




**Landscape and Visual (L&V) Monitoring Report for
Harbour Area Treatment Scheme Stage 2A
(Operational Phase) (July 2022)**

Report No.: OT_2022009

Prepared by : 
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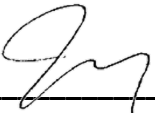
Reviewed by : 
Lo Ting Yi, Ivy

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1. Introduction

1.1. Background

1.1.1. Bestwise – Sun Fook Kong Joint Venture (the Contractors) appointed 3NV Technology Limited (3NV) to undertake the Landscape and Visual Monitoring for the Operational Phase of the “Enhancement of Deodourisation System at Stonecutters Island Sewage Treatment Works” (hereafter referred to as “the Project”).

1.1.2. The Project is part of the Harbour Area Treatment Scheme (HATS) Stage 2A. According to Environmental Permit No. EP-322/2008/G issued on 9th May 2014 by the Environmental Protection Department (hereinafter called EPD) to the Drainage Services Department (hereinafter called the DSD) as the Permit Holder and the EM&A Manual for the HATS Stage 2A, all landscape and visual mitigation measures shall be monitored monthly on-site during the first year of the Operational Phase at 8 preliminary treatment works (PTW) and the Stonecutters Island Sewage Treatment Works (SCISTW).

1.2. Objectives

1.2.1. The objective is to monitor and audit the contractor’s landscape works, in particular, to ensure the existing trees retained on-site are being well preserved, tree transplanting and felling operations are being undertaken in accordance with the requirements, procedures, and specifications as stipulated in the contract and the approvals granted by concerned authorities, and all the newly planted vegetations are being maintained properly during the establishment period.

2. Landscape and Visual (L&V)

2.1. Monitoring Requirement

Under the EM&A Manual, Landscape and Visual Monitoring audit should be undertaken during the first year of the Operational Phase to ensure and check that the implementation and maintenance of landscape and visual mitigation measures are carried out by a Registered Landscape Architect (RLA).

2.2. Monitoring Frequency

2.2.1. Site inspections should be undertaken once every month through the first year of the Operational Phase.

2.3. Monitoring Locations

2.3.1. Under this Project, there are 8 PTW and SCISTW that should be monitored. The details of the monitoring location are summarized in **Table 1.1**.

Table 1.1 L&V Monitoring Locations

No.	Description
1	North Point PTW
2	Wan Chai East PTW
3	Central PTW
4	Sandy Bay PTW
5	Cyberport PTW
6	Wah Fu PTW
7	Aberdeen PTW
8	Ap Lei Chau PTW
9	Stonecutter Island PTW

2.4. Monitoring Methodology

2.4.1. A Registered Landscape Architect is employed to monitor and audit the contractor's landscape works, in particular, to ensure the existing trees retained on-site are being well preserved, tree transplanting and felling operations are being undertaken in accordance with the requirements, procedures, and specifications as stipulated in the contract and the approvals granted by concerned authorities, and all the newly planted vegetations are being maintained properly during the establishment period by complete a checklist.

3. L&V Monitoring Result

3.1. Inspection Result

3.1.1. No new observation was found on this site inspection; two follow up actions were found at Sandy Bay PTW and Stonecutters PTW. The completed checklist is shown in **Appendix A**.

3.2. Result Discussion

3.2.1. Generally, all L&V mitigation measures listed in EM&A were applied at 8 PTWs and SCISTW. **Table 3.1** summarized the reminders and new observations of the 8 PTWs and SCISTW.

Table 3.1 Summary of Reminders and New Observations for the 8 PTWs and SCISTW

Monitoring Location	Reminders	New Observations
North Point PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 	N/A
Wan Chai East PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 	N/A
Central PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 	N/A
Sandy Bay PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 	N/A

Cyberport PTW	<ol style="list-style-type: none"> 1. Increase the maintenance of pot plants 2. Increase the frequency of watering in the period of extreme hot weather. 	N/A
Wah Fu PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 	N/A
Aberdeen PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 3. Closely monitor the conditions of the pruned trees 	N/A
Ap Lei Chau PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 3. Pay attention to the plant conditions at the planter near vehicular exit 	N/A
Stonecutter Island PTW	<ol style="list-style-type: none"> 1. Carry out proper maintenance to plantings 2. Increase the frequency of watering in the period of extreme hot weather 	N/A

Appendix A

L&V Checklist

Landscape and Visual Impact Assessment Checklist for Site Audit – North Point PTW

Inspection Date: 22 July, 2022
Time: 10:40 am

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

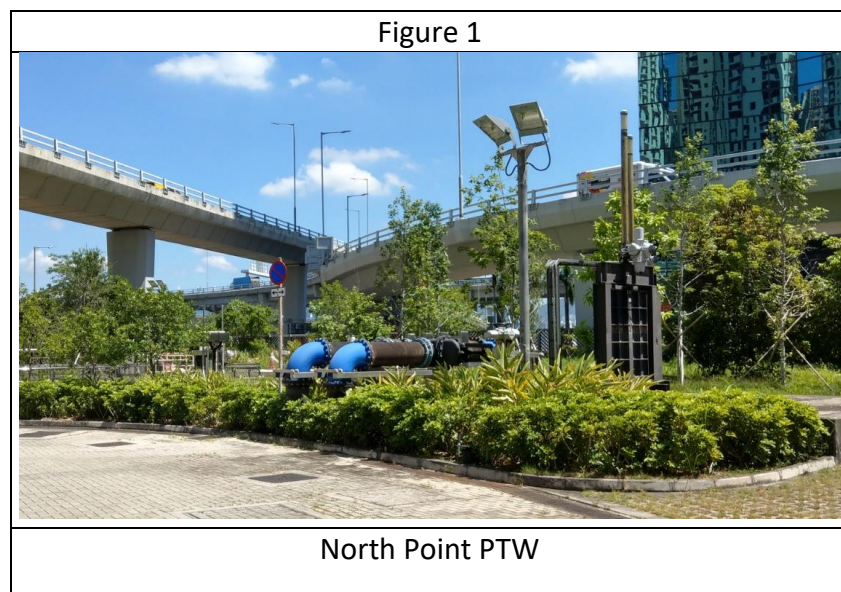
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and was recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	<i>Xylem</i> #	29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Wan Chai East PTW

Inspection Date: 22 July, 2022
Time: 12:21 pm

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

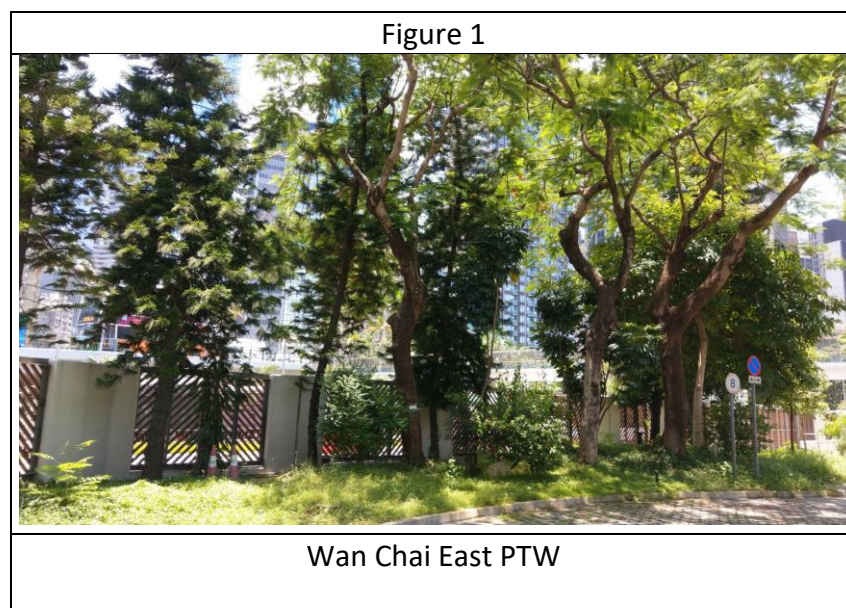
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	<i>Xylem</i> #	29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Central PTW

Inspection Date: 22 July, 2022
Time: 12:18 pm

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- Improvement of plant conditions of previous marked tree (Figure 2) was observed.

The contractor was reminded to rectify the following:

- N/A


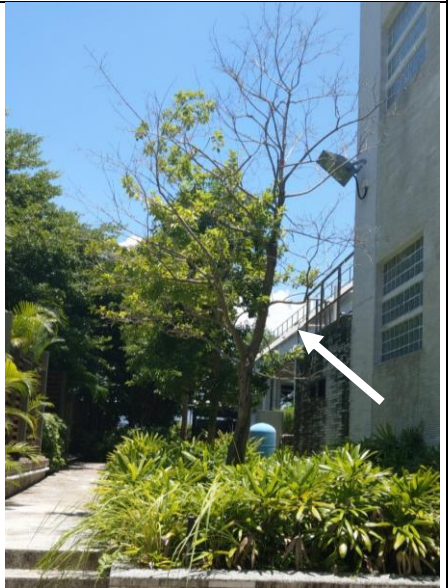
New Observation:

- N/A.


Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:

Figure 1	Figure 2
	
Central PTW	Central PTW

Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect		29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Cyberport PTW

Inspection Date: 22 July, 2022
Time: 11:50 am

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

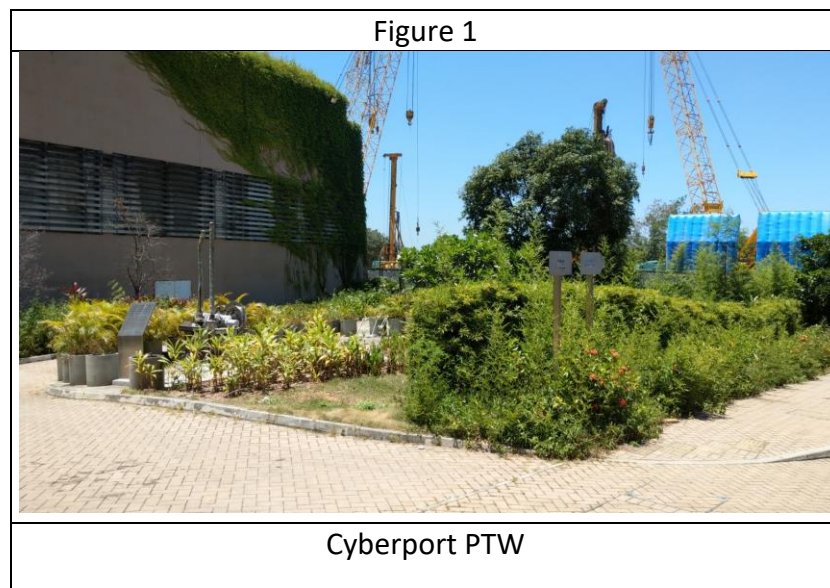
New Observation:

- N/A

Reminders:

- Contractor was recommended further increase the frequency of watering in the period of extreme hot weather.
- It is recommended to increase the maintenance of pot plants.

Photo Record:



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	<i>Xylem#</i>	29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Wah Fu PTW

Inspection Date: 22 July, 2022
Time: 11:40 am

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- Trimming of tree crown has been followed up (shown in Figure 2) in response to previous reminder.

The contractor was reminded to rectify the following:

- N/A

New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	<i>Xylem</i> #	29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Aberdeen PTW

Inspection Date: 22 July, 2022
Time: 11:30 am

Weather: Sunny/ Fine/Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

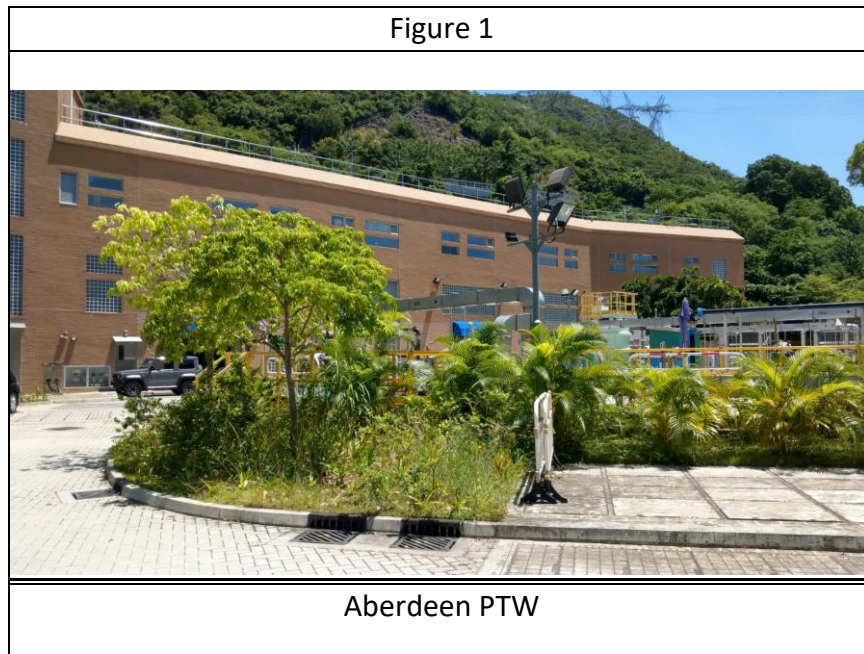
New Observation:

- N/A


Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to closely monitor the conditions of the pruned trees. It is also recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect		29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Ap Lei Chau PTW

Inspection Date: 22 July, 2022
Time: 11:20am

Weather: Sunny/ Fine/Cloudy/ Rainy
Wind: Strong/ Breeze/Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?	✓			

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

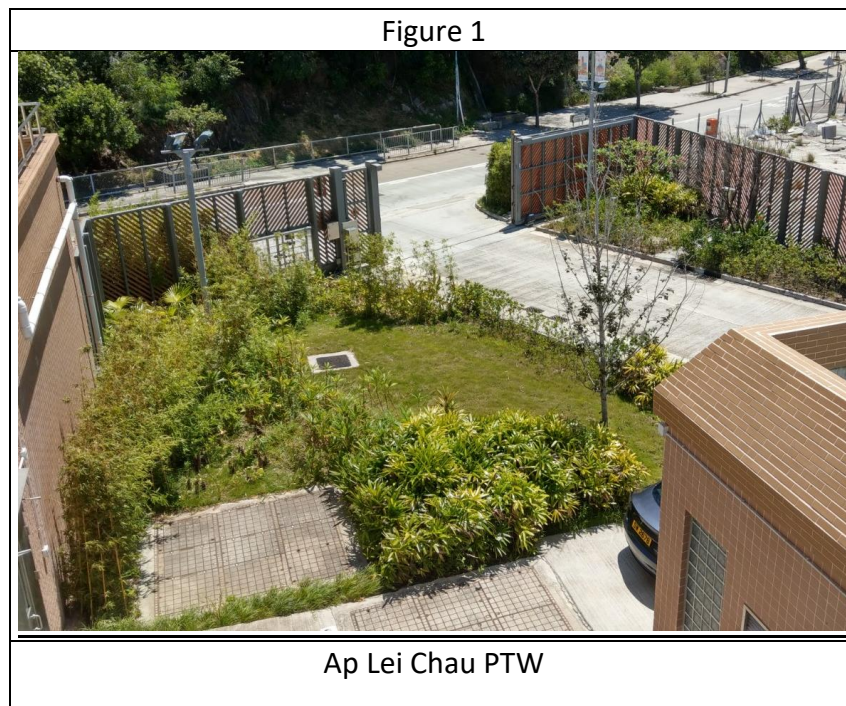
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of extreme hot weather.
- Contractor was recommended to pay attention to the plant conditions at the planter near vehicular exit.

Photo Record:



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylem#	29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Stonecutters PTW

Inspection Date: 22 July, 2022
Time: 13:05 pm

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?		✓		Refer to Rectification Item No.1
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?		✓		Refer to Rectification Item No.1

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- Trees T110 & T109 have been removed.

The contractor was reminded to rectify the following:

1. Some existing trees adjacent to T110 & T109 are still found severely tilted and span over driveway (shown in Figure 3). It is recommended that maintenance party to review if pruning is required.



New Observation:

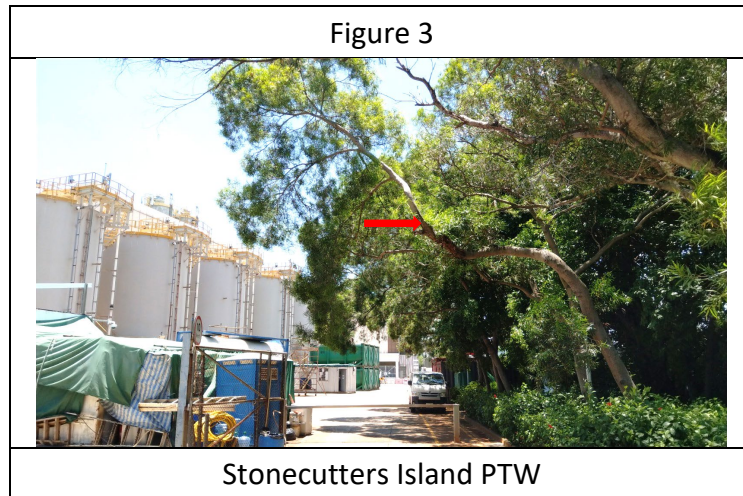
- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:

Figure 1	Figure 2
	
Stonecutters Island PTW	Stonecutters Island PTW



Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	<i>Xylem#</i>	29 th July 2022

Landscape and Visual Impact Assessment Checklist for Site Audit – Sandy Bay PTW

Inspection Date: 22 July, 2022
Time: 11:55 am

Weather: Sunny/ Fine/ Cloudy/ Rainy
Wind: Strong/ Breeze/ Light/ Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			✓	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?		✓		Refer to Rectification Item No.1
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?		✓		Refer to Rectification Item No.1

Summary / Remarks:

Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

1. Regarding the marked tree (shown in Figure 2), its health condition is still poor. The Contractor is reminded to carry out remedial action or tree replacement.



New Observation:

- N/A


Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of extreme hot weather.

Photo Record:

Figure 1	Figure 2
	
Sandy Bay PTW	Sandy Bay PTW

Signature:

		Signature	Date
Inspected & Recorded by	Registered Landscape Architect		29 th July 2022