

Issue No. : 3
Issue Date : February 2021
Project No. : 1825



**CONSTRUCTION WORKS
SCHEDULE AND LOCATION
PLANS**

FOR

**PORT SHELTER PHASE 3, PO
TOI O SEWERAGE
TREATMENT PLANT EM&A**

Prepared by

Allied Environmental Consultants Limited

COMMERCIAL-IN-CONFIDENCE

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CONSTRUCTION WORKS SCHEDULE AND LOCATION PLANS

FOR

PORT SHELTER PHASE 3, PO TOI O SEWERAGE TREATMENT PLANT EM&A

Prepared by

Allied Environmental Consultants Limited

COMMERCIAL-IN-CONFIDENCE

Certified by:

A handwritten signature in black ink, appearing to read 'Timmy Wong', written over a horizontal line.

Timmy WONG
Environmental Team Leader

Verified by:

A handwritten signature in black ink, appearing to read 'F.C. Tsang', written over a horizontal line.

F.C. TSANG
Independent Environmental Checker



ACUITY
SUSTAINABILITY
CONSULTING LIMITED



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Unit C, 11/F., Ford Glory Plaza,
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Cheung Sha Wan, Kowloon, HK



Tel. : (852) 2698 6833
Fax.: (852) 2698 9383

Our Ref: PL-202102011

Drainage Services Department
Special Duty Division
42/F, Revenue Tower, 5 Gloucester Road,
Wan Chai, Hong Kong.

Attention: Ms. Wing W.Y. Law

4 February 2021

Dear Wing,

**Sewerage Works at Po Toi O
Construction Works Schedule and Location Plans**

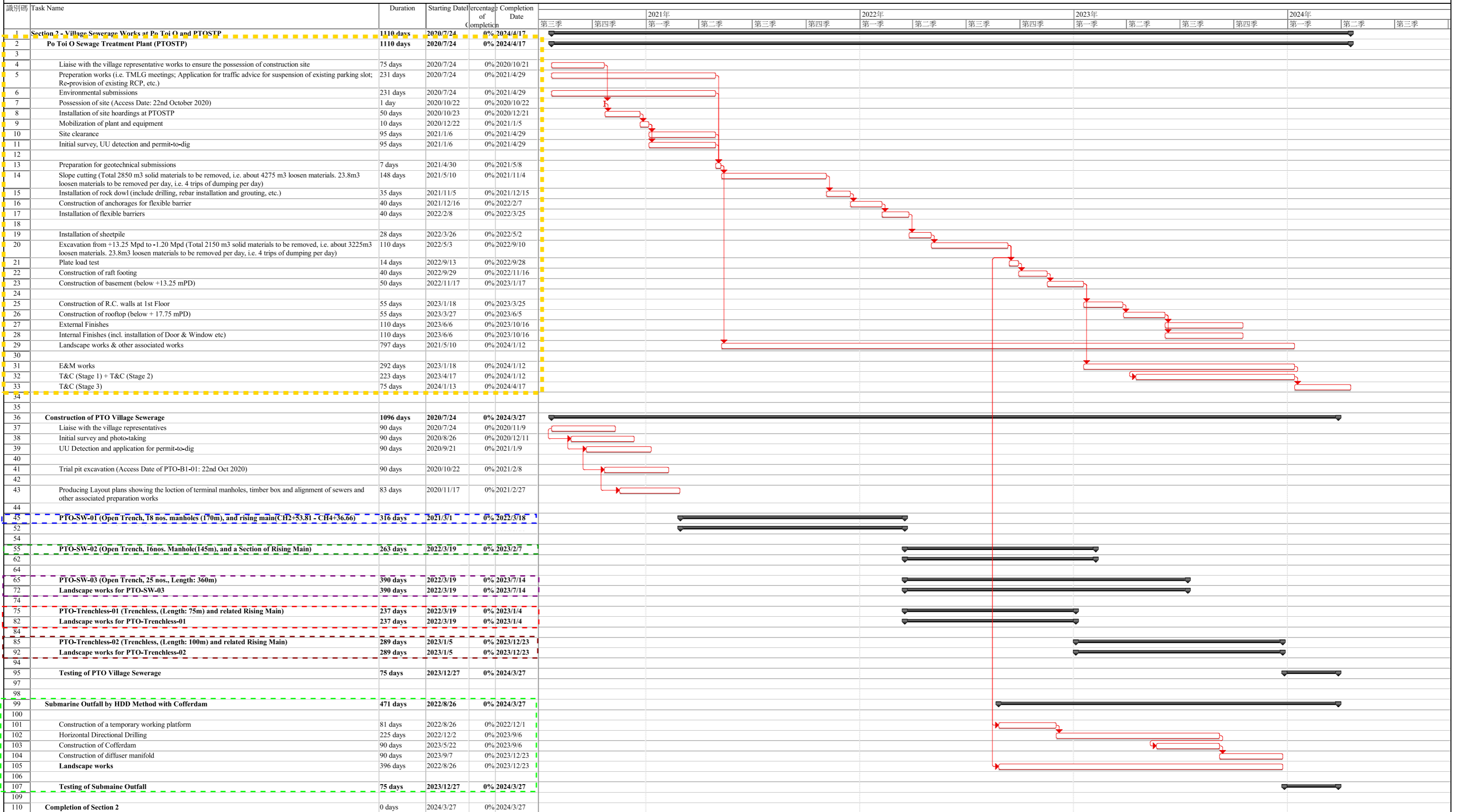
I refer to the email from the ET concerning the captioned. I have no adverse comment on the Construction Works Schedule and Location Plans for Port Shelter Phase 3 Po Toi O sewerage Treatment Plant (Issue 3) and hereby verify this document in accordance with Condition 2.10 of the Environmental Permit with permit No EP-516/2016.

Yours faithfully,

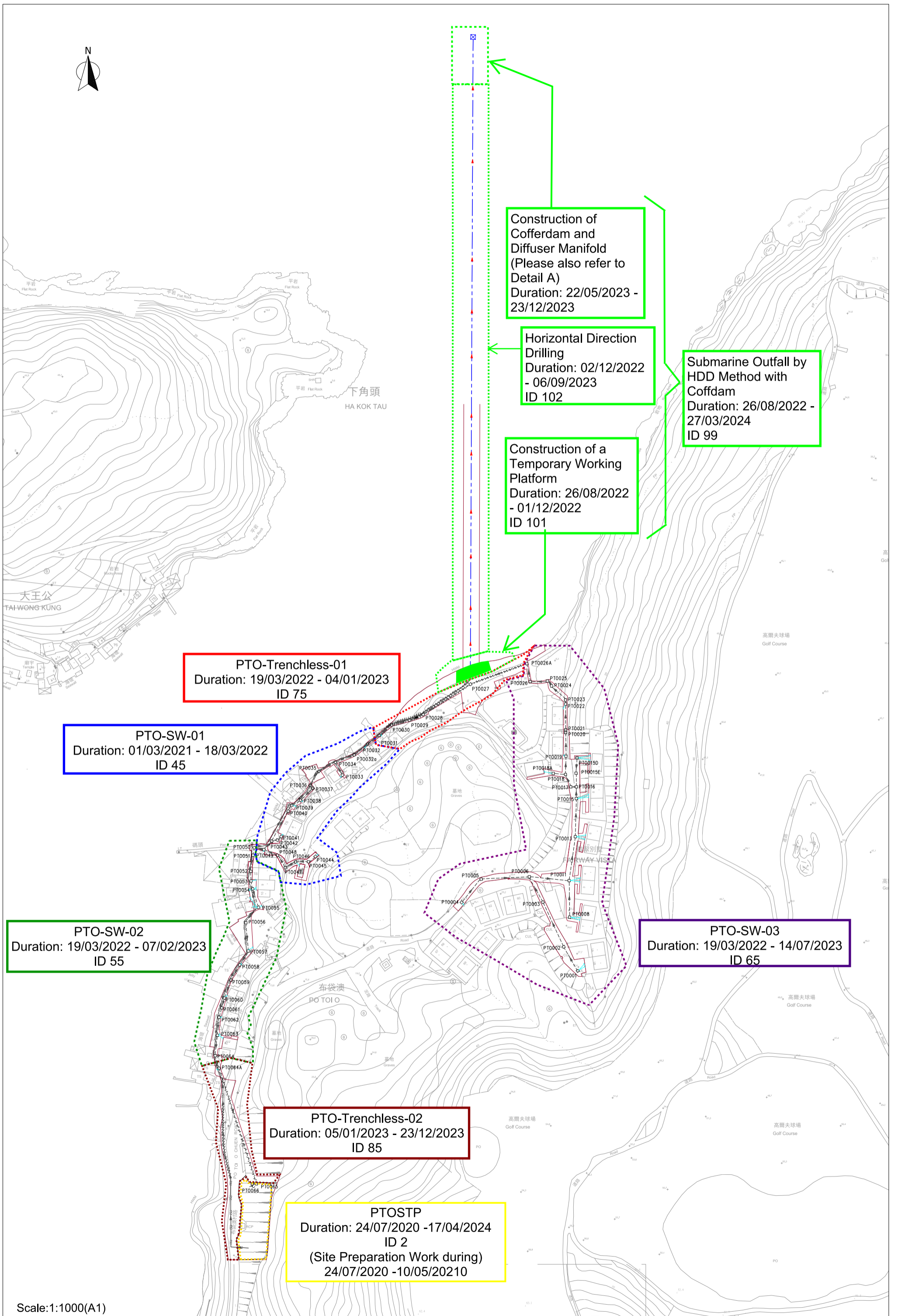
A handwritten signature in black ink, appearing to read 'F.C. Tsang'.

F.C. Tsang
Independent Environmental Checker

PORT SHELTER PHASE 3, PO TOI O SEWERAGE TREATMENT PLANT
CONSTRUCTION WORKS SCHEDULE



PORT SHELTER PHASE 3, PO TOI O SEWERAGE TREATMENT PLANT
LOCATION PLAN OF ALL CONSTRUCTION WORKS



Construction of
Cofferdam and
Diffuser Manifold
(Please also refer to
Detail A)
Duration: 22/05/2023 -
23/12/2023

Horizontal Direction
Drilling
Duration: 02/12/2022
- 06/09/2023
ID 102

Submarine Outfall by
HDD Method with
Coffdam
Duration: 26/08/2022 -
27/03/2024
ID 99

Construction of a
Temporary Working
Platform
Duration: 26/08/2022
- 01/12/2022
ID 101

PTO-Trenchless-01
Duration: 19/03/2022 - 04/01/2023
ID 75

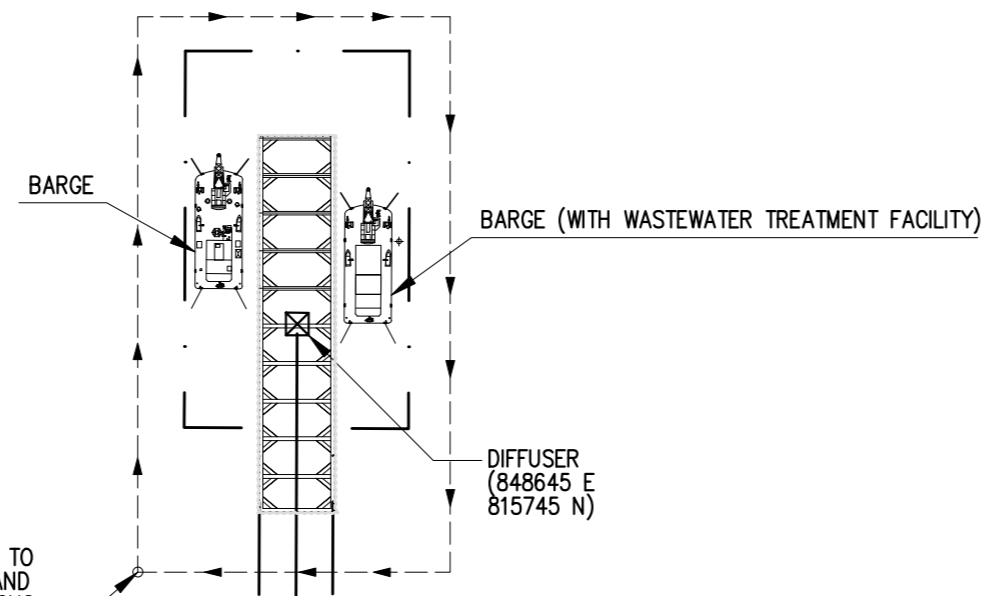
PTO-SW-01
Duration: 01/03/2021 - 18/03/2022
ID 45

PTO-SW-02
Duration: 19/03/2022 - 07/02/2023
ID 55

PTO-SW-03
Duration: 19/03/2022 - 14/07/2023
ID 65

PTO-Trenchless-02
Duration: 05/01/2023 - 23/12/2023
ID 85

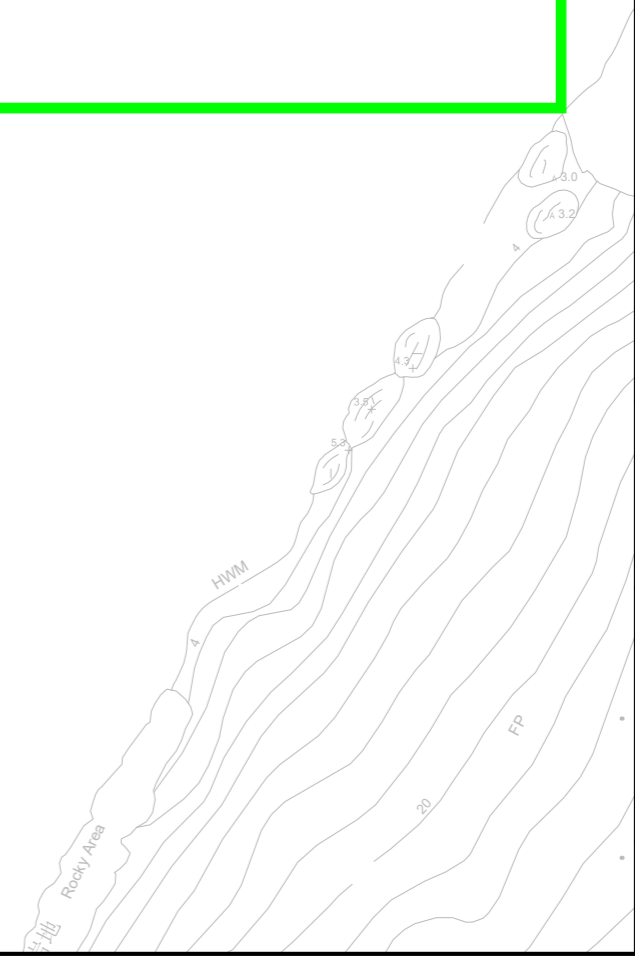
PTOSTP
Duration: 24/07/2020 - 17/04/2024
ID 2
(Site Preparation Work during)
24/07/2020 - 10/05/20210



INSTALLATION OF SHEET PILES TO BE COMMENCED FROM HERE, AND THEN FOLLOWS THE ARROW SIGNS IN CLOCKWISE DIRECTION.

Construction of Cofferdam and Diffuser Manifold
Duration: 22/05/2023 - 23/12/2023
ID 103&104

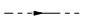
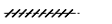
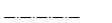
- LEGEND:**
- EFFLUENT PIPELINE
 - WORKS LIMIT
 - ☒ DIFFUSER



Drawing title
DETAIL A – LOCATION PLAN FOR COFFERDAM CONSTRUCTION

Scale 1:1000 A3

NOTE:
1. FOR GENERAL NOTES, REFER TO 382770/B&V/GN/000.

LEGEND:
 EFFLUENT PIPELINE
 FINAL EFFLUENT PIPELINE BY TRENCHLESS METHOD
 WORKS LIMIT

Revision	Date	Description			Initial
		Designed	Checked	Drawn	Checked
Initial	WC	WL	SZ	CC	
Date	03/20	03/20	03/20	03/20	03/20

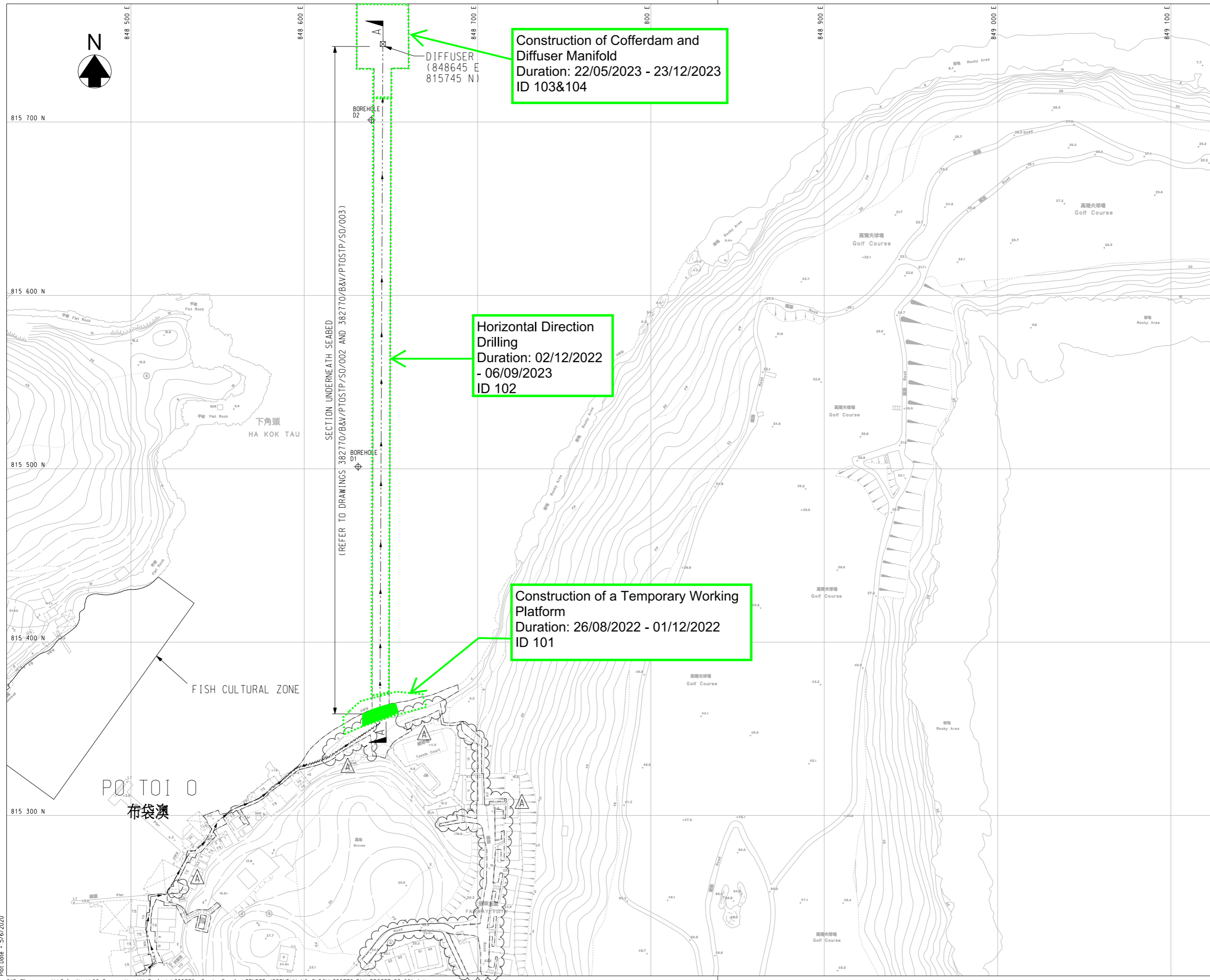
Contract no. **DC/2019/09**

Contract title
PROVISION OF VILLAGE SEWERAGE IN SAI KUNG

Drawing title
PO TOI O - PROPOSED SUBMARINE OUTFALL LAYOUT PLAN

Drawing no. **382770/B&V/PTOSTP/SO/001** Revision **A**

Scale
A1 1 : 1000
A3 1 : 2000



Construction of Cofferdam and Diffuser Manifold
Duration: 22/05/2023 - 23/12/2023
ID 103&104

Horizontal Direction Drilling
Duration: 02/12/2022 - 06/09/2023
ID 102

Construction of a Temporary Working Platform
Duration: 26/08/2022 - 01/12/2022
ID 101

SECTION UNDERNEATH SEABED
(REFER TO DRAWINGS 382770/B&V/PTOSTP/SO/002 AND 382770/B&V/PTOSTP/SO/003)

DIFFUSER
(848645 E
815745 N)

BOREHOLE D2

BOREHOLE D1

FISH CULTURAL ZONE

下角頭
HA KOK TAU

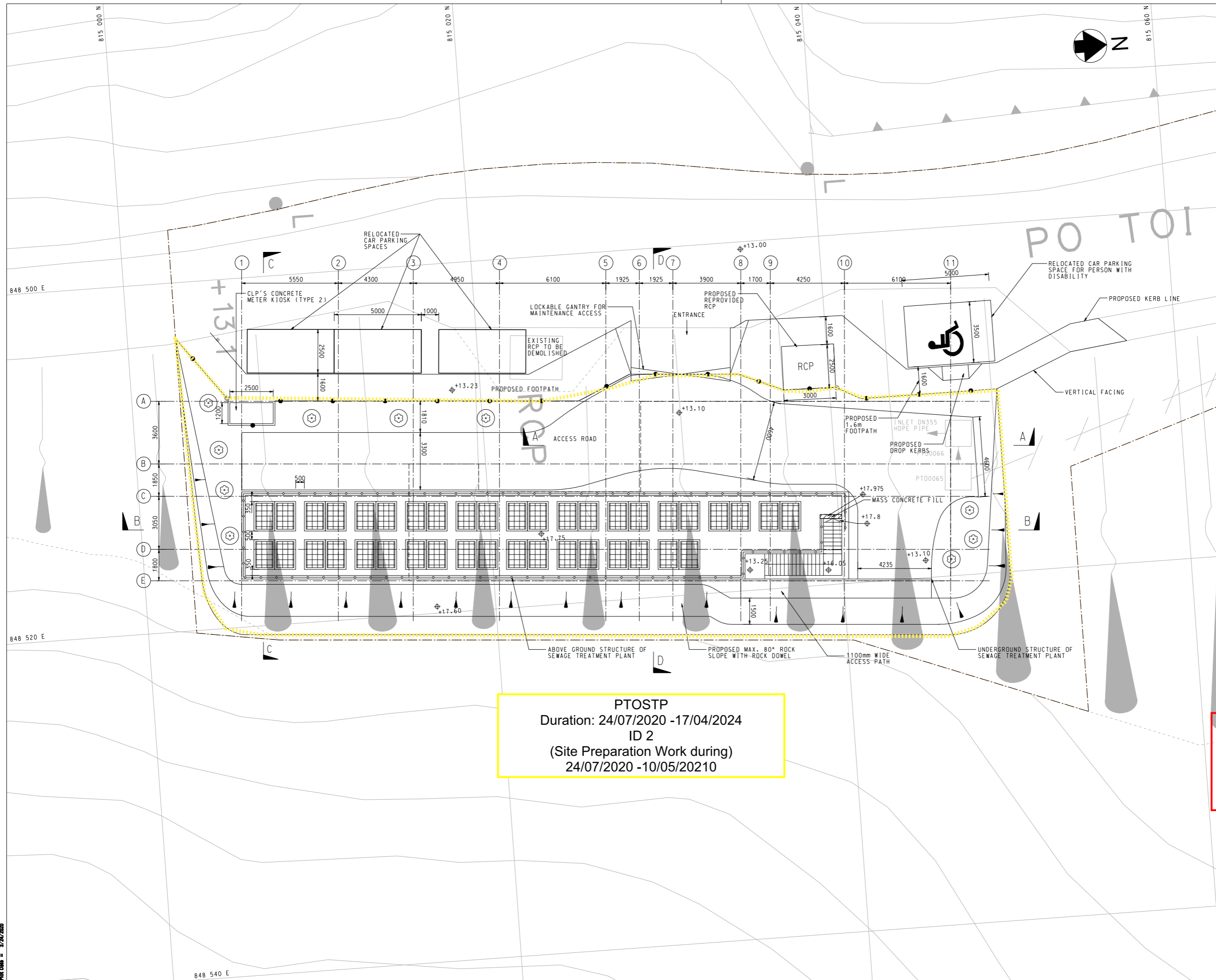
PO TOI O
布袋澳

NOTES:

- FOR OTHER NOTES AND LEGEND, REFER TO DRAWING NO. 382770/B&V/GN/000.
- ALL LEVELS ARE IN METERS ABOVE PRINCIPAL DATUM (mPD).
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

LEGEND:

- PROPOSED 3m HEIGHT FENCE WALL
- PROPOSED TREE
- PROPOSED CUT SLOPE
- BOUNDARY FENCE (REFER TO ARCHITECTURAL DRAWINGS FOR THE TYPES AND DETAILS)
- WORKS LIMIT
- STAINLESS STEEL RAILINGS



Revision	Date	Description	Initial
	Designed	Checked	Drawn
Initial	WC	WL	SZ
Date	03/20	03/20	03/20

Approved:

Contract no. DC/2019/09

Contract title

PROVISION OF VILLAGE SEWERAGE IN SAI KUNG

Drawing title
GENERAL ARRANGEMENT OF PO TOI O SEWAGE TREATMENT PLANT - GENERAL LAYOUT

Drawing no. 382770/B&V/PTOSTP/GA/001

Scale A1 1:100 A3 1:200



BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

PORT SHELTER PHASE 3, PO TOI O SEWERAGE TREATMENT PLANT
LOCATION PLAN FOR LANDSCAPE WORKS

TREE PLANTING SCHEDULE

SPECIES (SCIENTIFIC NAME)	CHINESE COMMON NAME	QUANTITY (NO.)
<i>CELTIS SINENSIS</i>	朴樹	3
<i>SYZYGIUM JAMBOS</i>	蒲桃	4
<i>BRIDELIA TOMENTOSA</i>	土蜜樹	3

GROUND COVER SCHEDULE

SPECIES (SCIENTIFIC NAME)	CHINESE COMMON NAME	MINIMUM SIZE (mm * mm)	SPACING (mm)	REMARKS
<i>LIRIOPE SPICATA</i>	山萐冬	150(H) * 125(W)	250	-
<i>NEPHROLEPIS HIRSUTULA</i>	毛葉腎蕨	150(H) * 125(W)	250	-

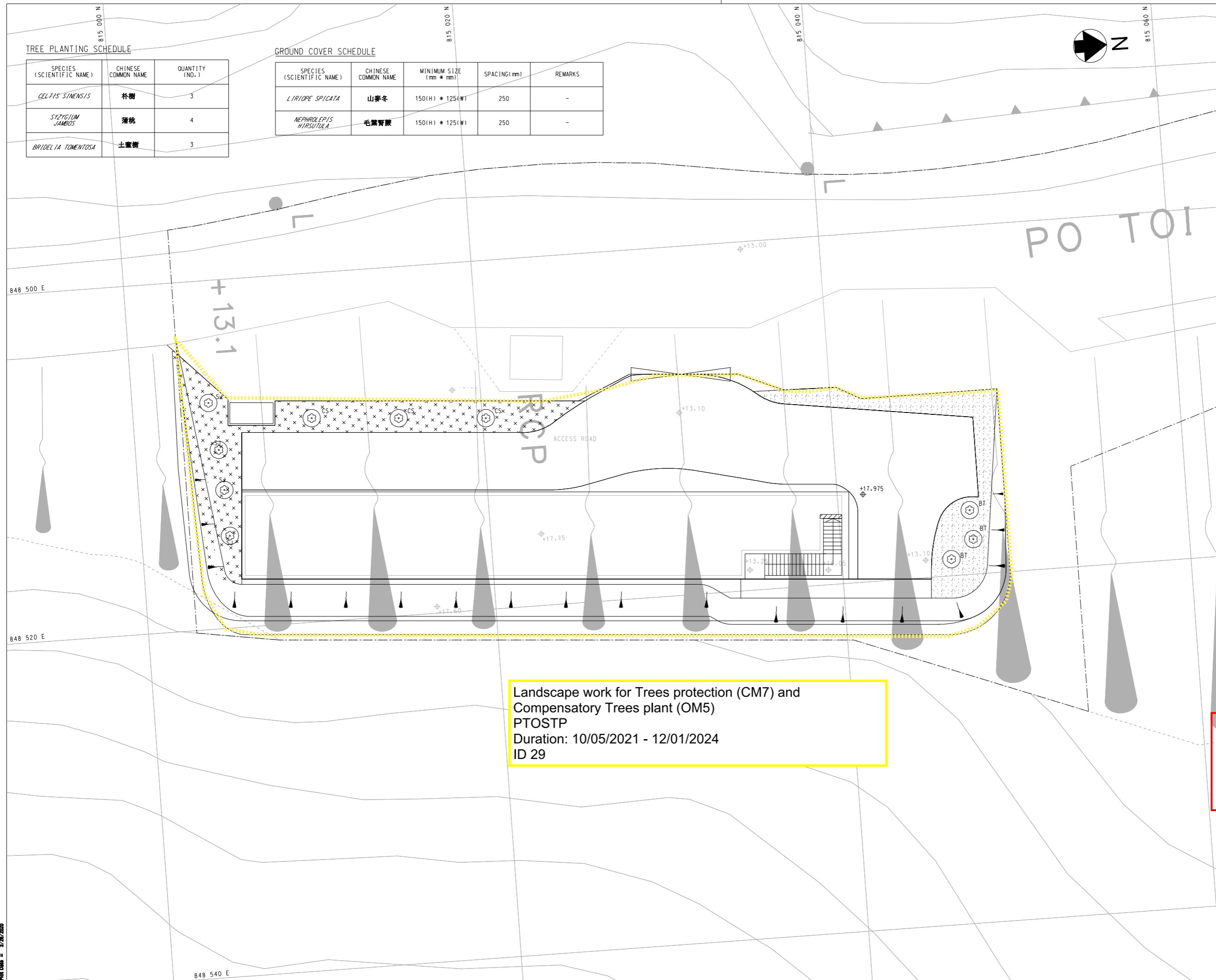


NOTES:

- FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING NO. 382770/B&V/GN/000.
- ALL LEVELS ARE IN METERS ABOVE PRINCIPAL DATUM (mPD).
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

LEGEND:

- CS CELTIS SINENSIS
- SJ SYZYGIUM JAMBOS
- BT BRIDELIA TOMENTOSA
- LIRIOPE SPICATA*
- NEPHROLEPIS HIRSUTULA*



Landscape work for Trees protection (CM7) and Compensatory Trees plant (OM5) PTOSTP
Duration: 10/05/2021 - 12/01/2024
ID 29

Revision	Date	Description	Initial	
Initial	WC	WL	SZ	CC
Date	03/20	03/20	03/20	03/20

Approved:

Contract no. DC/2019/09

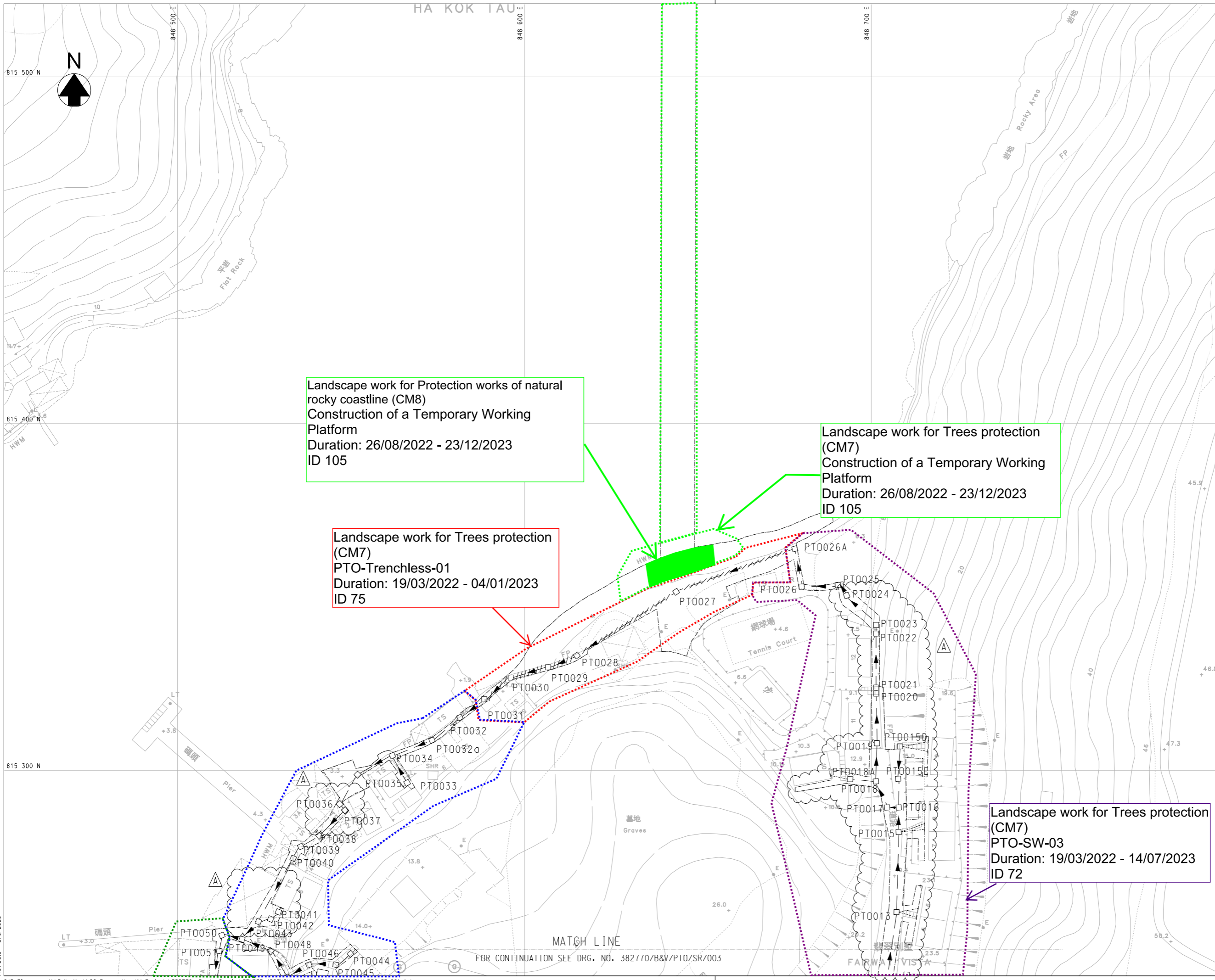
Contract title
PROVISION OF VILLAGE SEWERAGE IN SAI KUNG

Drawing title
PO TOI O SEWAGE TREATMENT PLANT - LANDSCAPE LAYOUT PLAN AT GROUND FLOOR

Drawing no. 382770/B&V/PTOSTP/TR/103
Revision -

Scale A1 1 : 100
A3 1 : 200





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NOTE:
 1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING NOS. 382770/B&V/GN/000 & 382770/B&V/KP/003.

LEGEND:
 - - - - - WORKS LIMIT

Revision	Date	Description	Initial
A	05/20	TENDER ADDENDUM NO.3	HN
		Designed	Checked
Initial	WC	WL	SZ
Date	03/20	03/20	03/20
Approved			

Contract no. **DC/2019/09**

Contract title
PROVISION OF VILLAGE SEWERAGE IN SAI KUNG

Drawing title
PO TOI O - PROPOSED SEWERAGE LAYOUT PLAN (SHEET 1 OF 2)

Drawing no. **382770/B&V/PTO/SR/001** Revision **A**

Scale
 A1 1 : 500
 A3 1 : 1000



NOTE:

1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING NOS. 382770/B&V/GN/000.

LEGEND:

--- WORKS LIMIT

Landscape work for Trees protection (CM7)
PTO-SW-03
Duration: 19/03/2022 - 14/07/2023
ID 72

Landscape work for Trees protection (CM7)
PTO-Trenchless-02
Duration: 05/01/2023 - 23/12/2023
ID 92

Landscape work for Trees protection (CM7) and Compensatory Trees plant (OM5)
PTOSTP
Duration: 10/05/2021 - 12/01/2024
ID 29

Revision	Date	Description	Initial
A	05/20	TENDER ADDENDUM NO.3	HN
		Designed	Checked
		Drawn	Checked
Initial	WC	WL	SZ
Date	03/20	03/20	03/20
Approved			

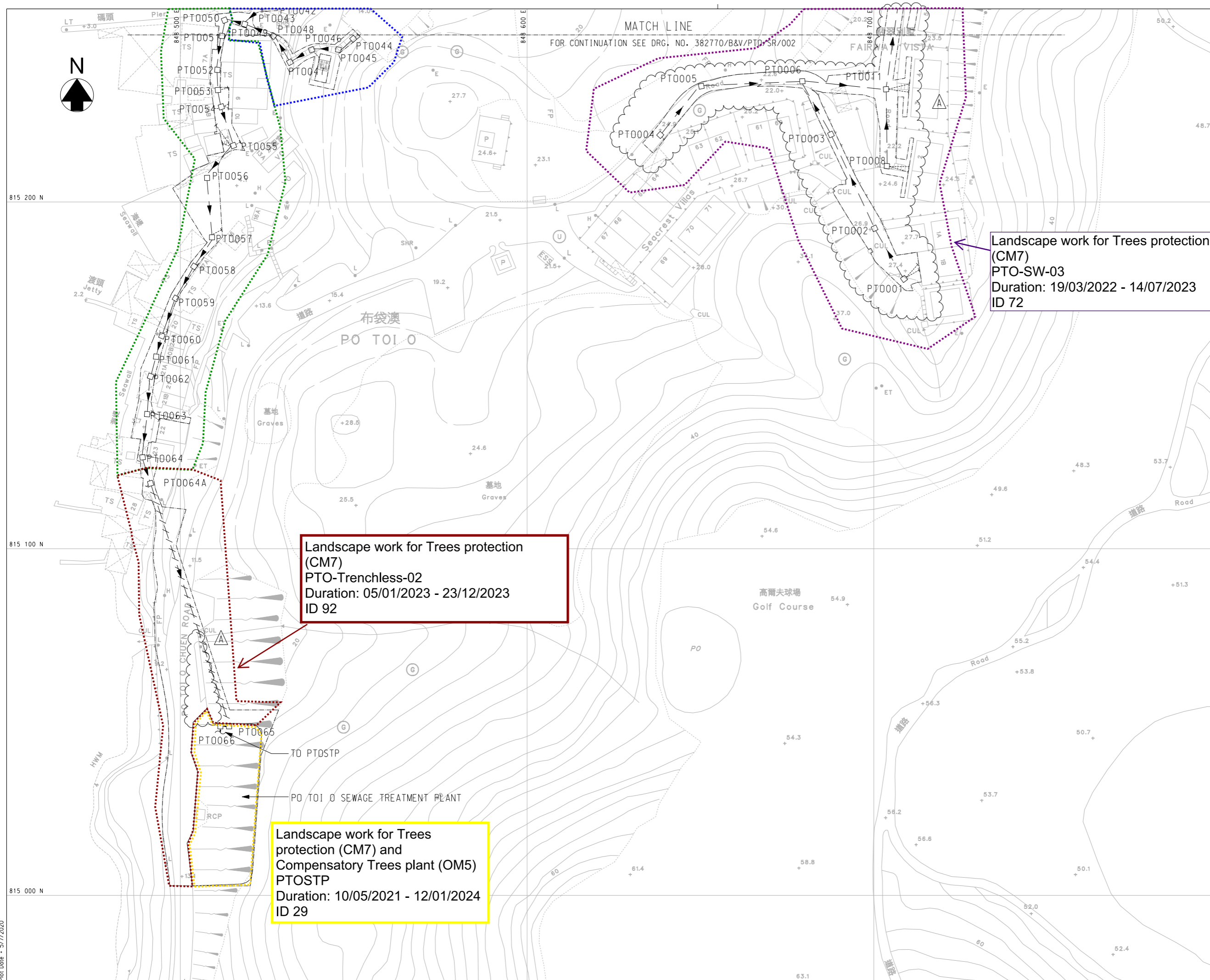
Contract no. **DC/2019/09**

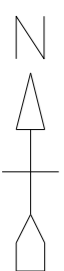
Contract title
PROVISION OF VILLAGE SEWERAGE IN SAI KUNG

Drawing title
PO TOI O - PROPOSED SEWERAGE LAYOUT PLAN (SHEET 2 OF 2)

Drawing no. 382770/B&V/PTO/SR/002
Revision A

Scale A1 : 500
A3 : 1000





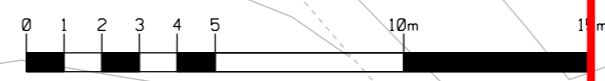
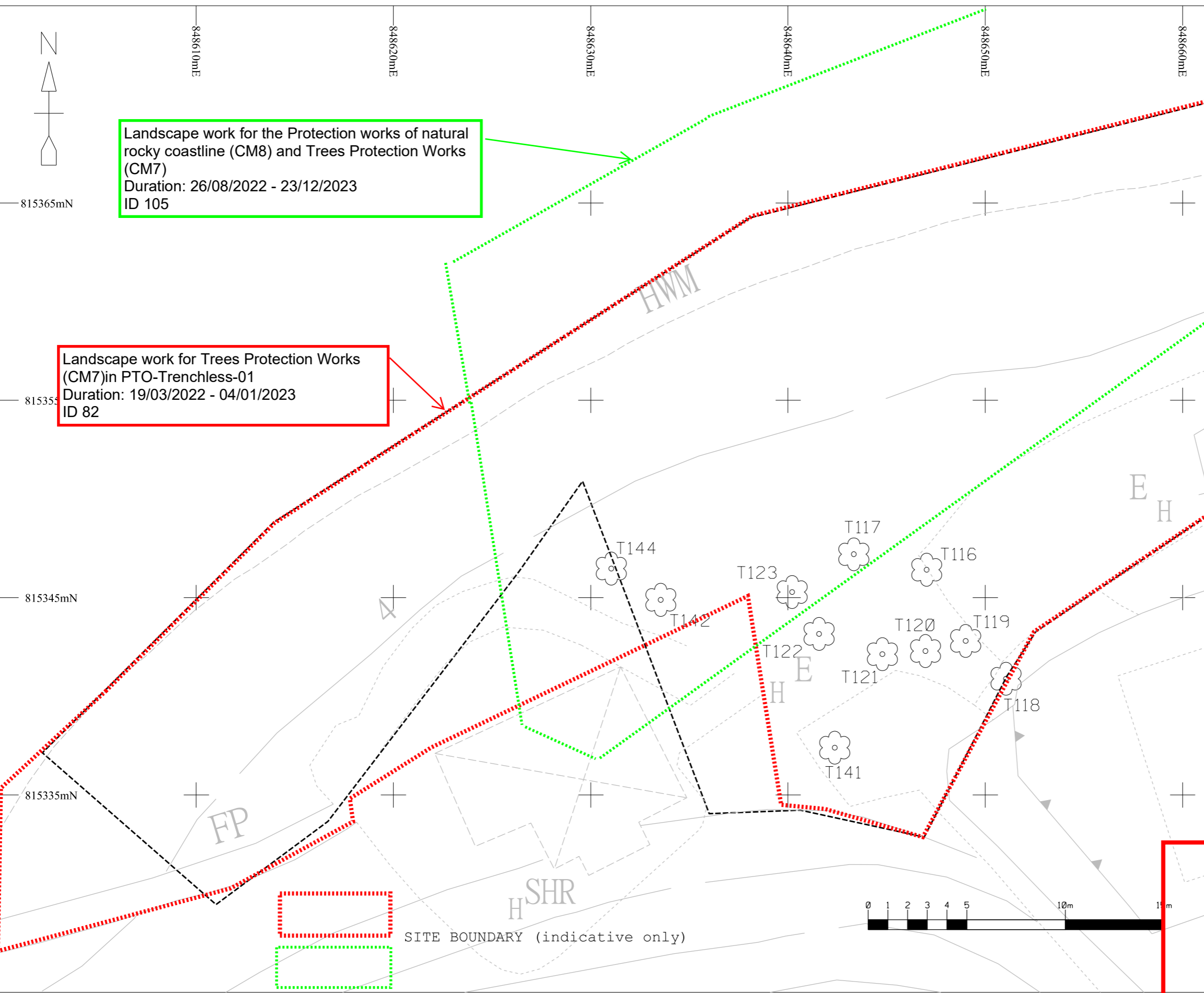
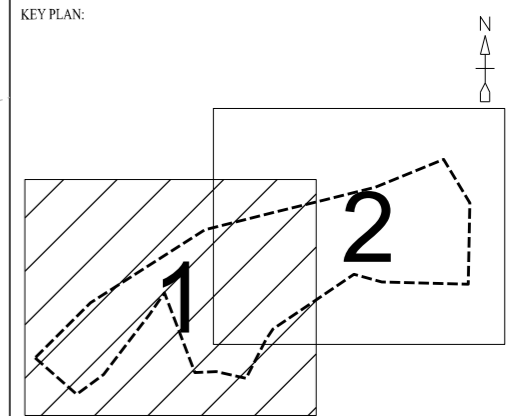
Landscape work for the Protection works of natural rocky coastline (CM8) and Trees Protection Works (CM7)
Duration: 26/08/2022 - 23/12/2023
ID 105

Landscape work for Trees Protection Works (CM7) in PTO-Trenchless-01
Duration: 19/03/2022 - 04/01/2023
ID 82

Notes:
1. Horizontal Datum
The coordinates are in Hong Kong 1980 Grid as a local rectangular grid system based on the Hong Kong 1980 Geodetic Datum and Transverse Mercator projection. The unit is in metre.
2. Vertical Datum
The elevations are in Principal Datum (approximately 1.23 metres below Mean Sea Level). The unit is in metre.

LEGEND:

	Barriers		Gate
	Building Outline		Grating
	Fence		IC Inspection Chamber
	Footpath		L Lamp Post
	Free Standing Wall		LB Letter Box
	Hedge		LP Lighting Pit
	Kerb		Manhole
	Lot Boundary		Manhole Foul
	Paved Footpath		Manhole Storm
	Pipeline		Manhole Telephone
	Railing		Manhole Waterworks
	Noise Barrier		Monument
	Slope Top / Slope Bottom		Platform
	Stream Course / River		Septic Tanks
	Stepped Channel		Spot Height
	Survey Boundary		Sign Board
	U-Channel		Sign Pole
	Vertical Cutting / Retaining Wall		Step Edge / Stair
	Artificial Slope		Temporary Structure
	Balcony / Canopy		Telephone Pole
	Bench		Traffic Light
	Bollard at Quay		Traffic Light Control Box
	Bollard at Road		Tree
	Boulder / Rock		Tree with Crown Size
	Catch Pit		Valve
	Column		F Valve Fire
	Draw Pit		G Valve Gas
	Electric Pit		W Valve Waterworks
	Electric Transformer		Water Point
	Fire Hydrant		
	Flower Bed		



SITE BOUNDARY (indicative only)

TITLE: Tree Survey
For Port Shelter Sewerage Stage 2 & Stage 3 (Package 3) (Tender Ref. CM 06/2018)
at Area 1
Po Toi O, Hong Kong

SCALE: 1:100 (in A1)

PLAN NO.: SVL/BV/TREE/PTO1 SHEET 1 OF 2

COMPANY: STAR VISION LIMITED

Landscape work for the Protection works of natural rocky coastline (CM8) and Trees Protection Works (CM7)
Duration: 26/08/2022 - 23/12/2023
ID 105

Landscape work for Trees Protection Works (CM7) in PTO-Trenchless-01
Duration: 19/03/2022 - 04/01/2023
ID 82

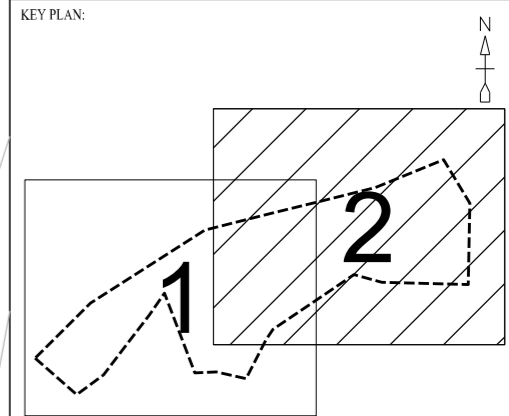
Landscape work for Trees Protection Works (CM7) in PTO-SW-03
Duration: 19/03/2022 - 14/07/2023
ID 72

SITE BOUNDARY (indicative only)

Notes:
1. Horizontal Datum
The coordinates are in Hong Kong 1980 Grid as a local rectangular grid system based on the Hong Kong 1980 Geodetic Datum and Transverse Mercator projection. The unit is in metre.
2. Vertical Datum
The elevations are in Principal Datum (approximately 1.23 metres below Mean Sea Level). The unit is in metre.

LEGEND:

—X—X—	Barriers	⋈	Gate
—	Building Outline	▭	Grating
—	Fence	▭ IC	Inspection Chamber
—	Footpath	• L	Lamp Post
—	Free Standing Wall	• LB	Letter Box
—	Hedge	▭ LP	Lighting Pit
—	Kerb	▭ M	Manhole
---	Lot Boundary	▭ MF	Manhole Foul
—	Paved Footpath	○ MS	Manhole Storm
—	Pipeline	▭ T	Manhole Telephone
—	Railing	▭ W	Manhole Waterworks
---	Noise Barrier	⊙	Monument
—	Slope Top / Slope Bottom	▭	Platform
—	Stream Course / River	⊙ ST	Septic Tanks
—	Stepped Channel	+ ^{8.6}	Spot Height
---	Survey Boundary	—	Sign Board
—	U-Channel	• SP	Sign Pole
—	Vertical Cutting / Retaining Wall	▭	Step Edge / Stair
	Artificial Slope	▭	Temporary Structure
▭	Balcony / Canopy	• T	Telephone Pole
▭	Bench	• TL	Traffic Light
• B	Bollard at Quay	▭ TB	Traffic Light Control Box
•	Bollard at Road	⊙	Tree
⊙	Boulder / Rock	⊙	Tree with Crown Size
▭	Catch Pit	▭	Valve
▭ CO	Column	▭ F	Valve Fire
▭ DP	Draw Pit	▭ G	Valve Gas
▭ EP	Electric Pit	▭ W	Valve Waterworks
▭ ET	Electric Transformer	•	Water Point
• H	Fire Hydrant		
▭ FB	Flower Bed		

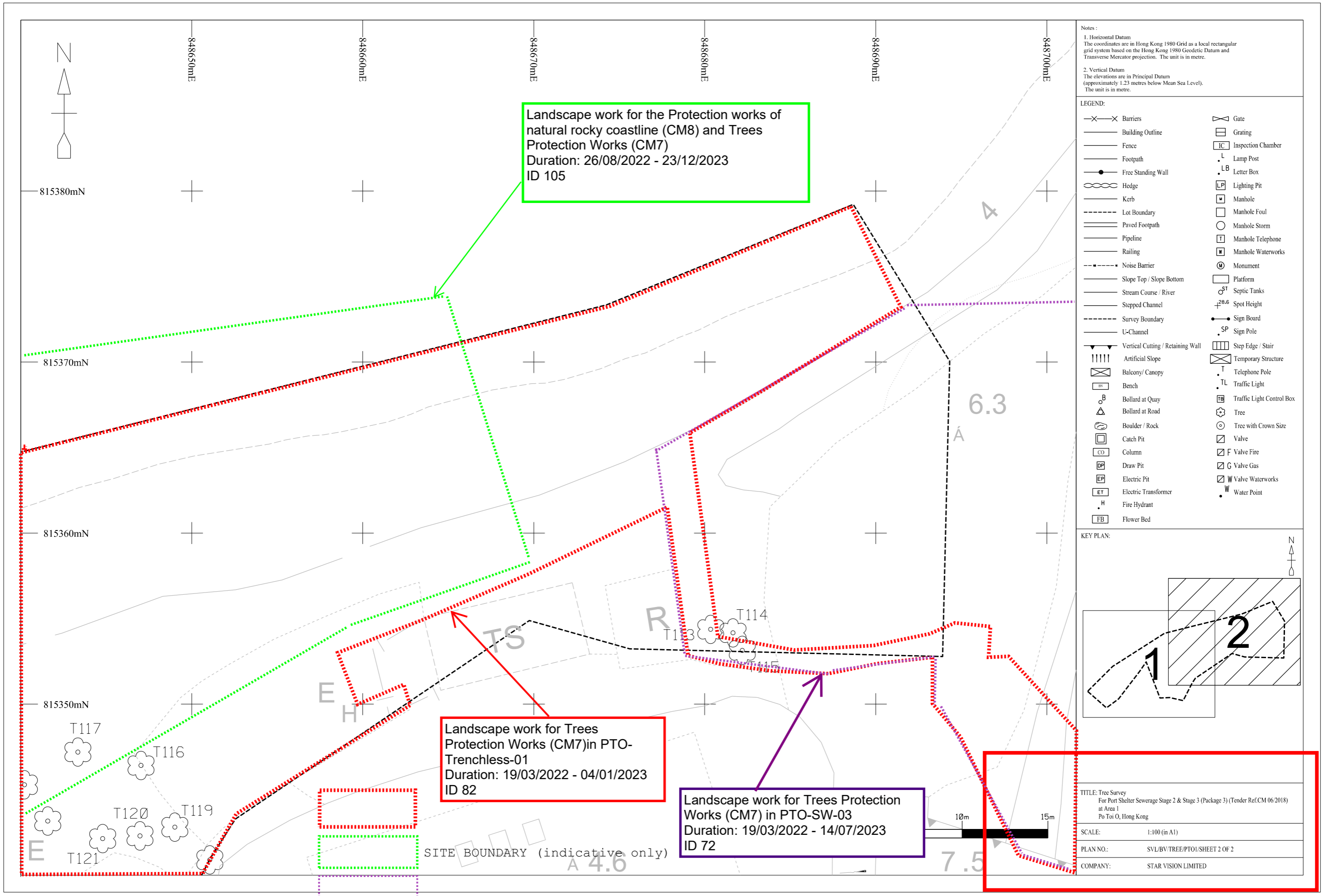


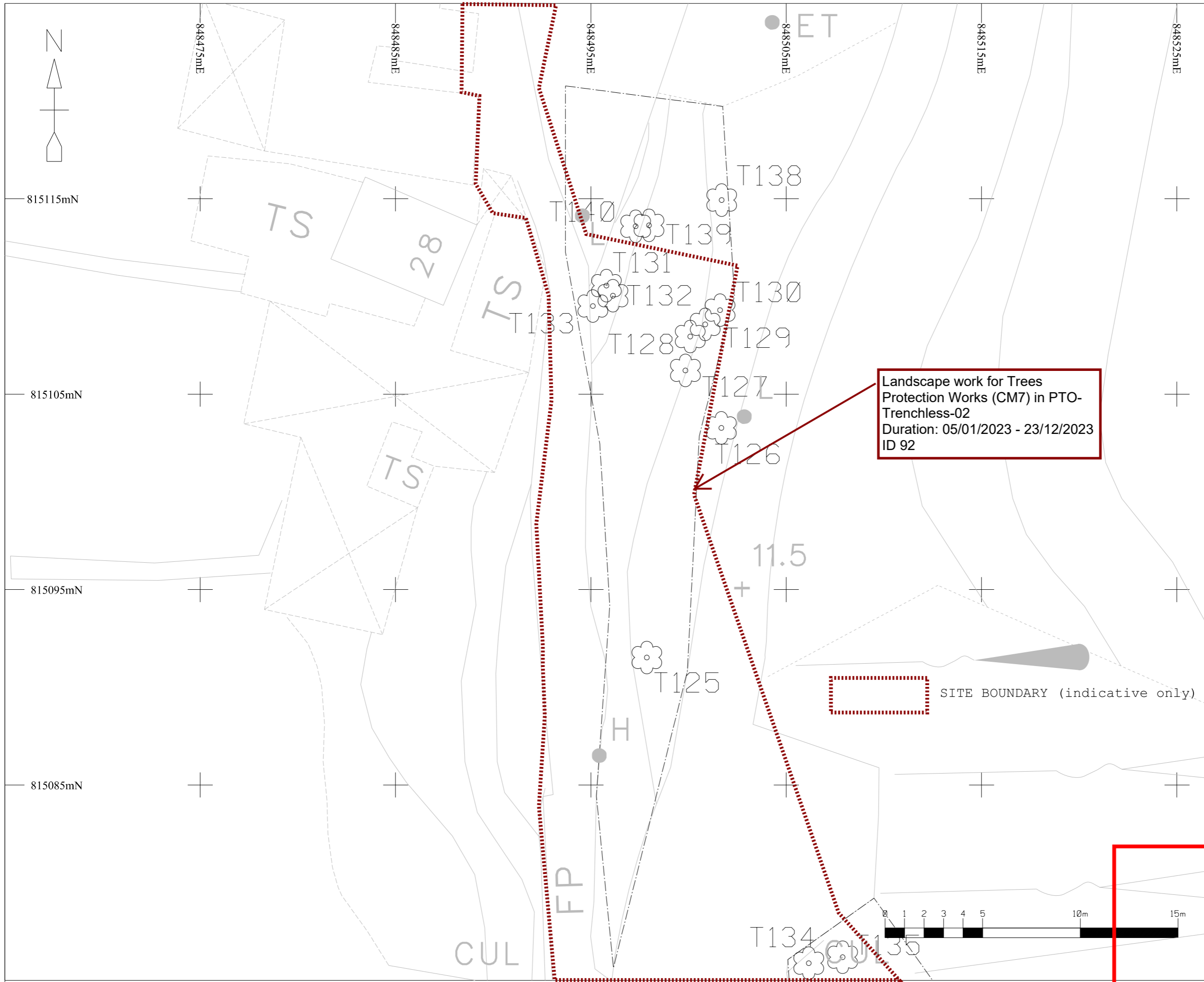
TITLE: Tree Survey
For Port Shelter Sewerage Stage 2 & Stage 3 (Package 3) (Tender Ref. CM 06/2018)
at Area 1
Po Toi O, Hong Kong

SCALE: 1:100 (in A1)

PLAN NO.: SVL/BV/TREE/PTO1/SHEET 2 OF 2

COMPANY: STAR VISION LIMITED





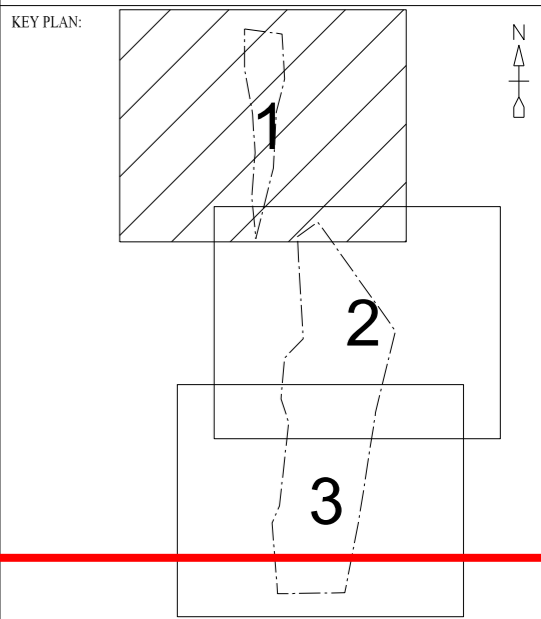
Notes :

1. Horizontal Datum
The coordinates are in Hong Kong 1980 Grid as a local rectangular grid system based on the Hong Kong 1980 Geodetic Datum and Transverse Mercator projection. The unit is in metre.

2. Vertical Datum
The elevations are in Principal Datum (approximately 1.23 metres below Mean Sea Level). The unit is in metre.

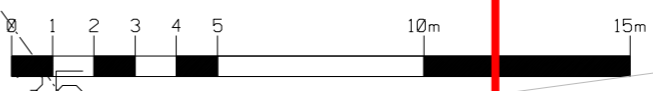
LEGEND:

—X—X— Barriers	⊠ Gate
— Building Outline	▭ Grating
— Fence	▭ IC Inspection Chamber
— Footpath	• L Lamp Post
• Free Standing Wall	• LB Letter Box
⊞ Hedge	▭ LP Lighting Pit
— Kerb	▭ M Manhole
--- Lot Boundary	▭ MF Manhole Foul
▬ Paved Footpath	○ MS Manhole Storm
— Pipeline	▭ T Manhole Telephone
— Railing	▭ MW Manhole Waterworks
- - - Noise Barrier	⊙ Monument
— Slope Top / Slope Bottom	▭ Platform
— Stream Course / River	⊙ ST Septic Tanks
— Stepped Channel	+28.6 Spot Height
--- Survey Boundary	• SB Sign Board
— U-Channel	• SP Sign Pole
— Vertical Cutting / Retaining Wall	▭ SES Step Edge / Stair
▨ Artificial Slope	▭ TS Temporary Structure
▭ Balcony/ Canopy	• T Telephone Pole
▭ BN Bench	• TL Traffic Light
• B Bollard at Quay	▭ TLB Traffic Light Control Box
• BR Bollard at Road	• Tree
• Boulder / Rock	• Tree with Crown Size
▭ Catch Pit	▭ Valve
▭ CO Column	▭ F Valve Fire
▭ DP Draw Pit	▭ G Valve Gas
▭ EP Electric Pit	▭ W Valve Waterworks
▭ ET Electric Transformer	• W Water Point
• H Fire Hydrant	
▭ FB Flower Bed	



Landscape work for Trees
Protection Works (CM7) in PTO-
Trenchless-02
Duration: 05/01/2023 - 23/12/2023
ID 92

SITE BOUNDARY (indicative only)

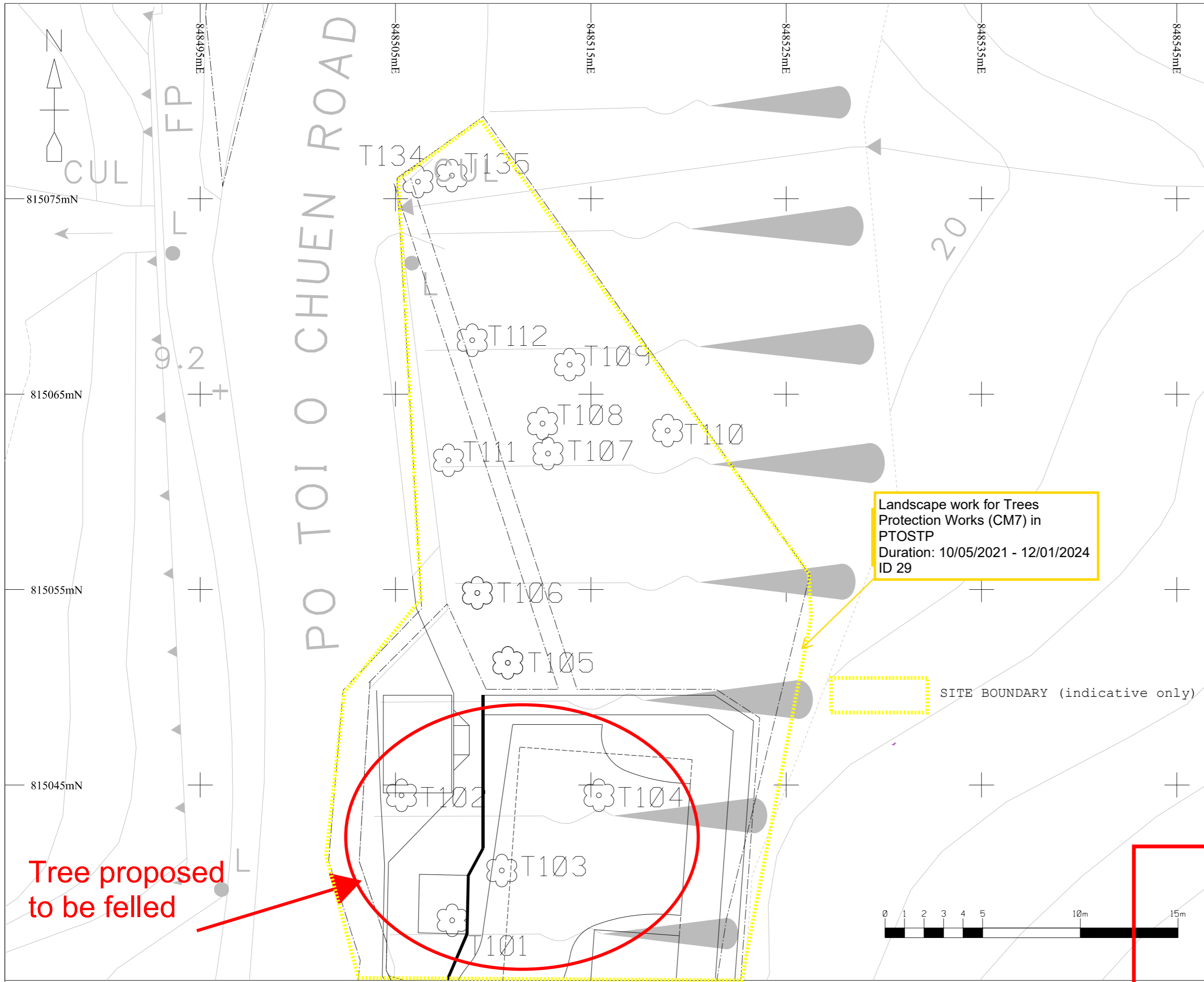


TITLE: Tree Survey
For Port Shelter Sewerage Stage 2 & Stage 3 (Package 3) (Tender Ref:CM 06/2018)
at Area 2
Po Toi O, Hong Kong

SCALE: 1:100 (in A1)

PLAN NO.: SVL/BV/PTO2/TREE/SHEET 1 OF 3

COMPANY: STAR VISION LIMITED



Tree proposed to be felled

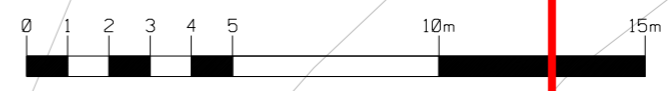
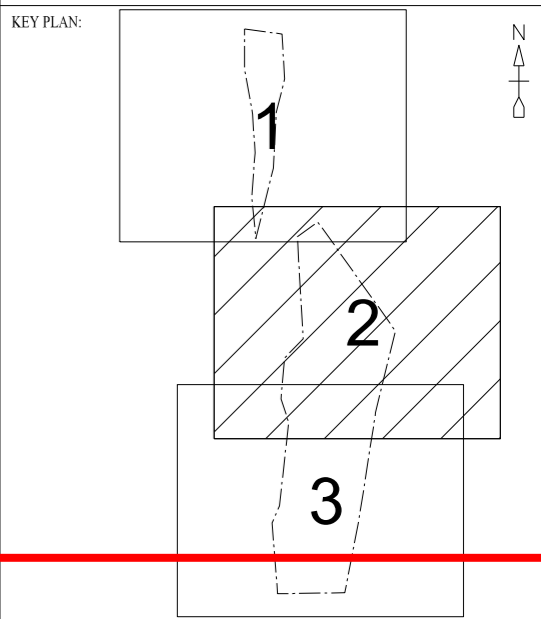
Notes:

1. Horizontal Datum
The coordinates are in Hong Kong 1980 Grid as a local rectangular grid system based on the Hong Kong 1980 Geodetic Datum and Transverse Mercator projection. The unit is in metre.

2. Vertical Datum
The elevations are in Principal Datum (approximately 1.23 metres below Mean Sea Level). The unit is in metre.

LEGEND:

—X—X—	Barriers	⊗	Gate
—	Building Outline	▭	Grating
—	Fence	⊠	Inspection Chamber
—	Footpath	⋄	Lamp Post
—●—	Free Standing Wall	⋄	Letter Box
⊘	Hedge	⊠	Lighting Pit
—	Kerb	⊠	Manhole
---	Lot Boundary	⊠	Manhole Foul
==	Paved Footpath	⊠	Manhole Storm
—	Pipeline	⊠	Manhole Telephone
—	Railing	⊠	Manhole Waterworks
- - -	Noise Barrier	⊠	Monument
—	Slope Top / Slope Bottom	⊠	Platform
—	Stream Course / River	⊠	Septic Tanks
—	Stepped Channel	⊠	Spot Height
---	Survey Boundary	⊠	Sign Board
—	U-Channel	⊠	Sign Pole
—	Vertical Cutting / Retaining Wall	⊠	Step Edge / Stair
	Artificial Slope	⊠	Temporary Structure
⊠	Balcony/ Canopy	⊠	Telephone Pole
⊠	Bench	⊠	Traffic Light
⊠	Bollard at Quay	⊠	Traffic Light Control Box
⊠	Bollard at Road	⊠	Tree
⊠	Boulder / Rock	⊠	Tree with Crown Size
⊠	Catch Pit	⊠	Valve
⊠	Column	⊠	F Valve Fire
⊠	Draw Pit	⊠	G Valve Gas
⊠	Electric Pit	⊠	W Valve Waterworks
⊠	Electric Transformer	⊠	Water Point
⊠	Fire Hydrant		
⊠	Flower Bed		

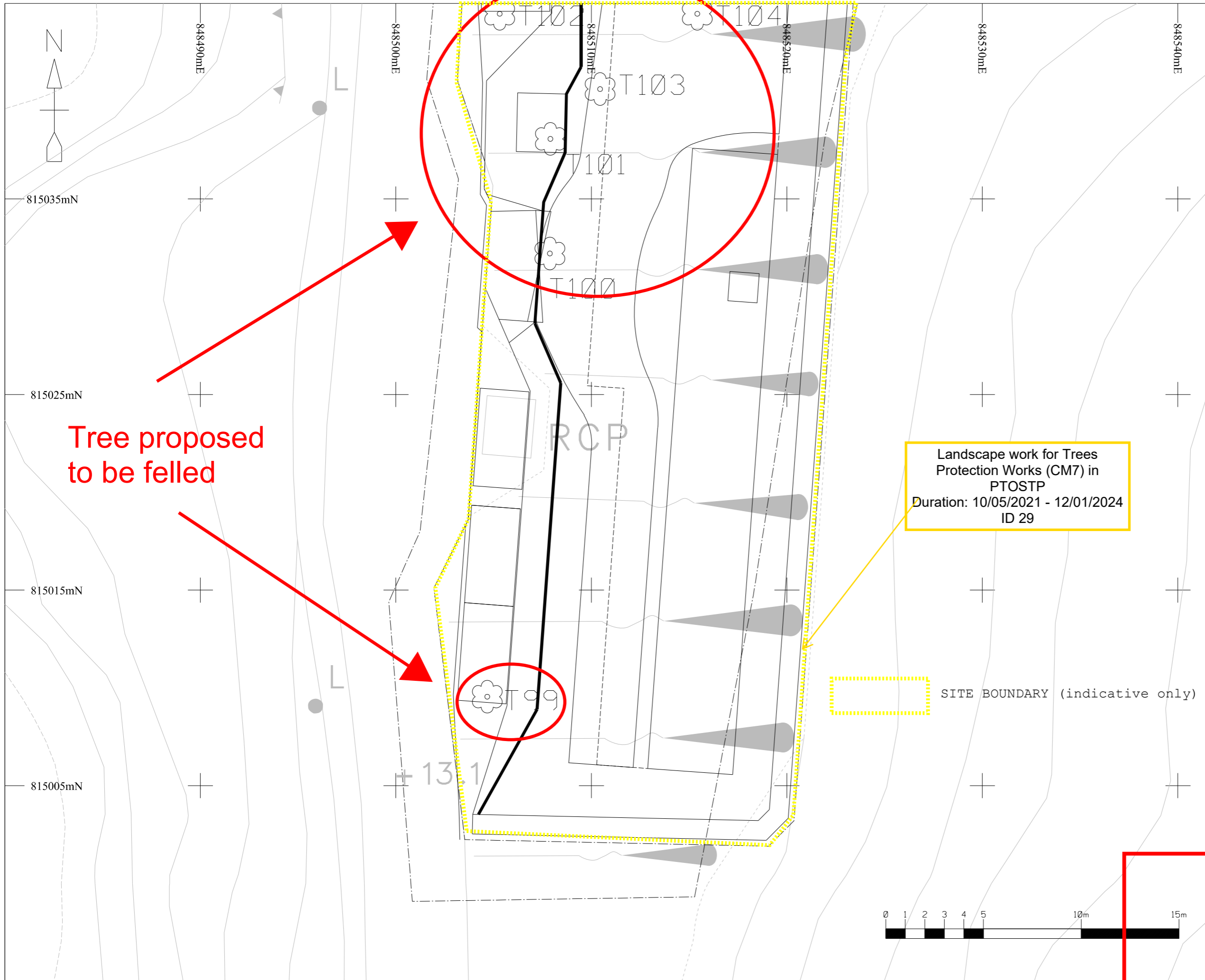


TITLE: Tree Survey
For Port Shelter Sewerage Stage 2 & Stage 3 (Package 3) (Tender Ref. CM 06/2018)
at Area 2
Po Toi O, Hong Kong

SCALE: 1:100 (in A1)

PLAN NO.: SVL/BV/PTO2/TREE/SHEET 2 OF 3

COMPANY: STAR VISION LIMITED



Tree proposed to be felled

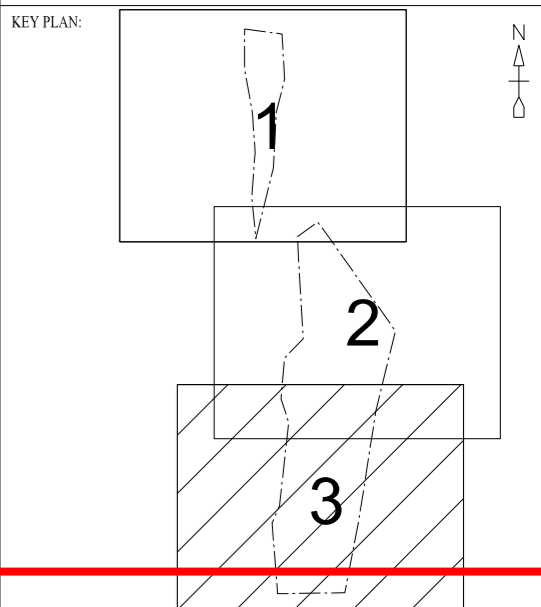
Landscape work for Trees Protection Works (CM7) in PTOSTP
Duration: 10/05/2021 - 12/01/2024
ID 29

SITE BOUNDARY (indicative only)

Notes:
1. Horizontal Datum
The coordinates are in Hong Kong 1980 Grid as a local rectangular grid system based on the Hong Kong 1980 Geodetic Datum and Transverse Mercator projection. The unit is in metre.
2. Vertical Datum
The elevations are in Principal Datum (approximately 1.23 metres below Mean Sea Level). The unit is in metre.

LEGEND:

—X—X— Barriers	⊘ Gate
▭ Building Outline	▭ Grating
— Fence	▭ IC Inspection Chamber
— Footpath	⋄ Lamp Post
— Free Standing Wall	⋄ LB Letter Box
⊘ Hedge	▭ LP Lighting Pit
— Kerb	▭ Manhole
--- Lot Boundary	▭ Manhole Foul
▭ Paved Footpath	⊘ Manhole Storm
— Pipeline	⊘ Manhole Telephone
— Railing	▭ Manhole Waterworks
--- Noise Barrier	⊙ Monument
— Slope Top / Slope Bottom	▭ Platform
— Stream Course / River	⊙ ^T Septic Tanks
— Stepped Channel	⊕ ^{28.6} Spot Height
--- Survey Boundary	⊙ Sign Board
— U-Channel	⋄ SP Sign Pole
— Vertical Cutting / Retaining Wall	▭ Step Edge / Stair
▭ Artificial Slope	▭ Temporary Structure
▭ Balcony/ Canopy	⋄ Telephone Pole
▭ Bench	⋄ TL Traffic Light
⊙ Bollard at Quay	▭ Traffic Light Control Box
⊙ Bollard at Road	⊙ Tree
⊙ Boulder / Rock	⊙ Tree with Crown Size
▭ Catch Pit	▭ Valve
▭ CO Column	▭ F Valve Fire
▭ DP Draw Pit	▭ G Valve Gas
▭ EP Electric Pit	▭ W Valve Waterworks
▭ ET Electric Transformer	⋄ Water Point
⋄ Fire Hydrant	
▭ FB Flower Bed	



TITLE: Tree Survey
For Port Shelter Sewerage Stage 2 & Stage 3 (Package 3) (Tender Ref:CM 06/2018)
at Area 2
Po Toi O, Hong Kong

SCALE: 1:100 (in A1)

PLAN NO.: SVL/BV/PTO2/TREE/SHEET 3 OF 3

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