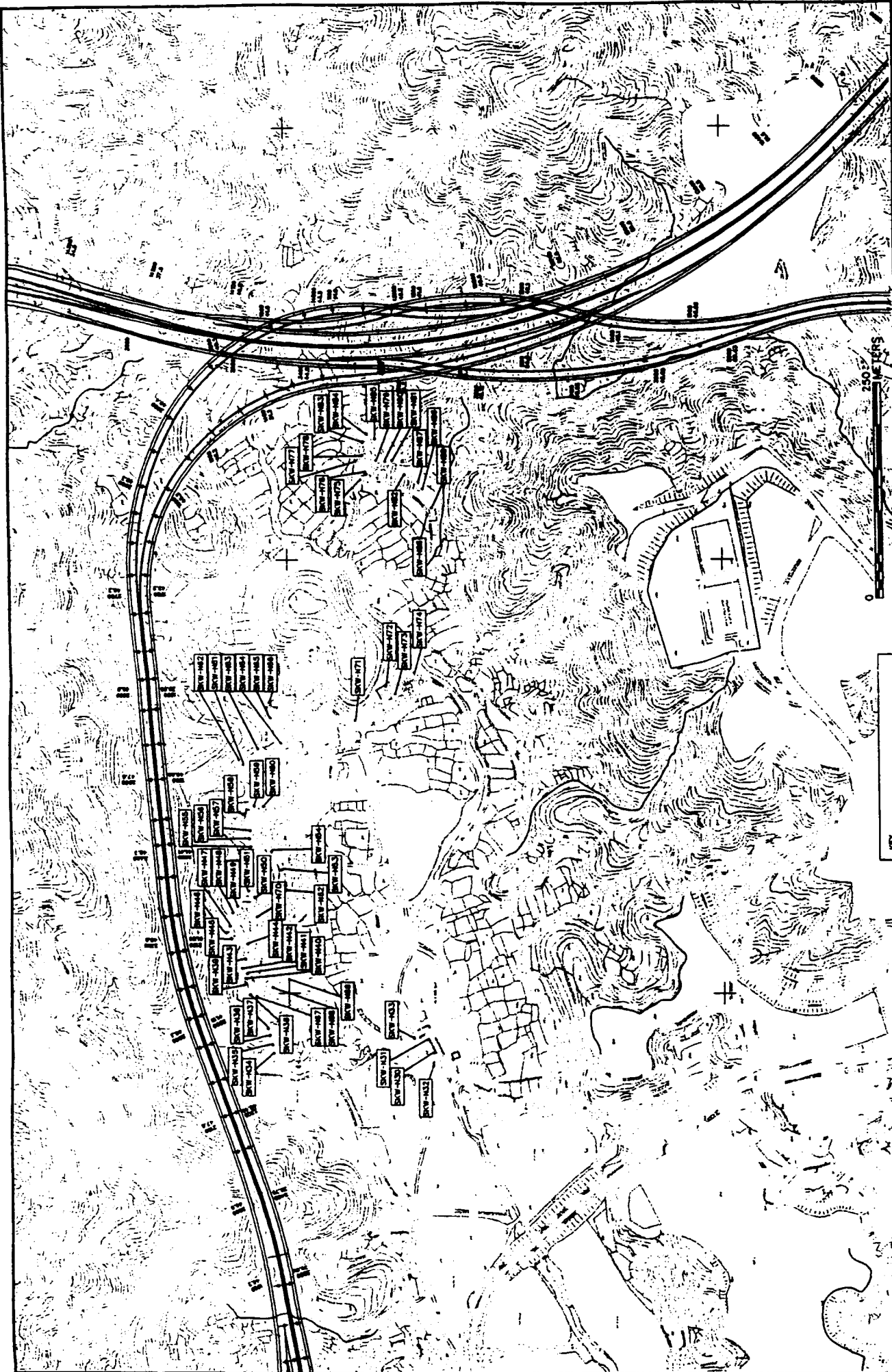
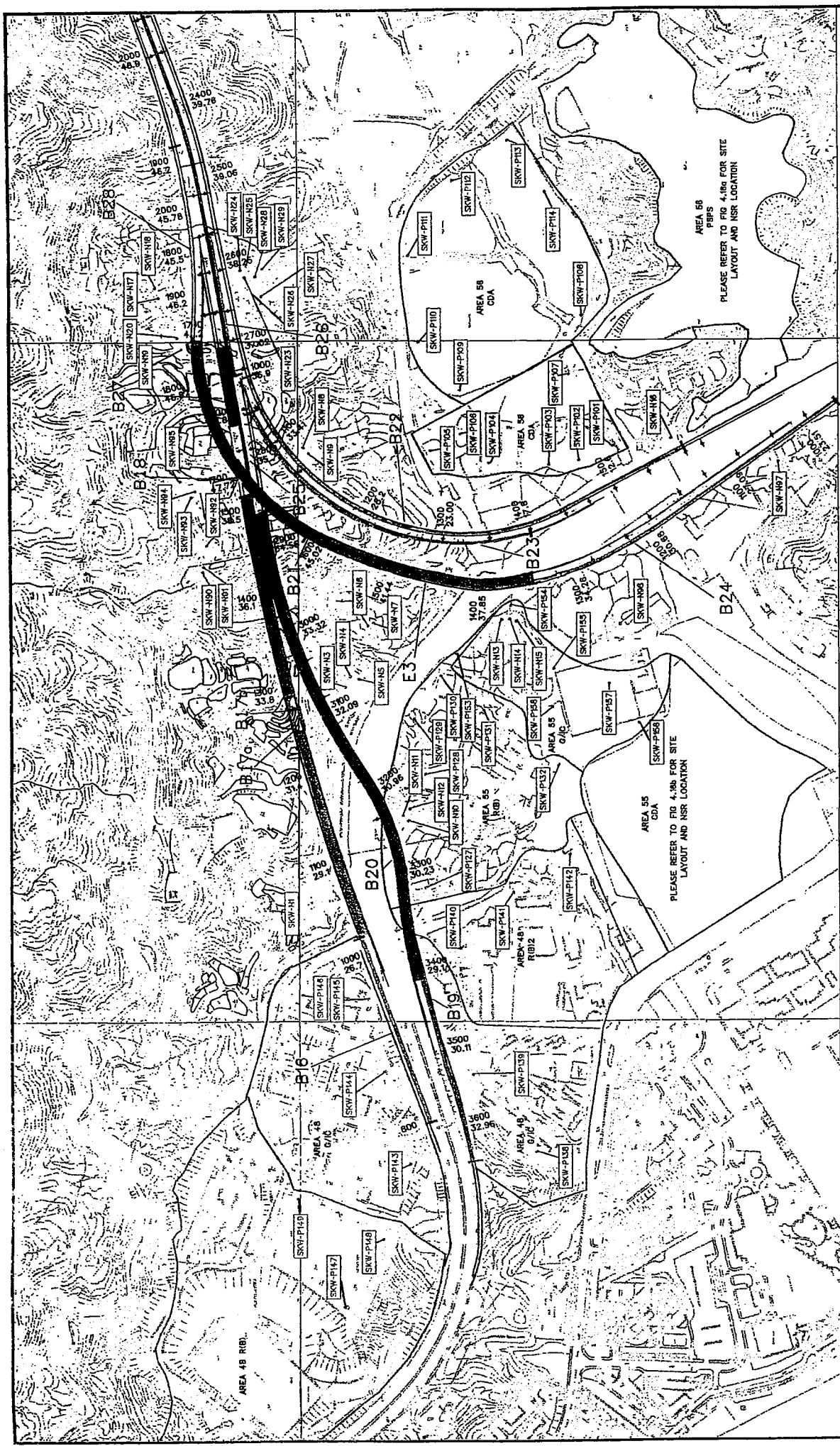


FIGURE NO. 4.15
 CAD FILE 9/C1177/86.DGN

TITLE
 NSR LOCATION IN
 SIU LAM INTERCHANGE
 (OPERATION)

KEY	CHANGE NO.	ELEVATION OF ALIGNMENT (MFD)
000		
10.00		



TITLE
NSR LOCATION AND NOISE MITIGATION IN SO KWUN WAT (OPERATION)

FIGURE NO. **4.16**
 CAD FILE #/C177787.DGN

KEY
 1000 CHAINAGE NO.
 10.00 ELEVATION OF ALIGNMENT (UPD)
 — CANTILEVER BARRIER a=6m, b=2m
 — 5m VERTICAL BARRIER
 — 5.4m VERTICAL BARRIER
 [Symbol] FULL ENCLOSURE
 [Symbol] SEMI ENCLOSURE

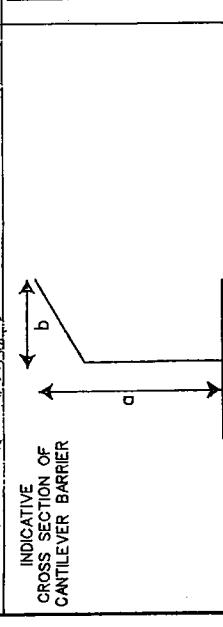
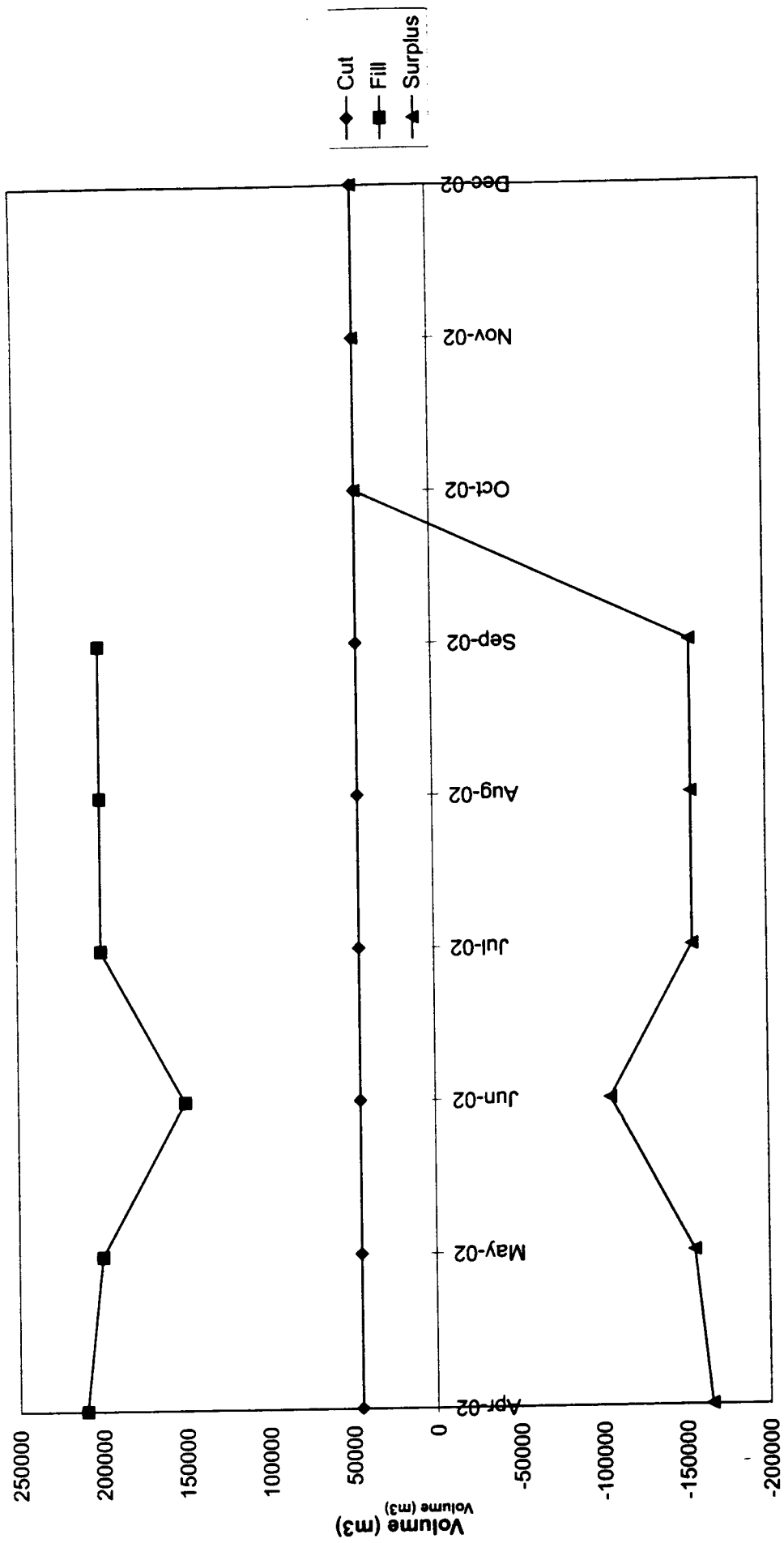




Figure No. 5.1

CAD File: C177v1

CUT AND FILL BALANCE FOR THE NORTH LANTAU SECTION



Time

Volume (m³)



Figure No. 5.2

CAD File: C:177v2

CUT AND FILL BALANCE FOR THE TSING LUNG TAU SECTION

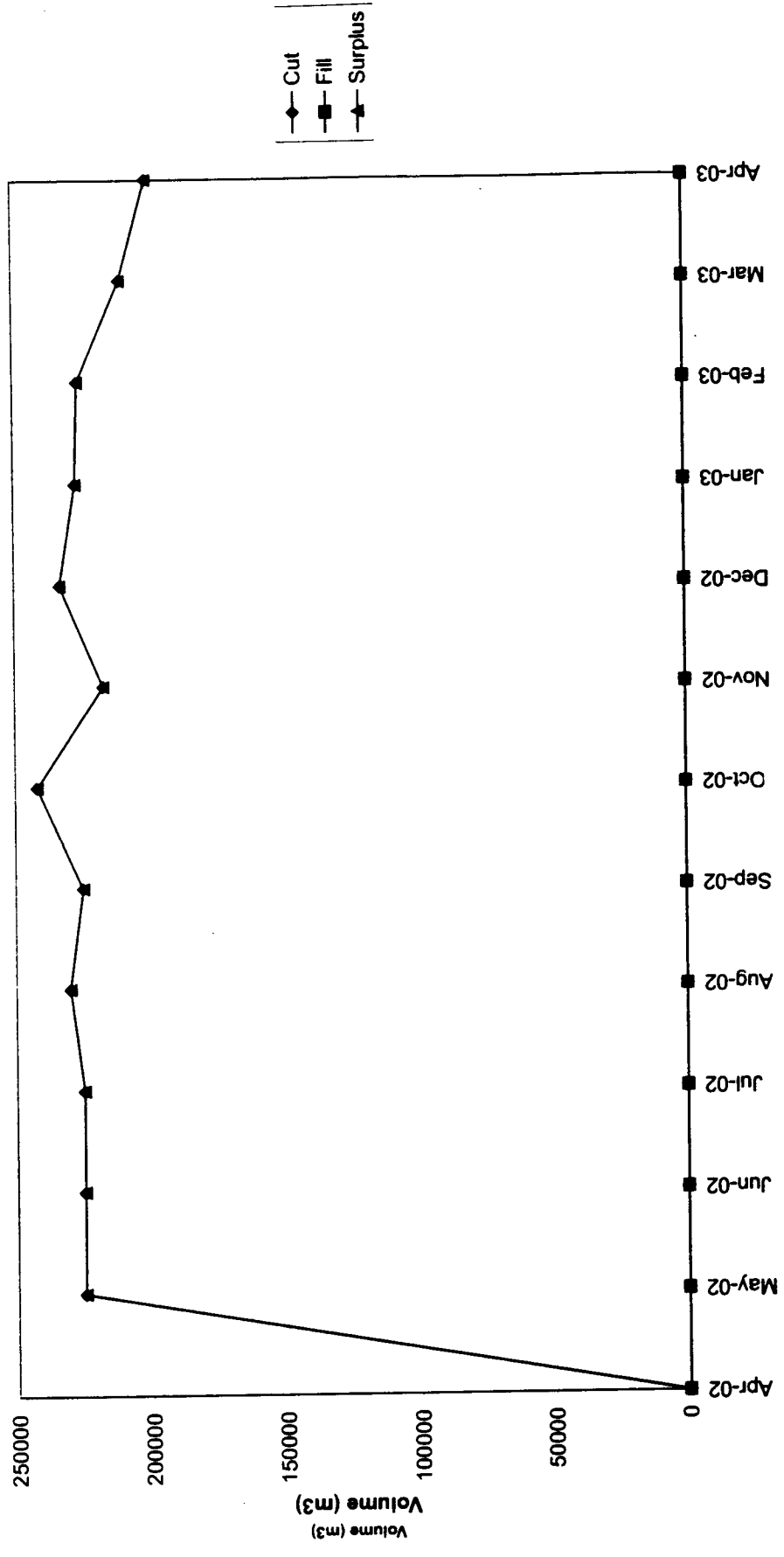
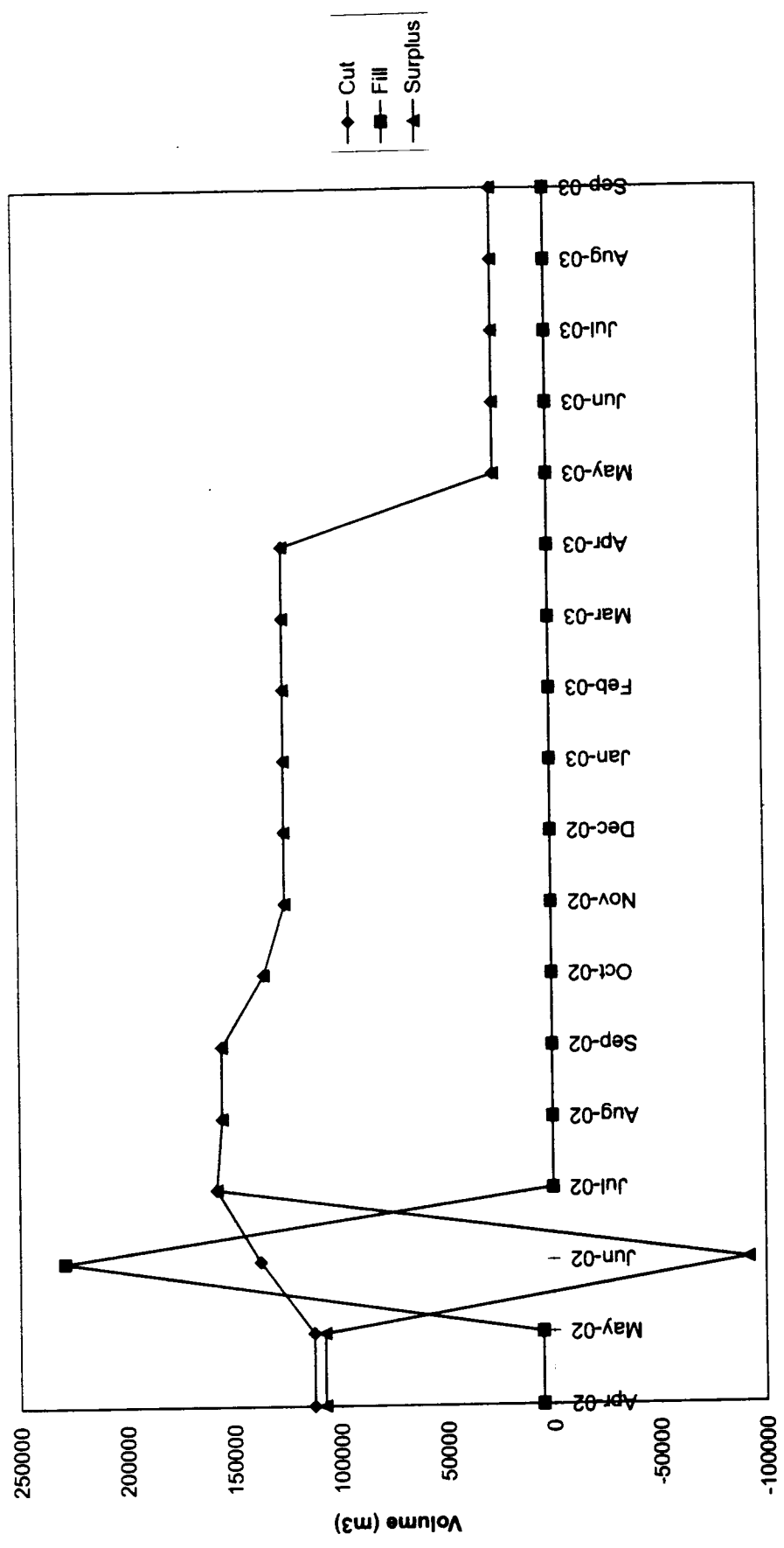




Figure No. 5.3

CAD File: C177V3

CUT AND FILL BALANCE FOR THE TSING LUNG TAU TO SO KWUN WAT SECTION



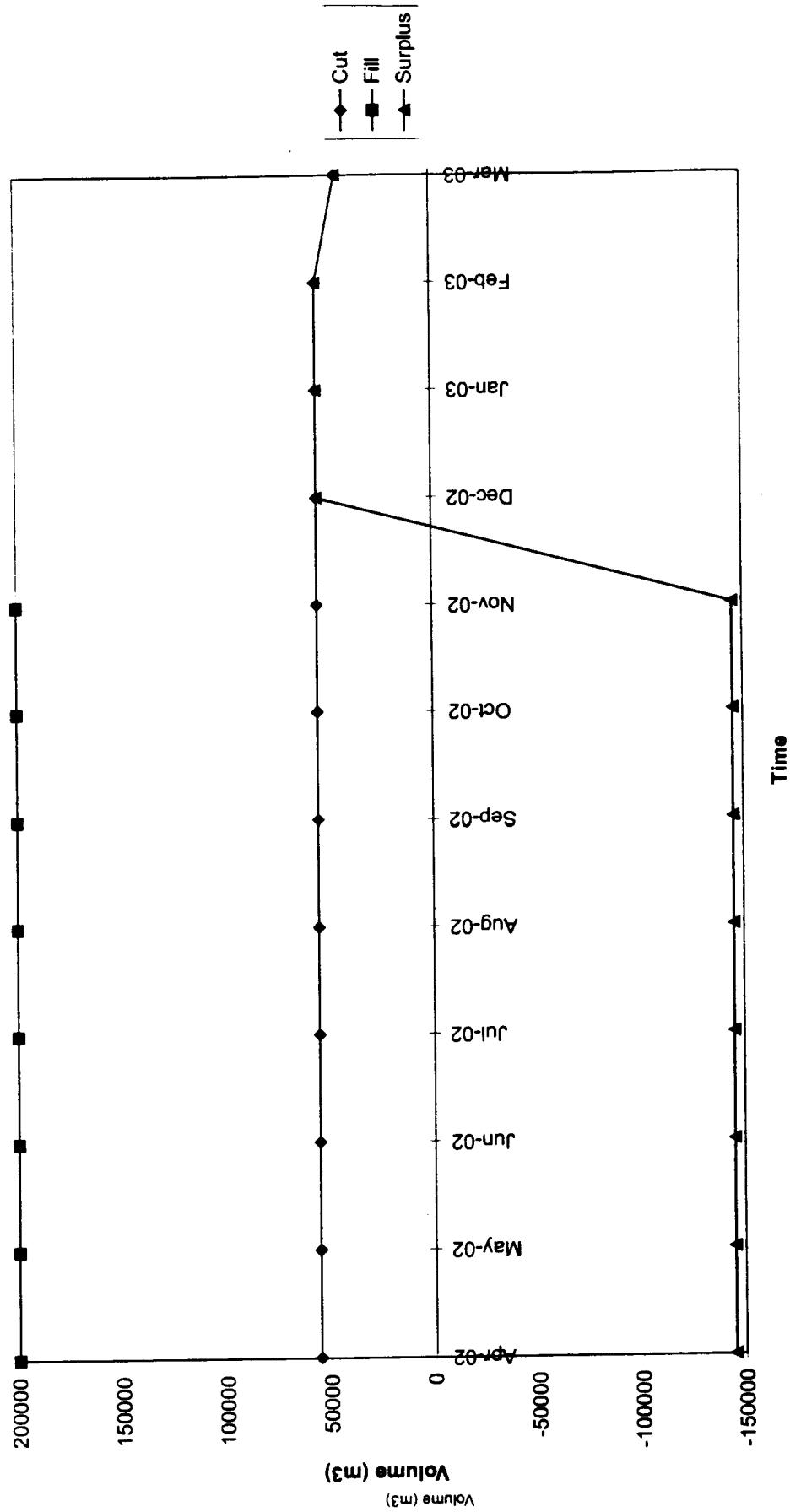
Time



Figure No 5 4

CAD File: C177v4

CUT AND FILL BALANCE FOR THE SO KWUN WAT SECTION



KEY

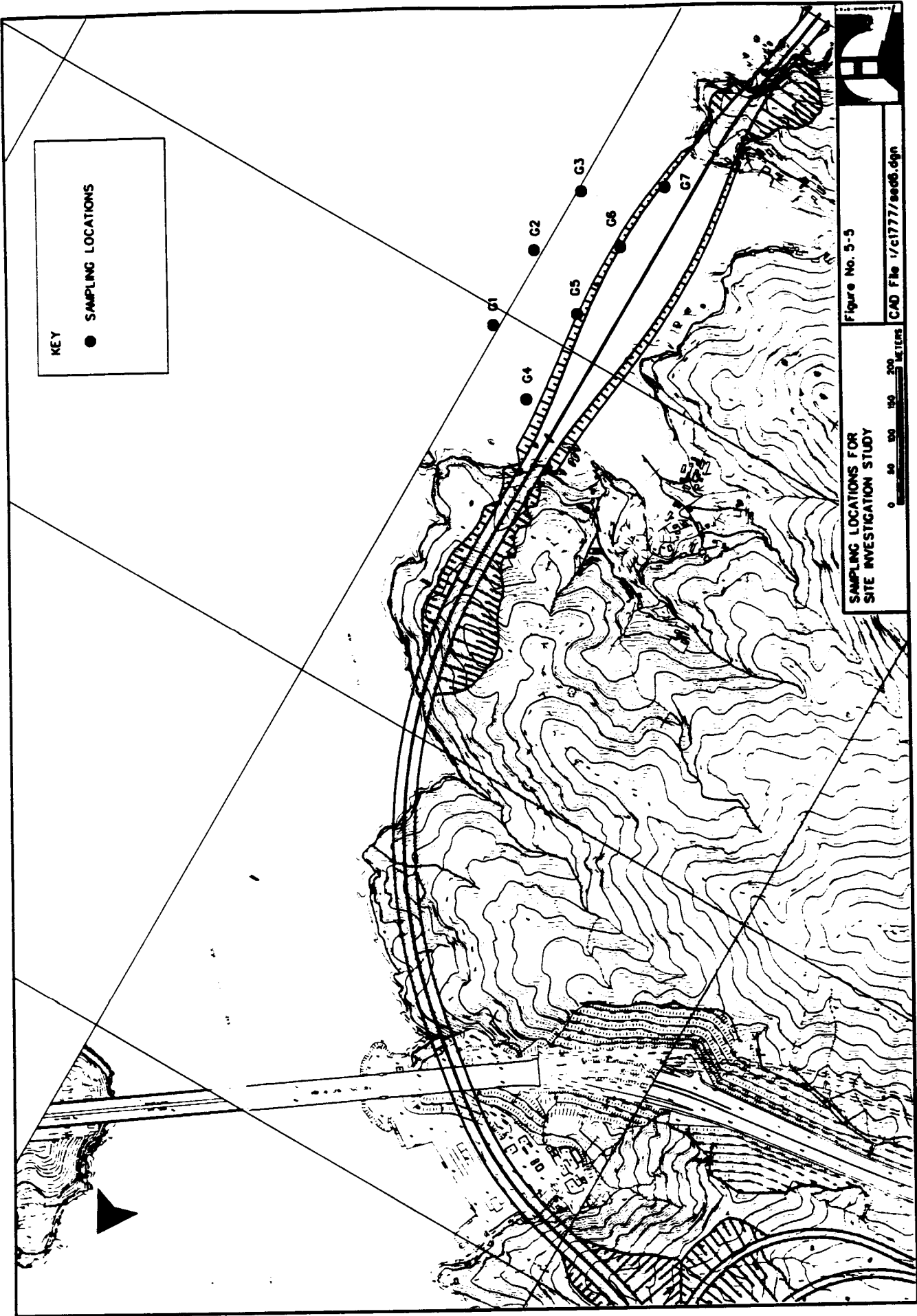
● SAMPLING LOCATIONS

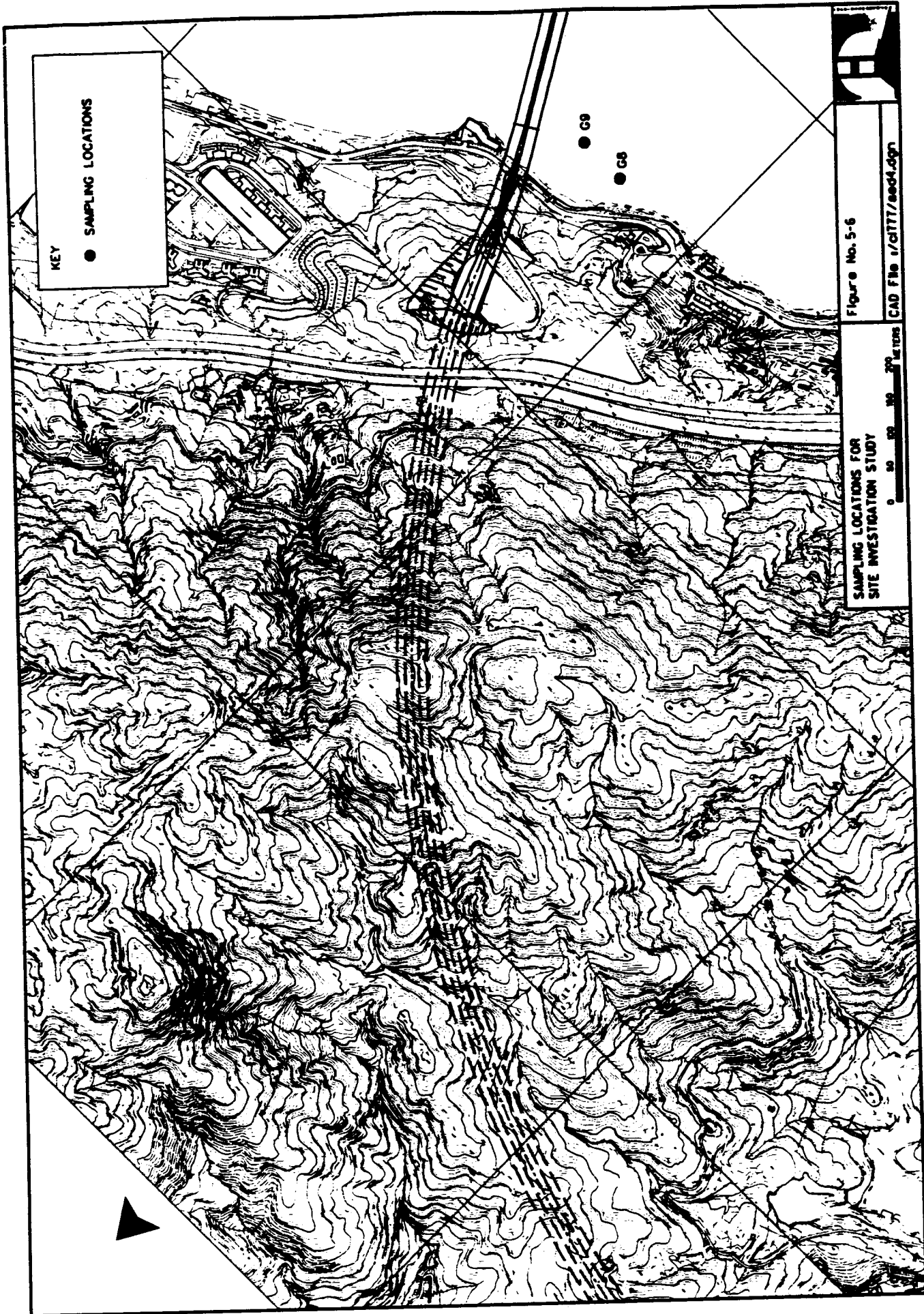
SAMPLING LOCATIONS FOR
SITE INVESTIGATION STUDY

Figure No. 5-5

CAD File 1/c1777/see06.dgn

0 50 100 150 200 METERS





KEY

● SAMPLING LOCATIONS

SAMPLING LOCATIONS FOR
SITE INVESTIGATION STUDY

0 50 100 200
FEET

Figure No. 5-6

CAD File: i/c1111/seed4.dgn

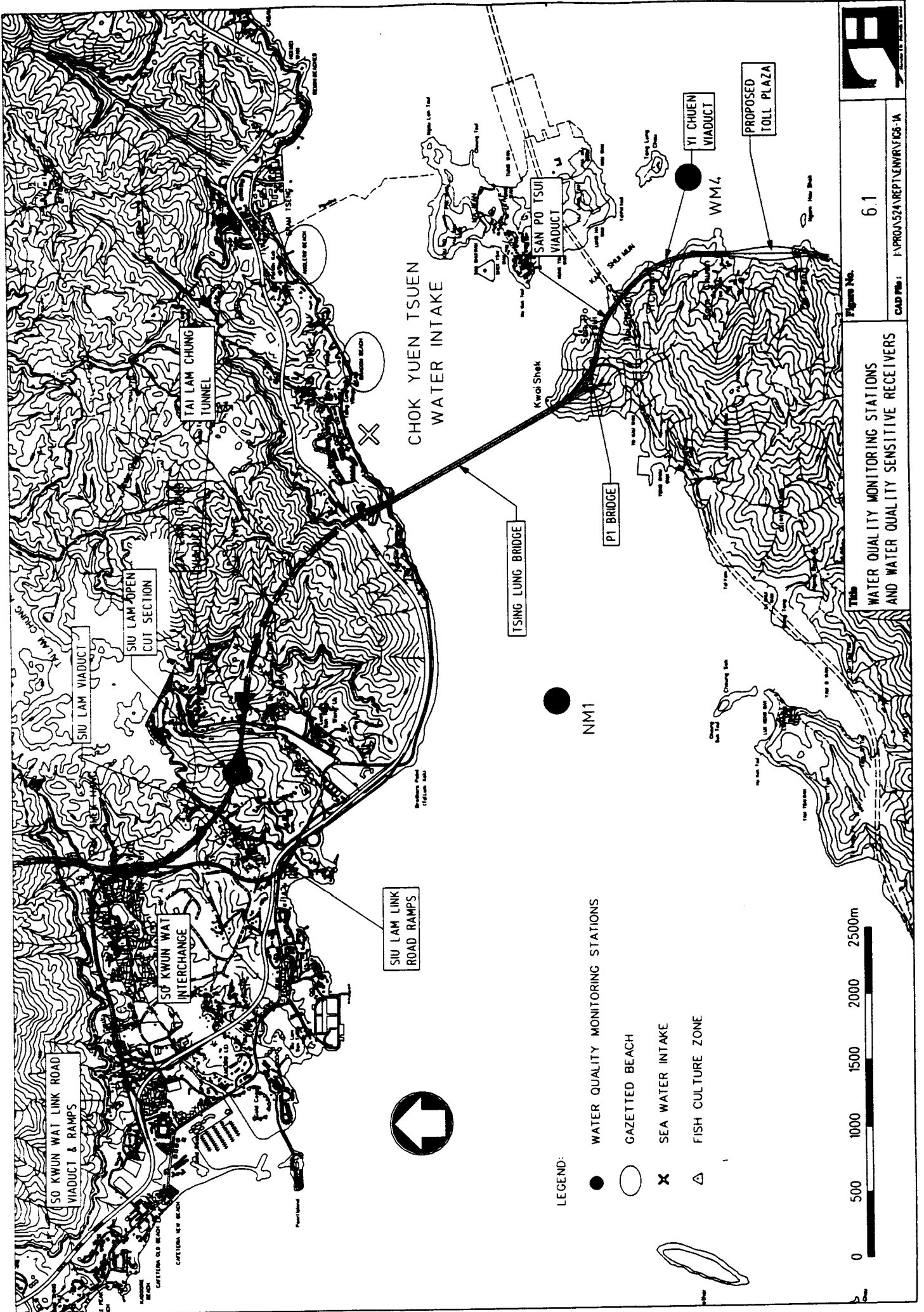


Figure No. 61
 CAD FILE: I:\PROJ\52A\REPT\ENVRY\F6-1A

WATER QUALITY MONITORING STATIONS
 AND WATER QUALITY SENSITIVE RECEIVERS

LEGEND:

- WATER QUALITY MONITORING STATIONS
- GAZETTED BEACH
- ✕ SEA WATER INTAKE
- △ FISH CULTURE ZONE



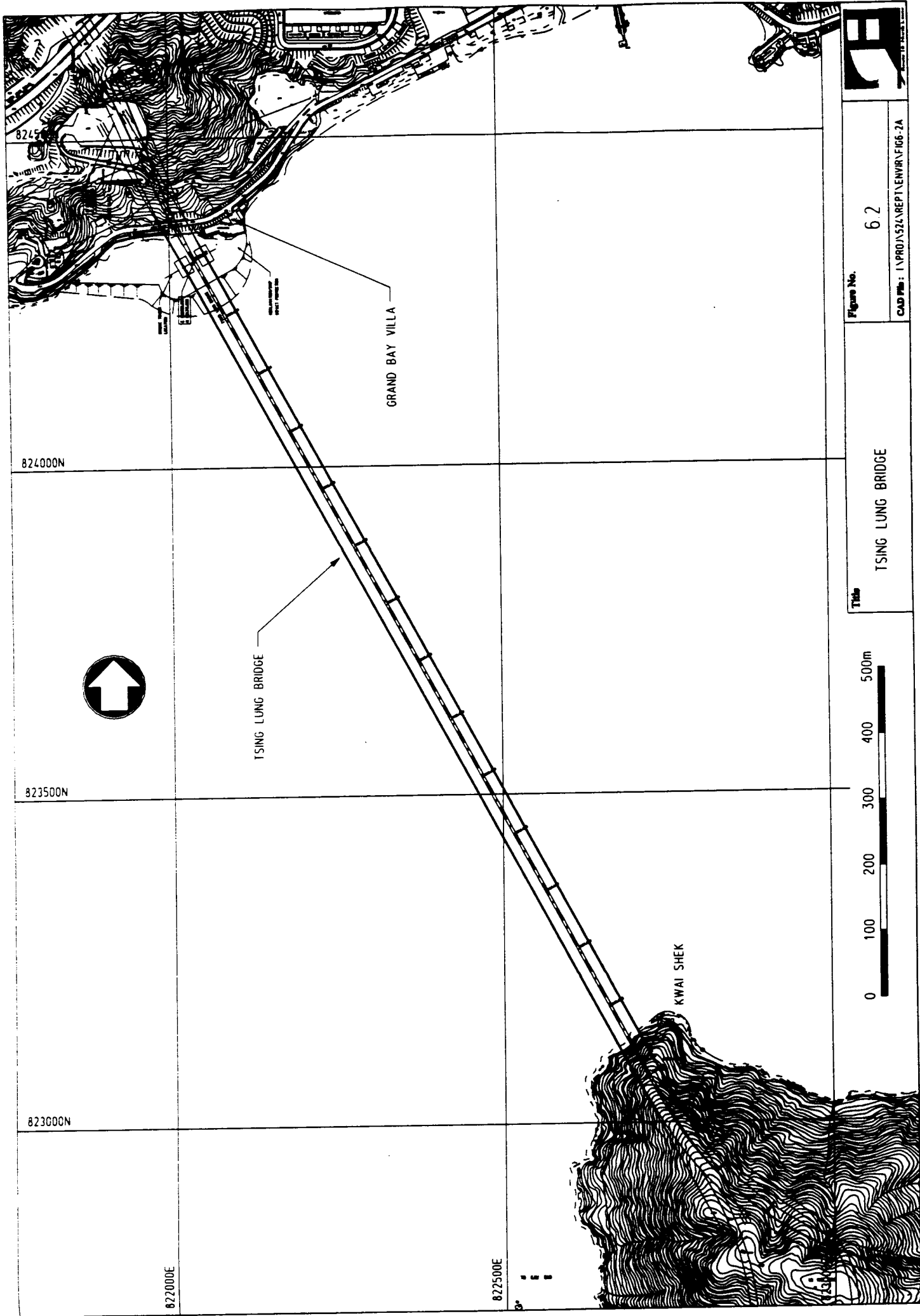


Figure No.

62

CAD FILE: I:\PROJ\524\REPT\ENVR\FIG6-2A

Title

TSING LUNG BRIDGE



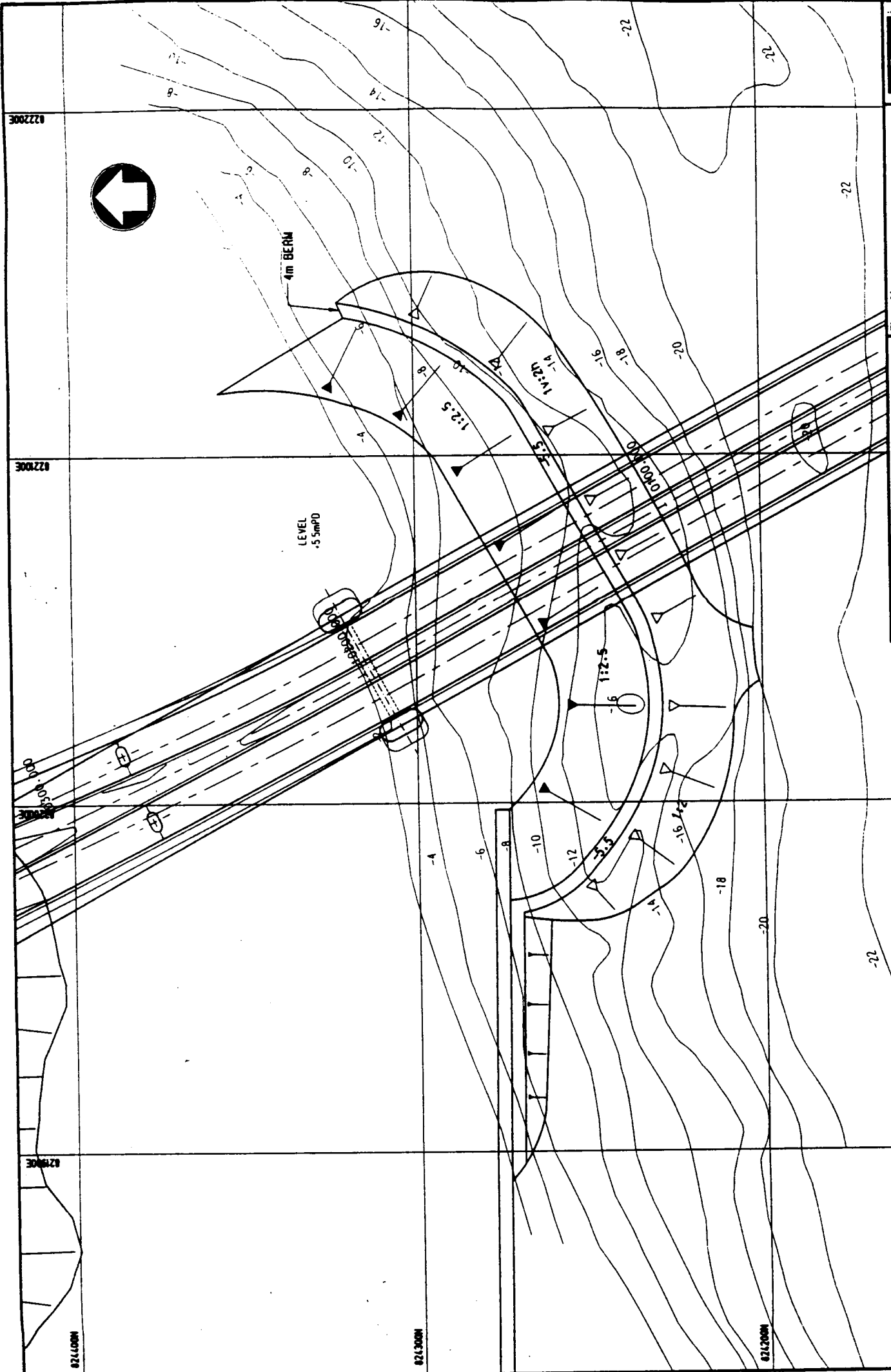


Figure No. **6.3**
 CAD File: E:\PRO\152A\VEPT\ENVR\F06-3A

Title
**TSING LUNG BRIDGE
 NORTH TOWER**



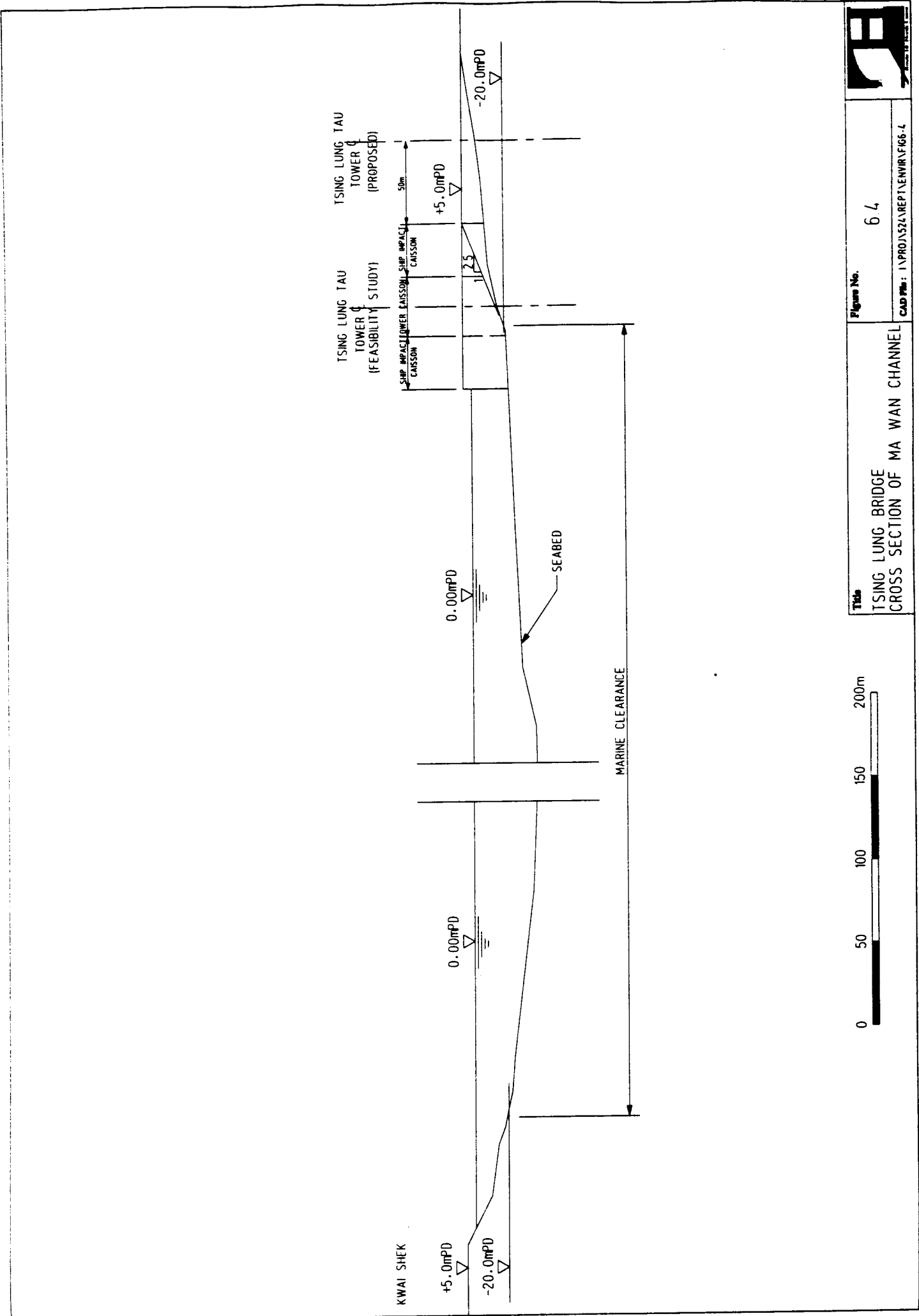
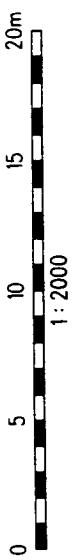
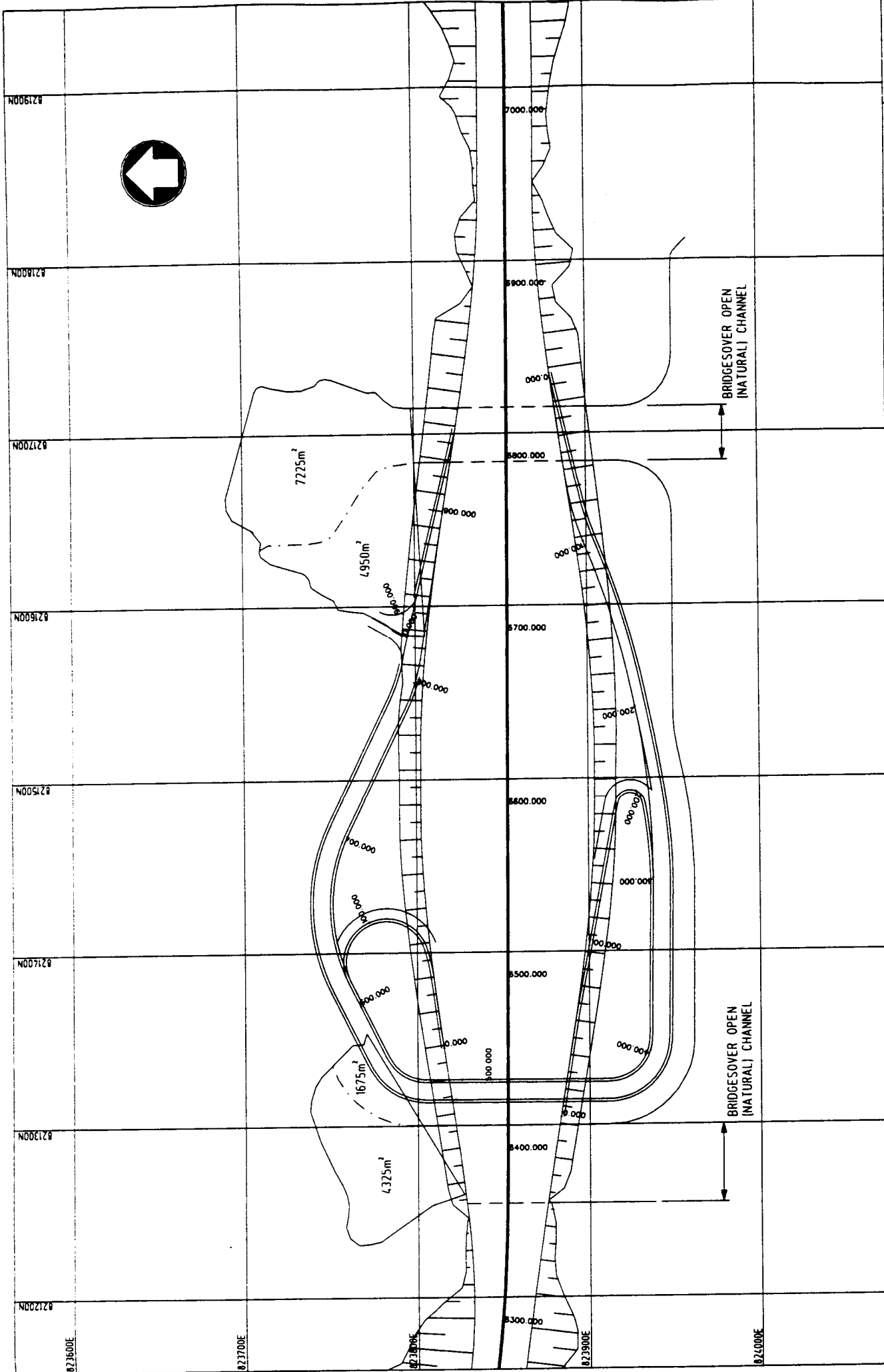


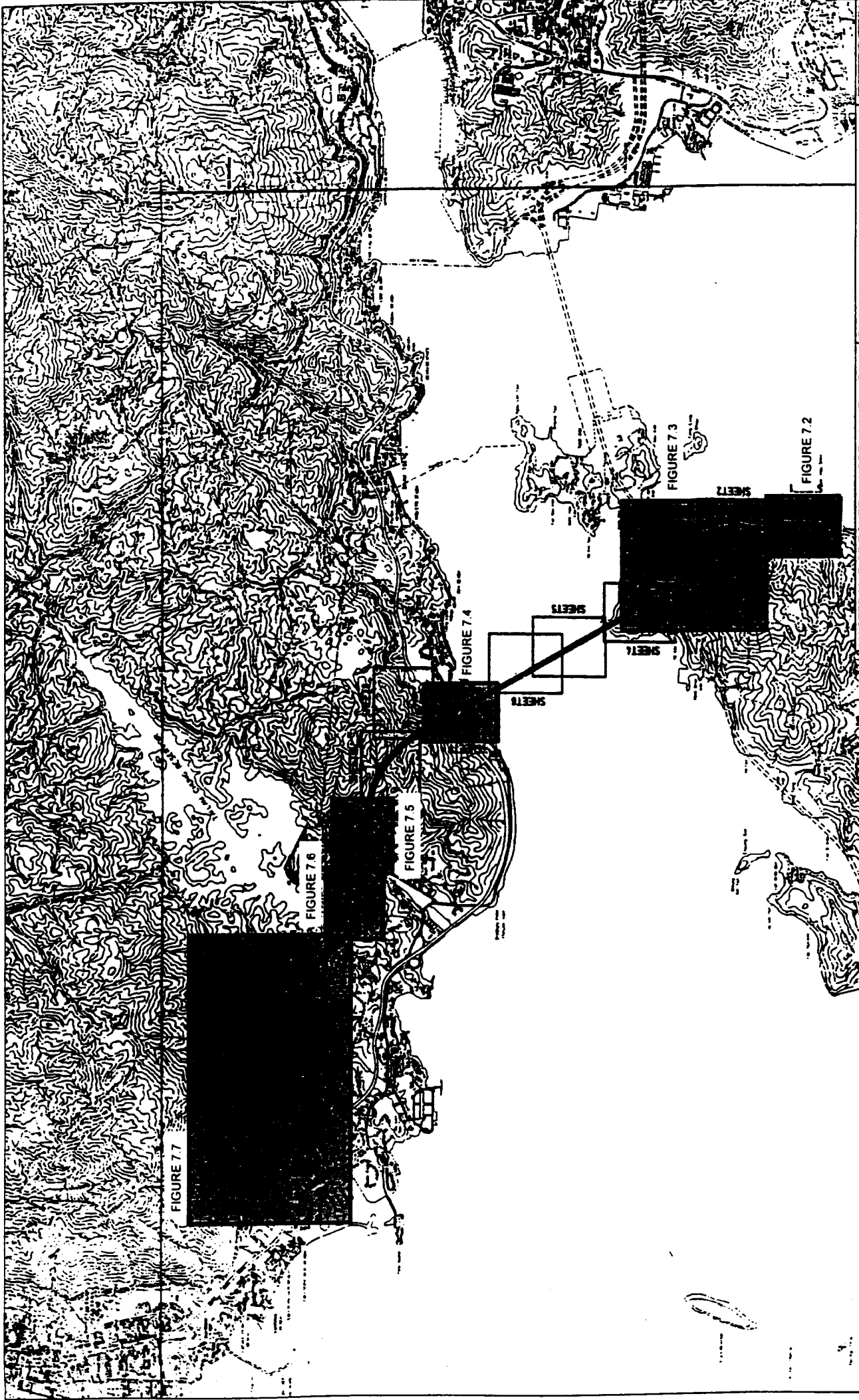


Figure No. 6.5
 CAD File: I:\PROJ\52\REP\TENVIR\F66-5

TOLL PLAZA

Title



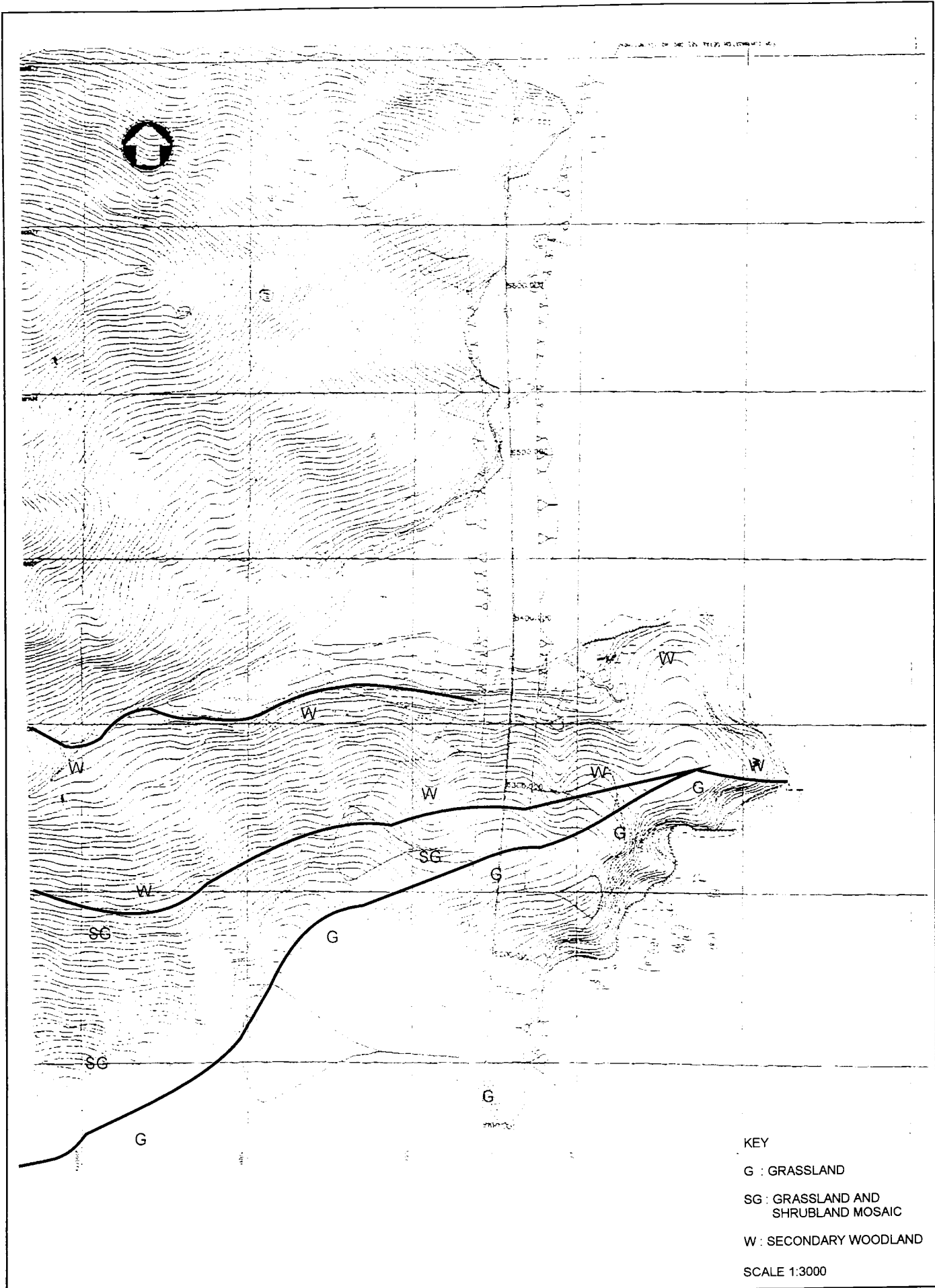


MASTER MAP OF ROUTE 10 NORTH LANTAU TO
YUEN LONG HIGHWAY

Figure No. 7.1

CAD File: C177799





HABITAT MAP OF THE STUDY AREA OF FA PENG

Figure No.7.2

CAD File :C1777y10



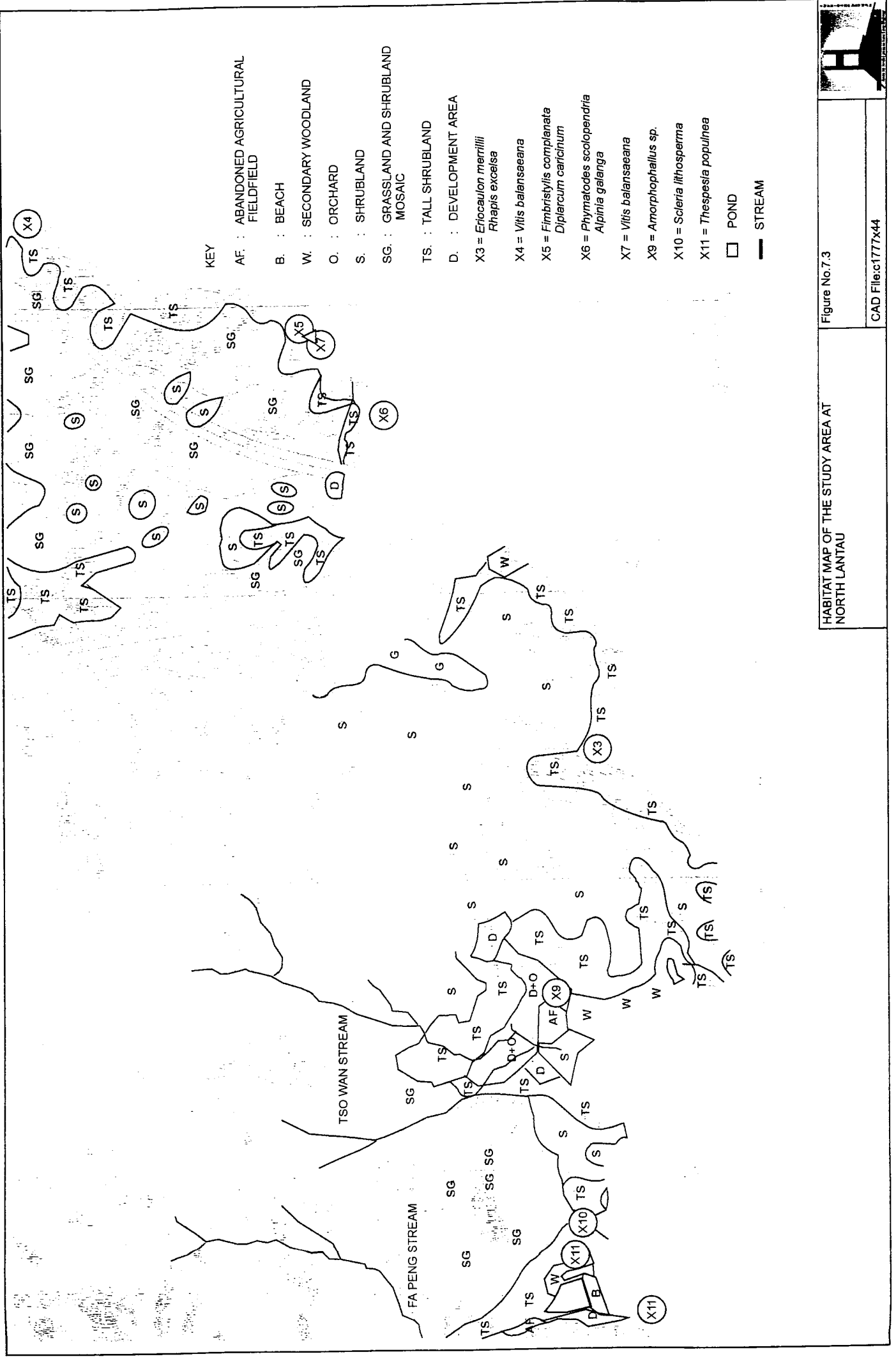
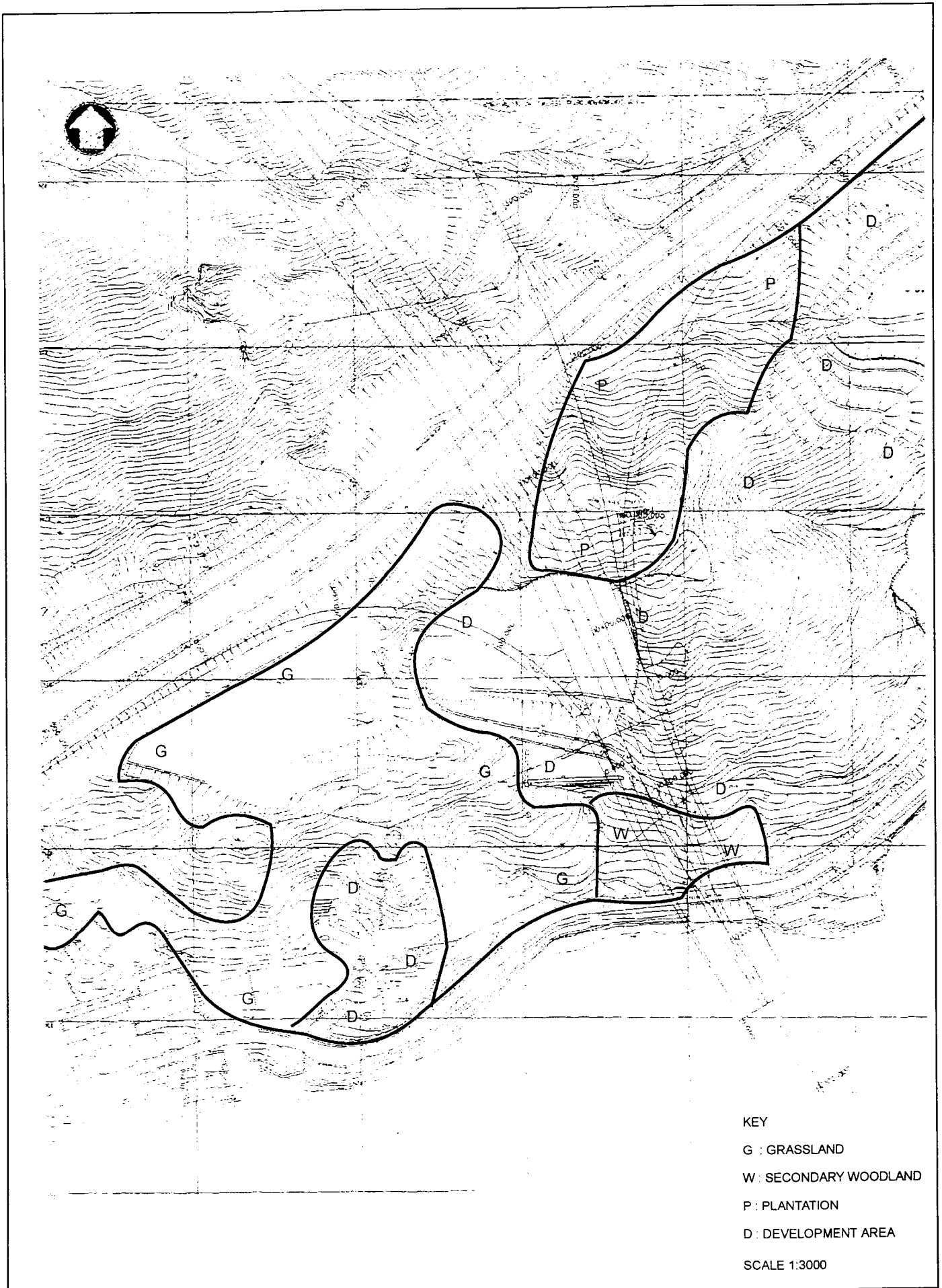


Figure No.7.3

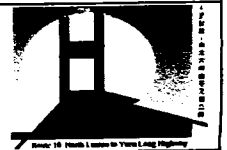
HABITAT MAP OF THE STUDY AREA AT NORTH LANTAU



HABITAT MAP OF THE STUDY AREA OF TSING LUNG TAU (PORTAL)

Figure No.7.4

CAD File :C1777y11



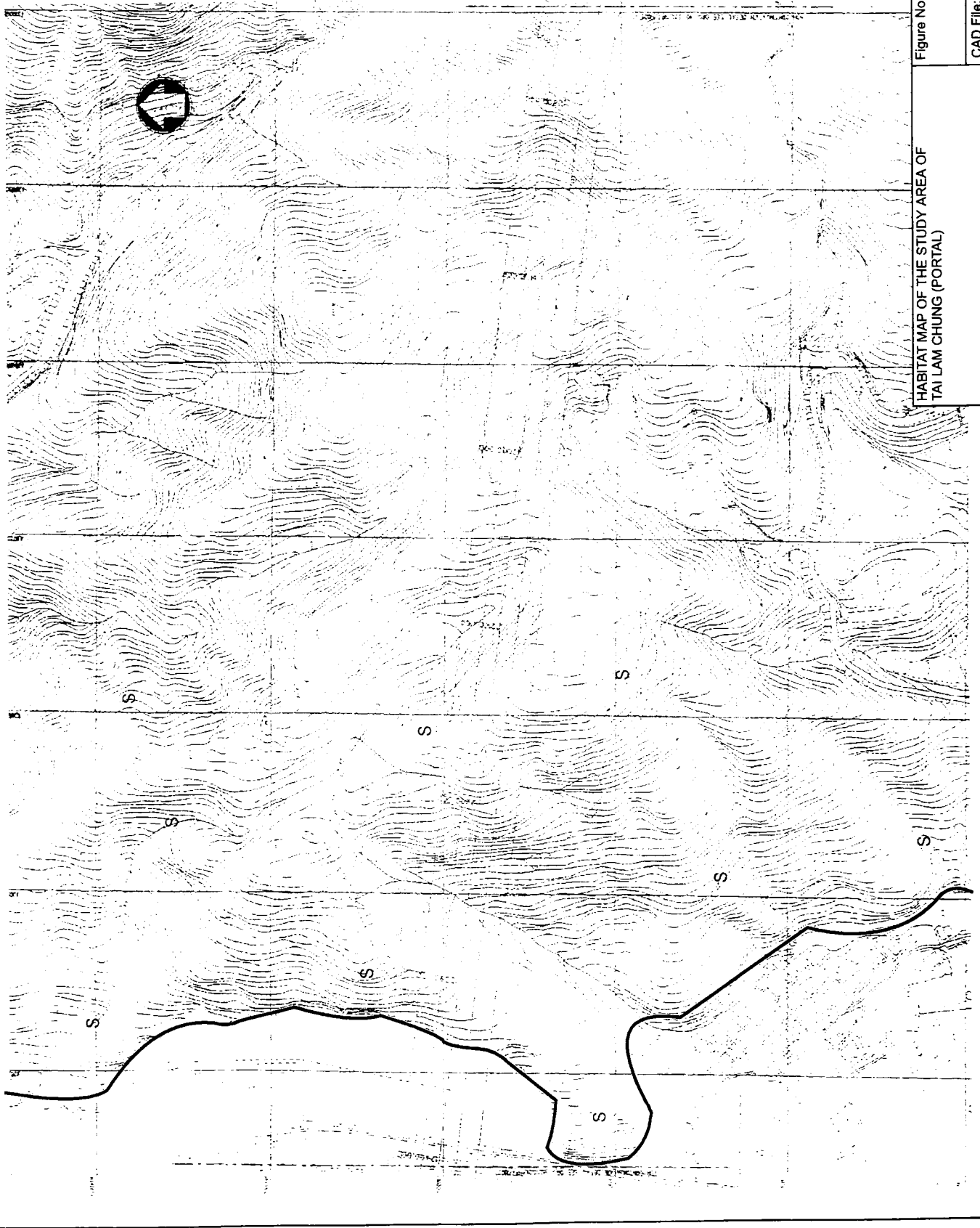


KEY
S : SHRUBLAND
SCALE 1:3000

Figure No.7.5

CAD File:C1777y12

HABITAT MAP OF THE STUDY AREA OF
TAI LAM CHUNG (PORTAL)

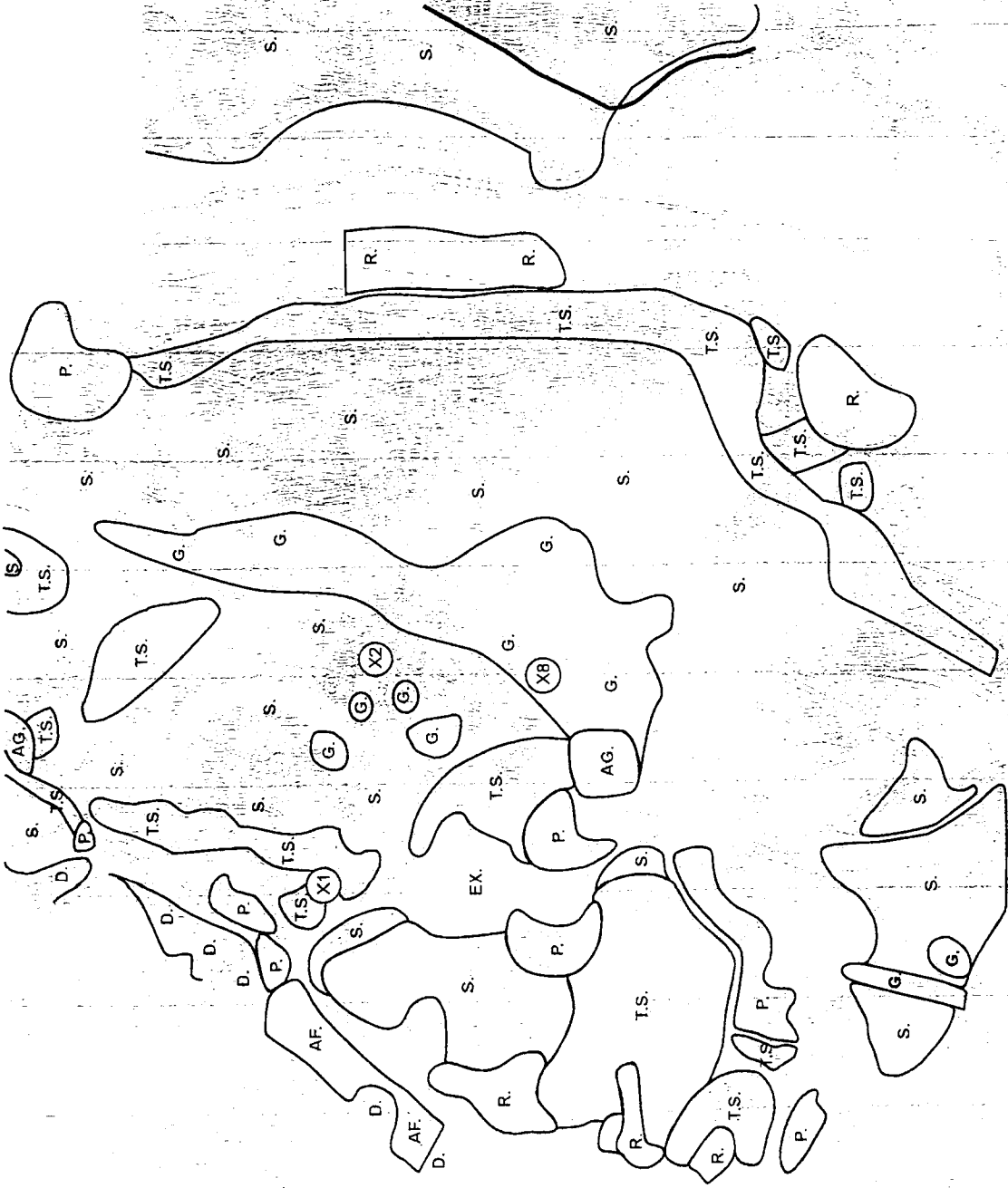




TAI LAM CHUNG STREAM

- KEY
- AF : ABANDONED AGRICULTURAL FIELD
 - AG : ARTIFICIAL GRASSLAND
 - EX : EXCAVATION, BARE LAND
 - G : GRASSLAND - SHRUBLAND MOSAIC
 - P : PLANTATION / ORCHARD
 - S : SHRUBLAND
 - T.S : TALL SHRUBLAND
 - D : DEVELOPED AREA
 - R : RUDERAL AREA
- X1 = *Enkianthus quinqueflorus*
X2 = *Nepenthes mirabilis*
X8 = *Lespedeza cuneate*
Headyotis pinifolia

— STREAM
SCALE 1:6250



HABITAT MAP OF THE STUDY AREA OF
TAI LAM CHUNG SECTION

Figure No.7.6

CAD File:c:1777x43



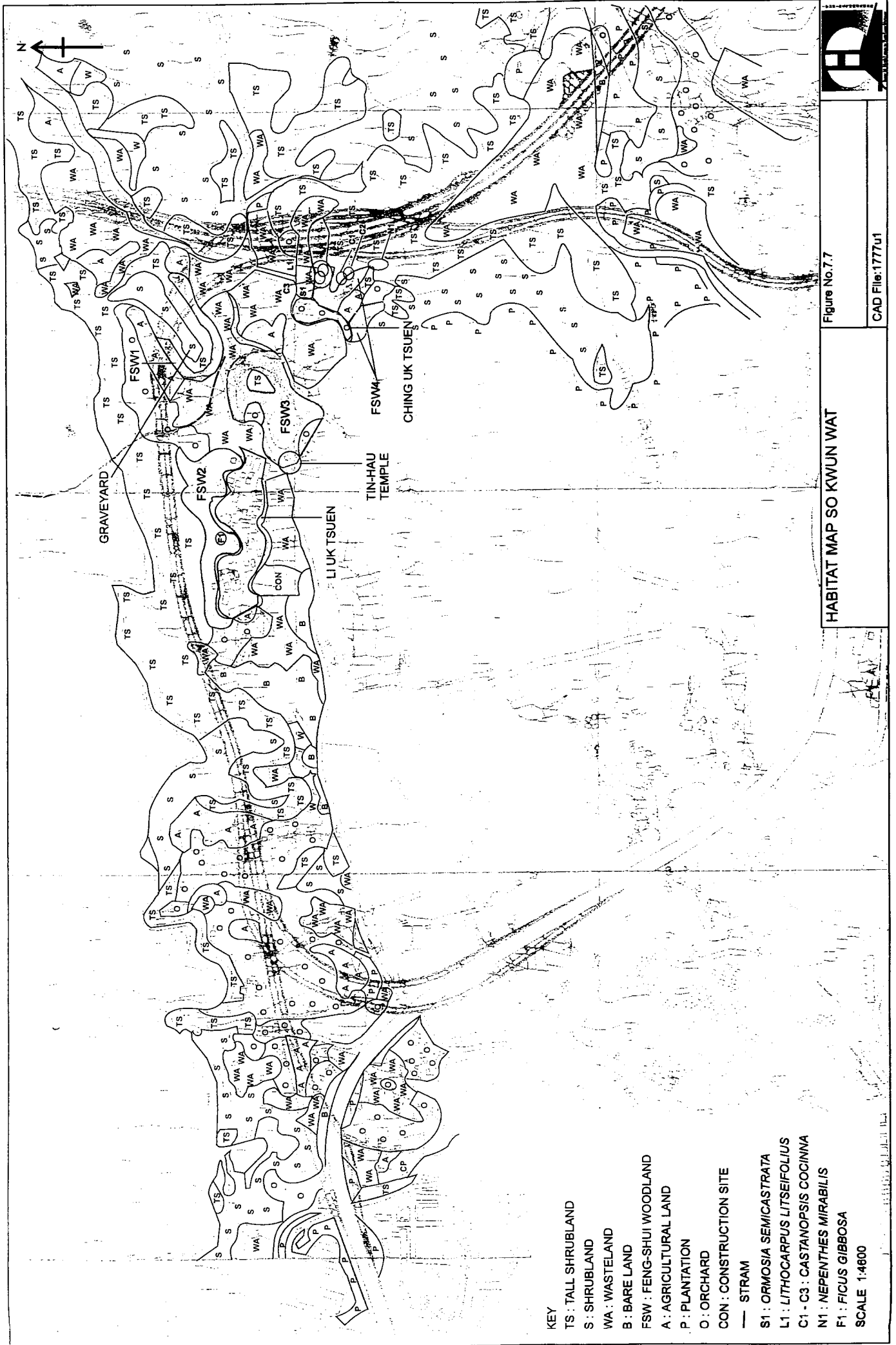


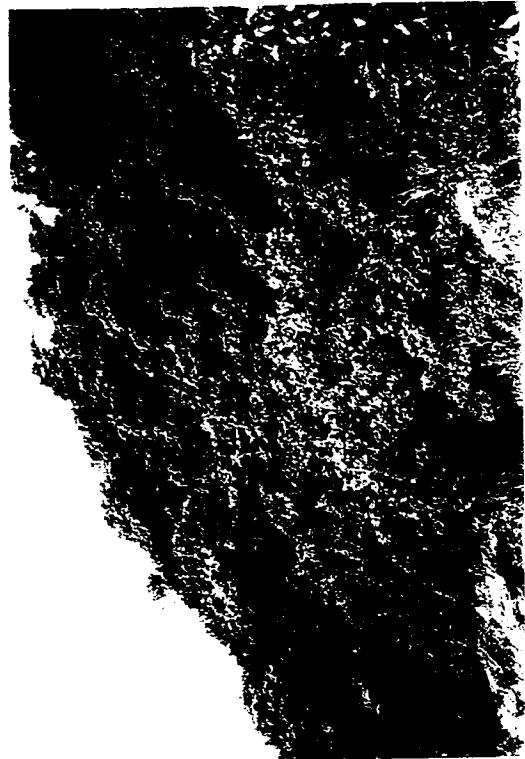
Figure No. 7.7

CAD File: 1777J1

HABITAT MAP SO KWUN WAT

- KEY
- TS : TALL SHRUBLAND
 - S : SHRUBLAND
 - WA : WASTELAND
 - B : BARE LAND
 - FSW : FENG-SHUI WOODLAND
 - A : AGRICULTURAL LAND
 - P : PLANTATION
 - O : ORCHARD
 - CON : CONSTRUCTION SITE
 - STRAM
 - S1 : ORMOSIA SEMICASTRATA
 - L1 : LITHOCARPUS LITSEIFOLIUS
 - C1 - C3 : CASTANOPSIS COGINNA
 - N1 : NEPENTHES MIRABILIS
 - F1 : FICUS GIBBOSA
- SCALE 1:4600

FILE



SECONDARY WOODLAND AT COAST OF FA PENG, LANTAU



GRASSLAND /SHRUBLAND MOSAIC ON HILL SIDE ABOVE YI CHUEN, LANTAU



TALL SHRUBLAND AND SHRUBLAND AT YI CHUEN, LANTAU



ABANDONED AGRICULTURAL FIELD AND TALL SHRUB AT TSO WAN, LANTAU

HABITAT WITHIN THE STUDY AREA

Figure No.7.8

CAD File:C1777q





NEPENTHES MIRABILIS PITCHER PLANT



HEDYOTIS PINIFOLIA



SHRUBLAND/TALL SHRUBLAND AT TAI LAM VALLEY



GRASSLAND-SHRUBLAND MOSAIC IN VALLEY AT TAI LAM



Figure No.7.9

HABITAT TYPES AND PLANTS OF
ECOLOGICAL INTEREST WITHIN THE
STUDY AREA

CAD File:C1777q1



GRAVEYARD AND WOODLAND



CHING UK FENG SHUI WOOD



LI UK VILLAGE AND FENG SHUI WOOD



TIN HAU TEMPLE FENG SHUI WOOD

WOODLANDS AT SO KWUN WAT AREA

Figure No.7.10

CAD File:C:1777f6





AGRICULTURAL LAND AT SO KWUN WAT



SHRUBLAND AT SO KWUN WAT



TALL SHRUBLAND



WASTELAND AT SO KWUN WAT



VILLAGE AND ORCHARD AT SO KWUN WAT

HABITAT TYPES WITHIN THE STUDY AREA

Figure No.7.11

CAD File:C1777r8





IXONANTHES CHINENSIS



ORMOSIA SEMICAETRATA



LITHOCARPUS LITSEIFOLIUS



CASTANOPSIS CONCINNA

PLANTS OF ECOLOGICAL INTEREST
WITHIN THE STUDY AREA

Figure No.7.12

CAD File:C1777r7

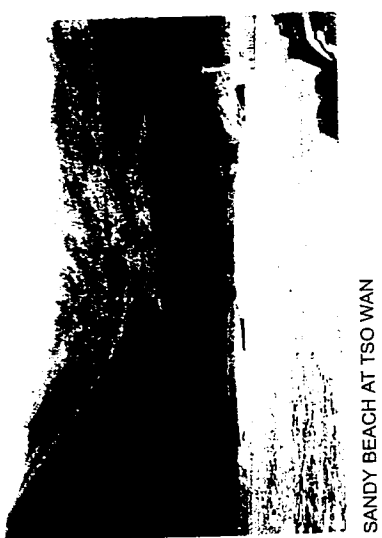




Figure No.7.13

CAD File:C1777y8

HABITAT MAP & PHOTOS TAKEN DURING SITE VISITS IN THE STUDY AREA



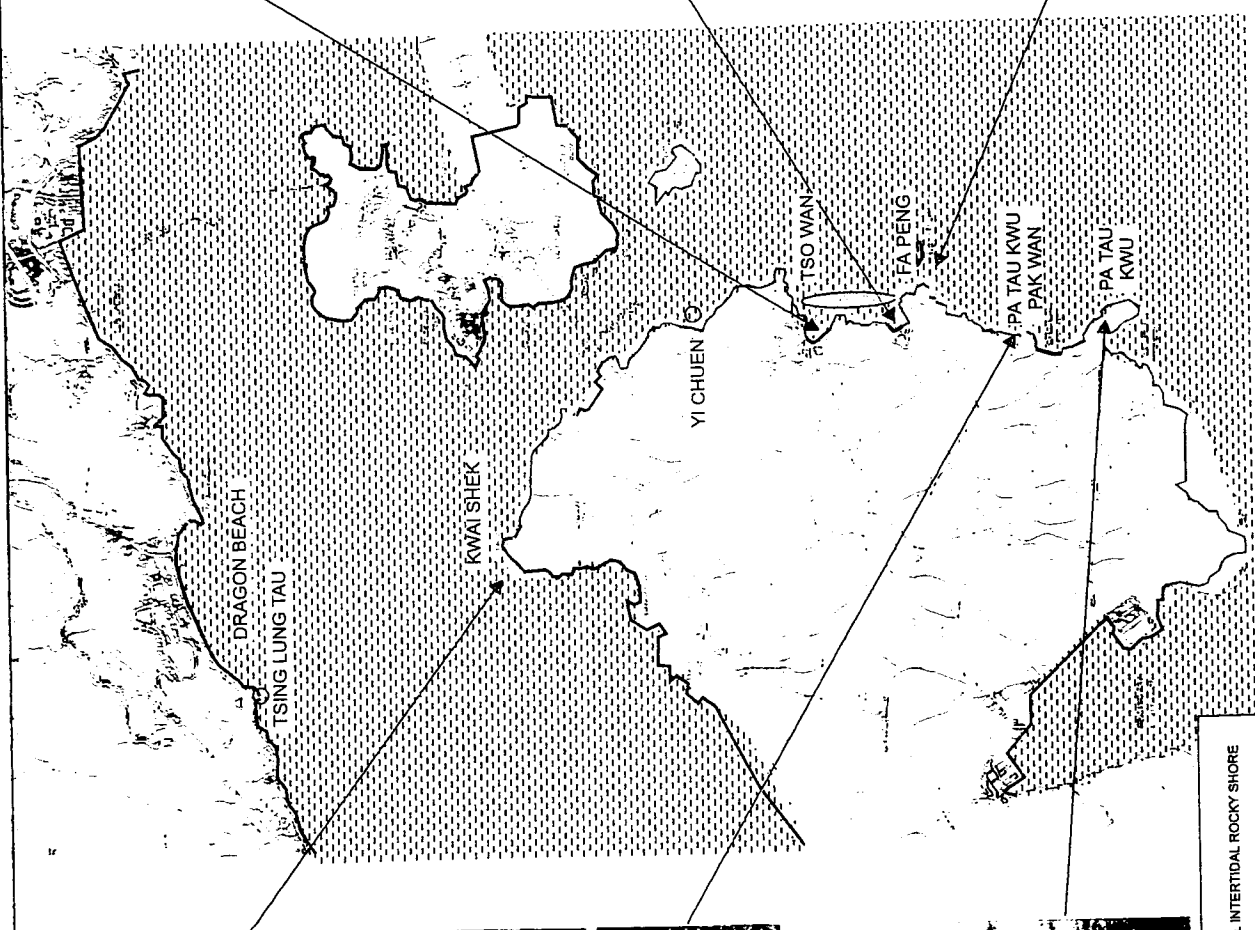
SANDY BEACH AT TSO WAN



SANDY BEACH AT FA PENG



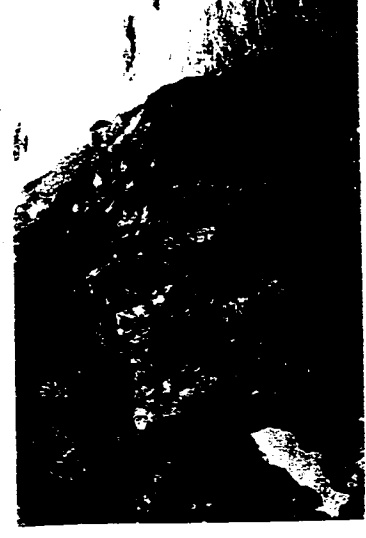
ROCKY SHORE AT FA PENG



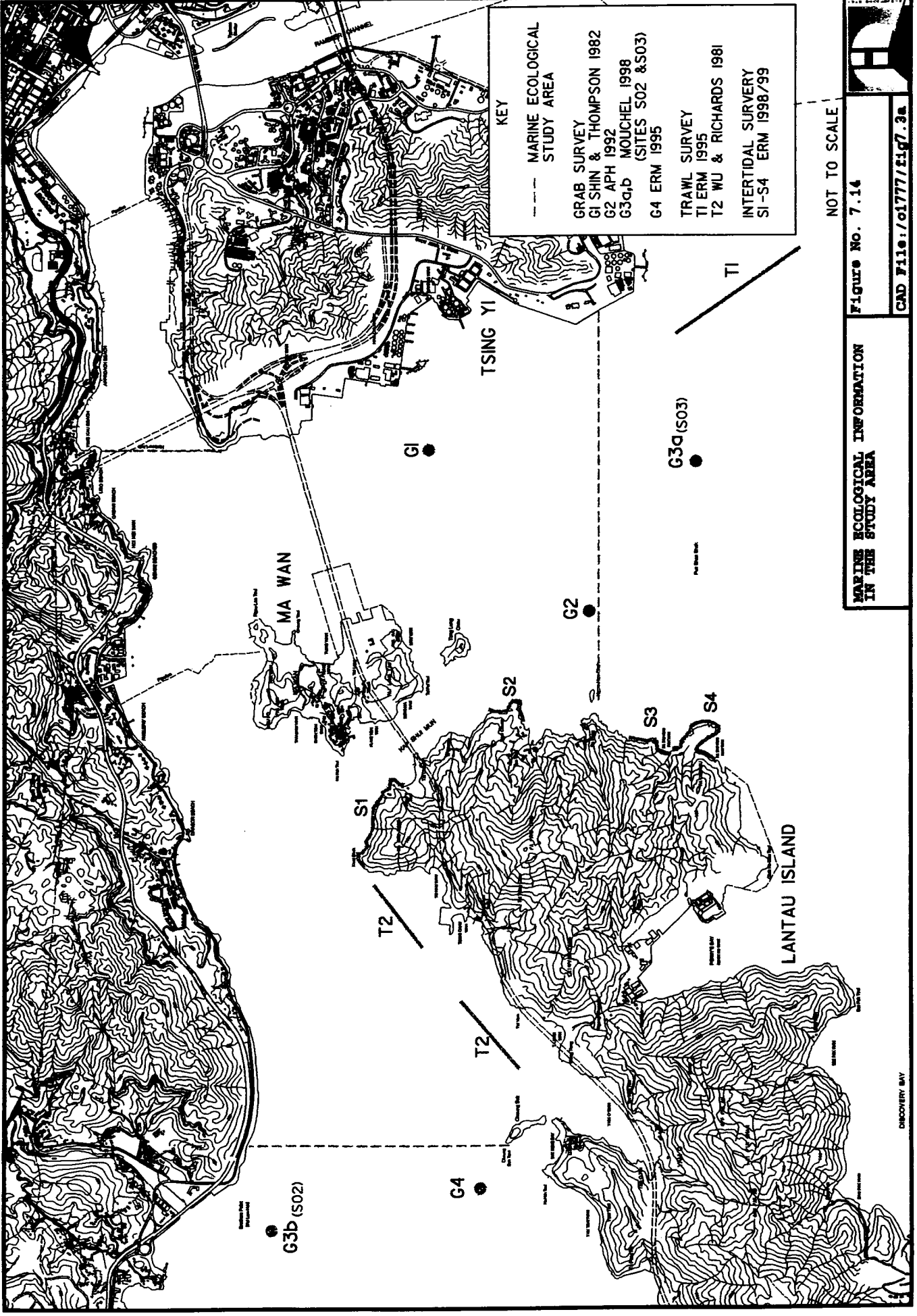
ROCKY SHORE AT KWAI SHEK



COBBLE BEACH AT PA TAU KWU PAK WAN



ROCKY SHORE AT PA TAU KWU



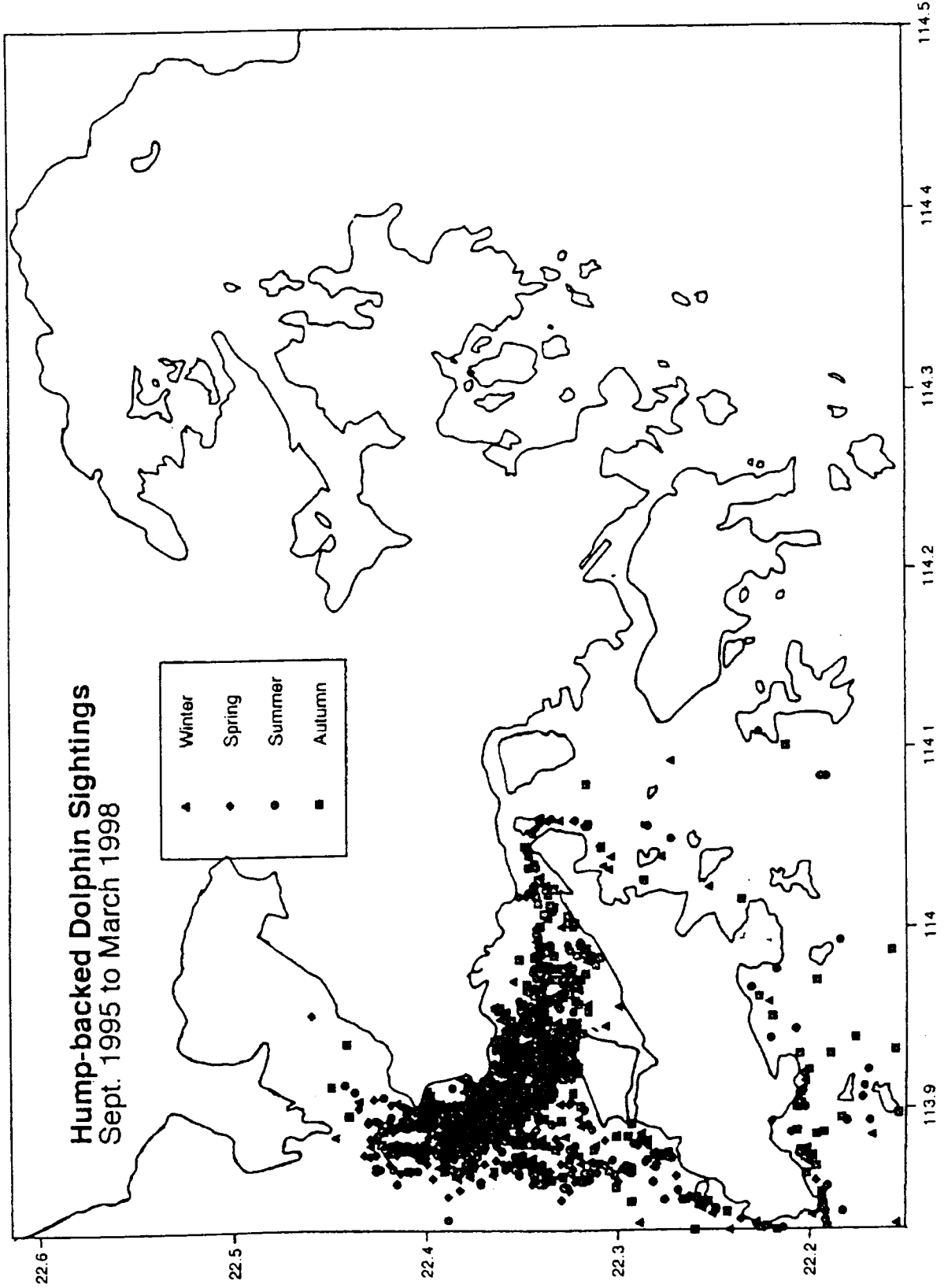


Figure No. 7.15

CAD File: C1777y18

LOCATIONS OF SIGHTINGS OF
HUMP-BACKED DOLPHINS IN
HONG KONG (JEFFERSON 1998)

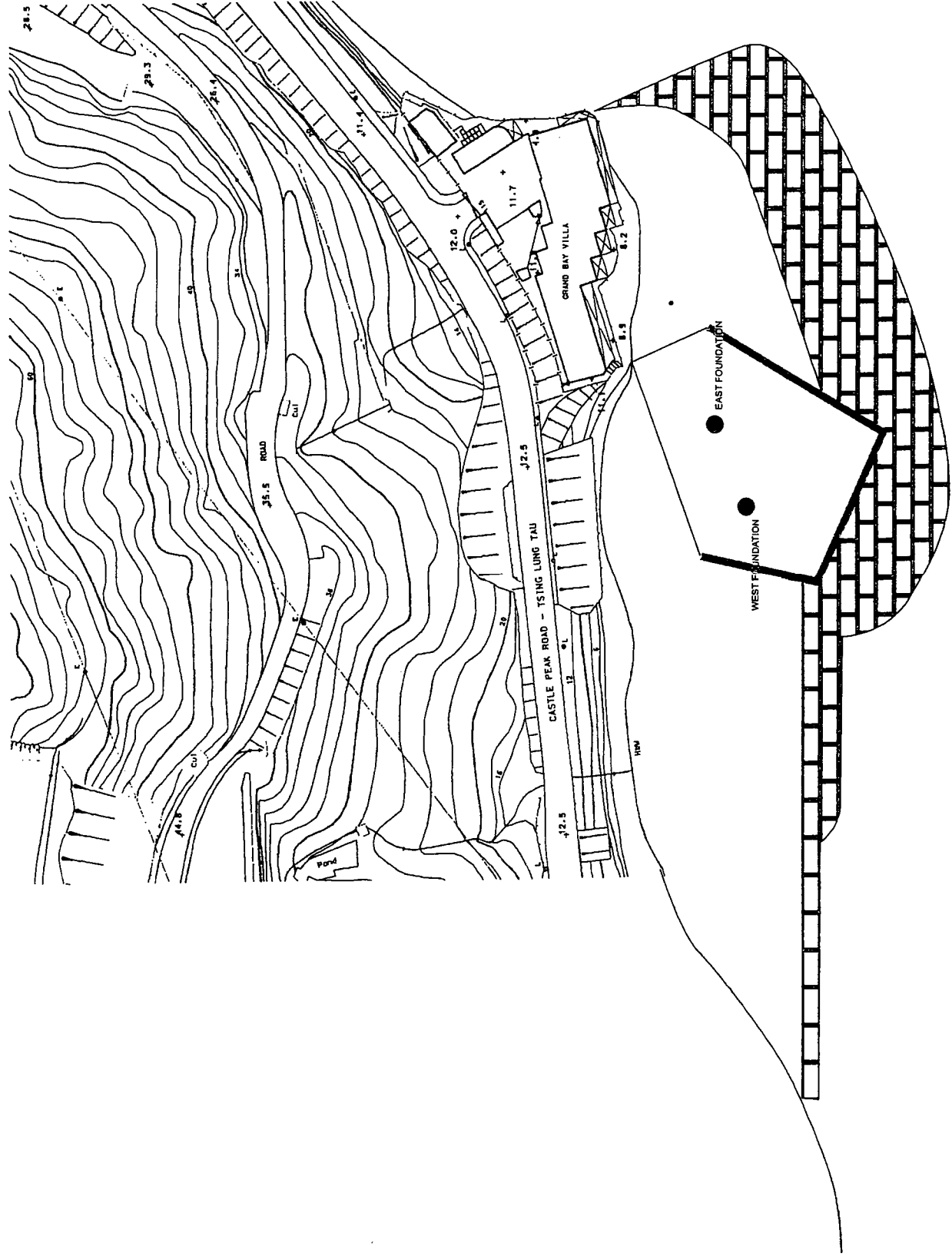


Figure No. 7.16

CAD File: C177y20

LOCATIONS OF BRIDGE FOUNDATIONS, AIR
BUBBLE CURTAIN & RUBBLE MOUND SEAWALLS,
AND EXTENT OF UNDERWATER BLASTING

- KEY
- BRIDGE FOUNDATION
 - EXTENT OF UNDERWATER BLASTING
 - ▣ RUBBLE MOUND SEAWALLS
 - ▨ DEPLOYMENT OF AIR-BUBBLE CURTAIN



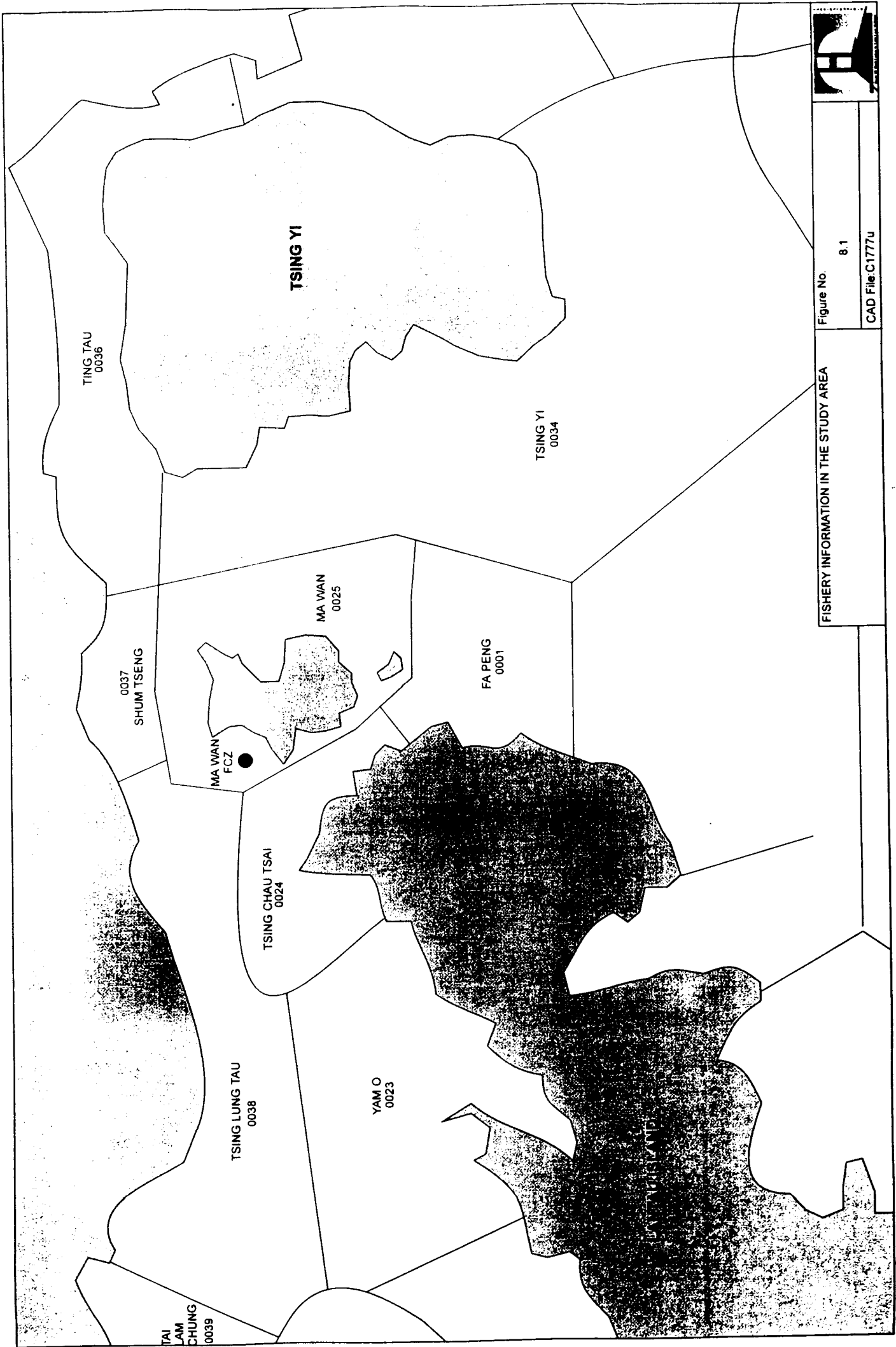


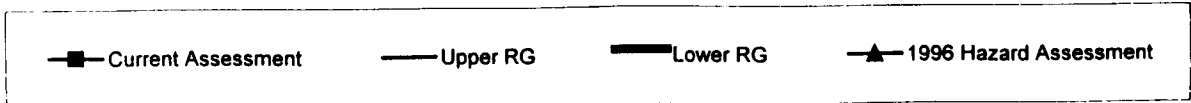
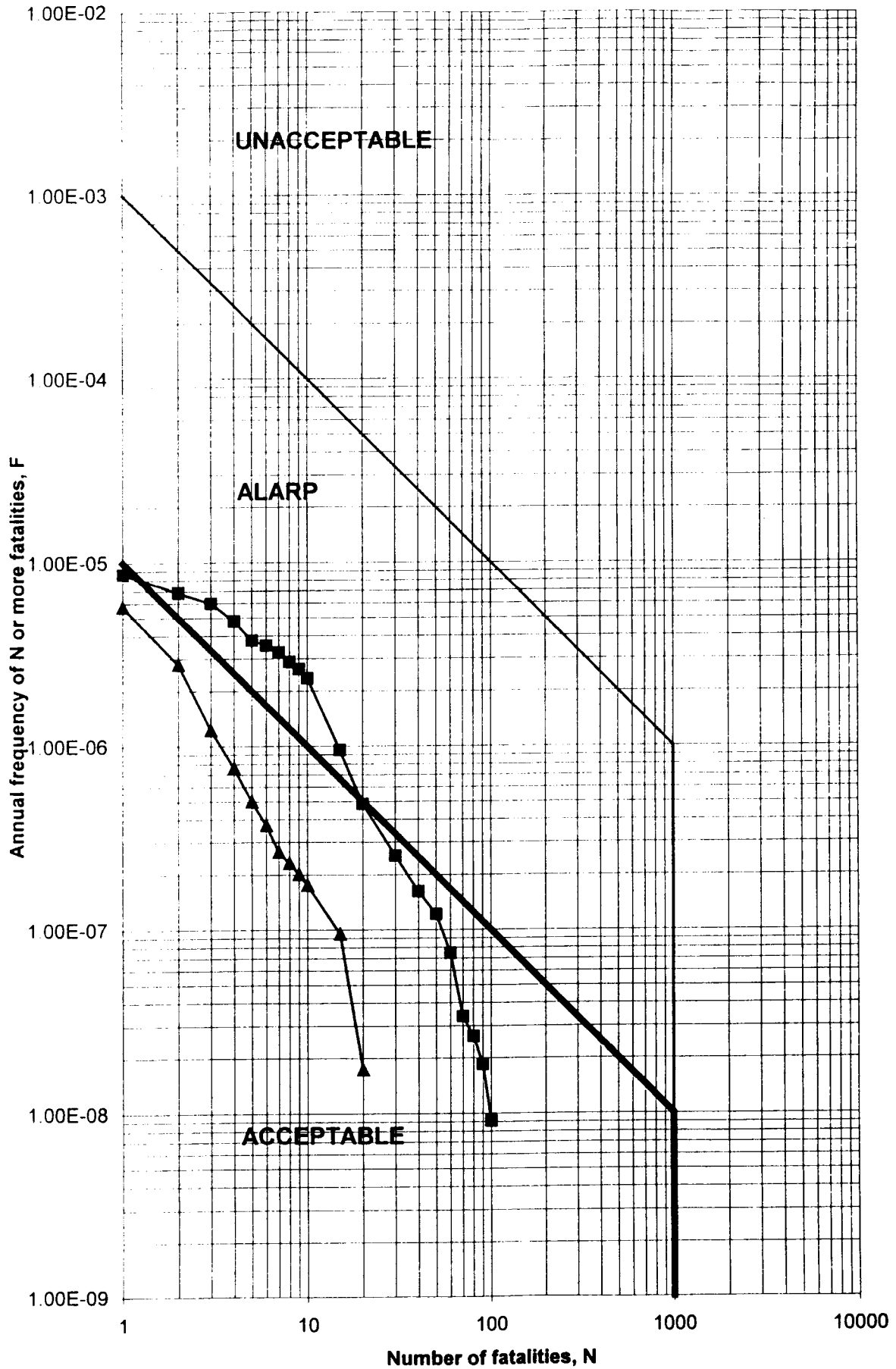
Figure No.

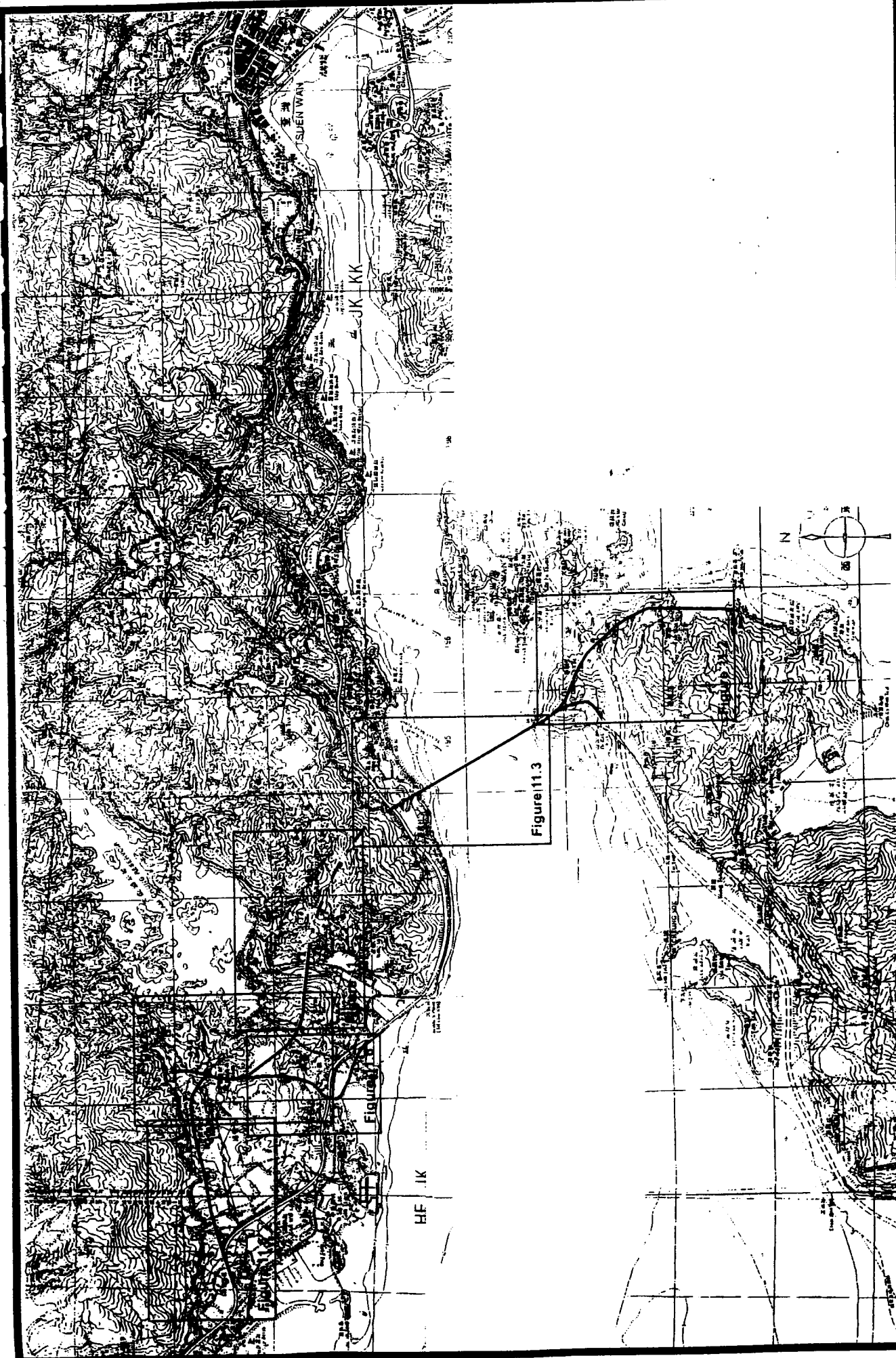
8.1

FISHERY INFORMATION IN THE STUDY AREA

CAD File: C1777u

Figure 9.1 - Societal Risk Curves for Route 10 (NLYLH)





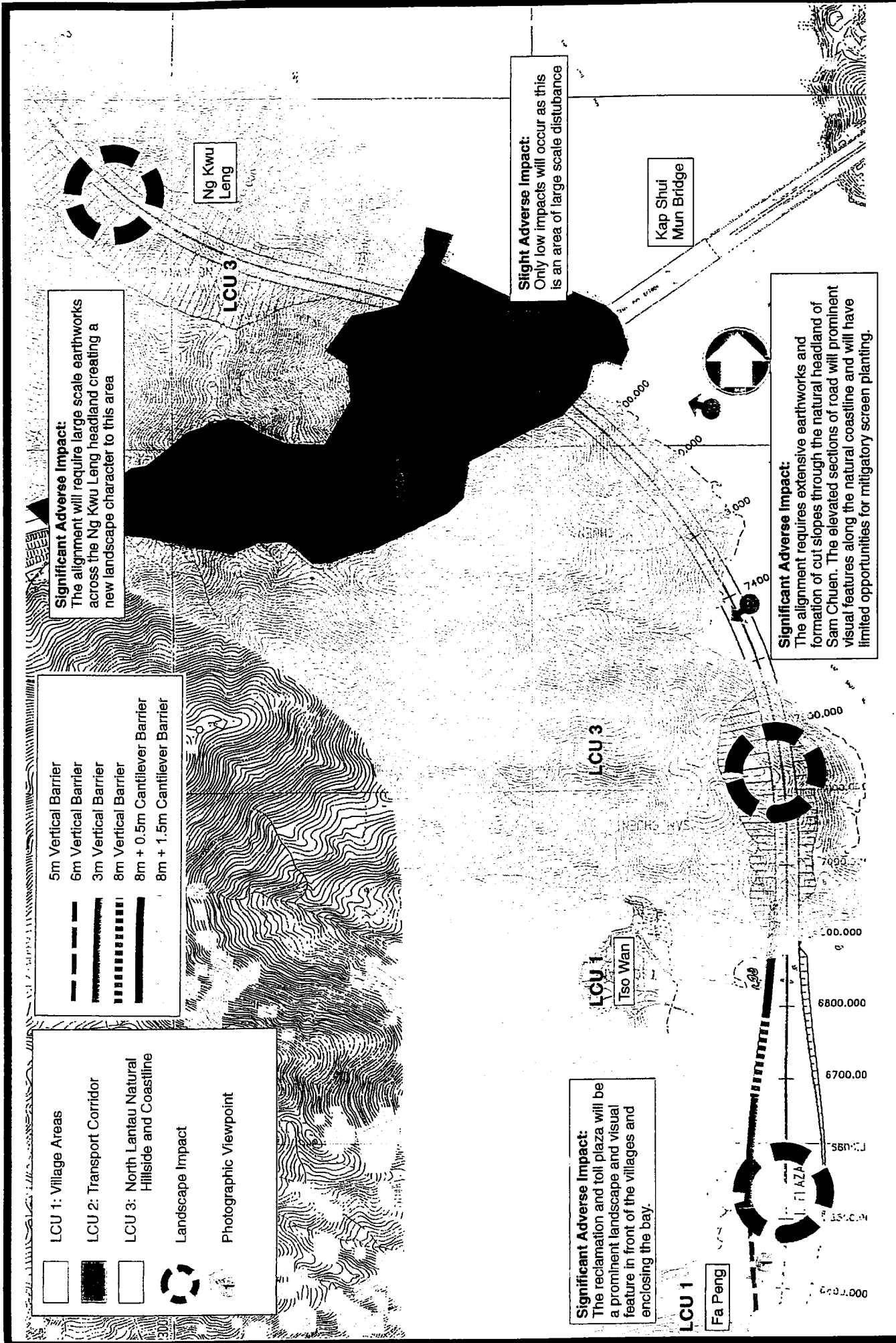
TCL101A014

ACL Asia

FIGURE 11.1 KEY PLAN

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section

Final EIA Report



Significant Adverse Impact:
The alignment will require large scale earthworks across the Ng Kwu Leng headland creating a new landscape character to this area

Sight Adverse Impact:
Only low impacts will occur as this is an area of large scale disturbance

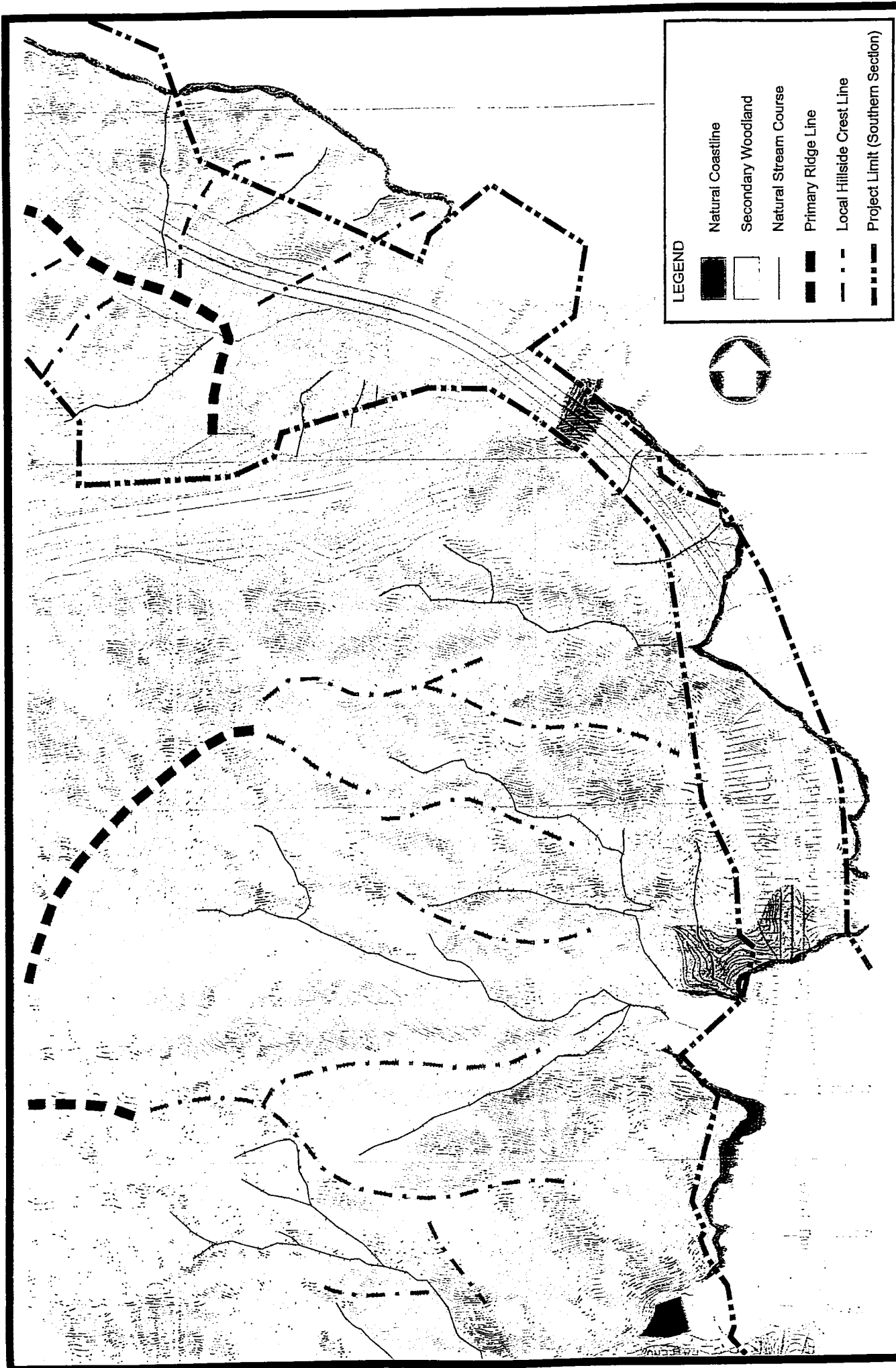
Significant Adverse Impact:
The alignment requires extensive earthworks and formation of cut slopes through the natural headland of Sam Chuen. The elevated sections of road will prominent visual features along the natural coastline and will have limited opportunities for mitigatory screen planting.

- 5m Vertical Barrier
- 6m Vertical Barrier
- 3m Vertical Barrier
- 8m Vertical Barrier
- 8m + 0.5m Cantilever Barrier
- 8m + 1.5m Cantilever Barrier







LCU 1: Village Areas
 LCU 2: Transport Corridor
 LCU 3: North Lantau Natural Hillside and Coastline
 Landscape Impact
 Photographic Viewpoint

Significant Adverse Impact:
The reclamation and toll plaza will be a prominent landscape and visual feature in front of the villages and enclosing the bay.

FIGURE 11.2 NORTH LANTAU SECTION - LANDSCAPE IMPACTS



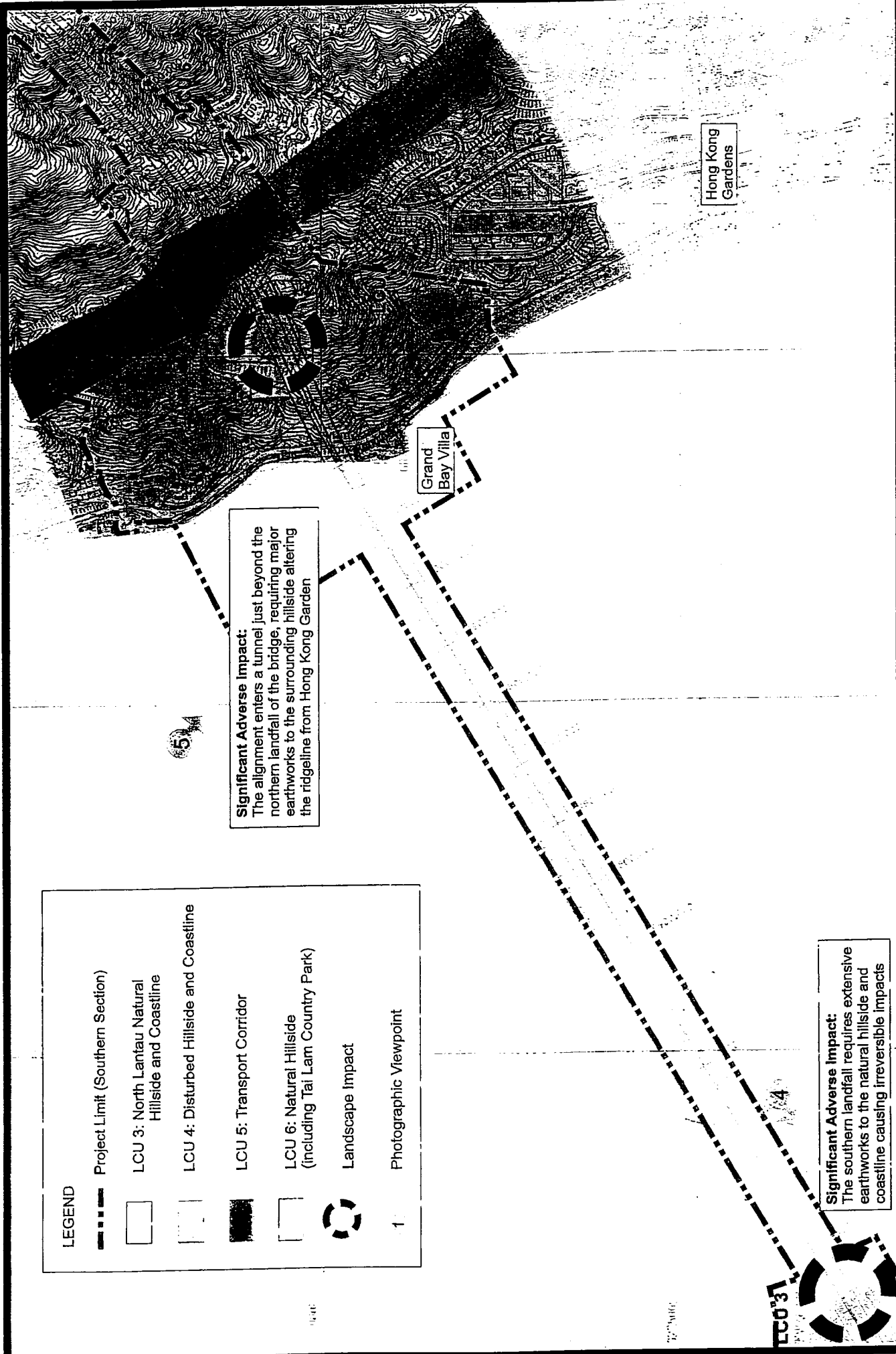
LEGEND

-  Natural Coastline
-  Secondary Woodland
-  Natural Stream Course
-  Primary Ridge Line
-  Local Hillside Crest Line
-  Project Limit (Southern Section)

TCL101A/015

**FIGURE 11.2a NORTH LANTAU SECTION -
LANDSCAPE RESOURCES**

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section



LEGEND

- Project Limit (Southern Section)
- LCU 3: North Lantau Natural Hillside and Coastline
- LCU 4: Disturbed Hillside and Coastline
- LCU 5: Transport Corridor
- LCU 6: Natural Hillside (including Tai Lam Country Park)
- ⊙ Landscape Impact
- 1 Photographic Viewpoint

Significant Adverse Impact:
 The alignment enters a tunnel just beyond the northern landfall of the bridge, requiring major earthworks to the surrounding hillside altering the ridgeline from Hong Kong Garden

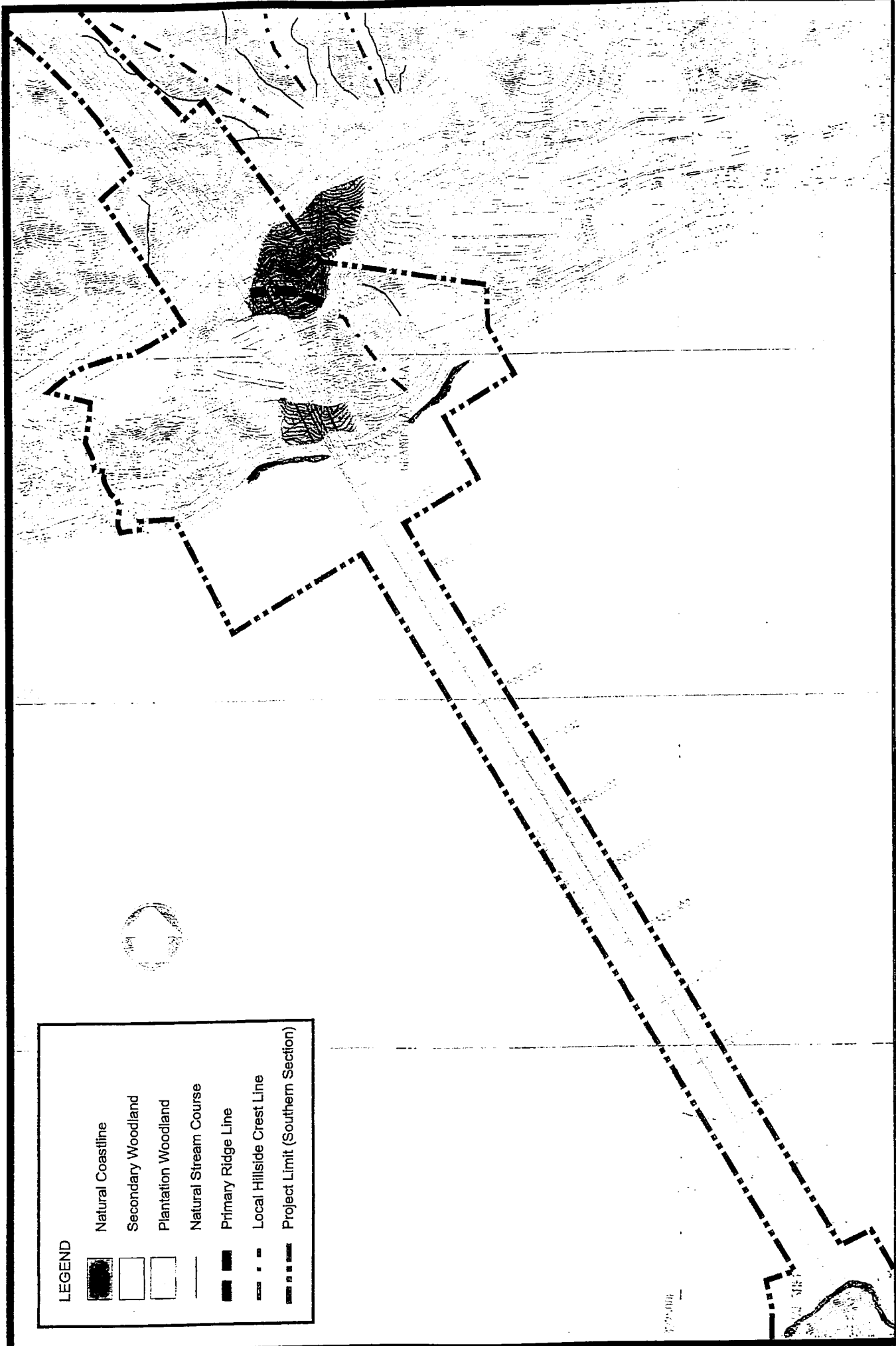
Significant Adverse Impact:
 The southern landfall requires extensive earthworks to the natural hillside and coastline causing irreversible impacts

TCL101A/0'16








FIGURE 11.3 TSING LUNG BRIDGE SECTION - LANDSCAPE CHARACTER UNITS AND IMPACTS

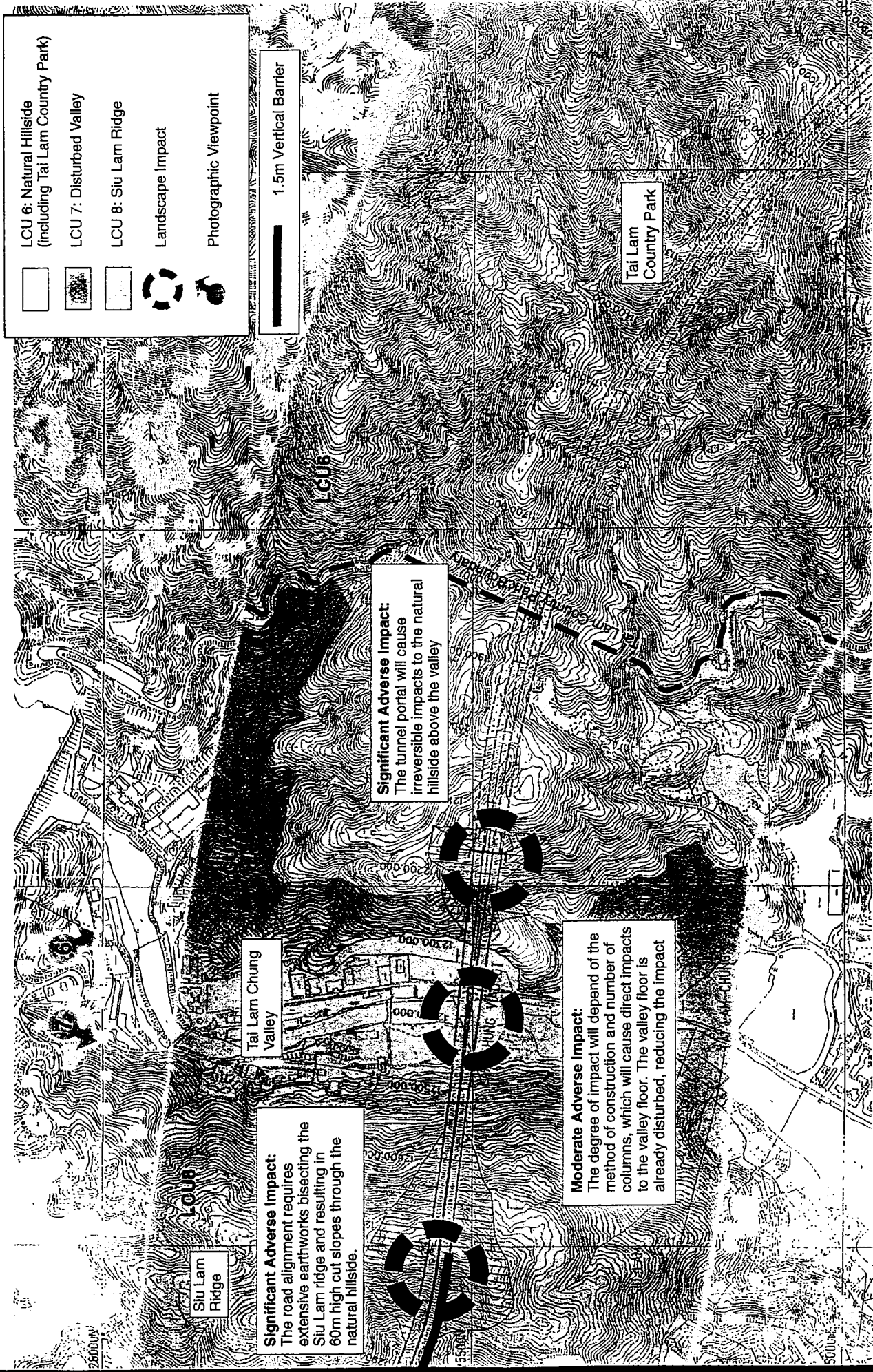
**FIGURE 11.3a TSING LUNG BRIDGE SECTION -
LANDSCAPE RESOURCES**

**Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section**



LEGEND

-  Natural Coastline
-  Secondary Woodland
-  Plantation Woodland
-  Natural Stream Course
-  Primary Ridge Line
-  Local Hillside Crest Line
-  Project Limit (Southern Section)



- LCU 6: Natural Hillside (including Tai Lam Country Park)
- LCU 7: Disturbed Valley
- LCU 8: Siu Lam Ridge
- Landscape Impact
- Photographic Viewpoint

1.5m Vertical Barrier

Tai Lam Country Park

Tai Lam Chung Valley

Siu Lam Ridge

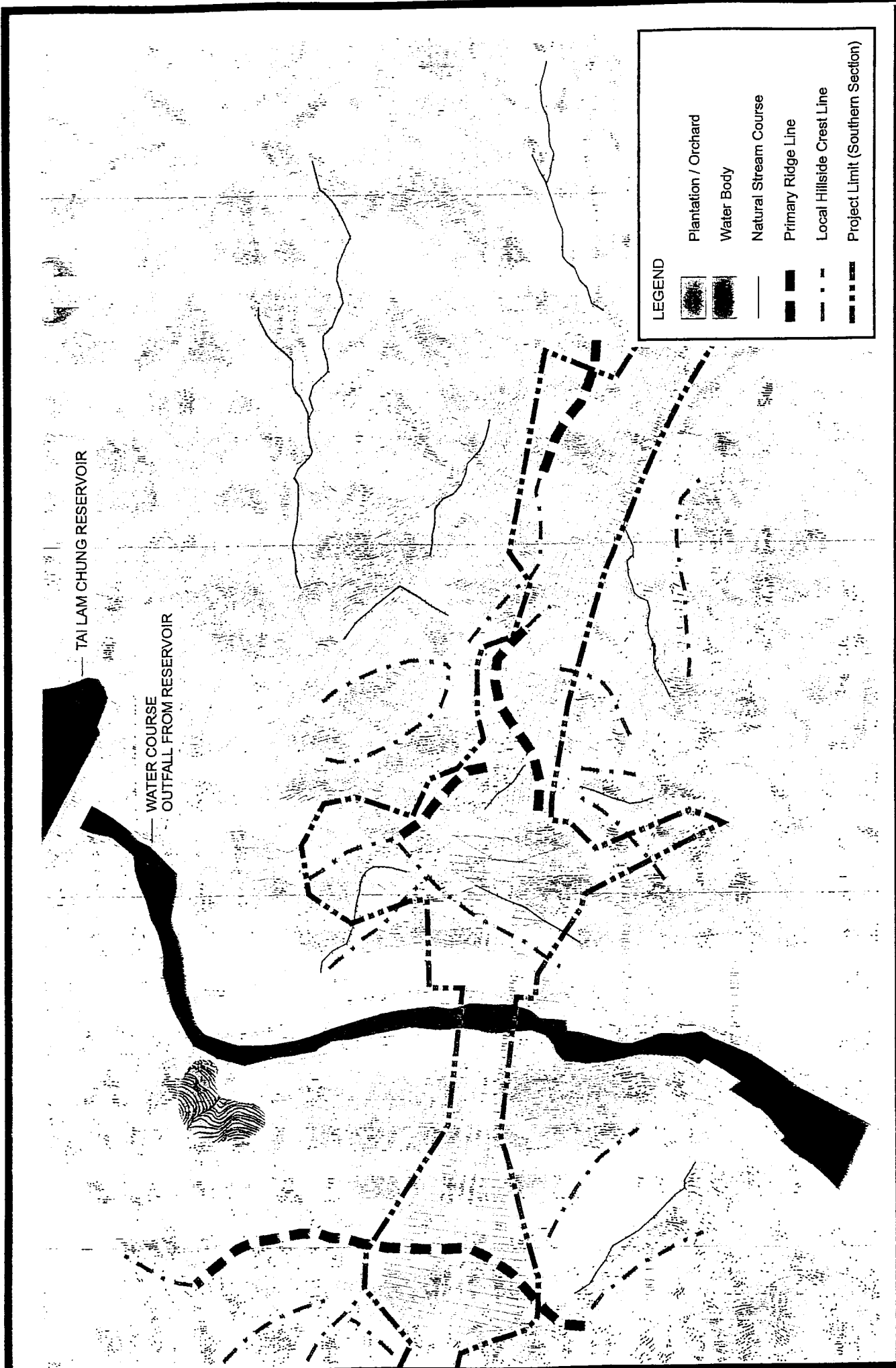
Significant Adverse Impact:
The road alignment requires extensive earthworks bisecting the Siu Lam ridge and resulting in 60m high cut slopes through the natural hillside.

Significant Adverse Impact:
The tunnel portal will cause irreversible impacts to the natural hillside above the valley

Moderate Adverse Impact:
The degree of impact will depend of the method of construction and number of columns, which will cause direct impacts to the valley floor. The valley floor is already disturbed, reducing the impact

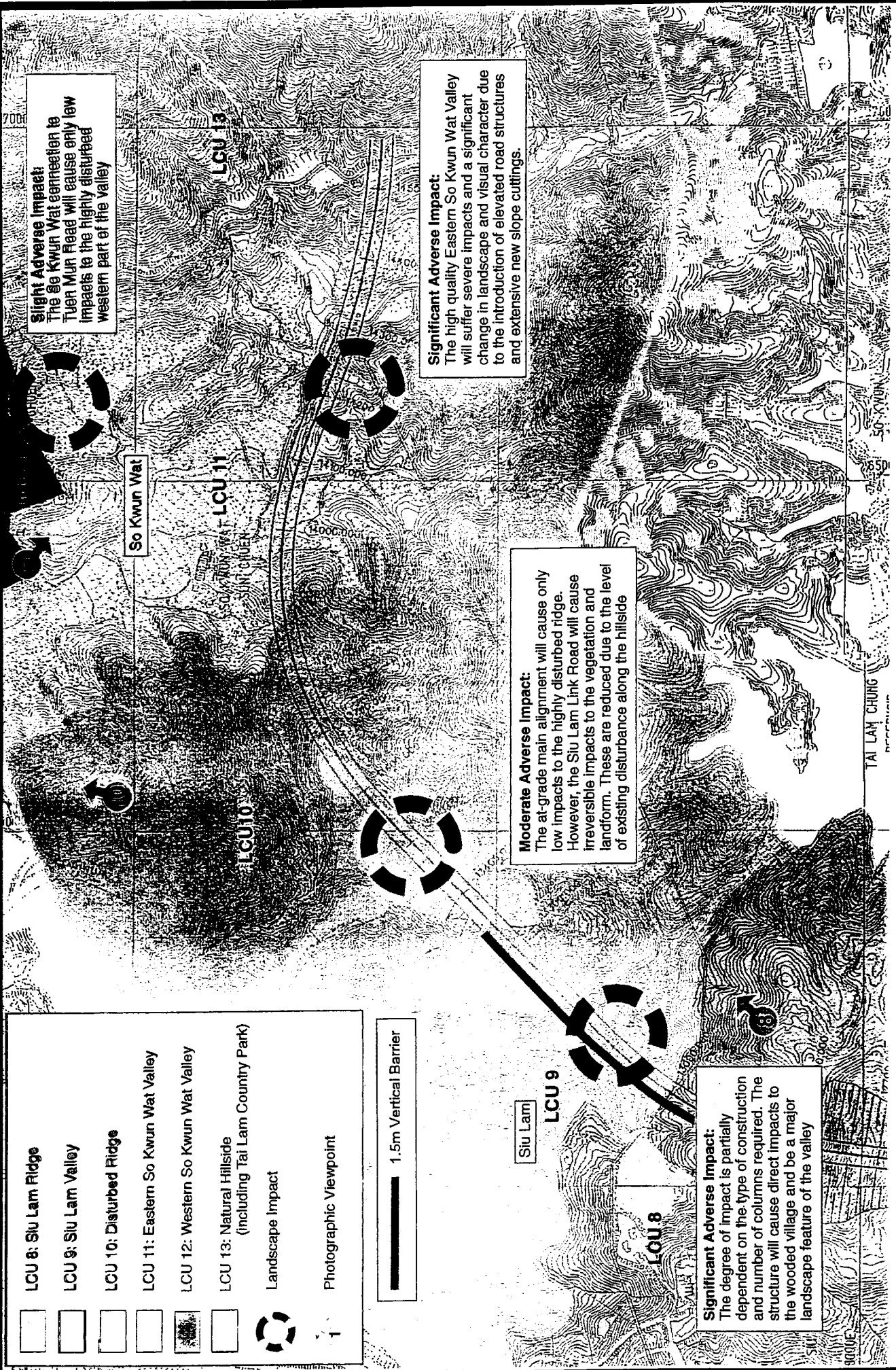
TCL101A/017

**FIGURE 11.4 TSING LUNG TAU TO SIU LAM SECTION
LANDSCAPE IMPACTS**



TCL101A/017

FIGURE 11.4a TSING LUNG TAU TO SIU LAM SECTION -
LANDSCAPE RESOURCES



- LCU 8: Siu Lam Ridge
- LCU 9: Siu Lam Valley
- LCU 10: Disturbed Ridge
- LCU 11: Eastern So Kwun Wat Valley
- LCU 12: Western So Kwun Wat Valley
- LCU 13: Natural Hillside (including Tai Lam Country Park)
- Landscape Impact
- Photographic Viewpoint

1.5m Vertical Barrier

Slight Adverse Impact:
The So Kwun Wat earthen dam to Tuen Mun Road will cause only low impacts to the highly disturbed western part of the valley

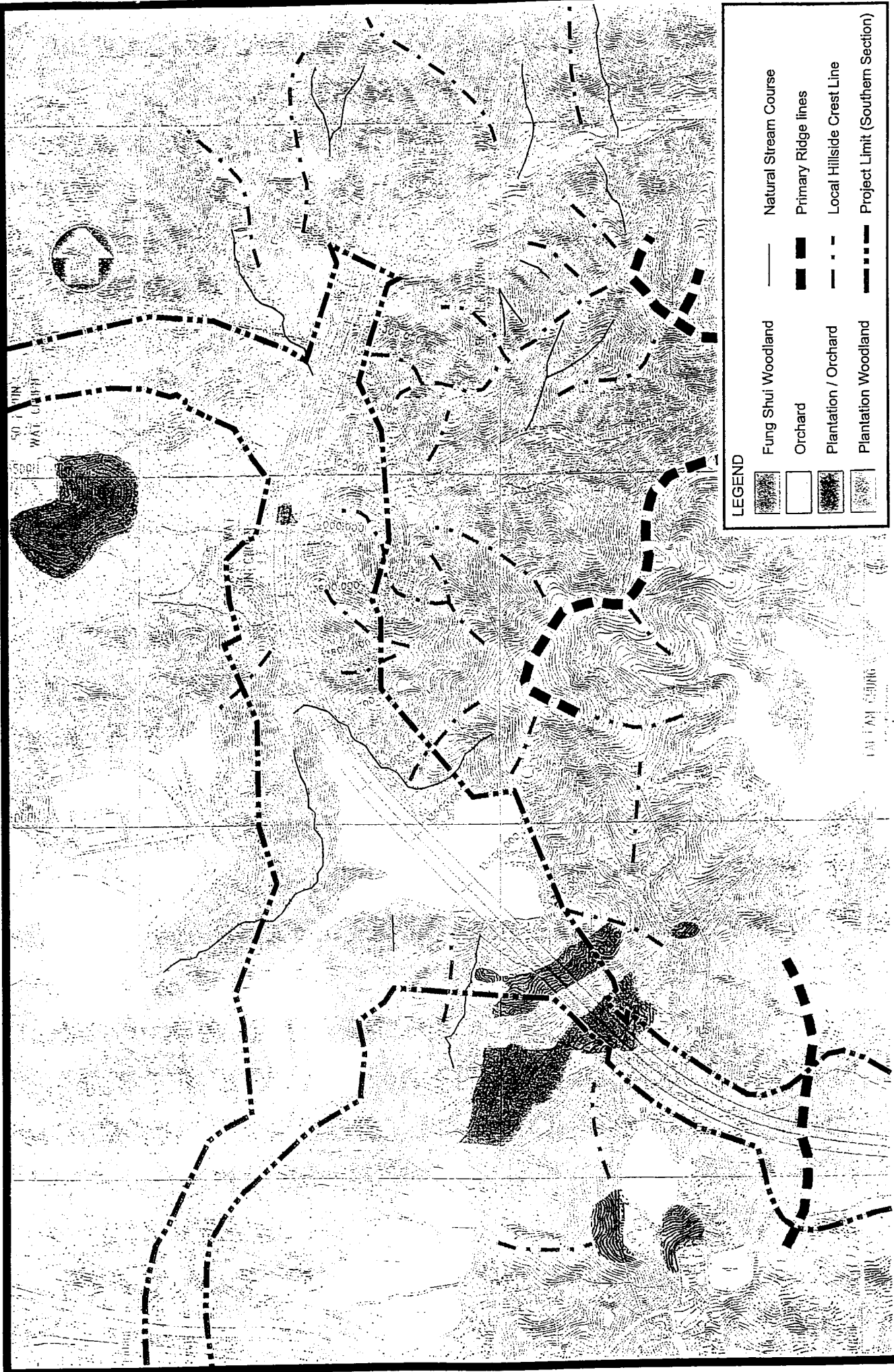
Significant Adverse Impact:
The high quality Eastern So Kwun Wat Valley will suffer severe impacts and a significant change in landscape and visual character due to the introduction of elevated road structures and extensive new slope cuttings.

Moderate Adverse Impact:
The at-grade main alignment will cause only low impacts to the highly disturbed ridge. However, the Siu Lam Link Road will cause irreversible impacts to the vegetation and landform. These are reduced due to the level of existing disturbance along the hillside

Significant Adverse Impact:
The degree of impact is partially dependent on the type of construction and number of columns required. The structure will cause direct impacts to the wooded village and be a major landscape feature of the valley

TCL101A/018

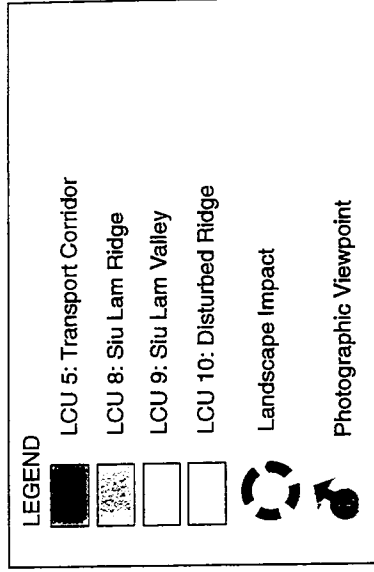
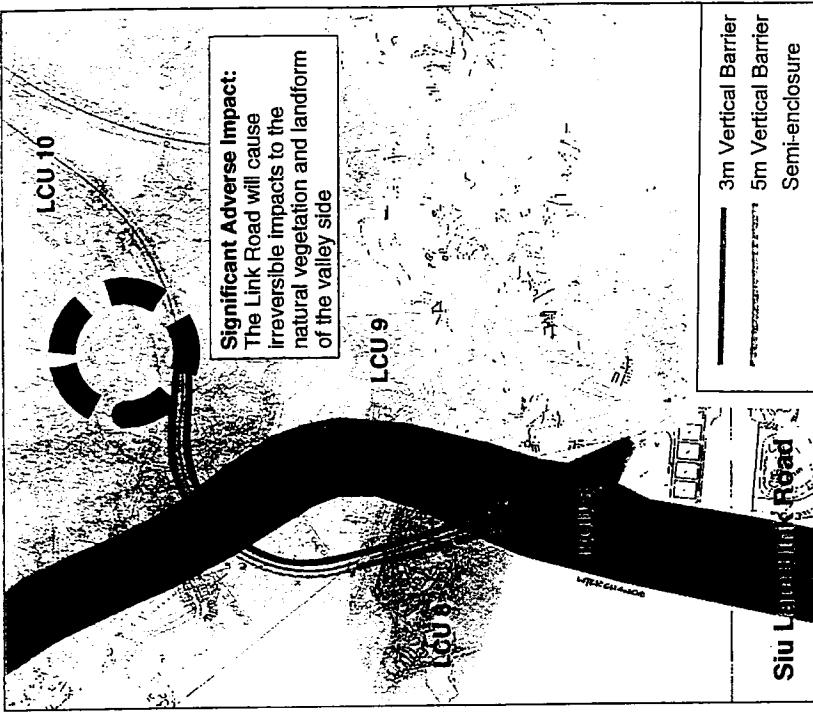
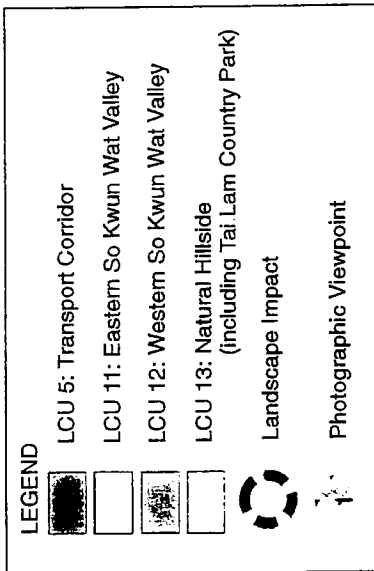
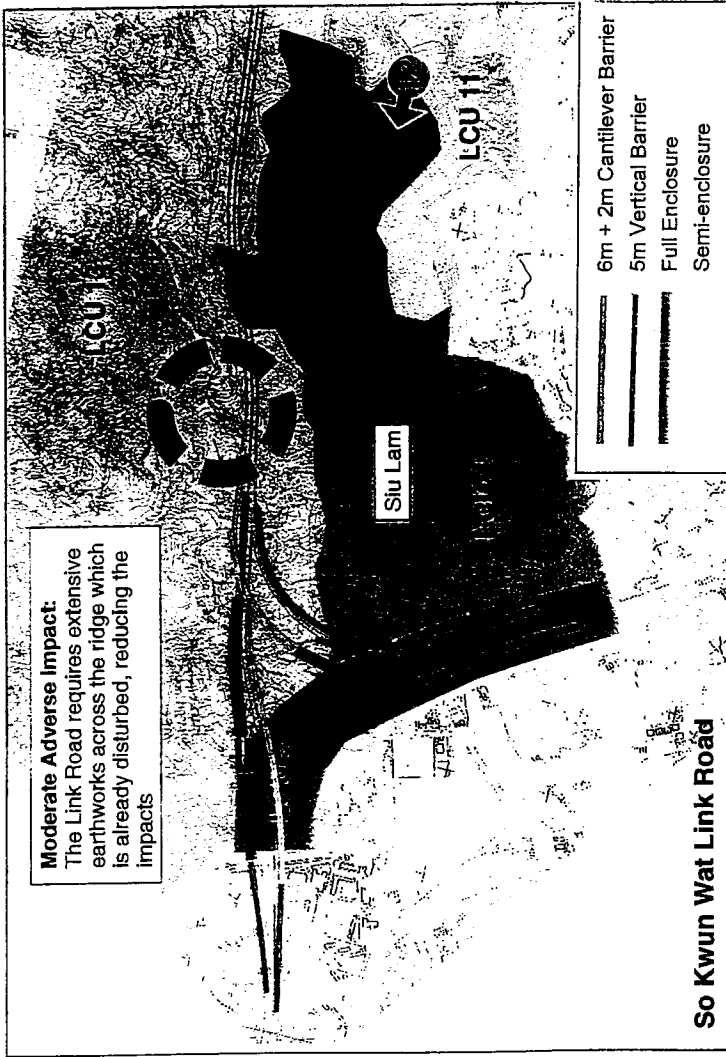
**FIGURE 11.5 SIU LAM TO SO KWUN WAT SECTION
LANDSCAPE IMPACTS**



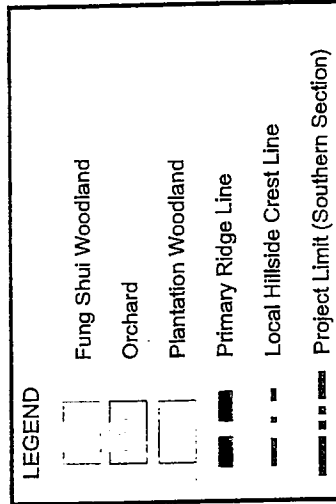
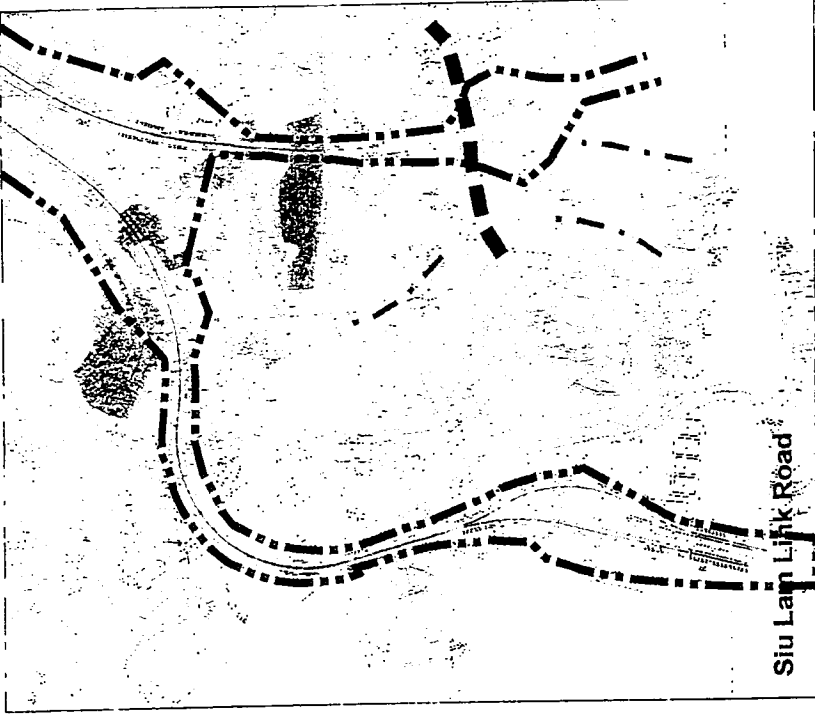
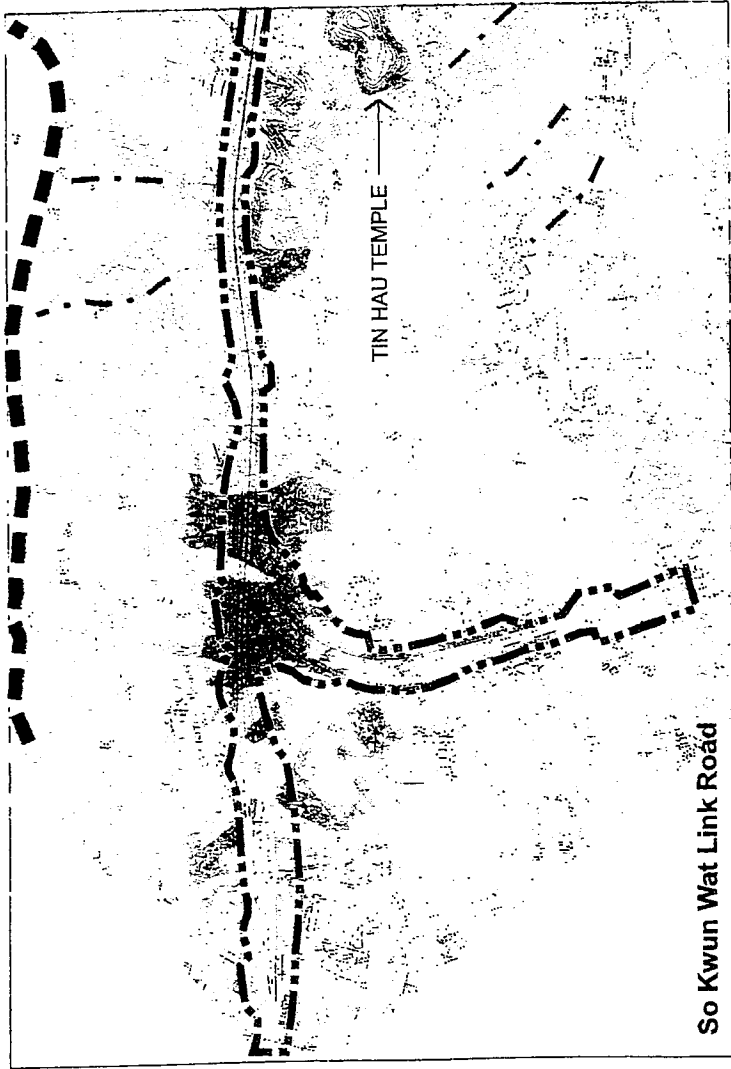
TCL101A/018

FIGURE 11.5a SIU LAM TO SO KWUN WAT SECTION -
LANDSCAPE RESOURCES

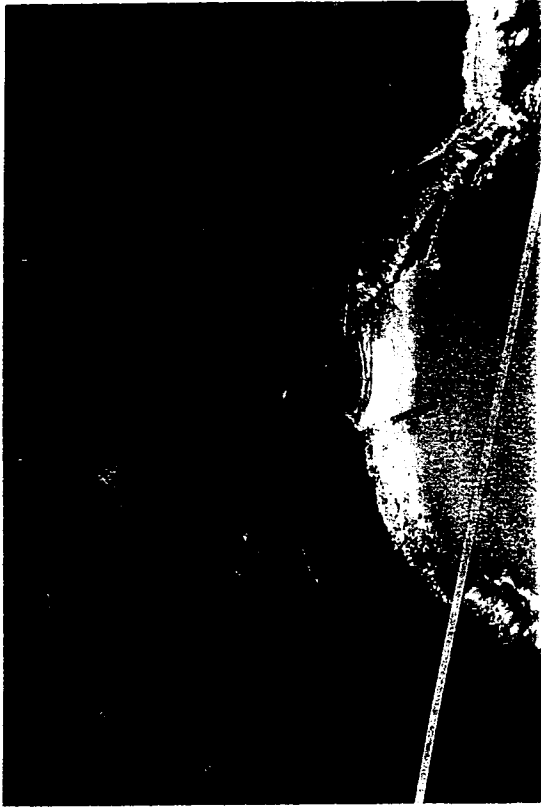
Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



**FIGURE 11.6 TUEN MUN ROAD LINKS
LANDSCAPE IMPACTS**



**FIGURE 11.6a TUEN MUN ROAD LINKS
LANDSCAPE RESOURCES**



Photographic Viewpoint 1: LCU1 Village Areas - Fa Peng



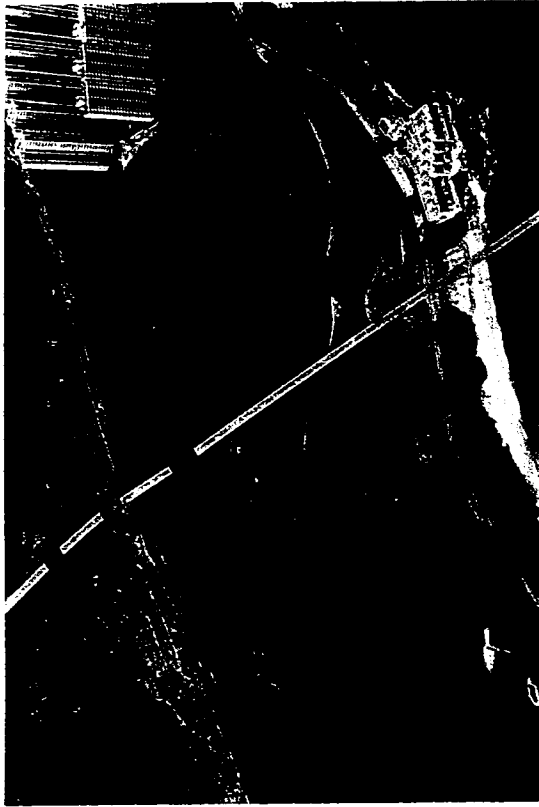
Photographic Viewpoint 2: LCU3 North Lantau Natural Hillside and Coastline - Sam Chuen



Photographic Viewpoint 3: LCU2 Transport Corridor KSM Bridge LCU3 Ng Kwu Leng in the background



Photographic Viewpoint 4: LCU3 North Lantau Natural Hillside and Coastline -Ng Kwu Leng



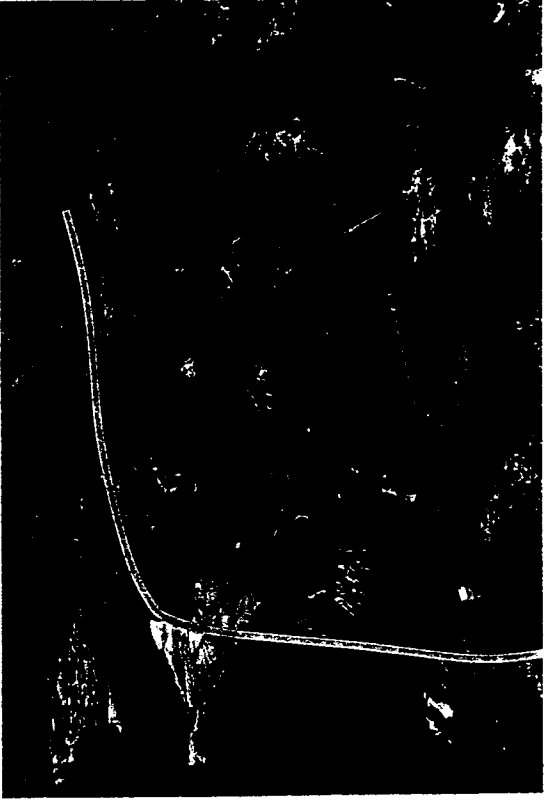
Photographic Viewpoint 5: LCU4 Disturbed Hillside and Coastline with LCU5 Transport Corridor and LCU6 Natural Hillside in background



Photographic Viewpoint 6: LCU6 Natural Hillside with LCU7 Tai Lam Chung Disturbed Valley



Photographic Viewpoint 7: LCU8 Siu Lam Ridge



Photographic Viewpoint 8: LCU9 Siu Lam Valley (bottom left) and LCU10 Disturbed Ridge



Photographic Viewpoint 9: LCU11 Eastern So Kwun Wat Valley



Photographic Viewpoint 10: LCU12 Western So Kwun Wat Valley



Photographic Viewpoint 11: LCU11 Eastern So Kwun Wat Valley with LCU13 Natural Hillside in the background



Photographic Viewpoint 12: LCU11 Western So Kwun Wat Valley with LCU13 Natural Hillside in the background

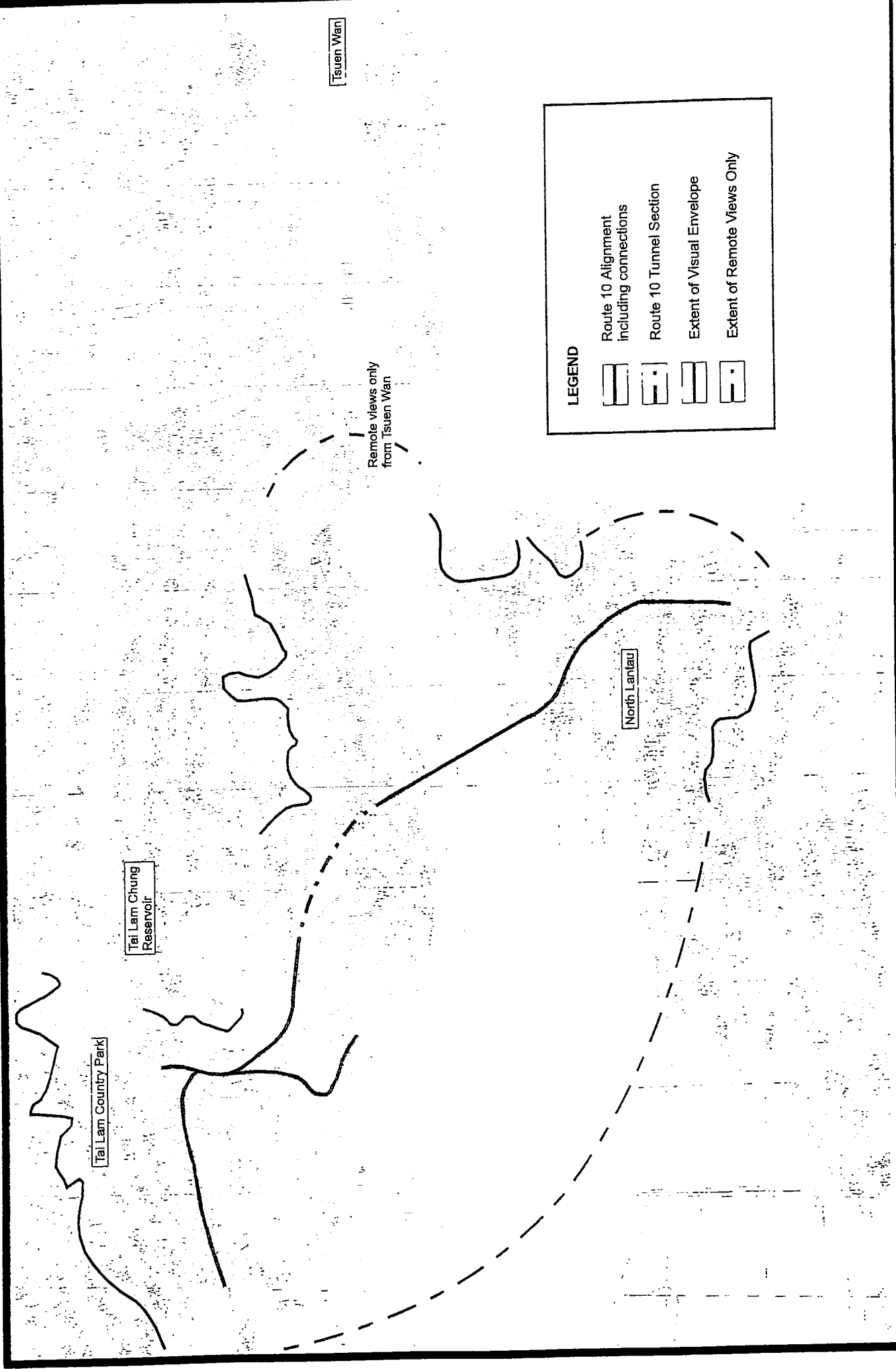
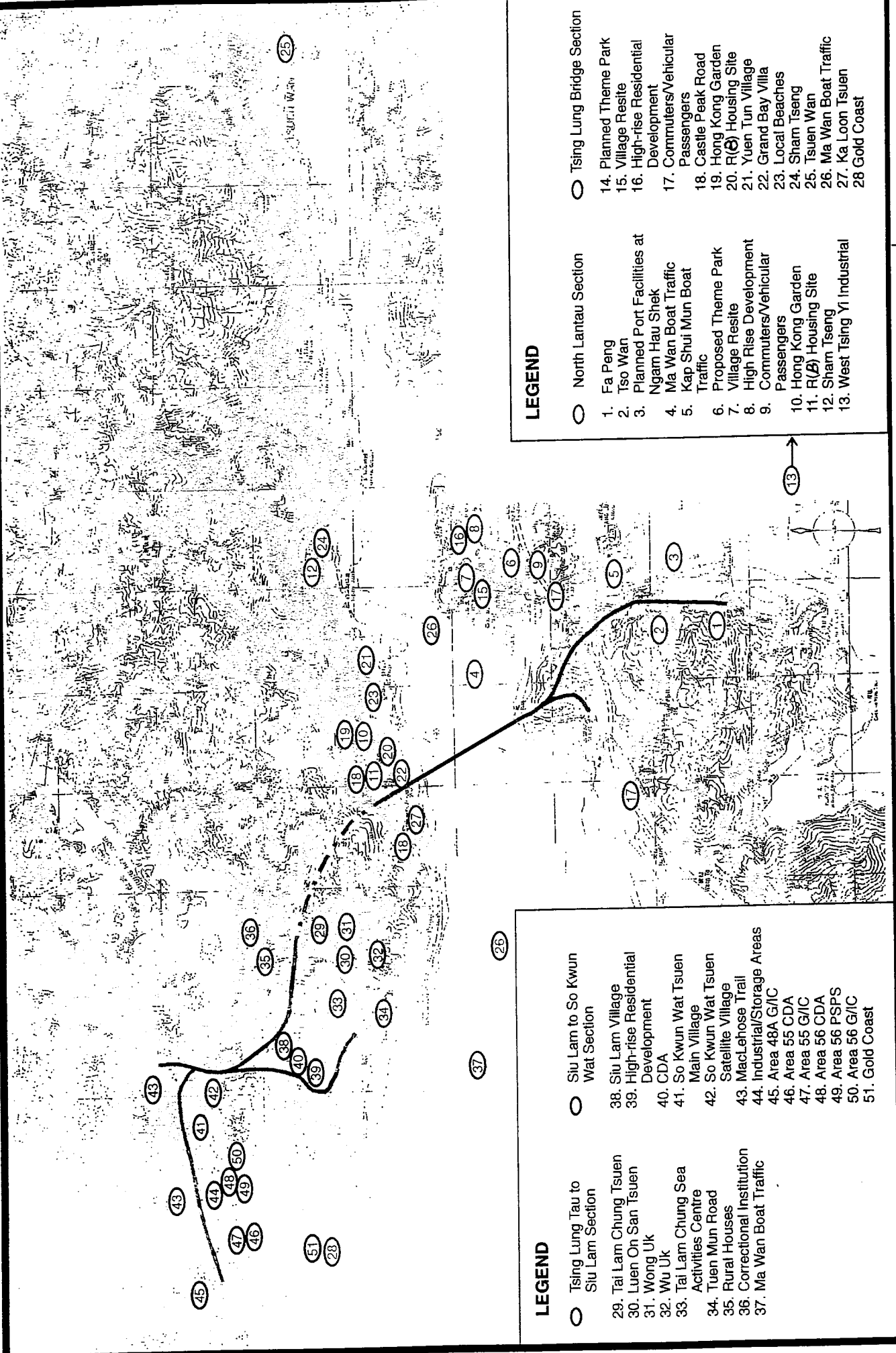


FIGURE 11.10 VISUAL ENVELOPE MAP

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section

TCL101A/023

Final EIA Report



LEGEND

- Tsing Lung Tau to Siu Lam Section
 - Siu Lam to So Kwun Wat Section
 - Tsing Lung Bridge Section
- | | | |
|---|---|--|
| <ul style="list-style-type: none"> 29. Tai Lam Chung Tsuen 30. Luen On San Tsuen 31. Wong Uk 32. Wu Uk 33. Tai Lam Chung Sea Activities Centre 34. Tuen Mun Road 35. Rural Houses 36. Correctional Institution 37. Ma Wan Boat Traffic | <ul style="list-style-type: none"> 38. Siu Lam Village 39. High-rise Residential Development 40. CDA 41. So Kwun Wat Tsuen Main Village 42. So Kwun Wat Tsuen Satellite Village 43. MacLehose Trail 44. Industrial/Storage Areas 45. Area 48A G/C 46. Area 55 CDA 47. Area 55 G/C 48. Area 56 CDA 49. Area 56 PSPS 50. Area 56 G/C 51. Gold Coast | <ul style="list-style-type: none"> 1. Planned Theme Park 2. Village Resite 3. High-rise Residential Development 4. Commuters/Vehicular Passengers 5. Castle Peak Road 6. Hong Kong Garden 7. R(B) Housing Site 8. Yuen Tun Village 9. Grand Bay Villa 10. Local Beaches 11. Sham Tseng 12. Tsuen Wan 13. Ma Wan Boat Traffic 14. Ka Loon Tsuen 15. Gold Coast |
|---|---|--|

LEGEND

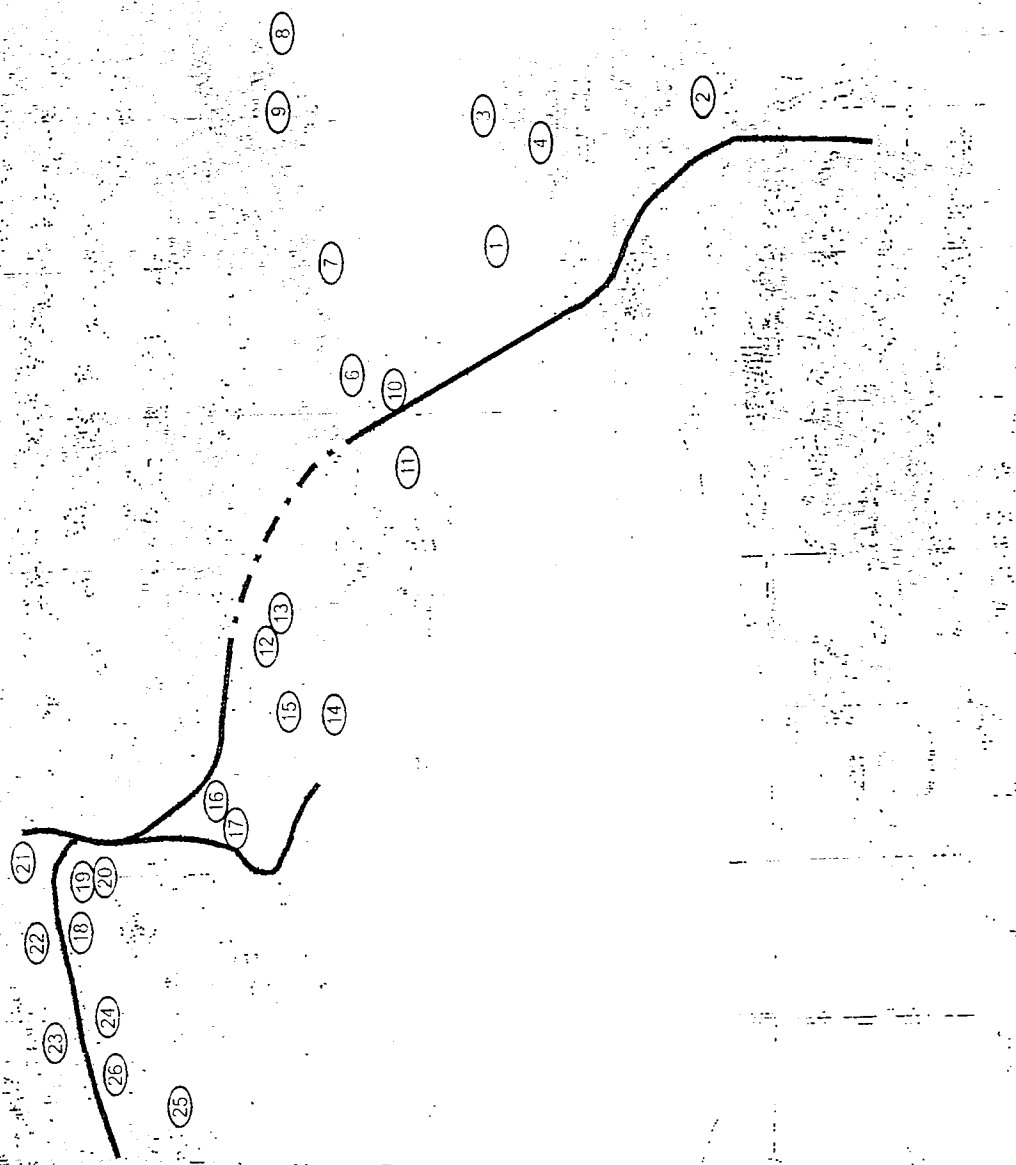
- North Lantau Section
 - Tsing Lung Bridge Section
- | | |
|--|---|
| <ul style="list-style-type: none"> 1. Fa Peng 2. Tso Wan 3. Planned Port Facilities at Ngam Hau Shek 4. Ma Wan Boat Traffic 5. Kap Shui Mun Boat Traffic 6. Proposed Theme Park 7. Village Resite 8. High Rise Development 9. Commuters/Vehicular Passengers 10. Hong Kong Garden 11. R(B) Housing Site 12. Sham Tseng 13. West Tsing Yi Industrial | <ul style="list-style-type: none"> 14. Planned Theme Park 15. Village Resite 16. High-rise Residential Development 17. Commuters/Vehicular Passengers 18. Castle Peak Road 19. Hong Kong Garden 20. R(B) Housing Site 21. Yuen Tun Village 22. Grand Bay Villa 23. Local Beaches 24. Sham Tseng 25. Tsuen Wan 26. Ma Wan Boat Traffic 27. Ka Loon Tsuen 28. Gold Coast |
|--|---|

FIGURE 11.11 VISUALLY SENSITIVE RECEIVERS

Route 10 - North Lantau to Yuen Long Highway Investigation and Preliminary Design

TCL101A/024

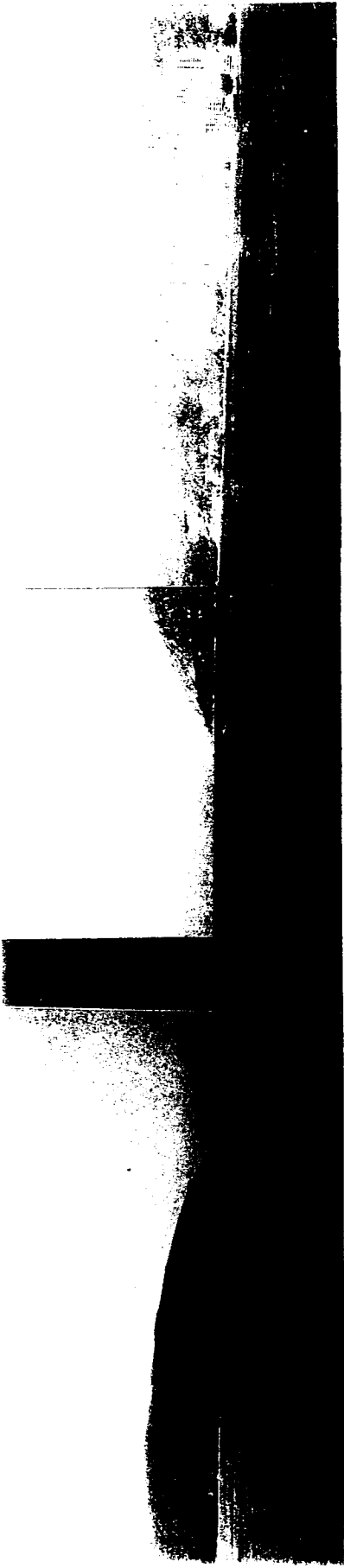
Final EIA Report



LEGEND

- VSR Photographic Viewpoint
- 1. Ma Wan Boat Traffic
- 2. Kap Shui Mun Boat Traffic
- 3. Ma Wan Village Resite and Proposed High Rise Developments
- 4. Proposed Theme Park
- 5. Lantau Link (Tsuen Wan)
- 6. Hong Kong Gardens
- 7. Yuen Tun Village (Hong Kong Gardens)
- 8. Sham Tseng (east)
- 9. Sham Tseng (west)
- 10. Grand Bay Villa
- 11. Ka Loon Tsuen
- 12. Tai Lam Chung Tsuen
- 13. Tai Lam Chung Tsuen
- 14. Tai Lam Chung Valley (typical)
- 15. Tai Lam Chung Valley (typical)
- 16. Siu Lam (CDA)
- 17. Siu Lam (CDA)
- 18. So Kwun Wat Tsuen Main Village
- 19. So Kwun Wat Tsuen Satellite Houses
- 20. So Kwun Wat Tsuen Local Fields
- 21. MacLehose Trail (east)
- 22. MacLehose Trail (east)
- 23. MacLehose Trail (west)
- 24. Eastern So Kwun Wat Valley
- 25. Area 48A G/C (Gold Coast)
- 26. Tuen Mun Road

FIGURE 11.12 VSR TYPICAL VIEWPOINTS



VIEWPOINT 1 MA WAN CHANNEL BOAT TRAFFIC : VIEW WESTWARDS ALONG THE CHANNEL WITH NG KWU LENG HEADLAND TO THE LEFT AND HONG KONG GARDENS TO THE RIGHT



VIEWPOINT 2 KAP SHUI MUN CHANNEL BOAT TRAFFIC : VIEW TOWARDS TSO WAN ON LANTAU

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE

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FIGURE 11.13 MAJOR VSRS : TYPICAL VIEWS 1

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VIEWPOINT 3 MA WAN VILLAGE RESITE AND PROPOSED HIGH DEVELOPMENTS :

VIEW FROM THE VILLAGE RESITE AND RESITE AND APPROXIMATING TO THE VIEW FROM THE PROPOSED HIGH-RISE RESIDENTIAL SITE ON MA WAN. NG KWU LENG HEADLAND IS IN THE DISTANCE ON THE LEFT WITH HONG KONG GARDENS ON THE RIGHT.

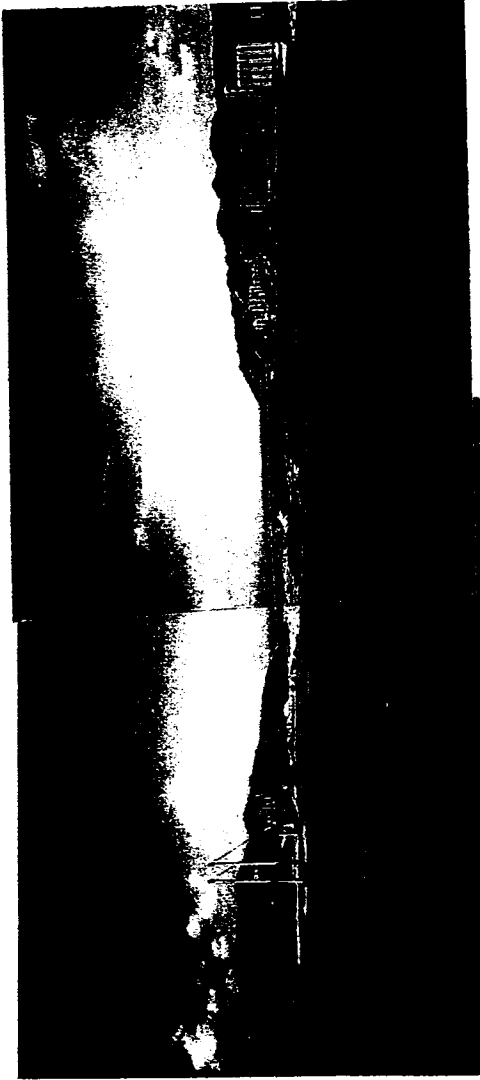


VIEWPOINT 4 PROPOSED THEME PARK ON MA WAN :

VIEW EASTWARDS TO LANTAU. FA PENG, TSO WAN AND THE KAP SHUI MUN BRIDGE ARE TO THE LEFT AND THE NG KWU LENG HEADLAND IS TO THE RIGHT.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.14 MAJOR VSRS : TYPICAL VIEWS 2



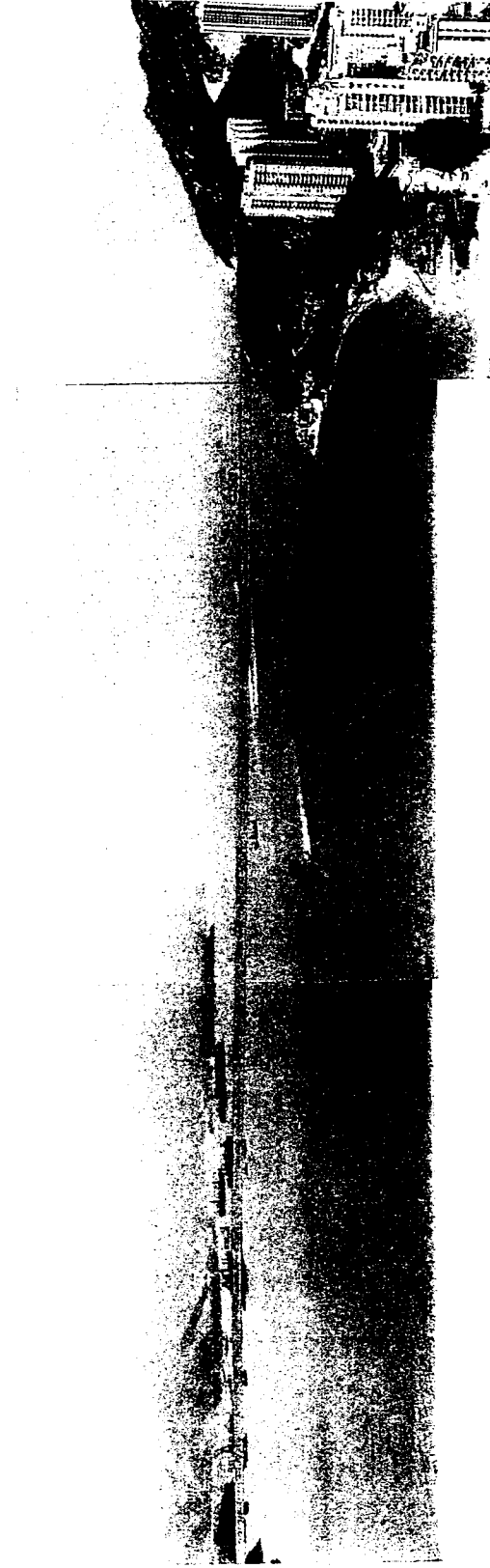
VIEWPOINT 5 LANTAU LINK(TSUEN WAN) :

VIEW FROM THE LANTAU LINK ROAD SHOWING TSING MA BRIDGE, MA WAN AND LANTAU TO THE LEFT AND TSING LUNG TAU TO THE RIGHT ALSO APPROXIMATES TO VIEWS FROM TSUEN WAN.



VIEWPOINT 6 HONG KONG GARDENS :

GROUND LEVEL VIEW, PARTIALLY SCREENED, SOUTH TOWARDS MA WAN (ELEVATED VIEW INACCESSIBLE.)

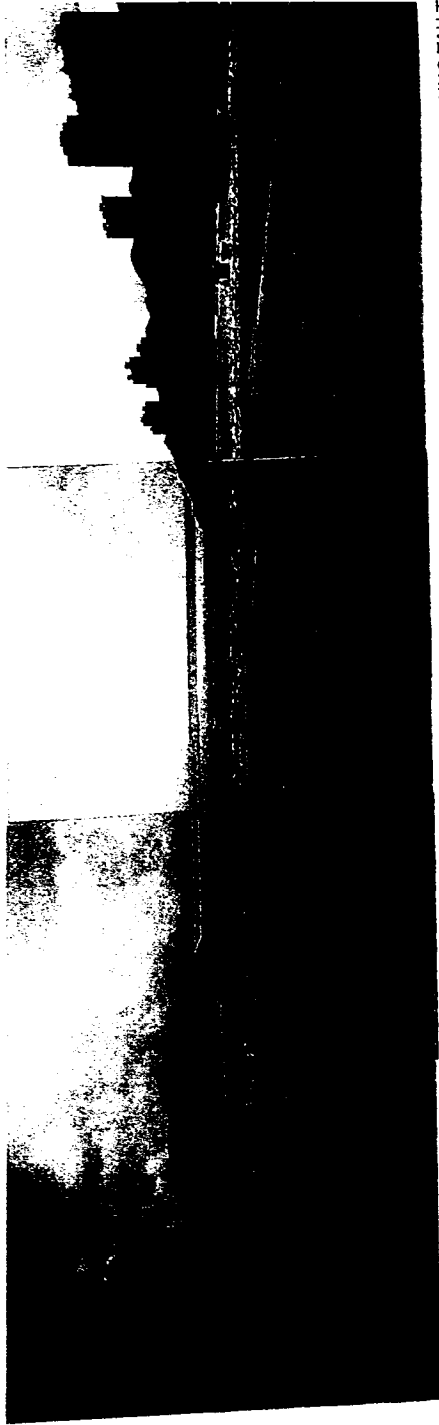


VIEWPOINT 7 YUEN TUN VILLAGE (HONG KONG GARDENS) :

VIEW SOUTH AND WEST APPROXIMATING TO THE VIEW FROM HONG KONG GARDEN WITH MA WAN TO THE LEFT AND TSING LUNG TAU TO THE RIGHT.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.15 MAJOR VSRs : TYPICAL VIEWS 3



VIEWPOINT 8 SHAM TSENG :

VIEW FROM EASTERN PART OF SHAM TSENG WEST WITH MA WAN AND LANTAU TO THE LEFT AND TSING LUNG TAU TO THE RIGHT.

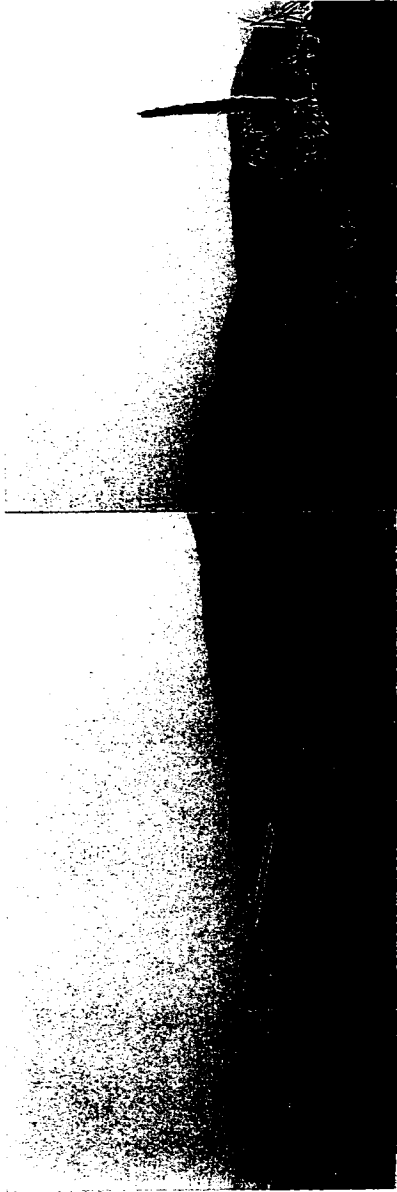


VIEWPOINT 9 SHAM TSENG :

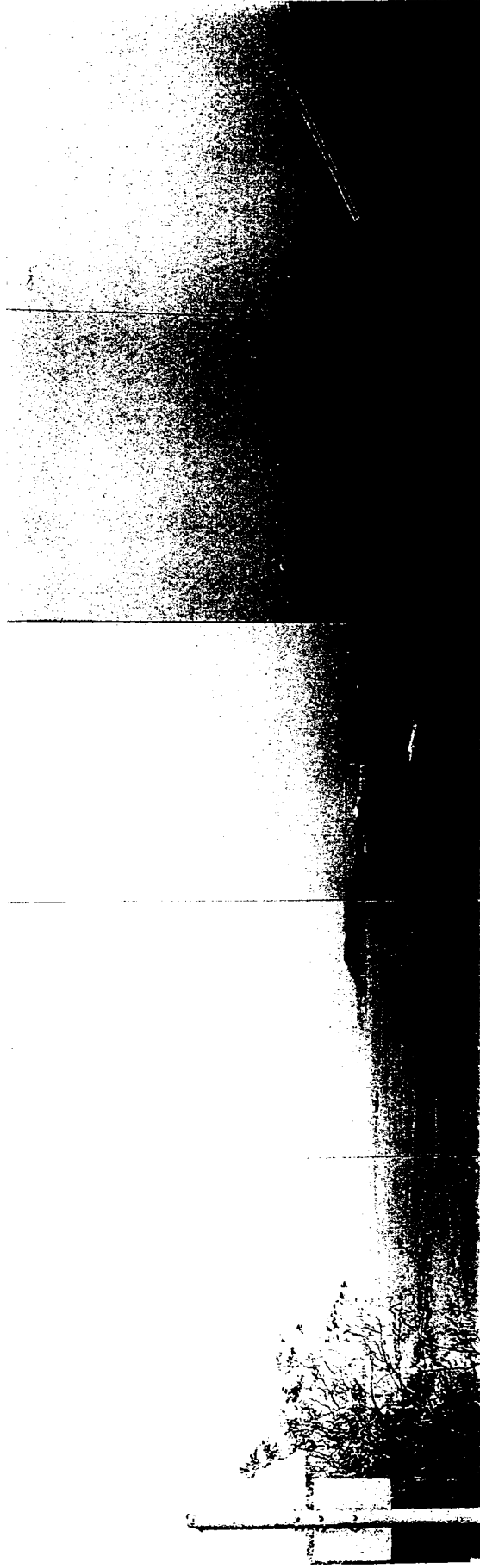
VIEW FROM THE WESTERN PART OF SHAM TSENG WITH MA WAN TO THE LEFT, NG KWU LENG IN THE MIDDLE AND TSING LUNG TAU TO THE RIGHT.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.16 MAJOR VSRS : TYPICAL VIEWS 4



VIEWPOINT 10 GRAND BAY VILLA : VIEW SOUTH TOWARDS THE MG KWU LENG HEADLAND ON LANTAU.



VIEWPOINT 11 KA LOON TSUEN : VIEW EAST AND SOUTH WITH GRAND BAY VILLA TO THE LEFT AND NG KWU LENG HEADLAND TO THE RIGHT.

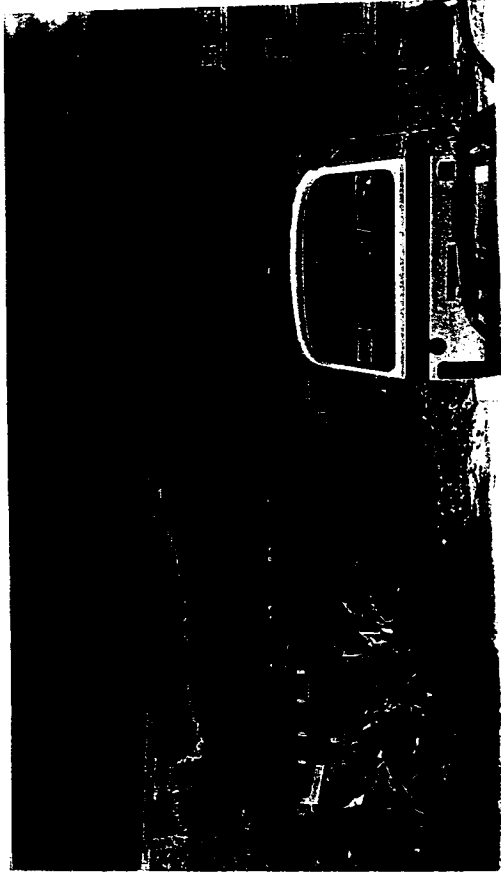
NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.17 MAJOR VSRS : TYPICAL VIEWS 5



VIEWPOINT 12 TAI LAM CHUNG TSUEN :

TYPICAL VIEW FROM THE VILLAGE NORTH TOWARDS THE VALLEYSIDE.



VIEWPOINT 13 TAI LAM CHUNG TSUEN :

TYPICAL VIEW FROM THE VILLAGE NORTH TOWARDS THE VALLEYSIDE.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.18 MAJOR VSRS : TYPICAL VIEWS 6



VIEWPOINT 14 TAI LAM CHUNG VALLEY TYPICAL VIEW :

TYPICAL VIEW NORTH WEST FROM CASTLE PEAK ROAD WHICH APPROXIMATES TO VIEWS FROM TUEN MUN ROAD AND THE LOCAL VILLAGES.



VIEWPOINT 15 TAI LAM CHUNG VILLAGE TYPICAL VIEW :

TYPICAL VIEW NORTHEAST FROM LOCAL HOUSES IN TAI LAM CHUNG VALLEY.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.18 MAJOR VSRs : TYPICAL VIEWS 7



VIEWPOINT 16 SIU LAM (CDA) : TYPICAL VIEW NORTHWARDS FROM THE VILLAGE.



VIEWPOINT 17 SIU LAM (CDA) : TYPICAL VIEW NORTH-EAST FROM THE VILLAGE.



VIEWPOINT 18 SO KWUN WAT TSUEN MAIN VILLAGE : VIEW NORTH FROM THE VILLAGE TO THE TAI LAM COUNTRY PARK IN THE BACKGROUND.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.20 MAJOR VSRS : TYPICAL VIEWS 8



VIEWPOINT 19 SO KWUN WAT TSUEN SATELLITE HOUSES :

VIEW NORTH OVER THE FORMERLY CULTIVATED AREAS AND THE LOCAL WOODED KNOLLS TOWARDS TAI LAM COUNTRY PARK.



VIEWPOINT 20 SO KWUN WAT TSUEN LOCAL FIELDS :

VIEW EAST AND SOUTH TOWARDS PAK SHEK HANG. SO KWUN WAT TSUEN SATELLITE HOUSES ARE TO THE RIGHT.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.21 MAJOR VSRS : TYPICAL VIEWS 9



VIEWPOINT 22
MACLEHOISE TRAIL EAST :

VIEW SOUTH OVER EASTERN
SO KWUN WAT VALLEY.



VIEWPOINT 21 MACLEHOISE TRAIL (EAST) :

VIEW SOUTH OVER THE EASTERN SO KWUN WAT VALLEY.



VIEWPOINT 23 MACLEHOISE TRAIL WEST :

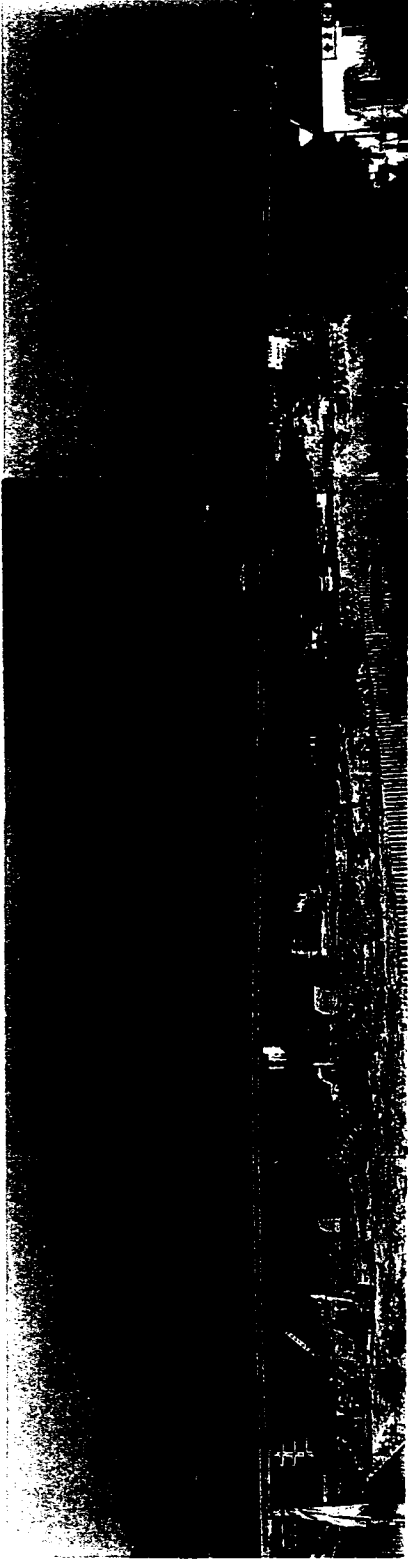
VIEW SOUTH OVER THE OPEN STORAGE
AREA/FUTURE CDA OF WESTERN SO KWUN
WAT VALLEY.



VIEWPOINT 24 EASTERN SO KWUN WAT VALLEY (AREA 55CDA) :

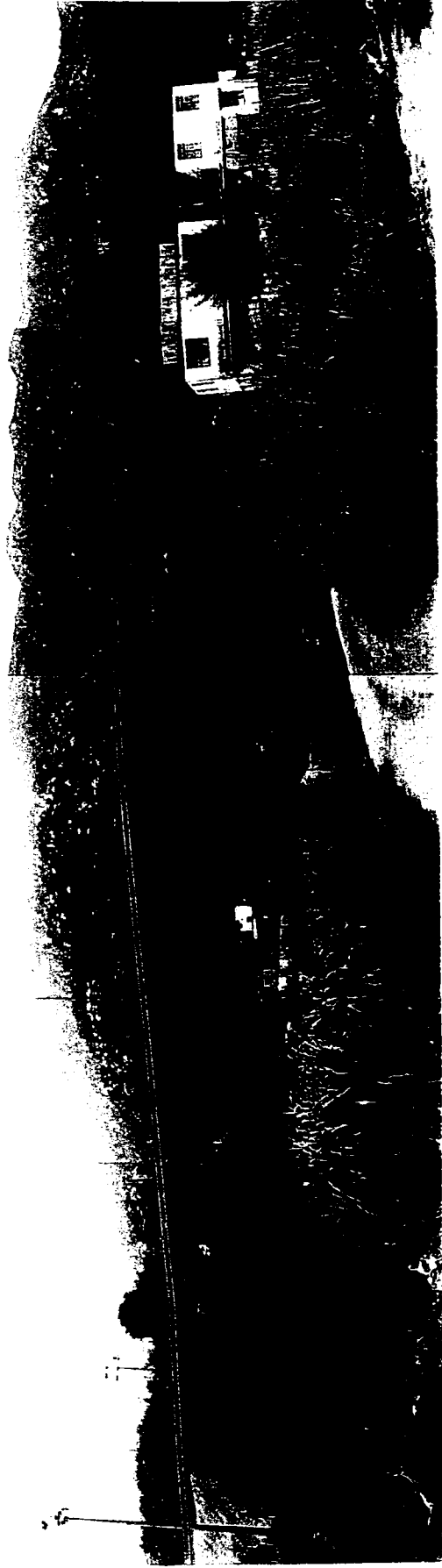
VIEW NORTH TOWARDS TAI LAM
COUNTRY PARK.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .



VIEWPOINT 25 AREA 48A G/1C (GOLD COAST) :

VIEW NORTH OVER AREA 48A G/1C ZONE TOWARDS TAI LAM COUNTRY PARK.
APPROXIMATES THE VIEWS FROM GOLD COAST.










VIEWPOINT 26 TUEN MUN ROAD :

VIEW FROM ADJACENT THE ROAD NORTH TOWARDS TAI LAM COUNTRY PARK.

NOTE : VSR IN BRACKETS INDICATES APPROXIMATE VIEWS WHERE ACTUAL VIEWS ARE INACCESSIBLE .

FIGURE 11.23 MAJOR VSRS : TYPICAL VIEWS 11

LEGEND

-  Project Limit (Southern Section)
-  Cut Slopes. Refer to Figures 11.30 to 11.31
-  Toll Plaza Administration Buildings and Area
-  Retained Lagoon Area (not feasible under NSLDFS)
-  Area of formed slopes with natural appearance and planted with native mixed woodland
-  Mounding with tree / shrub planting
-  Route 10 Alignment

Toll Plaza Administration Area

Mounding with tree / shrub planting to provide a landscape buffer and visual screen to Plaza area
 Formation of natural looking slopes with reinstatement of tree / shrub planting, within the engineering constraints.
 Buildings to be set into hillside and visually recessive in design

Ng Kwu Leng Headland

Minimisation of slope cutting to minimise extent of natural slope and vegetation disturbed.
 Slopes to be designed to avoid the straight cut engineered appearance and with a more organic form. Particular consideration will be given to the slope cutting required for the North Lantau Highway connection to create a new character for the area.
 Slope treatment to be approached as shown in Figures 11.30 and 11.31

Contractor Compound

Site formation to create more natural looking contours blending with the surrounding terrain. Tree and shrub planting to form a "sheltered wooded valley". Also provides landscape and ecological mitigation for impacts occurring elsewhere along the alignment

Fa Peng and Tso Wan

Retention of lagoon areas alleviates the loss of coastal location to a degree (not feasible under NSLDFS)
 Noise barriers to be visually unobtrusive, e.g. clear perspex

Viaduct across Yi Chuen

Impacts to be minimised during construction by employing offsite precasting and construction methods which "touch lightly" on the ground.
 Planting to be re-instated subsequent to construction to compensate vegetative loss during construction. Planting to reflect existing species

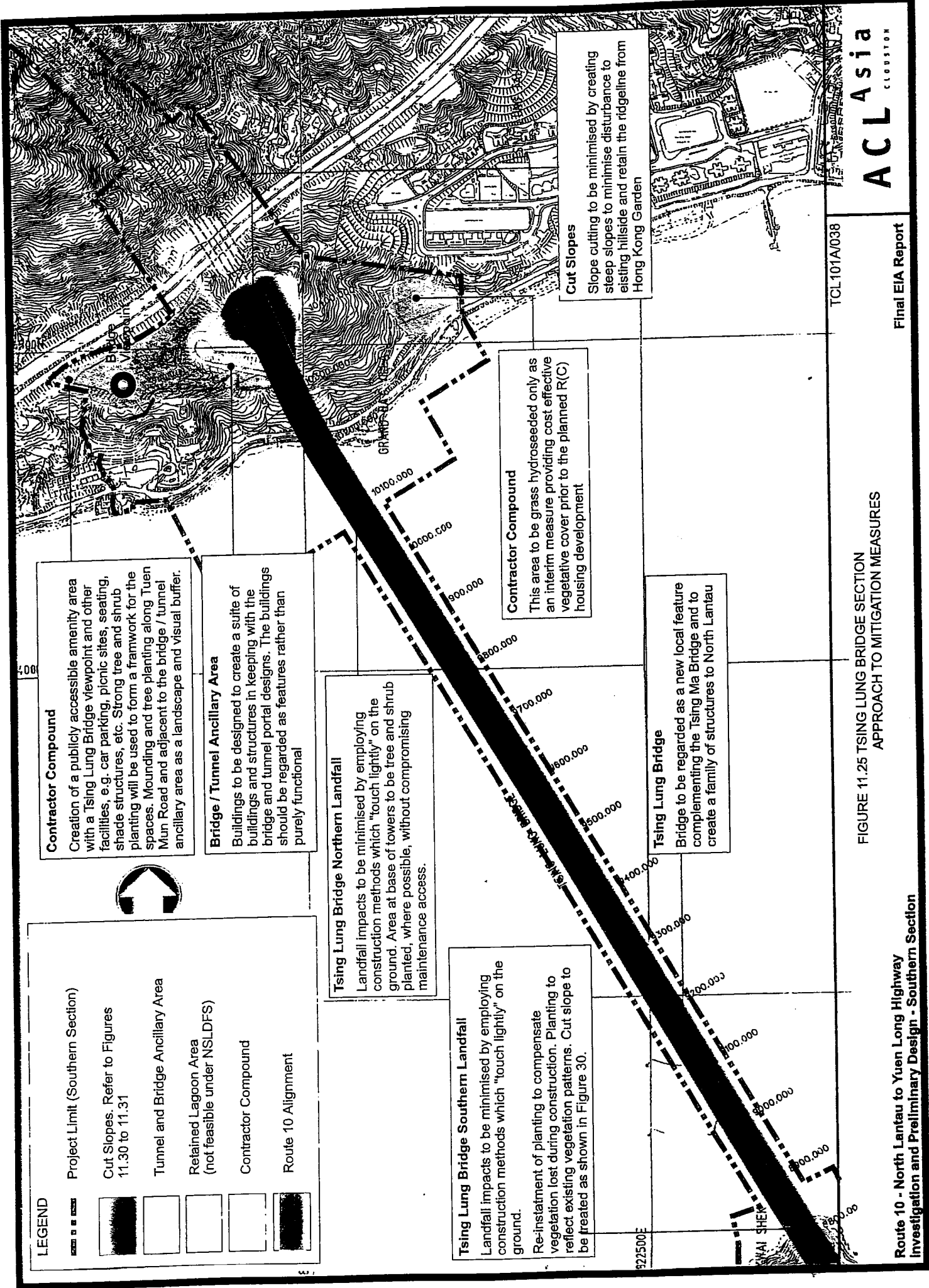
Cut slopes at Sam Chuen

Minimisation of disturbance to existing hillside by cutting steep slopes. Approach to slope treatment shown in Figures 11.30 and 11.31



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FIGURE 11.24 NORTH LANTAU SECTION
 APPROACHES TO MITIGATION MEASURES



LEGEND

- Project Limit (Southern Section)
- █ Cut Slopes. Refer to Figures 11.30 to 11.31
- Tunnel and Bridge Ancillary Area
- Retained Lagoon Area (not feasible under NSLDFS)
- Contractor Compound
- █ Route 10 Alignment

Contractor Compound
 Creation of a publicly accessible amenity area with a Tsing Lung Bridge viewpoint and other facilities, e.g. car parking, picnic sites, seating, shade structures, etc. Strong tree and shrub planting will be used to form a framework for the spaces. Mounding and tree planting along Tuen Mun Road and adjacent to the bridge / tunnel ancillary area as a landscape and visual buffer.

Bridge / Tunnel Ancillary Area
 Buildings to be designed to create a suite of buildings and structures in keeping with the bridge and tunnel portal designs. The buildings should be regarded as features rather than purely functional

Tsing Lung Bridge Northern Landfall
 Landfall impacts to be minimised by employing construction methods which "touch lightly" on the ground. Area at base of towers to be tree and shrub planted, where possible, without compromising maintenance access.

Tsing Lung Bridge Southern Landfall
 Landfall impacts to be minimised by employing construction methods which "touch lightly" on the ground.
 Re-planting of planting to compensate vegetation lost during construction. Planting to reflect existing vegetation patterns. Cut slope to be treated as shown in Figure 30.

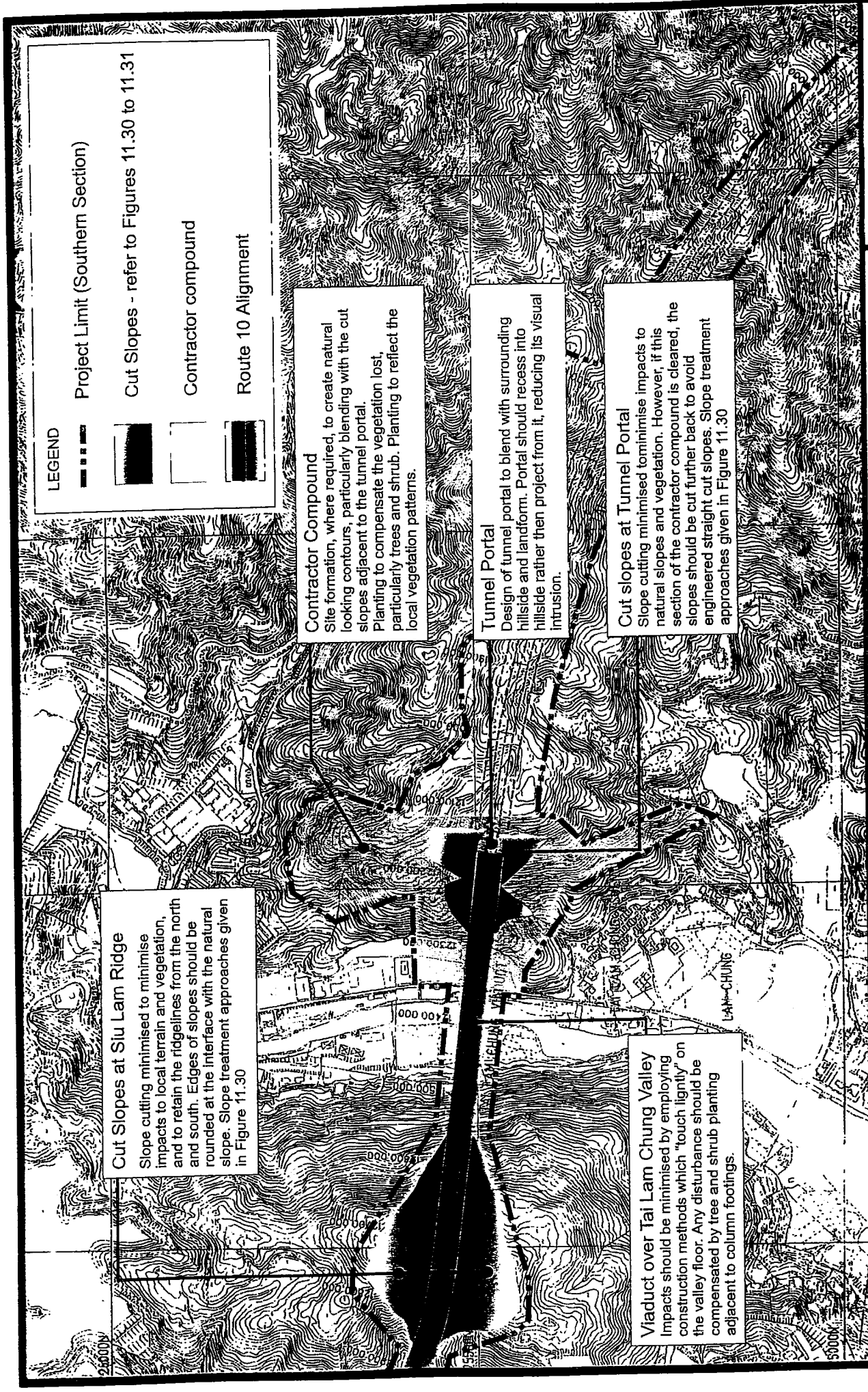
Contractor Compound
 This area to be grass hydroseeded only as an interim measure providing cost effective vegetative cover prior to the planned R(C) housing development

Tsing Lung Bridge
 Bridge to be regarded as a new local feature complementing the Tsing Ma Bridge and to create a family of structures to North Lantau

Cut Slopes
 Slope cutting to be minimised by creating steep slopes to minimise disturbance to existing hillside and retain the ridgeline from Hong Kong Garden

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FIGURE 11.25 TSING LUNG BRIDGE SECTION
 APPROACH TO MITIGATION MEASURES



LEGEND

- Project Limit (Southern Section)
- Cut Slopes - refer to Figures 11.30 to 11.31
- Contractor compound
- Route 10 Alignment

Cut Slopes at Siu Lam Ridge

Slope cutting minimised to minimise impacts to local terrain and vegetation, and to retain the ridgelines from the north and south. Edges of slopes should be rounded at the interface with the natural slope. Slope treatment approaches given in Figure 11.30

Contractor Compound

Site formation, where required, to create natural looking contours, particularly blending with the cut slopes adjacent to the tunnel portal. Planting to compensate the vegetation lost, particularly trees and shrub. Planting to reflect the local vegetation patterns.

Tunnel Portal

Design of tunnel portal to blend with surrounding hillside and landform. Portal should recess into hillside rather than project from it, reducing its visual intrusion.

Cut slopes at Tunnel Portal

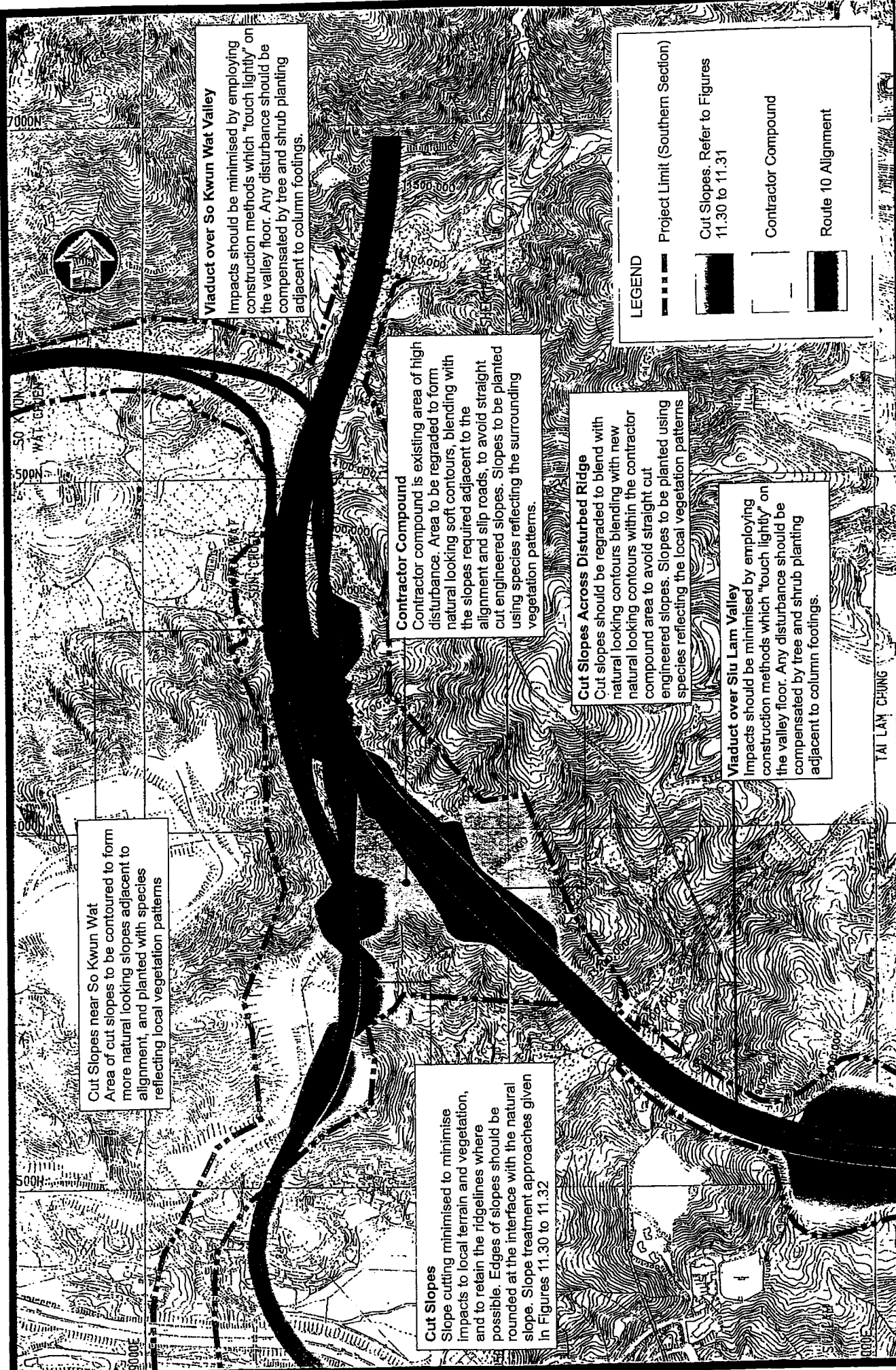
Slope cutting minimised to minimise impacts to natural slopes and vegetation. However, if this section of the contractor compound is cleared, the slopes should be cut further back to avoid engineered straight cut slopes. Slope treatment approaches given in Figure 11.30

Viaduct over Tai Lam Chung Valley

Impacts should be minimised by employing construction methods which "touch lightly" on the valley floor. Any disturbance should be compensated by tree and shrub planting adjacent to column footings.

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**FIGURE 11.26 TSING LUNG TO SIU LAM SECTION
APPROACHES TO MITIGATION MEASURES**



Cut Slopes near So Kwun Wat
 Area of cut slopes to be contoured to form more natural looking slopes adjacent to alignment, and planted with species reflecting local vegetation patterns

Cut Slopes
 Slope cutting minimised to minimise impacts to local terrain and vegetation, and to retain the ridgelines where possible. Edges of slopes should be rounded at the interface with the natural slope. Slope treatment approaches given in Figures 11.30 to 11.32

Contractor Compound
 Contractor compound is existing area of high disturbance. Area to be regraded to form natural looking soft contours, blending with the slopes required adjacent to the alignment and slip roads, to avoid straight cut engineered slopes. Slopes to be planted using species reflecting the surrounding vegetation patterns.

Cut Slopes Across Disturbed Ridge
 Cut slopes should be regraded to blend with natural looking contours blending with new natural looking contours within the contractor compound area to avoid straight cut engineered slopes. Slopes to be planted using species reflecting the local vegetation patterns

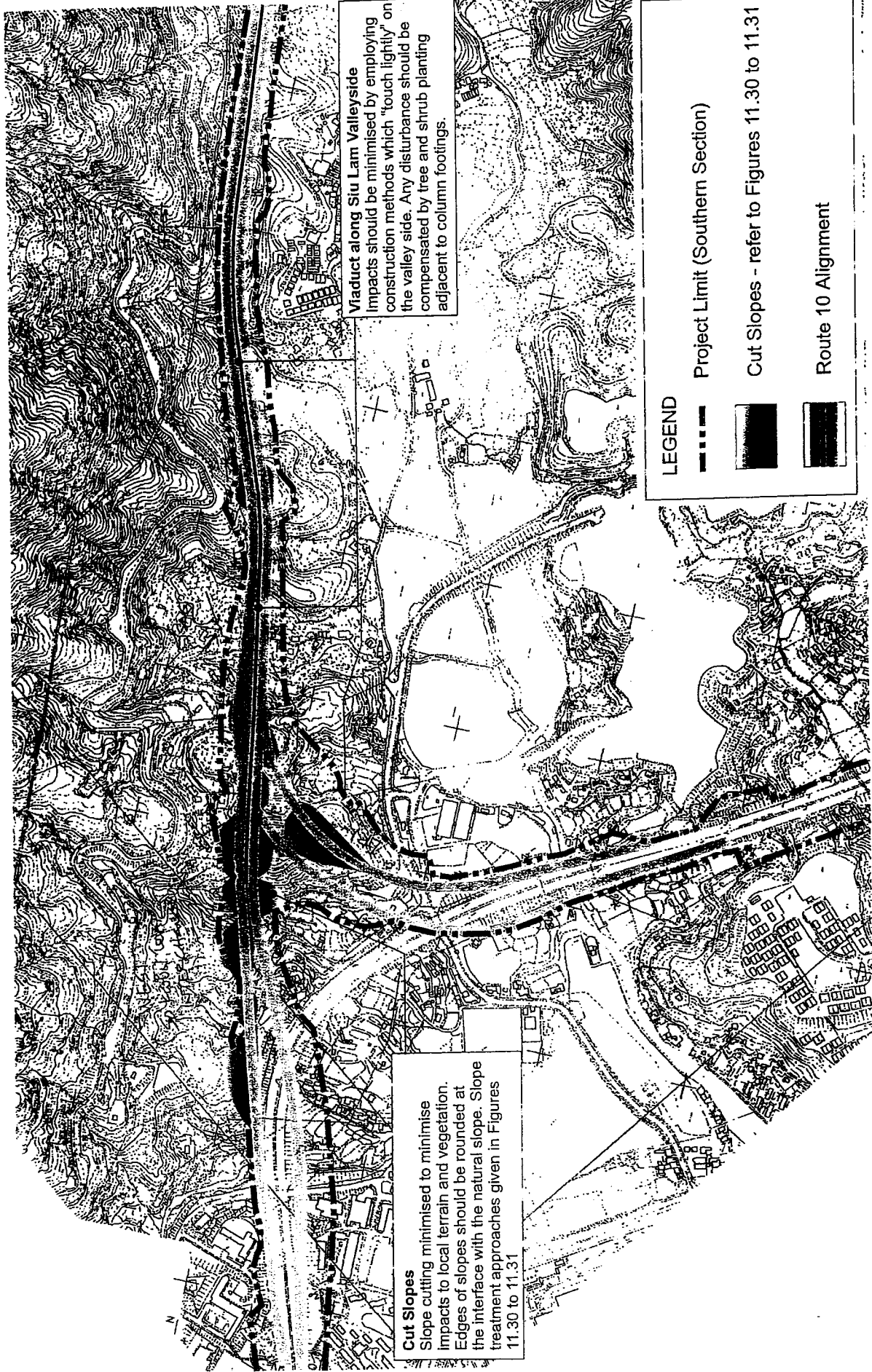
Viaduct over Siu Lam Valley
 Impacts should be minimised by employing construction methods which "touch lightly" on the valley floor. Any disturbance should be compensated by tree and shrub planting adjacent to column footings.

Viaduct over So Kwun Wat Valley
 Impacts should be minimised by employing construction methods which "touch lightly" on the valley floor. Any disturbance should be compensated by tree and shrub planting adjacent to column footings.

LEGEND

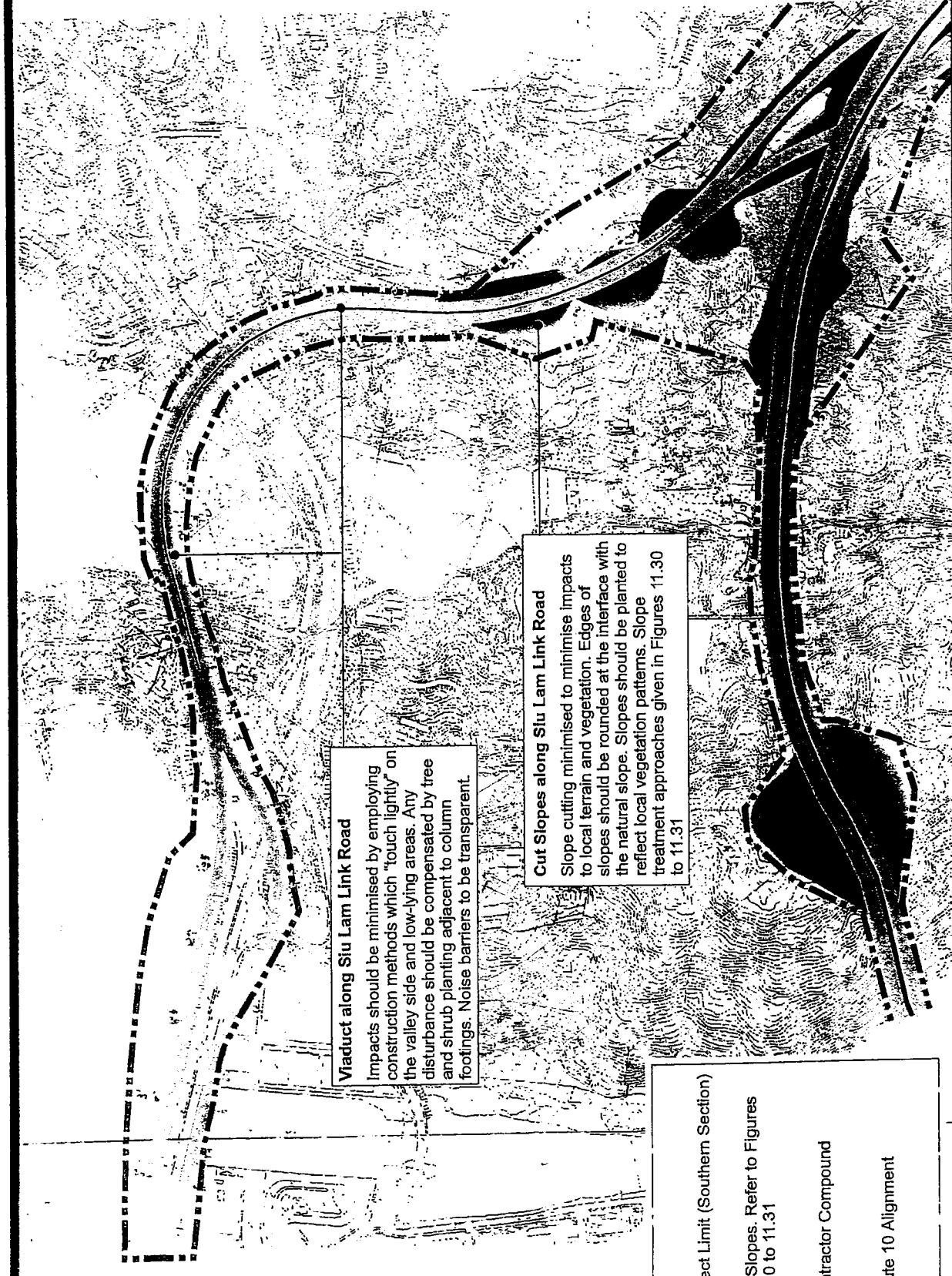
- Project Limit (Southern Section)
- Cut Slopes. Refer to Figures 11.30 to 11.31
- Contractor Compound
- Route 10 Alignment

**FIGURE 11.27 SIU LAM TO SO KWUN WAT SECTION
 APPROACHES TO MITIGATION MEASURES**



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FIGURE 11.28 SO KWUN WAT LINK ROAD APPROACHES TO MITIGATION MEASURES



Viaduct along Siu Lam Link Road
 Impacts should be minimised by employing construction methods which "touch lightly" on the valley side and low-lying areas. Any disturbance should be compensated by tree and shrub planting adjacent to column footings. Noise barriers to be transparent.

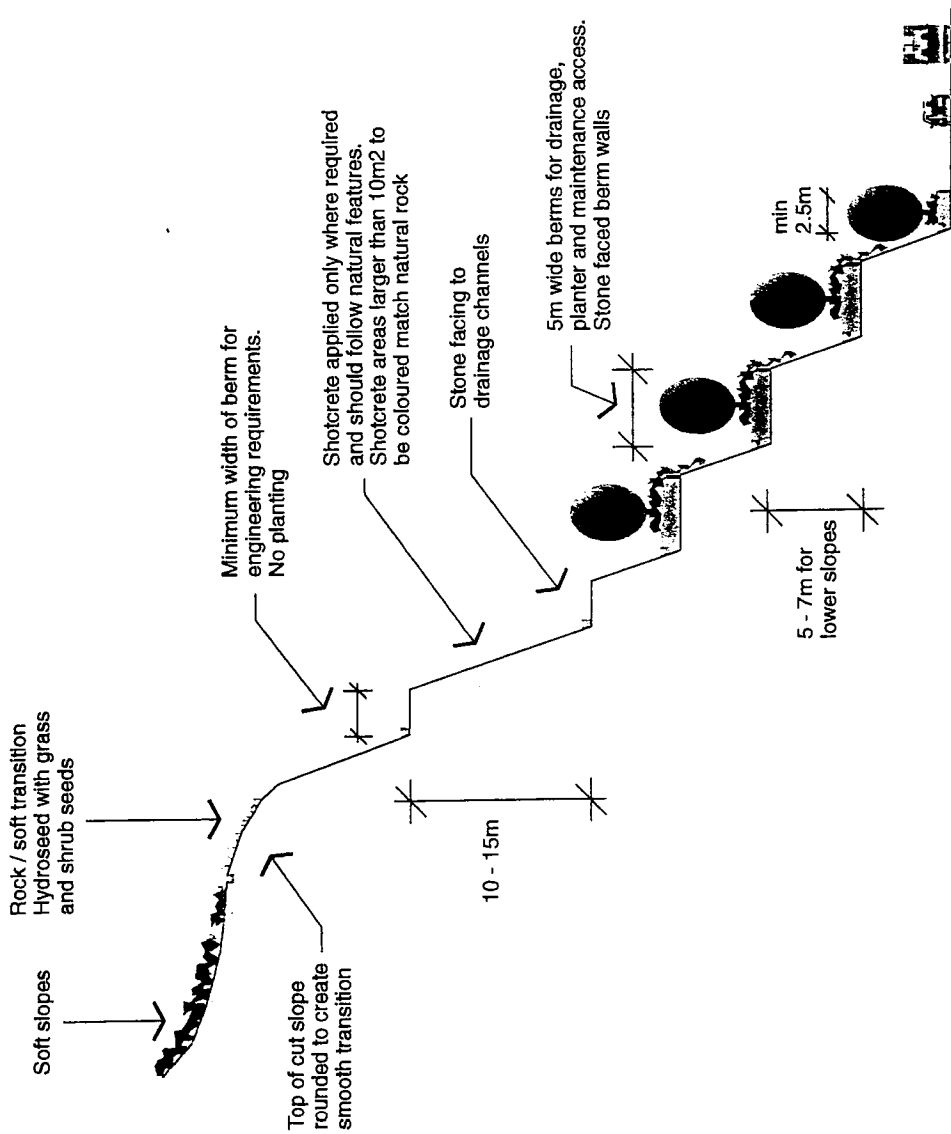
Cut Slopes along Siu Lam Link Road
 Slope cutting minimised to minimise impacts to local terrain and vegetation. Edges of slopes should be rounded at the interface with the natural slope. Slopes should be planted to reflect local vegetation patterns. Slope treatment approaches given in Figures 11.30 to 11.31

LEGEND

-  Project Limit (Southern Section)
-  Cut Slopes. Refer to Figures 11.30 to 11.31
-  Contractor Compound
-  Route 10 Alignment

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**FIGURE 11.29 SIU LAM LINK ROAD
 APPROACHES TO MITIGATION MEASURES**



SCALE 1:500

SCALE 1:500

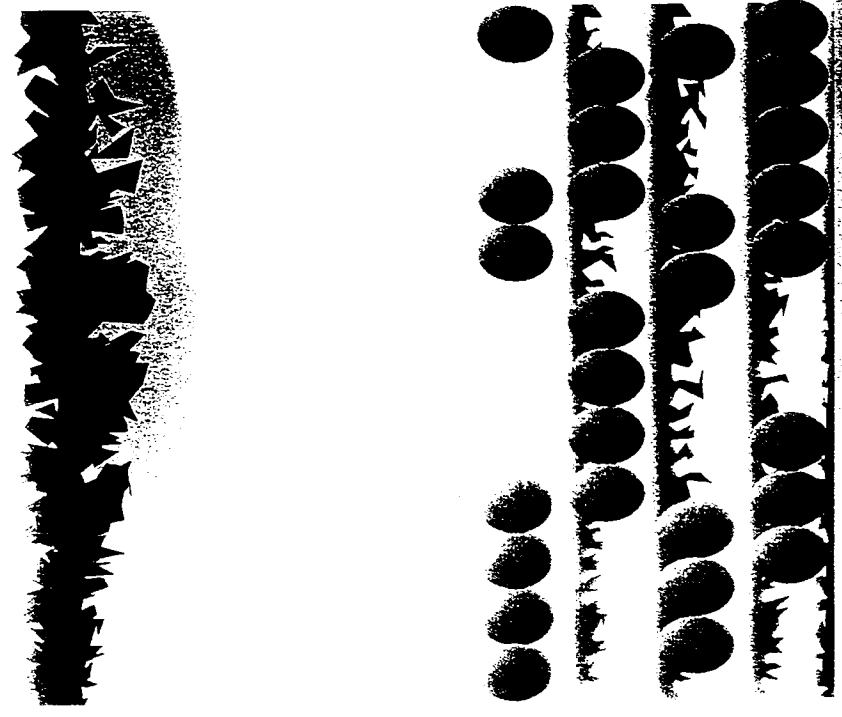
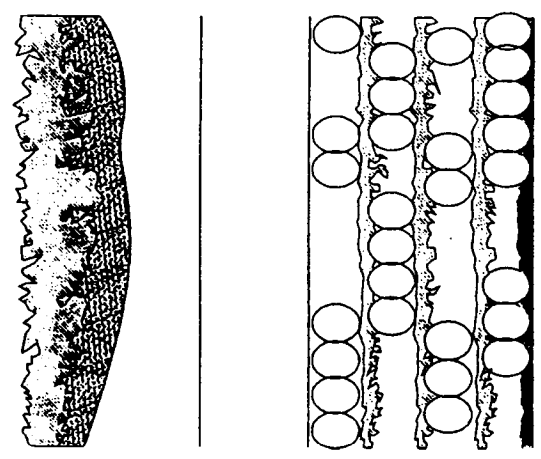
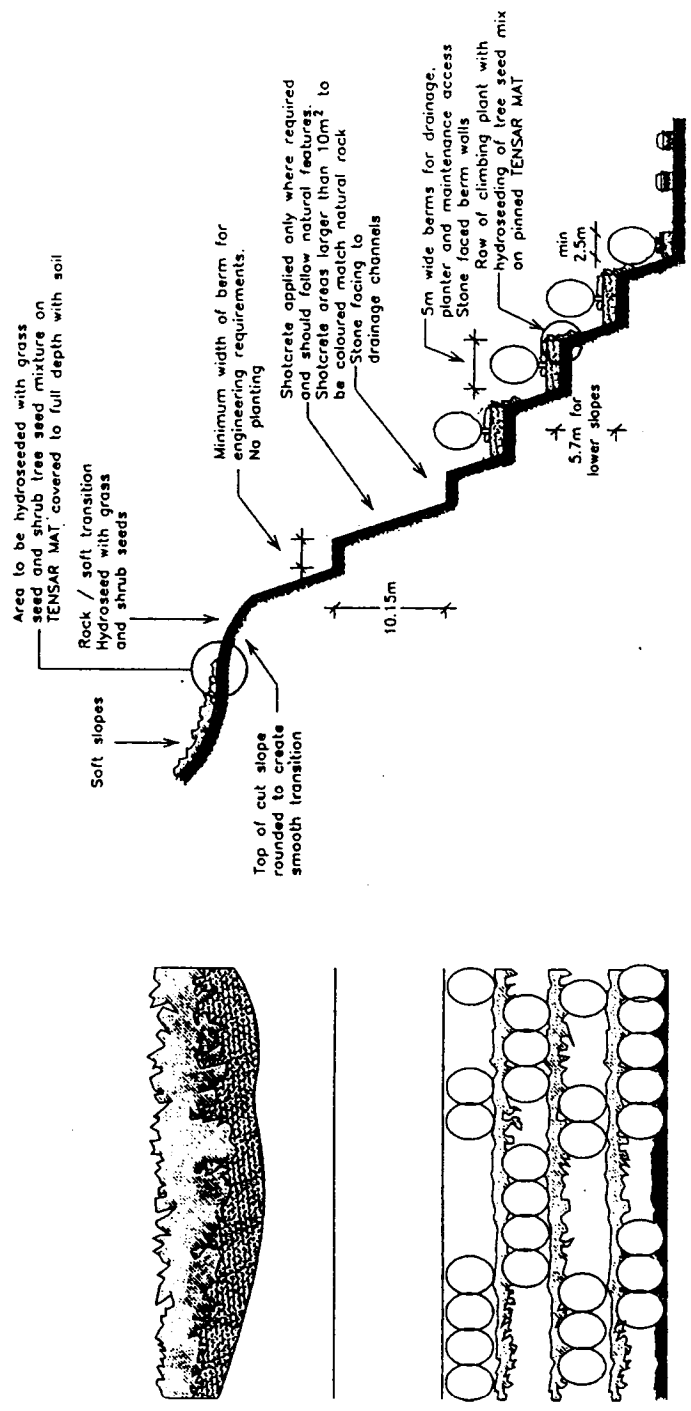


FIGURE 11.30 STRATEGY FOR MITIGATION OF VERY STEEP CUT SLOPES INTO ROCK



SECTION

ELEVATION

Figure 11.31 Strategy for Mitigation of Steep Cut Slopes into Rock or Intermediate Material

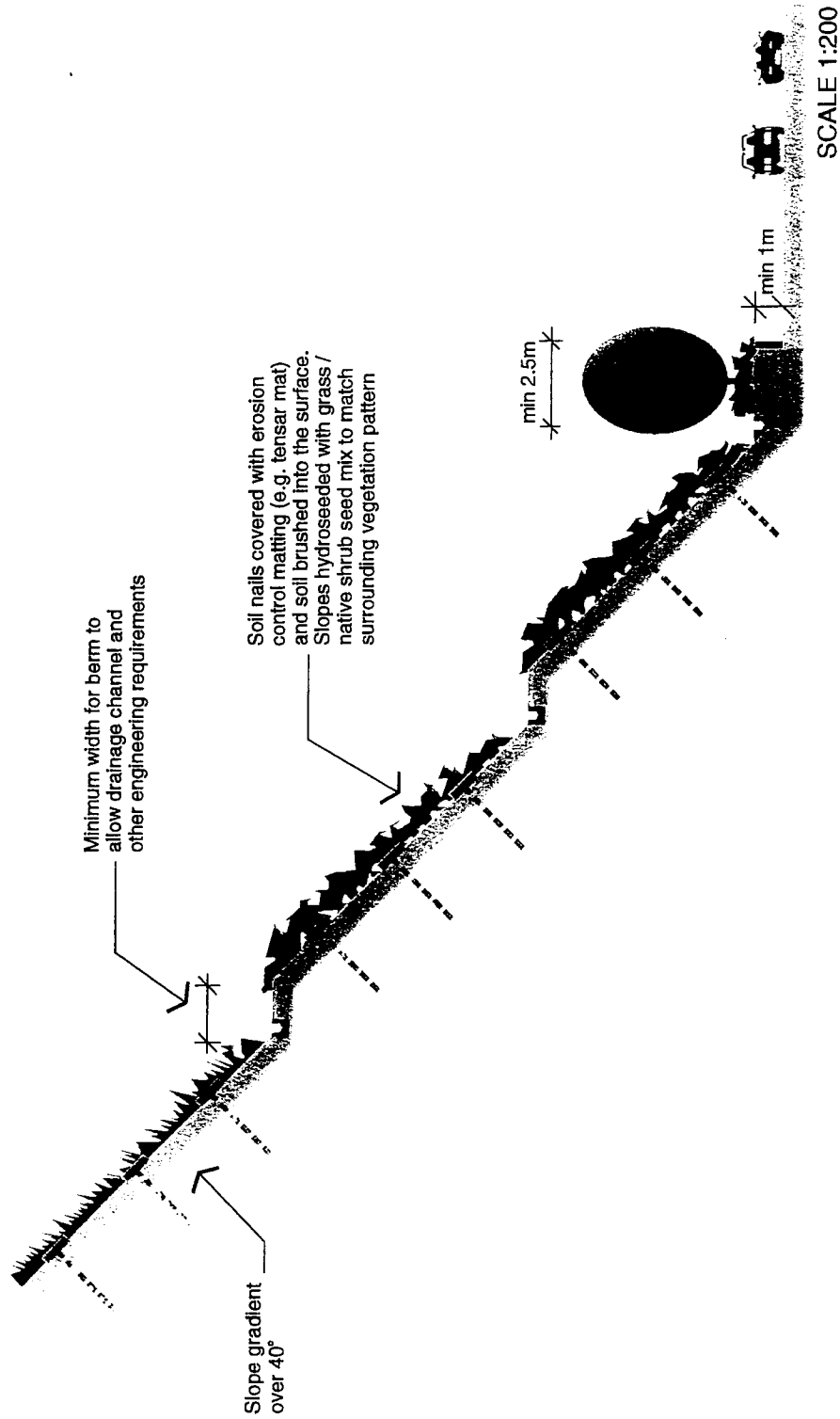
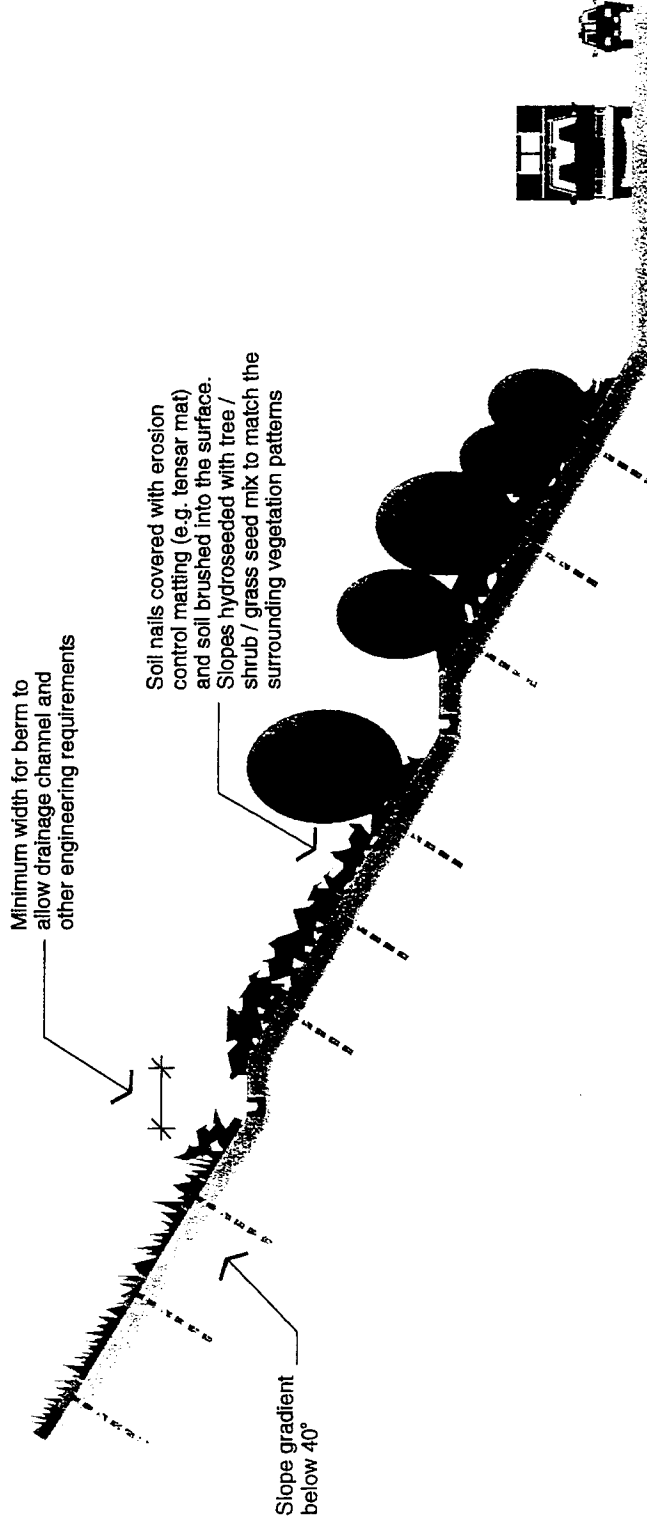


FIGURE 11.32 STRATEGY FOR MITIGATION OF STEEP (>40°) CUT SLOPE INTO SOFT MATERIAL WITH SOIL NAILS

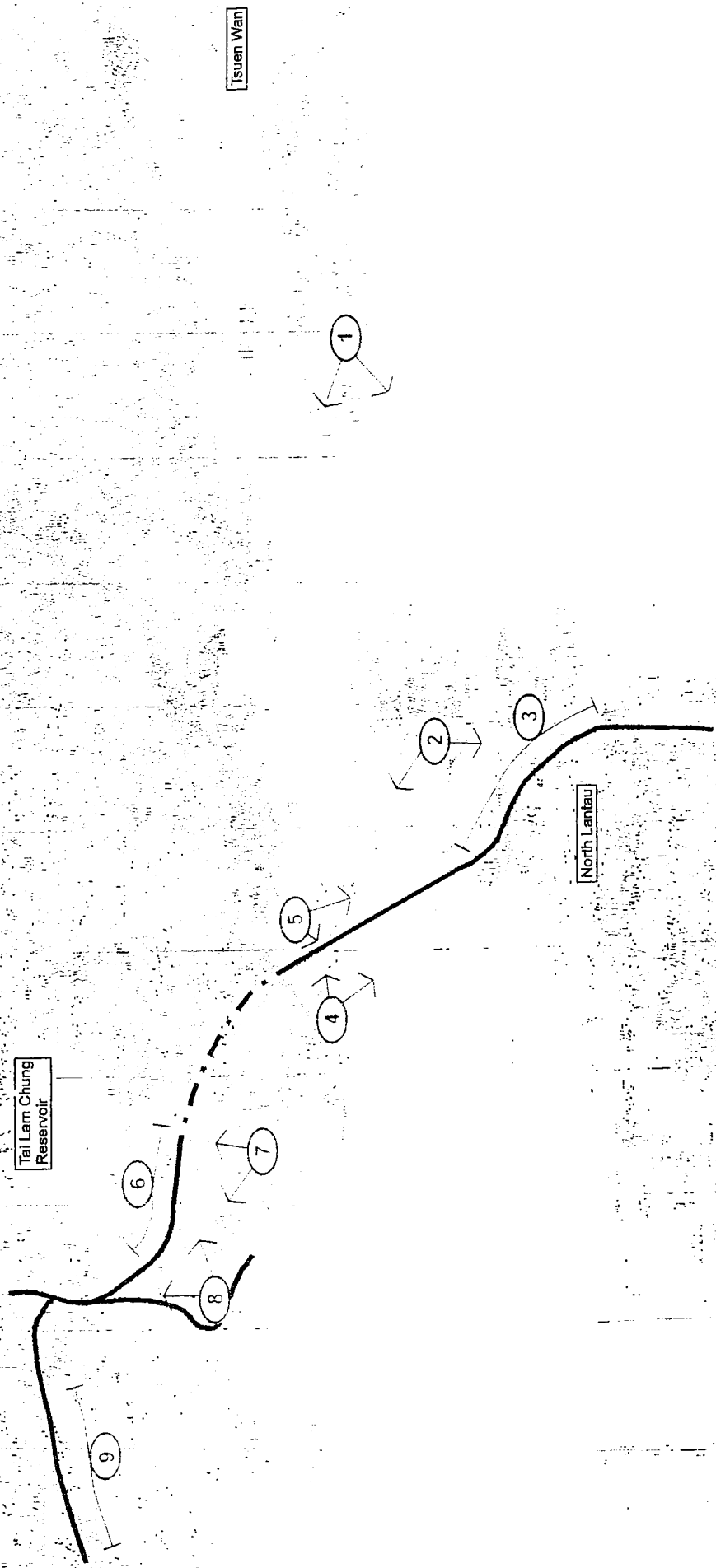
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TCL101A/046

FIGURE 11.33 STRATEGY FOR MITIGATION OF STEEP (< 40°) CUT SLOPES INTO SOFT MATERIAL WITH SOIL NAILS



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FIGURE 11.36 SKETCH VIEWPOINTS

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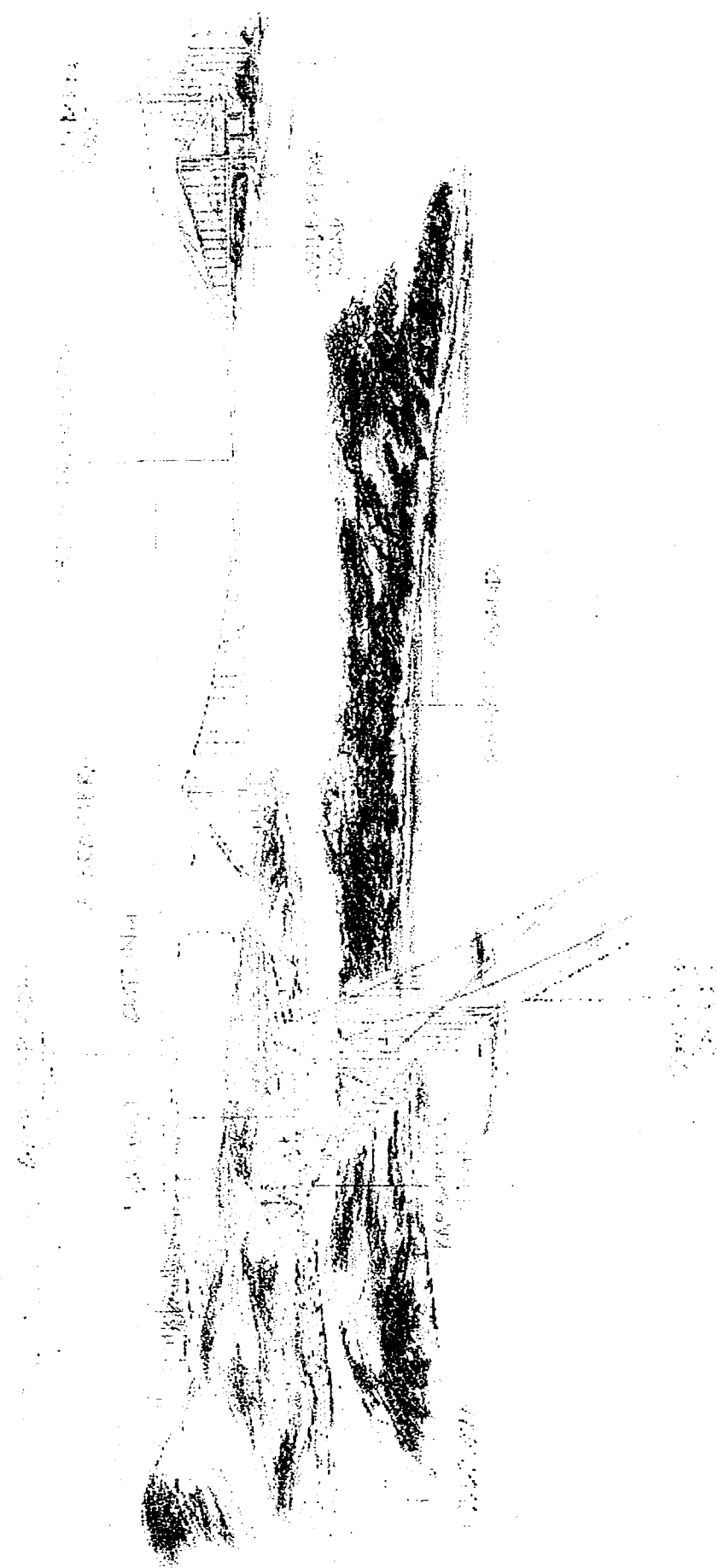


FIGURE 11.37 VIEWPOINT 1 FROM TSING YI



FIGURE 11.38 VIEWPOINT 2 FROM MA WAN

Route 10 - North Lantau to Yuen Long Highway
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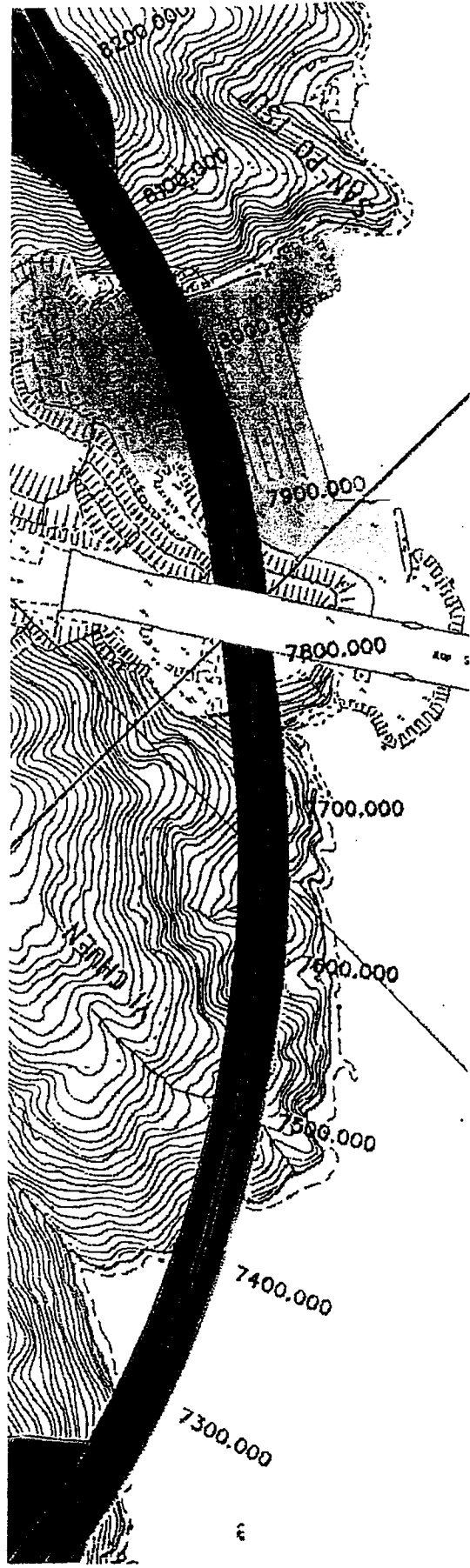
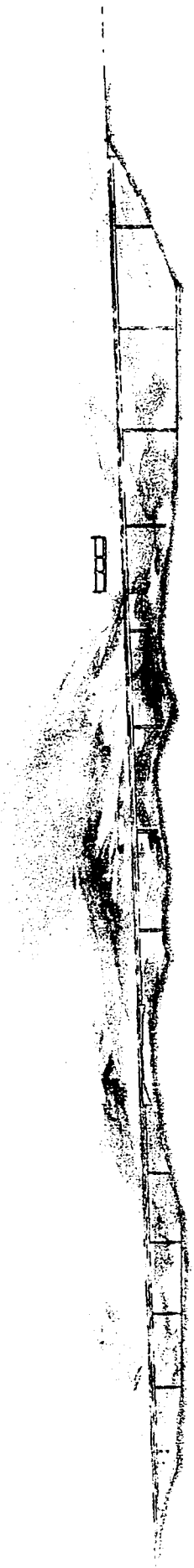
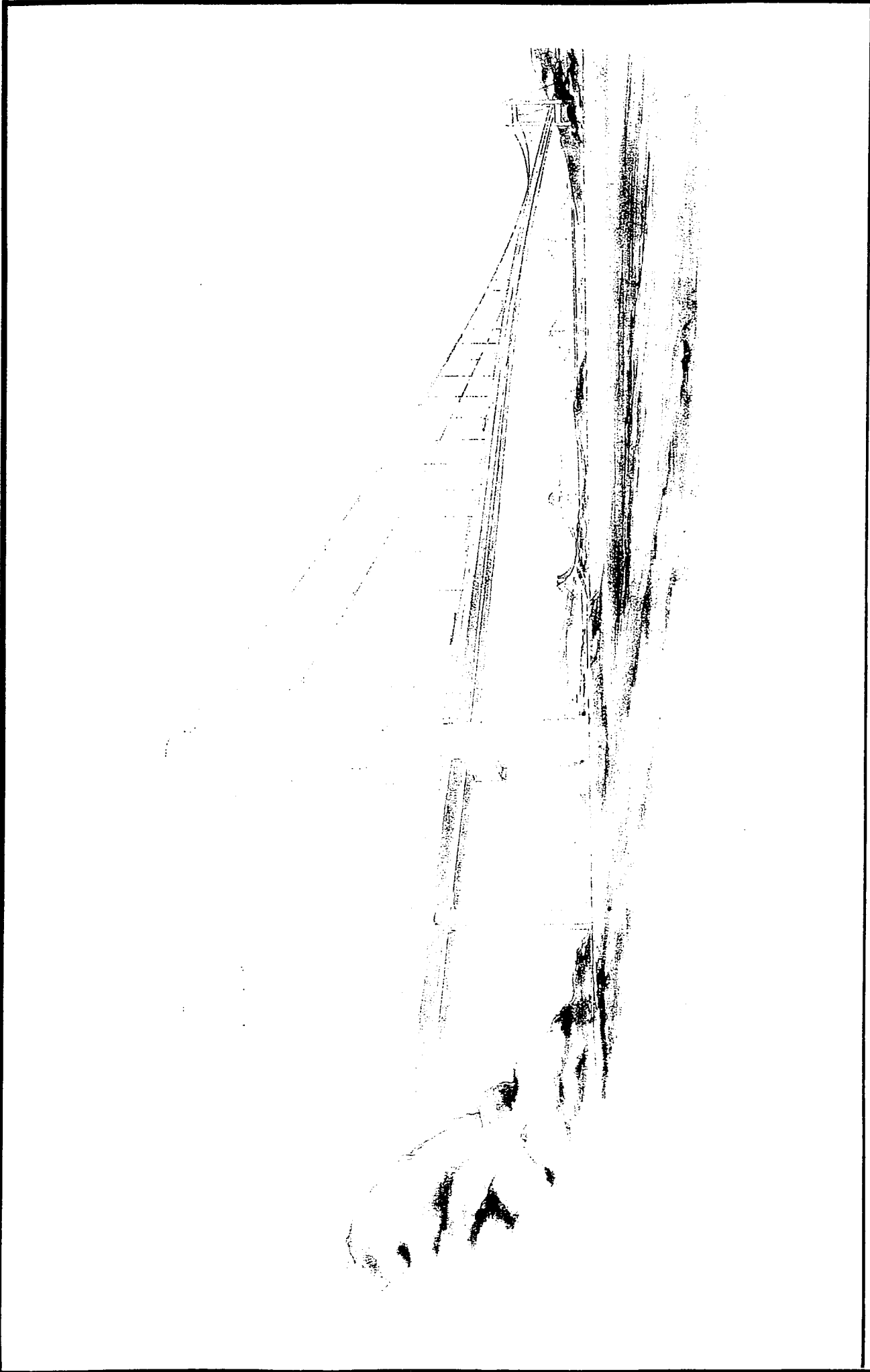
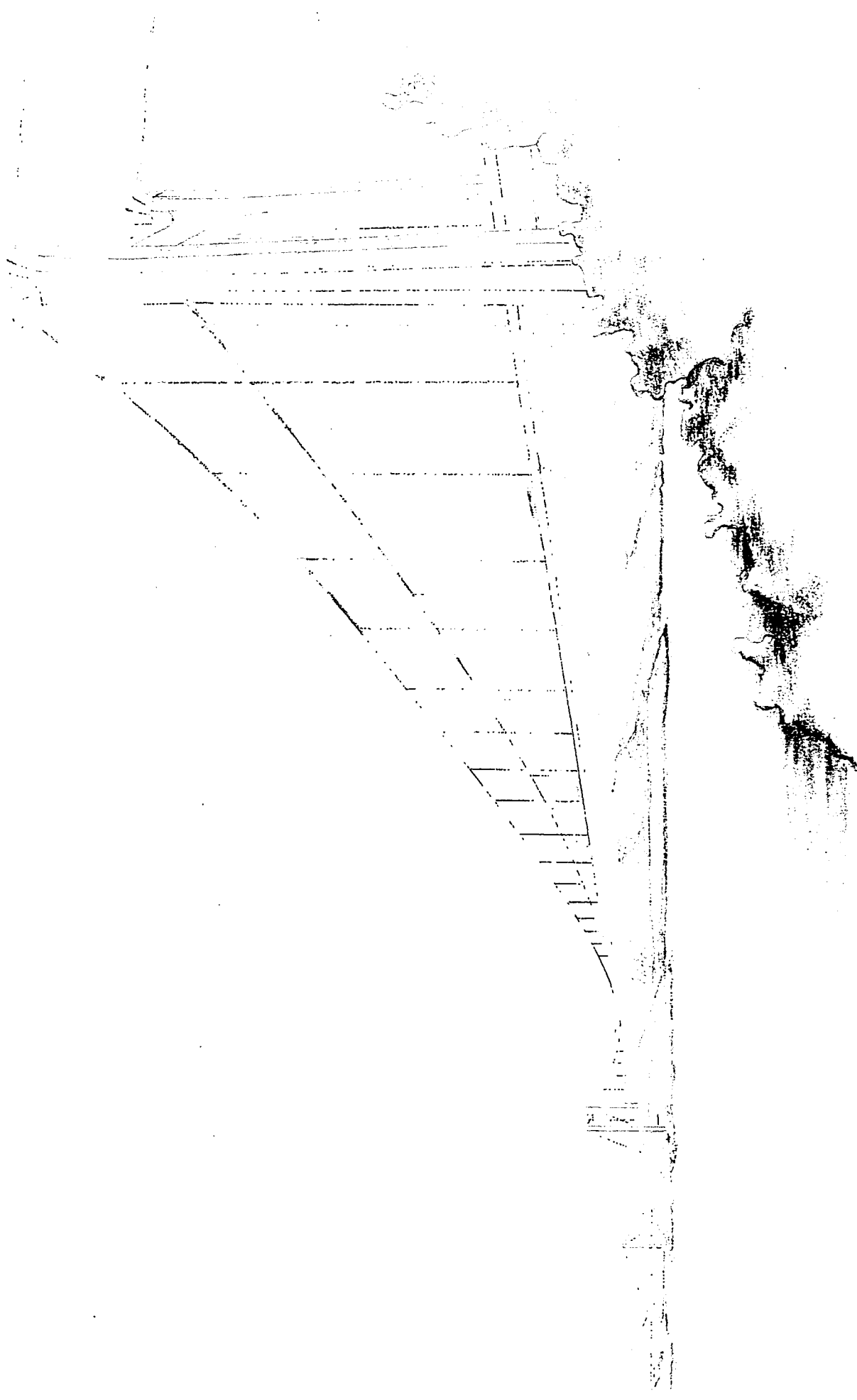


FIGURE 11.39 VIEWPOINT 3 - SECTIONAL ELEVATION THROUGH YI CHUEN



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FIGURE 11.40 VIEWPOINT 4 FROM KA LOON TSUEN



Route 10 - North Lantau to Yuen Long Highway
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Figure 11.41: VIEWPOINT 5 FROM GRAND BAY VILLA

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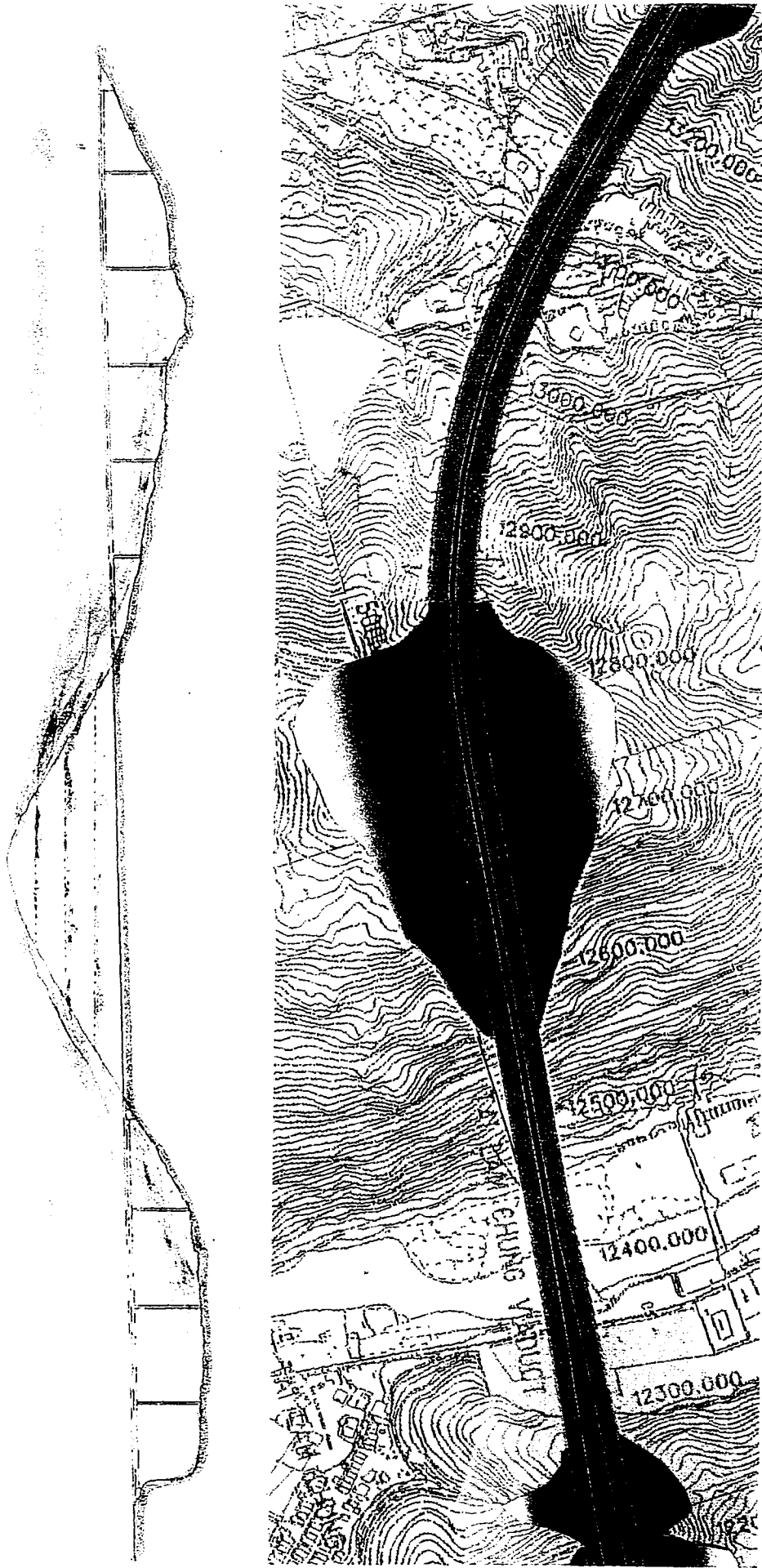
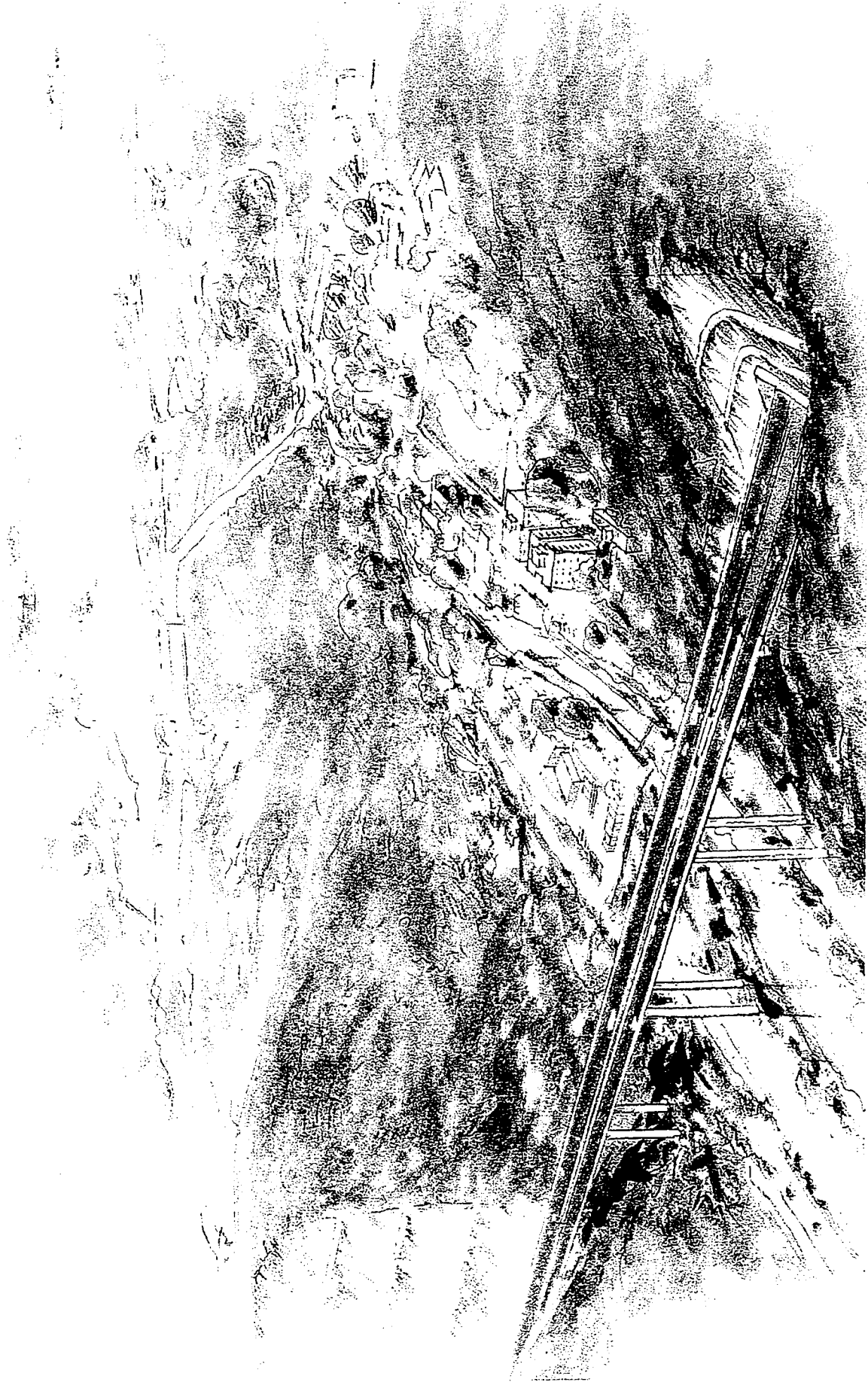


FIGURE 11.42 VIEWPOINT 6 SECTIONAL ELEVATION THROUGH SIU LAM

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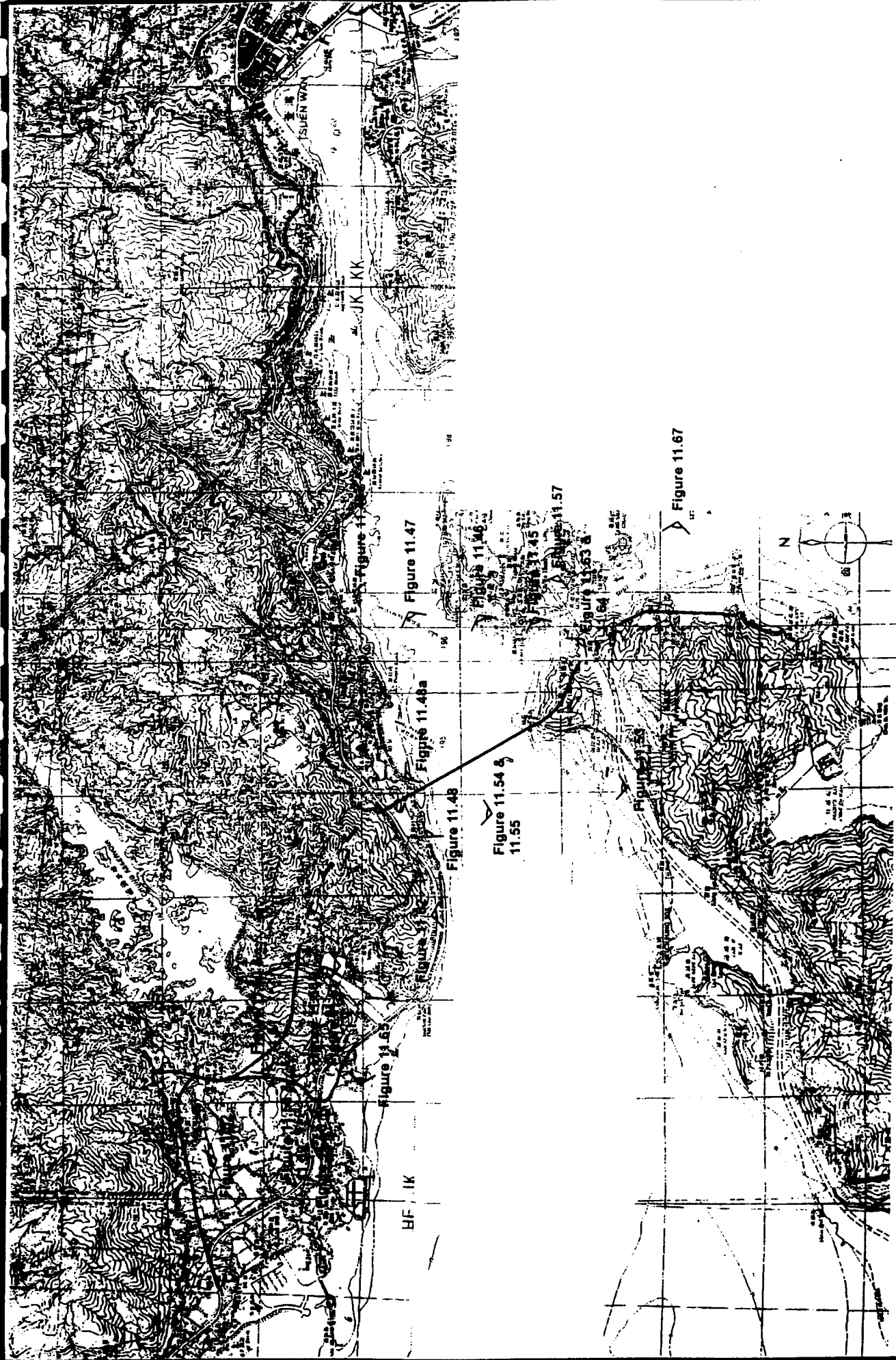
Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section

FIGURE 11.43 VIEWPOINT 7 AERIAL VIEW ALONG TAI LAM CHUNG VALLEY



FIGURE 11.44 VIEWPOINT 8 AERIAL VIEW ALONG SIU LAM VALLEY

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**FIGURE 11.44a : PHOTOMONTAGE VISUALISATIONS
VIEWPOINTS**

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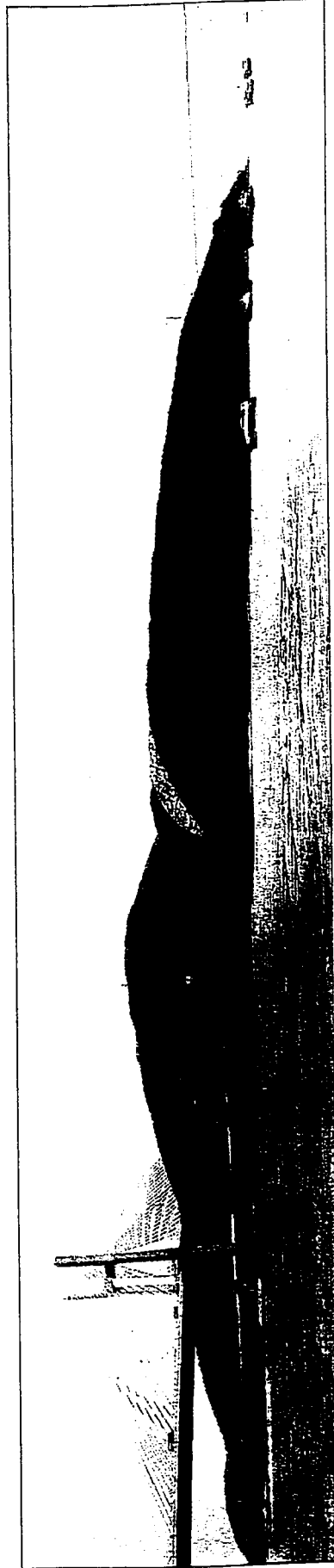
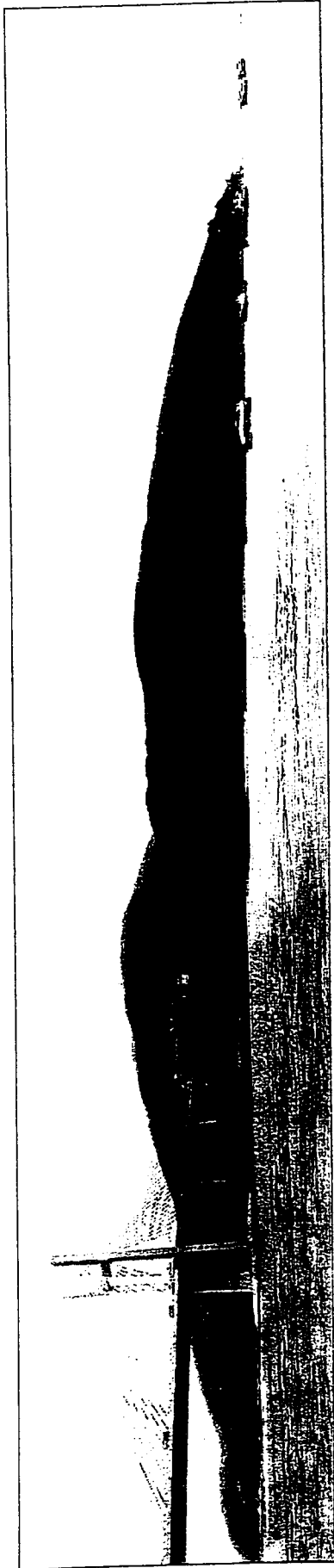
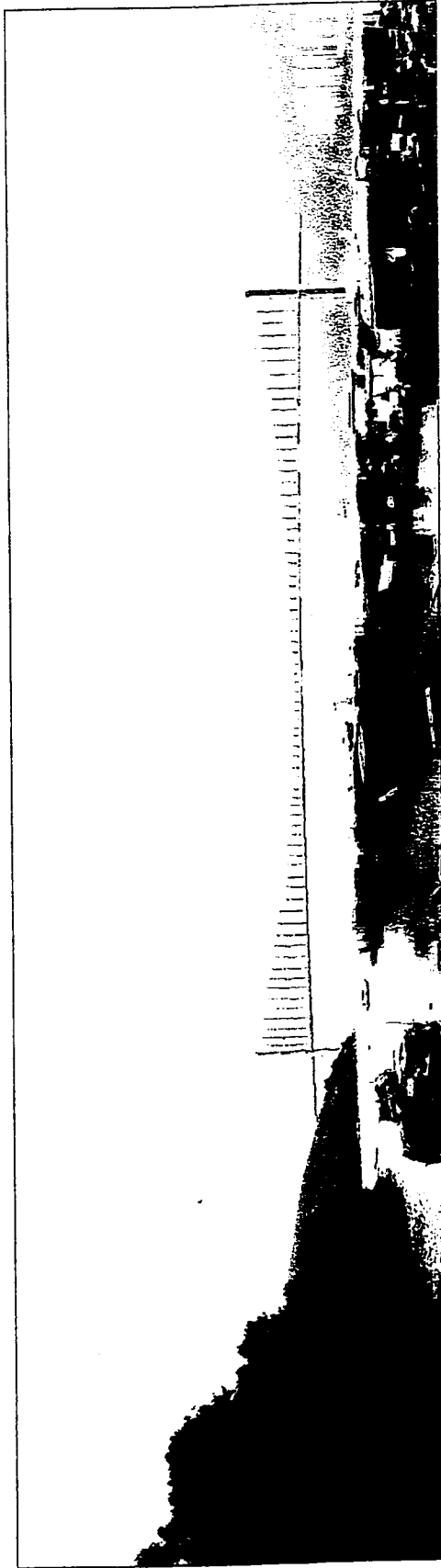
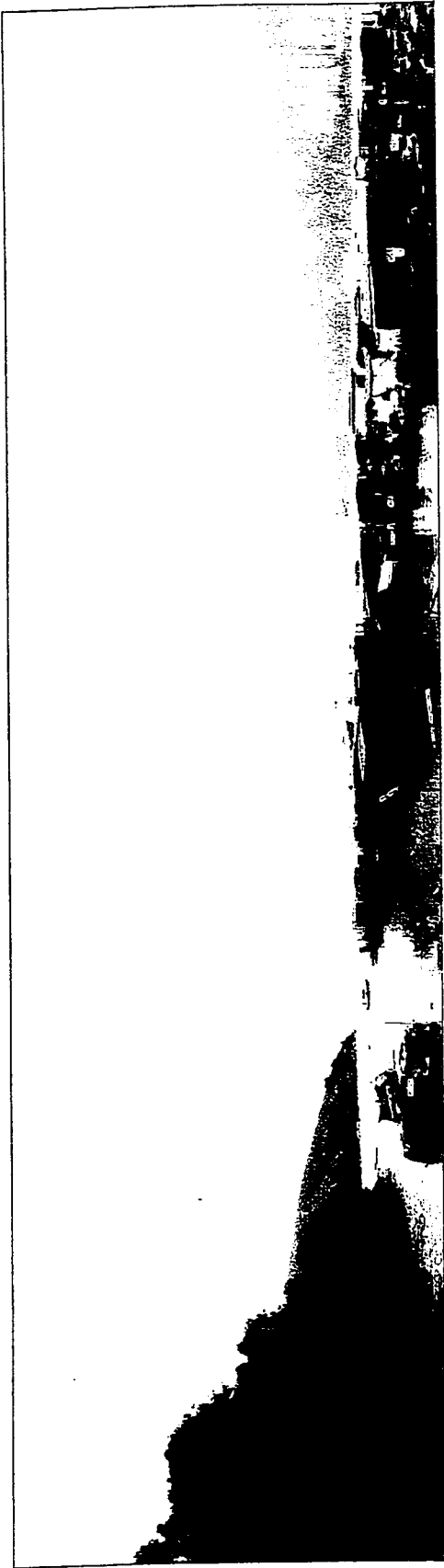


FIGURE 11.45 : PHOTOMONTAGE VISUALISATION FROM PROPOSED THEME PARK ON MA WAN

Route 10 - North Lantau to Yuen Long Highway
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**FIGURE 11.46 : PHOTOMONTAGE VISUALISATION
FROM PROPOSED HIGH-RISE
RESIDENTIAL SITE ON MA WAN**

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Investigation and Preliminary Design**

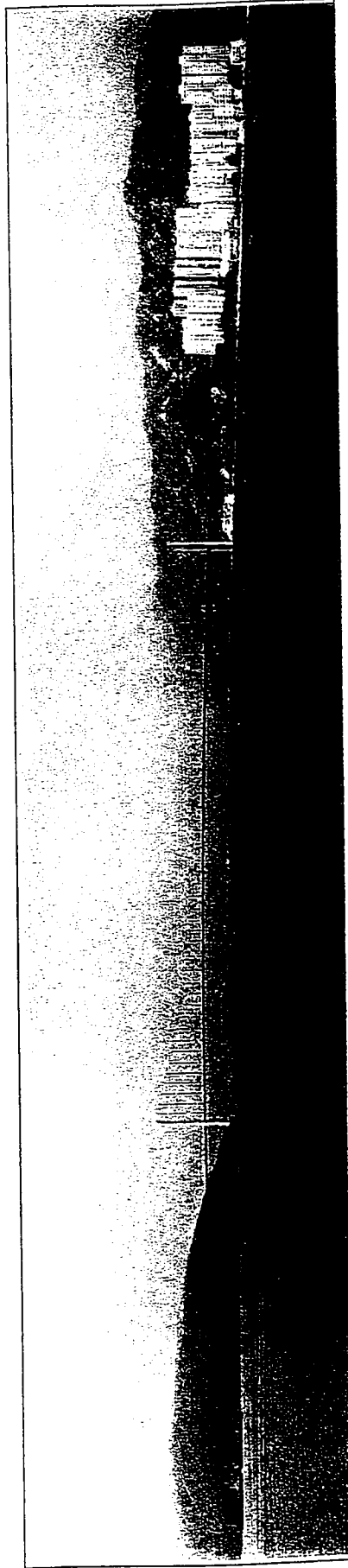
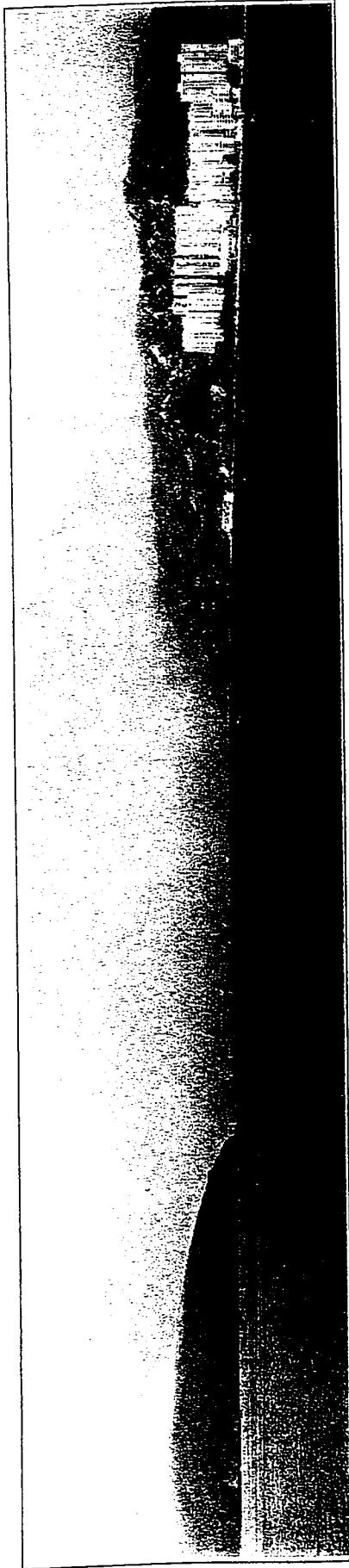


FIGURE 11.47 : PHOTOMONTAGE VISUALISATION
FROM EAST MA WAN CHANNEL

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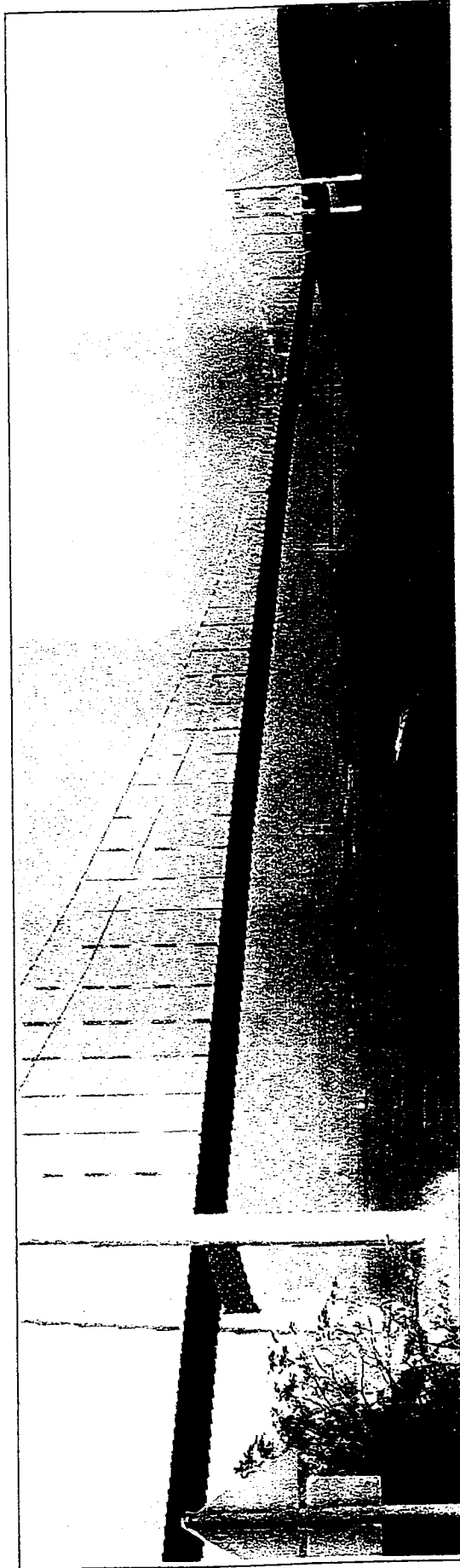
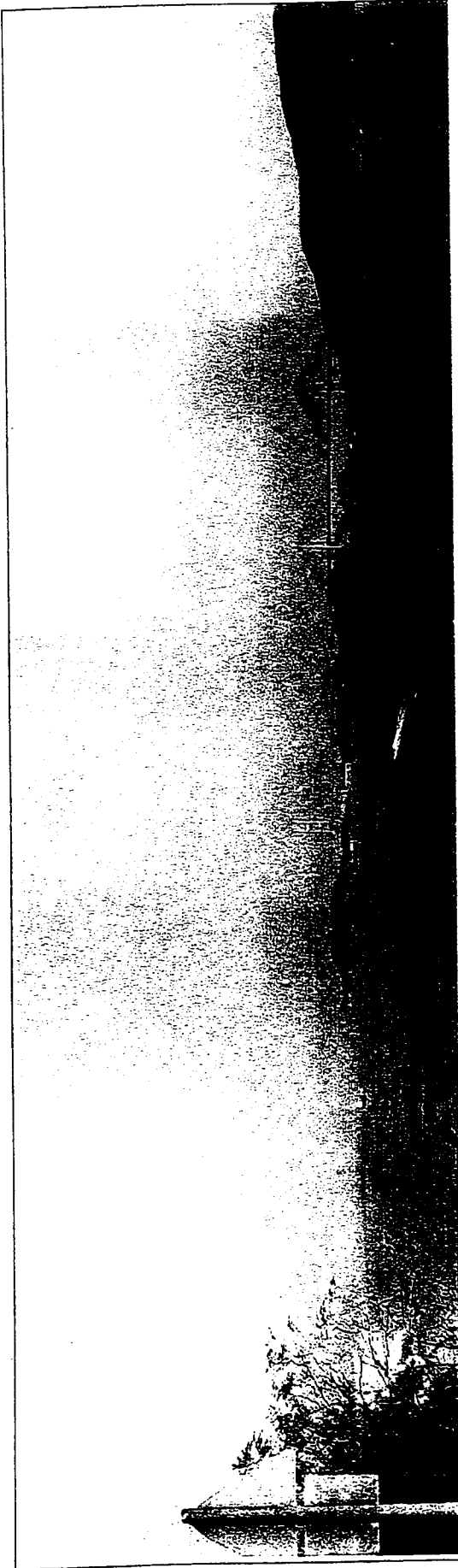


FIGURE 11.48 : PHOTOMONTAGE VISUALISATION
FROM KA LOON TSUEN

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design

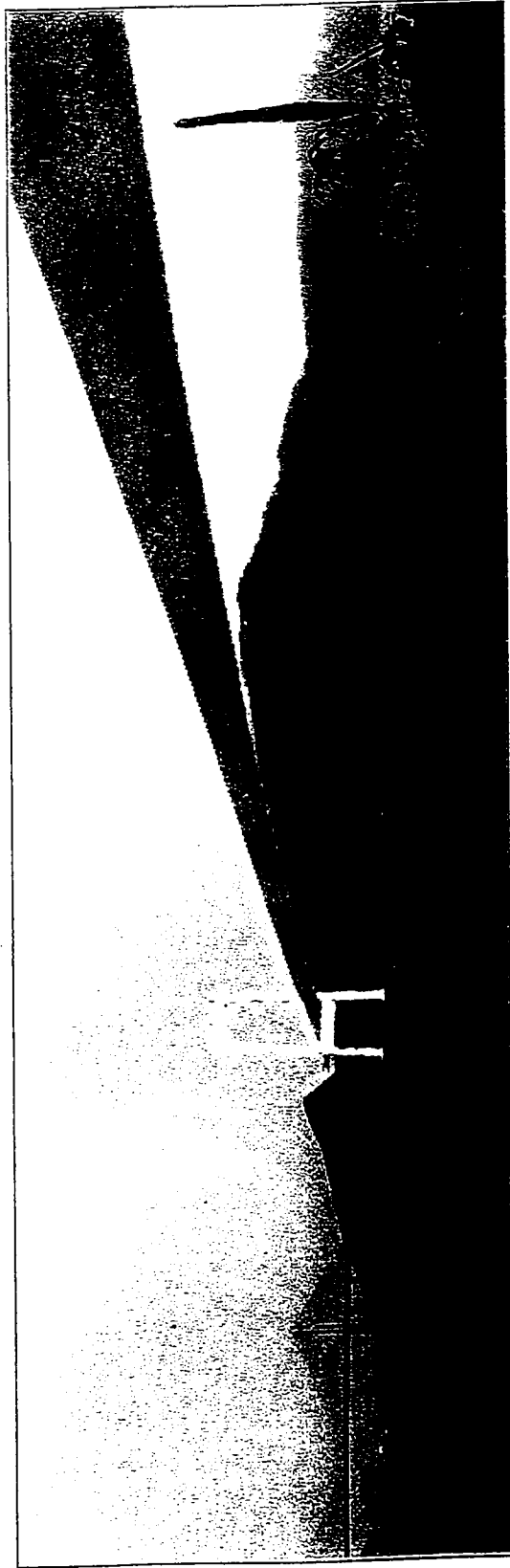
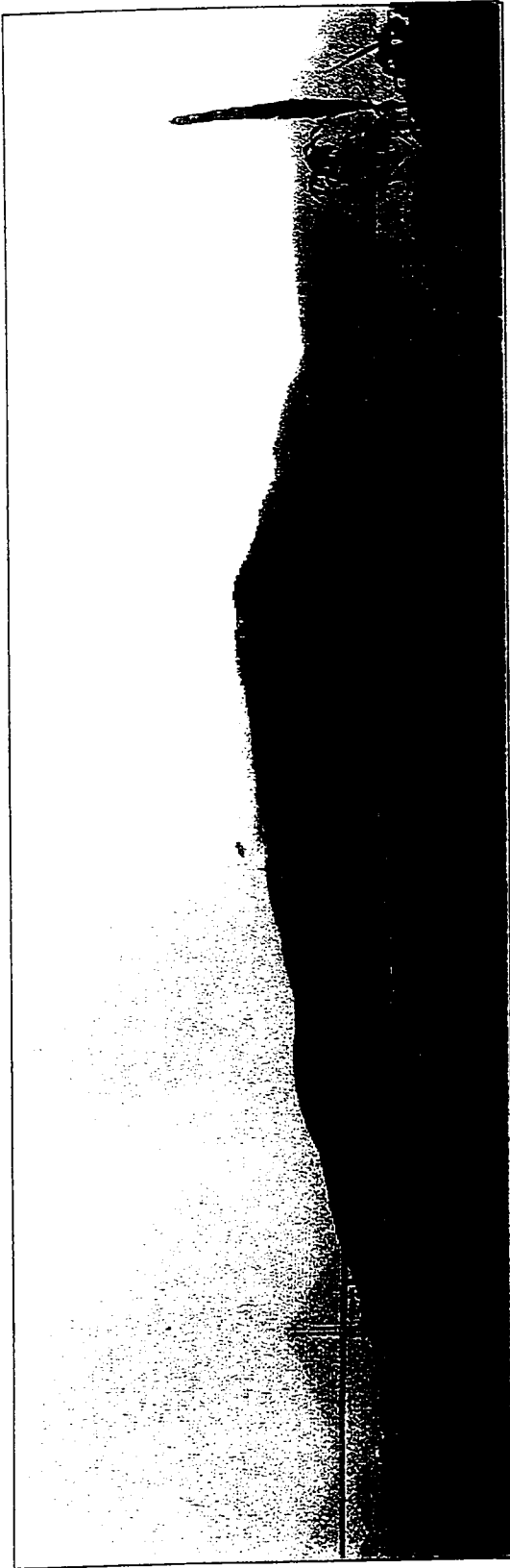
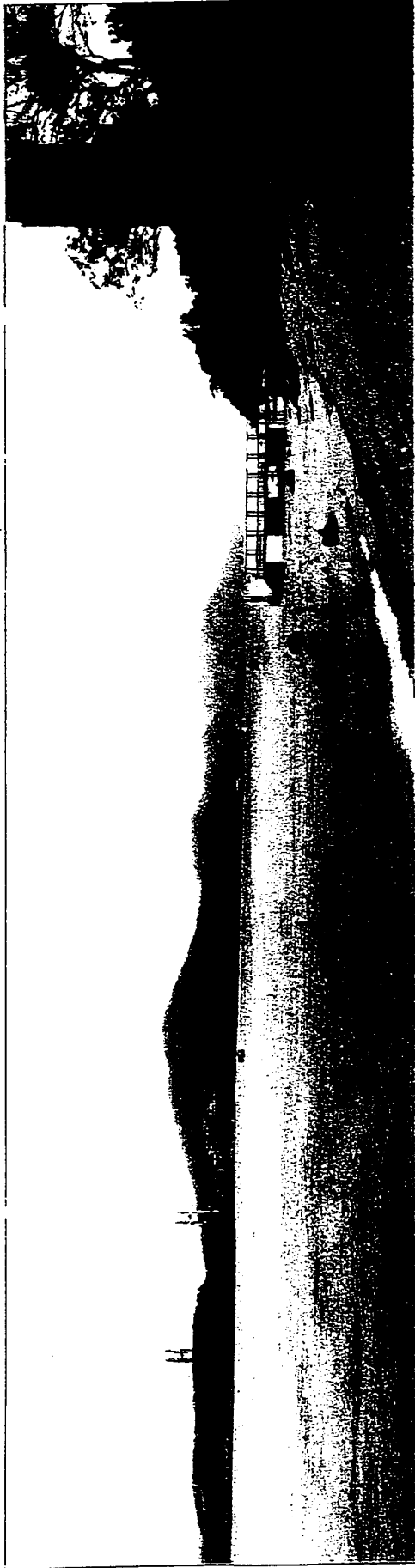


FIGURE 11.48a : PHOTOMONTAGE VISUALISATION
FROM GRAND BAY VILLA



**FIGURE 11.49 : PHOTOMONTAGE VISUALISATION
FROM ANGLER'S BEACH,
SHAM TSENG**

Route 10 - North Lantau to Yuen Long Highway
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FIGURE 11.50: PHOTOMONTAGE VISUALISATION FROM TAI LAM CHUNG TSUEN

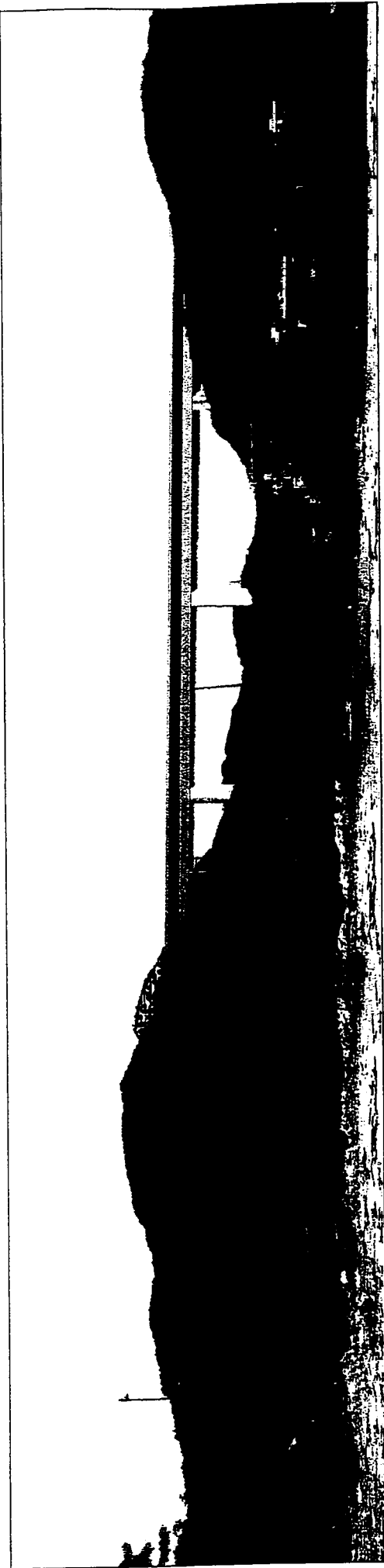
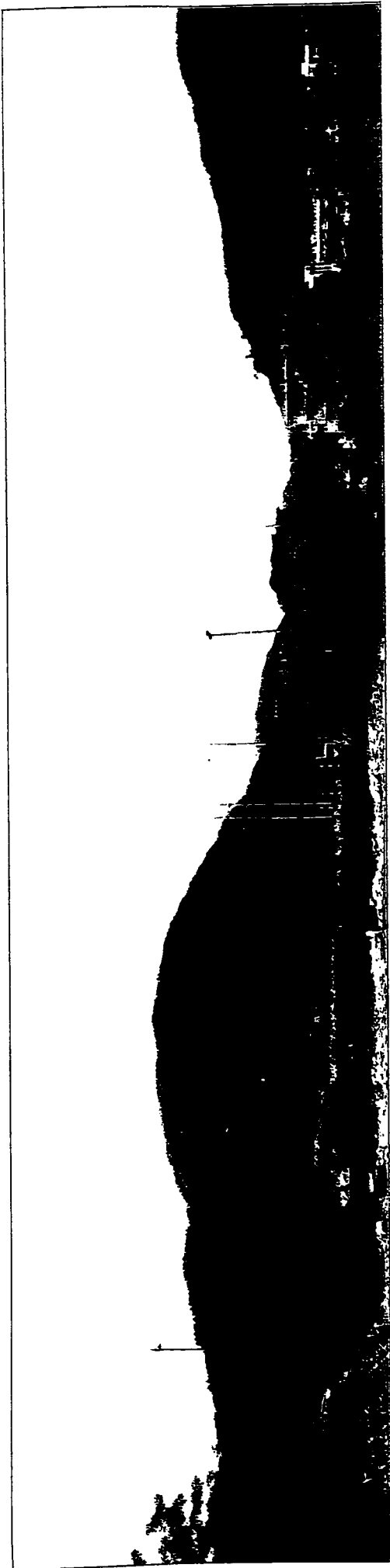


FIGURE 11.51 : PHOTOMONTAGE VISUALISATIONS
FROM TAI LAM CHUNG TSUEN

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design

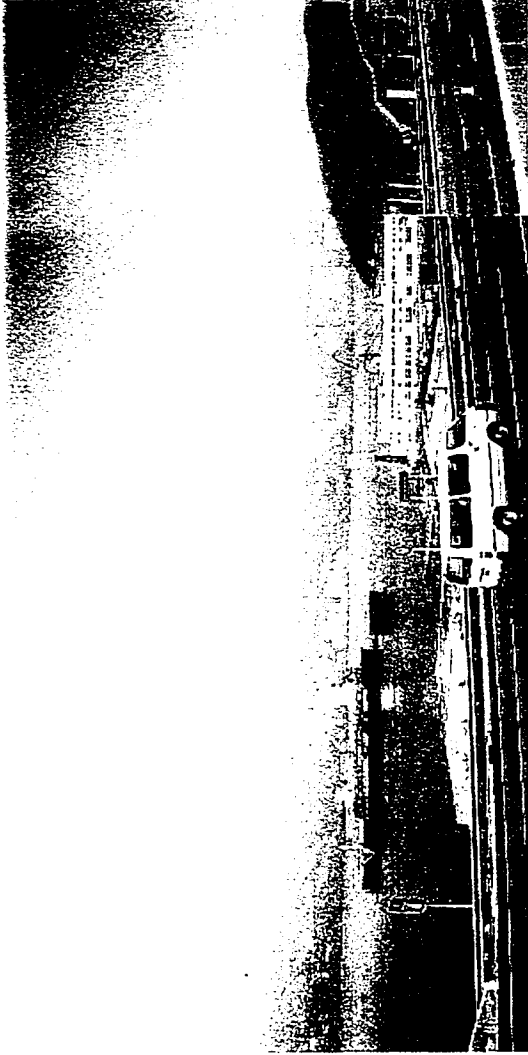
Final EIA Report



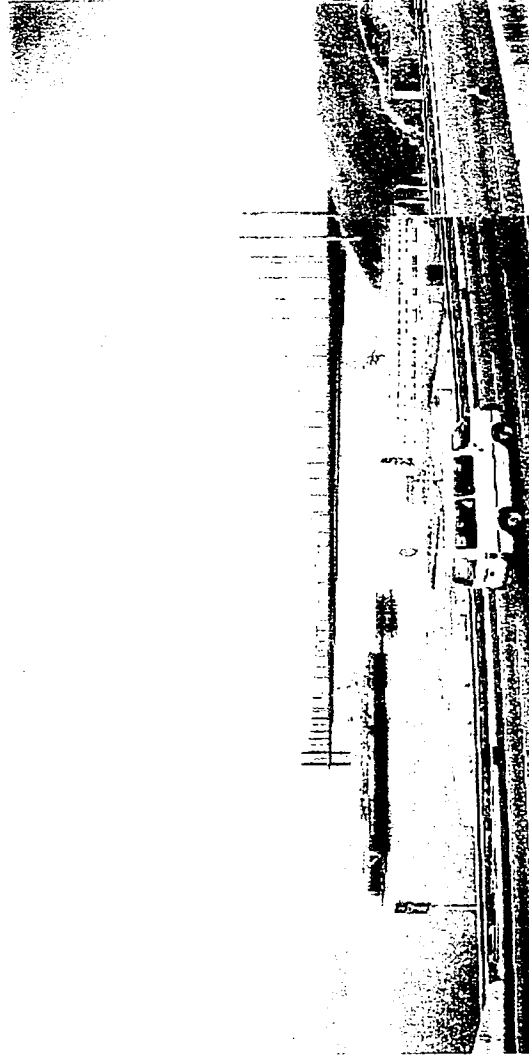
Route 10 - North Lantau to Yuen Long Highway
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FIGURE 52 : PHOTOMONTAGE VISUALISATION
FROM SO KWUN WAT TSUEN

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Before Development



After Development

Figure 11.53: PHOTOMONTAGE VISUALISATION FROM
NORTH LANTAU HIGHWAY LOOKING NORTH



Existing Environment

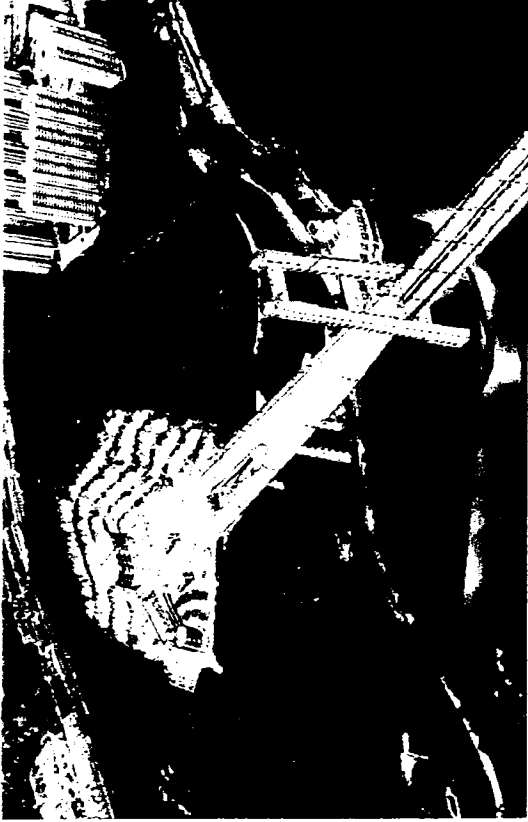


Development on Completion of Works

TCL101A/fig1154

Figure 11.54: PHOTOMONTAGE VISUALISATION LOOKING TOWARDS
NORTHERN LANDFALL AND TUNNEL PORTAL

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Development after Year 1



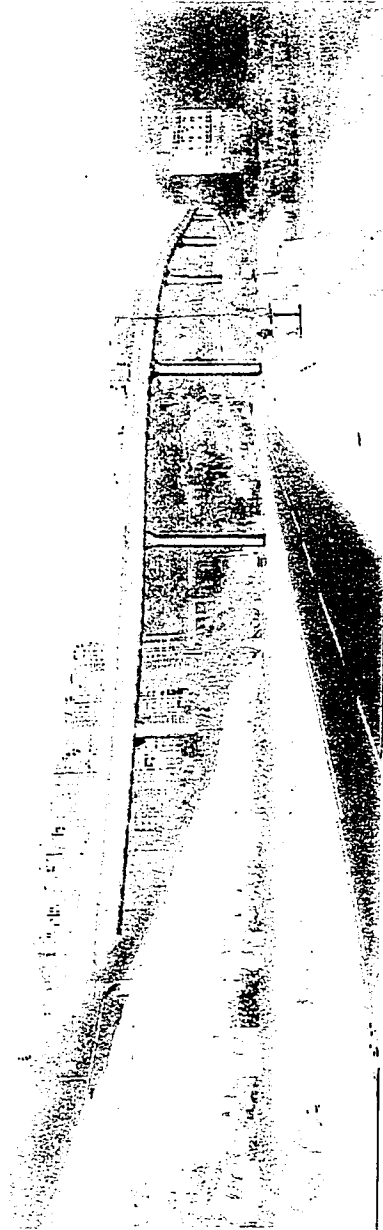
Development after Year 10

TCL101A/fig1155

Figure 11.55: PHOTOMONTAGE VISUALISATION LOOKING TOWARDS
NORTHERN LANDFALL AND TUNNEL PORTAL 2



Before Development

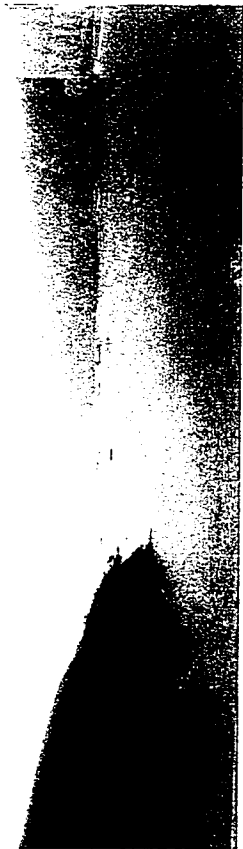


After Development

TCL101A/fig1156

Figure 11.56: PHOTOMONTAGE VISUALISATION FROM
RURAL HOUSES (VSR NO .53) ON TUEN MUN ROAD

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Before Development



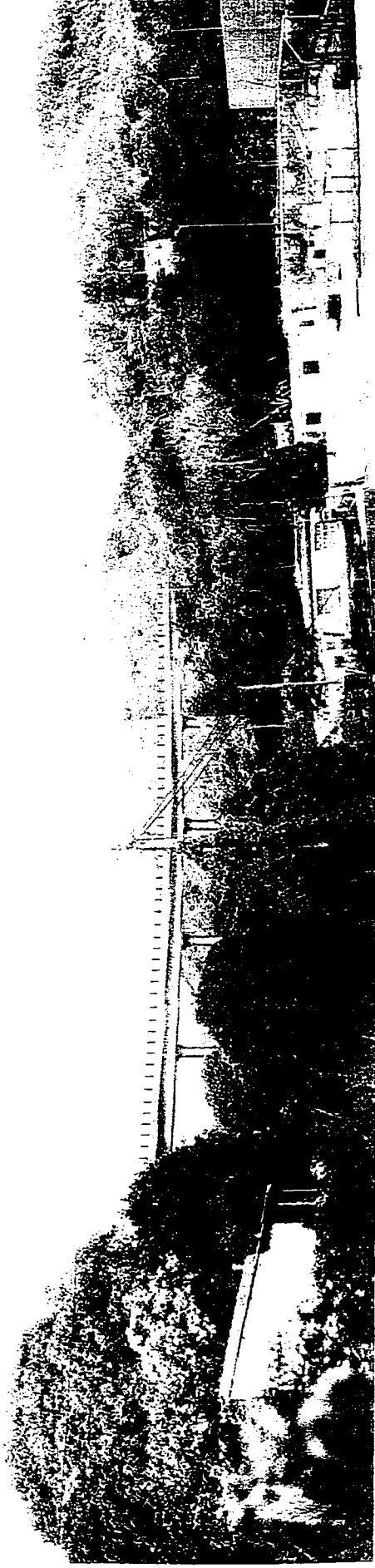
After Development

TCL101A/fig1157

Figure 11.57: PHOTOMONTAGE VISUALISATION FROM LANTAU LINK
ON MA WAN



Existing Environment

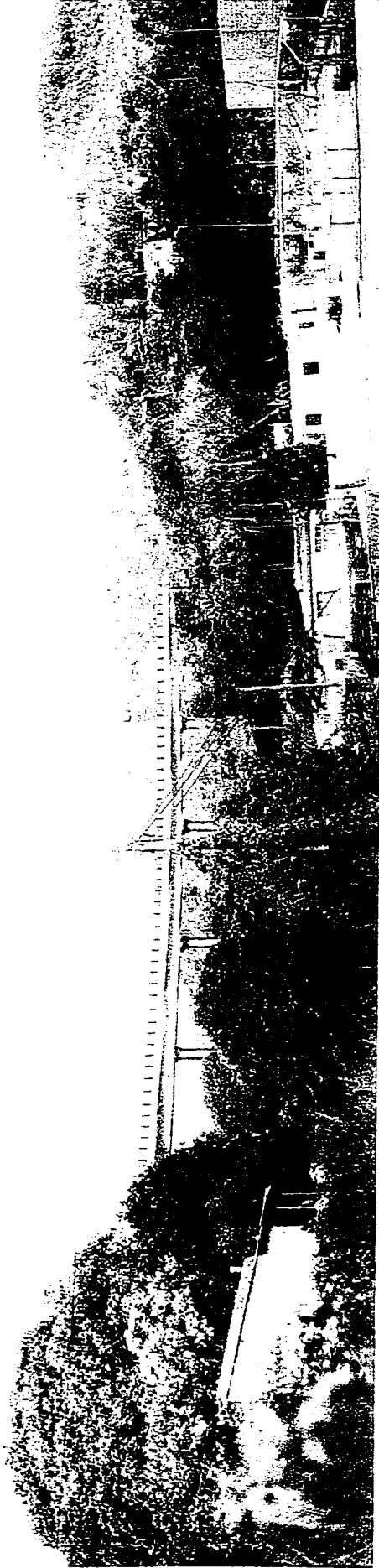


Development on Completion of Works

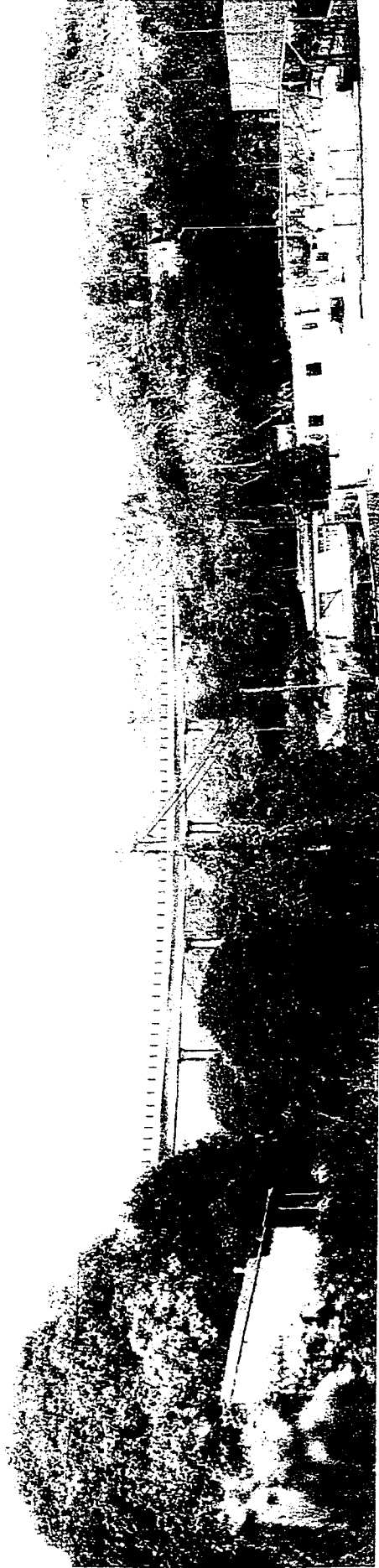
TCL101A/fig1158

Figure 11.58: PHOTOMONTAGE VISUALISATION FROM SIU LAM VALLEY

Route 10 - North Lantau to Yuen Long Highway
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Development after Year 1



Development after Year 10

TCL101A/fig1159

Figure 11.59: PHOTOMONTAGE VISUALISATION FROM SIU LAM VALLEY 2

Route 10 - North Lantau to Yuen Long Highway
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Existing Environment



Development on Completion of Works

TCL101A/1160

Figure 11.60: PHOTOMONTAGE VISUALISATION FROM SIU LAM VALLEY 3

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Development after Year 1

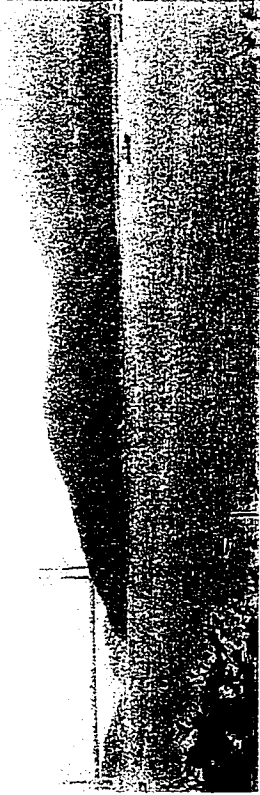


Development after Year 10

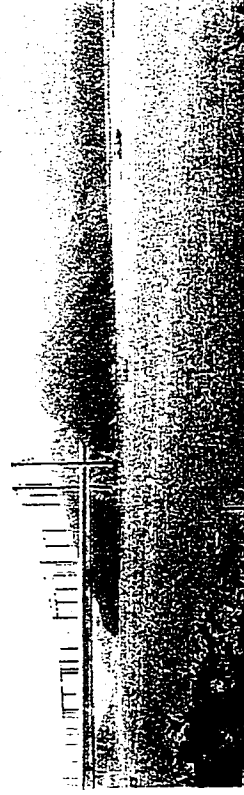
TCL101A/fig1161

Figure 11.61: PHOTOMONTAGE VISUALISATION FROM SIU LAM VALLEY 4

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Before Development

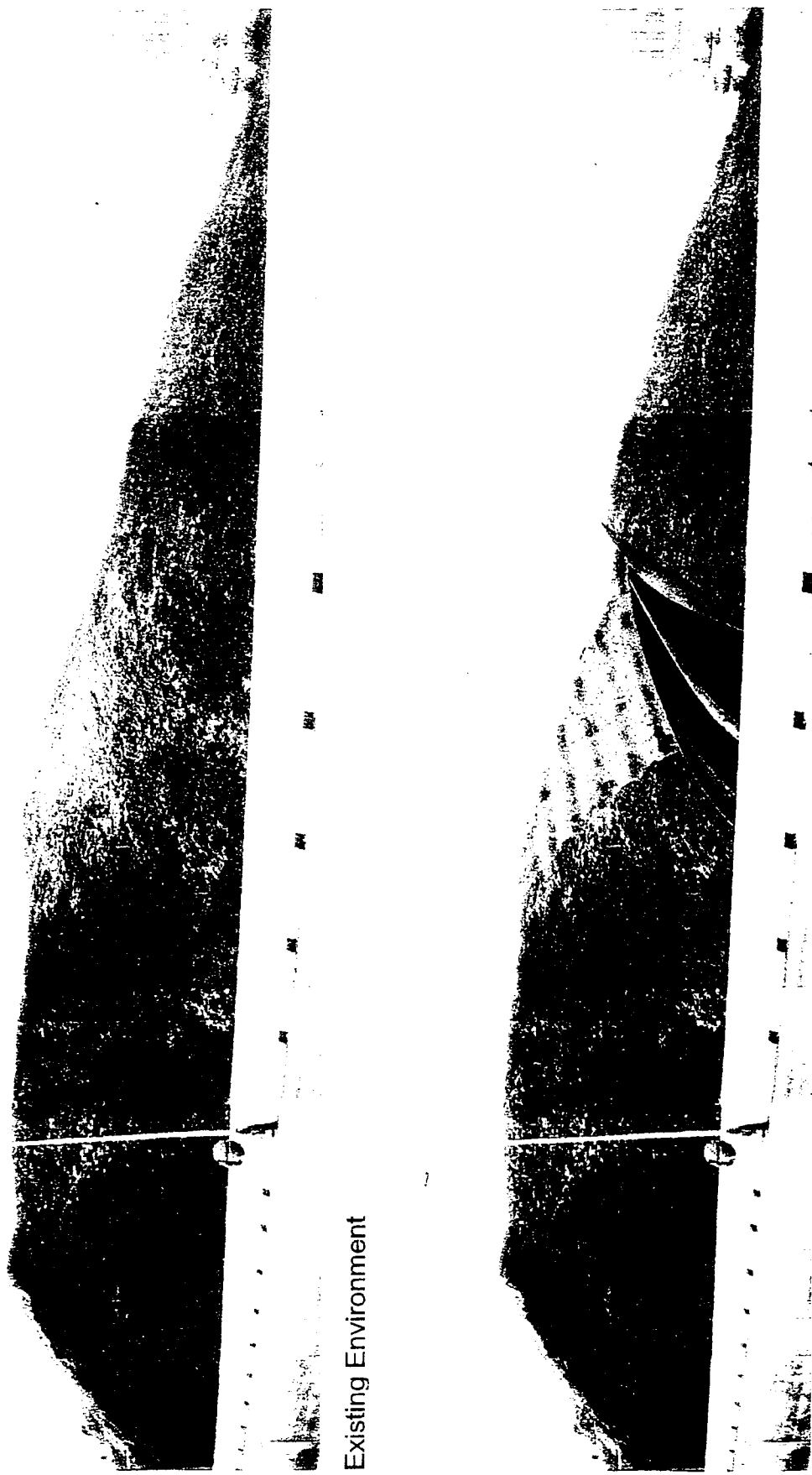


After Development

TCL101A/fig1162

**Figure 11.62: PHOTOMONTAGE VISUALISATION FROM TUEN MUN ROAD
TOWARDS KWAI SHEK HEADLAND**

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



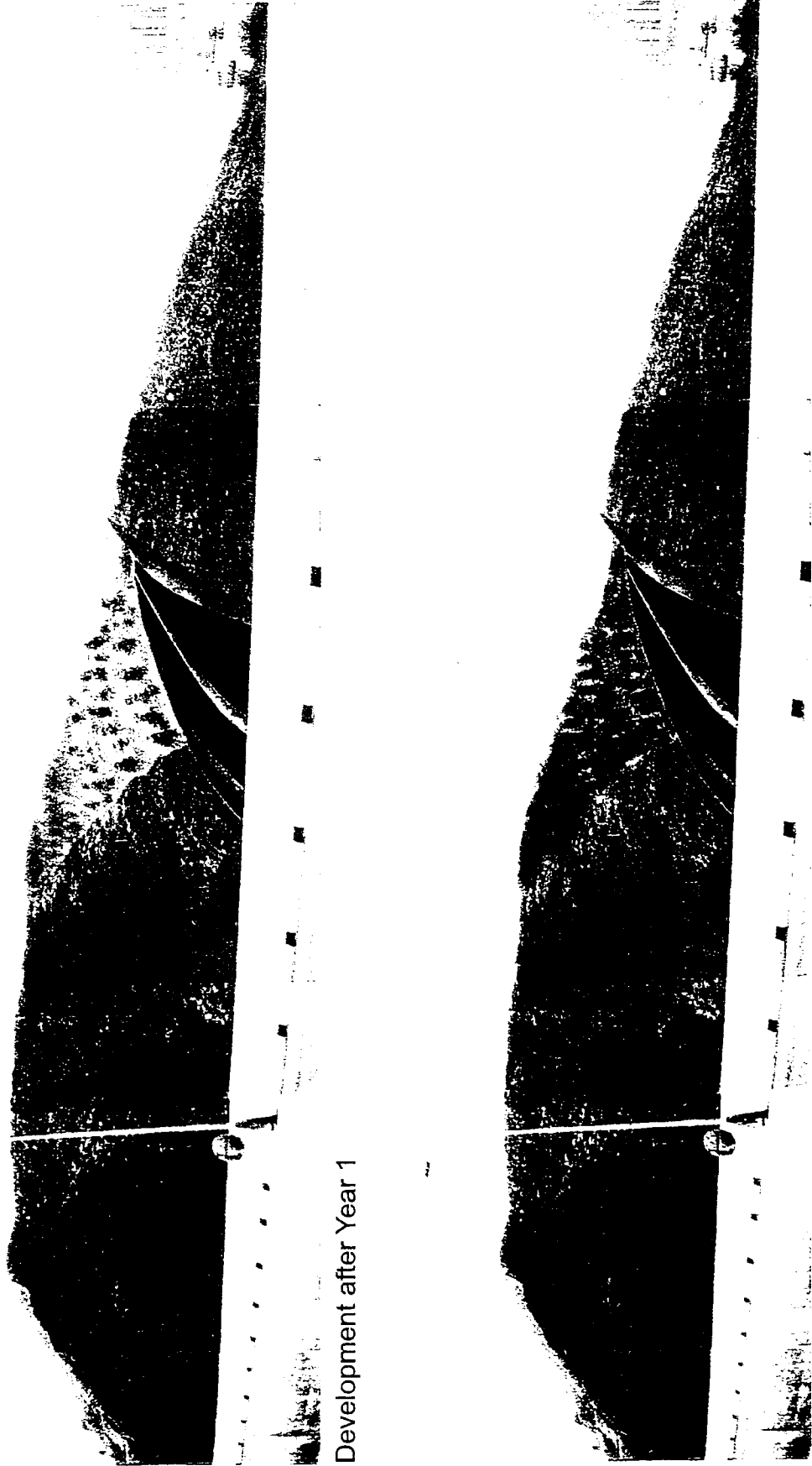
Existing Environment

Development on Completion of Works

TCL101A/1163

Figure 11.63: PHOTOMONTAGE VISUALISATION FROM
NORTH LANTAU HIGHWAY

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Development after Year 1

Development after Year 10

Figure 11.64: PHOTOMONTAGE VISUALISATION FROM
NORTH LANTAU HIGHWAY 2

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design

TCL101A/fig1164

Final EIA Report



Before Development

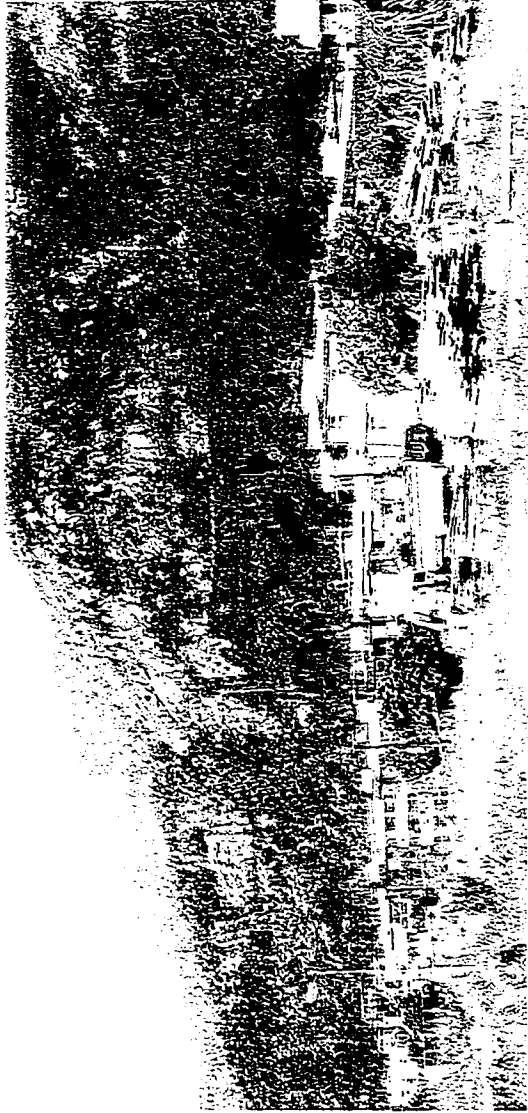


After Development

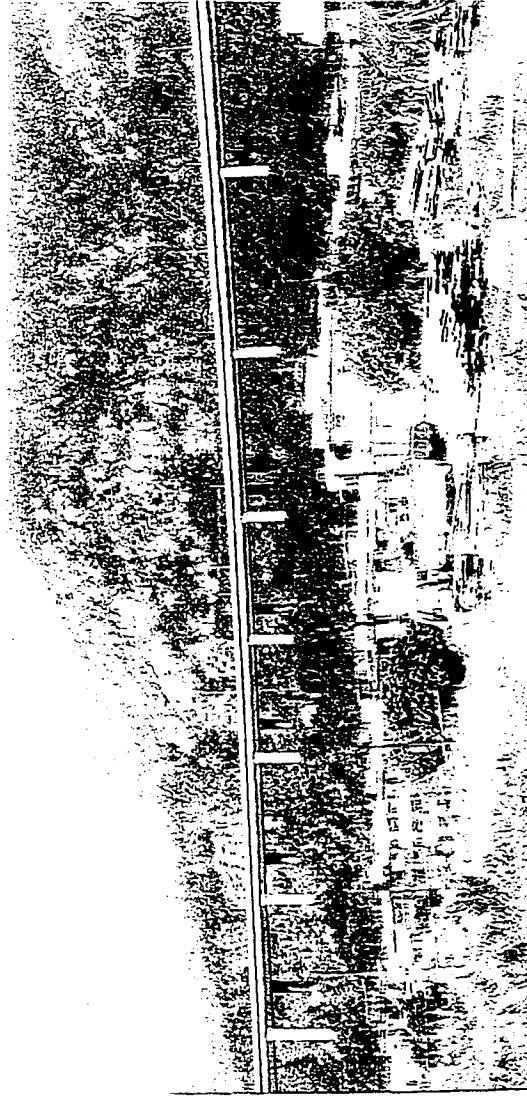
TCL101A/fig1165

**Figure 11.65: PHOTOMONTAGE VISUALISATION FROM SIU LAM LINK ROAD
WITH NOISE BARRIER**

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Before Development



After Development

TCL101A/fig1166

Figure 11.66: PHOTOMONTAGE VISUALISATION FROM SIU LAM LINK ROAD

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design



Existing Environment



Road under separate project

Development on Completion of Works

TCL101A/fig1167

Figure 11.67: PHOTOMONTAGE VISUALISATION TOWARDS FA PENG AND TSO WAN SHOWING THE TOLL PLAZA

Route 10 - North Lantau to Yuen Long Highway Investigation and Preliminary Design



Road under
separate project

Development after Year 1



Road under
separate project

Development after Year 10

TCL101A/fig1168

Figure 11.68: PHOTOMONTAGE VISUALISATION TOWARDS FA PENG AND TSO WAN SHOWING THE TOLL PLAZA 2

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design

Existing
hillside



Tree and shrub planting
on slope to provide
visual buffer



Route 10 Alignment

Existing
slope

Tree and shrub woodland
planting on soft slope
to provide visual buffer



Figure 11.69 TYPICAL SECTION THROUGH NG KWU LENG
(TSING CHAU TSAI) AFTER MITIGATION MEASURES

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section

Final EIA Report

Existing
hillside

Existing
slope

Cut slope

Route 10 Alignment

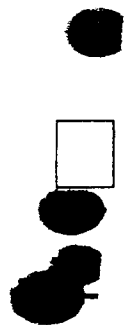


Figure 11.70 TYPICAL SECTION THROUGH NG KWU LENG
(TSING CHAU TSAI) BEFORE MITIGATION MEASURES

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section

Final EIA Report

BEFORE MITIGATION



Existing Tso Wan hillside

Existing bay

Sea wall

Screening by landscape mounding and planting

Administration area and toll plaza

AFTER MITIGATION

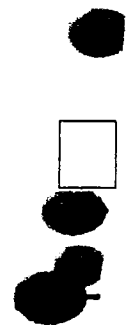


Figure 11.71 TYPICAL SECTION FROM TSO WAN TO TOLL PLAZA AND ADMINISTRATION AREA

BEFORE MITIGATION



Existing Fa Peng hillside

Existing bay

Sea wall

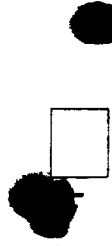
Screening by landscape mounding and planting

Administration area and toll plaza

Administration building



AFTER MITIGATION



Administration building

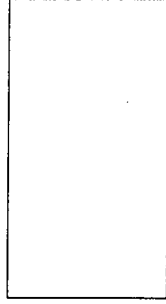


Figure 11.72 TYPICAL SECTION FROM FA PENG TO TOLL PLAZA AND ADMINISTRATION AREA

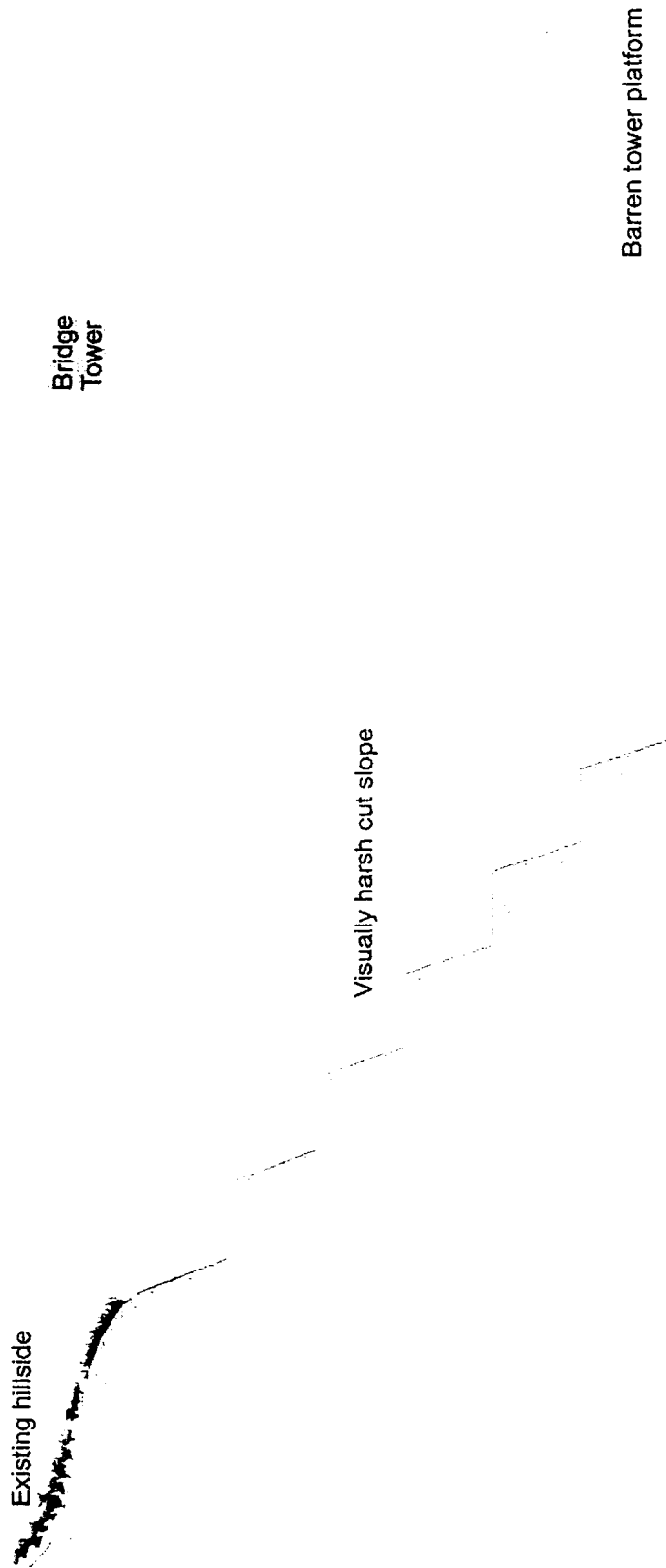


Figure 11.73 TYPICAL SECTION THROUGH KWAI SHEK HEADLAND
SECTION BEFORE MITIGATION MEASURES

Route 10 - North Lantau to Yuen Long Highway
Investigation and Preliminary Design - Southern Section

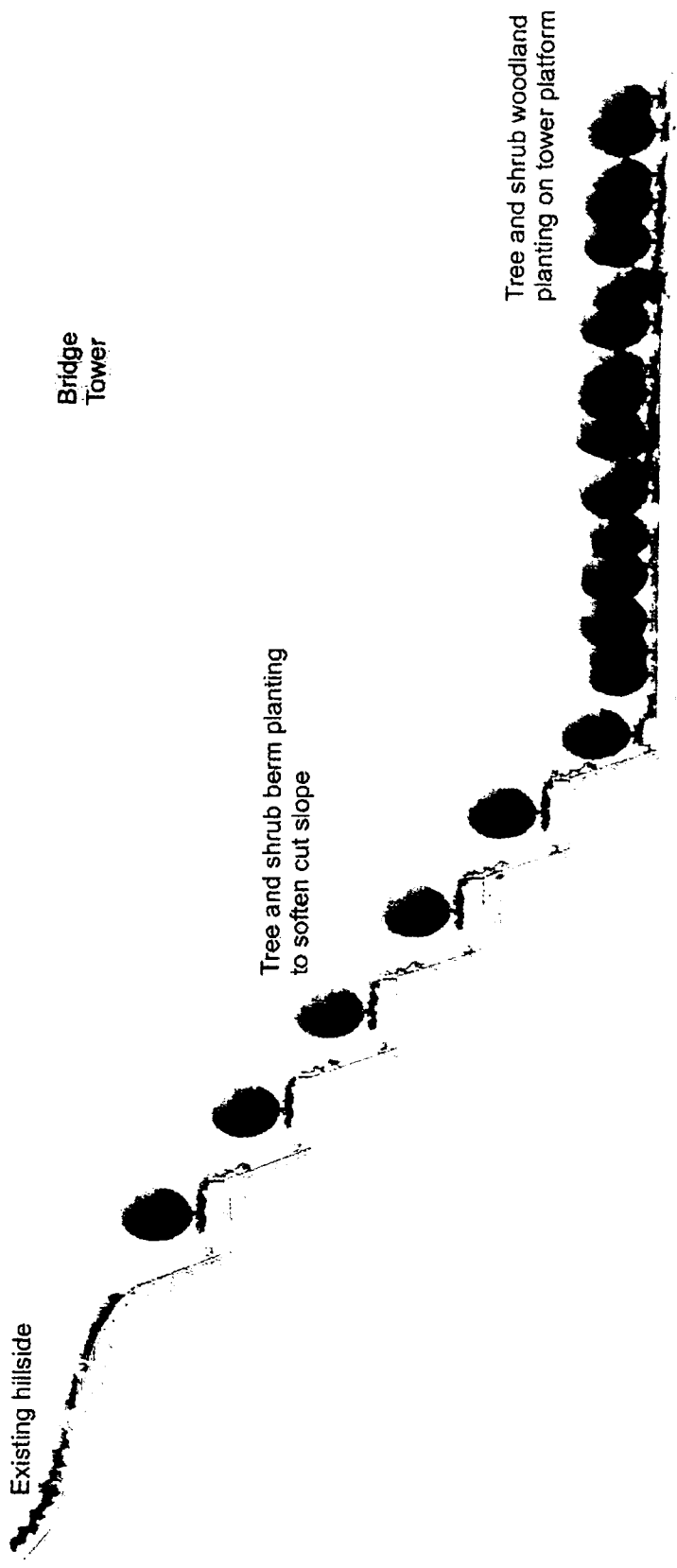
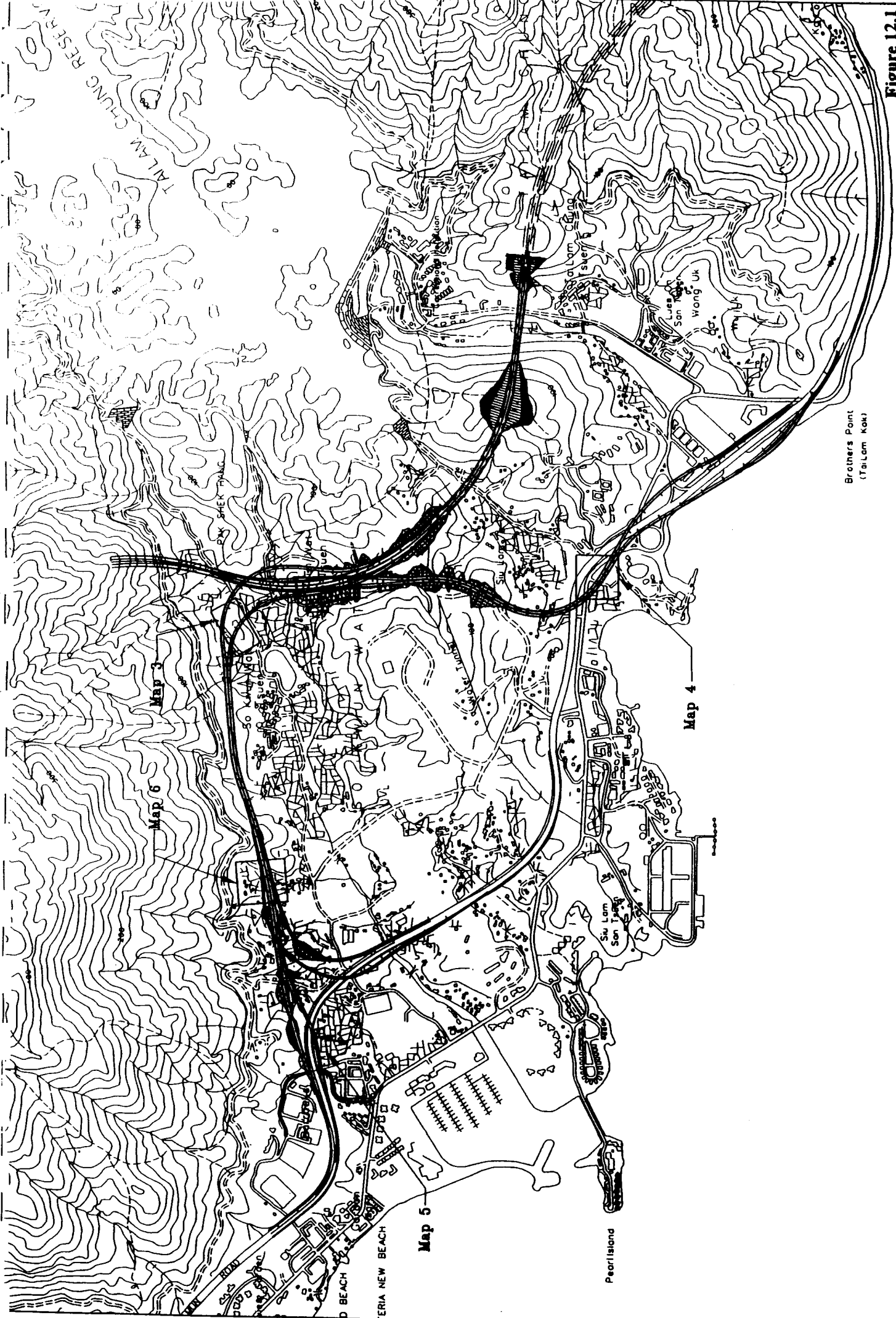


Figure 11.74 TYPICAL SECTION THROUGH KWAI SHEK HEADLAND SECTION AFTER MITIGATION MEASURES



Map 1 - General plan of Route 10, showing areas of detailed maps 3 - 6

Figure 12.1

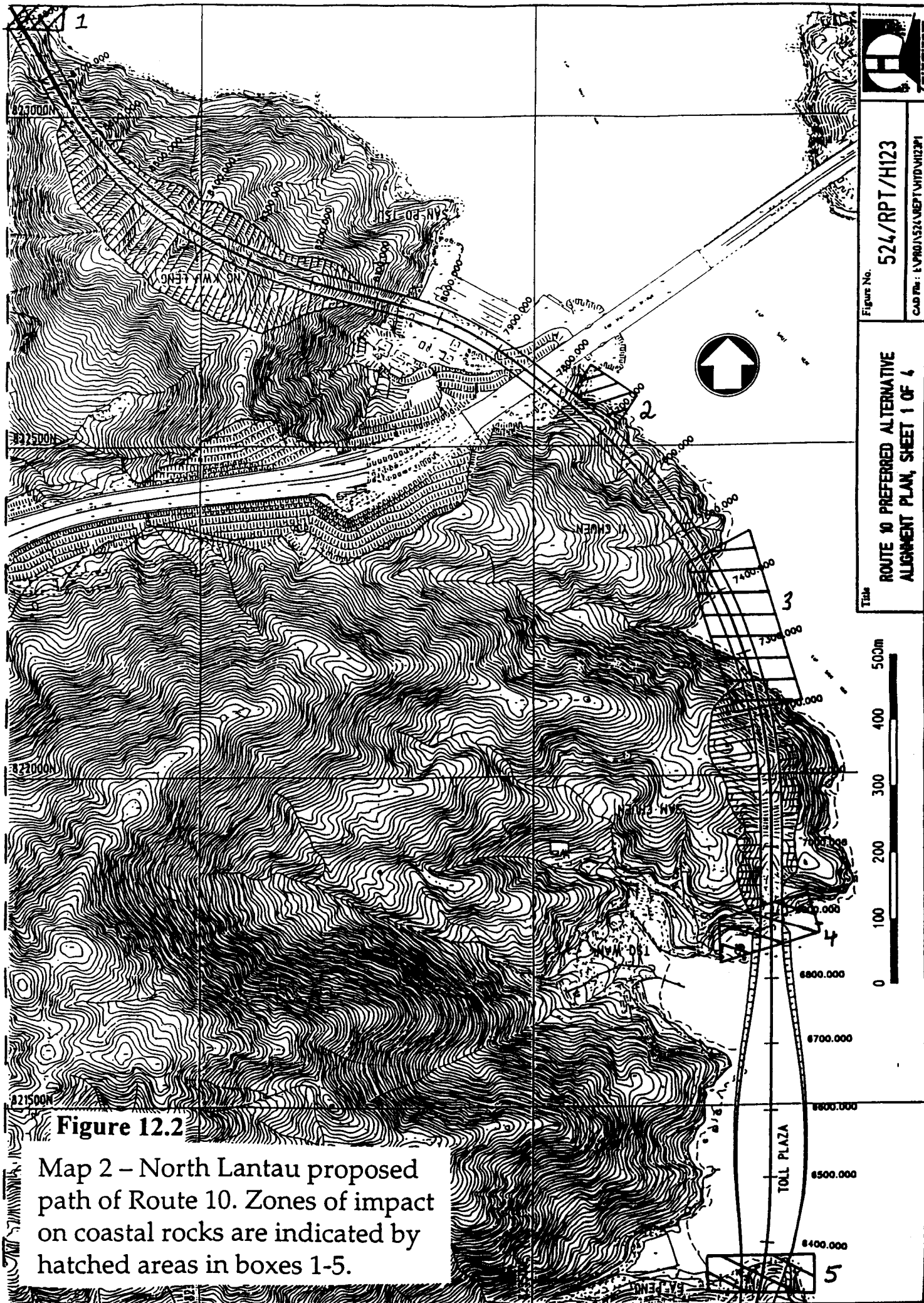


Figure No. 524/RPT/H123
 CAD No.: LVP80/1524/WEPT/H123P1

ROUTE 10 PREFERRED ALTERNATIVE
 ALIGNMENT PLAN, SHEET 1 OF 4

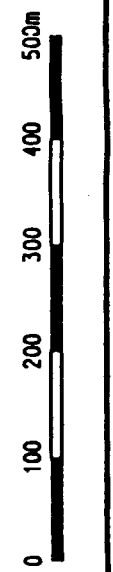


Figure 12.2

Map 2 – North Lantau proposed path of Route 10. Zones of impact on coastal rocks are indicated by hatched areas in boxes 1-5.

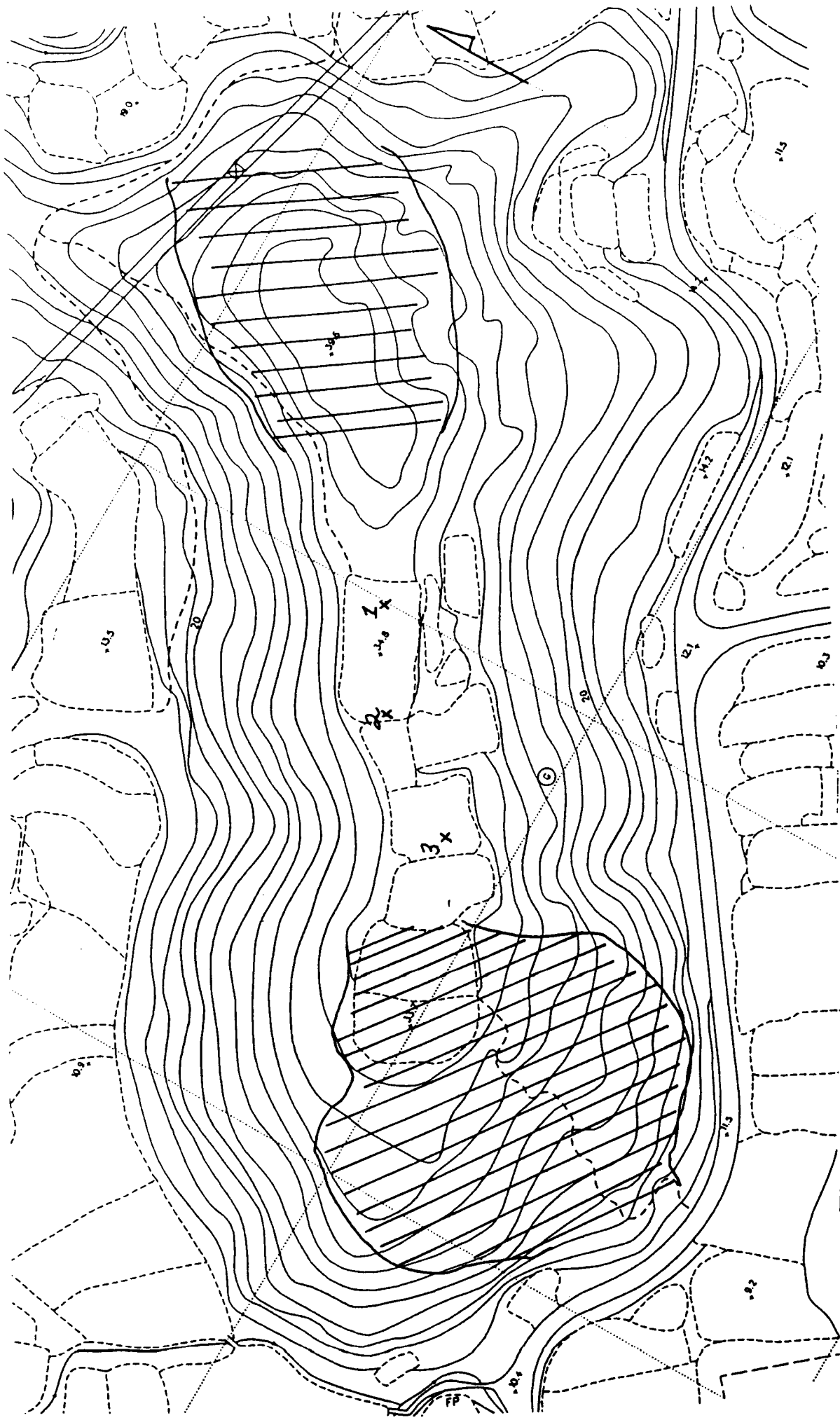


Figure 12.3

Map 3 – Hill used for burial in upper So Kun Wat. Auger locations at 1-3. The hatched areas have recent intensive burials and bone jar storage. (Isolated graves and bone jars are also found outside these areas.)

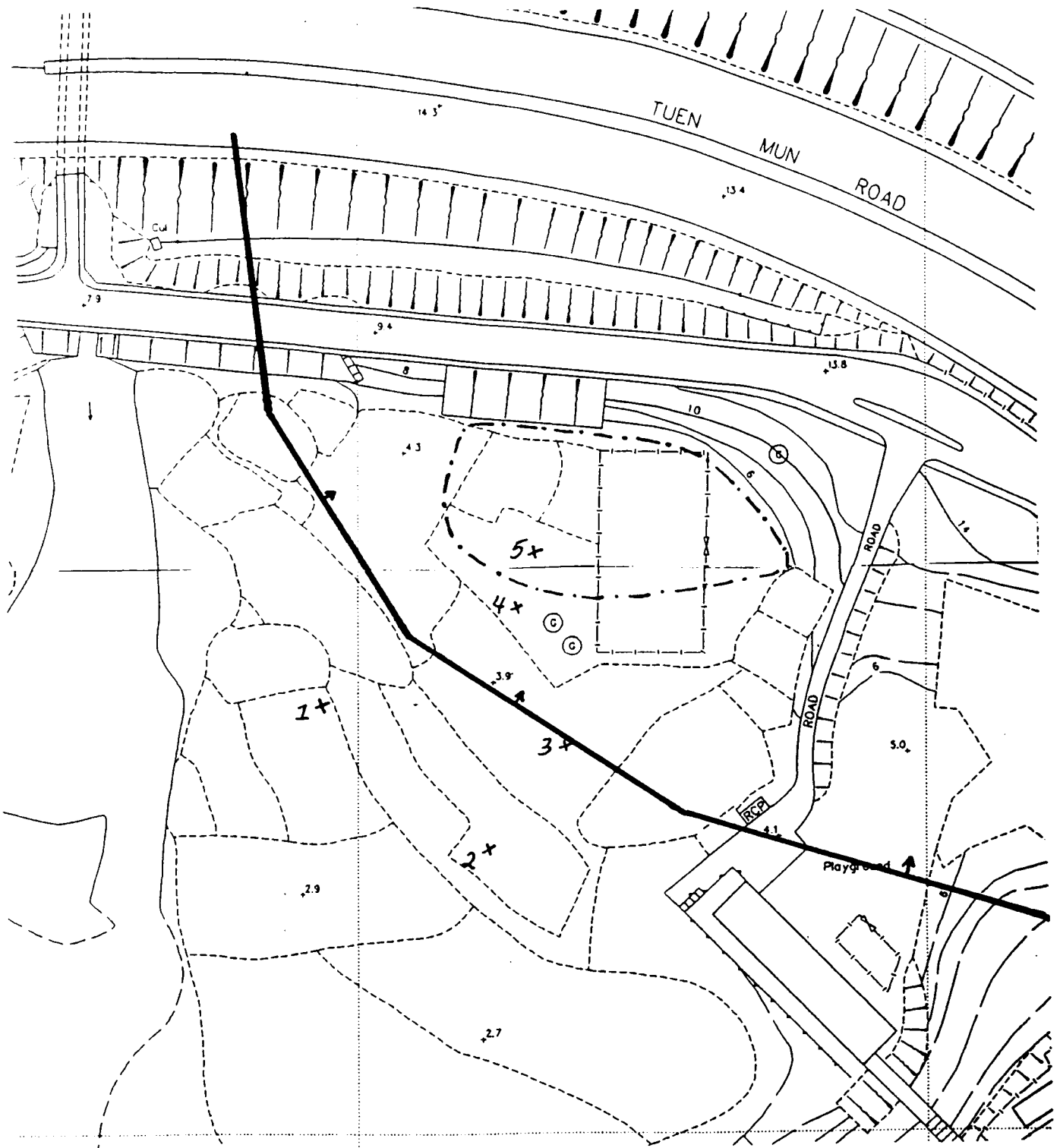


Figure 12.4

Map 4 – Archaeological site (dot and dash line) at Siu Lam as delineated by augering (nos. 1-5 at positions shown) and topographic study. The impact zone for Route 10 is in the area above the heavy line.

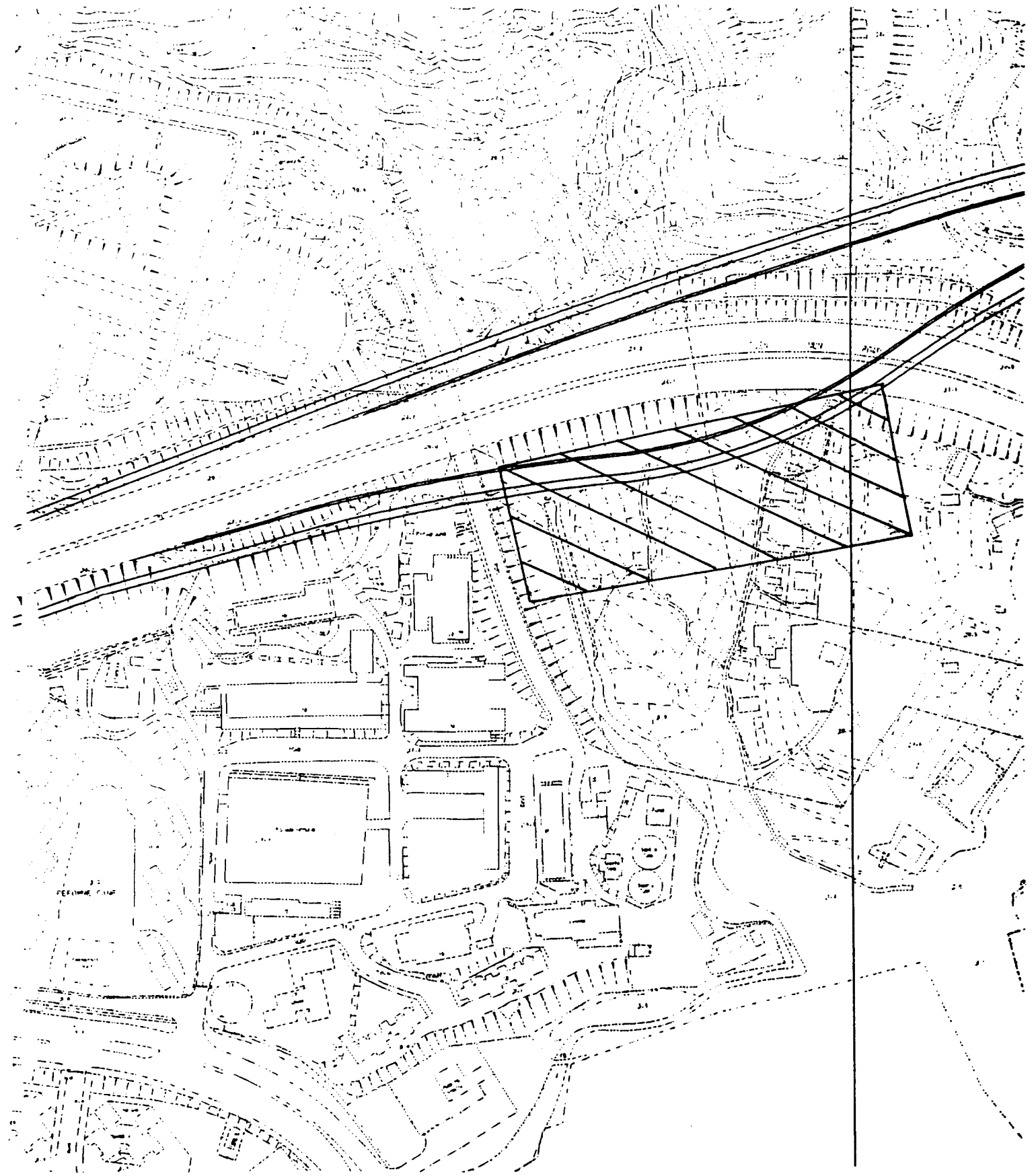


Figure 12.5

Map 5 – Fields at the edge of Perowne Barracks, to be impacted by construction of Route 10.

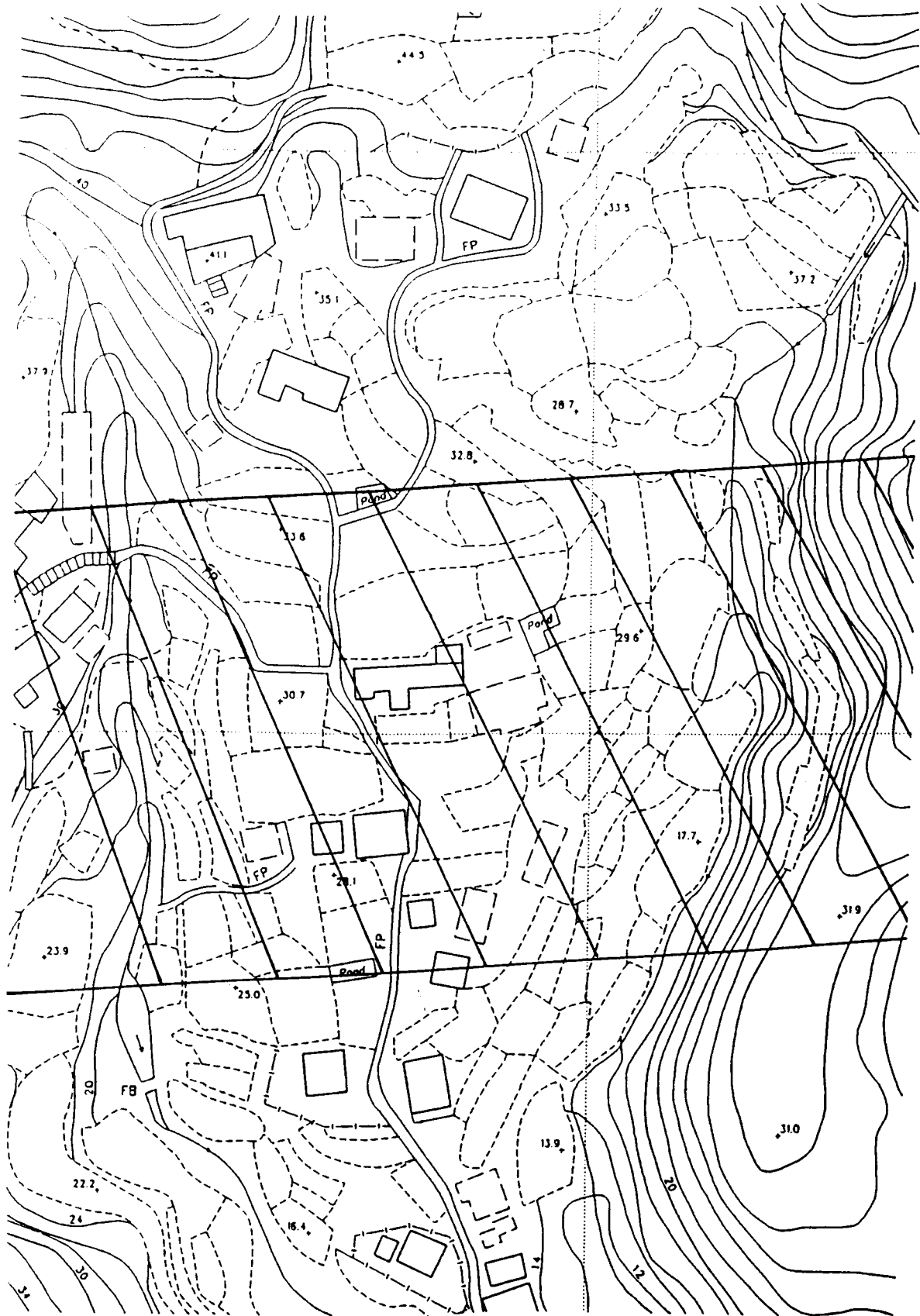


Figure 12.6

Map 6 – Fields near proposed junction of Route 10 with Tuen Mun highway. Impact zone is the hatched area.



Plate 1 (at left) - Augering at location 3 on the burial hill in Upper So Kwun Wat.

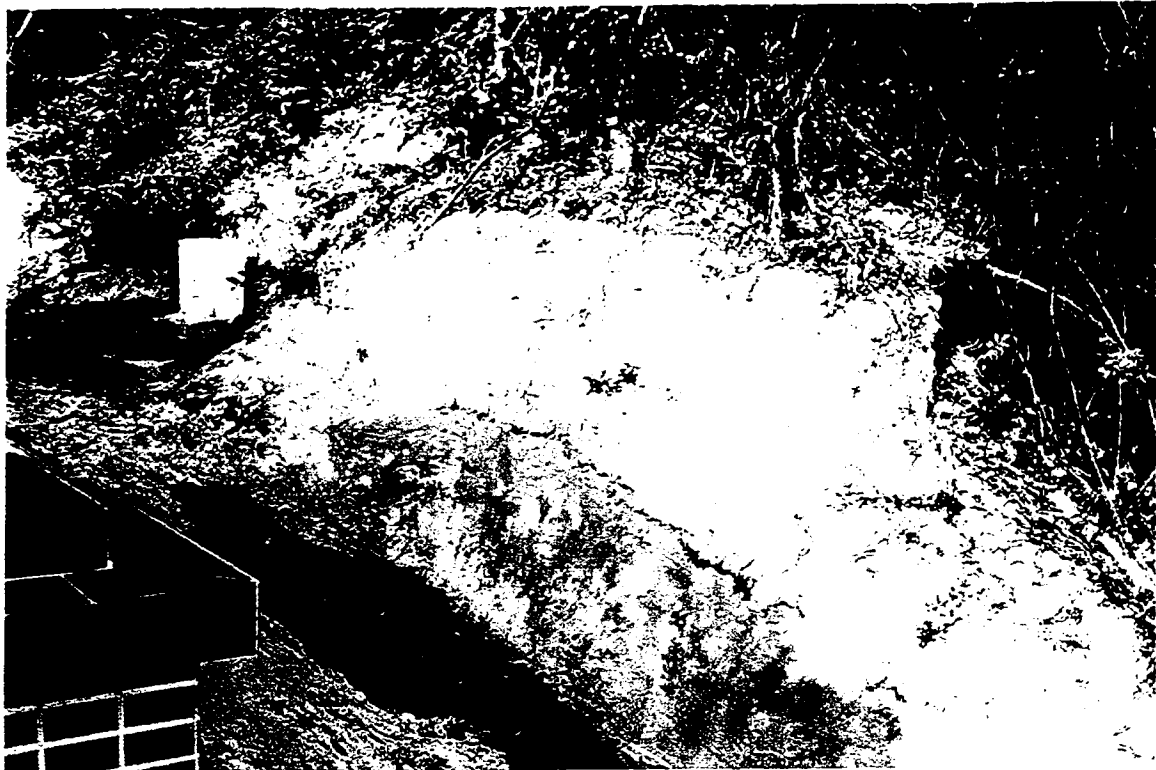


Plate 2 (below) - Cut face on burial hill in Upper So Kwun Wat.



Plate 3 - Terraced fields at Perowne Barracks fringe area.

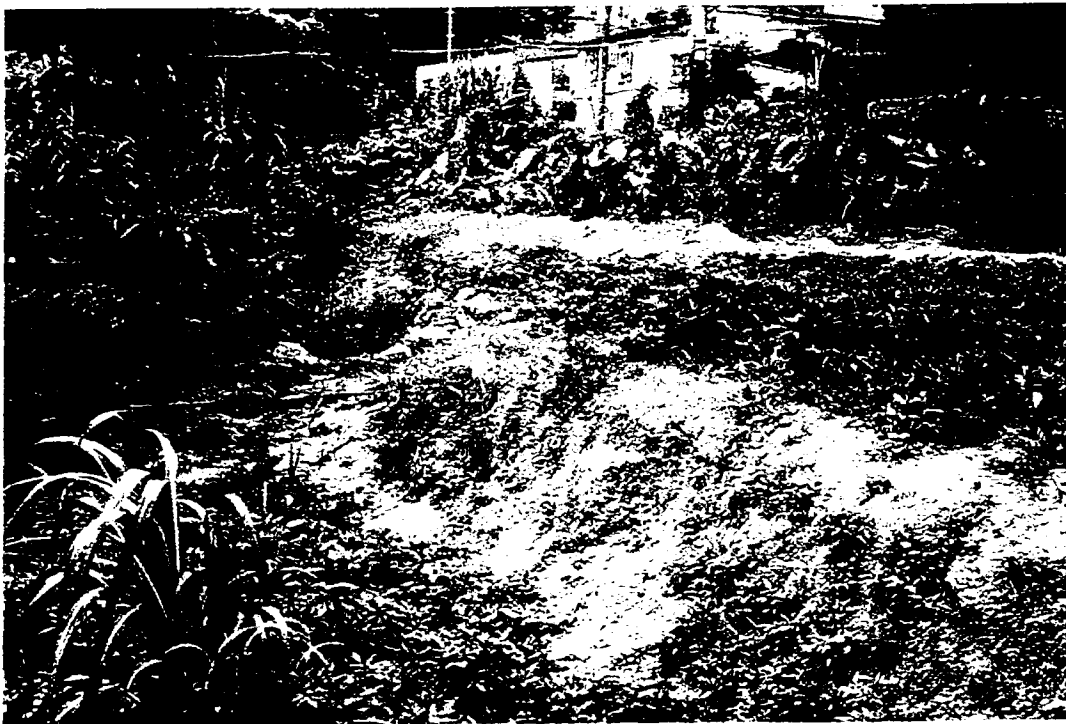


Plate 4 - Detail of terraced fields at Perowne Barracks fringe area showing narrow fields and exposures of 40-60cm height.



Plate 5 - Exposure at Perowne Barracks fringe area of 140 cm height showing stratigraphy from topsoil to residual soil.



Plate 6 - General view of fields at Lo Tsing San.

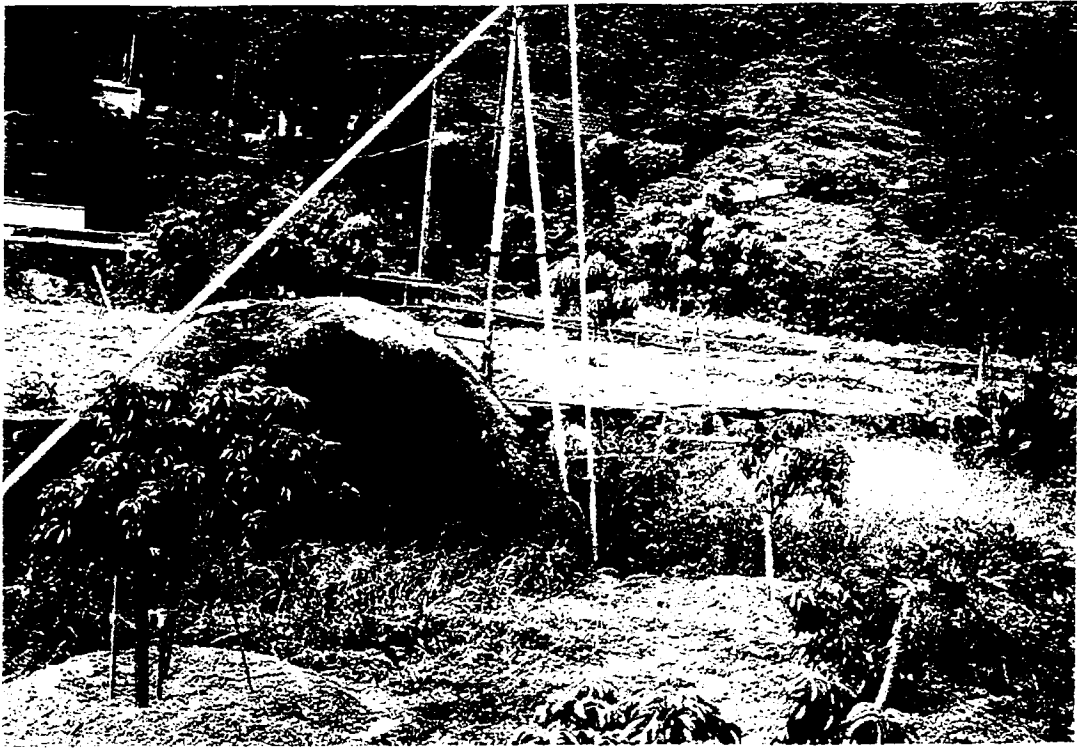


Plate 7 - Detail of terraced fields at Lo Tsing San.



Plate 8 - Highly visible ground surface of fields at Lo Tsing San.



Plate 9 - Fields and shed at Upper So Kun Wat just south of burial hill.



Plate 10 - Freshly plowed fields at Upper So Kwun Wat.



Plate 11 - Pond of 130 depth at Upper So Kwun Wat.



Plate 12 - Panorama of Siu Lam showing locations of auger holes 1-5.

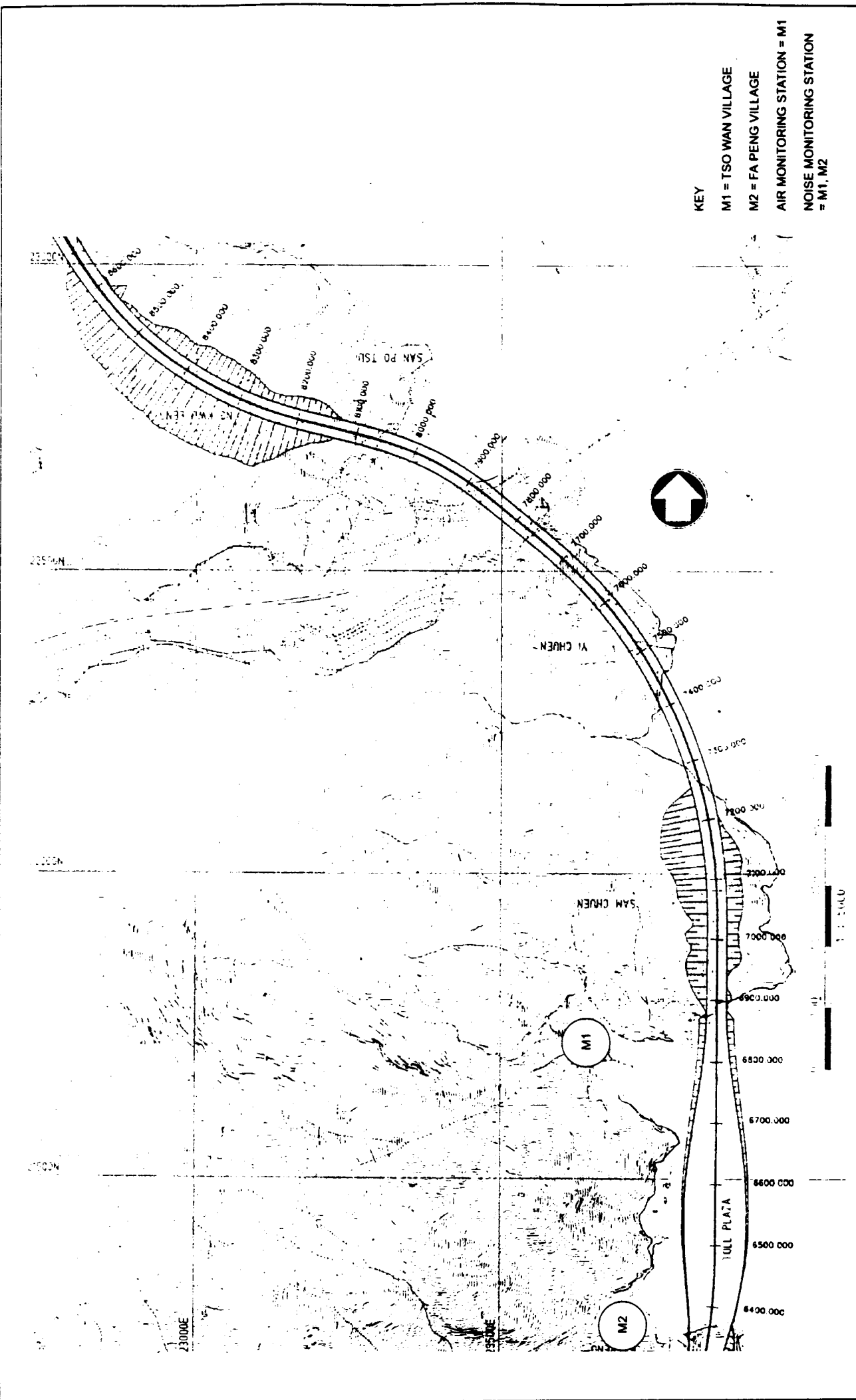


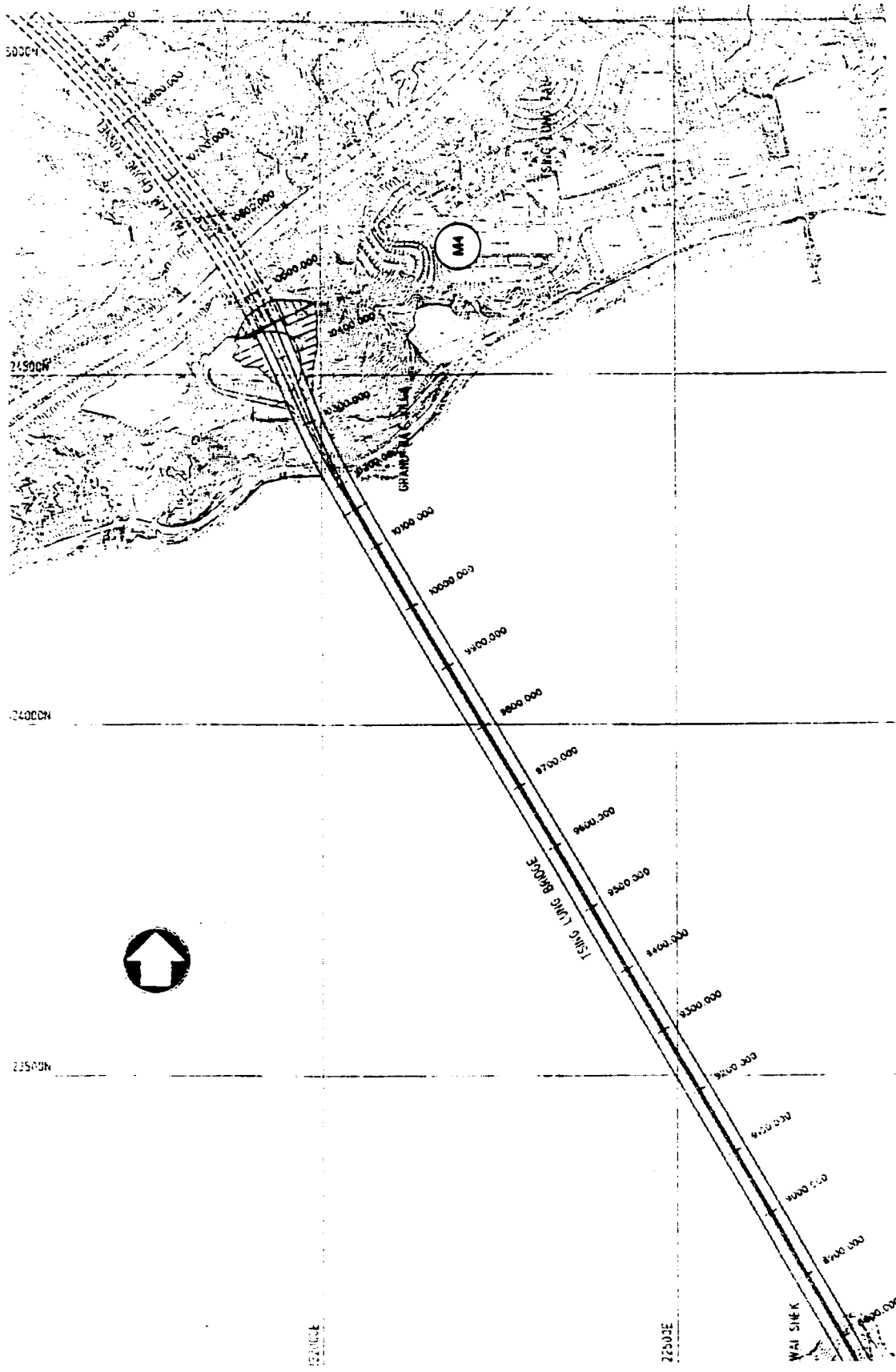
Figure No. 13.1

CAD File: C177X2

NOISE MONITORING LOCATIONS

KEY
M1 = TSO WAN VILLAGE
M2 = FA PENG VILLAGE
AIR MONITORING STATION = M1
= M1, M2





KEY

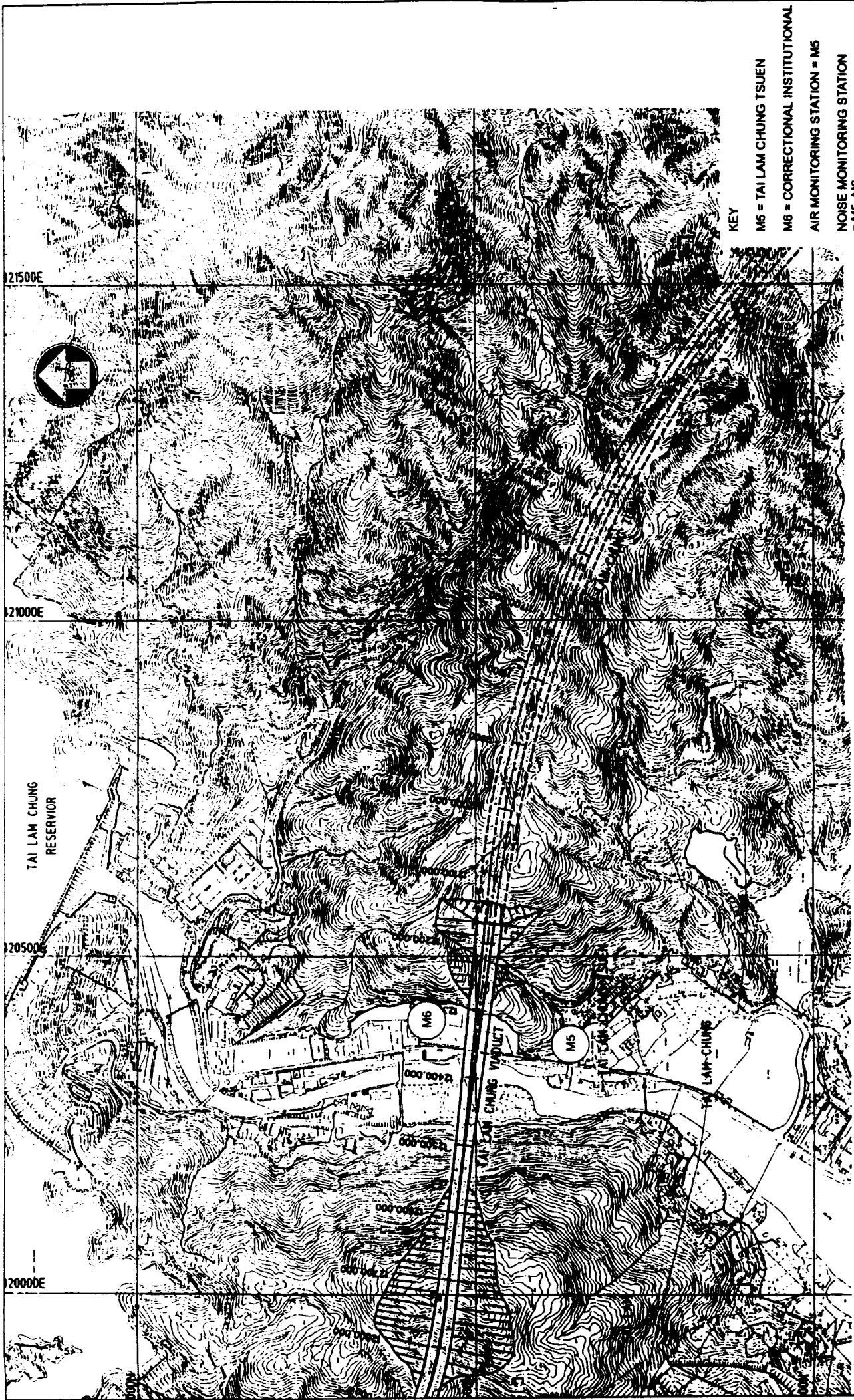
M4 = HONG KONG GARDEN

**NOISE AND AIR MONITORING
LOCATIONS**

Figure No. 13 2

CAD File: C1777X3





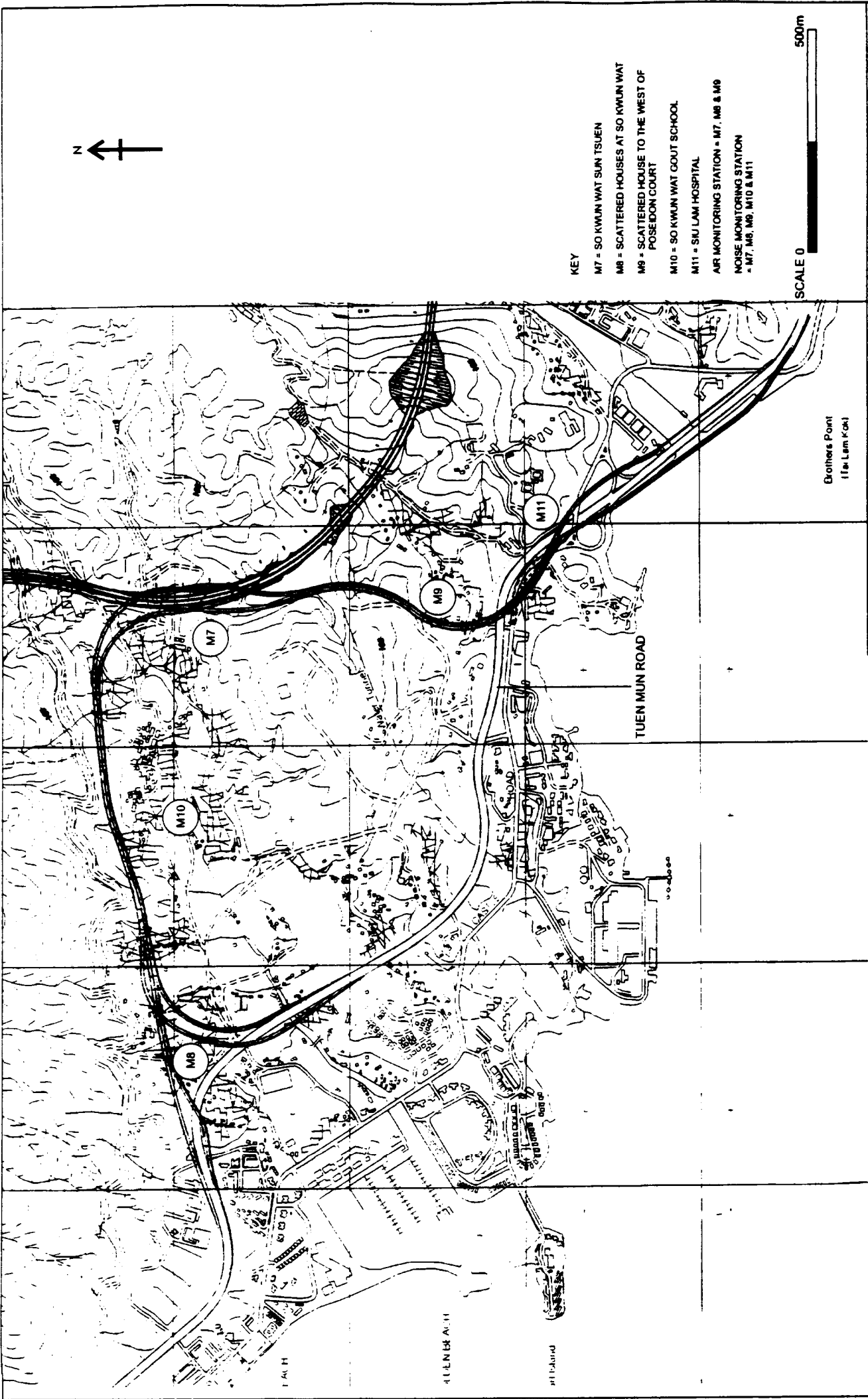
KEY
 M5 = TAI LAM CHUNG TSUEN
 M6 = CORRECTIONAL INSTITUTIONAL
 AIR MONITORING STATION = M5
 NOISE MONITORING STATION
 = M5, M6

Figure No. 13.3

NOISE AND AIR MONITORING LOCATIONS

CAD File : C177744





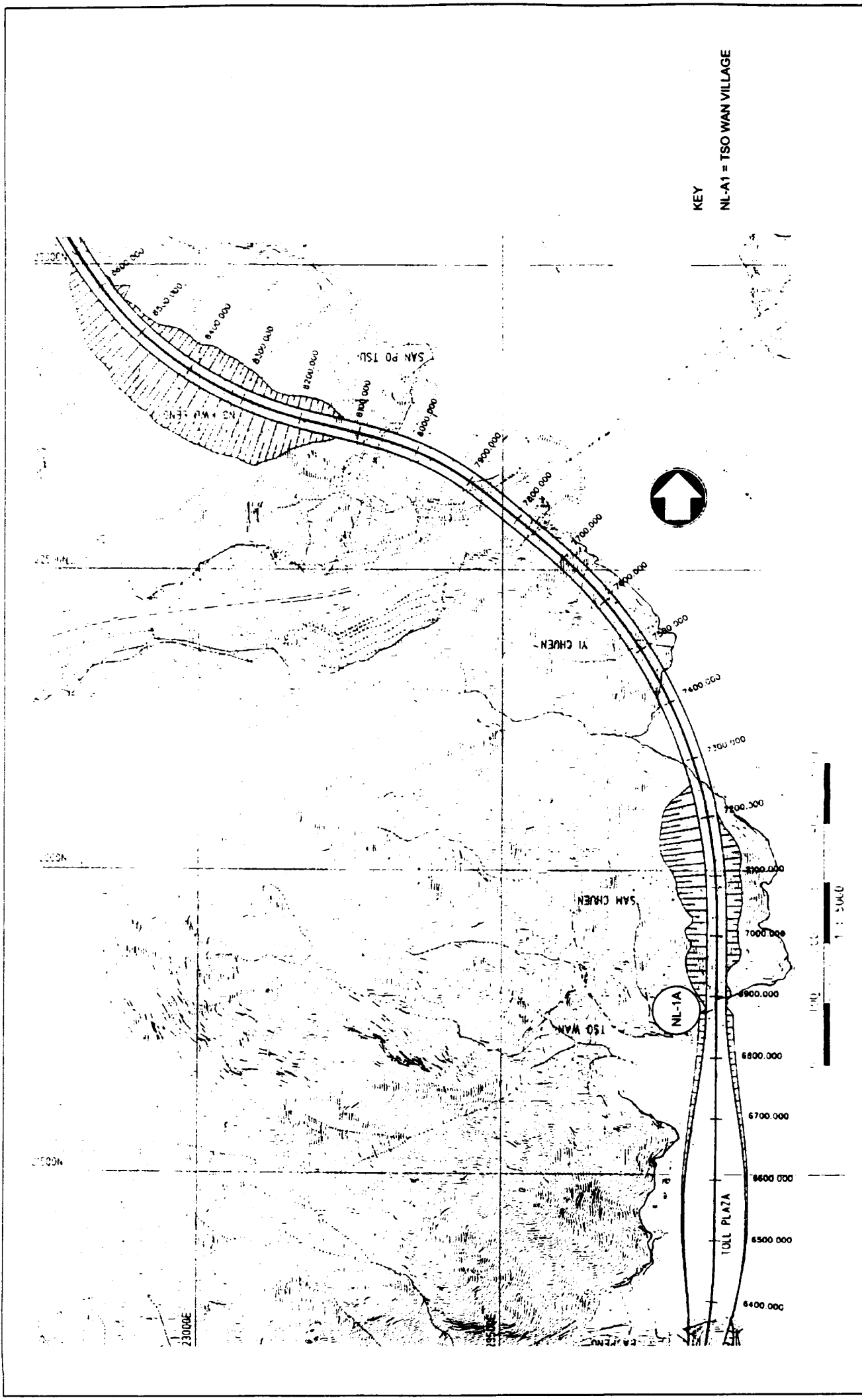
	<p>Figure No. 13.4</p>
<p>NOISE AND AIR MONITORING LOCATIONS</p>	<p>CAD File: C1777A5</p>



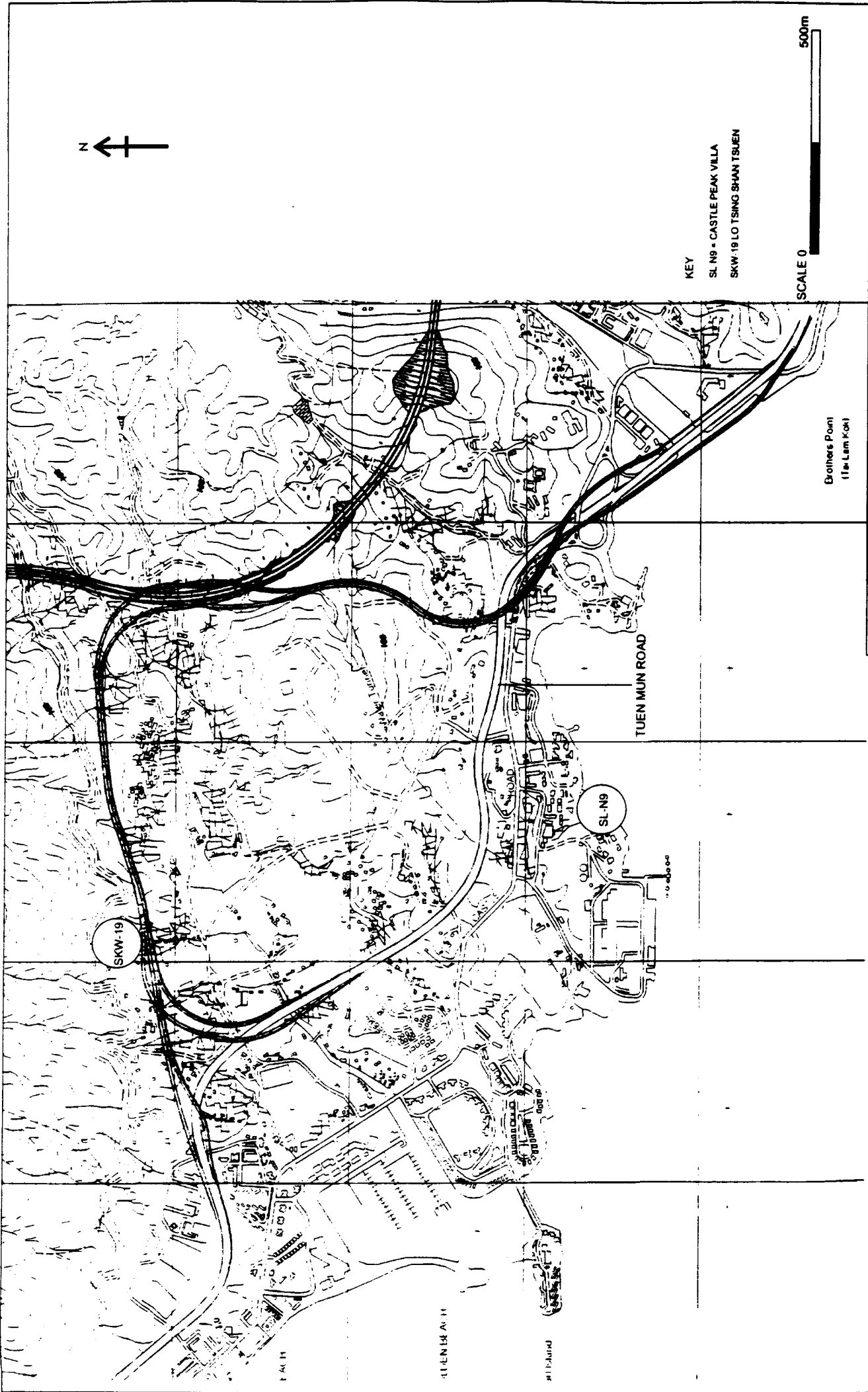
Figure No. 13.5

CAD File: C1777y6

OPERATIONAL NOISE MONITORING LOCATIONS



KEY
NL-A1 = TSO WAN VILLAGE



	<p>Figure No. 13.6</p>
<p>OPERATIONAL NOISE MONITORING LOCATIONS</p>	<p>CAD File: C1777y7</p>

KEY
 SL N9 = CASTLE PEAK VILLA
 SKW-19 LO TSING SHAN TSUEN

SCALE 0 500m



Brothers Point
 (1st Lam Kok)

TUEN MUN ROAD

SKW-19

SL-N9

FAH

LIEN BE AVI

#1 Island