

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 FORTH-SIXTH RESULTS OF LANDSCAPE AND VISUAL IMPACT
MONITORING
FOR NOVEMBER 2013 (No.46)**

PREPARED FOR

**CHINA STATE CONSTRUCTION ENGINEERING
(HONG KONG) COMPANY LIMITED**

Quality Index

Date	Reference No.	Prepared By	Certified By
		Donald Kwok (Assistant Environmental Consultant)	T.W. Tam (Environmental Team Leader)
11 March 2014	TCS00491/09/600/R0535v2		

Version	Date	Description
1	13 February 2014	First submission
2	11 March 2014	Amended against IEC's comments on 10 March 2014

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14 March 2014

By E-mail

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Your Ref:

Our Ref: EB000586-F/THW14-16029

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, November and December 2013 – IEC Verification

With reference to ET's captioned Landscape and Visual Impact sections of monthly EM&A Report of the reporting months, November 2013 (ET's ref.: TCS0491/09/600/R0535v2) and December 2013 (ET's ref.: TCS0491/09/600/R0536v2) submitted on 11 March 2014, we have no further comment and hereby verify the captioned Landscape and Visual Impact sections of the monthly EM&A Reports.

Yours sincerely,
for and on behalf of Hyder Consulting Limited

F.C. TSANG
Independent Environmental Checker

FCT/my

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 forty-sixth (No. 46) LVIM Results, covering the construction period from 1 to 30 November 2013 (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.
- 2.02 The trees at Ha Tsuen Sewage Pumping Station have been handed over to DSD since January 2011 for management and monitoring thereafter.
- 2.03 On 18 November 2013, a total of 26 nos. of trees were fallen under instruction of DSD. The summary of tree number and species for those trees were attached with the site inspection checklist.
- 2.04 DSD has confirmed to plant a total of 42 nos. of new trees and the Tree Compensatory Planting Plan is prepared and attached with the checklists. The new trees species as follow:
 - 10 nos. of *Litsea glutinosa*
 - 10 nos. of *Schlma superba*
 - 12 nos. *Bichofla polycarpa*
 - 10 nos. of *Cinnamomum burmanil*

3. STRUCTURE OF THE LVIM RESULTS

3.01 The structure of this LVIM Results is as follows:-

- | | |
|-----------------|---|
| 1. INTRODUCTION | 1 |
| 2. LVIM RESULTS | 1 |

APPENDIX A SITE INSPECTION CHECKLIST

Appendix A

Site Inspection Checklist

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: 15-Nov-2013

		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 construction 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 follows:						
(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 transplanted 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"/>	

Landscape and Visual Impact Assessment Site Inspection Checklist

	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

Landscaping sub-contractor fell and removed total of 35 nos. damaged trees on 12/10/2013. Drainage Service Department confirmed to plant tot 42 nos. new trees with the following species:

10 nos. of Litsea glutinosa (潺槁樹)

10 nos. of Schlma superba (木荷)

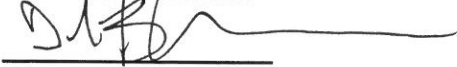
12 nos. of Bichofla polycarpa (重陽木)

10 nos. Cinnamomum burmanil (陰香)

Remarks

Signatures:

Senior landscape Architect



(Name: David Bloxham)



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: 29-Nov-2013

		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 construction 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 follows:						
(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 transplanted 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"/>	

Landscape and Visual Impact Assessment Site Inspection Checklist

	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"/>	
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(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

Landscaping sub-contractor fell and removed total of 35 nos. damaged trees on 12/10/2013. Drainage Service Department confirmed to plant tot 42 nos. new trees with the following species:

10 nos. of Litsea glutinosa (潺槁樹)

10 nos. of Schlma superba (木荷)

12 nos. of Bichofla polycarpa (重陽木)


10 nos. of Cinnamomum burmanil (陰香)

26 nos. of trees were felled and removed on 18 November 2013 under instruction of Drainage Service Department.

Remarks

Signatures:

Senior landscape Architect





(Name: David Bloxham)

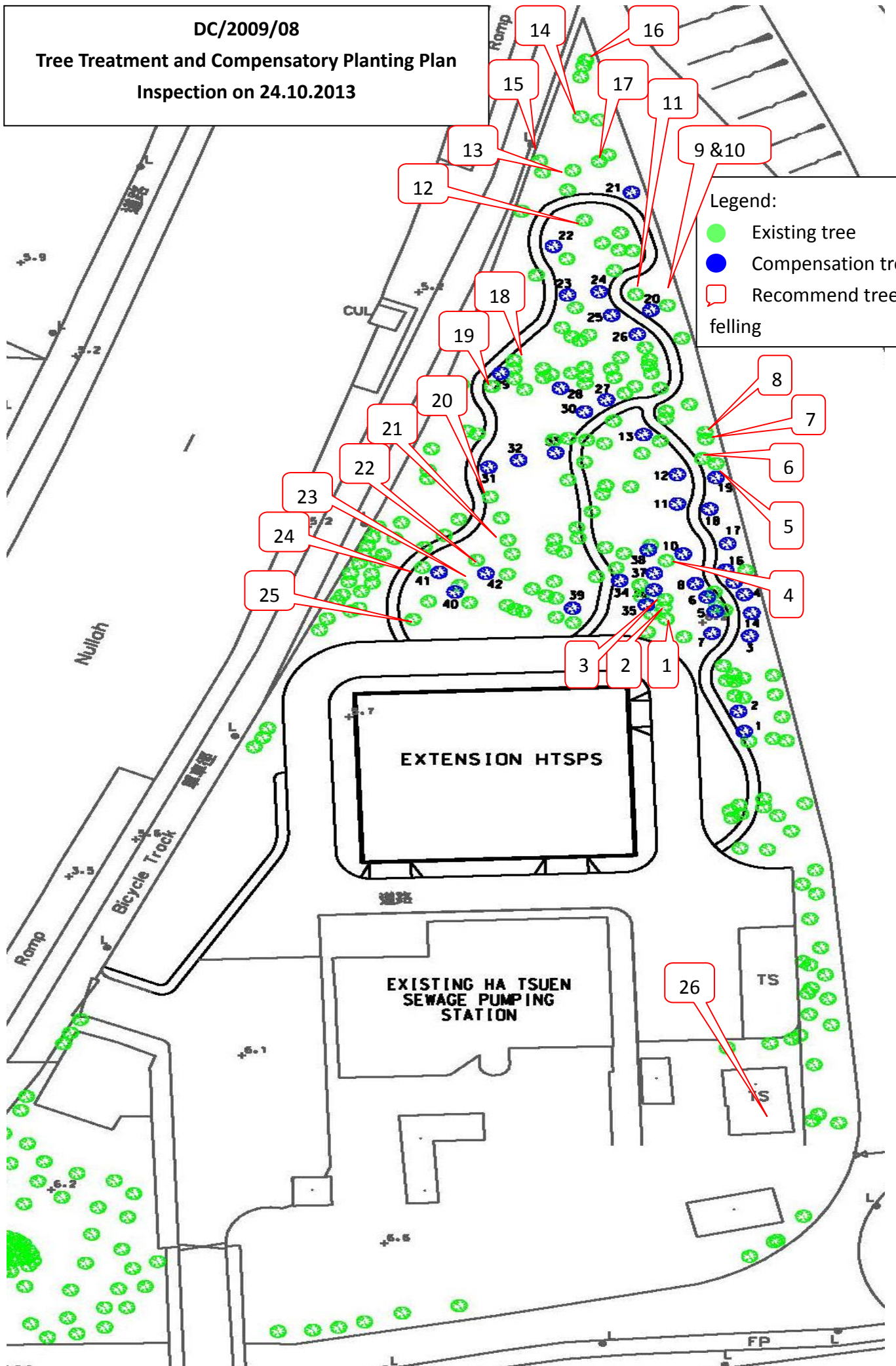


DC/2009/08

Tree Treatment and Compensatory Planting Plan
Inspection on 24.10.2013

Legend:

-  Existing tree
-  Compensation tree
-  Recommend tree felling



Summary of Trees Felled on 18/11/2013 inside Ha Tsuen Sewage Pumping Station Area

Tree No.	Species	Chinese Name	Existing/Transplanted
HA188	Acacia auriculiformis	耳果相思	Existing
AB208	Acacia auriculiformis	耳果相思	Existing
AB220	Acacia auriculiformis	耳果相思	Existing
LM854	Acacia auriculiformis	耳果相思	Existing
HB3	Acacia auriculiformis	耳果相思	Existing
HB4	Acacia auriculiformis	耳果相思	Existing
HB6	Delonix Regia	鳳凰木	Existing
HB8	Delonix Regia	鳳凰木	Existing
HB70	Acacia Confusa	台灣相思	Existing
HB73	Acacia auriculiformis	耳果相思	Existing
HB16	Acacia Confusa	台灣相思	Transplanted
HB20	Acacia auriculiformis	耳果相思	Existing
HB21	Acacia auriculiformis	耳果相思	Existing
HB43	Acacia auriculiformis	耳果相思	Existing
HB39	Eucalyptus Robusta	大葉桉	Existing
HB38	Acacia auriculiformis	耳果相思	Existing
HB28	Acacia auriculiformis	耳果相思	Existing
HB43	Acacia auriculiformis	耳果相思	Existing
HB67	Acacia auriculiformis	耳果相思	Existing
HB71	Acacia auriculiformis	耳果相思	Existing
HB96	Acacia auriculiformis	耳果相思	Existing
HA214	Eucalyptus	毛葉桉	Transplanted
HB94	Acacia auriculiformis	耳果相思	Existing
HA205	Acacia Confusa	台灣相思	Transplanted
HA199	Acacia auriculiformis	耳果相思	Existing
HA314	Acacia Mangium	馬占相思	Existing