

JOB No.: TCS00491/09

DSD CONTRACT No.: DC/2009/08



CONSTRUCTION OF YUEN LONG SOUTH BRANCH
SEWERS AND EXPANSION OF HA TSUEN SEWAGE
PUMPING STATION

THE TWENTY-SIXTH RESULTS OF LANDSCAPE AND VISUAL IMPACT
MONITORING
FOR MARCH 2012 (No.26)

PREPARED FOR

CHINA STATE CONSTRUCTION ENGINEERING
(HONG KONG) COMPANY LIMITED

Quality Index

Date	Reference No.	Prepared By	Certified By
17 Sep 2012	TCS00491/09/600/R00380v3	Wong Fu Nam (Senior Environmental Consultant)	T.W. Tam (Environmental Team Leader)
			

Version	Date	Description
1	17 July 2012	First submission
2	7 Aug 2012	Amended upon IEC's comments.
3		Amended upon IEC's comments.

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17 September 2012

By E-mail

Action-United Environmental Services &
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Kwai Chung,
New Territories,
Hong Kong.

Your Ref:

Our Ref: EB000586-F/THW12-8695

For attention of: Mr. T. W. Tam

Dear Mr. Tam,

Contract No.: DC/2009/08

Construction of Yuen Long South Branch Sewers and Expansion of Ha Tsuen Sewage Pumping Station

Monthly EM&A Report for Designated Project, Landscape and Visual Impact Sections, February 2012 to June 2012 – IEC Verification

With reference to ET's captioned Landscape and Visual Impact section of monthly EM&A reports for five reporting months, February 2012 to June 2012 inclusive (ET's ref.: TCS0491/09/600/R00379v3, TCS0491/09/600/R00380v3, TCS0491/09/600/R00381v3, TCS0491/09/600/R00382v3, and TCS0491/09/600/R00383v3 all dated 7 August 2012) received on 17 September 2012, we have no comment and hereby verify the captioned Landscape and Visual Impact section of monthly EM&A reports.

Should there be any queries, please feel free to contact us.

Yours sincerely,

F.C. TSANG
Independent Environmental Checker
HYDER CONSULTING LIMITED

FCT/my

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***APPENDIX A* SITE INSPECTION CHECKLIST**

1. INTRODUCTION

- 1.01 This Results of Landscape and Visual Impact Monitoring (hereinafter “the LVIM Results”) is part of the monthly EM&A report under DSD Contract No.: DC/2009/08 Construction of Yuen Long South Branch Sewers and Expansion of Ha Tsuen Sewage Pumping Station: *Results of Landscape and Visual Impact* of Chapter 4 *Impact Monitoring Results*. The LVIM Results should therefore be read in conjunction with the corresponding monthly EM&A reports.
- 1.02 Pursuant to Chapter 6 *Landscape and Visual* of the EM&A Manual, EM&A for landscape and visual resources is considered to be a key aspect during both the construction and operational phases of the Project. The implementation and maintenance of landscape compensatory planting measures should therefore be checked to ensure that they are fully realized and that potential conflicts between the proposed landscape measures and any other project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures.
- 1.03 Monitoring of the recommended implementation of the mitigation measures is required to be conducted throughout the construction phase of the Project.
- 1.04 As a member of the ET, the landscape architect is responsible for the implementation of landscape construction works and subsequent maintenance operations during the 12 month establishment period. The establishment works should be undertaken throughout the Contractor's one year maintenance period which will be within the first operational year of the Project.
- 1.05 All measures undertaken by both the Contractor and the Landscape Contractor during the construction phase and first year of the operational phase should be audited by the landscape architect on a regular basis to ensure compliance with the intended aims of the measures.
- 1.06 Site inspections should be undertaken at least once every two weeks throughout the construction period and once every two months during the operational phase.
- 1.07 The LVIM Results has been prepared by the landscape architect and compiled by the ET upon receipt for submission to EPD after verification by the IEC.
- 1.08 To cater to closer compliance of the EM&A reporting with the EP requirements, it has been agreed among the RE, IEC and ET that The LVIM Results is submitted separately as a stand-alone submission.
- 1.09 This is the twenty-sixth (No. 26) LVIM Results, covering the construction period from 1 to 31 March 2012 (hereinafter “the Result Period”).

2. LVIM RESULTS

- 2.01 The LVIM Results are presented in the site inspection checklist of the Result Period enclosed in Appendix A.

3. RECOMMENDATIONS

- 3.01 The trees at Ha Tsuen Pumping Station have been handed over to DSD since January 2011 for management and monitoring thereafter.
- 3.02 Dead trees were found during the Results Period. In order to alleviate land scape and visual impacts under the Project, the tree manager is recommended to remove and replace the dead trees as appropriate.
- 3.03 Trees in poor condition were also observed during the Result Period. More frequent watering or fertilizing and even further investigation on the tree conditions may need to be undertaken by the tree manager to improve living conditions of those poor trees.

Appendix A

Site Inspection Checklist

Contract No.: DC/2009/08
Contract title: Construction of Yuen Long South Sewer and Expansion of Ha Tsuen Sewage Pumping Station
Contractor: China State Construction Engrg. (HK) Ltd.
Location: Ha Tsuen Sewage Pumping Station
Inspection Date: 15-Mar-2012

		Satisfactory			Rectified		Remarks
		N/A	Yes	No	Yes	No	
I. General							
1.	Erect hoarding around site boundary properly	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.	Keep well maintenance of hoarding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.	All construction works are carried out within site boundary properly	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.	Carry out the initial tree survey prior to construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.	Provide tree labels according to tree survey records	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments:

Standard hoarding was erected and well maintained around the works area at Ha Tsuen Sewage Pumping Station (HTSPS).

The contruction has no implication to protected tree.

II. Transplanting Works

1. All transplanting works are carried out in accordance with the specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. The transplanted trees are kept in regular inspection within the establishment period	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. The transplanted trees are kept in maintenance throughout the establishment period as followings:						
(i) Watering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(ii) Weeding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(iii) Fertilising	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(iv) Littering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(v) Grass cutting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(vi) Firming up	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(vii) Pest control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(viii) Disease control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(ix) Pruning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(x) Replacement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Comments:

There had total 73 nos. of transpalnted trees in Ha Tsuen Sewage Pumping Station due to construction works under this contract.

All tree have been handover back to DSD.

III. Landscaping Works

1. All landscaping works are carried out in accordance with the specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. The landscaping plants are kept in regular inspection within the establishment period	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	Satisfactory			Rectified		Remarks
	N/A	Yes	No	Yes	No	
3. The landscaping plants are kept in maintenance throughout the establishment period as follows:						
(i) Watering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(ii) Weeding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(iii) Fertilising	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(iv) Littering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(v) Grass cutting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(vi) Firming up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(vii) Pest control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(viii) Disease control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(ix) Pruning	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
(x) Replacement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments:

No landscaping works were carried out in the reporting month

IV. Preservation and Protection of Trees

1. All preserved trees are protected in accordance with the specifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. All preserved trees are fenced off properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. No construction activities are carried out in the protection zone of the preserved trees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Comments:

All retained trees were fenced off and protected properly within the works area of the site. DSD is carrying out the preservation and protection.

Conclusion

Generally, the overall conditions are normal in the transplanting and visual impact at Ha Tsuen Sewage Pumping Station. The conditions of hoarding was satisfactory. The trees which are at Ha Tsue Pumping Station have been returned to Drainage Services Department manager and monitoring in January 2011.

Remarks

We report that the condition of trees will show below

Tree No.	Location	Name of the tree	Condition
HB93	HTPS	Acacia auriculiformis	Poor
HA265	HTPS	Acacia auriculiformis	Dead

Signatures:

Senior Landscape Architect



(Name: David Bloxham MLI (UK Chartered))

Landscape and Visual Impact Assessment

Site Inspection Checklist

Contract No.: DC/2009/08

Contract title: Construction of Yuen Long South Sewer and Expansion of Ha Tsuen Sewage Pumping Station

Contractor: China State Construction Engrg. (HK) Ltd.

Location: Ha Tsuen Sewage Pumping Station

Inspection Date: 31-Mar-2012

		Satisfactory			Rectified		Remarks
		N/A	Yes	No	Yes	No	
I. General							
1.	Erect hoarding around site boundary properly	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.	Keep well maintenance of hoarding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.	All construction works are carried out within site boundary properly	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4	Carry out the initial tree survey prior to construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5	Provide tree labels according to tree survey records	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Comments:

Standard hoarding was erected and well maintained around the works area at Ha Tsuen Sewage Pumping Station (HTSPS).

All trees were labelled as requirement.

II. Transplanting Works

1. All transplanting works are carried out in accordance with the specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. The transplanted trees are kept in regular inspection within the establishment period	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. The transplanted trees are kept in maintenance throughout the establishment period as followings:						
(i) Watering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(ii) Weeding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(iii) Fertilising	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(iv) Littering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(v) Grass cutting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(vi) Firming up	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(vii) Pest control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(viii) Disease control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(ix) Pruning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(x) Replacement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Comments:

There had total 73 nos. of transpalnted trees in Ha Tsuen Sewage Pumping Station due to construction works under this contract.

Watering and weeding should be undertaking periodically.

III. Landscaping Works

1. All landscaping works are carried out in accordance with the specifications	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. The landscaping plants are kept in regular inspection within the establishment period	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

	Satisfactory			Rectified		Remarks
	N/A	Yes	No	Yes	No	
3. The landscaping plants are kept in maintenance throughout the establishment period as followings:						
(i) Watering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Landscape and Visual Impact Assessment Site Inspection Checklist

(ii) Weeding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(iii) Fertilising	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(iv) Littering	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(v) Grass cutting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(vi) Firming up	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(vii) Pest control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(viii) Disease control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(ix) Pruning	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
(x) Replacement	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Comments:

No landscaping works were carried out in the reporting month

IV. Preservation and Protection of Trees

1. All preserved trees are protected in accordance with the specifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. All preserved trees are fenced off properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. No construction activities are carried out in the protection zone of the preserved trees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Comments:

All retained trees were fenced off and protected properly within the works area of the site.

Conclusion

Generally, the overall conditions are normal in the transplanting and visual impact at Ha Tsuen Sewage Pumping Station. The conditions of hoarding was satisfactory. The trees which are at Ha Tsue Pumping Station have been returned to Drainage Services Department management and monitoring in January 2011.

Remarks

We report that the condition of trees will show below

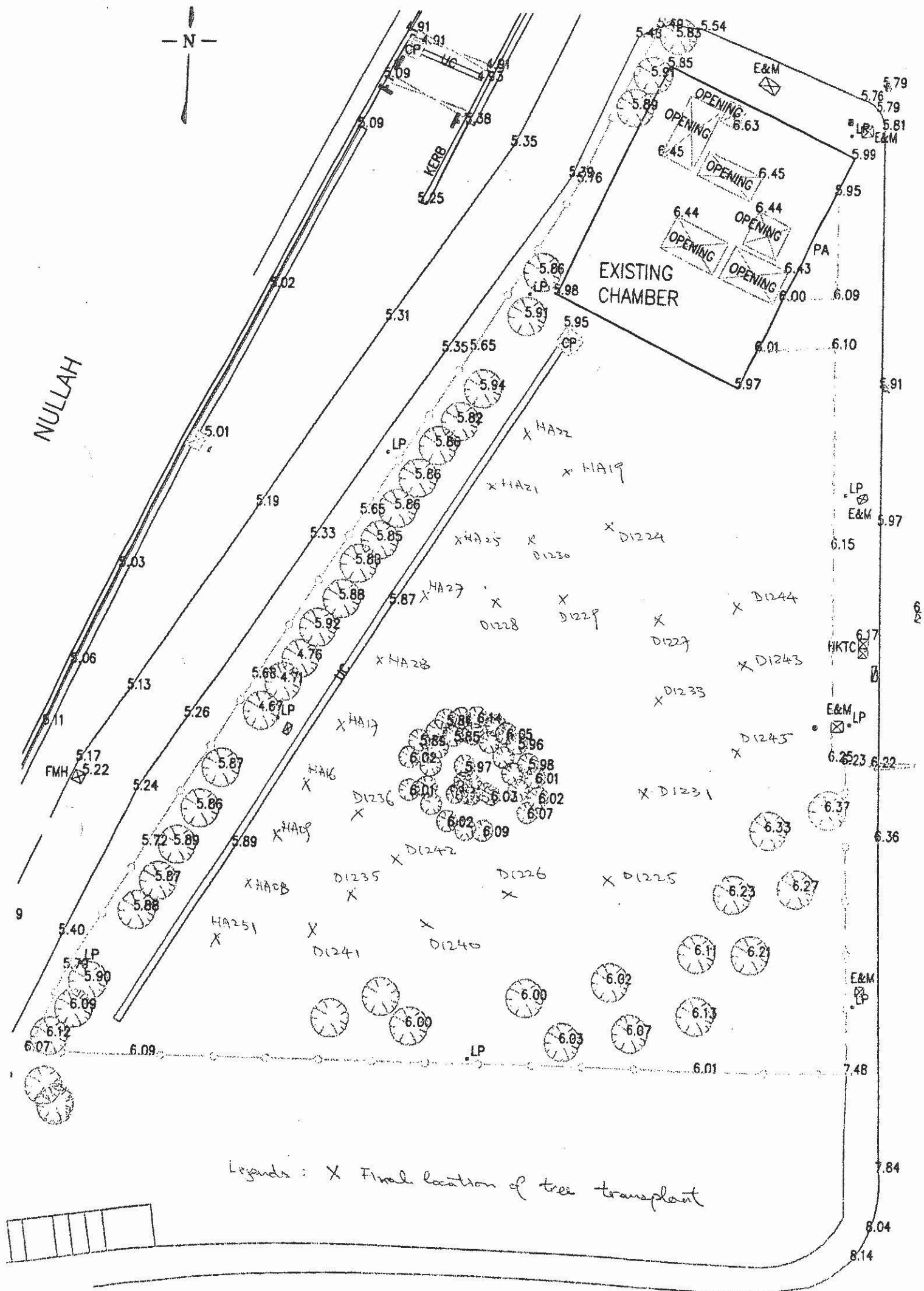
Tree No.	Location	Name of the tree	Condition
HA203	HTPS	Eucalyptus torelliana	Dead
HB63	HTPS	Acacia auriculiformis	Poor

Signatures:

Senior Landscape Architect



(Name: David Bloxham MLI (UK Chartered))

















DC/2009/08
Construction of Yuen Long South Branch Sewers and
Expansion of Ha Tsuen Sewage Pumping Station

Up-dated to: 31 March 2012

Summary of Dead Transplanted Trees in Ha Tsuen Sewage Pumping Station

Tree No.	Tree Species		Size			Follow up action
			Height (m)	Trunk Dia.	Spread (m)	
HA202	Melia azedarach	森樹	6	111	3	HA202,HA203, HA216,HA226, HA227,HA245, HA255,HA257, HA265,HA273, HB63,HB93,will be removed by the Contractor in September 2012 and will be replaced by the same species, Melaleuca quinquenervia, or Bauhinia variegata after the completion of works at Ha Tsuen Sewage Pumping Station in March 2013
HA203	Eucalyptus torelliana	毛葉桉	8	143	3	
HA216	Acacia auriculiformis	耳果相思	7	201	3	
HA226	Acacia auriculiformis	耳果相思	6	131	4	
HA227	Acacia auriculiformis	耳果相思	8	242	3	
HA245	Acacia confusa	台灣相思	7	137	3	
HA255	Acacia auriculiformis	耳果相思	8	201	3	
HA257	Acacia confusa	台灣相思	7	217	3	
HA265	Acacia auriculiformis	耳果相思	6	188	3	
HA272	Eucalyptus torelliana	毛葉桉	7	120	3	
HA273	Acacia auriculiformis	耳果相思	5	290	4	
HB63	Acacia auriculiformis	耳果相思	6	300	4.5	
HB93	Acacia auriculiformis	耳果相思	5	285	3.5	

Proposed species to replace dead transplanted trees:

- (1) *Melaleuca quinquenervia* 白千層 - Trunk diameter 60 ~ 70mm
- (2) *Bauhinia variegata* 宮粉羊蹄甲 - Trunk diameter 60 ~ 70mm