
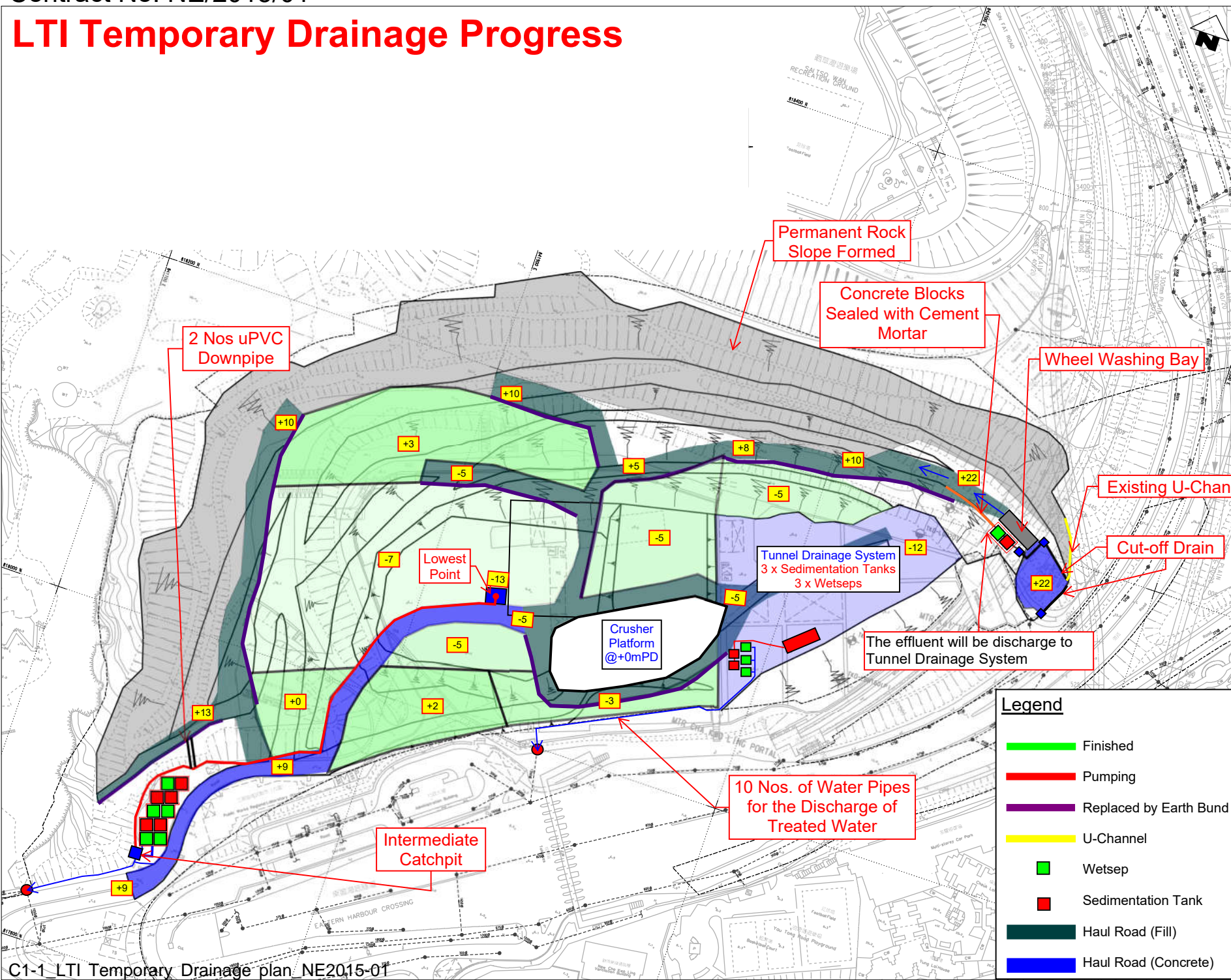


LTI Temporary Drainage Progress

COPYRIGHT RESERVED

- NOTES:**
1. ALL DIMENSIONS ARE LARGE 1000 MILLIMETRES UNLESS OTHERWISE SPECIFIED.
 2. 75mm THK. SHOTCRETE SHALL BE APPLIED ON CHANNEL SURFACE.
 3. CHANNEL DIMENSION AS FOLLOW:

 4. REFER HAUL ROAD AND TEMPORARY CUT SLOPE DESIGN UNDER SEPARATE SUBMISSION.
 5. REFER TO DRAWING NO. H2645/T/O/LEAD/T01/02/3 & 027 FOR PIPE CONNECTION DETAILS.

- LEGENDS:**
- DRAINAGE PIPE
 - WATER TREATMENT (100m³/HR)
 - SUMP PIT
 - SITE BOUNDARY
 - PROPOSED TEMPORARY DRAINAGE CHANNEL
 - EXISTING STORMWATER DRAIN
 - EXISTING U-CHANNEL
 - EXCAVATION / HAUL ROAD LEVEL
 - 6" PUMP
 - SEDIMENTATION TANK
 - UC CUT OFF DRAIN



2 Nos uPVC Downpipe

Permanent Rock Slope Formed

Concrete Blocks Sealed with Cement Mortar

Wheel Washing Bay

Existing U-Channel

Cut-off Drain

Lowest Point

Tunnel Drainage System
3 x Sedimentation Tanks
3 x Wetseps

Crusher Platform
@+0mPD

The effluent will be discharge to Tunnel Drainage System

10 Nos. of Water Pipes for the Discharge of Treated Water

Intermediate Catchpit

A	FIRST ISSUE	170830	RA	JT
REV.	DESCRIPTION	DATE	BY	APP

土木工程師 土木工程師
Civil Engineering and Development Department

AECOM

TSEUNG KWAN O - LAM TIN TUNNEL - MAIN TUNNEL AND ASSOCIATED WORKS

LAM TIN TEMPORARY DRAINAGE DESIGN LAYOUT PLAN - STAGE 3

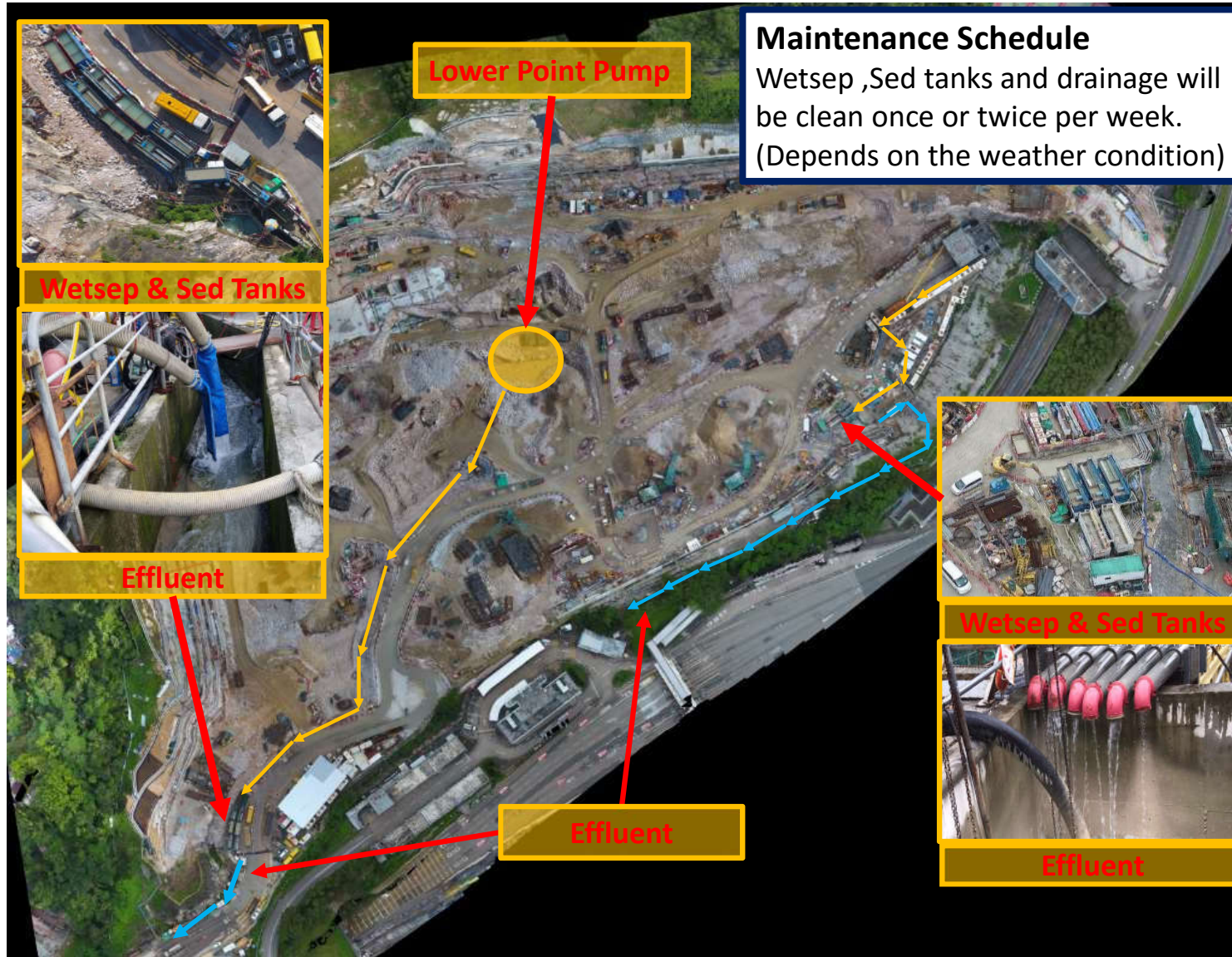
LEIGHTON 禮頓
Leighton - China State Joint Ventures
SUBCONTRACTOR / SUBCONSULTANT

DRG. NO.	H2645/C/LT/CS/T12/003	REV.	A
CONTRACT NO.	NE/2015/01	DATE OF ISSUE	2017-08-30
CHECKED BY	RA	DRAWN BY	CC
SCALE	1 : 1000	STATUS	FOR INFORMATION
DIMENSIONS ARE IN MILLIMETRES		PAPER SIZE	A1 1

Legend

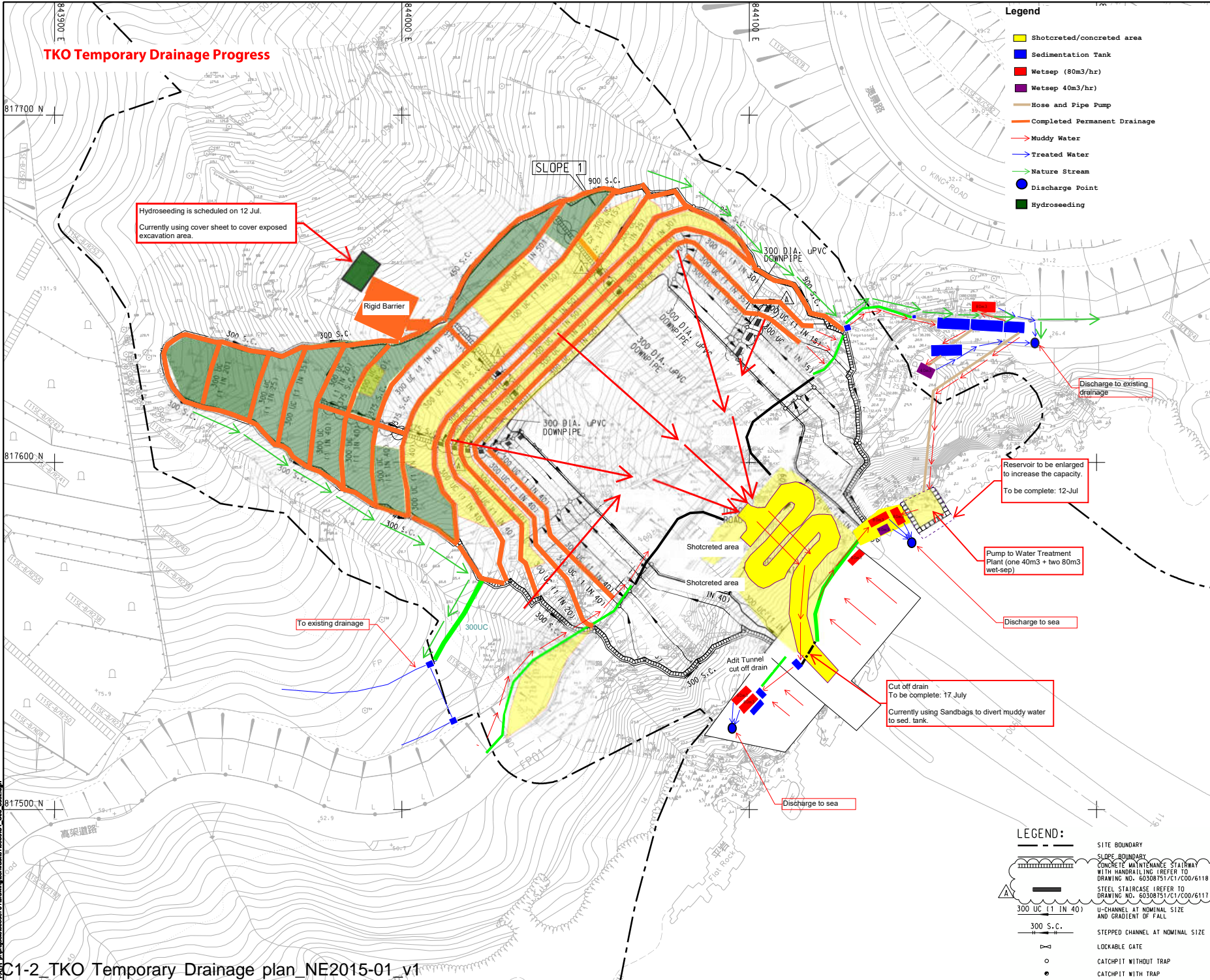
- Finished
- Pumping
- Replaced by Earth Bund
- U-Channel
- Wetsep
- Sedimentation Tank
- Haul Road (Fill)
- Haul Road (Concrete)

T:\Common\06 Design\06.09 CAD Admin\Plot.dwg PLOT COLOR - ATMS.ctb
 T:\Common\06 Design\06.09 CAD Admin\Drawings by A\Submission\Draw\H2645.dwg
 PLOT DATE: 2017/08/30 10:00:00
 PLOT BY: RA



Project Management Initials: Designer: BMS Checked: CHC Approved: CHN
 Only ISO A1 84mm x 64mm

Plot File by: WPCF
 DWG No. 60308751/C1/COO/609250



- Legend**
- Shotcreted/concreted area
 - Sedimentation Tank
 - Wetsep (80m³/hr)
 - Wetsep 40m³/hr
 - Hose and Pipe Pump
 - Completed Permanent Drainage
 - Muddy Water
 - Treated Water
 - Nature Stream
 - Discharge Point
 - Hydroseeding

Hydroseeding is scheduled on 12 Jul.
Currently using cover sheet to cover exposed excavation area.

Rigid Barrier

SLOPE 1
900 S.C.

300 DIA. UPVC DOWNPIPE

300 UC (1 IN 40)

300 S.C.

Discharge to existing drainage

Reservoir to be enlarged to increase the capacity.
To be complete: 12-Jul

Pump to Water Treatment Plant (one 40m³ + two 80m³ wet-sep)

Discharge to sea

Cut off drain
To be complete: 17 July
Currently using Sandbags to divert muddy water to sed. tank.

Discharge to sea

- LEGEND:**
- SITE BOUNDARY
 - SLOPE BOUNDARY
 - CONCRETE MAINTENANCE STAIRWAY WITH HANDRAILING (REFER TO DRAWING NO. 60308751/C1/COO/6118)
 - STEEL STAIRCASE (REFER TO DRAWING NO. 60308751/C1/COO/6117)
 - U-CHANNEL AT NOMINAL SIZE AND GRADIENT OF FALL
 - STEPPED CHANNEL AT NOMINAL SIZE
 - LOCKABLE GATE
 - CATCHPIT WITHOUT TRAP
 - CATCHPIT WITH TRAP

AECOM

PROJECT NO.
TSEUNG KWAN O - LAM TIN TUNNEL

CONTRACT TITLE
TSEUNG KWAN O - LAM TIN TUNNEL MAIN TUNNEL AND ASSOCIATED WORKS

CLIENT
土木工務拓展署
CEDD
Civil Engineering and Development Department

CONSULTANT
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ZAT

FOR CONSTRUCTION

ISSUE/REVISION

NO.	DATE	DESCRIPTION	ISSUED BY	CHKD BY
B	JUL 16	WORKING DRAWING	ALC	
A	OCT 15	TENDER ADDENDUM NO.1	CYKC	
-	AUG 15	TENDER DRAWING	CYKC	

STATUS
WORKING DRAWING

SCALE
1:500

KEY PLAN

PROJECT NO.
60308751

CONTRACT NO.
NE/2015/01

SHEET TITLE
TSEUNG KWAN O PORTAL SITE FORMATION DRAINAGE LAYOUT PLAN

SHEET NUMBER
60308751/C1/COO/609250

3

Maintenance Schedule
Wetsep ,Sed tanks and drainage will be clean once or twice per week.
(Depends on the weather condition)

Sed tanks

Site Clearance & provide cover to exposed excavation area

Wetsep

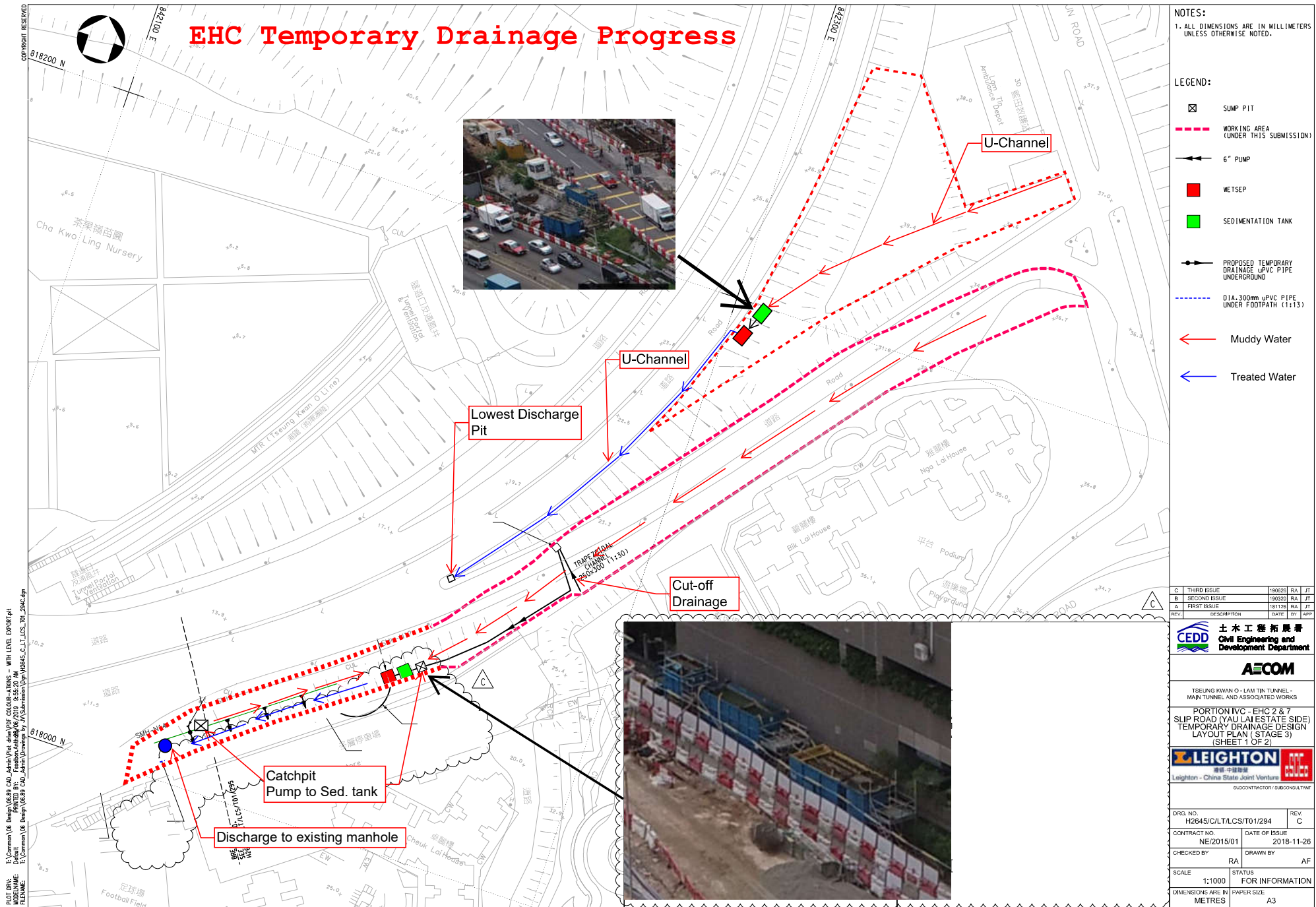
Effluent

Extension of Sed tanks

Contract Number NE/2015/01

2019年6月28日
新界

The image is an aerial photograph of a large-scale construction project. A central road or bridge structure is under development, surrounded by various infrastructure components. Several callout boxes with yellow borders and red arrows point to specific areas: 1. Top-left: A blue tarp covering an excavation site, with a date stamp '2019年6月28日' and '新界'. 2. Middle-left: A worker in a yellow vest cleaning a concrete surface. 3. Middle-right: A long, narrow concrete structure labeled 'Sed tanks'. 4. Bottom-left: A blue truck and a concrete structure labeled 'Wetsep'. 5. Bottom-center: A concrete structure with water flowing, labeled 'Effluent'. 6. Bottom-right: A concrete structure being extended into a body of water, labeled 'Extension of Sed tanks'. A large text overlay 'Contract Number NE/2015/01' is positioned in the center-right of the image.



C	THIRD ISSUE	190626	RA	JT
B	SECOND ISSUE	190320	RA	JT
A	FIRST ISSUE	181126	RA	JT
REV.	DESCRIPTION	DATE	BY	APP

CEPD 土木工程拓展署
Civil Engineering and Development Department

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TSEUNG KWAN O - LAM TIN TUNNEL - MAIN TUNNEL AND ASSOCIATED WORKS

PORTION IVC - EHC 2 & 7
SLIP ROAD (YAU LAI ESTATE SIDE)
TEMPORARY DRAINAGE DESIGN LAYOUT PLAN (STAGE 3)
(SHEET 1 OF 2)

LEIGHTON 香港中國建築
Leighton - China State Joint Venture

DRG. NO. H2645/C/LT/LCS/T01/294

CONTRACT NO. NE/2015/01 DATE OF ISSUE 2018-11-26

CHECKED BY RA DRAWN BY AF

SCALE 1:1000 STATUS FOR INFORMATION
DIMENSIONS ARE IN METRES PAPER SIZE A3

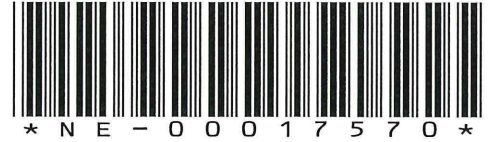


中國路橋
C R B C



CRBC-Build King Joint Venture

Our Ref.:JV/TKO-P2/NE201502/19.00.00.00/017621/L
Your Ref.: TLT/(NE/2015/02)/C30/650/(0205)



29 March 2021

AECOM Asia Company Limited
8/F, Tower 2, Grand Central Plaza
138 Shatin Rural Committee Road
Shatin, Hong Kong

By Hand

Attn.: Mr C. W. Lam, Dominic (CRE)

Dear Sir,

Contract No.: NE/2015/02
Tseung Kwan O – Lam Tin Tunnel – Road P2 and Associated Works
Submission of Layout Plan for Site Surface Run-off Control

We would like to submit herewith a Layout Plan for Site Surface Run-off Control so as to illustrate our site preparedness for the coming typhoon and wet season as per PS Clause 25.08.

Yours faithfully,
For and on behalf of
CRBC-Build King Joint Venture



YU Man Kit, Andy
Site Agent

Encl.

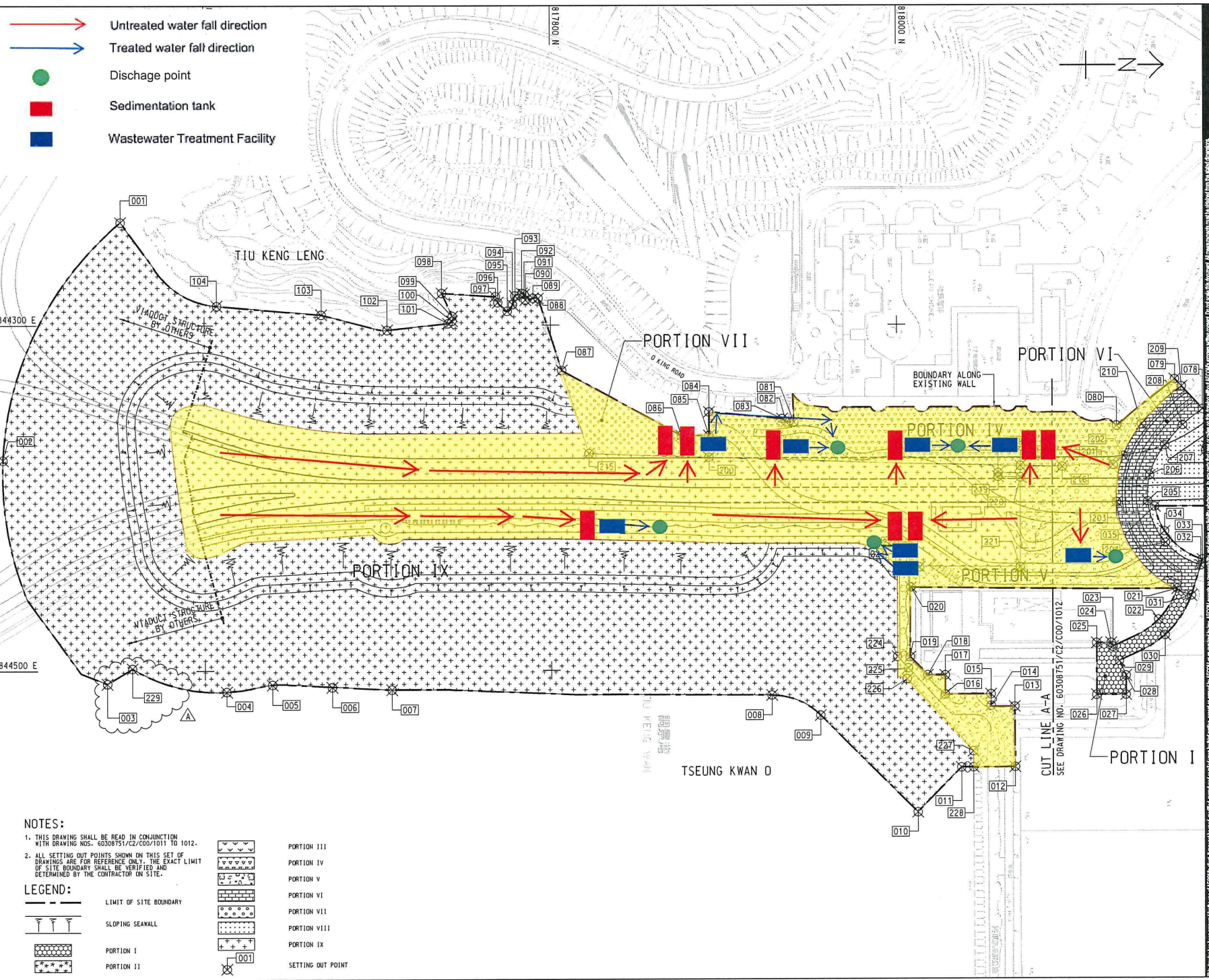
c.c.:

The Project Manager for the contract, (CE/E1, CEDD) – Attn.: Mr. Sunny SP LO
The Project Manager's Delegate, AECOM (HO) - Attn: Mr. Ivan Tsang

Fax: 2739 0076
Fax: 3922 9797

AY/GN/WW/RP/KC

Page 1 of 1



NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 60308751/C2/C00/1011 TO 1012.
2. ALL SETTING OUT POINTS SHOWN ON THIS SET OF DRAWINGS ARE FOR REFERENCE ONLY. THE EXACT LIMIT OF SITE BOUNDARY SHALL BE VERIFIED AND DETERMINED BY THE CONTRACTOR ON SITE.

LEGEND:

	LIMIT OF SITE BOUNDARY		PORTION III
	SLOPING SEAWALL		PORTION IV
			PORTION V
			PORTION VI
			PORTION VII
			PORTION VIII
			PORTION IX
			SETTING OUT POINT
			DISCHARGE POINT
			SEDIMENTATION TANK
			WASTEWATER TREATMENT FACILITY

AECOM
 PROJECT
TSEUNG KWAN O - LAM TIN TUNNEL
 CONTRACT TITLE
TSEUNG KWAN O - LAM TIN TUNNEL ROAD P2 AND ASSOCIATED WORKS
 CLIENT
CEDD 土木工程拓展署
 Civil Engineering and Development Department
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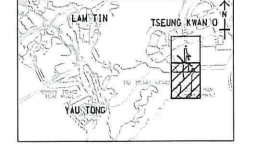
ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
B	SEP. 16	WORKING DRAWING	RPCM
A	FEB. 16	TENDER ADDENDUM NO. 1	RPCM
-	JAN. 16	TENDER DRAWING	RPCM

STATUS
 WORKING DRAWING

SCALE
 A1 1:1000
 DIMENSION UNIT
 METRES

KEY PLAN
 A1 1:50000



PROJECT NO.
 60308751

CONTRACT NO.
 NE/2015/02

SHEET TITLE
 PORTION OF SITE

SHEET NUMBER
 60308751/C2/C00/1011B

PROJECT NO.
 60308751

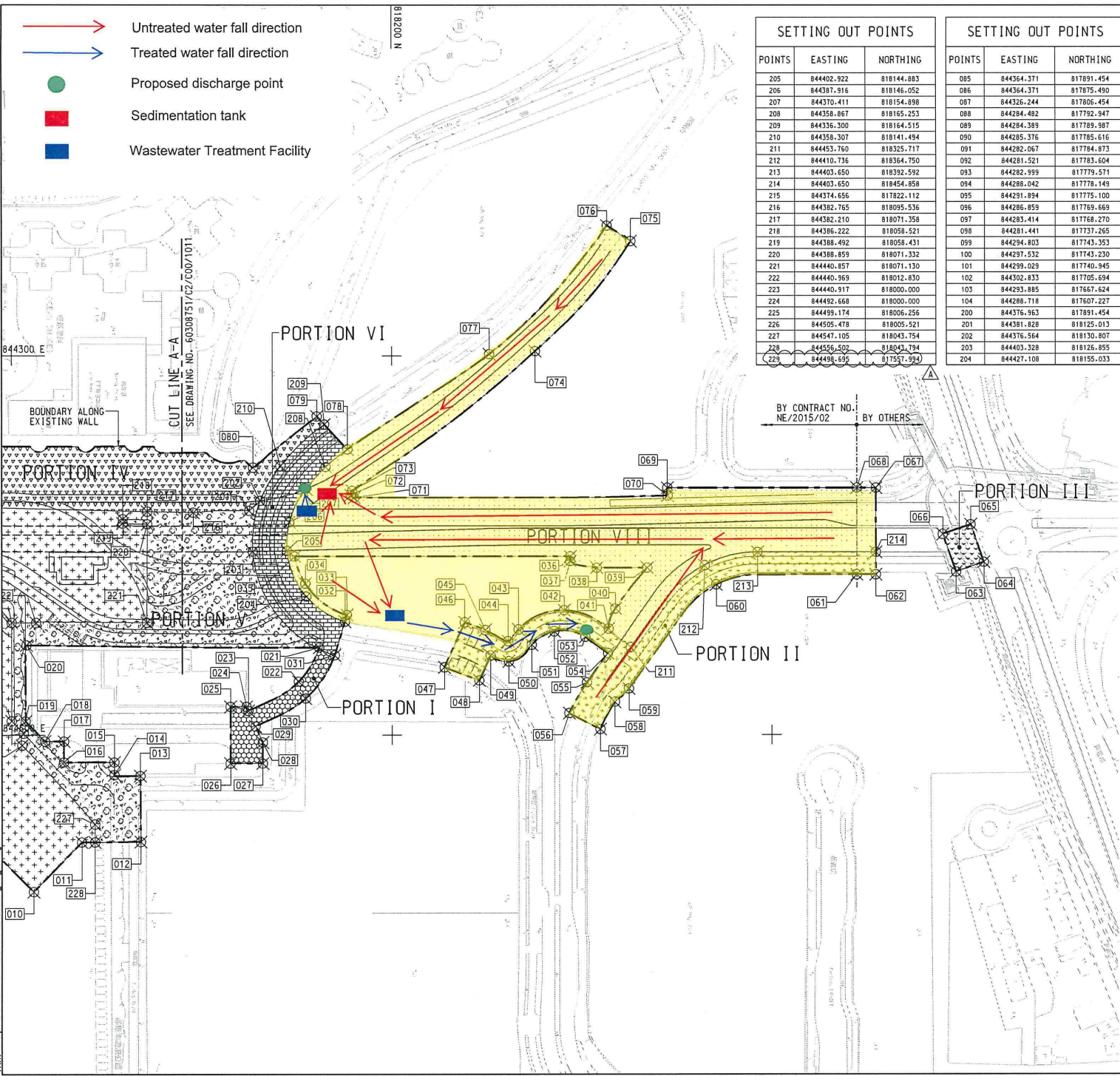
CONTRACT NO.
 NE/2015/02

SHEET TITLE
 PORTION OF SITE

SHEET NUMBER
 60308751/C2/C00/1011B

Project Management Table: Designer: AT/HT, Checker: PC/CA, Approved: CHN
 City: ISO A1 (60mm x 60mm)
 Date: 15/02/2016
 Path: P:\Projects\60308751\URBAN\GIS\DWG\C2\001012.dwg

- Untreated water fall direction
- Treated water fall direction
- Proposed discharge point
- Sedimentation tank
- Wastewater Treatment Facility



SETTING OUT POINTS		
POINTS	EASTING	NORTHING
205	84402.922	818144.883
206	844387.916	818146.052
207	844370.411	818154.898
208	844356.867	818165.253
209	844356.300	818164.515
210	844358.307	818141.494
211	844453.760	818325.717
212	844410.736	818364.750
213	844403.650	818392.592
214	844403.650	818454.858
215	844374.656	817822.112
216	844382.765	818095.536
217	844382.210	818071.358
218	844386.222	818058.521
219	844388.492	818058.431
220	844388.859	818071.332
221	844440.357	818071.130
222	844440.369	818020.830
223	844440.917	818000.000
224	844452.668	818000.000
225	844459.174	818006.256
226	844505.478	818055.521
227	844547.105	818043.754
228	844556.502	818040.194
229	844458.859	817571.520

SETTING OUT POINTS		
POINTS	EASTING	NORTHING
085	844364.371	817891.454
086	844364.371	817875.490
087	844326.244	817806.454
088	844284.482	817792.947
089	844284.389	817789.387
090	844285.376	817785.616
091	844282.067	817784.873
092	844281.521	817783.604
093	844282.999	817779.571
094	844286.042	817778.148
095	844281.894	817775.100
096	844286.359	817769.669
097	844283.414	817768.270
098	844281.441	817737.265
099	844284.803	817743.353
100	844287.532	817743.230
101	844289.028	817740.345
102	844302.833	817705.634
103	844293.885	817667.624
104	844288.718	817607.227
200	844376.363	817891.454
201	84381.828	818125.013
202	844376.564	818130.807
203	844403.328	818126.855
204	844427.108	818155.033

SETTING OUT POINTS		
POINTS	EASTING	NORTHING
001	844240.443	817551.753
002	844378.242	817483.648
003	844507.431	817651.547
004	844572.090	817627.455
005	844508.100	817638.302
006	844510.396	817707.874
007	844512.113	817769.940
008	844514.507	817827.403
009	844526.234	817851.500
010	844532.662	818011.583
011	844556.546	818036.852
012	844556.348	818067.859
013	844521.461	818067.035
014	844520.974	818054.006
015	844514.184	818053.562
016	844514.184	818027.500
017	844503.341	818027.533
018	844503.310	818017.436
019	844492.751	818007.313
020	844452.548	818007.806
021	844453.846	818161.851
022	844471.734	818150.993
023	844487.228	818124.474
024	844485.040	818123.474
025	844485.066	818115.080
026	844514.812	818115.080
027	844514.780	818132.072
028	844503.831	818132.066
029	844495.412	818128.216
030	844480.656	818154.679
031	844457.878	818169.920
032	844440.338	818175.353
033	844436.898	818176.414
034	844420.348	818154.523
035	844405.950	818148.828
036	844405.950	818253.952
037	844408.358	818253.952
038	844411.950	818307.882
039	844411.950	818334.450
040	844433.544	818317.697
041	844444.122	818314.082
042	844434.450	818290.757
043	844444.533	818266.647
044	844450.595	818261.204
045	844444.836	818249.176
046	844440.809	818238.366
047	844464.244	818227.720
048	844471.151	818246.011
049	844458.057	818251.971
050	844461.122	818261.598
051	844452.437	818273.632
052	844445.444	818285.889
053	844448.276	818301.825
054	844456.901	818313.763
055	844472.263	818302.664
056	844488.541	818293.366
057	844497.009	818309.725
058	844482.600	818317.345
059	844475.566	818324.746
060	844420.811	818370.795
061	844415.550	818444.858
062	844415.550	818454.858
063	844414.101	818497.107
064	844408.909	818511.699
065	844389.112	818504.792
066	844394.208	818490.092
067	844369.750	818454.858
068	844369.750	818444.858
069	844369.750	818345.114
070	844373.946	818345.217
071	844375.033	818180.335
072	844373.624	818178.424
073	844371.382	818179.206
074	844297.397	818275.538
075	844239.314	818325.845
076	844231.051	818313.326
077	844289.964	818251.396
078	844349.536	818176.741
079	844332.057	818160.618
080	844359.085	818127.054
081	844356.683	817940.562
082	844356.683	817936.032
083	844354.618	817933.769
084	844350.647	817891.454

PROJECT
TSEUNG KWAN O - LAM TIN TUNNEL

CONTRACT TITLE
TSEUNG KWAN O - LAM TIN TUNNEL ROAD P2 AND ASSOCIATED WORKS

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NO.	DATE	DESCRIPTION	CHK.
B	SEP.16	WORKING DRAWING	RPCM
A	FEB.16	TENDER ADDENDUM NO.1	RPCM
-	JAN.16	TENDER DRAWING	RPCM

STATUS
WORKING DRAWING

SCALE
A1 1:1000
DIMENSION UNIT: METRES

KEY PLAN
A1 1:60000

PROJECT NO. 60308751
CONTRACT NO. NE/2015/02

SHEET TITLE PORTION OF SITE
SHEET NUMBER SHEET 2 OF 2

60308751/C2/C00/1012B

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Contract No.: NE/2017/02

**Contract Title: Tseung Kwan O – Lam Tin Tunnel – Road P2/D4 and
Associated Works**

Flooding Mitigation Plan

Treatment facility







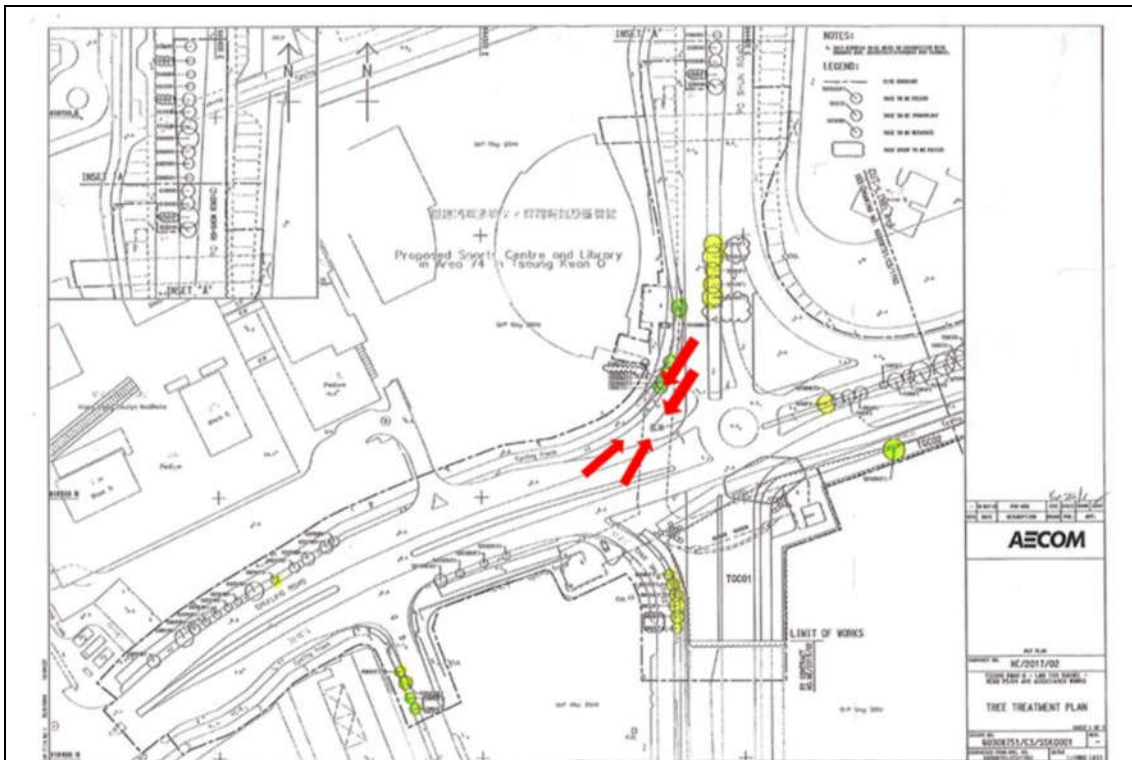
Bunding





Surface runoff collection





Height difference between the road and site area to form a natural flow. Sump pit was provided for wastewater collection.



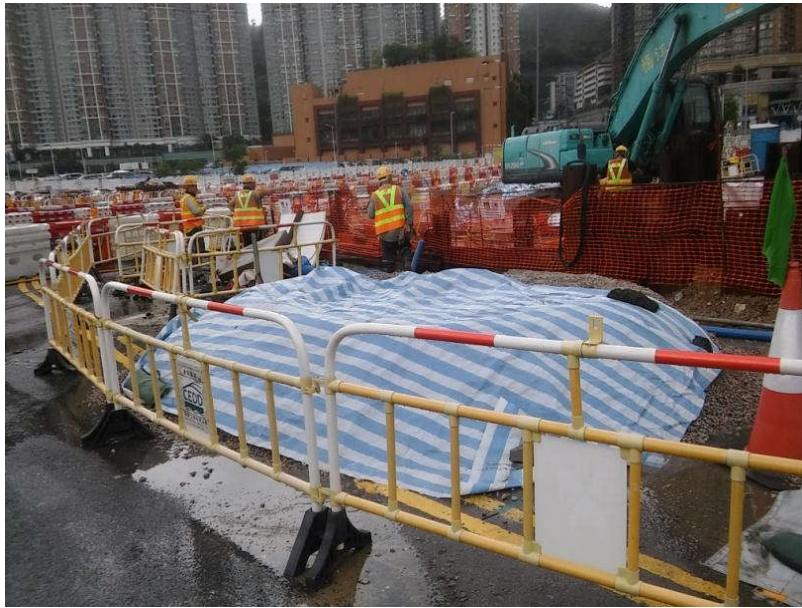
Gully Protection

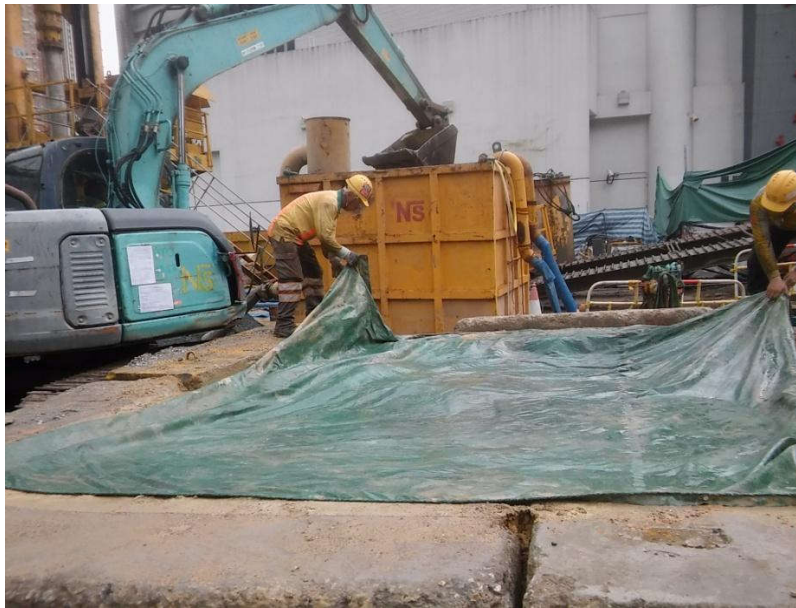


Gully were protected and covered by geotextile.



Stockpile Cover





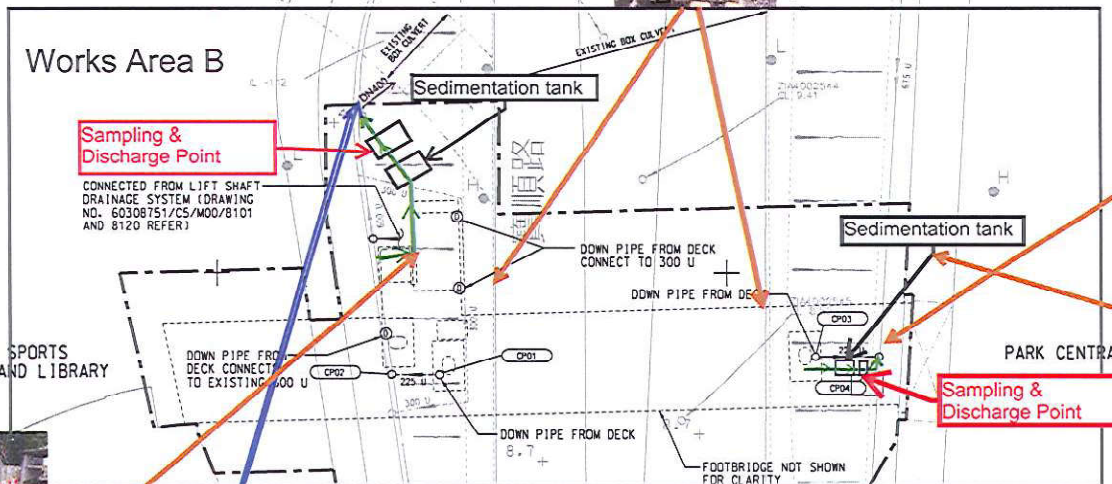
Stockpile Should be proper cover with tarpaulin.

CATCHPIT SCHEDULE

U/S ID	D/S ID	U/S G.L. (mPD)	D/S G.L. (mPD)	LENGTH (m)	GRADIENT 1 IN	U/S I.L. (mPD)	D/S I.L. (mPD)	UC SIZE (mm)	U/S ID TYPE	UC MATERIAL	BEDDING
CP01	CP02	6.50	6.50	6	100	6.275	6.219	225	CATCHPIT	CONCRETE	B
CP03	CP04	8.00	5.50	6	2	7.775	5.342	225	CATCHPIT	CONCRETE	B

- Water Flow
- Precautionary measures
- Silt Measurement
- Sedimentation tank
- Sampling Point

Geotextiles are on the top of gully cover along the site as a filter to avoid any muddy water discharge directly into the drainage system.



Exposed slope is covered by taupaulin



Manhole Inspection for Silt measurement, we have regular cleaning the channel weekly or in an emergency

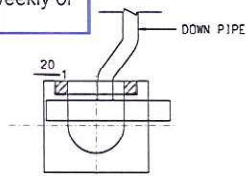


Sandbag is placed along the water barrier boundary to avoid the surface runoff.

Manhole Inspection for Silt measurement, we have regular cleaning the channel weekly or in an emergency



DN400 ID culvert



DETAILS CONNECTION OF DOWNPIPE TO U-CHANNEL WITH GRATING



PROJECT
TSEUNG KWAN O - LAM TIN TUNNEL

CONTRACT TITLE
TSEUNG KWAN O - LAM TIN TUNNEL
NORTHERN FOOTBRIDGE

CLIENT
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ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK
-	AUG.16	TENDER DRAWING	AMH

STATUS

SCALE A1:1:250
DIMENSION UNIT METRES

KEY PLAN

PROJECT NO. 60308751
CONTRACT NO. NE/2015/03

SHEET TITLE
DRAINAGE LAYOUT

SHEET NUMBER
60308751/CS/C00/1301

Site Surface Runoff Measures

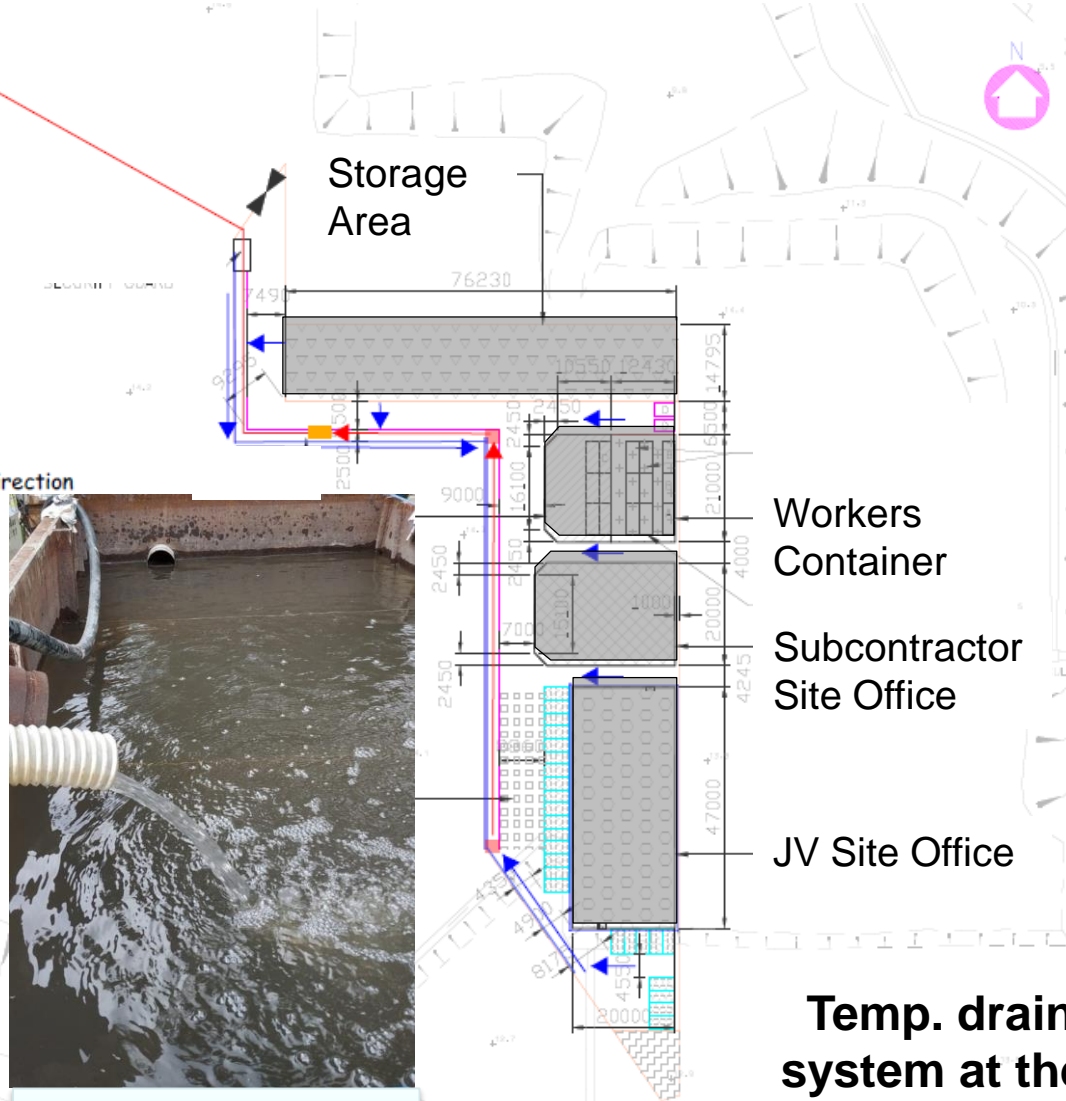
俊和-上隧-中冶聯營
CW - STEC - CMGC JV



Temp. Channel

Discharge to manhole "ZIA 4004921"

- ← channel / surface water flow direction
- ← water pump direction
- sump pit
- sedimentation tank



Sump Pit



Sedimentation Tank

Temp. drainage system at the site office area