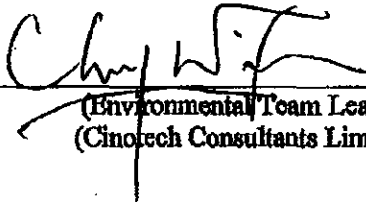



**AGREEMENT No. CE 50/98 (HY)  
DESIGN AND CONSTRUCTION ASSIGNMENT  
FOR ROUTE 8 BETWEEN CHEUNG SHA WAN AND SHA TIN  
ENVIRONMENTAL PERMIT (EP-103/2001/D)-LANDSCAPE AUDIT REPORT**

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Report Certified By  10/2/08  
(Environmental Team Leader)  
(Cinotech Consultants Limited)

Report Verified By  10 March 2009  
(Independent Environmental Checker)  
(CH2M HILL Hong Kong Limited)

## 1. INTRODUCTION

- The Highways Department has completed Contract HY/2003/01 – Lai Chi Kok Viaduct and Contract HY/2003/02 – Eagle's Nest Tunnel and Associated Works for Route 8 between Cheung Sha Wan and Sha Tin. The Works executed included construction of the Lai Chi Kok Viaduct and its associated slip roads, earthworks for an at grade tunnel approach road, the ENT tunnel, ventilation adit, toll plaza, buildings, E&M systems, roadworks, drainage, sewage, waterworks installations together with extensive landscape works to mitigate the environmental impact arising from the project.
- The Director of Environmental Protection (the Director) granted the Environmental Permit to Highway Department Major Works Project Management Office (the Permit Holder) for the construction and operation of Route 8 (formerly Route 9) between Cheung Sha Wan and Sha Tin – Main Portion. A copy of the Environmental Permit No. EP-103/2001/D is enclosed in Appendix A.
- According to Condition 2.4 of the Environmental Permit, the Permit Holder shall prior to commencement, deposit with the Director 3 copies of the landscape proposals certified by the ET Leader and verified by the IEC, to show the compensatory replanting areas for permanent woodland loss and reinstated areas for temporary woodland loss, as well as the recreated stream.
- According to Condition 5.2 of the Environmental Permit, the Permit Holder shall deposit with the Director 3 copies of an audit report, certified by the ET Leader and verified by the IEC, demonstrating the satisfactory completion of the measures recommended in the approved Landscape Proposal under Condition 2.4 of the Environmental Permit.
- This Audit Report serves to demonstrate the satisfactory completion of the soft landscape works and recreated stream and gives confirmation of the numbers of woodland trees planted and retained within the construction areas.
- The as built Soft Landscape Drawings of Route 8 between Cheung Sha Wan and Sha Tin are included in Appendix B.
- The as built Drawings of the recreated stream are included in Appendix C.

## 2. Compensatory Tree Planting

- As stated in the Landscape Proposals as required under Clause 2.4 of the permit conditions cited within the Environmental Permit, Compensation Tree Planting consisting of 141,600 nos of woodland trees were to be provided within the available areas.
- All the formed slopes and recreated stream's side planting areas have been planted with seedling mix at 1000mm c/c on a triangle grid.

- The various types of plant species used are indicated in the planting schedule included in Appendix B.
- An extensive 2.3 ha of existing woodland areas behind CCR-S1 & S3 under LCKV Contract which as part of the original design were to be disturbed and replanted, were able to be maintained.

### 3. Ecological Mitigation – Recreated Stream

- The requirement for a Recreated Stream is stated under Section 7.7.2 of the 2000 EIA Review Report. A new stream has been re-created to compensate for the loss of the permanent stream and mimic natural stream habitats.

### 4. FINDINGS

- 4.1 As per the as built soft landscape drawings a total number of 63,083 trees in various sizes had been planted under the LCKV and ENT Contract.
- 4.2 The number of trees planted under the LCKV Contract is 16,617.
- 4.3 The number of trees planted under the ENT Contract is 46,466.
- 4.4 A vegetation quantified survey had been conducted on the 2.3 ha of existing woodland behind slope CCR-S1 and CCR-S3.
- Five quadrates, size around 100 sq. m each, had been picked at random within the 2.3 ha of existing woodland.
  - The boundary of each survey quadrat had been marked by warning tape.
  - Each woody tree's species of all sizes had been carefully tagged and counted within each quadrat.
  - It was found that the vegetation regeneration potential of the preserved woodland is very high with an average density of trees at 3.87 no per sq. m.
  - The details of the findings from the vegetation quantified survey are shown in Appendix D.
- 4.5 The total numbers of estimated tree quantity which had been retained within the preserved woodland is estimated to be 89,629.
- 4.6 A total length of just over 454 m of recreated stream has been constructed, which is longer than the 450 m stated in Section 7.7.2 of the 2000 EIA Review Report.

## 5. CONCLUSION

- Further to the Landscape Proposal on Ecological Mitigation – Woodland Planting, the permit holder was required to plant and maintain no less than 141,600 numbers of woodland trees.
- The total numbers of woodland trees within this section of the Route 8 contract boundary between Cheung Sha Wan and Sha Tin is as shown below

The total numbers of tree within the contract boundary of LCKV and ENT are as follow:

Contract	Number of planted trees	Existing preserved trees within the contract boundary	Total number of trees
LCKV (HY/2003/01)	16,617 nos	89,629 nos	106,246 nos
ENT (HY/2003/02)	46,466 nos		46,466 nos
Total numbers of trees within Route 8 between Cheung Sha Wan and Sha Tin			152,712 nos

- The total quantity of preserved and planted woodland trees within the available area is 152,712 which is larger than the 141,600 stated in the Landscape Proposal.
- A set of photos demonstrating the satisfactory completion of the soft landscape works is included in Appendix E.
- A set of photos demonstrating the satisfactory completion of the Recreated Stream is included in Appendix F

## 6. APPENDICES

Appendix A	Environmental Permit No. EP-103/2001/D
Appendix B	As-Built Drawings of Soft Landscape Works
Appendix C	As-Built Drawings of Recreated Stream
Appendix D	Forestry Management Findings
Appendix E	Photos of Soft Landscape Works.
Appendix F	Photos of Recreated Stream.

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Appendix A  
Environmental Permit No. EP-103/2001/D

**ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE  
(CHAPTER 499)  
Section 10&13**

**環境影響評估條例  
(第499章)  
第10條及13條**

**ENVIRONMENTAL PERMIT TO CONSTRUCT AND OPERATE A DESIGNATED PROJECT**

**建造及營辦指定工程項目的環境許可證**

**PART A (MAIN PERMIT)**

**A部 (許可證主要部分)**

Pursuant to Section 10 of the Environmental Impact Assessment Ordinance (the Ordinance), the Director of Environmental Protection (the Director) granted the Environmental Permit to MAJOR WORKS PROJECT MANAGEMENT OFFICE, HIGHWAYS DEPARTMENT (hereinafter referred to as the "Permit Holder") on 17 September 2001. Pursuant to Section 13 of the Ordinance, the Director amends the Environmental Permit (EP-103/2001/C) based on the Application No. VEP-256/2008. The amendments, described below, are incorporated into this Environmental Permit (EP-103/2001/D). This Environmental Permit as amended is for the construction and operation of the designated project(s) described in Part B of this Permit subject to the conditions described in or attached to Part C of this Permit.

根據環境影響評估(條例)第10條的規定,環境保護署署長(署長)於2001年9月17日將環境許可證(EP-103/2001)批予路政署主要工程管理處(下稱"許可證持有人")。根據條例第13條的規定,署長因應更改環境許可證的申請編號VEP-256/2008修訂環境許可證編號EP-103/2001/C。以下修訂已包含在本環境許可證內(EP-103/2001/D)。本經修訂的環境許可證作為建造及營辦本許可證B部所說明的指定工程項目,但須遵守本許可證C部所說明或附載的條件。

The issue of this amended environmental permit is based on the documents, approvals or permissions described below:

本經修訂的環境許可證乃依據下列文件、批准或許可條件而簽發 -

Application No. 申請書編號:	VEP-256/2008
Document in the Register: 登記冊上的文件:	<p>(1) Route 16 Investigation Assignment</p> <ul style="list-style-type: none"> <li>- Environmental Impact Assessment Final Assessment Report (January 1998) (Register No. EIA-135/BC) [Hereinafter referred to as the "1998 EIA Report"]</li> <li>- Environmental Monitoring &amp; Audit Manual (January 1998) [Hereinafter referred to as the "1998 EM&amp;A Manual"]</li> </ul> <p>(1) 十六號幹線勘探工作</p> <ul style="list-style-type: none"> <li>- 《環境影響評估最終評估報告》(1998年1月)(登記冊編號: EIA-135/BC) [下稱「1998年環評報告」]</li> <li>- 《環境監察及審核手冊》(1998年1月)[下稱「1998年環監手冊」]</li> </ul>

Document in the Register: 登記冊上的文件:	<p>(2) Route 16 Investigation Assignment</p> <ul style="list-style-type: none"> <li>- Alternative Alignment Environmental Impact Assessment Final Assessment Report (August 1999) (Register No. AEIAR-022/1999) [Hereinafter referred to as the "1999 EIA Report"]</li> <li>- Environmental Monitoring &amp; Audit Manual (August 1999) [Hereinafter referred to as the "1999 EM&amp;A Manual"]</li> </ul> <p>The Director's letter of approval of the 1999 EIA Report dated 5 November 1999 ref (25) in Ax(1) to EP2/N1/A/24 Pt.3</p>
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- (2) 十六號幹線勘探工作  
 - 《替代路線 - 環境影響評估最終評估報告》(1999年8月) (登記冊編號 AEIAR-022/1999) [下稱「1999年環評報告」]  
 - 《環境監察及審核手冊》(1999年8月) [下稱「1999年環監手冊」]  
 署長於1999年11月5日發出批准1999年環評報告的信件(檔號(25) in Ax(1) to EP2/N1/A/24 Pt.3)
- (3) Application documents including all attachments submitted by the Permit Holder on 20 August 2001 [Hereinafter referred to as the "the Application"]
- (3) 許可證持有人於2001年8月20日提交的申請文件，包括所有的附件 [下稱「申請書」]
- (4) Environmental Permit issued - Permit No.: EP-103/2001 issued on 17 September 2001.
- (4) 已簽發的環境許可證 - 許可證編號：EP-103/2001於2001年9月17日簽發。
- (5) Application for Variation of an Environmental Permit No. VEP-094/2003. [Hereafter referred to as "the Application VEP-094/2003"]
- (5) 申請更改環境許可證編號VEP-094/2003。  
 [下稱“申請書編號VEP-094/2003”]
- (6) Environmental Permit issued - Permit No.: EP-103/2001/A issued on 20 May 2003.
- (6) 已簽發的環境許可證 - 許可證編號：EP-103/2001/A於2003年5月20日簽發。
- (7) Application for Variation of an Environmental Permit No. VEP-165/2005. [Hereafter referred to as "the Application VEP-165/2005"]
- (7) 申請更改環境許可證編號VEP-165/2005。  
 [下稱“申請書編號VEP-165/2005”]
- (8) Environmental Permit issued - Permit No.: EP-103/2001/B issued on 22 March 2005.
- (8) 已簽發的環境許可證 - 許可證編號：EP-103/2001/B於2005年3月22日簽發。
- (9) Application for Variation of an Environmental Permit No. VEP-180/2005. [Hereafter referred to as "the Application VEP-180/2005"]

- (9) 申請更改環境許可證編號VEP-180/2005。  
 [下稱“申請書編號VEP-180/2005”]
- (10) Environmental Permit issued - Permit No.: EP-103/2001/C issued on 22 July 2005.
- (10) 已簽發的環境許可證 - 許可證編號：EP-103/2001/C於2005年7月22日簽發。
- (11) Application for Variation of an Environmental Permit No. VEP-256/2008. [Hereafter referred to as "the Application VEP-256/2008"]
- (11) 申請更改環境許可證編號VEP-256/2008。  
 [下稱“申請書編號VEP-256/2008”]

Date of Application 申請日期	List of Amendments Incorporated into this Environmental Permit 已包含在本環境許可證內的修訂項目	Date of Amendment 修訂日期
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Application No. 申請書編號			
VEP-094/2003	24 April 2003 2003年4月24日	<ul style="list-style-type: none"> <li>- Vary Condition 3.1 in Part C of the Environmental Permit EP-103/2001</li> <li>- Vary Figure 2 of the Environmental Permit EP-103/2001</li> <li>- 更改環境許可證編號 EP-103/2001 C 部條件第3.1項條件</li> <li>- 更改環境許可證編號 EP-103/2001的圖2</li> </ul>	20 May 2003 2003年5月20日
VEP-165/2005	23 February 2005 2005年2月23日	<ul style="list-style-type: none"> <li>- Vary Condition 3.1 in Part C of the Environmental Permit EP-103/2001/A</li> <li>- Delete Figure 4 and vary Figure 6 of the Environmental Permit EP-103/2001/A</li> <li>- 更改環境許可證編號 EP-103/2001/A C 部條件第3.1項條件</li> <li>- 刪除環境許可證編號 EP-103/2001/A的圖4及更改環境許可證編號 EP-103/2001/A的圖6</li> </ul>	22 March 2005 2005年3月22日
VEP-180/2005	23 June 2005 2005年6月23日	<ul style="list-style-type: none"> <li>- Vary Condition 3.1 in Part C of the Environmental Permit EP-103/2001/B</li> <li>- Vary Figure 5 of the Environmental Permit EP-103/2001/B</li> <li>- Add Figure 6 to Environmental Permit EP-103/2001/B</li> <li>- 更改環境許可證編號 EP-103/2001/B C 部條件第3.1項條件</li> <li>- 更改環境許可證編號 EP-103/2001/B的圖5</li> <li>- 在環境許可證編號 EP-103/2001/B加入圖6</li> </ul>	22 July 2005 2005年7月22日
VEP-256/2008	18 March 2008 2008年3月18日	<ul style="list-style-type: none"> <li>- Vary Condition 3.1 in Part C of the Environmental Permit EP-103/2001/C</li> <li>- Vary Figure 6 of the Environmental Permit EP-103/2001/C</li> <li>- 更改環境許可證編號 EP-103/2001/C C 部條件第3.1項條件</li> <li>- 更改環境許可證編號 EP-103/2001/C的圖6</li> </ul>	19 March 2008 2008年3月19日

19 March 2008

Date

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(Maurice K L Yeung)  
Principal Environmental Protection Officer  
For Director of Environmental Protection  
環境保護署署長  
(首席環境保護主任)楊國良代行

**PART B (DESCRIPTIONS OF DESIGNATED PROJECT)****B部 (指定工程項目的說明)**

Hereunder is the description of the designated project mentioned in Part A of this environmental permit :

下列為本環境許可證A部所述指定工程項目的說明：

<p>Title of Designated Project 指定工程項目的名稱</p>	<p>Route 9 between Cheung Sha Wan and Sha Tin – Main Portion [This designated project is hereinafter referred to as “the Project”]  九號幹線長沙灣至沙田段 – 主要路段 [本指定工程項目下稱「工程項目」]</p>
<p>Nature of Designated Project 指定工程項目的性質</p>	<p>Construction and operation of a section of a dual 3-lane trunk road.  建造及營辦一條雙程三線分隔主幹路的部分路段。</p>
<p>Location of Designated Project 指定工程項目的地點</p>	<p>From Cheung Sha Wan to Sha Tin. The location of the Project is shown in <u>Figure 1</u> of this Environmental Permit.  長沙灣至沙田。工程項目的地點載於本環境許可證圖1。</p>
<p>Scale and Scope of Designated Project (s) 指定工程項目的規模和範圍</p>	<p>Construction &amp; operation of <u>建造及營辦</u></p> <p>(a) All civil works (including highways, traffic, geotechnical, drainage, structural, architectural and landscaping works) for the Lai Chi Kok Viaduct, the interchange with Ching Cheung Road, the main road within Butterfly Valley and the Eagle's Nest Tunnel;</p> <p>(a) 荔枝角高架路、呈祥道交匯處、蝴蝶谷內主要道路及尖山隧道的所有土木工程(包括公路、交通、土力、渠務、結構、建築及景觀美化工程)；</p> <p>(b) All E&amp;M works (including ventilation, Traffic Control &amp; Surveillance System (TCSS), toll collection system and lighting) for the whole Route 9 between Cheung Sha Wan and Sha Tin;</p> <p>(b) 整條九號幹線長沙灣至沙田段的所有機電工程(包括通風設備、交通管制及監察系統、車輛繳費系統及照明設備)；</p> <p>(c) the permanent slope works above the northern portal of the Eagle's Nest Tunnel; and</p> <p>(c) 尖山隧道北面入口上面的永久斜坡工程；及</p> <p>(d) the architectural works (including fitting out and finishings) of the portal buildings of the Sha Tin Heights Tunnel.</p> <p>(d) 沙田嶺隧道入口大樓的建築工程(包括裝修及終飾工程)。</p>

## PART C (PERMIT CONDITIONS)

### 1. General Conditions

- 1.1 The Permit Holder shall ensure full compliance with all conditions of this environmental permit. Any non-compliance may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap.499) and may become the subject of appropriate action being taken under the Ordinance.
- 1.2 The Permit Holder shall ensure full compliance with all legislation from time to time in force including without limitation the Noise Control Ordinance (Cap.400), Air Pollution Control Ordinance (Cap.311), Water Pollution control Ordinance (Cap.358), Dumping at Sea Ordinance (Cap.466), the Waste Disposal Ordinance (Cap.354). This Permit does not of itself constitute any ground of defense against any proceedings instituted under any legislation.
- 1.3 The Permit Holder shall make copies of this Permit together with all documents referred to in this Permit or the documents referred to in Part A of the Permit readily available at all times for inspection by the Director or his authorized officers at all sites/offices covered by this Permit. Any reference to the Permit shall include all documents referred to in the Permit and also the relevant documents in the Register.
- 1.4 The Permit Holder shall give a copy of this Permit to the person(s) in charge of the site(s) and ensure that such person(s) fully understands all conditions and all requirements incorporated by the Permit. The site(s) refers to the site(s) of the construction, operation and/or decommissioning of the Project and should mean the same hereinafter.
- 1.5 The Permit Holder shall display conspicuously a copy of this Permit on the construction site(s) at all vehicular site entrances/exits or at a convenient location for public information at all times. The Permit Holder shall ensure that the most updated information about the Permit, including any amended permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the construction site.
- 1.6 The Permit Holder shall construct and operate the Project in accordance with the project descriptions in Part B of this Permit.
- 1.7 The Permit Holder shall ensure that the Project is designed, constructed and operated in accordance with the information and all recommendations described in the 1998 EIA Report (Register No. EIA-135/BC), the 1999 EIA Report (Register No. AEIAR-022/1999), the 1998 EM&A Manual, the 1999 EM&A Manual, and other relevant documents in the Register; the information and mitigation measures described in this Permit, and mitigation measures to be recommended in submissions that shall be deposited with or approved by the Director as a result of permit conditions contained in this Permit, and mitigation measures to be recommended under on going surveillance and monitoring activities during all stages of the Project. Where recommendations referred to in the documents of the Register are not expressly referred to in this Permit, such recommendations are nevertheless to be implemented unless expressly excluded or impliedly amended in this Permit.
- 1.8 All submissions, as required under this Permit, shall be rectified and resubmitted in accordance with the comments, if any, made by the Director within one month of the receipt of the Director's comments or otherwise as specified by the Director.
- 1.9 All submissions approved by the Director, all submissions deposited without comments by the Director, or all submissions rectified in accordance with comments by the Director under this Permit shall be construed a part of the permit conditions described in Part C of this Permit. Any variation of the submissions shall be approved by the Director in writing or as prescribed in the relevant permit conditions. Any non-compliance with the submissions may constitute a contravention of the Environmental Impact Assessment Ordinance. All submissions or any variation of the submissions shall be verified by the Independent Environmental Checker (IEC) referred to in Condition 2.1 below, before submitting to the Director under this Permit.
- 1.10 The Permit Holder shall release all finalized submissions, as required under this Permit, to the public b

depositing copies in the Environmental Impact Assessment Ordinance Register Office, or in any other places, or any internet websites as specified by the Director, or by any other means as specified by the Director for public inspection. For this purpose, the Permit Holder shall provide sufficient copies of the submissions.

1.11 The Permit Holder shall notify the Director in writing the commencement date of construction of the Project no later than 4 weeks prior to the date of commencement of construction of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the commencement date of the construction.

1.12 All submissions to the Director required under this Permit shall be delivered either in person or by registered mail to the Environmental Impact Assessment Ordinance Register Office (currently at 27/F, Southorn Centre, 130 Hennessy Road, Wanchai, Hong Kong). The Permit Holder shall make copies of this permit available at all times for inspection by the Director at all the sites covered by this permit.

## **2. Submissions for the Construction of the Project**

2.1 An Independent Environmental Checker (IEC) shall be employed no later than two months before the commencement of construction of the Project. The IEC shall have at least 7 years' experience in environmental monitoring and audit (EM&A) or environmental management. The IEC shall be responsible for duties defined in the 1999 EM&A Manual, and shall audit the overall EM&A programme covered by the 1998 EM&A Manual and 1999 EM&A Manual (hereafter referred to as the two EM&A Manuals), including the implementation of all environmental mitigation measures, submissions relating to EM&A, and any other submissions required under this Permit. In addition, the IEC shall be responsible for verifying the environmental acceptability of permanent and temporary works, relevant design plans and submissions under this Permit.

2.2 An Environmental Team (ET) shall be established no later than 2 months before the commencement of construction of the Project. The ET shall be headed by the ET Leader who shall have at least 7 years' experience in environmental monitoring and auditing (EM&A) or environmental management. The ET team and the ET Leader shall be responsible for duties defined in the 1999 EM&A Manual. The ET Leader shall be responsible for the implementation of the EM&A programme in accordance with the EM&A requirements as contained in the two EM&A Manuals.

2.3 The Permit Holder shall, within 4 weeks after commencement of construction of the Project, inform the Director in writing of the management organization of the main construction companies and/or any form of joint ventures associated with the construction of the Project. The submitted information shall include at least an organization chart, names of responsible persons and their contact details.

2.4 The Permit Holder shall, at least 8 weeks before commencement of any construction work causing any loss of woodland or natural stream, submit to the Director for approval 3 sets of landscape proposals, including plans of scale 1 to 1000 or other appropriate scale as agreed by the Director. With a view to further minimizing ecological impacts, the proposals shall show the compensatory replanting areas for permanent woodland loss and reinstated areas for temporary woodland loss (with the size of compensation area clearly stated in hectares), as well as the recreated stream, and shall include an implementation programme for these works. The implementation programme shall clearly identify the responsibility for implementation management and maintenance of landscape mitigation measures for these works. All measures recommended in the approved proposal(s) shall be fully implemented in accordance with the details and time schedule set out in the submission. No construction work causing any loss of woodland or natural stream shall commence without the approval of the proposals.

2.5 The Permit Holder shall, no later than 4 weeks after the commencement of construction of the Project, submit to the Director for approval three sets of Waste Management Plan for the construction stage of the Project. The Plan shall be certified by the ET Leader and verified by the IEC as conforming to the information and recommendations contained in the 1998 EIA Report, 1999 EIA Report, and the Application. The Plan shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall include the recommended mitigation measures on waste management in the 1998 EIA Report, 1999 EIA Report, and the Application. Such a Plan shall include the designated areas for segregation and temporary storage of reusable

and recyclable materials. All measures in the approved Plan shall be fully implemented throughout the construction period.

### **3. Measures for Construction and Operation of the Project**

- 3.1 To mitigate the traffic noise impact arising from the Project, noise barriers/enclosures/semi-enclosures shall be constructed as shown in Figures 2, 3, 4, 5 and 6 in this permit, prior to the operation of the Project.
- 3.2 To mitigate water quality impact from tunneling work, the following mitigation measures shall be fully implemented for the tunneling work:
- Temporary open storage of excavated materials shall be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials from the drill-and-blast tunneling work shall be diverted to the drainage system via appropriate sediment traps, to achieve a controlled release of storm flow, construction runoff, or wash water. The drainage system shall be designed in accordance with sections 6.4.4.4 to 6.4.4.7 of the 1999 EIA Report.
  - Ground water pumped out of tunnels shall be discharged into sediment traps to enhance deposition rates and to remove silt, before discharging into the drainage channels of the drainage system.
- 3.3 To mitigate environmental impacts due to site runoff and other potential water pollution caused by construction activities, mitigation measures described in Annex A shall be fully implemented throughout the construction period.
- 3.4 To mitigate ecological impact during construction, the following measures shall be fully implemented:
- Stream sedimentation during construction should be prevented by erection of sediment barriers and operation of stilling ponds in the streams for all freshwater streams within the Project limit.
  - All measures recommended in the approved landscape proposal(s) under Condition 2.4 above shall be fully implemented in accordance with the details and time schedule set out in the submission.
  - For construction sites within Butterfly Valley, fences shall be erected along the boundary of the construction sites before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly near the two rare/protected plant species (location see Figure 7.4a of the 1999 EIA Report).
- 3.5 In accordance with the implementation schedule of the 1999 EIA Report:
- Construction activities shall be suspended during delivery and unloading of chlorine at Tai Po Road Water Treatment Works (WTW), i.e. construction workers shall be evacuated to a minimum distance of 500m from the chlorine store (if outdoors) or to a place of safety indoors (ie a toxic refuge, see the implementation schedule of the 1999 EIA Report for definition) during the movement of the chlorine truck along the access road at Tai Po Road WTW and during the drum loading/unloading operation.
  - Construction activities within 100 metres of the chlorine store at Tai Po Road WTW, including activities within the Eagle's Nest tunnel up to a distance of 200m from the portal and activities within 200m of the access road to Shek Lei Pui WTW, shall be restricted to day-time only (7am-7pm) with a maximum of 30 workers. An increased number of workers could be tolerated at correspondingly reduced working hours, e.g. 60 workers for 6 hours each day. Construction activities within 500m of the chlorine store at Tai Po Road WTW should also be restricted to day-time only with a maximum of 70 workers (or equivalent at reduced working hours). Facilities such as workshops, offices etc shall be located beyond 500m from the chlorine store at Tai Po Road WTW.

### **4. Environmental Monitoring and Audit requirements during Construction of the Project**

- 4.1 An EM&A programme shall be implemented as set out in the two EM&A Manuals. Any change to the programme shall be justified by the IEC as conforming to the requirements set out in the two EM&A Manuals and information contained in the 1998 EIA Report, 1999 EIA Report and the Application, before submission to the Director for approval.
- 4.2 Samples and measurements shall be taken in accordance with the requirements of the two EM&A Manuals by:
- conducting baseline environmental monitoring as set out in the two EM&A Manuals; and

- b) conducting impact monitoring as set out in the two EM&A Manuals.
- 4.3 The remedial actions described in the Event/Action Plans of the two EM&A Manuals shall be fully and properly carried out, in accordance with the time frames(s) set out in the Event/Action Plans, or as agreed by the Director.
- 4.4 Records of measurements and remedial actions taken under Conditions 4.2 and 4.3 respectively of this Permit shall be logged and kept, within 3 working days of the collection of data or completion of remedial action, for the purpose of preparing and submitting the EM&A Reports and making the information available for inspection on site.
- 4.5 Two hard copies and one soft copy of the Baseline Monitoring Report shall be submitted to the Director no later than 2 weeks before the construction of the Project. The submission shall be verified by the IEC. Additional copies of the submission shall be provided to the Director upon request by the Director.
- 4.6 One hard copy and one soft copy of monthly EM&A Report shall be submitted to the Director within 2 weeks after the end of the reporting month. The EM&A Reports shall include a summary of all noncompliance (exceedances) of the environmental quality performance limits (Action and Limit levels). The submissions shall be verified by the IEC. Additional copies of the submission shall be provided to the Director upon request by the Director.
- 4.7 All environmental monitoring and audit data submitted under this Permit shall be true, valid and correct.
- 5. Environmental Monitoring and Audit Requirements during Operation of the Project**
- 5.1 Monitoring of traffic noise during the operational phase shall be conducted in accordance with the 1999 EM&A Manual. Monitoring details and results, including the comparison between the measured noise levels and the predicted levels, shall be recorded in the Traffic Noise Monitoring Report. The Traffic Noise Monitoring Report shall be certified by the Permit Holder before three copies of the report are deposited with the Director, within one month after the completion of the monitoring.
- 5.2 The Permit Holder shall deposit with the Director 3 copies of an audit report, certified by the ET Leader and verified by the IEC, demonstrating the satisfactory completion of the measures recommended in the submission approved under Condition 2.4 of this Permit. The audit report shall be deposited within 3 weeks after completion of the mitigation measures.
- 5.3 The Permit Holder shall deposit with the Director 3 copies of an audit report, certified by the ET Leader and verified by the IEC, demonstrating the satisfactory completion of the measures recommended in the submission approved under Condition 3.1 of this Permit. The audit report shall be deposited within 3 weeks after completion of the mitigation measures.
- 6. Electronic Reporting of EM&A Information**
- 6.1 To facilitate public inspection of the Baseline Monitoring Report, monthly EM&A Reports, and the Traffic Noise Monitoring Report via the EIAO Internet Website and at the EIAO Register Office, electronic copies of these Reports shall be prepared in Hyper Text Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 4.0 or later), unless otherwise agreed by the Director and shall be submitted at the same time as the hard copies as described in Conditions 4 and 5 of this Permit. For the HTML version, a content page capable of providing hyperlink to each section and sub-section of these Reports shall be included in the beginning of the document. Hyperlinks to all figures, drawings and tables in these Reports shall be provided in the main text from where the respective references are made. All graphics in these Reports shall be in interlaced GIF format unless otherwise agreed by the Director. The content of the electronic copies of these Reports must be the same as the hard copies.

**Notes :**

1. This Permit consists of three parts, namely, PART A (Main Permit), PART B (Description of Designated



Project) and PART C (Permit Conditions). Any person relying on this permit should obtain independent legal advice on the legal implications under the Ordinance, and the following notes are for general information only.

2. The Permit Holder may apply under Section 13 of the Ordinance to the Director for a variation of the conditions of this Permit. The Permit Holder shall replace the original permit displayed on the construction site by the amended permit.
3. A person who assumes the responsibility for the whole or a part of the designated project may, before he assumes responsibility of the designated project, apply under Section 12 of the Ordinance to the Director for a further environmental permit.
4. Under Section 14 of the Ordinance, the Director may with the consent of the Secretary for the Environment, suspend, vary or cancel this Permit. The suspended, varied or cancelled Permit shall be removed from display at the construction site.
5. If this Permit is cancelled or surrendered during construction or operation of the Project, another environmental permit must be obtained under the Ordinance before the Project could be continued. It is an offence under Section 26(1) of the Ordinance to construct or operate a designated project listed in Part I of Schedule 2 of the Ordinance without a valid environmental permit.
6. Any person who constructs or operates the Project contrary to the conditions in the Permit, and is convicted of an offence under the Ordinance, is liable: -
  - (i) on a first conviction on indictment to a fine of \$ 2 million and to imprisonment for 6 months;
  - (ii) on a second or subsequent conviction on indictment to a fine of \$ 5 million and to imprisonment for 2 years;
  - (iii) on a first summary conviction to a fine at level 6 and to imprisonment for 6 months;
  - (iv) on a second or subsequent summary conviction to a fine of \$1 million and to imprisonment for 1 year; and
  - (v) in any case where the offence is of a continuing nature, the court or magistrate may impose a fine of \$ 10,000 for each day on which he is satisfied the offence continued.
7. The Permit Holder may appeal against any condition of this Permit under Section 17 of the Ordinance within 30 days of receipt of this Permit.
8. The Notes are for general reference only and that the Permit Holder should refer to the EIA Ordinance for details and seek independent legal advice.

**Environmental Permit No. EP-103/2001/D**

## Measures to Mitigate Environmental Impacts due to Site Run-off and Other Potential Water Pollution During Construction

### (a) *Surface Runoff*

- (i) Surface run-off from the construction site shall be directed into adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins before discharge into storm drains. Channels, earth bunds or sand bag barriers shall be provided on site to properly direct stormwater to such silt removal facilities.
- (ii) Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.
- (iii) Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.
- (iv) Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains.
- (v) All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor.
- (vi) Sand and silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris are deposited on roads, shall be settled out and removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road shall be paved with backfill to prevent wash water or other site runoff from entering public road drains.
- (vii) Oil interceptors shall be provided in the drainage system and regularly emptied to prevent the release of oil and grease into the storm water drainage system after accidental spillage. The interceptor shall have a bypass to prevent flushing during periods of heavy rain.

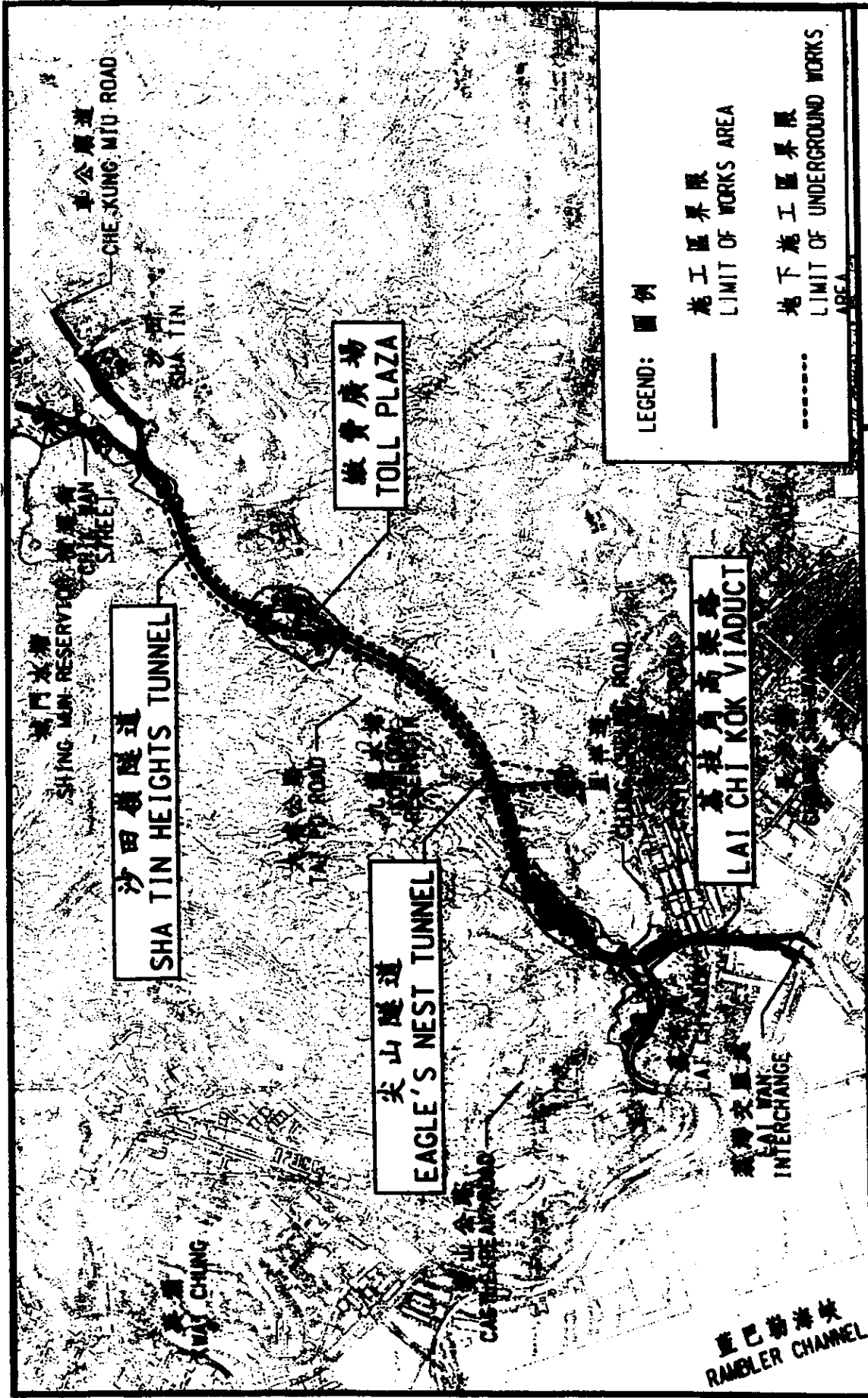
### (b) *General Construction Activities*

At all parts of all works areas and construction sites, and throughout the full duration of the construction contract(s), debris and rubbish on site shall be handled and disposed of to avoid entering the water column and causing water quality impacts. Temporary on-site storage of excavated materials from construction work shall be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials should be diverted to the drainage system via sediment traps. Stockpiling of the excavated materials shall be minimized by scheduling the construction programme in a way that one section of the alignment can be constructed and completed before the excavation works of the next section commence.

| [Figure 1](#) | [Figure 2](#) | [Figure 3](#) | [Figure 4](#) | [Figure 5](#) | [Figure 6](#) |

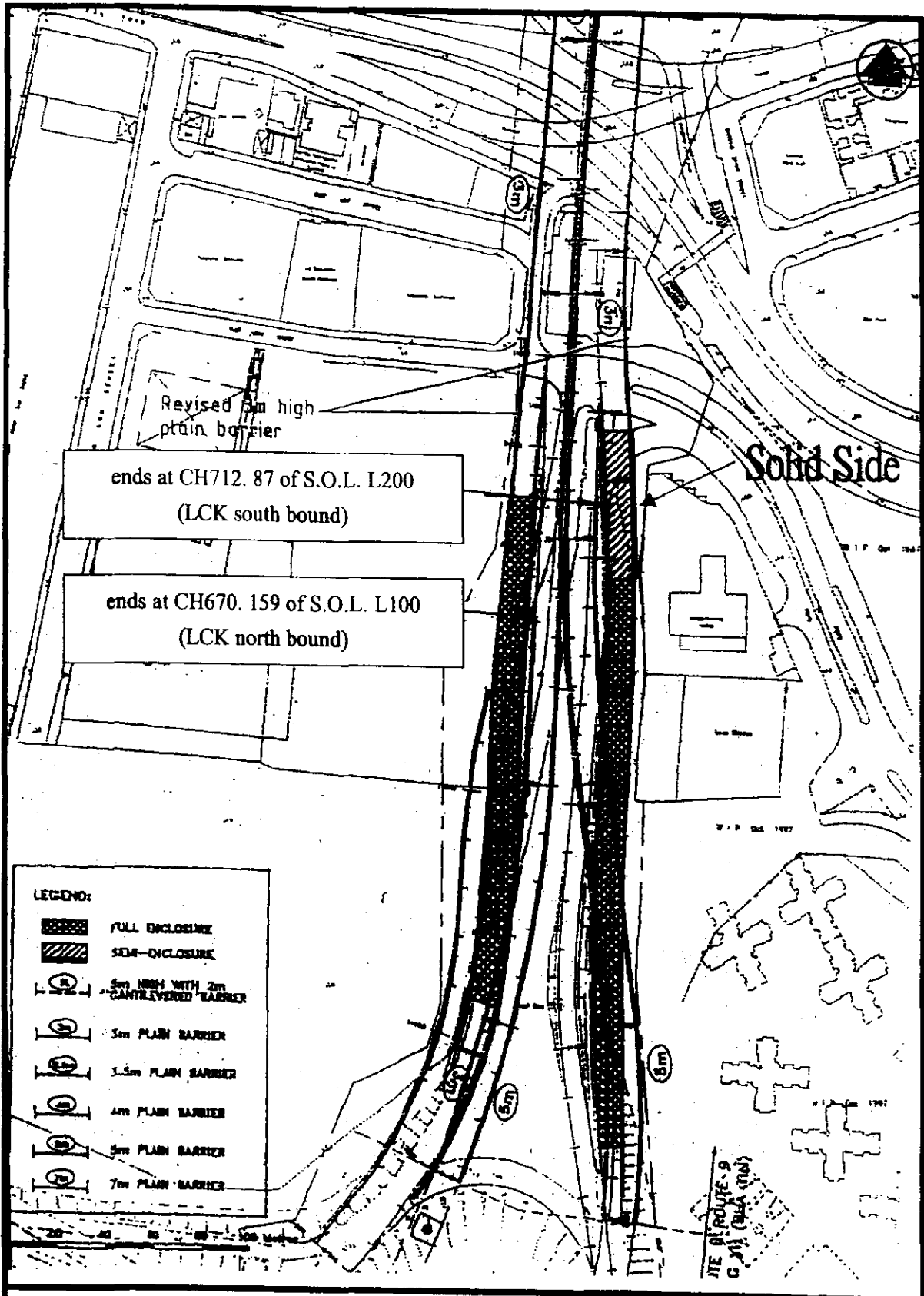
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[ [Back to First Page](#) ] / [ [Back to Main Index](#) ]



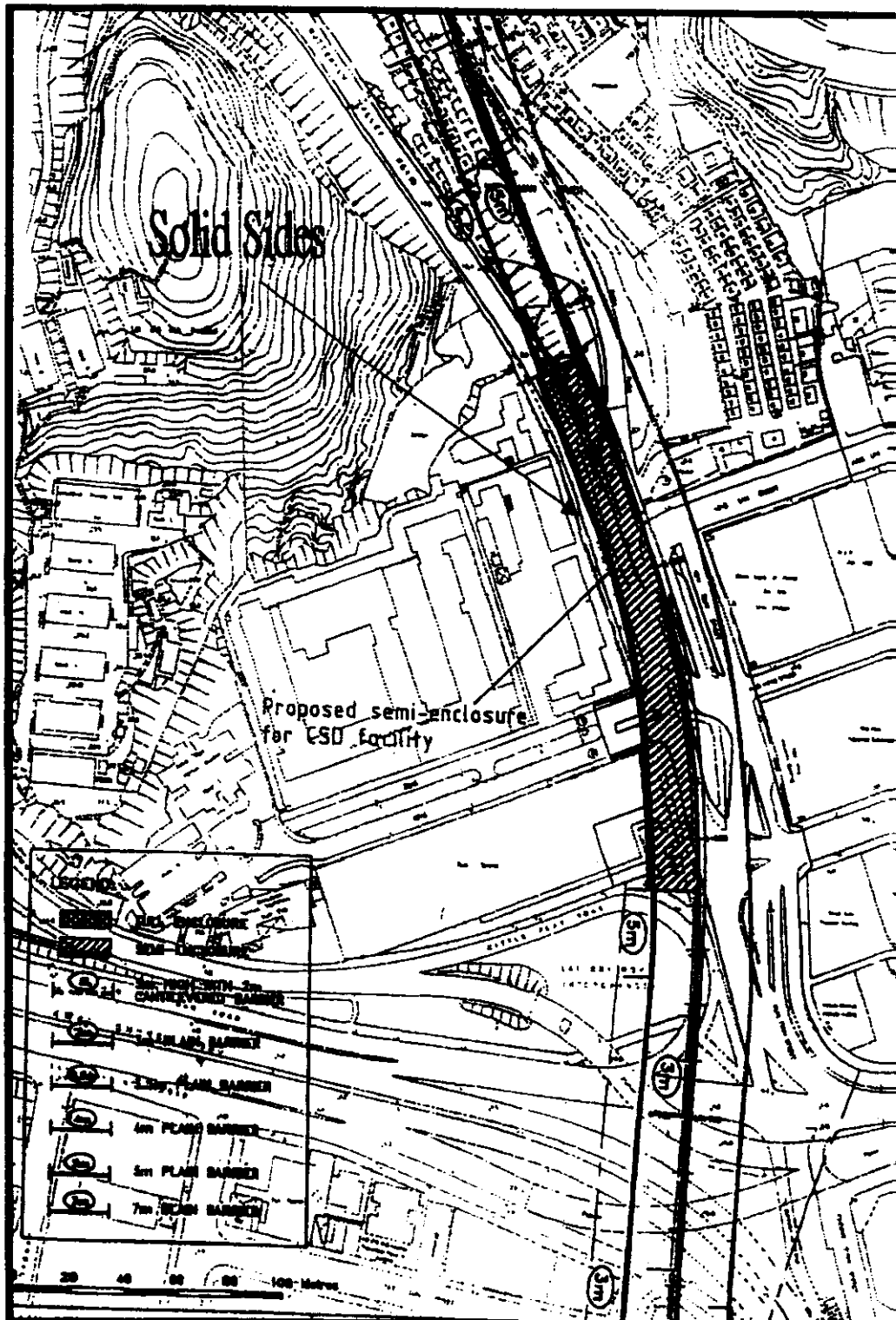
**Figure 1** Location Plan for Route 9 between Cheung Sha Wan and Sha Tin  
 (Extracted from the Application VEP-180/2005)

Environmental Permit No.  
 EP-103/2001/D



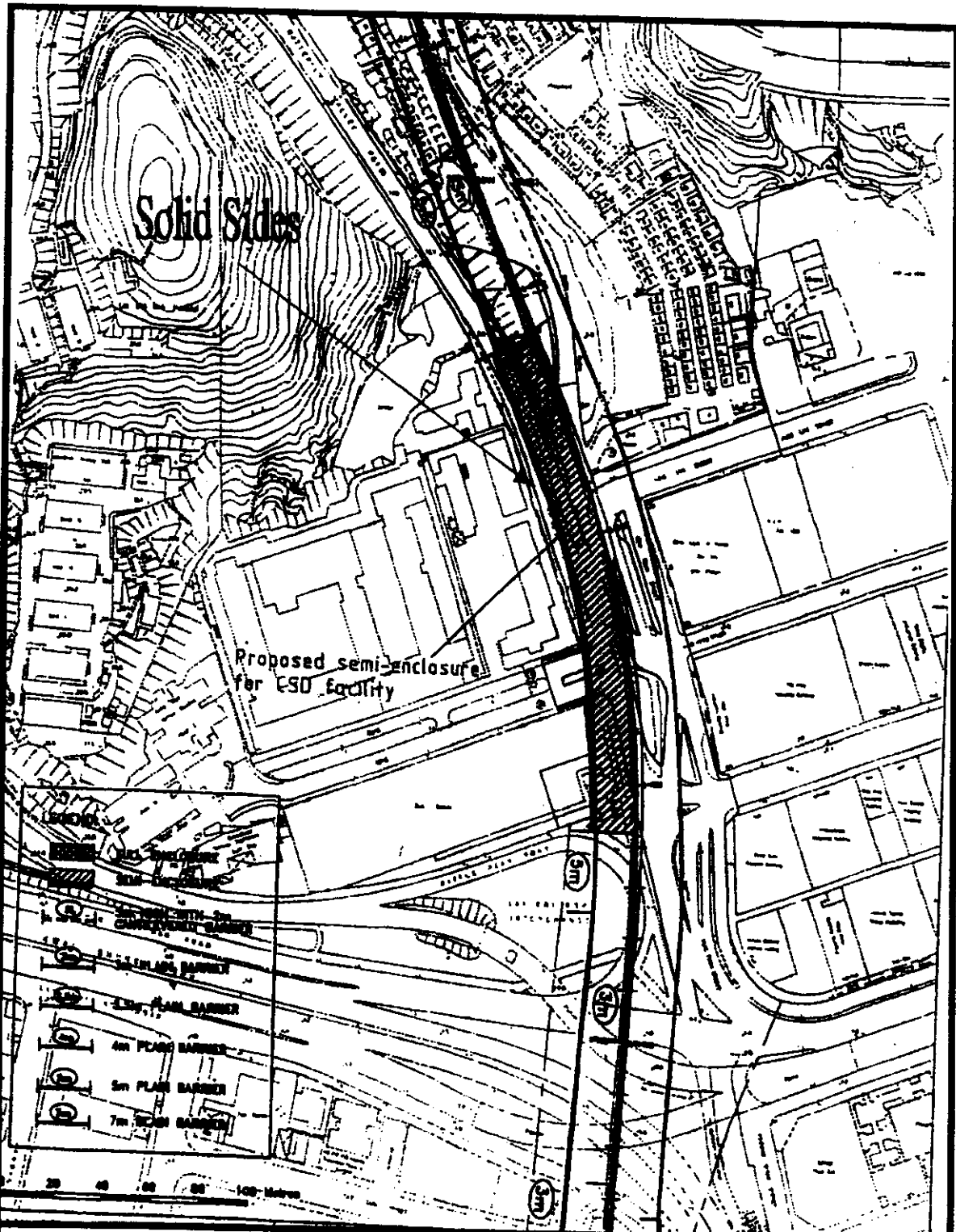
**Figure 2** Noise Barriers and Enclosures  
 (Extracted from the Application  
 VEP-180/2005)

**Environmental Permit No.**  
**EP-103/2001/D**



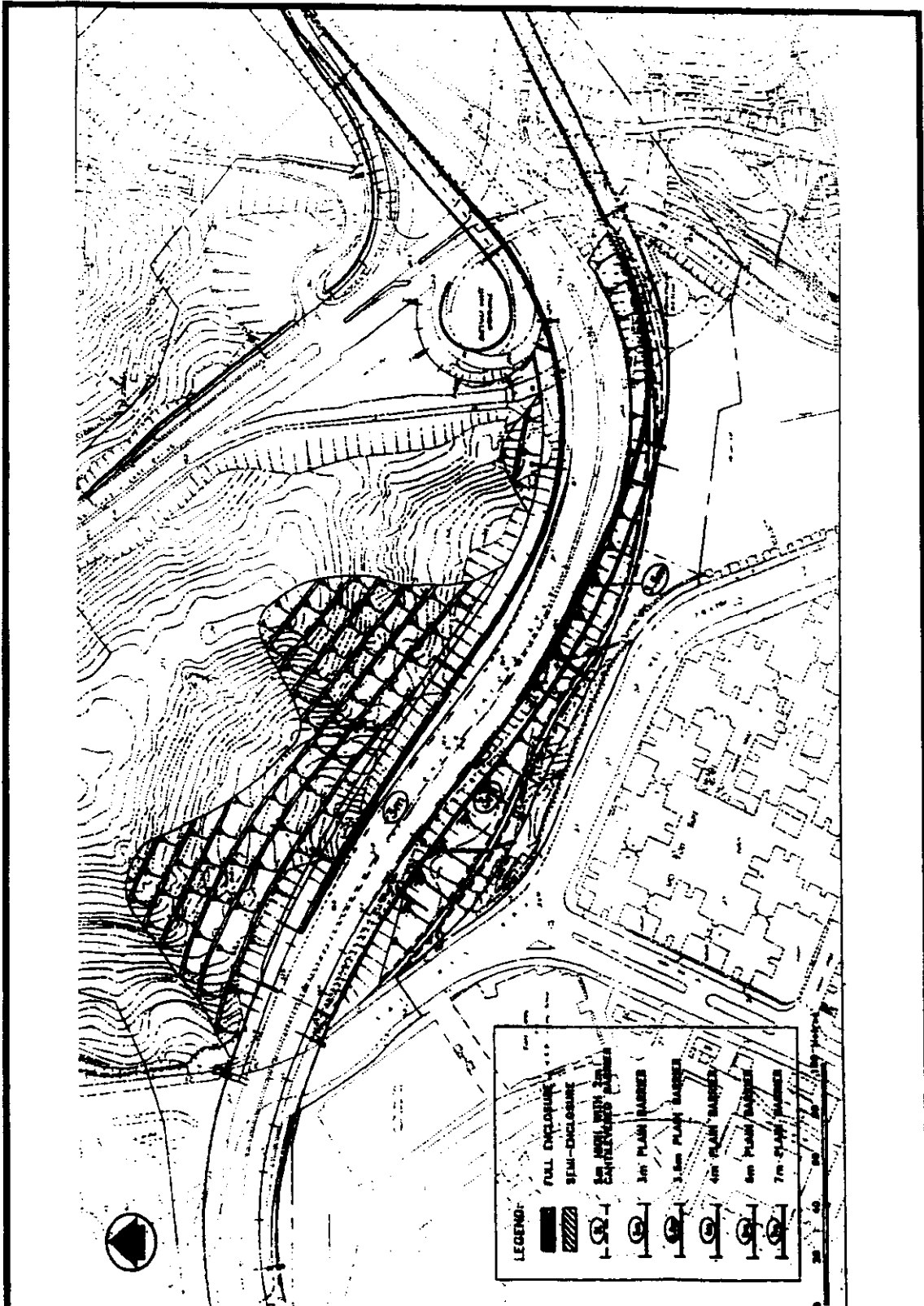
**Figure 3** Noise Barriers and Enclosures  
 (Extracted from the Application  
 VEP-180/2005)

**Environmental I**  
**EP-103/2001/D**



**Figure 3** Noise Barriers and Enclosures  
 (Extracted from the Application  
 VEP-180/2005)

**Environmental Permit No.**  
**EP-103/2001/D**



**Figure 4** Noise Barriers and Enclosures  
 (Extracted from the Application  
 VEP-180/2005)

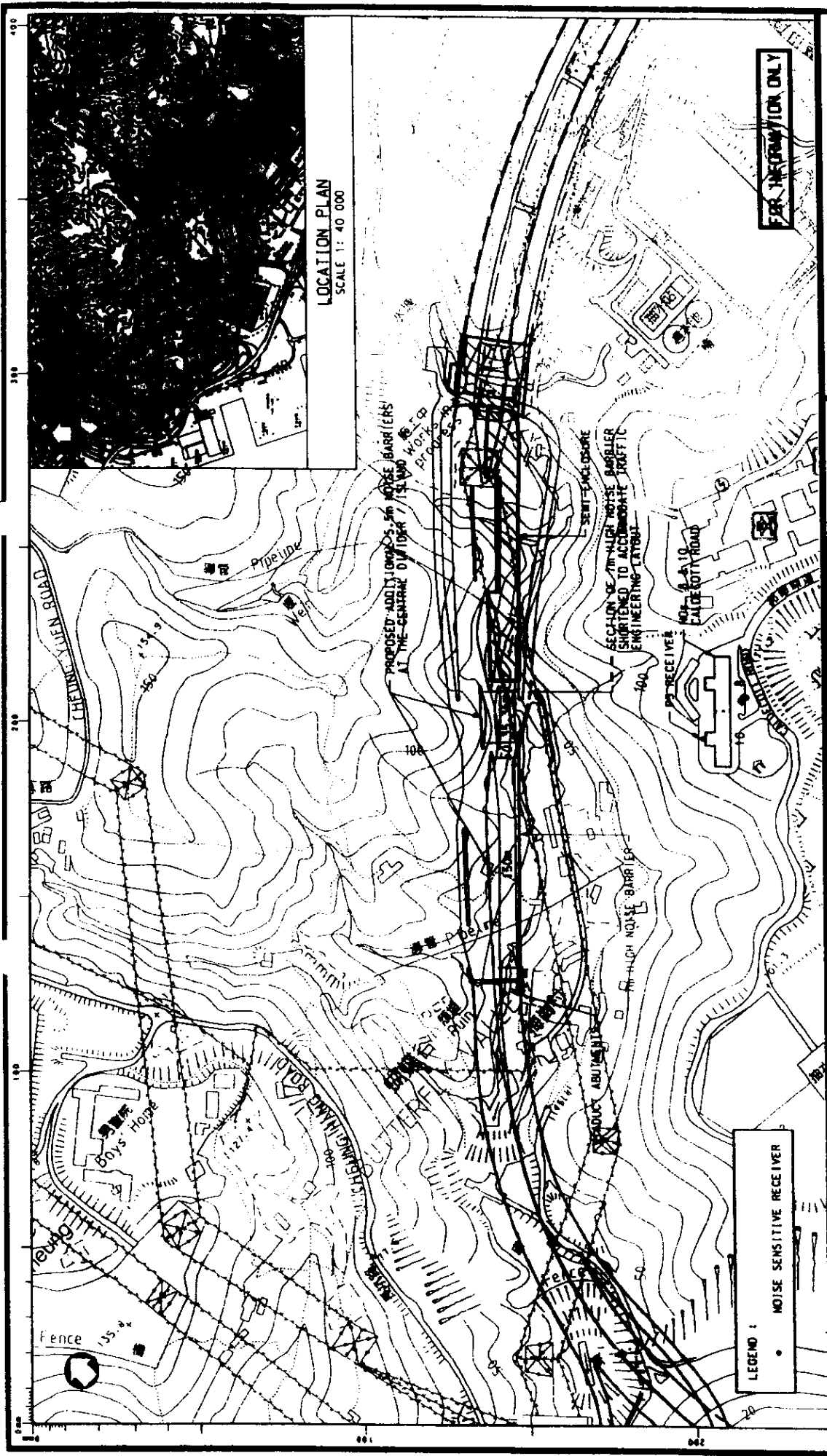
Environmental Permit No.  
 EP-103/2001/D



**Figure 5** Noise Barriers and Enclosures  
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**Environmental Permit No.**  
**EP-103/2001/D**





Environmental Permit No.

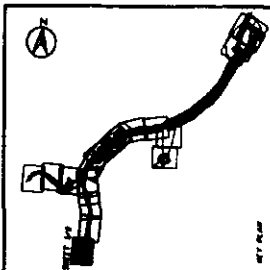
EP-103/2001/D

**Figure 6 Variation to Noise Barriers**  
(Extracted from the Application VEP-256/2008)

**Appendix B**  
**As-Built Drawings of Soft Landscape Works**

Drawing List - Soft Landscape Works

LCKV Contract No HY/2003/01		
94099/LCK/5101 F	LANDSCAPE SOFTWARES PLAN	SHEET 1 OF 8
94099/LCK/5102 E	LANDSCAPE SOFTWARES PLAN	SHEET 2 OF 8
94099/LCK/5103 F	LANDSCAPE SOFTWARES PLAN	SHEET 3 OF 8
94099/LCK/5104 F	LANDSCAPE SOFTWARES PLAN	SHEET 4 OF 8
94099/LCK/5105 E	LANDSCAPE SOFTWARES PLAN	SHEET 5 OF 8
94099/LCK/5106 G	LANDSCAPE SOFTWARES PLAN	SHEET 6 OF 8
94099/LCK/5107 F	LANDSCAPE SOFTWARES PLAN	SHEET 7 OF 8
94099/LCK/5108 E	LANDSCAPE SOFTWARES PLAN	SHEET 8 OF 8
R8/LCKV/SK-1919 B	REVISED LANDSCAPING DETAILS BENEATH LWRO	
94099/LCK/5121 E	PLANTING SCHEDULE	
94099/LCK/5501 C	LANDSCAPE SOFTWARES PLAN (VIADUCT) SHEET 1 OF 3	
94099/LCK/5502 C	LANDSCAPE SOFTWARES PLAN (VIADUCT) SHEET 2 OF 3	
94099/LCK/5503 C	LANDSCAPE SOFTWARES PLAN (VIADUCT) SHEET 3 OF 3	
ENT Contract No HY/2003/02		
94099/ENT/5108 E	LANDSCAPE SOFTWARES PLAN	SHEET 1 OF 6
94099/ENT/5109 F	LANDSCAPE SOFTWARES PLAN	SHEET 2 OF 6
94099/ENT/5110 F	LANDSCAPE SOFTWARES PLAN	SHEET 3 OF 6
94099/ENT/5111 D	LANDSCAPE SOFTWARES PLAN	SHEET 4 OF 6
94099/ENT/5112 F	LANDSCAPE SOFTWARES PLAN	SHEET 5 OF 6
94099/ENT/5113 D	LANDSCAPE SOFTWARES PLAN	SHEET 6 OF 6
94099/ENT/5113-1	IN-SITU FIBER GLASS PLANTEER IN TOLL BOOTH AREA	
94099/ENT/5125 C	PLANTING SCHEDULE	



**LEGEND**

(Symbol) TREE (SEE SCHEDULE)   
 (Symbol) PROPOSED (SEE SCHEDULE)   
 (Symbol) EXISTING (SEE SCHEDULE)   
 (Symbol) EXISTING / PROPOSED   
 (Symbol) EXISTING / PROPOSED   
 (Symbol) EXISTING / PROPOSED

**NOTES**

1. ALL TREES AND PLANTS TO BE REMOVED OR PLANTED SHALL BE IDENTIFIED BY TAGS AND PHOTOGRAPHS.
2. ALL TREES AND PLANTS TO BE REMOVED OR PLANTED SHALL BE IDENTIFIED BY TAGS AND PHOTOGRAPHS.
3. ALL TREES AND PLANTS TO BE REMOVED OR PLANTED SHALL BE IDENTIFIED BY TAGS AND PHOTOGRAPHS.

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**ROUTE 8 - LAI CHI ROK VIADUCT**

Highways Department, 28th Floor, Wankai  
Major Works Project Management Office (MWPMO)

**LANDSCAPE SOFTWARES PLAN**

SCALE: 1:100

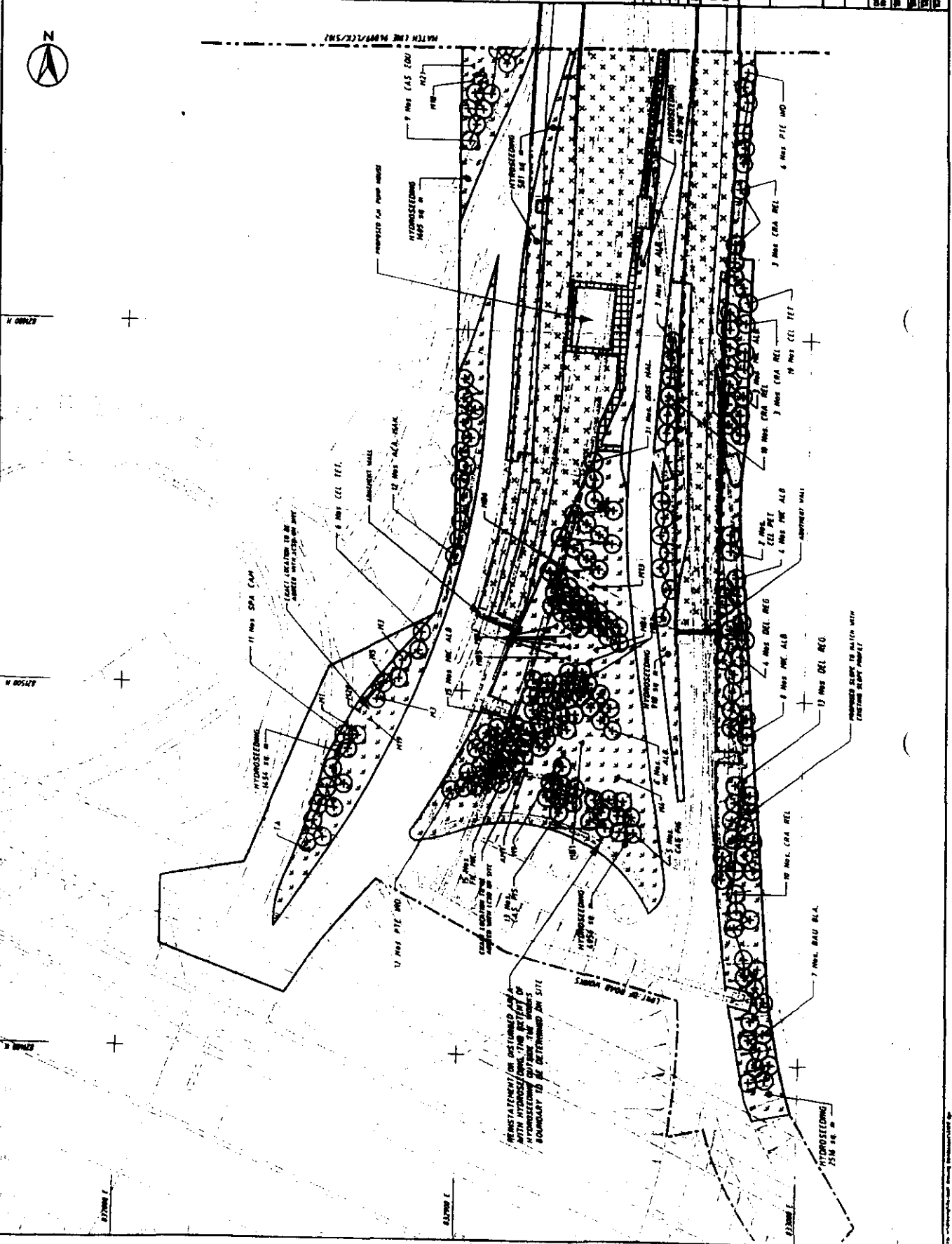
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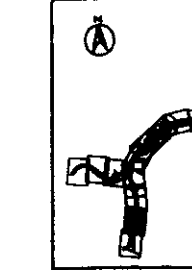
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DRAWN BY: A.S. BUI (DRAWING)

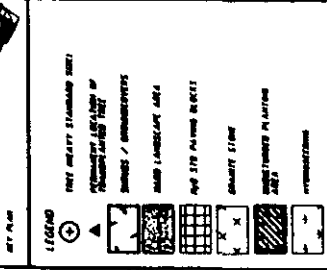
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DATE: 15/11/2011





KEY PLAN



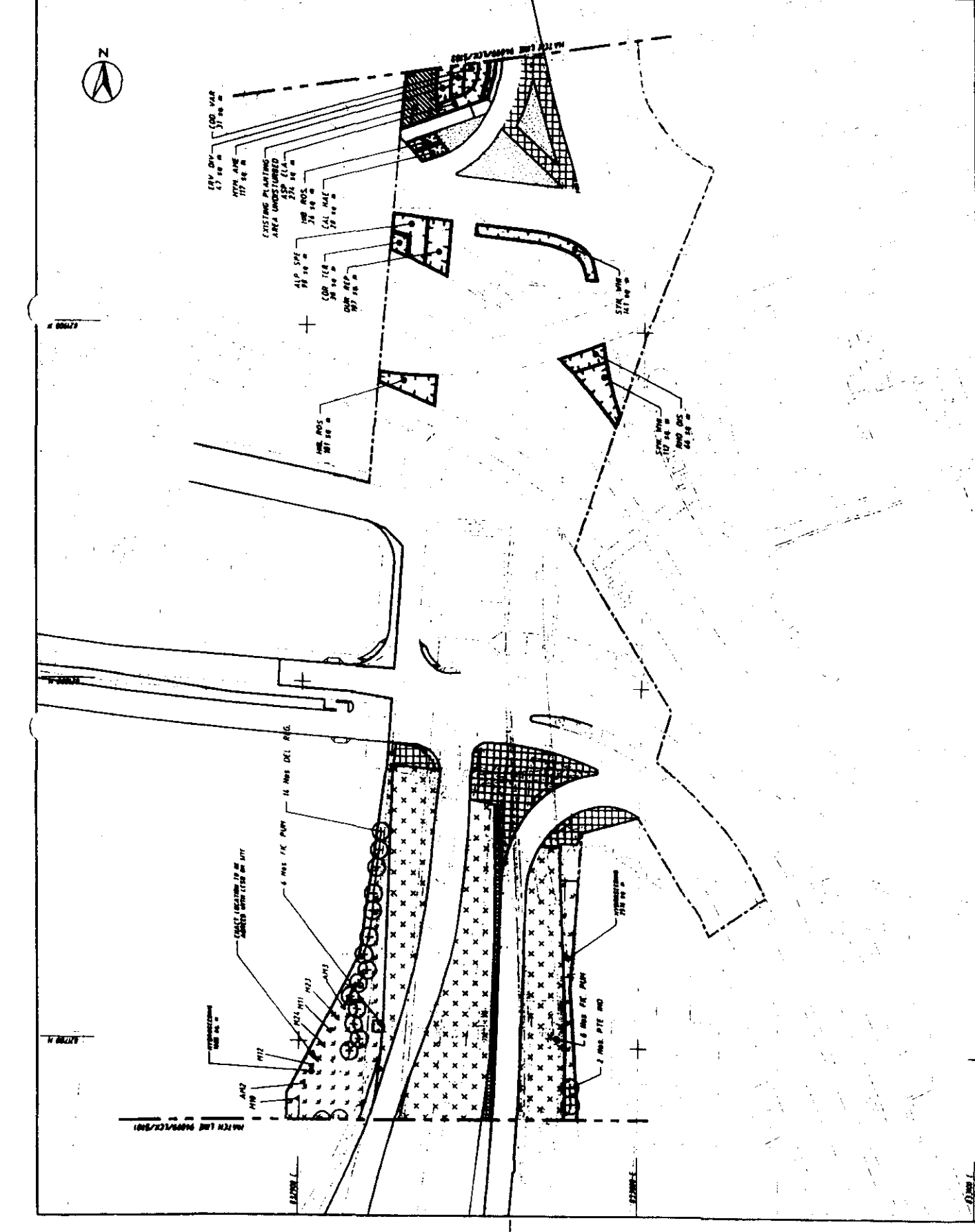
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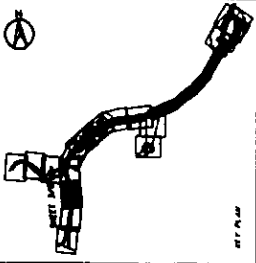
1. ALL PLANTS ARE PLANTED AT THE END OF THE YEAR.
2. PLANTINGS ARE TO BE INSTALLED BY THE END OF THE YEAR.
3. PLANTINGS ARE TO BE INSTALLED BY THE END OF THE YEAR.

PLANT	NO.	SIZE	DATE
1. LARGE TREE	1	12" DBH	2010
2. MEDIUM TREE	2	10" DBH	2010
3. SMALL TREE	3	8" DBH	2010
4. SHRUB	4	6" DBH	2010
5. PERENNIAL	5	12" DBH	2010
6. ANNUAL	6	12" DBH	2010
7. GRASS	7	12" DBH	2010
8. MULCH	8	12" DBH	2010
9. SAND	9	12" DBH	2010
10. GRAVEL	10	12" DBH	2010
11. CONCRETE	11	12" DBH	2010
12. ASPHALT	12	12" DBH	2010
13. PAINT	13	12" DBH	2010
14. SIGN	14	12" DBH	2010
15. LIGHT	15	12" DBH	2010
16. FENCE	16	12" DBH	2010
17. WALL	17	12" DBH	2010
18. DECK	18	12" DBH	2010
19. STAIR	19	12" DBH	2010
20. BENCH	20	12" DBH	2010
21. TABLE	21	12" DBH	2010
22. CHAIR	22	12" DBH	2010
23. UTENSIL	23	12" DBH	2010
24. GLASS	24	12" DBH	2010
25. BOTTLE	25	12" DBH	2010
26. CAN	26	12" DBH	2010
27. BAG	27	12" DBH	2010
28. BOX	28	12" DBH	2010
29. TRAY	29	12" DBH	2010
30. PLATE	30	12" DBH	2010
31. CUP	31	12" DBH	2010
32. SAUCER	32	12" DBH	2010
33. SPoon	33	12" DBH	2010
34. KNIFE	34	12" DBH	2010
35. FORK	35	12" DBH	2010
36. SPOON	36	12" DBH	2010
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38. FORK	38	12" DBH	2010
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40. KNIFE	40	12" DBH	2010
41. FORK	41	12" DBH	2010
42. SPOON	42	12" DBH	2010
43. KNIFE	43	12" DBH	2010
44. FORK	44	12" DBH	2010
45. SPOON	45	12" DBH	2010
46. KNIFE	46	12" DBH	2010
47. FORK	47	12" DBH	2010
48. SPOON	48	12" DBH	2010
49. KNIFE	49	12" DBH	2010
50. FORK	50	12" DBH	2010

ROUTE 8 - LAN CHA HOA VILLAGE  
LANDSCAPE SOFTWARE PLAN

PROJECT NO.	94000/LEE/S102 E
SHEET NO.	01
DRAWN BY	AS-BUILT DRAWING
CHECKED BY	
DATE	
SHEET TITLE	LANDSCAPE SOFTWARE PLAN
SCALE	1:1





**LEGEND**

- Tree Heavy Standard Size
- Additional Companion Tree
- Placement Location of Transplanted Tree
- Shrub / Groundcover
- Main Landscape Area
- Water Feature
- 100 STD PAVING BLOCKS
- DO NOT PLANT TREE TO THE RIGHT OF THE PROPERTY OR PLANTING RESTRICTION
- USE TREE STANDARD SIZE TO THE LEFT
- DO NOT PLANT TO THE RIGHT OF THE PROPERTY OR PLANTING RESTRICTION
- DO NOT PLANT TO THE RIGHT OF THE PROPERTY OR PLANTING RESTRICTION

NO.	PLANT SPECIES	SIZE	QUANTITY	NOTES
1	ACACIA	10"	10	
2	ACACIA	12"	10	
3	ACACIA	14"	10	
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**ROUTE 8 - LAI CHI ROK VILLAGE**

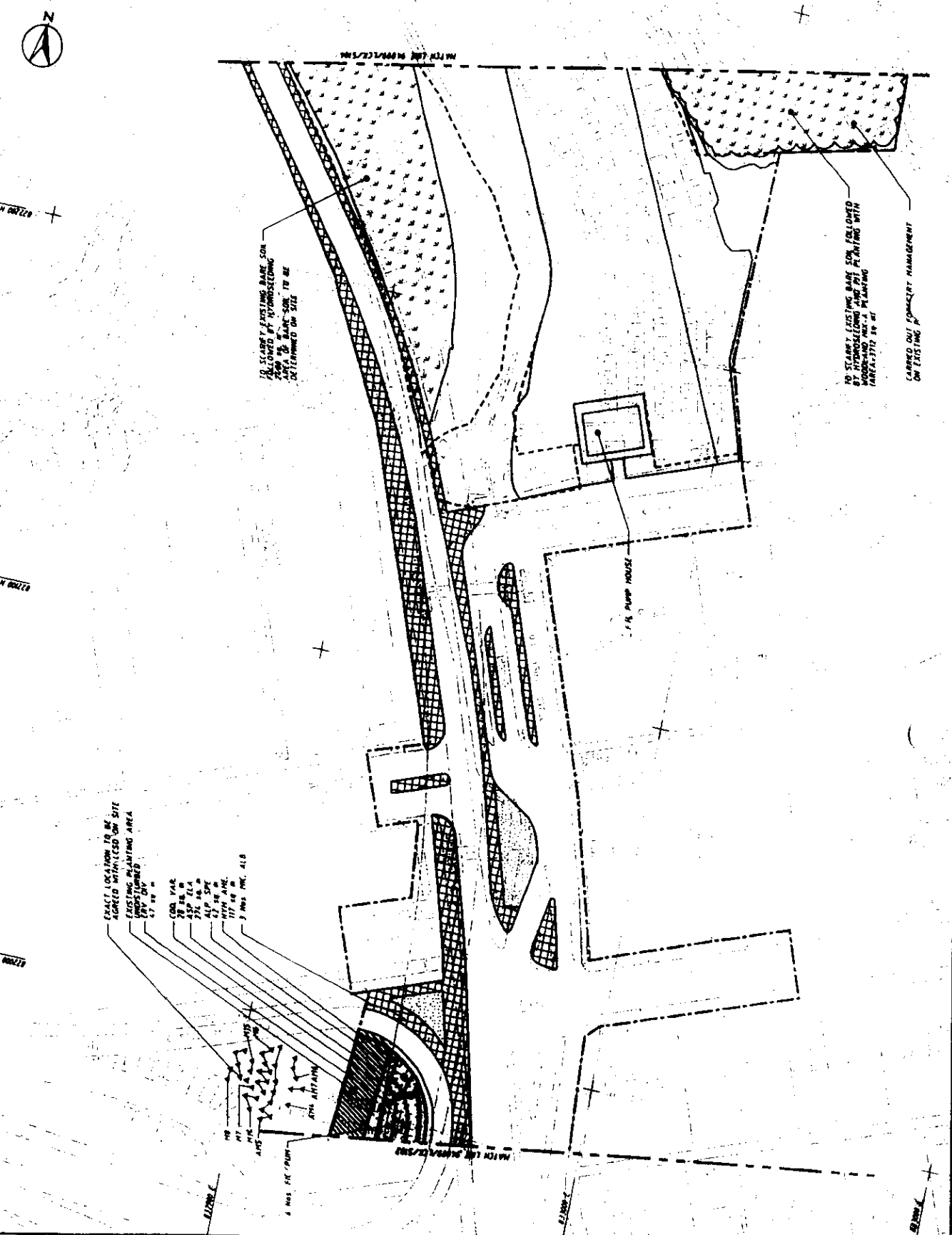
**LANDSCAPE SOFTWARE PLAN**

MADEIRA VENTURE JOINT VENTURE

94899/LK/510 F

AS-BUILT DRAWING

CITY



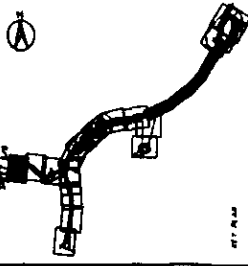
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02700 E

02700 W

02700 S





**LEGEND**

- ① FIRE HEAVY SLANDHAM (SEE)
- ② FIRE MEDIUM SLANDHAM (SEE)
- ③ FIRE LIGHT SLANDHAM (SEE)
- ④ FIRE HEAVY SLANDHAM (SEE) WITH PORTABILANT PLANTER
- ⑤ PLANTER LOCATED AT TRANSPORTABLE PLANT
- ⑥ MAIN LANDSCAPE AREA
- ⑦ 300 MM SPAWNS BERRIES
- ⑧ EXISTING POWER
- ⑨ NEW POWER
- ⑩ WATER POINT

**NOTES**

1. ALL PLANTS TO BE PLANTED WITHIN THE SETBACK FROM THE SIDE OF THE ROAD
2. PORTABILANT PLANTERS TO BE LOCATED AT THE END OF EACH SECTION OF THE ROAD
3. PORTABILANT PLANTERS TO BE LOCATED AT THE END OF EACH SECTION OF THE ROAD

NO.	DESCRIPTION	QTY.	UNIT	PRICE	TOTAL
1	1	1			
2	1	1			
3	1	1			
4	1	1			
5	1	1			
6	1	1			
7	1	1			
8	1	1			
9	1	1			
10	1	1			

Highways Department 2000-2001 Budget  
Under Works Program Management Office

**ROUTE 8 - LAI CHI KOK ROAD PROJECT**

**LANDSCAPE SORTWORKS PLAN**

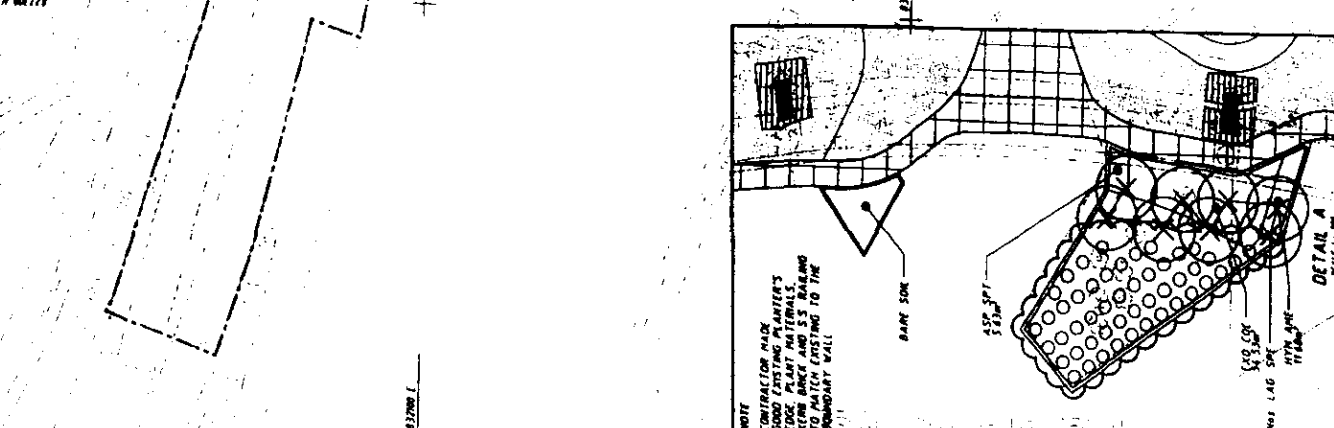
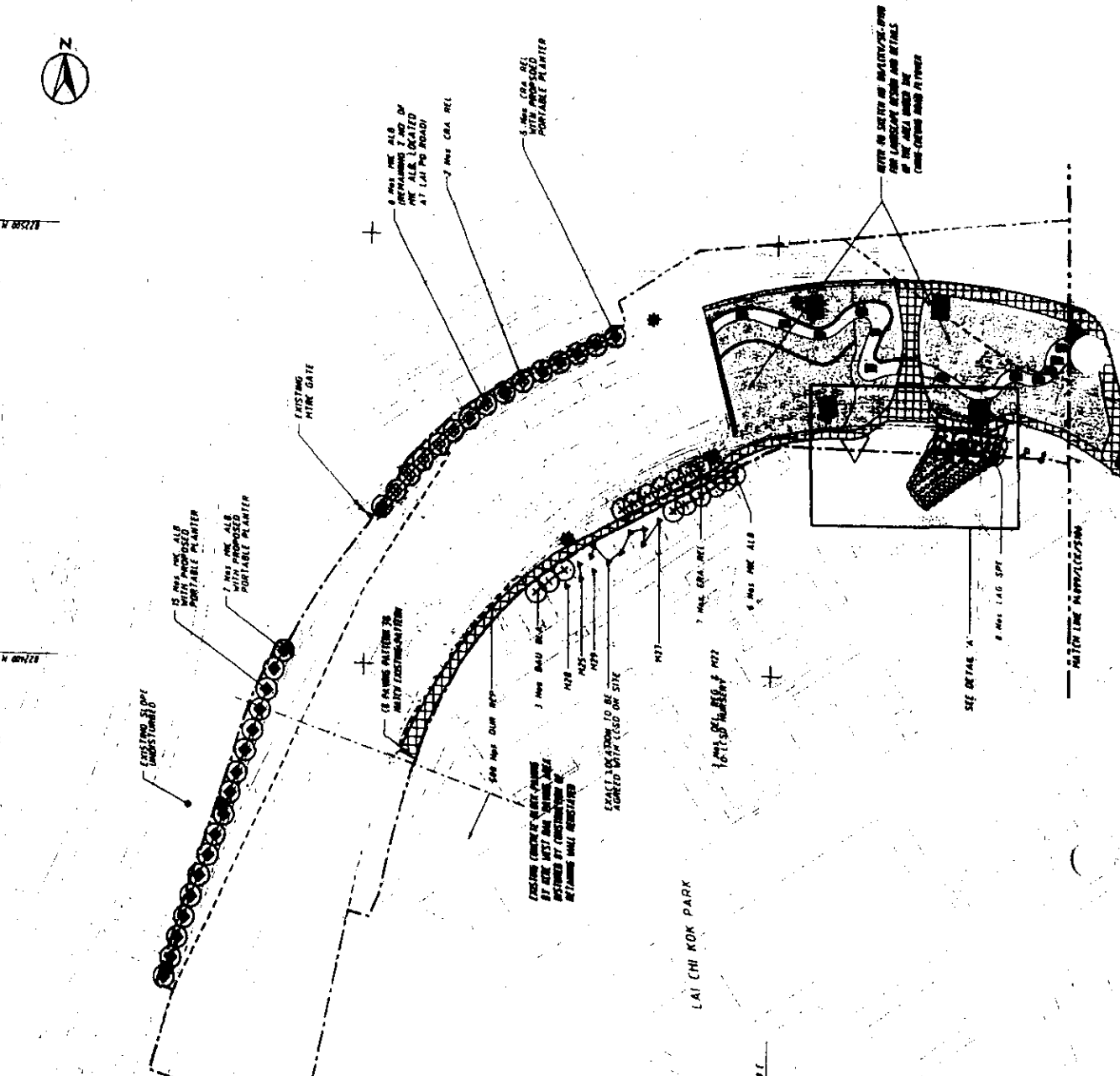
SHEET 1 OF 1

**MANORRELL HYDRO-JOINT VENTURE**

PROJECT NO: 96-099/LCK/SMS E

DATE: 11/20/98

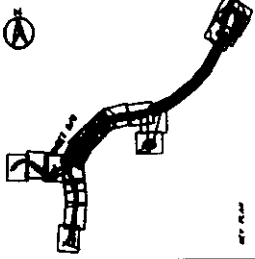
SCALE: AS-BUILT DRAWING











LEGEND

Proposed / Unimproved

Proposed / Improved

Existing

NOTES

1. ALL NOTES AND PLANNED CROSSINGS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

NO.	DESCRIPTION	DATE	BY	CHECKED BY
1	DESIGN	11/15/99	...	...
2	...	...	...	...
3	...	...	...	...
4	...	...	...	...
5	...	...	...	...
6	...	...	...	...
7	...	...	...	...
8	...	...	...	...
9	...	...	...	...
10	...	...	...	...

Highways Department **BRIDGE UNIT**  
 Major Street Project Management Office

ROUTE 8 - LAI CHI HOEK VIADUCT

LANDSCAPE SOFTWARE PLAN

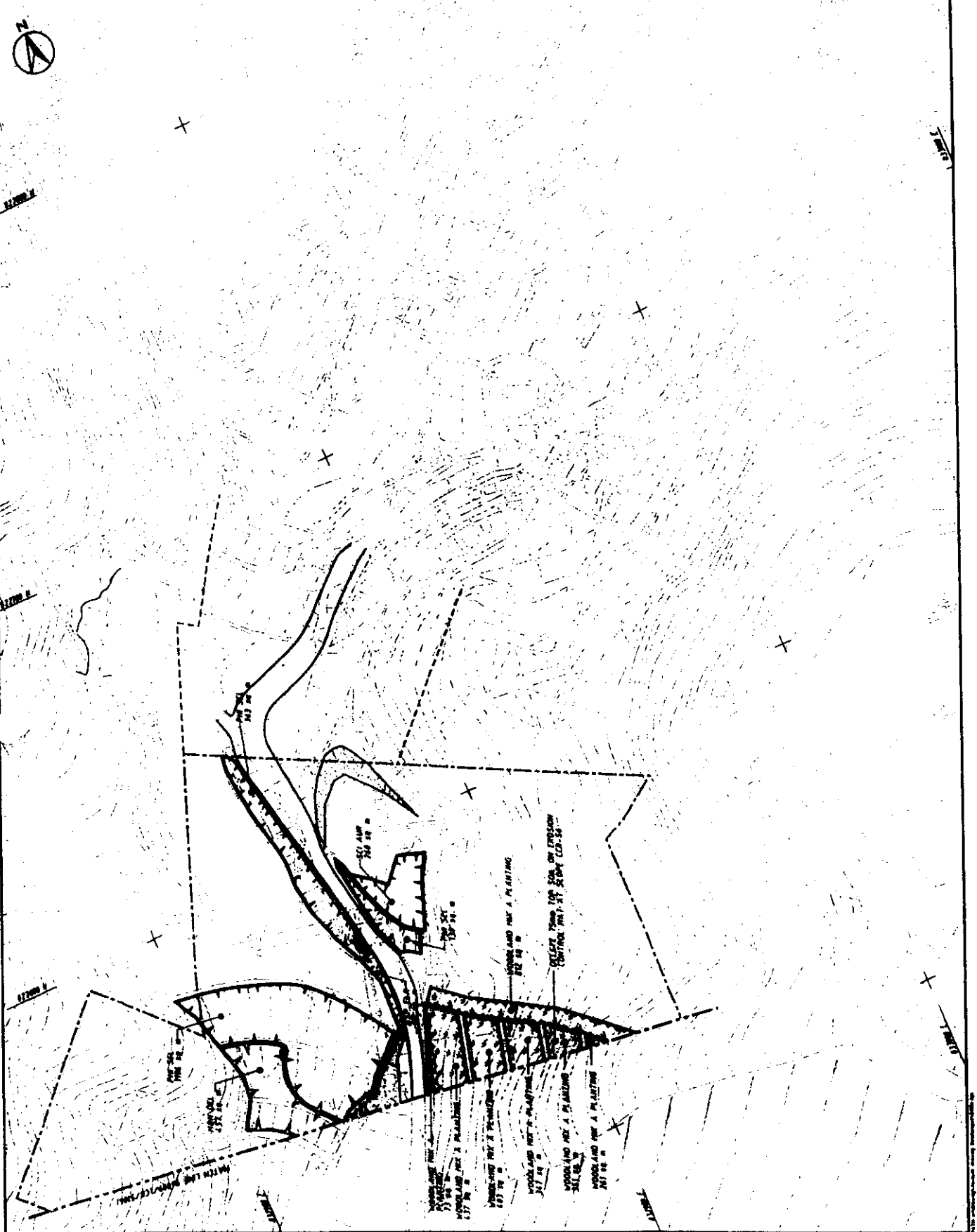
PROJECT NO. 94-099/LC/S/000 E

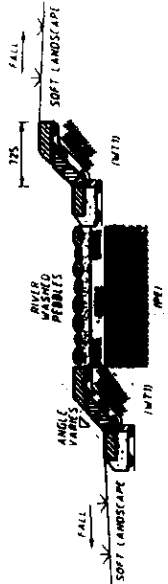
DATE: 11/15/99

AS-BUILT DRAWING

SCALE: 1" = 100'

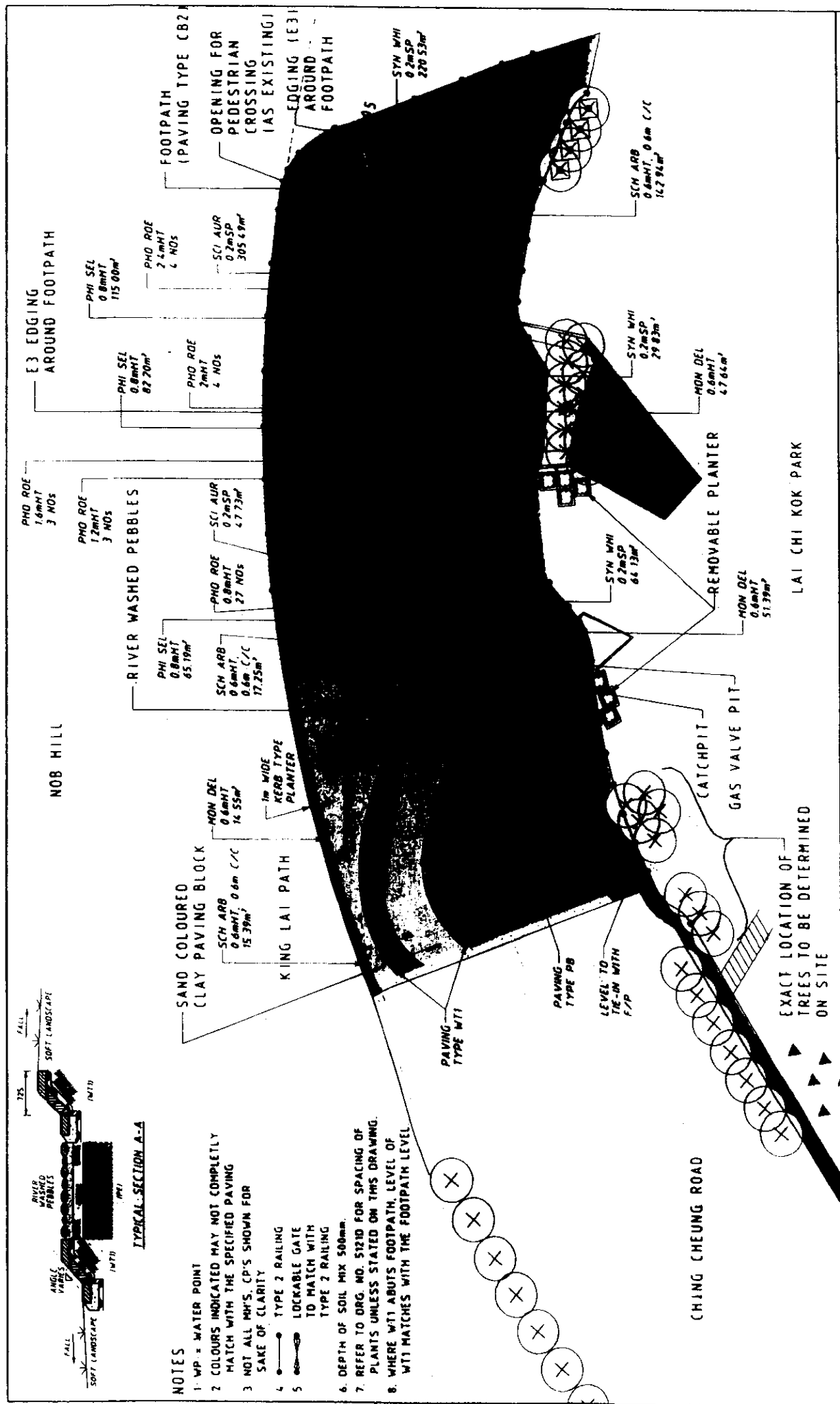
DATE: 11/15/99





**NOTES**

- 1. WP = WATER POINT
- 2. COLOURS INDICATED MAY NOT COMPLETELY MATCH WITH THE SPECIFIED PAVING
- 3. NOT ALL MM'S. CP'S SHOWN FOR SAKE OF CLARITY
- 4. ● TYPE 2 RAILING
- 5. ⊕ LOCKABLE GATE TO MATCH WITH TYPE 2 RAILING
- 6. DEPTH OF SOIL MIX 500mm
- 7. REFER TO DRG. NO. S1210 FOR SPACING OF PLANTS UNLESS STATED ON THIS DRAWING.
- 8. WHERE WT1 ABOUTS FOOTPATH, LEVEL OF WT1 MATCHES WITH THE FOOTPATH LEVEL



HAUNSELL HYDER JOINT VENTURE	REVISD LANDSCAPING TAILS BENEATH LWRO		SCALE 1:400
	ROUTE 8 LAI CHI KOK VIADUCT CONTRACT NO //2003701	SKETCH NO RB/LCRY/SK-1919B	
		PREPARED BY S.Y TSE	
		CHECKED BY RICHARD NEISH	

**PLANTING SCHEDULE**

1. PLANTING SCHEDULE	11/15/2024	11/15/2024
2. PREPARED BY	11/15/2024	11/15/2024
3. CHECKED BY	11/15/2024	11/15/2024
4. APPROVED BY	11/15/2024	11/15/2024
5. PROJECT NO.	94-099/1/CR/S121 E	
6. SHEET NO.	11/15/2024	11/15/2024
7. TOTAL SHEETS	11/15/2024	11/15/2024

Highways Department - LAI ONE ROK VANGUET  
 Major Works Project Management Office (MWPMO)

**PLANTING SCHEDULE**

Item	Description	Qty	Unit	Planting Date	Remarks
1	PLANTING SCHEDULE				
2	PREPARED BY				
3	CHECKED BY				
4	APPROVED BY				
5	PROJECT NO.	94-099/1/CR/S121 E			
6	SHEET NO.	11/15/2024			
7	TOTAL SHEETS	11/15/2024			

Highways Department - LAI ONE ROK VANGUET  
 Major Works Project Management Office (MWPMO)

**PLANTING SCHEDULE**

Item	Description	Qty	Unit	Planting Date	Remarks
1	PLANTING SCHEDULE				
2	PREPARED BY				
3	CHECKED BY				
4	APPROVED BY				
5	PROJECT NO.	94-099/1/CR/S121 E			
6	SHEET NO.	11/15/2024			
7	TOTAL SHEETS	11/15/2024			

Highways Department - LAI ONE ROK VANGUET  
 Major Works Project Management Office (MWPMO)

**PLANTING SCHEDULE**

Item	Description	Qty	Unit	Planting Date	Remarks
1	PLANTING SCHEDULE				
2	PREPARED BY				
3	CHECKED BY				
4	APPROVED BY				
5	PROJECT NO.	94-099/1/CR/S121 E			
6	SHEET NO.	11/15/2024			
7	TOTAL SHEETS	11/15/2024			

Highways Department - LAI ONE ROK VANGUET  
 Major Works Project Management Office (MWPMO)

**PLANTING SCHEDULE**

Highways Department - LAI ONE ROK VANGUET  
 Major Works Project Management Office (MWPMO)

PLANTING SCHEDULE

PLANTING SCHEDULE

Highways Department - LAI ONE ROK VANGUET  
 Major Works Project Management Office (MWPMO)

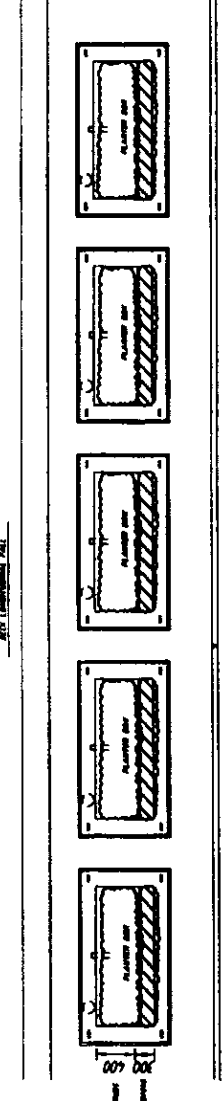
1. This sheet shall be prepared by the contractor and shall be approved by the Engineer.  
 2. Approximate quantities are shown for reference only.  
 3. Quantity to be placed in place shall be shown in the Bill of Materials.



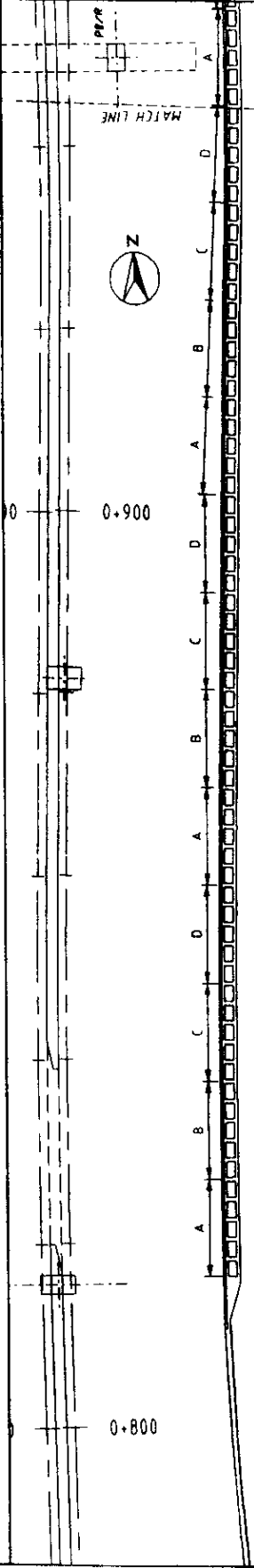
LET PLAN

1. PROJECT NUMBER	14-0001	2. SHEET NO.	10
3. PROJECT NAME	LANDSCAPE SOFTWARES PLAN (VIADUCT)	4. DATE	10/1/14
5. DRAWN BY	W. J. [unreadable]	6. CHECKED BY	[unreadable]
7. PROJECT LOCATION	ROUTE 8 - LAI CHI ROK VIADUCT	8. PROJECT NUMBER	94099/LCK/5501 C
9. PROJECT OWNER	MAHONNELL HYDRO ADJUST VENTURE	10. PROJECT NUMBER	94099/LCK/5501 C
11. PROJECT NUMBER	94099/LCK/5501 C	12. PROJECT NUMBER	94099/LCK/5501 C
13. PROJECT NUMBER	94099/LCK/5501 C	14. PROJECT NUMBER	94099/LCK/5501 C
15. PROJECT NUMBER	94099/LCK/5501 C	16. PROJECT NUMBER	94099/LCK/5501 C

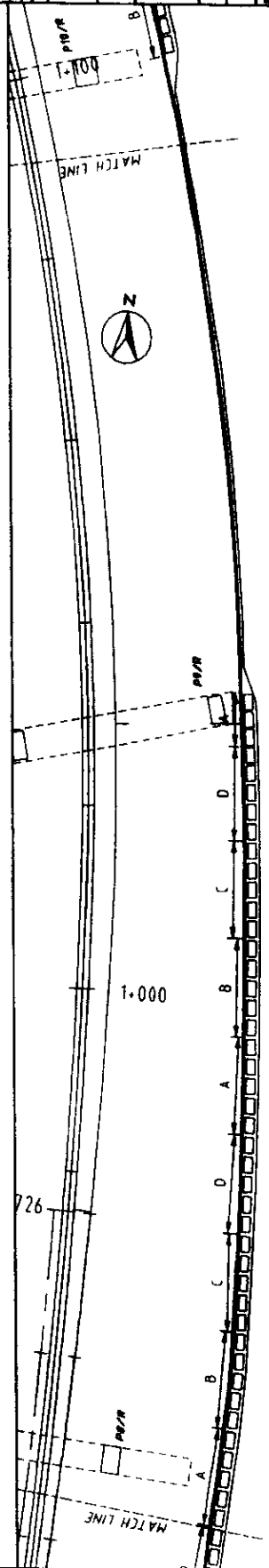
Type	Advantage Area	Qty per 100'	Unit	Quantity	Notes
1	Planting	100	sq ft	100	
2	Planting	100	sq ft	100	
3	Planting	100	sq ft	100	
4	Planting	100	sq ft	100	
5	Planting	100	sq ft	100	
6	Planting	100	sq ft	100	
7	Planting	100	sq ft	100	
8	Planting	100	sq ft	100	
9	Planting	100	sq ft	100	
10	Planting	100	sq ft	100	



TYPICAL PLANTER BOX



LAYOUT PLAN

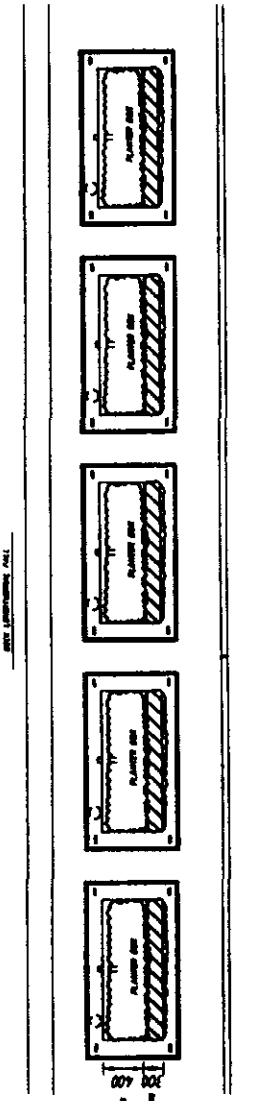


LAYOUT PLAN

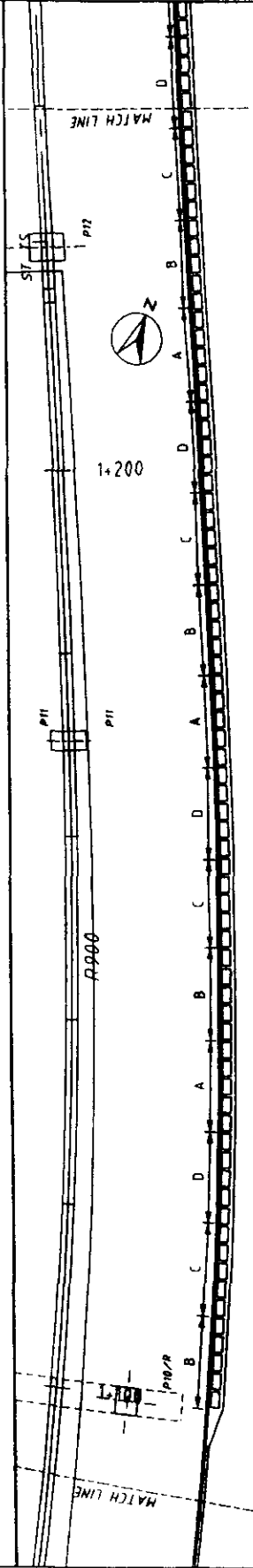


RT PLAN

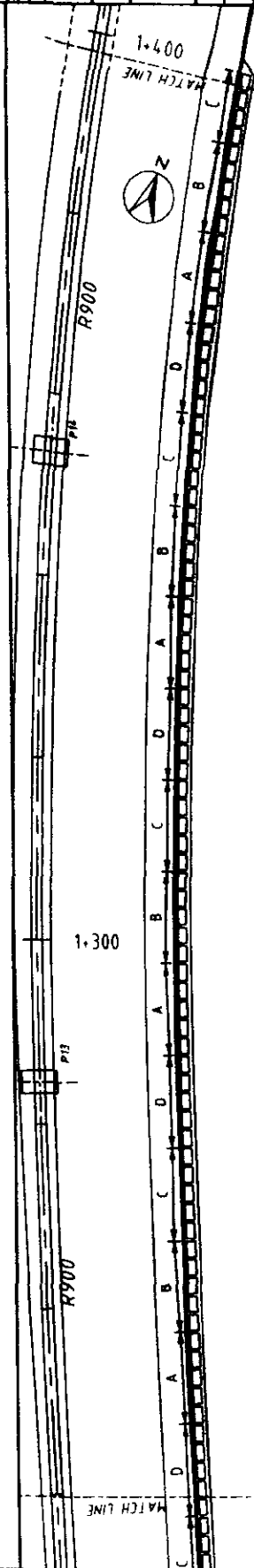
Type	Quantity	Unit	Plant Species
A	120	each	PLANTER BOX
B	120	each	PLANTER BOX
C	120	each	PLANTER BOX
D	120	each	PLANTER BOX



TYPICAL PLANTER BOX



LAYOUT PLAN



LAYOUT PLAN

PROJECT NO.	94099/LCK/5592 C
DATE	11/11/03
SCALE	AS-BUILT DRAWING
DESIGNED BY	MAURILLI HYDRO-JOINT VENTURE
CHECKED BY	MAURILLI HYDRO-JOINT VENTURE
APPROVED BY	MAURILLI HYDRO-JOINT VENTURE
PROJECT NAME	ROUTE 8 - LAI CHI NOK VIADUCT
CLIENT	Highways Department, PRC&P, P&A/B
LOCATION	Major Urban Road, Hong Kong



8/7/14

C:\LANDSCAPE	LANDSCAPE
D:\LANDSCAPE	LANDSCAPE
E:\LANDSCAPE	LANDSCAPE
F:\LANDSCAPE	LANDSCAPE
G:\LANDSCAPE	LANDSCAPE
H:\LANDSCAPE	LANDSCAPE
I:\LANDSCAPE	LANDSCAPE
J:\LANDSCAPE	LANDSCAPE
K:\LANDSCAPE	LANDSCAPE
L:\LANDSCAPE	LANDSCAPE
M:\LANDSCAPE	LANDSCAPE
N:\LANDSCAPE	LANDSCAPE
O:\LANDSCAPE	LANDSCAPE
P:\LANDSCAPE	LANDSCAPE
Q:\LANDSCAPE	LANDSCAPE
R:\LANDSCAPE	LANDSCAPE
S:\LANDSCAPE	LANDSCAPE
T:\LANDSCAPE	LANDSCAPE
U:\LANDSCAPE	LANDSCAPE
V:\LANDSCAPE	LANDSCAPE
W:\LANDSCAPE	LANDSCAPE
X:\LANDSCAPE	LANDSCAPE
Y:\LANDSCAPE	LANDSCAPE
Z:\LANDSCAPE	LANDSCAPE

Progressive Department: PERKINS+WILL  
 Project Name: Highway Project Management Office

ROUTE 8 - LA 018 ROAD VIADUCT

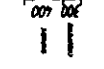
LANDSCAPE SOFTWARES PLAN (VIADUCT) SHEET 3 OF 3

MANHATTAN PROJECT JOINT VENTURE

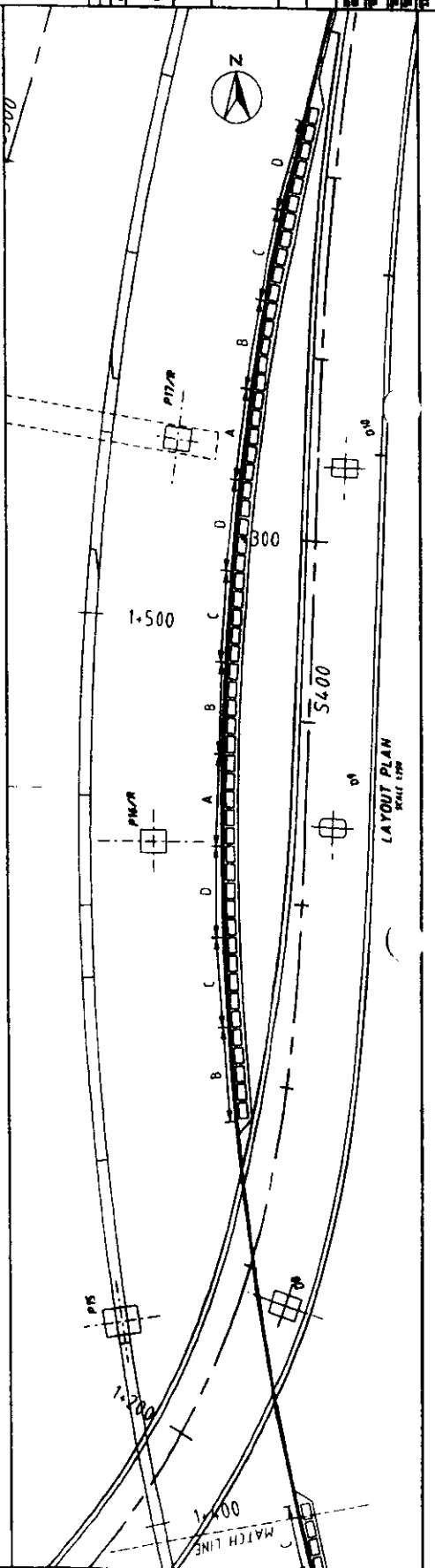
94099/LCK/5503 C

AS-BUILT DRAWING

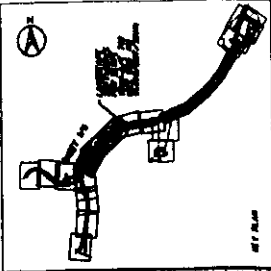
Type	Quantity	Planting Area (sq ft)	Tree #1 / Soil	Plant Economy	Plant Resources
A	1	130.7	200' x 200'	150'	
B	1	200.7	200' x 200'	200'	
C	1	200.7	200' x 200'	200'	
D	1	200.7	200' x 200'	200'	
E	1	200.7	200' x 200'	200'	
F	1	200.7	200' x 200'	200'	
G	1	200.7	200' x 200'	200'	
H	1	200.7	200' x 200'	200'	
I	1	200.7	200' x 200'	200'	
J	1	200.7	200' x 200'	200'	
K	1	200.7	200' x 200'	200'	
L	1	200.7	200' x 200'	200'	
M	1	200.7	200' x 200'	200'	
N	1	200.7	200' x 200'	200'	
O	1	200.7	200' x 200'	200'	
P	1	200.7	200' x 200'	200'	
Q	1	200.7	200' x 200'	200'	
R	1	200.7	200' x 200'	200'	
S	1	200.7	200' x 200'	200'	
T	1	200.7	200' x 200'	200'	
U	1	200.7	200' x 200'	200'	
V	1	200.7	200' x 200'	200'	
W	1	200.7	200' x 200'	200'	
X	1	200.7	200' x 200'	200'	
Y	1	200.7	200' x 200'	200'	
Z	1	200.7	200' x 200'	200'	



TYPICAL PLANTER BOX  
SCALE 1/8"







**LEGEND**

- EXISTING AND PROPOSED ROADS
- EXISTING AND PROPOSED UTILITIES
- EXISTING AND PROPOSED BUILDINGS
- EXISTING AND PROPOSED PLANTINGS
- EXISTING AND PROPOSED TERRACE
- EXISTING AND PROPOSED DRIVEWAYS
- EXISTING AND PROPOSED DRIVEWAYS
- EXISTING AND PROPOSED DRIVEWAYS
- EXISTING AND PROPOSED DRIVEWAYS
- EXISTING AND PROPOSED DRIVEWAYS

**NOTES**

1. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
2. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
3. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
4. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
5. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
6. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
7. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
8. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
9. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.
10. ALL PLANTINGS TO BE INSTALLED BY THE CONTRACTOR.

NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	PLANTING				
2	PLANTING				
3	PLANTING				
4	PLANTING				
5	PLANTING				
6	PLANTING				
7	PLANTING				
8	PLANTING				
9	PLANTING				
10	PLANTING				

**PROJECT INFORMATION**

Highways Department PROJECT NAME: [REDACTED]  
 Major Road Project Management Office (MRO)

**PROJECT - BARBER HILL BLVD AND ASSOCIATED WOODS**

**LANDSCAPE SOFTWARE PLAN**

SCALE: 1:100

MANHATTAN HYDRO JOINT VENTURE

PROJECT NO: 94899/ENT/5100

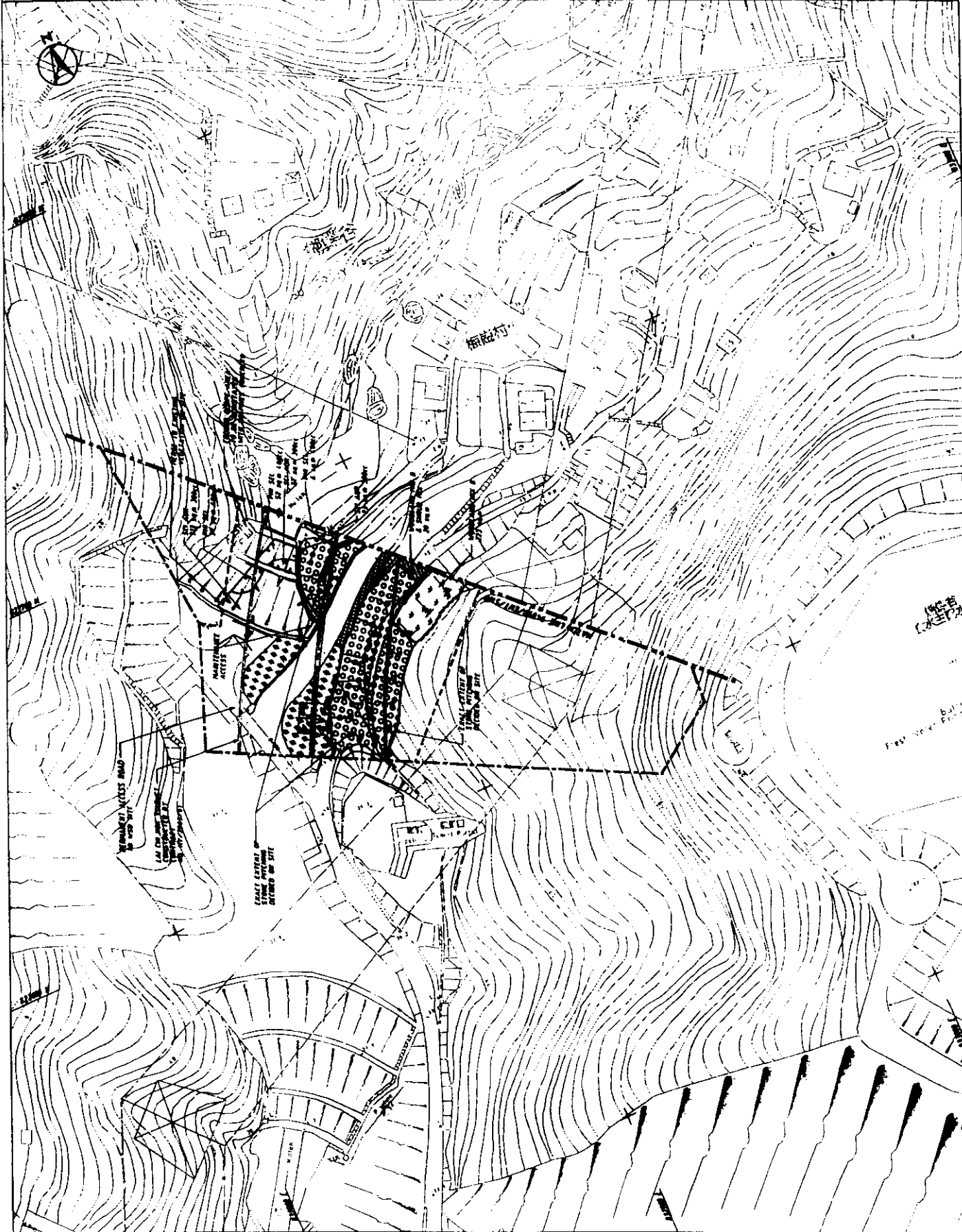
DATE: 10/20/2000

BY: [REDACTED]

CHECKED BY: [REDACTED]

APPROVED BY: [REDACTED]

DATE: 10/20/2000







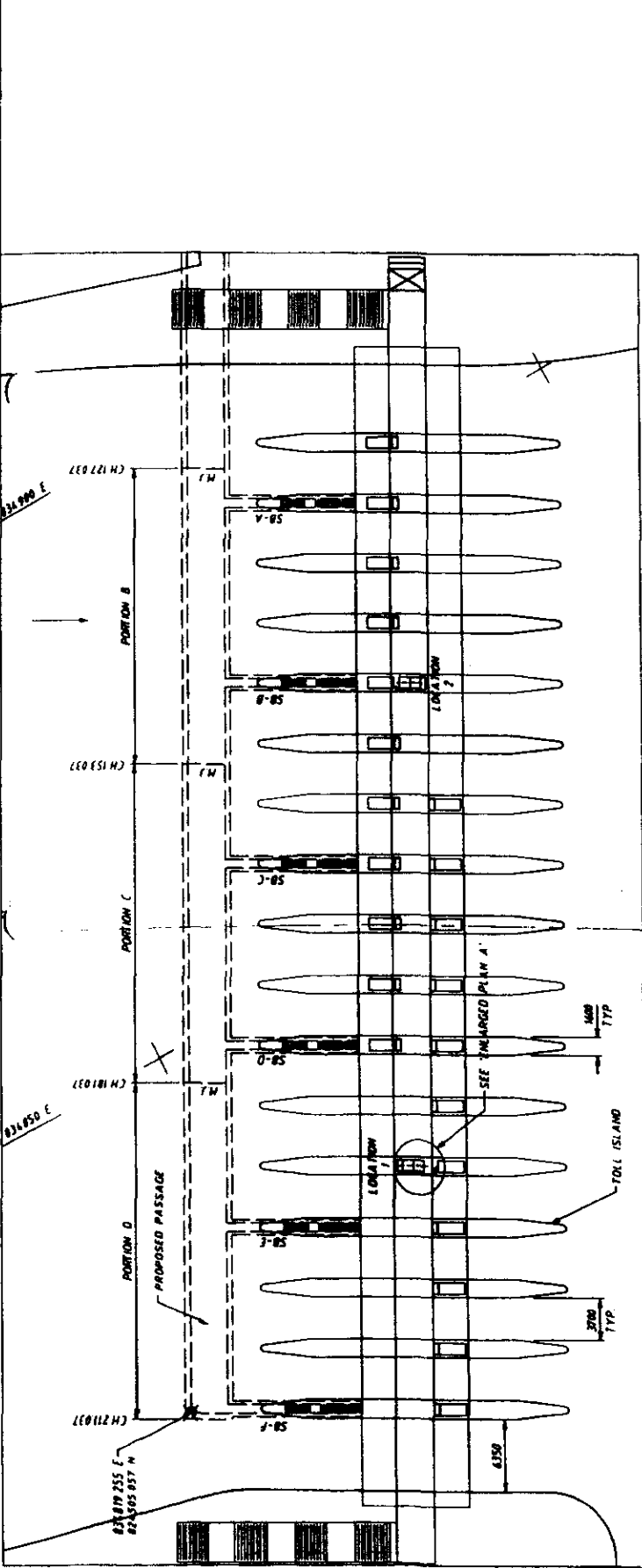




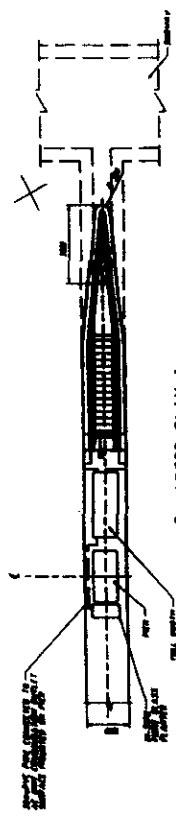


DATE: 1/27/2008

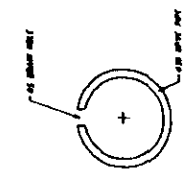
PROJECT	94-099/EMT/5113-1
DATE	1/27/2008
BY	SP
CHECKED	SP
SCALE	AS-BUILT DRAWING
PROJECT NO.	94-099/EMT/5113-1
DATE	1/27/2008
BY	SP
CHECKED	SP
SCALE	AS-BUILT DRAWING
PROJECT NO.	94-099/EMT/5113-1
DATE	1/27/2008
BY	SP
CHECKED	SP
SCALE	AS-BUILT DRAWING



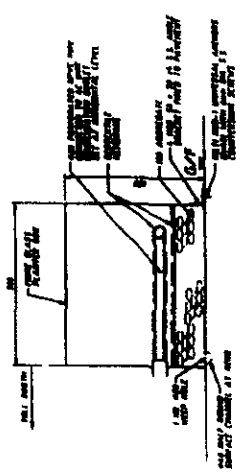
LOCATION PLAN  
SCALE: 1" = 20' HS



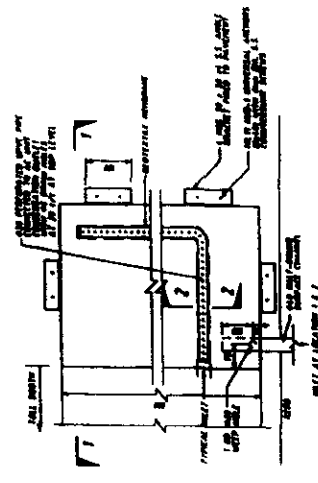
ENLARGED PLAN A  
SCALE: 1" = 20' HS



SECTION 2 - 2  
SCALE: 1" = 20' HS



SECTION 1 - 1  
SCALE: 1" = 20' HS



PLAN OF IN-SITU  
FIBRE GLASS PLANTER  
SCALE: 1" = 20' HS

Approximate to Best of Ability

Day	Subcontract Name	Quantity	Percentage	Remarks
1	Subcontract Name	1000	100%	100%
2	Subcontract Name	1000	100%	100%

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

1. This work shall include all items not included in the list and shall be completed by the contractor.

Approximate Planting

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

- 1. Erosion control devices to prevent the growth of other species and removed by planting.
- 2. Approximate to be completed in all unexcavated areas prior to starting of unexcavated area.
- 3. Shovel the operator to replace the ground in the hole to the depth of the hole.

Subcontract Planting Areas (Front)

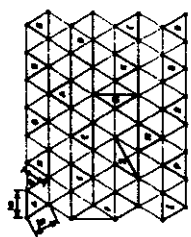
Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

Subcontract Planting Areas (Rear)

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

Approximate Planting

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%



Notes: 1. Erosion control devices to prevent the growth of other species and removed by planting.

Plant Schedule for Subcontract Areas (Rear)

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

Approximate Planting / Subcontract Areas

Day	Subcontract Name	Qty	Quantity	Percentage	Remarks
1	Subcontract Name	1000	1000	100%	100%
2	Subcontract Name	1000	1000	100%	100%
3	Subcontract Name	1000	1000	100%	100%
4	Subcontract Name	1000	1000	100%	100%
5	Subcontract Name	1000	1000	100%	100%
6	Subcontract Name	1000	1000	100%	100%
7	Subcontract Name	1000	1000	100%	100%
8	Subcontract Name	1000	1000	100%	100%
9	Subcontract Name	1000	1000	100%	100%
10	Subcontract Name	1000	1000	100%	100%

Notes: 1. Erosion control devices to prevent the growth of other species and removed by planting.

ROUTE 6 - BAKER STREET TUNNEL AND ASSOCIATED TUNNELS

Highways Department - BAKER STREET TUNNEL

PLANTING SCHEDULE

MARSHALL HYDRA-JOINT VENTURE

94999/ENT/5125C

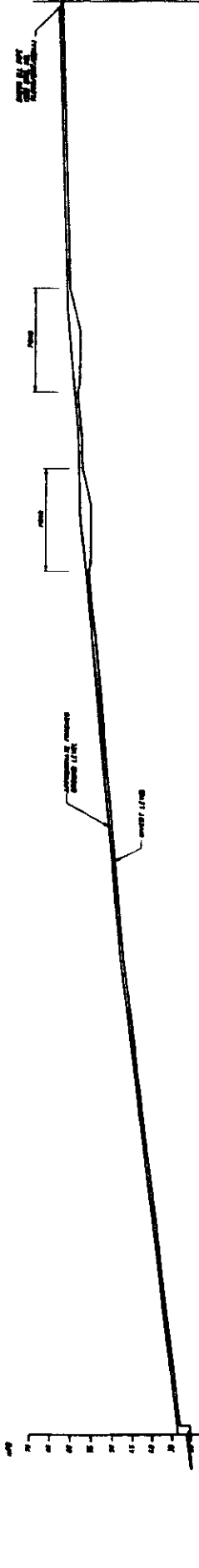
AD-BUILD DRAWINGS



**Appendix C**  
**As-Built Drawings of Recreated Stream**

Drawing List - Recreated Stream

ENT Contract No HY/2003/02		
94099/ENT/2241 C	RECREATED STREAM - GENERAL ARRANGEMENT	SHEET 1 OF 2
94099/ENT/2242 C	RECREATED STREAM - GENERAL ARRANGEMENT	SHEET 2 OF 2
94099/ENT/2243 C	RECREATED STREAM - TYPICAL SECTIONS	



STATION	VERTICAL CURVE DATA	PROFILES	VERTICAL CURVE DATA	PROFILES	VERTICAL CURVE DATA	PROFILES	VERTICAL CURVE DATA	PROFILES	VERTICAL CURVE DATA	PROFILES
0+00		1.00		1.00		1.00		1.00		1.00
0+25		1.00		1.00		1.00		1.00		1.00
0+50		1.00		1.00		1.00		1.00		1.00
0+75		1.00		1.00		1.00		1.00		1.00
1+00		1.00		1.00		1.00		1.00		1.00
1+25		1.00		1.00		1.00		1.00		1.00
1+50		1.00		1.00		1.00		1.00		1.00
1+75		1.00		1.00		1.00		1.00		1.00
2+00		1.00		1.00		1.00		1.00		1.00
2+25		1.00		1.00		1.00		1.00		1.00
2+50		1.00		1.00		1.00		1.00		1.00
2+75		1.00		1.00		1.00		1.00		1.00
3+00		1.00		1.00		1.00		1.00		1.00
3+25		1.00		1.00		1.00		1.00		1.00
3+50		1.00		1.00		1.00		1.00		1.00
3+75		1.00		1.00		1.00		1.00		1.00
4+00		1.00		1.00		1.00		1.00		1.00
4+25		1.00		1.00		1.00		1.00		1.00
4+50		1.00		1.00		1.00		1.00		1.00
4+75		1.00		1.00		1.00		1.00		1.00
5+00		1.00		1.00		1.00		1.00		1.00
5+25		1.00		1.00		1.00		1.00		1.00
5+50		1.00		1.00		1.00		1.00		1.00
5+75		1.00		1.00		1.00		1.00		1.00
6+00		1.00		1.00		1.00		1.00		1.00
6+25		1.00		1.00		1.00		1.00		1.00
6+50		1.00		1.00		1.00		1.00		1.00
6+75		1.00		1.00		1.00		1.00		1.00
7+00		1.00		1.00		1.00		1.00		1.00
7+25		1.00		1.00		1.00		1.00		1.00
7+50		1.00		1.00		1.00		1.00		1.00
7+75		1.00		1.00		1.00		1.00		1.00
8+00		1.00		1.00		1.00		1.00		1.00
8+25		1.00		1.00		1.00		1.00		1.00
8+50		1.00		1.00		1.00		1.00		1.00
8+75		1.00		1.00		1.00		1.00		1.00
9+00		1.00		1.00		1.00		1.00		1.00
9+25		1.00		1.00		1.00		1.00		1.00
9+50		1.00		1.00		1.00		1.00		1.00
9+75		1.00		1.00		1.00		1.00		1.00
10+00		1.00		1.00		1.00		1.00		1.00

LONGITUDINAL PROFILE ALONG RECREATED STREAM  
 SCALE: HORIZ. 1" = 100' VERT. 1" = 10'

NOTES:  
 1. ALL STREAMS, CHANNELS OR DITCHES SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM CHANNEL VELOCITY OF 0.5 FEET PER SECOND TO PREVENT SILTATION AND TO MAINTAIN CHANNEL DEPTH.  
 2. ALL STREAMS SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM CHANNEL VELOCITY OF 0.5 FEET PER SECOND TO PREVENT SILTATION AND TO MAINTAIN CHANNEL DEPTH.  
 3. ALL STREAMS SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM CHANNEL VELOCITY OF 0.5 FEET PER SECOND TO PREVENT SILTATION AND TO MAINTAIN CHANNEL DEPTH.  
 4. ALL STREAMS SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM CHANNEL VELOCITY OF 0.5 FEET PER SECOND TO PREVENT SILTATION AND TO MAINTAIN CHANNEL DEPTH.  
 5. ALL STREAMS SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM CHANNEL VELOCITY OF 0.5 FEET PER SECOND TO PREVENT SILTATION AND TO MAINTAIN CHANNEL DEPTH.

LEGEND:  
 1. STREAM CENTER LINE  
 2. STREAM RIGHT BANK  
 3. STREAM LEFT BANK  
 4. CHANNEL CENTER LINE  
 5. CHANNEL RIGHT BANK  
 6. CHANNEL LEFT BANK  
 7. DITCH CENTER LINE  
 8. DITCH RIGHT BANK  
 9. DITCH LEFT BANK

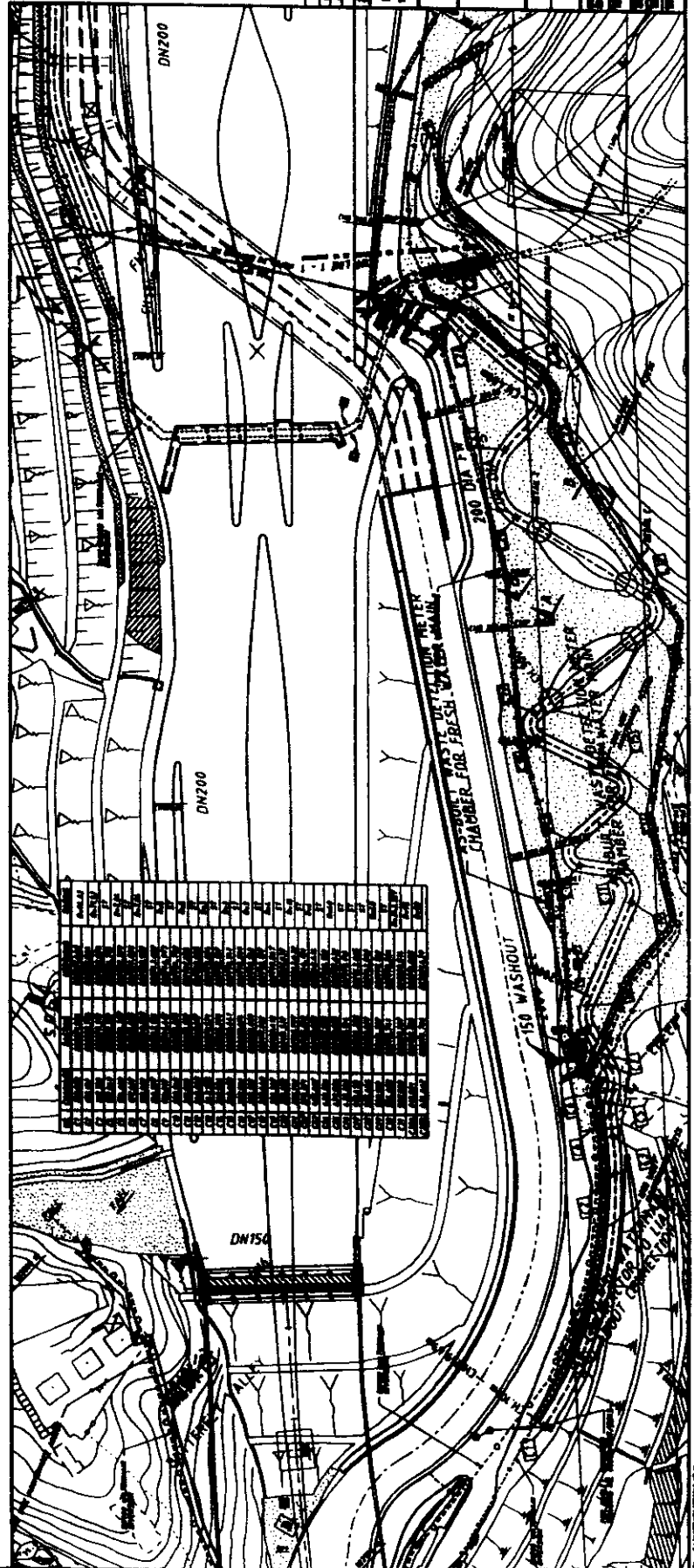
ABBREVIATION:  
 P.A. PROPOSED ALIGNMENT  
 P.L. PROPOSED LINE  
 T. TRAIL  
 L. LINE

ROUTE 8 - SHALERS HOLLOW VENTURE AND ASSOCIATED WORKS  
 RECREATED STREAM - GENERAL ARRANGEMENT  
 SHEET 1 OF 2

MANHOLE, HYDRAULIC JUNCTION, VENTURE

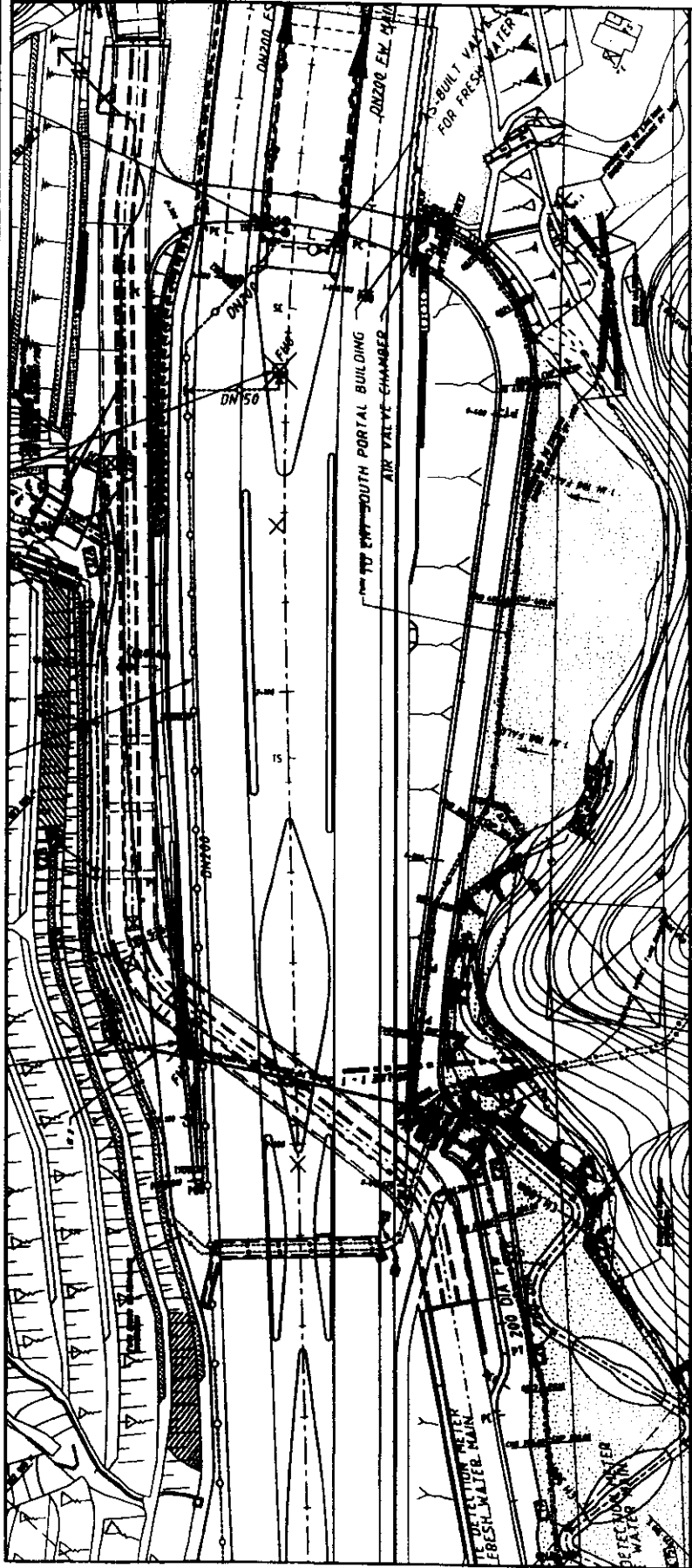
96.0997/2224 X

AD-BUILT DRAWING

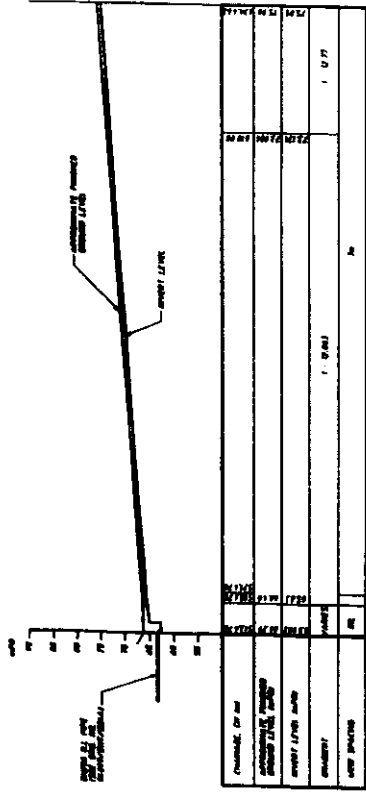


**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.  
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.  
 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING UTILITIES AND STRUCTURES.  
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.  
 5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING UTILITIES AND STRUCTURES.  
 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

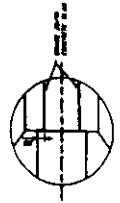


**LAYOUT PLAN**  
 DATE: 11/10/00

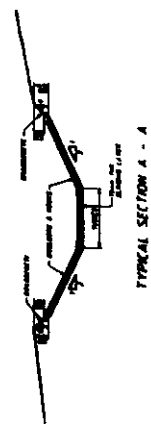


**LONGITUDINAL PROFILE ALONG RECREATED STREAM**  
 SCALE: HORIZ. 1" = 100' VERT. 1" = 10'

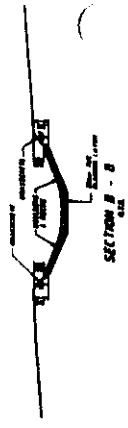
DATE	11/10/00
PROJECT	ROUTE 8 - SABLES RIVER TUNNEL AND ASSOCIATED WORK
CLIENT	Highway Department - NEW BRUNSWICK Major Works Project Management Office
DESIGNER	WILLIAMS BROS. ENGINEERS
DRAWN BY	WILLIAMS BROS. ENGINEERS
CHECKED BY	WILLIAMS BROS. ENGINEERS
APPROVED BY	WILLIAMS BROS. ENGINEERS
SCALE	AS SHOWN
PROJECT NO.	94-099/ENT/2242C
DRAWING NO.	AS-BUILT DRAWING
DATE	11/10/00



**DETAIL C**  
 1:1

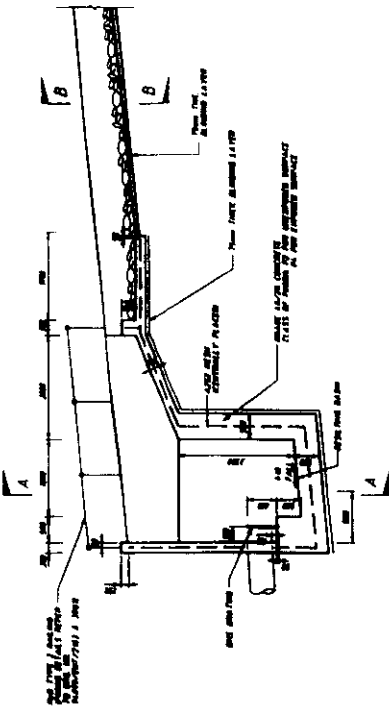


**TYPICAL SECTION A - A**  
 1:1

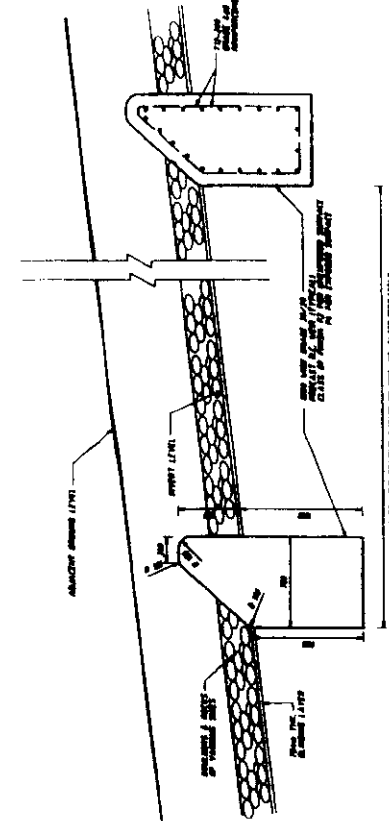


**SECTION B - B**  
 1:1

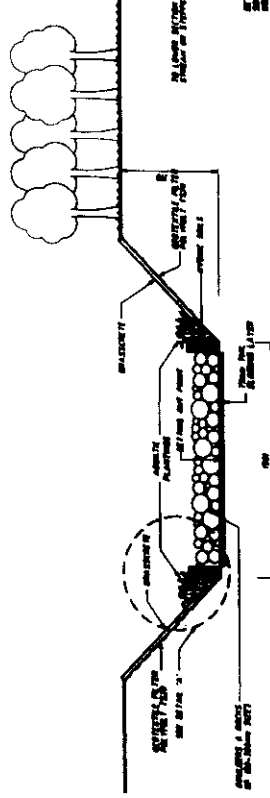
NOTES:  
 1. SEE SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.



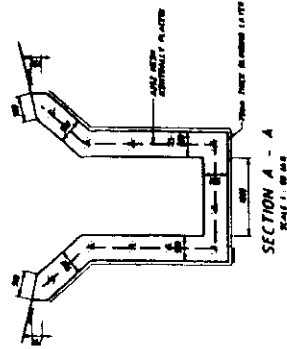
DESILING BASIN AND OUTLET DETAILS OF RECREATED STREAM  
 SCALE: 1/4" = 1'-0"



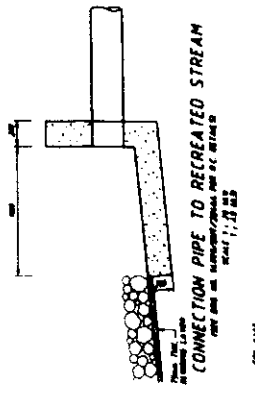
TYPICAL LONGITUDINAL SECTION OF RECREATED STREAM  
 SCALE: 1/4" = 1'-0"



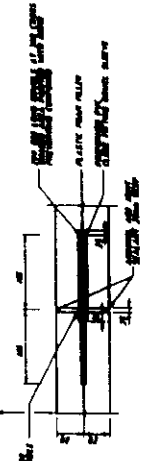
TYPICAL CROSS-SECTION OF RECREATED STREAM (SECTION B - B)  
 SCALE: 1/4" = 1'-0"



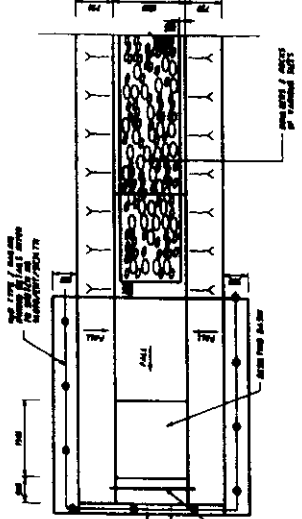
SECTION A - A  
 SCALE: 1/4" = 1'-0"



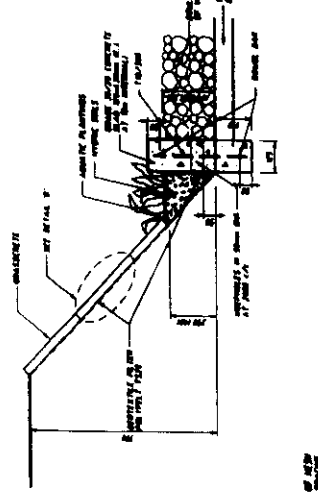
CONNECTION PIPE TO RECREATED STREAM  
 SCALE: 1/4" = 1'-0"



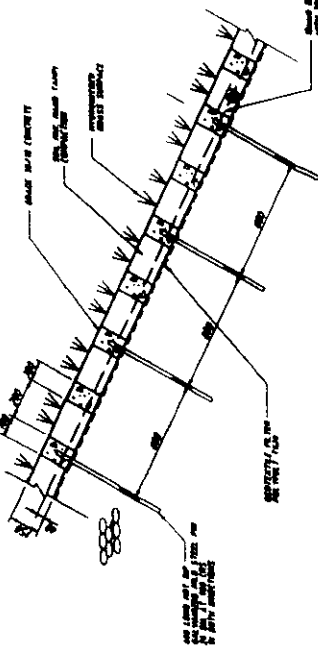
MOVEMENT JOINT DETAIL AT TOE WALL  
 SCALE: 1/4" = 1'-0"



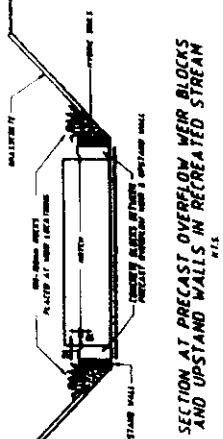
PLAN OF CONNECTION OF STREAM TO OPEN CHANNEL  
 SCALE: 1/4" = 1'-0"



DETAIL 'A' DETAILS OF AQUATIC PLANTING AT THE EDGE OF RECREATED STREAM  
 SCALE: 1/4" = 1'-0"



DETAIL 'B' DETAILS OF GRASSCRETE  
 SCALE: 1/4" = 1'-0"



SECTION AT PRECAST OVERFLOW WEIR BLOCKS AND UPSTAND WALLS IN RECREATED STREAM  
 SCALE: 1/4" = 1'-0"

NO.	DATE	BY	CHKD.	APP'D.
1	10/1/78	J. J. [unclear]	[unclear]	[unclear]
2	10/1/78	[unclear]	[unclear]	[unclear]
3	10/1/78	[unclear]	[unclear]	[unclear]
4	10/1/78	[unclear]	[unclear]	[unclear]
5	10/1/78	[unclear]	[unclear]	[unclear]
6	10/1/78	[unclear]	[unclear]	[unclear]
7	10/1/78	[unclear]	[unclear]	[unclear]
8	10/1/78	[unclear]	[unclear]	[unclear]
9	10/1/78	[unclear]	[unclear]	[unclear]
10	10/1/78	[unclear]	[unclear]	[unclear]

Highways Department, 2800 W. 10th St., Salt Lake City, Utah 84119  
 Major Vehicle Project Management Office (MVP)

ROUTE 8, EARLE H. JERRY TRAILER, FRED HANCOCK TRAILER

RECREATED STREAM - TYPICAL SECTIONS

MARKWELL HYDRO JOINT VENTURE

PROJECT NO. 96997ENT/224X

DATE: 10/1/78

SCALE: 1/4" = 1'-0"

AS-BUILT DRAWING

**Appendix D**  
**Forestry Management Findings**

**Summary of the Forestry Management Findings.**

In accordance with the original recommendations there is an extensive disturbed area (23,160 sq. m) of existing hillside behind Cut Slopes CCR-S1 & CCR-S3 to be planted with woodland mix in order to accord with the numbers of trees to be planted as stated in the Environmental Permit. During the formation of these slopes, particular alternation was paid to minimizing the disturbance of the natural hillside so as to leave untouched as much of the existing vegetation as possible.

To check the overall quantity of trees present within the contract boundary of Route 8 (including both LCKV & ENT), a vegetation survey was conducted to count the numbers of native trees within the undisturbed area.

Five quadrats (each of 100 sq. m) were marked on site by warning tape and each individual tree of any size within each quadrat tagged. The numbers of trees within each quadrat were as follows: (refer to drawing no LCK/SR/773)

Quadrat	Area	No of tree identified within the quadrat
A	108 sq m	431 nos
B	100 sq m	362 nos
C	97 sq m	332 nos
D	104 sq m	403 nos
E	105 sq m	460 nos

The total numbers of trees which had been counted within the five quadrats were 1988 nos, over an area of 514 sq. m. The average density of trees was 3.87 per sq m.

Based on the above findings it was estimated that there were around 89,629 nos of existing native tree species within 23,160 sq m of undisturbed area.

**Environmental Impact Assessment requirement**

As indicated on the as-built drawings for both the LCKV and ENT Contracts the total numbers of trees planted are as follows:

Contract	Total number of tree
LCKV (HY/2003/01)	16,617 nos
ENT (HY/2003/02)	46,466 nos
Total	63,083 nos

The total numbers of trees within the boundary of the LCKV and ENT sites are as follows:

Contract	Number of planted trees	Existing preserved trees within contract boundary	Total number of trees
LCKV (HY/2003/01)	16,617 nos	89,629 nos	106,246 nos
ENT (HY/2003/03)	46,466 nos		46,466 nos
Total number of trees within Route 8 Contract boundary			152,712 nos

### **Findings**

The 152,712 trees present within the planting areas of the LCKV & ENT sites are higher than the required quantity of 141,600 as stated in the original Landscape Proposal approved under EPD's letter of 28 November 2002 (copy attached).





								CONTRACT NO. HY/2003/01 ROUTE 8 - LAI CHI KOK VIADUCT RECORD SURVEY OF PILOT PLOTS AREA AT SLOPE CCR-S1		DATE: 14-7-2008 SCALE: 1 : 1000 043 DRAWING NO.: HY-173-008 SHEET NO.: LCK/58/773 A	
MAUNSELL HYDER JOINT VENTURE						HIGHWAYS DEPARTMENT 運輸局 Major Works Project Management Office		CONTRACT NO. HY/2003/01 ROUTE 8 - LAI CHI KOK VIADUCT RECORD SURVEY OF PILOT PLOTS AREA AT SLOPE CCR-S1		DATE: 14-7-2008 SCALE: 1 : 1000 043 DRAWING NO.: HY-173-008 SHEET NO.: LCK/58/773 A	
REV	DATE	BY	DATE	DESCRIPTION							
1	14-7-08	BY	DATE	DESCRIPTION							

YOUR REF:  
 電話  
 TEL NO.: 2835 1105  
 圖文傳真  
 FAX NO.: 2591 0558  
 電子郵件  
 E-MAIL:  
 網址  
 HOMEPAGE: <http://www.info.gov.hk/epd/>

28th Floor, Southern Centre,  
 130 Hennessy Road,  
 Wan Chai, Hong Kong.



新尼詩道  
 一百三十號  
 維多利亞中心廿八樓

By Post & Fax: 2714 5224

Highways Department  
 Major Works Project Management Offices  
 Major Works Office (3)  
 6th Floor, Ho Man Tin Government Offices  
 88 Chung Hau Street, Ho Man Tin  
 Kowloon

(Attn: Mr. Kroc Leung)

Dear Sir,

Maunsell Consultants Asia Ltd.	
Received	28 NOV 2002
Reg. No.	1165
File No.	94091/10.3
ESTB TS	BLO RIG
NDY AL	CSL LJE
EXHC HYW	AKWL MCP SAR
KYW FSKY	WOL SEKS HCP
BSSL	ATK
Project Eng.	SAW
Others	STWC
Copied To	KMF
Reply Date	21/11/2002

28 November 2002

By Fax  
 28/11/2002  
 9:45

**Environmental Impact Assessment (EIA) Ordinance (Cap. 499)**

**Route 9 between Cheung Sha Wan and Sha Tin – Main Portion  
 Environmental Permit No. EP-103/2001  
 Condition 2.4 - Landscape Proposal**

I refer to the letter of 25 November 2002 from CH2MHILL submitting the revised Landscape Proposal of the captioned project on your behalf.

Pursuant to Condition 2.4 of the Environmental Permit No. EP-103/2001, I hereby approve the Landscape Proposal. In particular, as required under the said condition, you are reminded that the compensatory tree planting and the recreated stream in Butterfly Valley shall be provided as indicated in the Landscape Softworks Plan drawings and Recreated Stream drawings respectively in the approved Proposal. Their implementation shall be completed before the operation of the captioned project.

I should be grateful if you could arrange to send three additional hardcopies and one electronic copy (HTML and PDF versions) of the Landscape Proposal to us.

Yours faithfully,

(Simon Y.M. Hui)

Principal Environmental Protection Officer  
 for Director of Environmental Protection

c.c. Maunsell Hyder (Attn.: Mr. Corad Ng/Ms. Mandy Fu) Fax: 2691 2649  
 MEMCL (Attn.: Mr. Y T Tang) Fax: 2891 0305  
 CH2MHILL (Attn.: Mr. David Yeung) Fax: 2507 2293