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Date : 4<sup>th</sup> March, 2026  
Our Ref. : ADCL/PLG-10328/L003

The Secretary,  
Town Planning Board,  
15/F., North Point Government Offices,  
333 Java Road, North Point, Hong Kong

By Email

Dear Sir/Madam,

**Re: Section 16 Planning Application for Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years at Lot Nos. 340 RP (Part), 341 RP (Part), 342 RP (Part), 343 RP, 344 (Part) in D.D. 87 and adjoining Government Land, Kong Nga Po, Sheung Shui, New Territories**

We refer to our submission and the comments received from the Transport Department regarding the subject application, we would like to provide the following items to facilitate considerations by relevant departments and the Town Planning Board.

- Clarifications;
- Replacement Pages of the Planning Statement, revised Figure 3 and Figure 4 and Figure 6;
- Response to Comment Table;
- Swept Path Analysis.

Thank you for your kind attention and should you have any queries, please do not hesitate to contact our Mr. Thomas LUK at [REDACTED].

Yours faithfully,  
For and on behalf of  
Aikon Development Consultancy Limited

Thomas LUK

Encl.  
c.c. Client

Address 地址：

[REDACTED]  
[REDACTED]

## Further Information

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### Table of Contents

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Enclosure 1	Clarifications
Enclosure 2	Replacement Pages of the Planning Statement, revised Figure 3 and Figure 4 and Figure 6
Enclosure 3	Response to Comment Table
Enclosure 4	Swept Path Analysis

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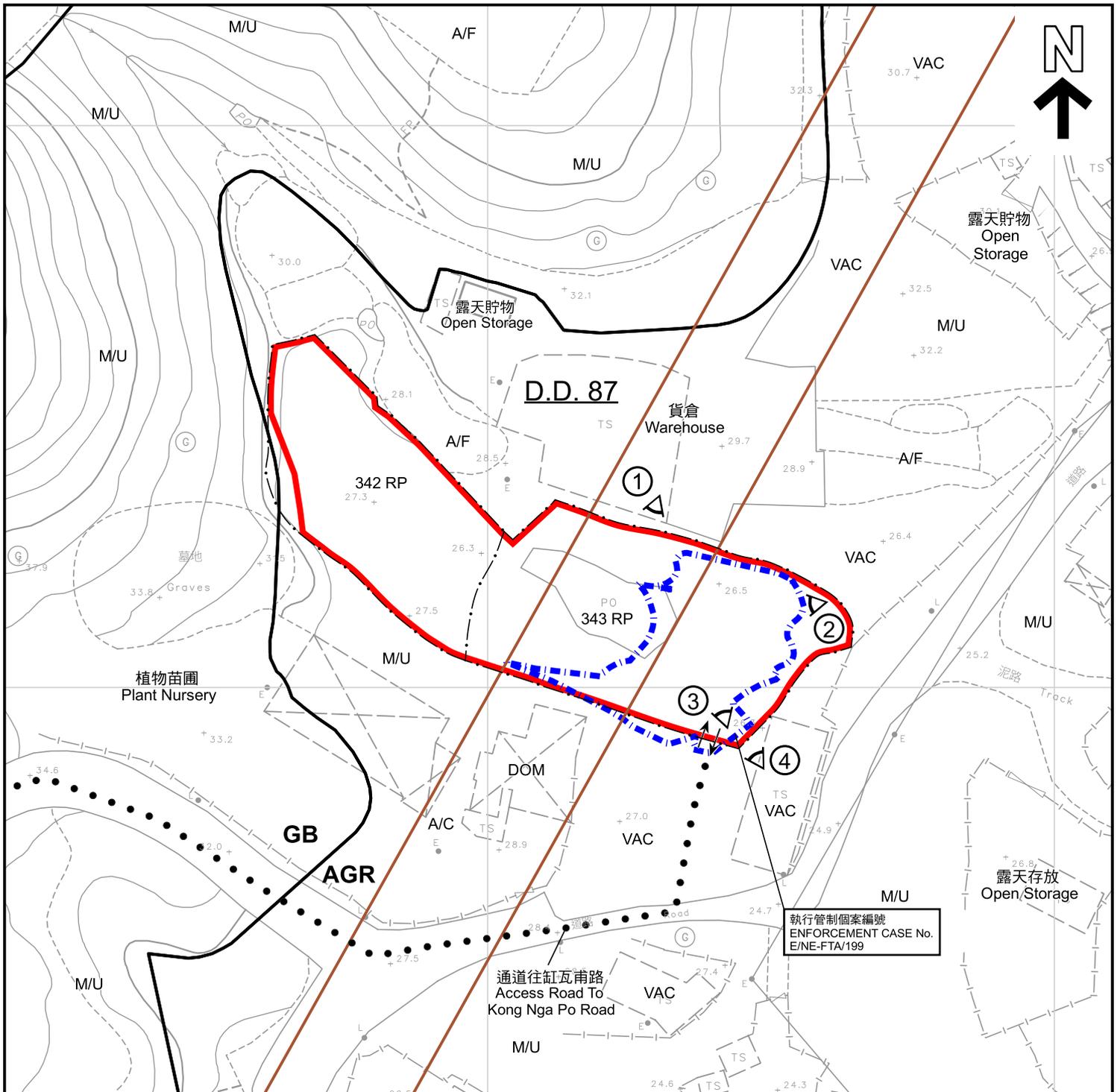
Enclosure | 1  
Clarifications

### Clarifications

Clarifications	
<p><b>Proposed Layout</b></p>	<ol style="list-style-type: none"> <li>1. It is clarified that the Application Site will be accessed via an existing local track that connects to Kong Nga Po Road through vacant Government land. An ingress/egress is proposed to the south of the application site, following the access arrangement proposed under the previously approved application.</li> <li>2. About <u>2,050m<sup>2</sup></u> of the Application Site is proposed for open storage of containers. Part of the application site (about <u>5,639m<sup>2</sup></u>) would be filled with <u>concrete or soil</u> with a depth of about 2m and filling of pond is proposed with a total area of about <u>275m<sup>2</sup></u> and a depth of about 2.8m. An underground stormwater tank is proposed to the northeastern portion of the Application Site to serve drainage purpose. Please refer to the replacement pages of the planning statement, revised layout plan, land filling plan and access plan (<b>Enclosure 2</b> refers).</li> </ol>
<p><b>Current Site Works and Implementation of the Approved Development</b></p>	<ol style="list-style-type: none"> <li>3. The Applicant has previously submitted a planning application (No. A/NE-FTA/245) which was approved by the Town Planning Board on 20.12.2024. The approved development involved filling of land and pond of about <u>2,885m<sup>2</sup></u> and <u>175m<sup>2</sup></u>, with <u>concrete or similar materials</u> of not more than 2m and 2.8m. According to the Applicant, site formation works including land filling and pond filling has been commenced <u>after</u> receiving planning approval. The Applicant followed statutory procedure and carried out works under valid planning approval.</li> <li>4. The Applicant is currently undertaking site formation and building works, which include the installation of a water tank for operational or firefighting purposes. It is hereby clarified that <u>no dangerous goods</u> are, or will be, stored within the Application Site.</li> <li>5. Under previous planning application, the proposed drainage system included a pond at the northeastern portion of the site, which the Applicant has been maintaining for the implementation of drainage facilities for the approved development. Following further technical considerations, the current application</li> </ol>

Clarifications	
	<p>proposes converting this pond into an <u>underground stormwater tank</u> to effectively retain stormwater during peak rainfall intensity.</p>
<p><b>Utilisation of Government Land</b></p>	<ol style="list-style-type: none"> <li data-bbox="719 392 2031 839">6. The Applicant occupies a substantial land parcel of approximately 28,000m<sup>2</sup> in Sheung Shui, which is now subject to a relocation notice from the Lands Department to facilitate the Kwu Tung North/Fanling North New Development Area. A previous planning application (No. A/NE-FTA/245) was approved with condition on 20.12.2024 to allow partial relocation of existing operations. However, as that site only measures approximately 3,060m<sup>2</sup> (about 10% of current operating space), the Applicant has continued to search for additional locations to satisfy its total spatial requirements. Recognizing the Application Site's operational suitability, the Applicant acquired adjoining private lot (Lot 344 in D.D. 87) and proposes to incorporate the adjacent vacant government land to optimize land resources. The current application represents a <u>critical expansion</u> to 6,214m<sup>2</sup> (approximately 22% of the existing operational area), seeking <u>formal planning permission</u> to incorporate the Government land into a viable, consolidated operational hub. There is <u>no intention for illegal occupation of government land</u> before receiving planning approval.</li> <li data-bbox="719 890 2031 1002">7. Since part of the Application Site has received previous planning approval, the current application represents a logical extension to utilize adjacent vacant land. Therefore, no undesirable precedent is anticipated.</li> <li data-bbox="719 1053 2031 1254">8. Furthermore, there are <u>other planning approvals granted for similar uses that include government land</u>, such as warehouses and open storage in the vicinity. These approved applications located to the further west of the Application Site involved the use the local track connecting to Kong Nga Po Road. Compared to these approved applications, the scale of the proposed development is considered modest. Approving the current application will not create an undesirable precedent.</li> <li data-bbox="719 1305 2031 1417">9. Approval of the current application will allow for the optimization of land resources and facilitate the relocation of brownfield operations affected by Government projects. The land freed up by the displaced operation will, together with other cleared land, be redeveloped into the FLN NDA capable of providing</li> </ol>

Clarifications	
	<p>about 36,300 housing units by phases. By facilitating this relocation, the proposed development enables <u>smooth clearance for and timely implementation of the NDA project</u>, which is fully in line with prevailing Government policy.</p>
<p><b>Vehicular Access</b></p>	<p>10. It is clarified that the current application intends to align with the vehicular access arrangements under previous planning approval (No. A/NE-FTA/245) (please refer to the attached plans). The Application Site will be accessed via an existing local track that connects to Kong Nga Po Road through vacant Government land. It is confirmed that no tenancy land will be affected by this access route. Please refer to the access plan and revised Layout Plan (<b>Enclosure 2</b> refers).</p> <p>11. The proposed vehicular access under the current application involves the use of Government land situated to the south of the Application Site, providing a direct connection to Kong Nga Po Road. The Applicant has included this specific area of Government land within the current application boundary to ensure uninterrupted vehicular access and to facilitate the proper management of the access route.</p>
<p><b>Drainage and Environmental Considerations</b></p>	<p>12. The Applicant submits a drainage proposal that demonstrates the proposed drainage facilities are capable of receiving potential surface runoff. As such, no adverse drainage impact is anticipated.</p> <p>13. Upon approval of the current application, boundary fencing would be erected along the periphery of the Application Site to prevent disruptions to adjacent activities. The Applicant will be responsible for managing the Application Site to ensure that no adverse impacts occur to surrounding areas.</p> <p>14. The Applicant will strictly follow Environmental Protection Department (EPD)'s latest "Code of Practice on Handling Environmental Aspects of Temporary Uses and Open Storage Sites (CoP)" and comply with all environmental protection/ pollution control ordinances, during construction and operation stages of the proposal, should the application be approved. As such, no adverse environmental impact and misuse of the proposed use is anticipated.</p>



執行管制個案編號  
ENFORCEMENT CASE No.  
E/NE-FTA/199

通道往缸瓦甫路  
Access Road To  
Kong Nga Po Road

**圖例 LEGEND**

- |            |   |     |                                  |
|------------|---|-----|----------------------------------|
|            | 申請地點 (界線只作識別用)<br>APPLICATION SITE (BOUNDARY FOR IDENTIFICATION PURPOSE ONLY) | A/F | 休耕農地<br>FALLOW AGRICULTURAL LAND |
|            | 400千伏特超高壓輸電綫<br>400kV EXTRA HIGH VOLTAGE OVERHEAD LINES                       | DOM | 住用構築物<br>DOMESTIC STRUCTURE      |
| <b>AGR</b> | 農業<br>AGRICULTURE   | M/U | 荒地<br>UNUSED LAND                |
| <b>GB</b>  | 綠化地帶<br>GREEN BELT  | VAC | 空置<br>VACANT                     |
|            | 實地照片的觀景點<br>VIEWING POINT OF SITE PHOTO                                       |     | 入口/出口<br>INGRESS / EGRESS        |

**註釋 Note :**

(1) 2024年5月17日及2024年10月29日勘測的土地用途  
Land uses shown on this plan are in accordance with the land use survey conducted by the Planning Department on 17.5.2024 and 29.10.2024

**平面圖 SITE PLAN**

擬議臨時露天存放貨櫃及汽車修理工場連附屬設施(為期3年)及相關填土及填塘工程  
PROPOSED TEMPORARY OPEN STORAGE OF CONTAINERS AND VEHICLE REPAIR WORKSHOP WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND AND POND  
LOTS 342 RP (PART) AND 343 RP IN D.D. 87, KONG NGA PO, SHEUNG SHUI, N.T.  
SCALE 1 : 1 000 比例尺



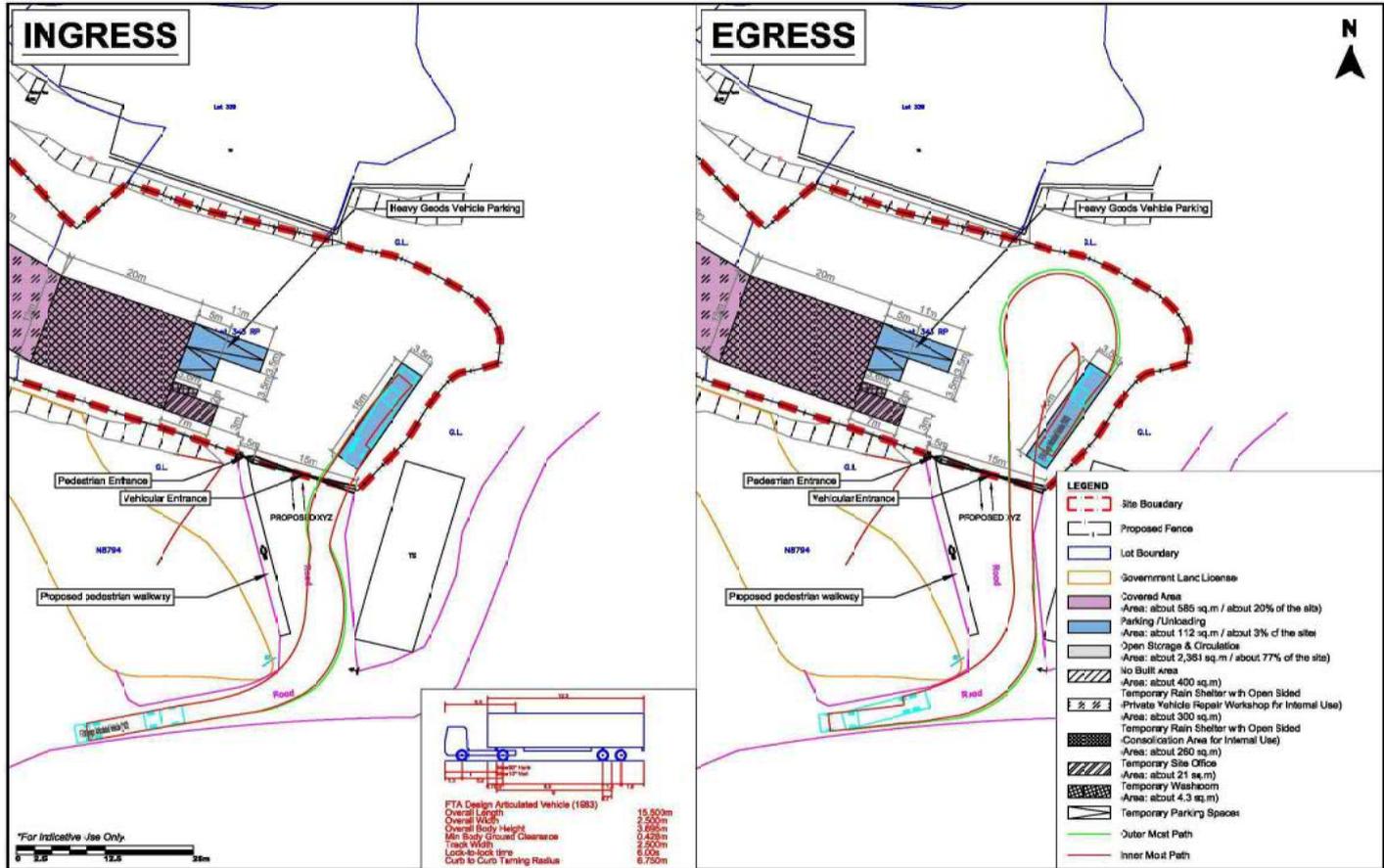
本摘要圖於2024年12月17日擬備，所根據的資料為測量圖編號 3-NW-22A  
EXTRACT PLAN PREPARED ON 17.12.2024 BASED ON SURVEY SHEET No. 3-NW-22A

**規劃署  
PLANNING  
DEPARTMENT**

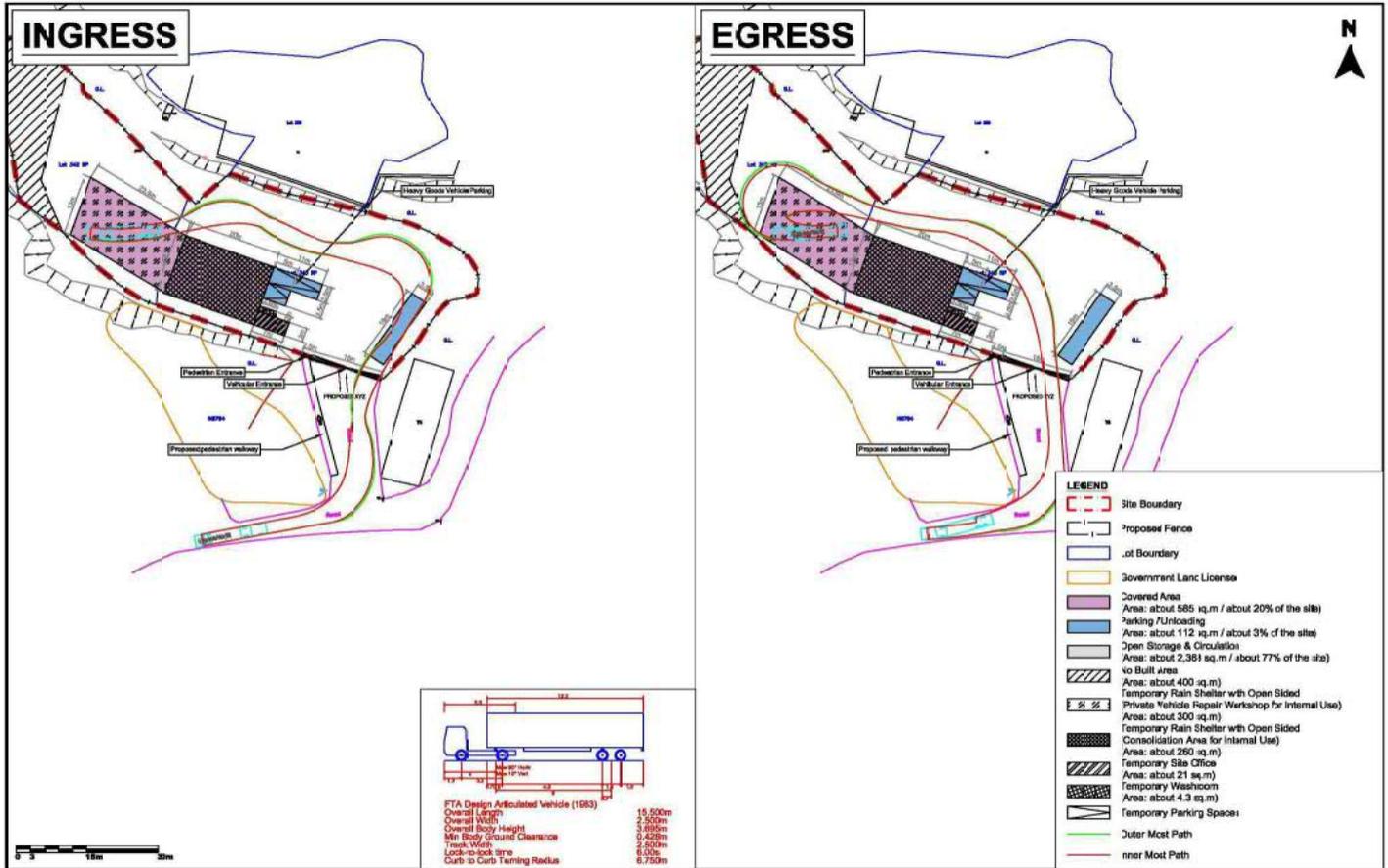


參考編號  
REFERENCE No.  
**A/NE-FTA/245**

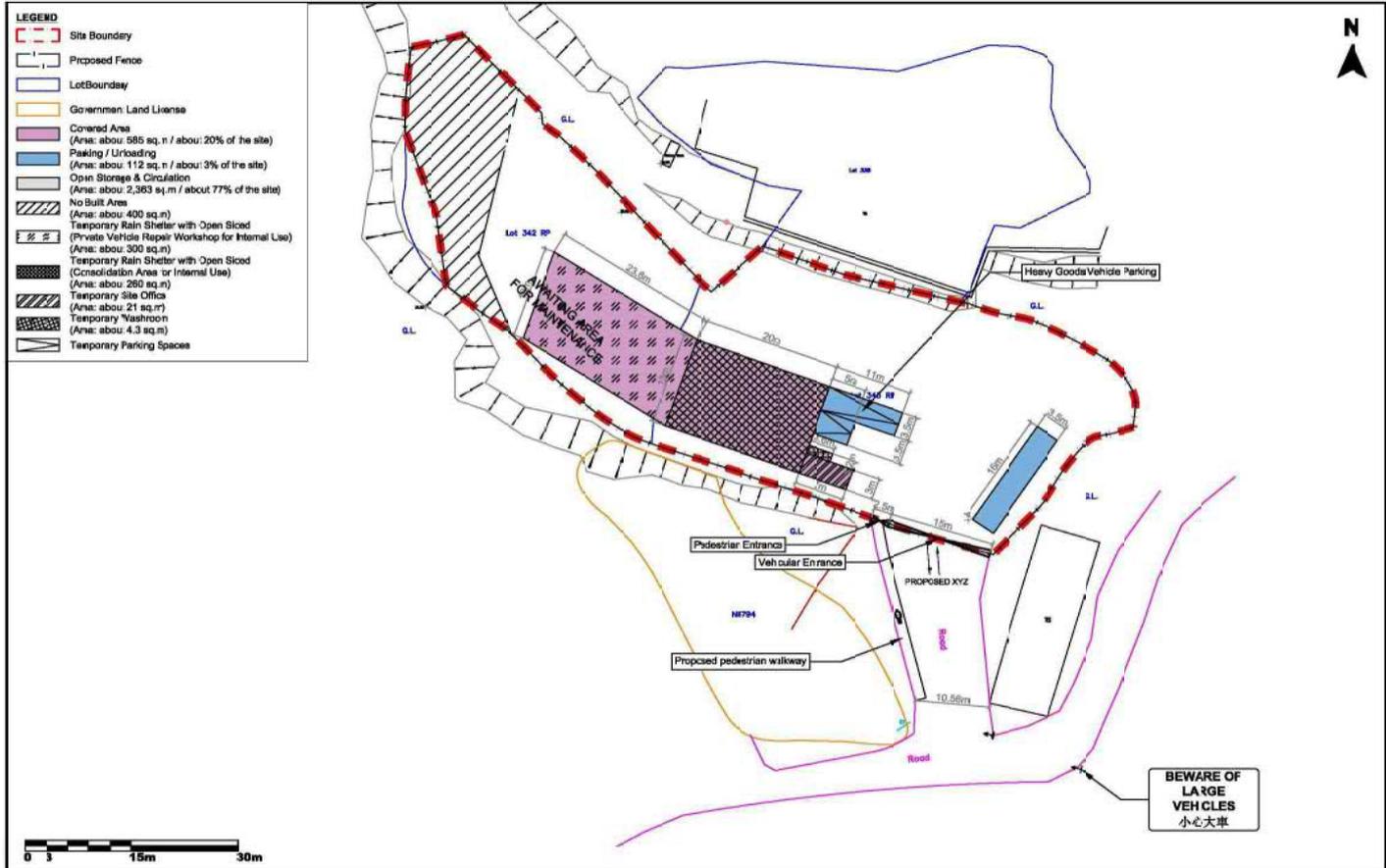
圖 PLAN  
**A-2**



Drawing 1



Drawing 2



Drawing 3

Enclosure | 2

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Replacement Pages of the Planning Statement, revised Figure 3 and Figure 4 and Figure 6

## 4. THE DEVELOPMENT PROPOSAL

### 4.1 Site Configuration, Layout and Operation

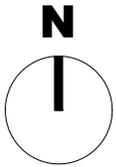
- 4.1.1 The application site has a total area of about 6,214m<sup>2</sup> (including 2,565m<sup>2</sup> of Government Land) and it is intended to utilize the application site for the applied use. A 1.8m high fencing will be erected along the application site boundary.
- 4.1.2 A total of about 2,050m<sup>2</sup> of the application site (about 33%) is intended for open storage of containers. Six temporary structures are proposed within the application site, providing a gross floor area (GFA) of about 1,243m<sup>2</sup>. The remaining uncovered area would be served as circulation/manoeuvring space and provision of 2 parking space for private cars and heavy goods vehicles (HGVs) as well as a loading and unloading (L/UL) area. Considering the surrounding topography, it is proposed to incorporate a No-Built Zone (976m<sup>2</sup>) to the west of the application site which no structures would be erected within this area. The Indicative Layout Plan is shown in **Figure 3** whilst the key development parameters for the applied use are detailed in **Table 2 and 3**.
- 4.1.3 The consolidation area for freight and goods would be a roofed area for reassembling freights, and the vehicle repair workshop would be used for minor vehicle repair works on company cars whenever required. By allowing onsite minor repairs, it could largely limit the possibility of delaying their daily operation caused by offsite repairs. The proposed development will be used by the Applicant's for its daily operations for cross border trading. In sum, freights and goods will be brought to the application site via container vehicles to be reassembled and redirected. In addition, awaiting containers will be stored, and minor vehicle maintenance will be conducted on site. The operation hours are between 8:00 a.m. and 10:00 p.m. from Monday to Sunday.
- 4.1.4 Since the application site situated with uneven ground level, filling of land and pond were proposed under previous planning application and implemented during the approval period. The current application that involves an increase in site area would align with the proposed levels to form a flat surface for feasible traffic flow and meeting operational requirements. To fulfil the operational needs of the applied use, filling of land and pond and excavation of some portions is required for levelling the level differences is inevitable. Part of the application site (about 5,639m<sup>2</sup>) would be filled with concrete or soil with a depth of about 2m and filling of pond is proposed with a total area of about 275m<sup>2</sup> and a depth of about 2.8m. An underground stormwater tank is proposed to the northeastern portion of the Application Site to serve drainage purpose. The proposed ground level after filling of land is about +27.2mPD to +30.1mPD. The extent of the land filling and pond filling area have been kept to minimal to meet the operational need (**Figure 4** refers).
- 4.1.5 Regarding the implementation of the development proposal, the Applicant stands ready to apply to the Lands Department for the modification of Short-Term Waiver (STW) for and permitting the structures to be erected once the current application is approved.

Table 2: Key Development Parameters

<b>Applied Use</b>	Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years
<b>Operation Hours</b>	From 8:00a.m. to 10:00 p.m. from Monday to Sunday
<b>Site Area</b>	6,214m <sup>2</sup> (including 2,565 m <sup>2</sup> of Government Land)
<b>Covered Area</b>	About 919m <sup>2</sup> (About 15%)
<b>Uncovered Area</b>	About 5,295m <sup>2</sup> (About 85%)
<b>Open Storage Area</b>	About 2,050m <sup>2</sup>
<b>No-Built Zone (No Roof Over Area)</b>	About 976m <sup>2</sup>
<b>Temporary Structure</b> No(s). No. of Storey Maximum Height Total Floor Area	6 Not more than 2 storey Not more than 7m About 1,243m <sup>2</sup>
<b>Ingress/Egress</b>	11m-Wide
<b>No. of Parking Spaces</b> Private Car (5m(L) x 3.5m(W)) HGVs (11m(L) x 3.5m(W))	2 1 1
<b>Loading/Unloading (L/UL) Area</b> Container Vehicle (16m(L) x 3.5m(W))	1
<b>Proposed Filling of Land</b> Area Depth Materials	5,639 m <sup>2</sup> Not More than 2m Concrete
<b>Proposed Filling of Pond</b> Area Depth Materials	275m <sup>2</sup> Not More than 2.8m Concrete or Soil

Table 3: Key Development Parameters for the Proposed Structures

<b>Structure</b>	<b>Uses</b>	<b>Roof Area (About)</b>	<b>Floor Area (About)</b>	<b>Building Height (Not More Than)</b>
A	Consolidation Area for Freight and Goods (Open-shed Structure)	299m <sup>2</sup>	299m <sup>2</sup>	7m (1 storey)
B	Vehicle Repair Workshop (Open-shed Structure)	273m <sup>2</sup>	273m <sup>2</sup>	7m (1 storey)
C	Ancillary Site Office/ General Storage Uses	162m <sup>2</sup>	324m <sup>2</sup>	7m (2 storey)
D	Ancillary Site Office/ General Storage Uses	162m <sup>2</sup>	324m <sup>2</sup>	7m (2 storey)
E	Guard Kiosk	15m <sup>2</sup>	15m <sup>2</sup>	3m (1 storey)
F	Meter Room	8m <sup>2</sup>	8m <sup>2</sup>	3m (1 storey)
	<b>Total</b>	919m <sup>2</sup>	1,243m <sup>2</sup>	NA



### DEVELOPMENT PARAMETERS

APPLICATION SITE : 6,214 SQ.M. (ABOUT)  
COVERED AREA : 919 SQ.M. (ABOUT)  
UNCOVERED AREA : 5,295 SQ.M. (ABOUT)

### PARKING AND LOADING/UNLOADING PROVISION

PARKING SPACE (PC) : 1 NOS. (5 M(L) X 3.5 M(W))  
PARKING SPACE (HGV) : 1 NOS. (11 M(L) X 3.5 M(W))  
L/UL AREA : 1 NOS. (16 M(L) X 3.5 M(W))

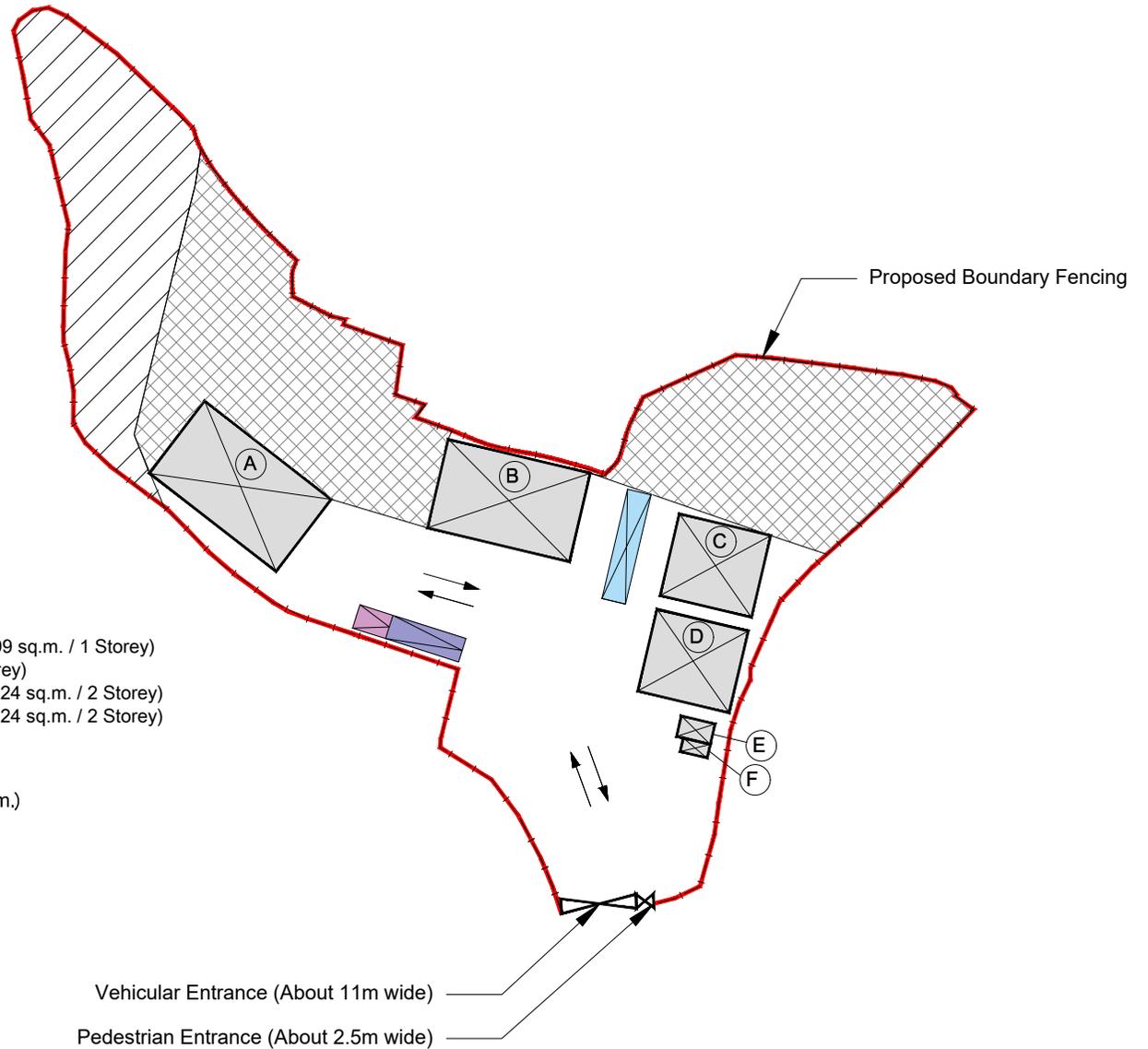
### LEGEND

-  Application Site Boundary
-  Proposed Boundary Fencing
-  Proposed Structure

- A: Consolidation Area for Freight and Goods (GFA: about 299 sq.m. / 1 Storey)
- B: Vehicle Repair Workshop (GFA: about 273 sq.m. / 1 Storey)
- C: Ancillary Site Office/General Storage Uses (GFA: about 324 sq.m. / 2 Storey)
- D: Ancillary Site Office/General Storage Uses (GFA: about 324 sq.m. / 2 Storey)
- E: Guard Kiosk (GFA: about 15 sq.m. / 1 Storey)
- F: Meter Room (GFA: about 8 sq.m. / 1 Storey)

-  Open Storage Area: Container Stacking (About 2,050 sq.m.)
-  No-Built Zone (About 976 sq.m.)
-  Loading/Unloading Area (Container Vehicle)
-  Parking Space (HGV)
-  Parking Space (PC)

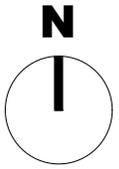
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## INDICATIVE LAYOUT PLAN

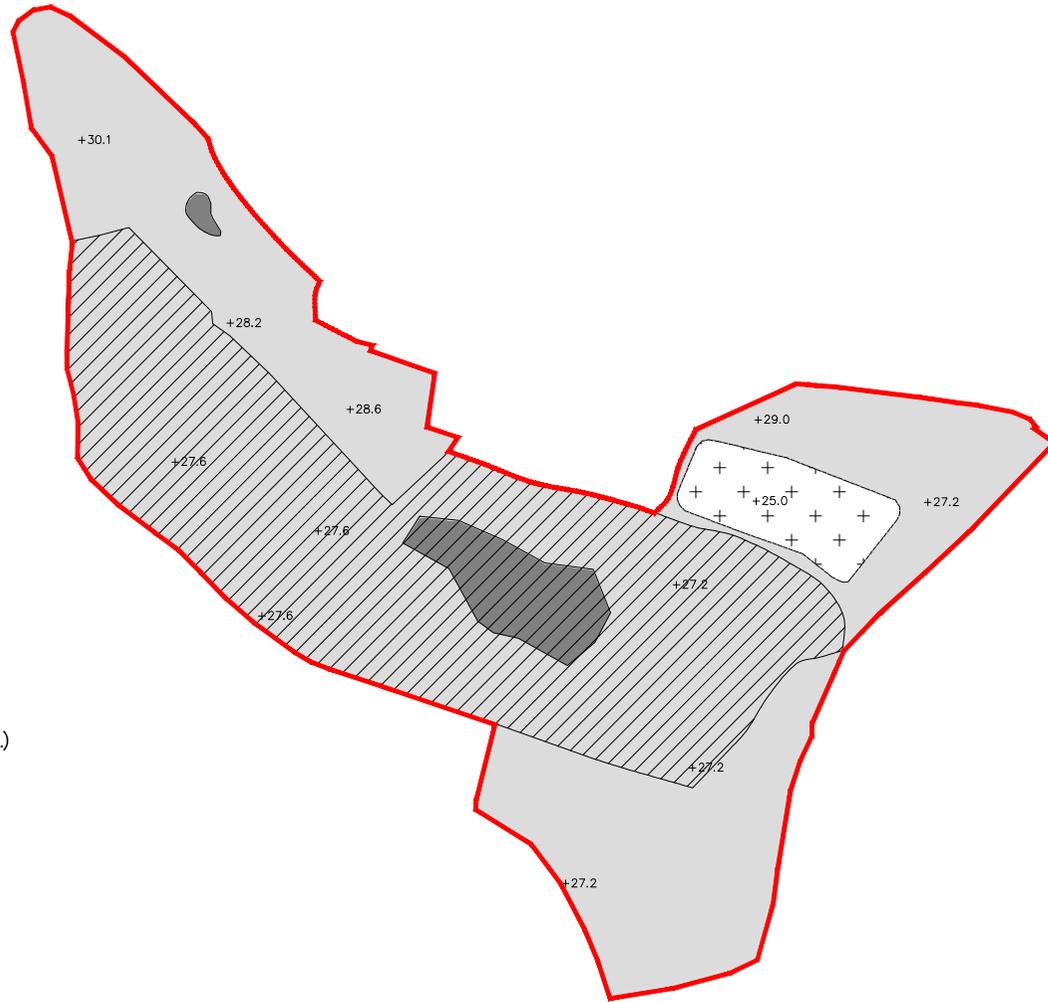
SCALE 1:1000

Figure 3



**LEGEND**

-  Application Site Boundary
-  Proposed Filling of Land ( About 5,639 sq.m.)
-  Proposed Filling of Pond ( About 275 sq.m.)
-  Existing Filling of Land and Pond ( About 3,060 sq.m.)
-  Proposed Underground Stormwater Tank ( About 300 sq.m.)
- +28.6 Proposed Level

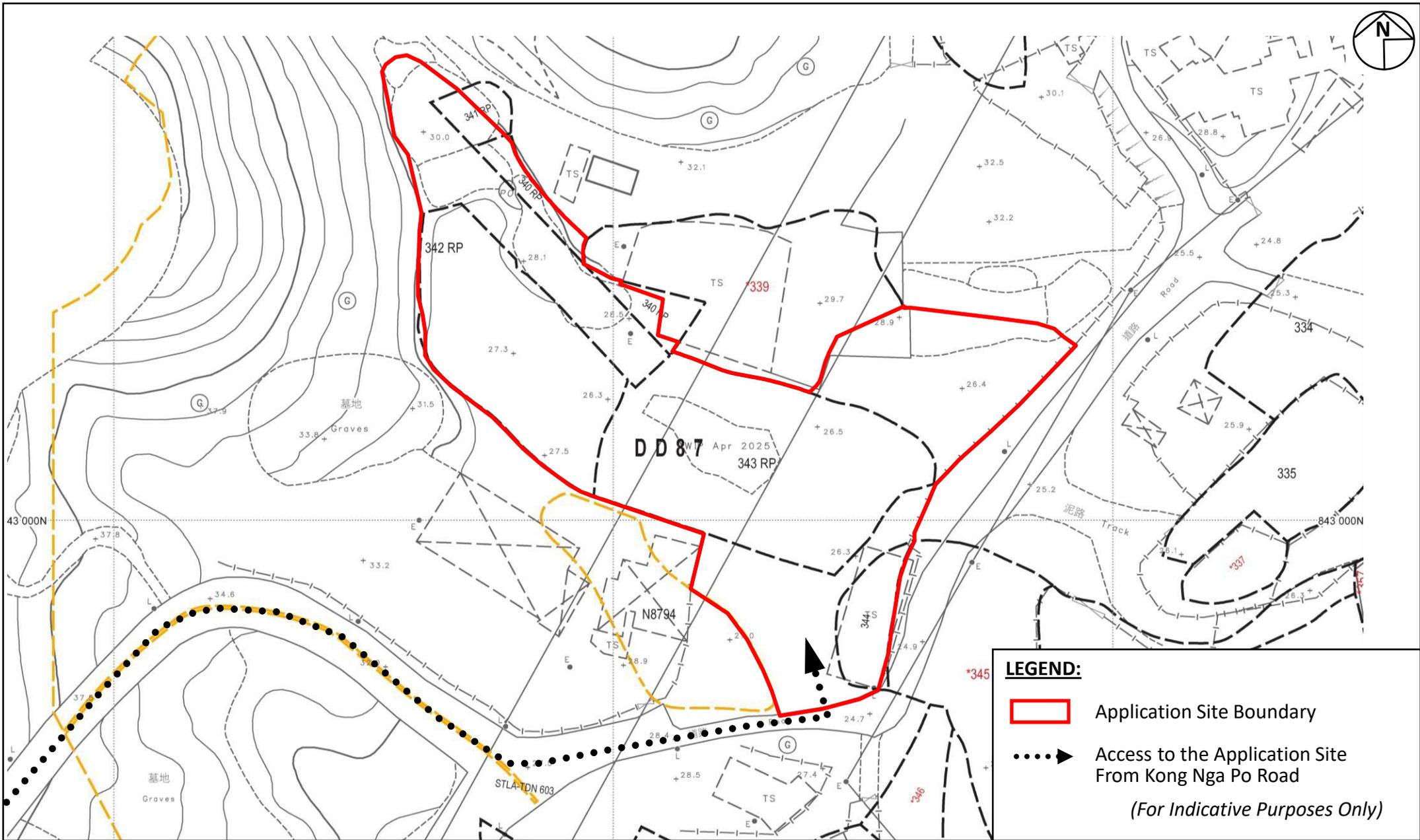


( For identification only)

# LAND FILLING PLAN

SCALE 1:1000

Figure 4



**LEGEND:**

- Application Site Boundary
- Access to the Application Site From Kong Nga Po Road  
*(For Indicative Purposes Only)*

**Project:**  
 Section 16 Planning Application for Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years at Lot Nos. 340 RP (Part), 341 RP (Part), 342 RP (Part), 343 RP, 344 (Part) in D.D. 87 and adjoining Government Land, Kong Nga Po, Sheung Shui, New Territories

**Title:**  
 Access Plan

*Ref.: ADCL/PLG-10328 -R001/F006*

**Figure:**  
 6

**Scale:**  
 Not to Scale

**Date:**  
 Mar 2026



Enclosure | 3

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Response to Comment Table

Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years

Department	Date	Comments	Responses to Departmental Comments
Transport Department	12.2.2026	<p>1. The applicant shall justify the adequacy of the parking spaces and loading/unloading spaces so provided by relating to the number of vehicles visiting the application site (the Site).</p>	<p>The internal transport facilities to be provided in the project site include one parking space for private cars, one for heavy goods vehicles (HGVs), and one L/UL space. As there are no specific parking and loading/unloading requirements for temporary open storage development in accordance with HKPSG, ancillary transport facilities are provided based on the Applicant's requirements to meet operational needs.</p> <p>Based on the planning application, the proposed development will generate about 1 to 2 vehicles per day. Therefore, the proposed parking spaces and L/UL spaces are considered adequate.</p>
		<p>2. The applicant shall demonstrate the satisfactory maneuvering of the vehicles entering and exiting the subject site, maneuvering within the Site and into/out of the parking and loading/unloading spaces, preferably using the swept path analysis;</p>	<p>Swept path analysis is conducted for the 11m-wide ingress/egress point, internal manoeuvring space, and the loading/unloading spaces. <b>Figure SP-01, Figure SP-02, and Figure SP-03</b> demonstrate that the ingress/egress point and parking space arrangement are adequate for manoeuvring 11m HGVs and 5m Private Cars, respectively (Please refer to <b>Enclosure 4</b>).</p>
		<p>3. The applicant shall further elaborate the control measures to ensure pedestrian safety and illegal parking by visitors; and</p>	<p>Sufficient manoeuvring space will be provided within the application site. To ensure pedestrian safety, additional marking, signage and convex mirror will be installed.</p> <p>Vehicle gate will be installed to prevent illegal parking by visitors. Staff will be deployed to manage traffic and on-site parking and pre-booking/pre-arrangement will be required for all staff/visitors entering the application site.</p>
		<p>4. The vehicular access between Man Kam To Road and the application site is not managed by TD. The applicant should seek comments from the responsible party.</p>	<p>Noted.</p>

Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years

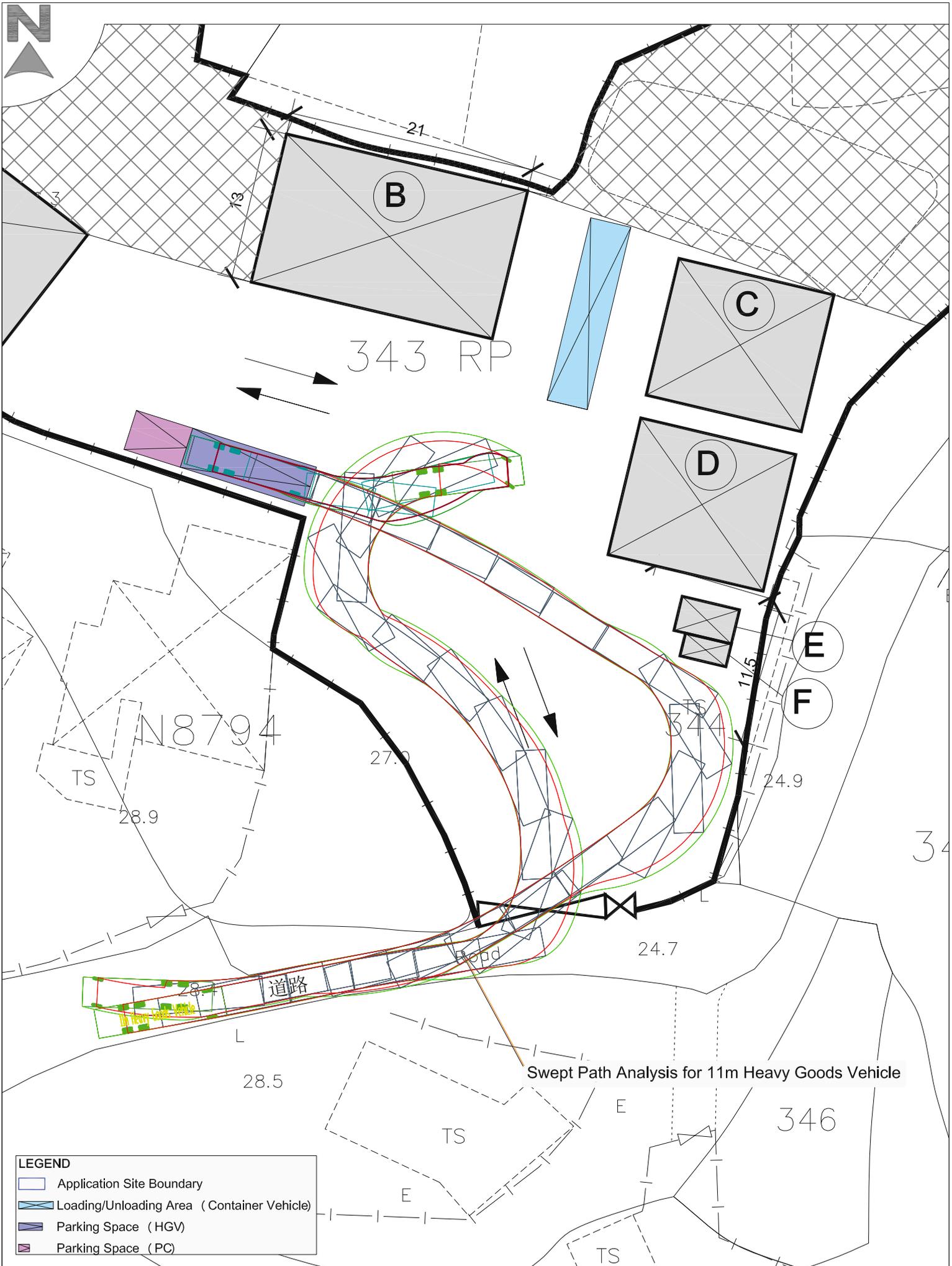
Department	Date	Comments	Responses to Departmental Comments
<p>Agriculture, Fisheries and Conservation Department</p>	<p>26.2.2026</p>	<p><u>From agricultural perspective</u></p> <p>The application site (the Site) falls within the "Agriculture" zone and is generally vacant. The agricultural activities are active in the vicinity, and agricultural infrastructures such as road access and water source are also available. The Site can be used for agricultural activities such as open-field cultivation, greenhouses, plant nurseries, etc. As the Site possesses potential for agricultural rehabilitation, the proposed uses are not supported from agricultural perspective.</p> <p><u>From fisheries perspective</u></p> <p>According to the drainage proposal, filling of pond is proposed. It appears that the ponds within the Site have been abandoned for an extent of period. Nonetheless, the proposed land/pond filling is noted to involve approximately 2–2.8 m of concrete. The applicant should provide justification for the need to fill these areas with such a substantial volume of concrete rather than soils, and explain how the Site would be reinstated in the future.</p>	<p>Noted. The Application Site is subject to a valid planning approval for the same use with site works commenced. The current application intends to include additional vacant land to accommodate the brownfield operations affected by government projects. The Application Site is mostly paved and vacant and is considered to have low agriculture value at present.</p> <p>The existing ponds with the Application Site have been abandoned and dried up for an extended period of time. No agricultural activities are associated with the existing ponds.</p> <p>The applicant notes the concern regarding the depth and material of the proposed pond filling. It is important to highlight that the current land and pond filling proposal aligns with that in the previous planning application (No. A/NE-FTA/245). That approved scheme involved the filling of land and abandoned ponds with concrete or similar materials to depths of 2.0m and 2.8m, for site formation and levelling the site with the adjoining land and access road. Following the receipt of valid planning approval, the applicant strictly followed statutory procedures and commenced the site formation works accordingly. The current application merely proposes additional filling to the same depths as those</p>

Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years

Department	Date	Comments	Responses to Departmental Comments
		<p><i>From nature conservation perspective</i></p> <p>The applicant should implement good site practices to avoid impacts on trees adjacent to the Site.</p>	<p>previously proposed, ensuring topographical harmony across the entire site.</p> <p>Regarding the choice of materials, it is clarified that the <u>pond filling will utilize concrete or similar materials (such as soil)</u> to ensure structural integrity and operational safety. The use of such materials is technically necessary to provide a stable, level platform, while allowing greater flexibility in both the site's current formation and its future reinstatement.</p> <p>Noted.</p>

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Enclosure | 4  
Swept Path Analysis



**LEGEND**

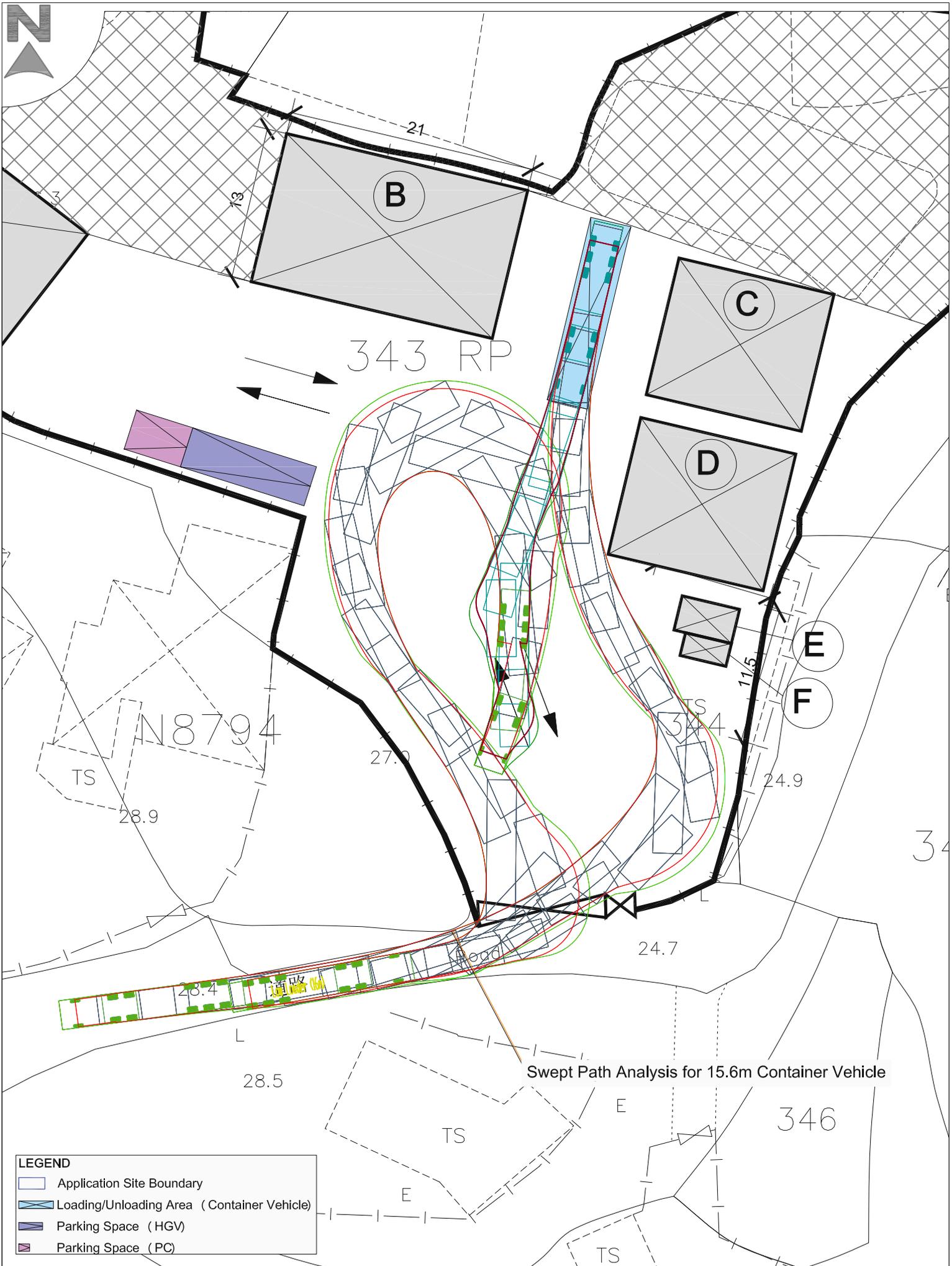
	Application Site Boundary
	Loading/Unloading Area (Container Vehicle)
	Parking Space (HGV)
	Parking Space (PC)

Swept Path Analysis for 11m Heavy Goods Vehicle

Section 16 Planning Application for Proposed Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years

Figure: SP-02  
 Scale: 1:400@A3  
 Drawing Date: Feb 2026





Swept Path Analysis for 15.6m Container Vehicle

**LEGEND**

	Application Site Boundary
	Loading/Unloading Area (Container Vehicle)
	Parking Space (HGV)
	Parking Space (PC)

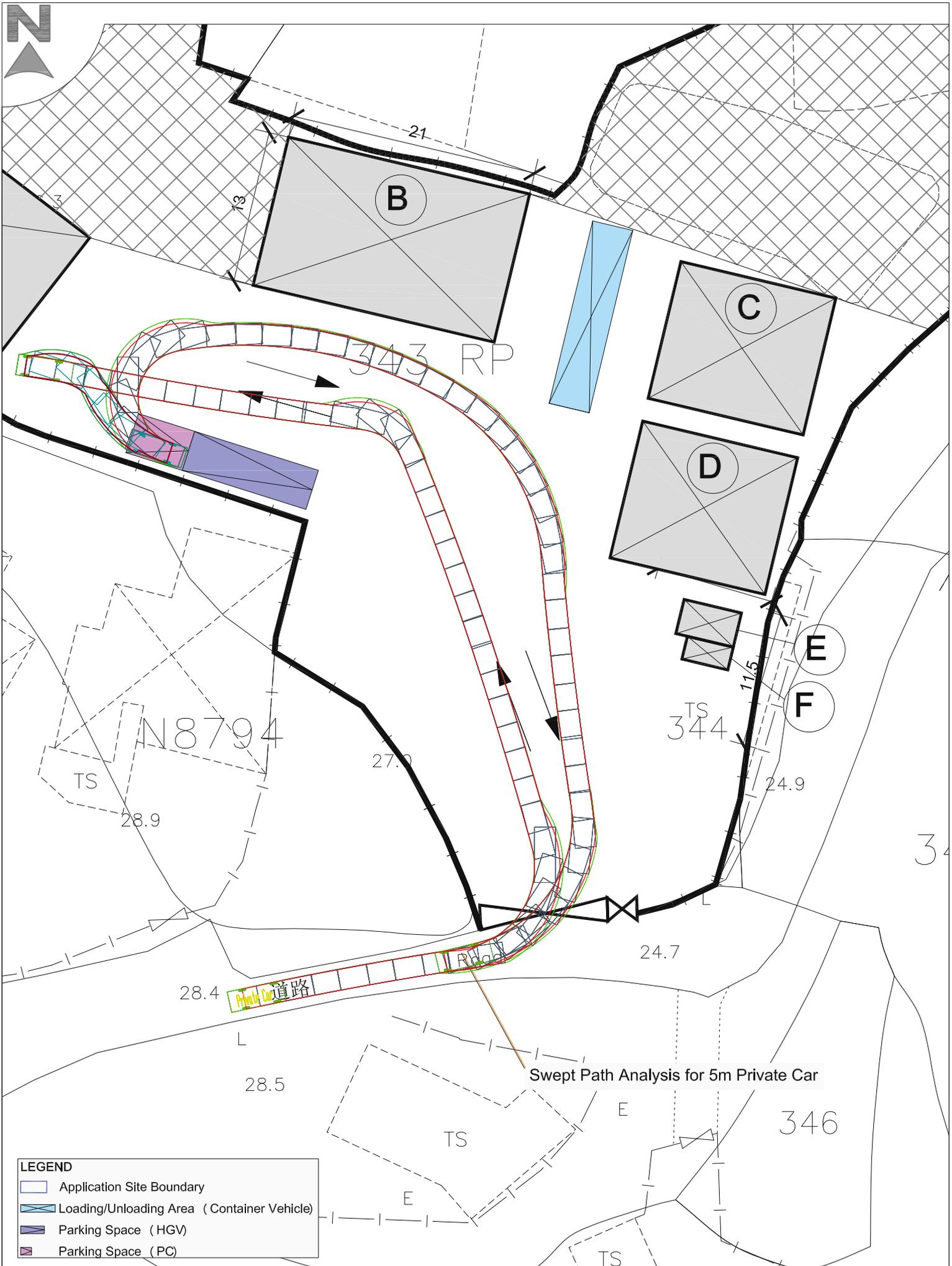
Section 16 Planning Application for Proposed Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years

Figure SP-01

Scale: 1:400@A3

Drawing Date: Feb 2026





Section 16 Planning Application for Proposed Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years

Figure: SP-03  
 Scale: 1:400@A3  
 Drawing Date: Feb 2026





毅勤發展顧問有限公司

Tel 電話：(852) [REDACTED]

Fax 傳真：(852) [REDACTED]

Email 電郵：[REDACTED]

Web 網址：www.aikon.hk

Date : 6<sup>th</sup> March, 2026  
Our Ref. : ADCL/PLG-10328/L004

The Secretary,  
Town Planning Board,  
15/F., North Point Government Offices,  
333 Java Road, North Point, Hong Kong

**By Email**

Dear Sir/Madam,

**Re: Section 16 Planning Application for Temporary Open Storage of Containers and Vehicle Repair Workshop with Ancillary Facilities and Associated Filling of Land and Pond for a Period of 3 Years at Lot Nos. 340 RP (Part), 341 RP (Part), 342 RP (Part), 343 RP, 344 (Part) in D.D. 87 and adjoining Government Land, Kong Nga Po, Sheung Shui, New Territories**

We refer to our submission and the comments received from the Drainage Services Department regarding the subject application, we would like to provide a Response-to-Comment Table and revised Drainage Proposal to facilitate considerations by relevant departments and the Town Planning Board.

Thank you for your kind attention and should you have any queries, please do not hesitate to contact our Mr. Thomas LUK at [REDACTED].

Yours faithfully,  
For and on behalf of  
Aikon Development Consultancy Limited

Thomas LUK

Encl.  
c.c. Client

Address 地址：

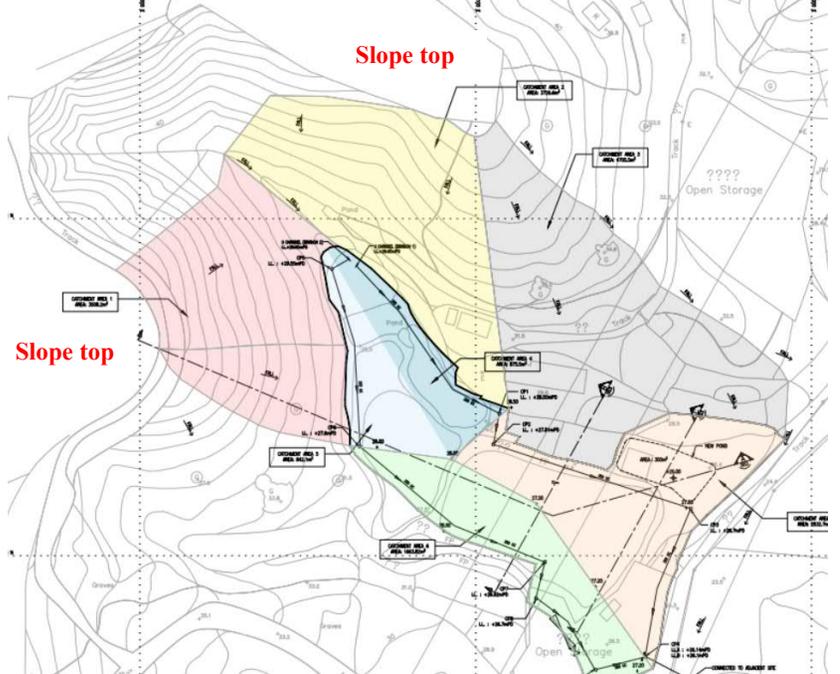
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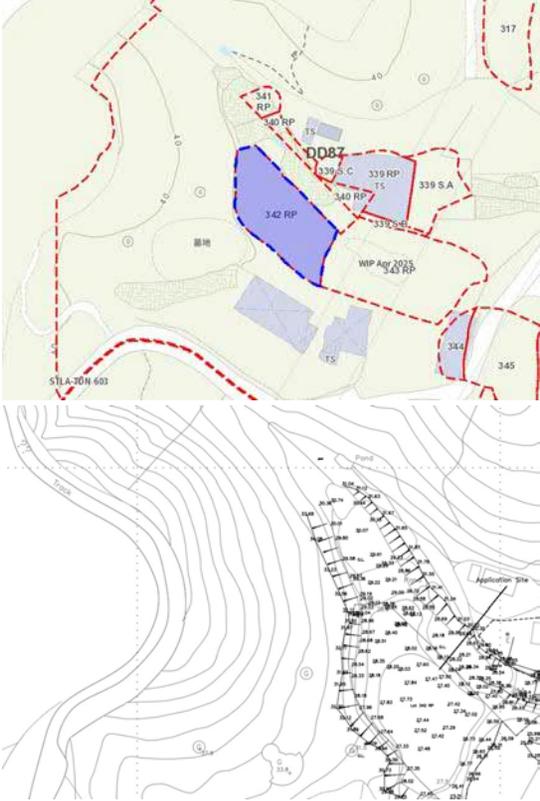
## Summary of Comments and Responses

Project:	Drainage Consultancy Services for S.16 Planning Application at Lot Nos. 342 RP (Part) and 343 RP in D.D. 87, North New Territories, Hong Kong	Contract No.:	P24227 (Our Ref)
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Submission Reviewed:	Comments on the Drainage Proposal	Date:	05 March 2026
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Item and reference	Comments	Wing's Response
1.	For Section 5.1 and Drawing Nos. WNG/24227/C/DRA/001. Please advise the final drainage discharge point and further drainage downstream, as the flow path cannot be identified. The applicant should check and ensure that the existing drainage downstream to which the proposed connection will be made has adequate capacity and satisfactory condition to cater for the additional discharge from the captioned site. He should also ensure that the flow from this site will not overload the existing drainage system.	The additional discharge from the development is proposed to be directed to the adjacent Lot 361RP. The drainage impact on downstream areas was assessed using InfoWorks and the result indicate there are little to no effect to the downstream capacity. The details result can be found in Appendix E.
2.	For Section 3.2 and Drawing Nos. WNG/24227/C/DRA/001. Please clarify if the drainage system within the site will be connected to the new pond. The flow path indicated on the drawing is not aligned with the statement.	The new pond in the previous submission will be reconstructed as a stormwater storage tank in this submission. Excessive stormwater will flow into the tank thereby temporarily storing incoming peak flows. Serving as a measure to reduce the peak discharge to downstream areas.
3.	For clarity, please provide the flow path comparison before and after the development for reference.	Please refer to Section 4.5 of the proposal for the flow path comparison. Since the development did not change the surrounding terrain. The flow path is basically unchanged.
4.	It is noted that a new pond is proposed to be excavated on Government Land. Please advise whether it is within the application area. The applicant should obtain prior consent and agreement from the District Lands Officer / North and/or relevant private lot owners/stakeholders in the surrounding areas for the proposed works.	Please refer to the revised layout (Figure 3 refers). Please note that no pond is proposed within the application site. THE applicant will obtain prior consent and agreement from the District Lands Officer / North and/or relevant private lot owners in the surrounding areas for future proposed works.

Item and reference	Comments	Wing's Response
5.	The design of the proposed new pond is missing. Please provide it. In particular, please advise the volume of the proposed new pond and the methodology used to derive its volume.	<p>Similar to response no.2, the previously proposed pond has been replaced with a stormwater storage tank in this submission. The original pond, located in the middle of the lot, had an approximate volume of 100m<sup>3</sup>. The newly designed tank has a volume of 450m<sup>3</sup>, offering substantially greater capacity for water retention.</p> <p>As detailed in the calculations provided in Appendix C, the tank is capable of receiving and storing the peak flow for a duration of 33 minutes.</p>
6.	For appendix C, please justify the "Affected Area (catchment)" assigned for each branch of the drainage U-channels, in conjunction with the post-development ground levels and corresponding flow paths.	 <p>According to the survey, the lot is bordered by two slope tops which serve as the primary source of external stormwater runoff. Runoff from the left slope top is designated as Catchment 1, while runoff from the northern slope top is divided into two flow paths, designated as Catchments 2 and 3.</p> <p>To ensure a conservative assessment, all external catchments (1-3) have been intentionally overestimated in size.</p>

Item and reference	Comments	Wing's Response
7.	<p>For appendix D, please advise the principle used to demarcate Catchment Area 1. According to records, there is an existing streamcourse within Catchment Area 1. Please review if the current estimate of the external catchment area and incoming flow is adequate.</p>	 <p>From the record in GEOINFO and our topographic survey, there are no record of existing streamcourse. Therefore, the current estimation for catchment area 1 is adequate.</p>
8.	<p>For appendix D, the section views are missing. Please supplement them. Please also include the ground profile of the external catchment area in the section view for reference.</p>	<p>Section views are supplemented in Appendix D.</p>

Item and reference	Comments	Wing's Response
9.	Please advise whether any land filling and construction of boundary walls are proposed. If yes, please show on a layout plan the alignment of the boundary walls and the existing and proposed ground levels, and assess whether the change in surface elevation and/or the erection of boundary walls will impede or alter the existing overland flow from adjacent catchments to the downstream drainage system. Please provide typical details of the proposed fencing to facilitate the existing overland flow from the external catchment area.	Boundary chain-link fence is proposed as part of the development. A minimum 75mm gap has been provided for the proposed chain-link fence wall, in addition, the hollow nature of the fence prevents any obstruction to the existing overland flow paths. Details of the proposed chain-link fence can be found referred to the attached CEDD Standard Drawing  Any surface runoff entering the site through these gaps will be collected by the proposed internal drainage network, which has sufficient capacity to convey these flows for proper discharge downstream. Therefore, there will be no adverse impact on overland flow from adjacent catchments.
10.	No land filling on site shall be allowed until the flood mitigation measures have been implemented to the satisfaction of the Drainage Services Department.	Noted. We confirm that site filling will only proceed following the satisfactory implementation of all required flood mitigation measures.
11.	The applicant shall take all precautionary measures to prevent any disturbance, damage, and pollution from the development to any parts of the existing drainage facilities in the vicinity of the lots. In the event of any damage to the existing drainage facilities, the applicant shall be held responsible for the cost of all necessary repair works, compensation, and any other consequences arising therefrom.	Noted. We will implement all necessary precautionary measures during design and construction to protect the existing drainage facilities.
12.	The applicant should be reminded to minimize the possible adverse environmental impacts on the existing watercourse in their design and during construction. The Director of Environmental Protection and the Director of Agriculture, Fisheries and Conservation should be consulted on possible environmental and/or ecological impacts of the development.	Noted. We will minimize environmental impacts on the watercourse and relevant authorities will be consulted on environmental matters.
13.	The proposed drainage works, whether within or outside the site boundary, should be constructed and maintained properly by the applicant, and the applicant should rectify the system if it is found to be inadequate or ineffective during operation at their own expense.	Noted. We will ensure the drainage system is built and maintained to perform effectively, with any necessary future upgrades undertaken at our own cost.
14.	For works to be undertaken outside the lot boundary, the applicant should obtain prior consent and agreement from the District Lands Officer / North and/or relevant private lot owners.	Noted. Necessary approvals will be secured from the relevant land authorities or lot owner.

Contract No.: P24227 (Drainage Consultancy Services for S.16 Planning Application at Lot Nos. 342 RP (Part) and 343 RP in D.D. 87, North New Territories, Hong Kong

<b>Item and reference</b>	<b>Comments</b>	<b>Wing's Response</b>
15.	The applicant shall allow free access at all times for the Government and its agents to conduct site inspections of their completed drainage works.	Noted. Unrestricted site access will be arranged for government representatives to inspect the drainage system.
16.	The applicant and the successive lot owners shall allow connections from the adjacent lots to the completed drainage works on Government Land when so required.	Noted. We will facilitate the process should any connections from adjacent lots be required in the future.

**CEDD Standard Drawing C1006C - Chain Link Fence**



**Application at Lots 340 RP (Part),  
341 RP (Part), 342 RP (Part),  
343 RP, 344 (Part) in D.D. 87  
and adjoining Government Land,  
Kong Nga Po, Sheung Shui,  
New Territories**

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**Drainage Proposal**

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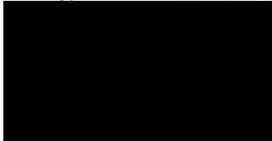
2<sup>nd</sup> Submission

Prepared by: Matthew Poon  
Date: 6-March 2026



MAK KA YEUNG  
MHKIE RPE (CVL.)

Wings & Associates Consulting Engineers Ltd.



CONTENTS

1. INTRODUCTION
2. SITE DESCRIPTION
- 3 ORIGINAL DRAINAGE SYSTEM FOR STORMWATER DISCHARGE
4. PROPOSED DRAINAGE SYSTEM OF THE SITE FOR STORMWATER  
DISCHARGE
5. ASSUMPTION ON STORMWATER SURFACE RUNOFF
6. CONCLUSION

**APPENDICE**

Appendix A	Photo Record
Appendix B	Topography Survey Record
Appendix C	Drainage Design Calculation
Appendix D	Construction Drawing

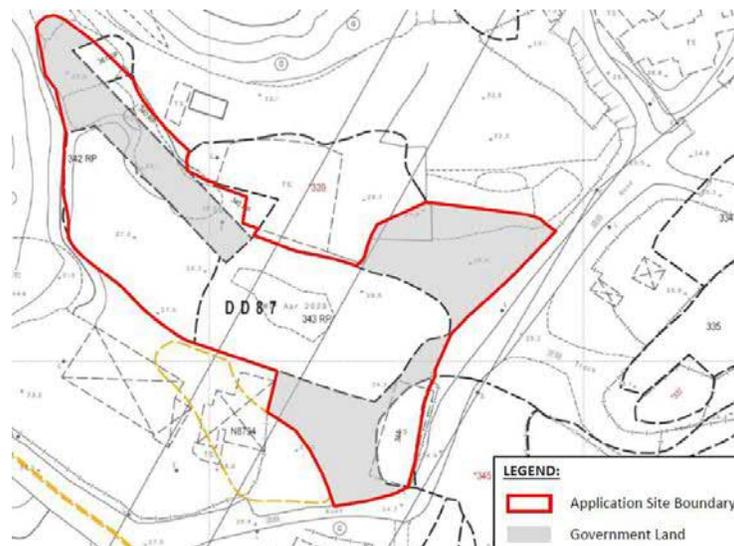
## 1. INTRODUCTION

- 1.1 The drainage proposal is under the application of Section 16 Planning Application at Lots 340 RP (Part), 341 RP (Part), 342 RP (Part), 343 RP, 344 (Part) in D.D. 87 and adjoining Government Land, Kong Nga Po, Sheung Shui, New Territories. The proposed uses of the subject lots are temporary open storage of containers and vehicle maintenance workshop with ancillary facilities for 3 years. Levelling the land with filling up ponding areas is proposed.

Wings & Associates Consulting Engineers Limited is appointed to be the consultant to prepare for the Drainage Proposal in supporting the construction works for the proposed application.

## 2. SITE DESCRIPTION

- 2.1 The general views of the application area can be referred to the figures below. The combined parts of the lot cover an area of about 6214m<sup>2</sup>. This area will be surrounded by fencing in the subject lots. The fencing will provide clearance above ground surface to allow the flow of storm water surface runoff.



Lot information of the Subject Site



Existing Pond on Lot 343RP

2.2 The figure below shows the layout of proposed temporary logistic center development. No permanent structures and buildings will be placed within the subject lots.

**DEVELOPMENT PARAMETERS**

APPLICATION SITE : 6,214 SQ.M. (ABOUT)  
COVERED AREA : 919 SQ.M. (ABOUT)  
UNCOVERED AREA : 5,295 SQ.M. (ABOUT)

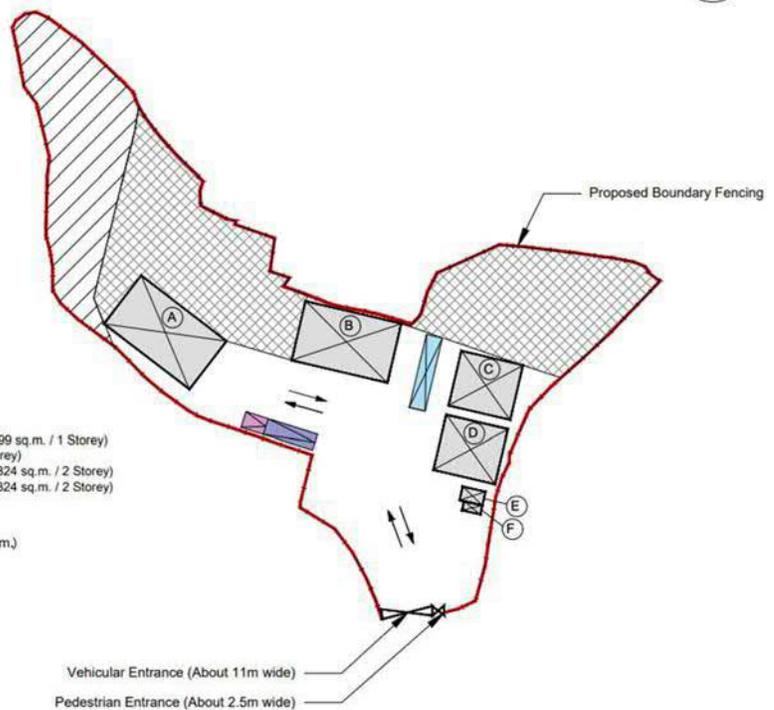
**PARKING AND LOADING/UNLOADING PROVISION**

PARKING SPACE (PC) : 1 NOS. (5 M(L) X 3.5 M(W))  
PARKING SPACE (HGV) : 1 NOS. (11 M(L) X 3.5 M(W))  
LUL AREA : 1 NOS. (16 M(L) X 3.5 M(W))



**LEGEND**

- Application Site Boundary
  - Proposed Boundary Fencing
  - Proposed Structure
    - A: Consolidation Area for Freight and Goods (GFA: about 299 sq.m. / 1 Storey)
    - B: Vehicle Repair Workshop (GFA: about 273 sq.m. / 1 Storey)
    - C: Ancillary Site Office/General Storage Uses (GFA: about 324 sq.m. / 2 Storey)
    - D: Ancillary Site Office/General Storage Uses (GFA: about 324 sq.m. / 2 Storey)
    - E: Guard Kiosk (GFA: about 15 sq.m. / 1 Storey)
    - F: Meter Room (GFA: about 8 sq.m. / 1 Storey)
  - Open Storage Area: Container Stacking (About 2,050 sq.m.)
  - No-Built Zone (About 976 sq.m.)
  - Loading/Unloading Area (Container Vehicle)
  - Parking Space (HGV)
  - Parking Space (PC)
- (For identification only)



Layout plan of the subject site

2.3 Referring to the actual site condition, there is an existing pond inside the subject lots. The figure below shows the location of the existing pond. Photos showing the current conditions can be referred to Appendix A. The pond will not be considered as part of the drainage system of the lot and will be filled and leveled to the proposed filling level.



Existing Pond at Lot 343 RP

2.4 The existing ground level of the subject lots range between +25mPD to +29mPD. With reference to the Stormwater Drainage Manual, the existing ground level of the site is significantly higher than sea level, as a result, the site will not be affected by tidal effects.

The information from the Observatory and the tables from the Stormwater Drainage Manual are shown below for reference.

Table 8 – Design Extreme Sea Levels (in mPD)

Return Period (Years)	North Point/ Quarry Bay (1954-2017)	Tai Po Kau (1962-2017)	Tsim Bei Tsui (1974-2017)	Tai O (1985-2017)
2	2.73	2.91	3.07	2.87
5	2.94	3.20	3.31	3.16
10	3.09	3.45	3.51	3.36
20	3.24	3.73	3.74	3.57
50	3.45	4.19	4.09	3.84
100	3.63	4.60	4.40	4.06
200	3.81	5.10	4.77	4.28

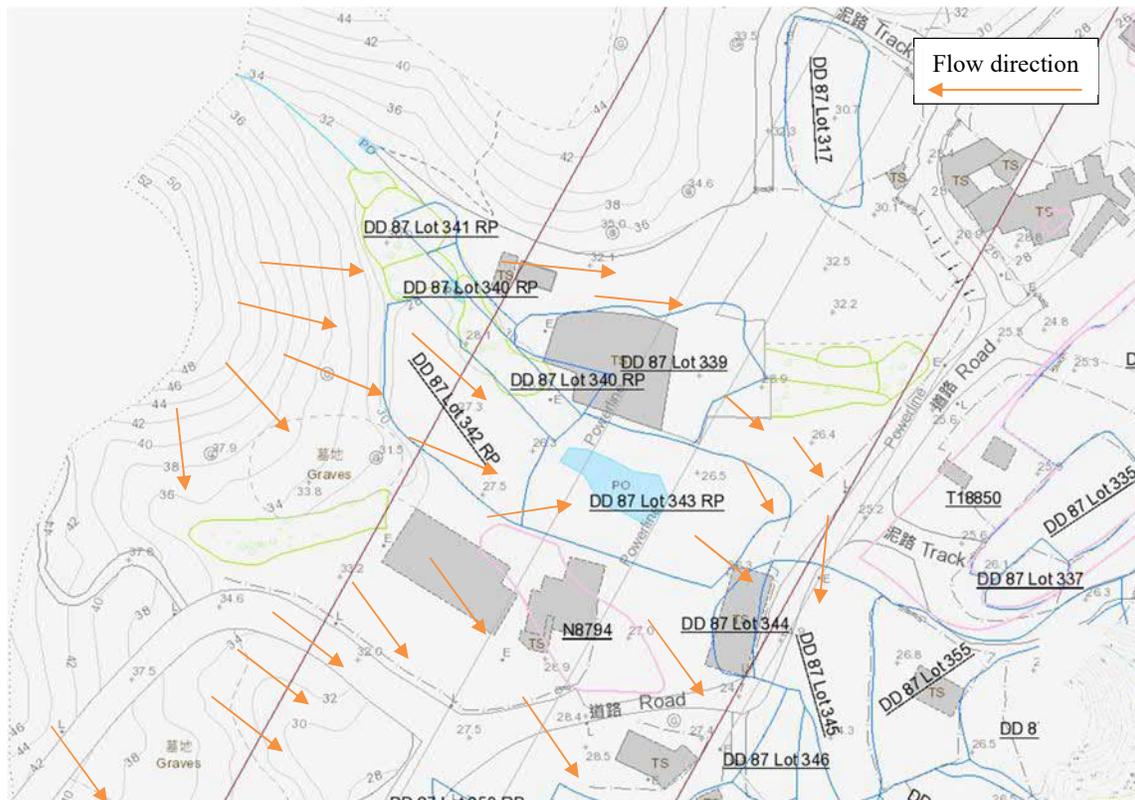
Table 9 – Mean Higher High Water (MHHW) Levels (in mPD)

North Point/ Quarry Bay (1962-2017)	Tai Po Kau (1981-2017)	Tsim Bei Tsui (1983-2017)	Tai O (1985-2017)
2.01	2.02	2.32	2.13

### 3. ORIGINAL DRAINAGE SYSTEM FOR STORMWATER DISCHARGE

#### 3.1 Identification of the Effective Catchment Area

Referring to the location plan and the existing topography, the catchment area of surface runoff affecting the subject lots is considered.



Flow Direction of the Catchment Area on this site

#### 3.2 Studying on the Existing Run-off

It is found that the surface runoff from the catchment area will be discharged to the pond inside the subject lots. The existing pond acts as a retention for the surface runoff and the water inside will be discharged by natural filtration or evaporation.

#### 4. PROPOSED DRAINAGE SYSTEM OF THE SITE FOR STORMWATER DISCHARGE

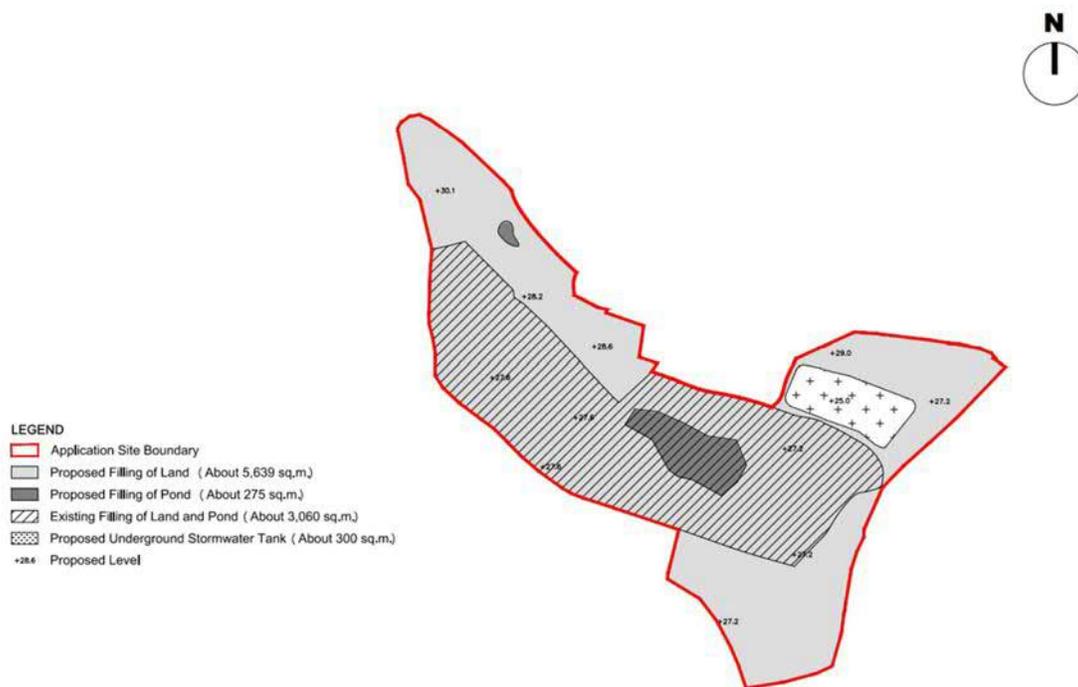
##### 4.1 General Planning

The planning of the new drainage system for stormwater within and adjacent to the subject lots will cover the following items:

- Construction of new pond
- Construction of new surface channels and catchpits to divert the stormwater to the new pond
- Backfill and remove the existing pond (inside the subject lots)

##### 4.2 Filling the subject site to rearrange cover level

The area inside the lot, together with the existing pond, will be filled up to form a flat surface for the proposed development. The proposed ground surface will be formed with fall gradient towards the proposed drainage system which is to collect surface runoff to the relocated pond.



Filling plan of the subject site

#### 4.3 Design Assumption

The design adheres to the guidelines outlined in the Stormwater Drainage Manual.

##### Material Properties:

<i>Surface Characteristics</i>	<i>Runoff coefficient, C*</i>
Asphalt	0.70 - 0.95
Concrete	0.80 - 0.95
Brick	0.70 - 0.85
Grassland (heavy soil**)	
Flat	0.13 - 0.25
Steep	0.25 - 0.35
Grassland (sandy soil)	
Flat	0.05 - 0.15
Steep	0.15 - 0.20

##### Stormwater Drainage Manual 7.5.2

##### Rainfall Intensity

- Runoff Coefficient for grass = 0.20
- Runoff Coefficient for paved = 0.80

The adopted design rainfall parameters are consistent with the SDM Corrigendum No. 1/2024 table 3d. The adopted parameters are summarised in table 4-1

<b>Return Period T(years)</b>	<b>10</b>
a	454.9
b	3.44
c	0.412

Table 4.1 Storm Constants for Different Return Periods of North District Area

#### 4.4 Climate Change

Table 4-2 presents a summary of the design rainfall used for the end-21st century storm events. (reference from Corrigendum 1-2022 of SDM)

	<b>Rainfall Increase</b>
End of 21 <sup>st</sup> Century	16.0%

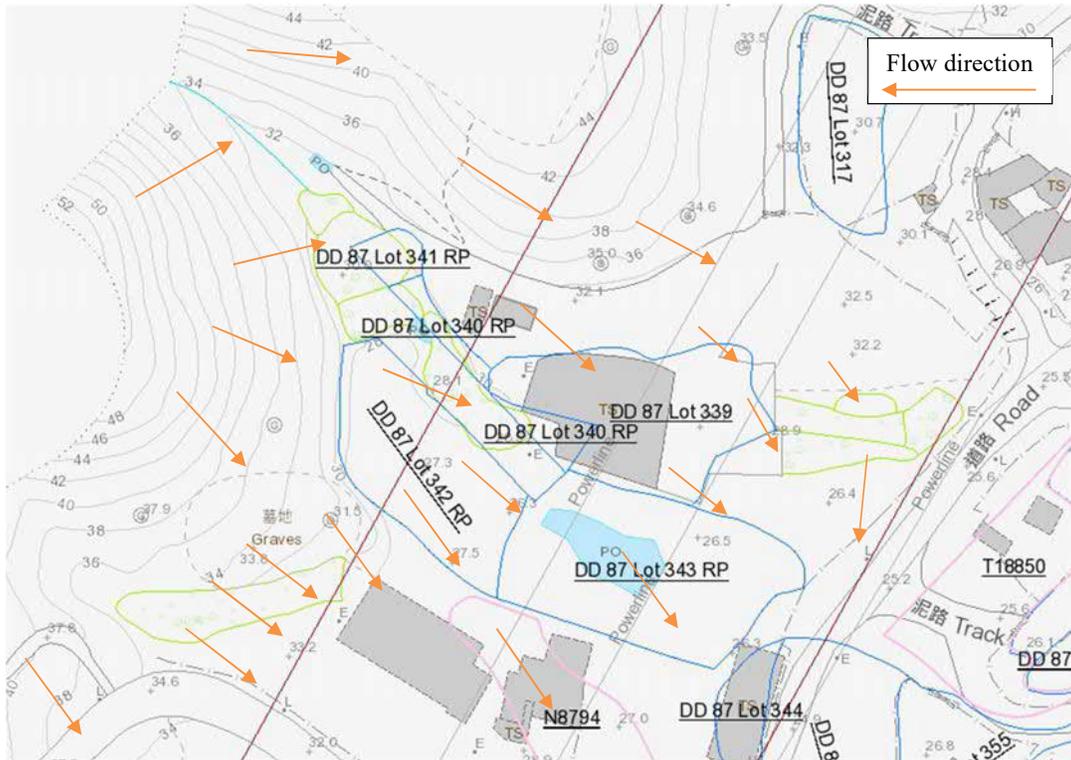
Table 4-3 Rainfall Increase due to Climate Change

#### 4.5 Design of Channels and Catchpits

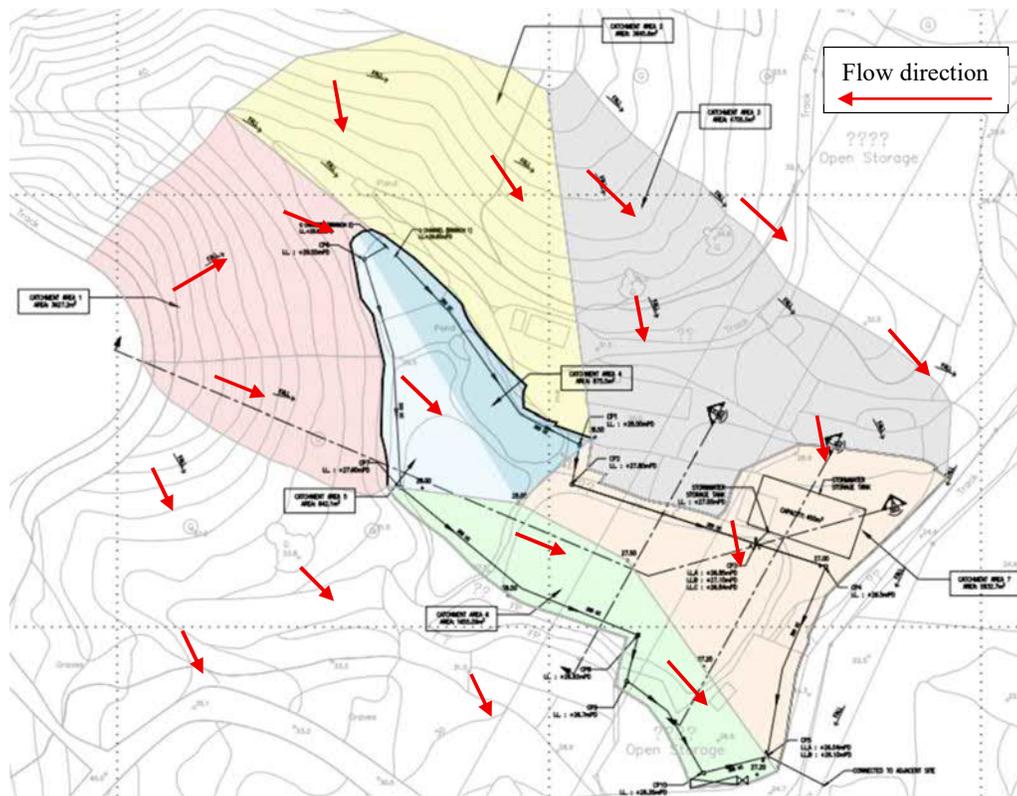
The proposed drainage system will collect the surface runoff from effective catchment area inside and outside the lot. Then, the surface runoff will be diverted to the adjacent site.

The proposed drainage system to collect and divert the surface runoff from the designed catchment to the adjacent site has been checked. All surface channels are capable to divert the surface runoff from 10-year return period rainstorm. The detailed calculation and design drawings can be found in Appendix C & D.

4.5 Flow Path Comparison



Original Flow Path for the site



Flow Path after Development

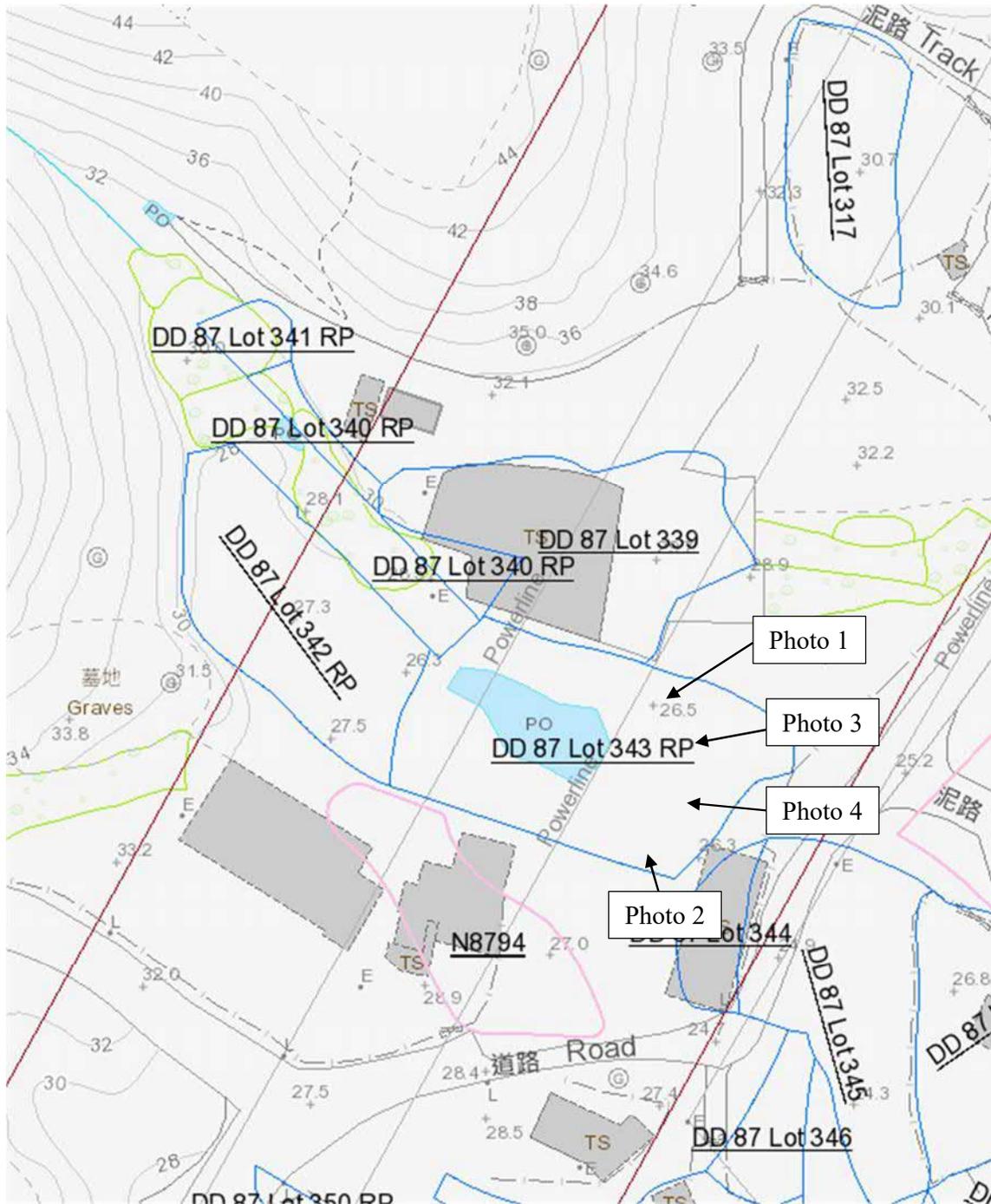
## 5. CONCLUSION

- 5.1 A new drainage system within the subject lots is proposed after the site formation works to raise the ground level to be uniform.
- 5.2 Having considered each branch of the proposed surface channel to handle the surface runoff from both catchment areas from uphill and the subject lots concurrently in the design checking (design calculation refers to Appendix C), the proposed surface channels and catchpits are capable of receiving potential surface runoff in calculating the rainfall intensity storm effect in approximate 10 years of return period. The collected stormwater will be discharged to an adjacent lot, which then drains to the nearby river.
- 5.3 The drainage impact on downstream areas was assessed using InfoWorks. The drainage systems for both Lot 342RP and Lot 361RP were considered in the analysis. For detailed results, please refer to Appendix E. The findings indicate that the additional discharge from the developed site has a minor impact on the freeboard of the downstream river. Therefore, it can be concluded that the development will not adversely affect the downstream drainage capacity.
- 5.4 As an additional mitigation measure for the lot, a 450m<sup>3</sup> stormwater storage tank is proposed. The tank will temporarily store incoming peak stormwater flows, effectively reducing the peak discharge to downstream areas. To maintain its capacity for subsequent events, the tank will be emptied after each rainfall.
- 5.5 Regular maintenance such as routine desilting will be carried out by the development owner for the drainage system (i.e. surface channel and catchpit) surrounding the site to avoid blockage and deterioration.
- 5.6 Openings on the bottom of fencing and walls will be provided surrounding the subject lots to avoid blockage and changing the flow path of the surface runoff.
- 5.7 The Lot owner is currently liaising with the owner (Lot Nos 346, 347 S.A, 347 S.B, 347 RP, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in D.D. 87) to seek their approval for the discharge connection.
- 5.8 For the surface channels pass through vehicle access, steel gratings referring to the typical details from standard drawings will be provided.
- 5.9 The development will not have any adverse impact on the drainage in the surrounding area. The construction and development within the subject lot will not alter the flow direction of surface runoff. There will be no increased risk of flooding, and the capacity of existing drainage utilities will not be exceeded.

**END OF TEXT**

## **APPENDIX A**

### **Photo Record**



**Location Plan**

Photo No. 1



Photo No. 2



Photo No. 3



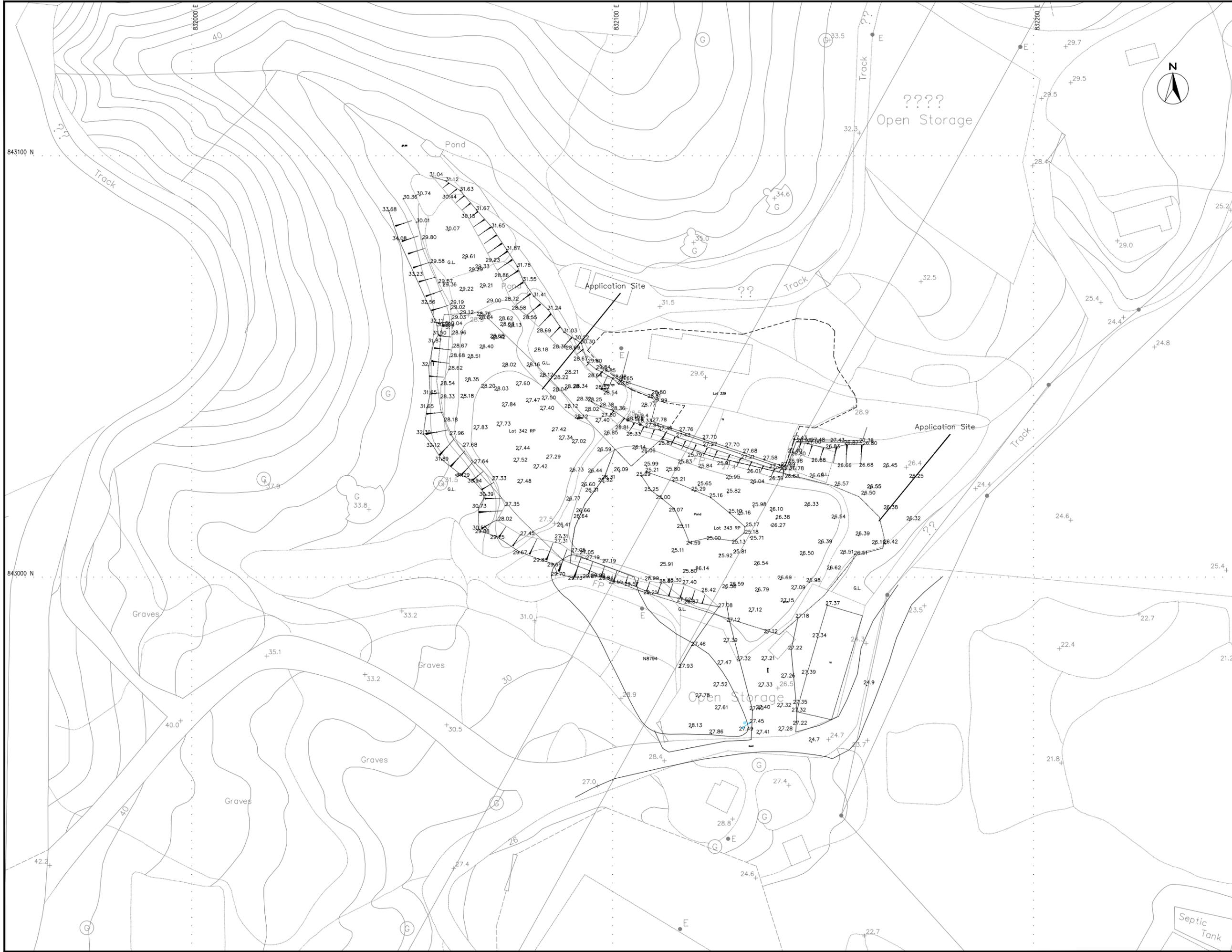
Photo No. 4



## **APPENDIX B**

### **Topography Survey Record**

ISO A1 594mm x 841mm



B.D. REF.					
F.S.D. REF.					
REV	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED

ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING.  
 ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF  
 ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE  
 COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION  
 PURPOSES UNLESS EXPRESSLY CERTIFIED.

SIGNATURE FOR SUBMISSION/ CONSTRUCTION

PROJECT NO:	24277
DRAWN BY:	WYM 10/24
DESIGNED BY:	SC 10/24
CHECKED BY:	RM 10/24
APPROVED BY:	VT 10/24
SCALE:	1:400 (A1)
CAD FILE:	WNG_24277_C_SK001

PROJECT:  
 DRAINAGE CONSULTANCY SERVICES FOR  
 S16 PLANNING APPLICATION AT LOT  
 NOS. 342 RP (PART) AND 343 RP IN  
 D.D. 87, NORTH NEW TERRITORIES,  
 HONG KONG

DRAWING TITLE:  
 LAYOUT PLAN

DRAWING NO:	WNG/24277/C/SK001	REV:	
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## **APPENDIX C**

### **Drainage Design Calculation**

**Design Calculation of U-Channel**

**Project :** S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in D.D. 87

Reference code: Stormwater Drainage Manual 2018 & Geotechnical Manual for Slope  
 Assumption: Runoff Coefficient for grass **0.2** (Steep and sandy grassland)

Runoff Coefficient for concrete	<b>1.0</b>		
Catchment 1	<b>3627</b>	m <sup>2</sup>	(Effective catchment inside subject lots) Rainfall Intensity = <b>237.7</b> mm/hr
Catchment 2	<b>3646</b>	m <sup>2</sup>	(Effective catchment inside subject lots) Rainfall Intensity = <b>230.0</b> mm/hr
Catchment 3	<b>4705.5</b>	m <sup>2</sup>	(Effective catchment inside subject lots) Rainfall Intensity = <b>229.3</b> mm/hr
Catchment 4	<b>875.5</b>	m <sup>2</sup>	(Effective catchment outside subject lots) Rainfall Intensity = <b>233.2</b> mm/hr
Catchment 5	<b>842.1</b>	m <sup>2</sup>	(Effective catchment outside subject lots) Rainfall Intensity = <b>244.5</b> mm/hr
Catchment 6	<b>1663.8</b>	m <sup>2</sup>	(Effective catchment outside subject lots) Rainfall Intensity = <b>189.7</b> mm/hr
Catchment 7	<b>2832.7</b>	m <sup>2</sup>	(Effective catchment outside subject lots) Rainfall Intensity = <b>238.9</b> mm/hr
Allowance	<b>10.0</b>	%	reduction in flow area due to permissible degradation between desilting cycles

USCP	Upstream Catchpit	RAINFALL INTENSITY	Rainfall Intensity, mm/hr
DSCP	Downstream Catchpit	RUNOFF COEF	Runoff Coefficient
USGL	Upstream Ground Level, mPD	CATCHMENT	Catchment Area, m <sup>2</sup>
USIL	Upstream Invert Level, mPD	EFF. AREA	Effective Area, m <sup>2</sup>
DSIL	Downstream Invert Level, mPD	CUM. AREA	Cumulative Effective Area, m <sup>2</sup>
INVERT DIFF.	INVERT DIFFERENCE, m	DESIGN FLOW	Design Flow m <sup>3</sup> /s
LENGTH	Channel Length, m	SIZE	Channel Size, mm
SLOPE	Channel Gradient, 1 in	UC TYPE	Channel Type
		VEL.	Velocity of Channel by Manning's Equation where n = 0.013
		FLOW CAP.	Fullbore Capacity m <sup>3</sup> /s
		SPARE CAP.	Spare Capacity m <sup>3</sup> /s

Catchment	Flow Direction	USGL mPD	DSGL mPD	USIL mPD	DSIL mPD	AVG. DEPTH m	INVERT DIFF. m	LENGTH m	GRADIENT 1 in	RAINFALL INTENSITY mm/hr	RUNOFF COEF.	CATCH MENT m <sup>2</sup>	Affected Area m <sup>2</sup>	EFF. AREA m <sup>2</sup>	DESIGN FLOW m <sup>3</sup> /s	CUM. DESIGN FLOW m <sup>3</sup> /s	SIZE mm	TYPE	VEL m/s	ALLOWANCE (REDUCTION %)	FLOW CAP. m <sup>3</sup> /s	SPARE CAP. m <sup>3</sup> /s	UTILISA TION %	RESUL T	A (m <sup>2</sup> )	P (m)	R (m)	
<b>2</b>	Branch 1 to CP1	<b>30.44</b>	<b>28.50</b>	29.60	28.00	0.50	1.60	<b>61.9</b>	39	230.0	0.2	3646	<b>2</b>	729.12	0.04662	0.04662	<b>300</b>	<b>UC</b>	2.3	10	0.288	0.241	16	OK	0.126	1.171	0.108	
<b>4</b>		<b>30.44</b>	<b>28.50</b>	29.60	28.00	0.50	1.60	<b>61.9</b>	39	233.2	1	876	<b>4</b>	875.5	0.05676	0.05676	<b>300</b>	<b>UC</b>	2.3	10	0.288	0.231	20	OK	0.126	1.171	0.108	
<b>Resultant &amp; Discharge</b>															0.10338	0.10338	<b>300</b>	<b>UC</b>	2.3	10	0.288	0.184	<b>36</b>	OK	0.126	1.171	0.108	
<b>3</b>	CP1 to CP4	<b>28.50</b>	<b>28.50</b>	27.90	26.04	2.46	1.86	<b>116.0</b>	62	229.3	0.2	4706	<b>3</b>	941.1	0.05999	0.05999	<b>300</b>	<b>UC</b>	2.0	10	1.323	1.263	5	OK	0.656	5.091	0.129	
<b>7</b>		<b>28.50</b>	<b>28.50</b>	27.90	26.04	2.46	1.86	<b>116.0</b>	62	238.9	1	2833	<b>7</b>	2832.7	0.18810	0.18810	<b>300</b>	<b>UC</b>	2.0	10	1.323	1.135	14	OK	0.656	5.091	0.129	
<b>2+4</b>															0.10338	0.10338	<b>300</b>	<b>UC</b>										
<b>Resultant &amp; Discharge</b>															0.35148	0.35148	<b>300</b>	<b>UC</b>	2.0	10	1.323	0.971	<b>27</b>	OK	0.656	5.091	0.129	
<b>1</b>	Branch 2 to CP6	<b>30.44</b>	<b>28.00</b>	29.60	27.60	0.40	2.00	<b>59.0</b>	30	237.7	0.2	3627	<b>1</b>	725.44	0.04794	0.04794	<b>300</b>	<b>UC</b>	2.5	10	0.250	0.202	19	OK	0.099	0.971	0.102	
<b>5</b>		<b>30.44</b>	<b>28.00</b>	29.60	27.60	0.40	2.00	<b>59.0</b>	30	244.5	1	842	<b>5</b>	842.1	0.05724	0.05724	<b>300</b>	<b>UC</b>	2.5	10	0.250	0.193	23	OK	0.099	0.971	0.102	
<b>Resultant &amp; Discharge</b>															0.10519	0.10519	<b>300</b>	<b>UC</b>	2.5	10	0.250	0.145	<b>42</b>	OK	0.099	0.971	0.102	
<b>6</b>	CP6 to CP4	<b>28.00</b>	<b>27.20</b>	27.60	26.10	1.10	1.50	<b>119.0</b>	79	189.7	1	1664	<b>6</b>	1663.8	0.08776	0.08776	<b>300</b>	<b>UC</b>	1.7	10	0.497	0.409	18	OK	0.288	2.371	0.122	
<b>1+5</b>															0.10519	0.10519	<b>300</b>	<b>UC</b>										
<b>Resultant &amp; Discharge</b>															0.19295	0.19295	<b>300</b>	<b>UC</b>	1.7	10	0.497	0.304	<b>39</b>	OK	0.288	2.371	0.122	

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area : 1**

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 3627.2 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 13.1 m

L = length which water takes the longest time to reach the design section = 91.6 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 3.49 \text{ min}$  say 3.49 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

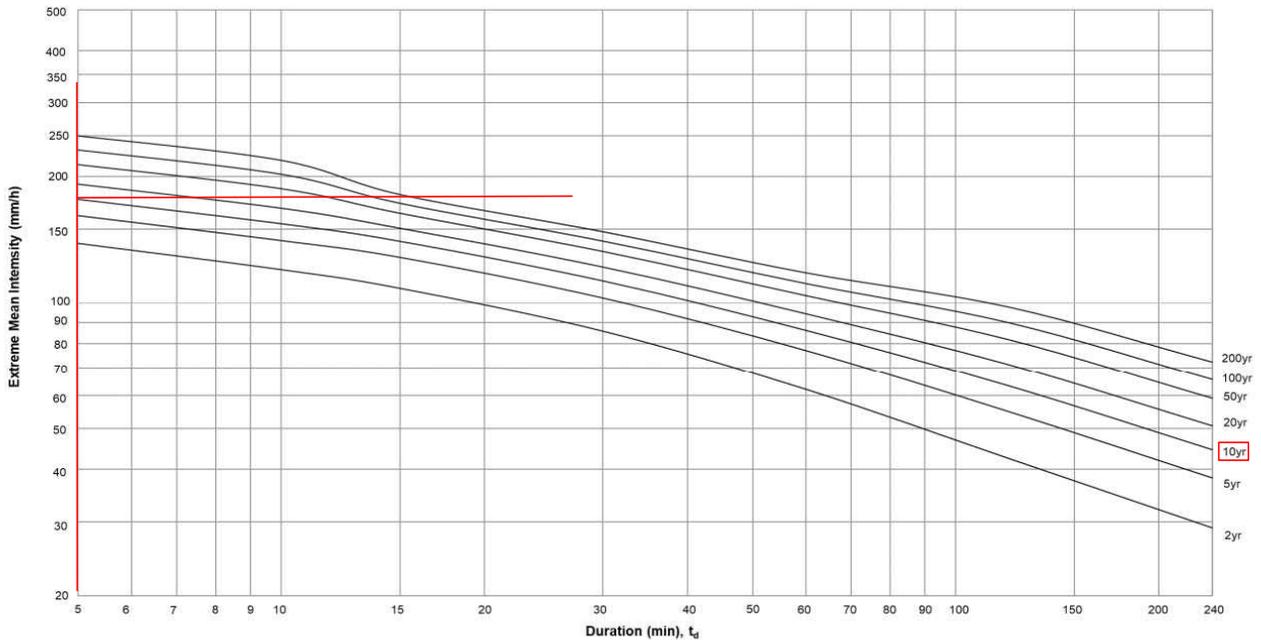


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 204.9 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 237.7 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area : 2**

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 3645.6 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 11.1 m

L = length which water takes the longest time to reach the design section = 103.4 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 4.07 \text{ min}$  say 4.07 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

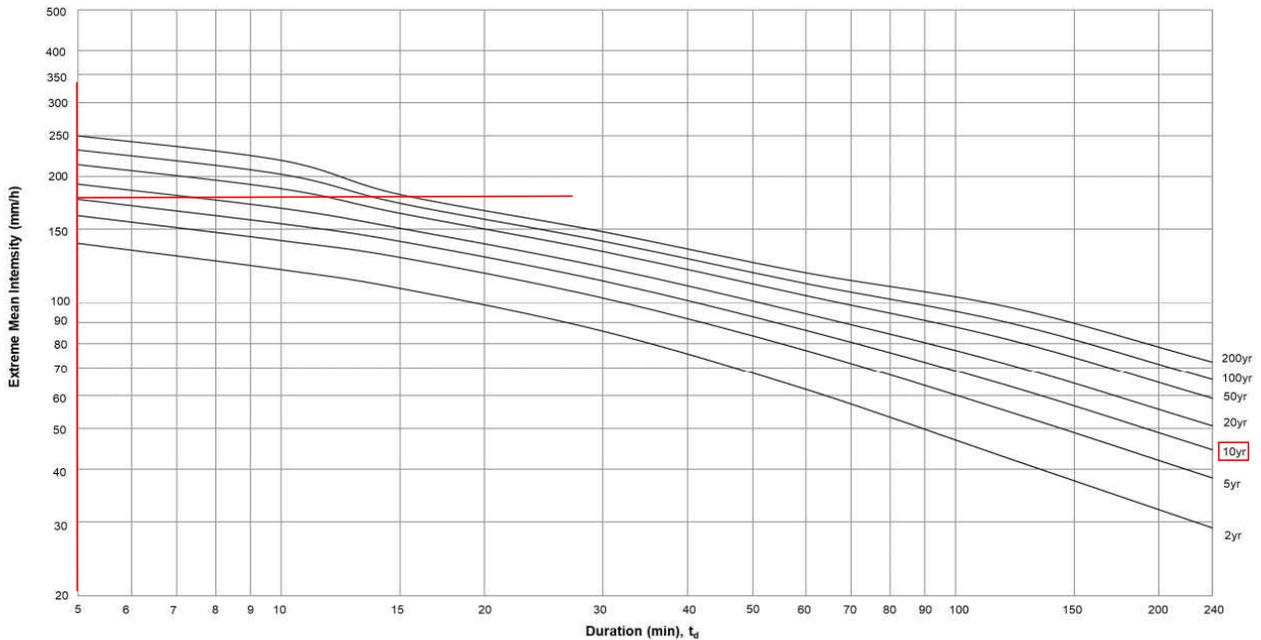


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 198.3 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 230.0 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area : 3**

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 4705.5 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 11.9 m

L = length which water takes the longest time to reach the design section = 109.0 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 4.12 \text{ min}$  say 4.12 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

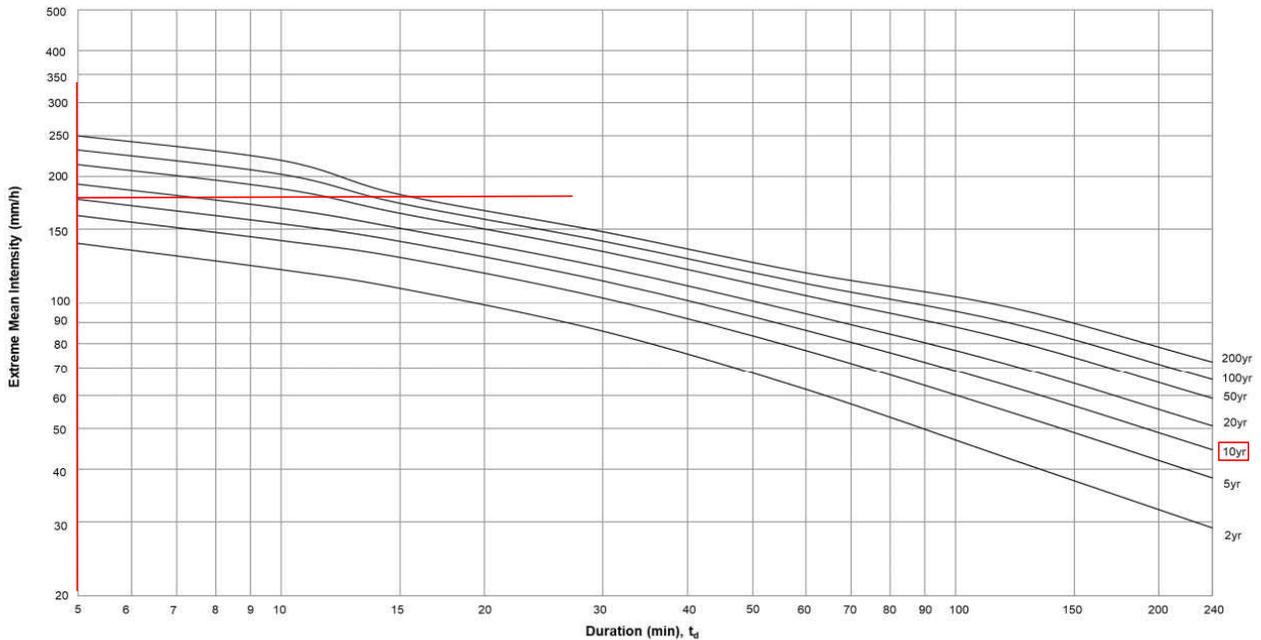


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 197.7 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 229.3 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area : 4**

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 875.5 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 5.3 m

L = length which water takes the longest time to reach the design section = 72.5 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 3.82 \text{ min}$  say 3.82 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

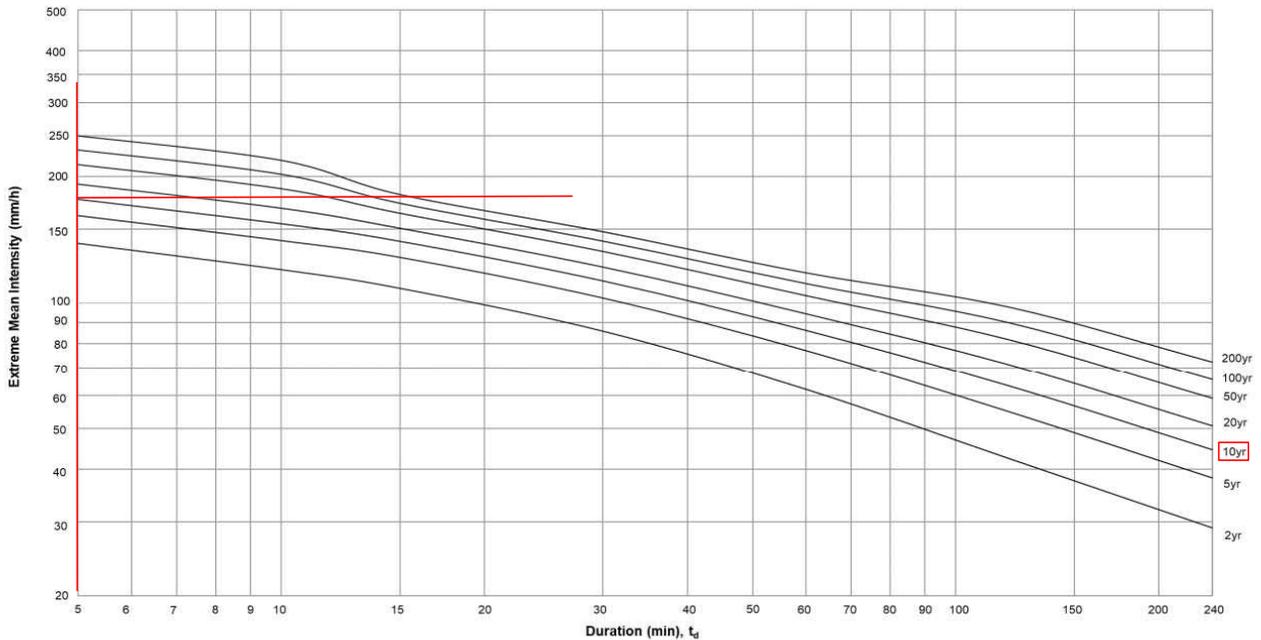


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 201.1 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 233.2 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area : 5**

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 842.1 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 16.6 m

L = length which water takes the longest time to reach the design section = 72.1 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 3.03 \text{ min}$  say 3.03 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

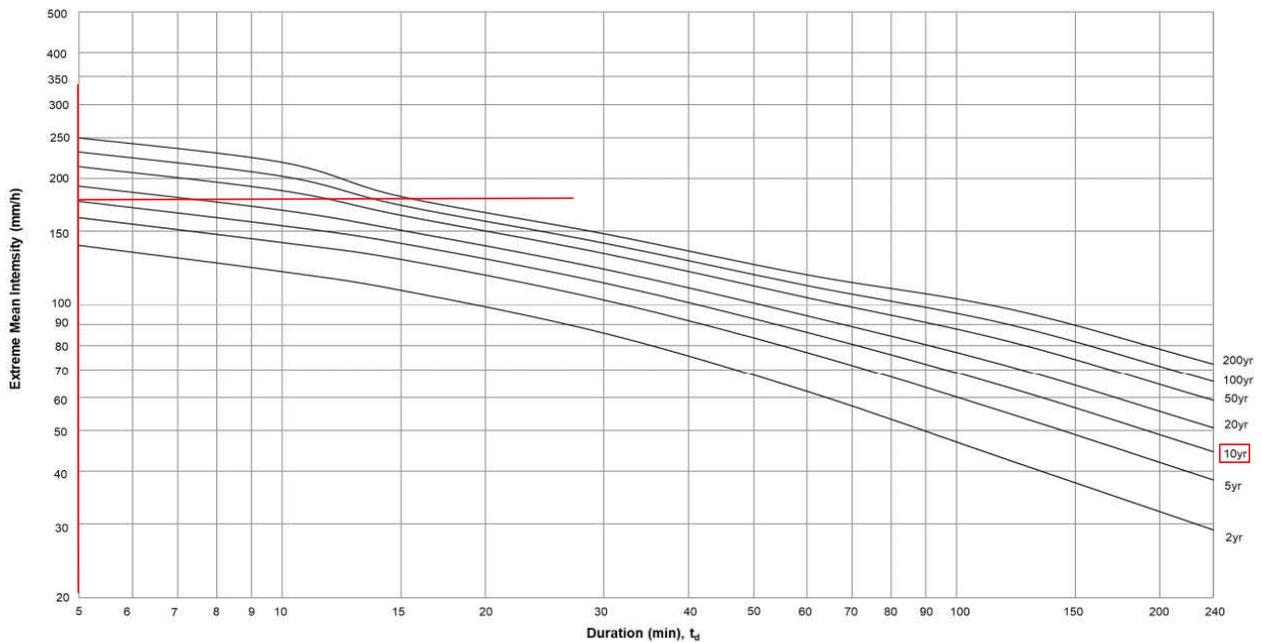


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 210.8 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 244.5 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area : 6**

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 1663.8 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 0.7 m

L = length which water takes the longest time to reach the design section = 115.2 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 8.53 \text{ min}$  say 8.53 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

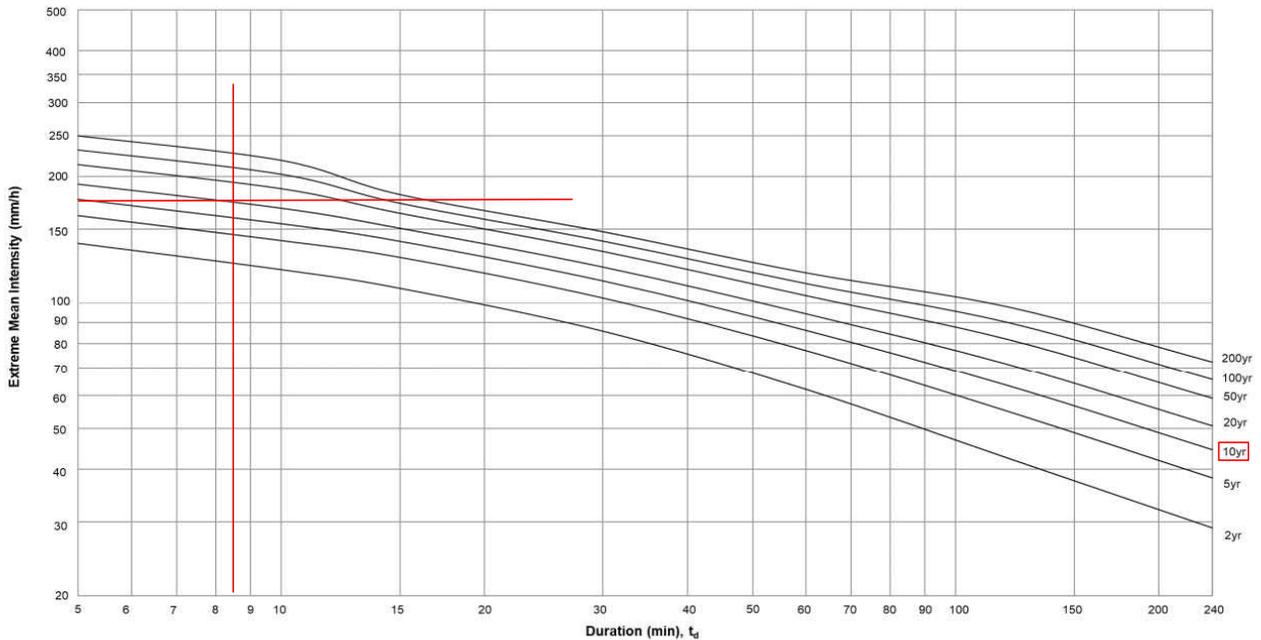


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 163.6 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 189.7 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in E**

**Catchment Area :** 7

**Determination of Time of Concentration and Designed Mean Rainfall Intensity**

A = area of catchment (m<sup>2</sup>) = 2832.7 m<sup>2</sup>

H = average fall (per 100m) from the summit of catchment to the point of design = 13.6 m

L = length which water takes the longest time to reach the design section = 88.0 m

Time of concentration,  $t = 0.14456 \times (L / (H^{0.2} \times A^{0.1})) = 3.41 \text{ min}$  say 3.41 min

From Figure 4d of Corrigendum No.1 2024 Stormwater Drainage Manual, assuming storm return period is 1 in 50 years,

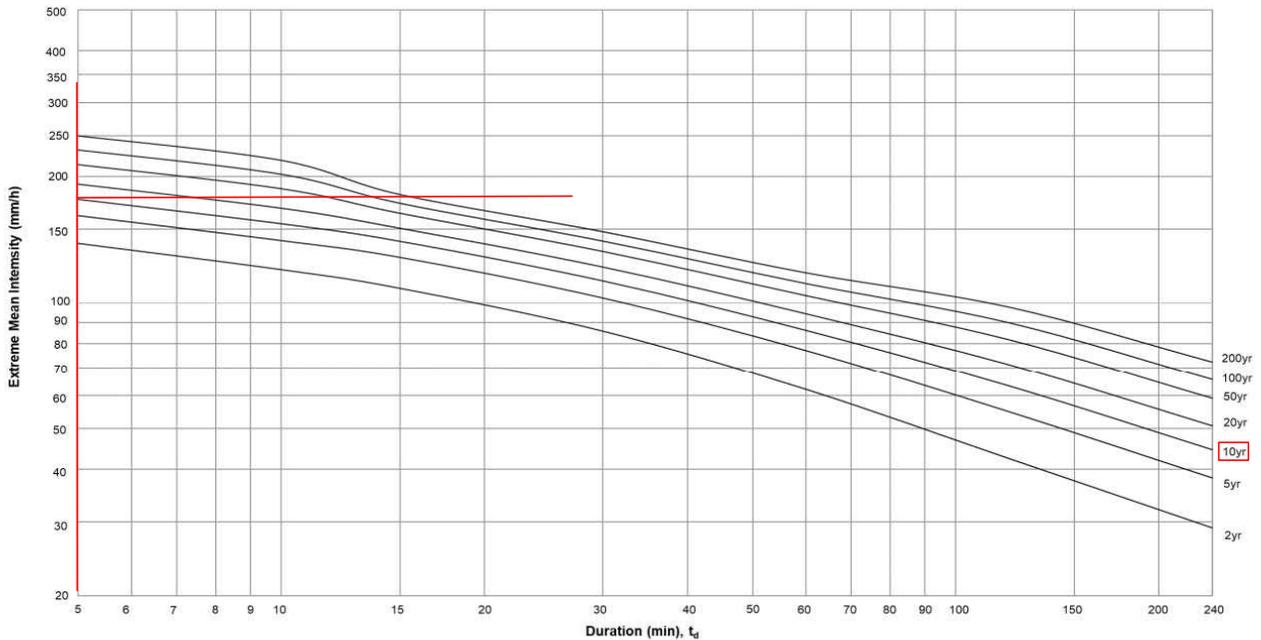


Figure 4d – Intensity-Duration-Frequency Curves of North District Area (for durations not exceeding 4 hours)

i = designed mean intensity of rainfall (mm/hr) = 205.9 mm/hr

Rainfall increased due to Climate Change (16%)  $i \times 1.16 = 238.9 \text{ mm/hr}$

(With reference to Corrigendum-No.-1\_2022-of-Stormwater-Drainage-Manual)

**Project : S.16 Planning Application at Lots 346, 347 S.A, 347 S.B, 348 RP, 349 RP, 351 RP, 352 S.B RP, 361 RP (Part), 366 RP in D.D.**

**Calculation of the Stormwater Storage Tank**

Size of UC	=	300	mm	
Flow capacity	=	1.3228	m <sup>3</sup> /s	
Peak flow from branch 1	=	0.3515	m <sup>3</sup> /s	(from design calculation of U-channel)
Water depth at the within the 300UC	=	0.6180	m	
Invert level of CP3 at point A	=	26.85	mPD	
Water level	=	27.47	mPD	
Invert level of CP3 at point B	=	27.1	mPD	
Flow to be received by the tank	=	0.22	m <sup>3</sup> /s	
Capacity of tank	=	450	m <sup>3</sup>	
Retention time of the tank	=	33.969	mins	
Percentage of water flowing into the tank	=	62.818	%	

## **APPENDIX D**

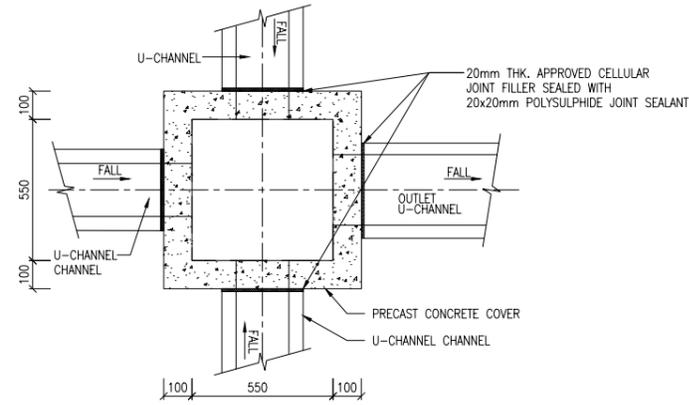
### **Construction Drawing**

**GENERAL NOTES**

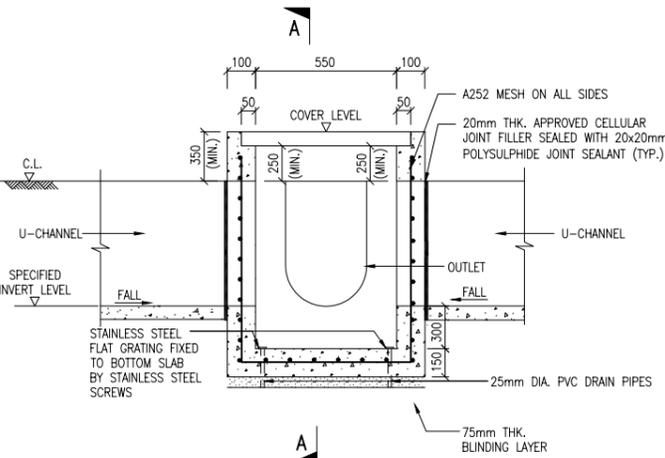
- GRADE 400 CONCRETE SHALL BE USED UNLESS OTHERWISE STATED.
- THE PROPOSED DRAINAGE WORKS, WHETHER WITHIN OR OUTSIDE THE LOT BOUNDARY, SHALL BE CONSTRUCTED AND MAINTAINED BY THE OWNER AT HIS OWN EXPENSE. FOR WORKS TO BE UNDERTAKEN OUTSIDE THE LOT BOUNDARY, PRIOR CONSENT FROM DLO AND/OR RELEVANT PRIVATE LOT OWNERS SHALL BE SOUGHT.
- ALL U-CHANNEL SHALL BE GRADIENT 1:100 UNLESS OTHERWISE STATED.
- GRATE COVERS SHALL BE PROVIDED FOR THE SECTION THAT VEHICLE MAY CROSS THE CHANNELS.

**SCHEDULE OF CATCHPIT WITH SAND TRAP**

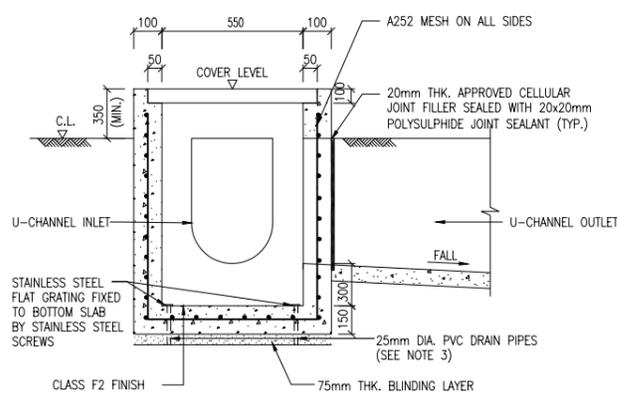
CATCHPIT NO.	CATCHPIT TYPE	COVER LEVEL (mPD)	BTM. LEVEL (mPD)	INLET LEVEL (mPD)	OUTLET LEVEL (mPD)
CP1	1	+28.50	+27.84	+28.00	+27.99
CP2	1	+28.00	+27.64	+27.80	+27.79
CP3	1	+27.20	+26.69	A: +26.85	+26.84
				B: +27.10	
				C: +26.84	
CP4	1	+27.00	+26.34	+26.50	+26.49
CP5	1	+27.20	+25.88	A: +26.04	+26.03
				B: +26.10	
CP6	1	+30.00	+29.39	+29.55	+29.54
CP7	1	+28.00	+27.44	+27.60	+27.59
CP8	1	+27.20	+26.76	+26.92	+26.91
CP9	1	+27.20	+26.54	+26.70	+26.69
CP10	1	+27.20	+26.19	+26.35	+26.34



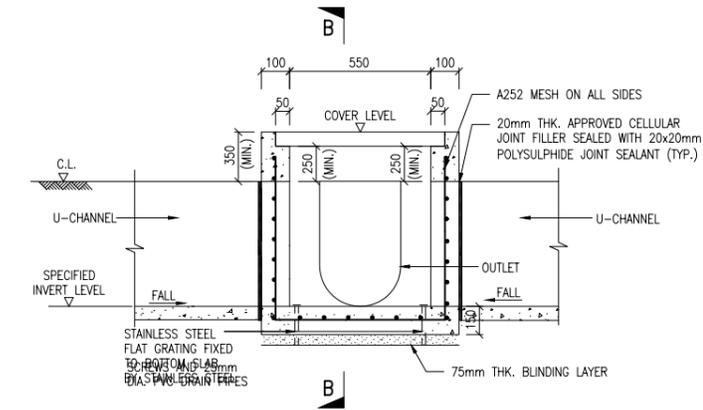
**PLAN OF CATCHPIT (TYPE 1&2)**  
(REFERENCE: CEDD STANDARD DRAWING NO. IC2406\_1&2)  
N.T.S.



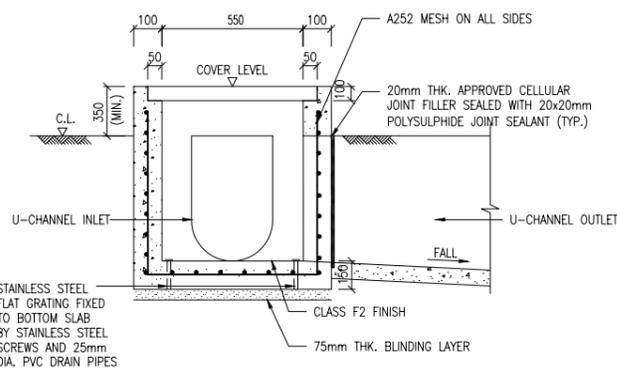
**SECTION OF TYPE 2 CATCHPIT**  
SCALE 1:100



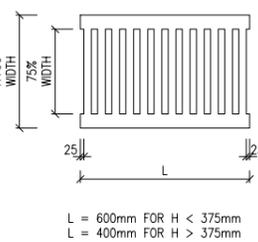
**SECTION A-A**  
SCALE 1:100



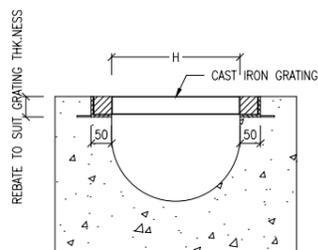
**SECTION OF TYPE 1 CATCHPIT**  
SCALE 1:100



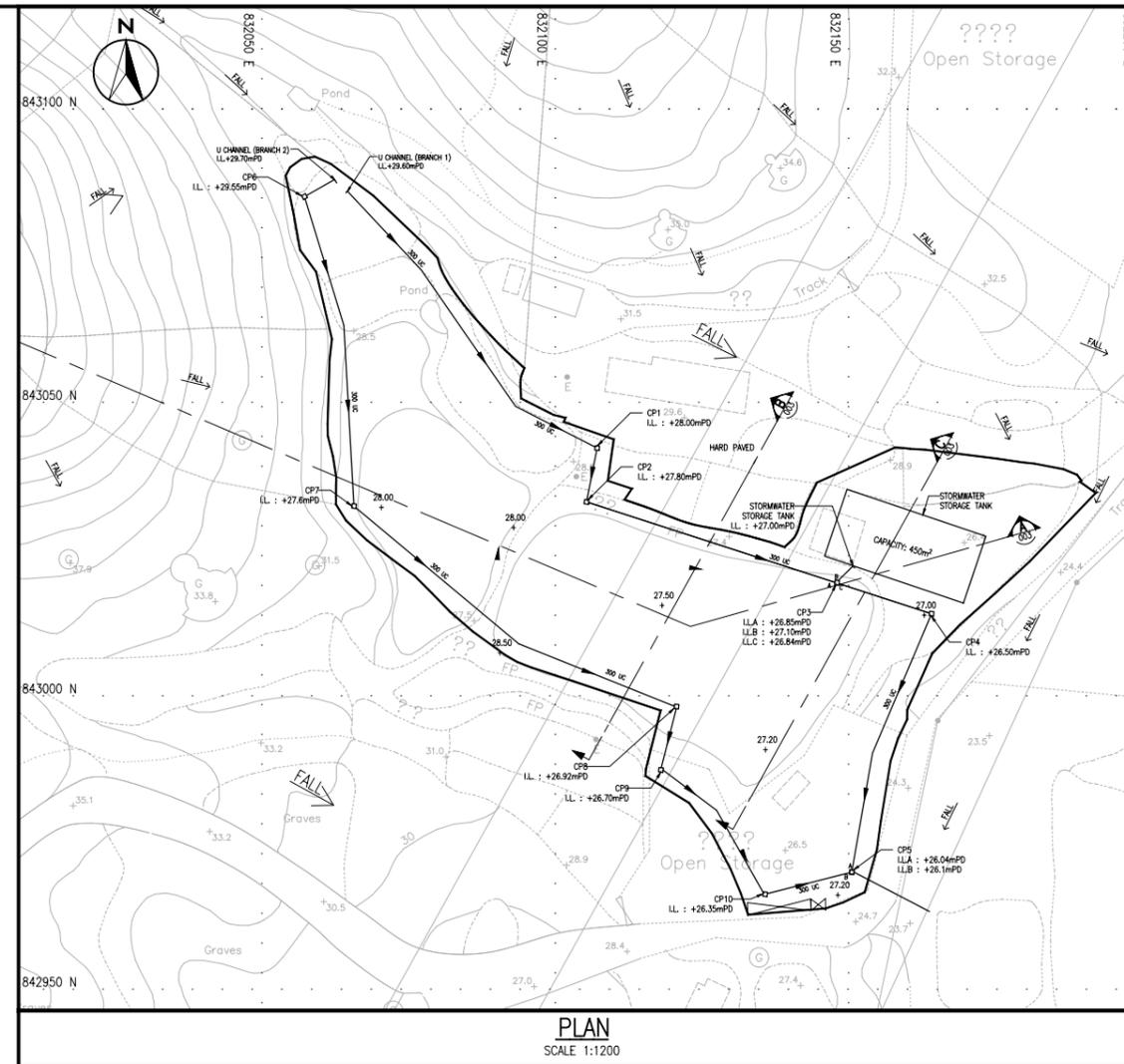
**SECTION B-B**  
SCALE 1:100



**CAST IRON GRATING FOR U-CHANNELS**  
(REFERENCE: CEDD DWG. NO. C2412D)  
N.T.S.

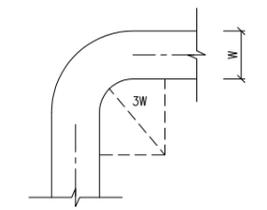


**U-CHANNEL COVER GRATING (FOR HEAVY DUTY)**  
N.T.S.

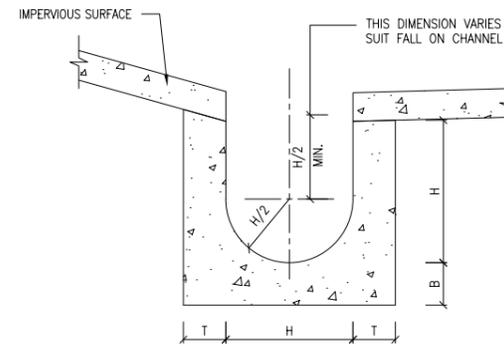


**PLAN**  
SCALE 1:1200

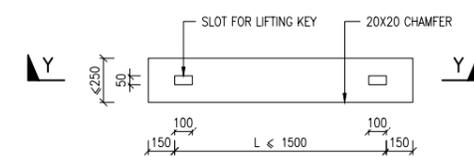
NOMINAL SIZE	THICKNESS T	THICKNESS B
225-600	175	225
675-1200	175	225



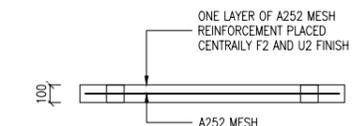
**CHANNEL CHANGING DIRECTION THROUGH BENDS**  
(REFERENCE: PAGE 100 GEOTECHNICAL MANUAL FOR SLOPES)  
N.T.S.



**DETAILS OF U-CHANNEL**  
(REFERENCE: FIG. 8.11 OF GEOTECHNICAL MANUAL FOR SLOPES)  
N.T.S.



**PLAN OF PRECAST CONCRETE COVERS**  
(REFERENCE: CEDD DWG. NO. C2407B)  
N.T.S.



**SECTION Y-Y PRECAST CONCRETE COVERS FOR SAND TRAP AND CATCHPIT**  
(REFERENCE: CEDD DWG. NO. C2407B)  
N.T.S.

B.D. REF. \_\_\_\_\_  
F.S.D. REF. \_\_\_\_\_

**LEGEND:**

- BOUNDARY OF LOTS FOR THIS APPLICATION
- ← FLOW DIRECTION
- CP CATCH PIT

REV. DATE DESCRIPTION DRAWN CHECKED APPROVED

ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING. ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.

SIGNATURE FOR SUBMISSION/ CONSTRUCTION \_\_\_\_\_

PROJECT NO: 24277

DRAWN BY: JC 10/24

DESIGNED BY: SL 10/24

CHECKED BY: RM 10/24

APPROVED BY: VT 10/24

SCALE: AS SHOWN (A3)

CAD FILE: WNG\_24227\_C\_DRA\_001a

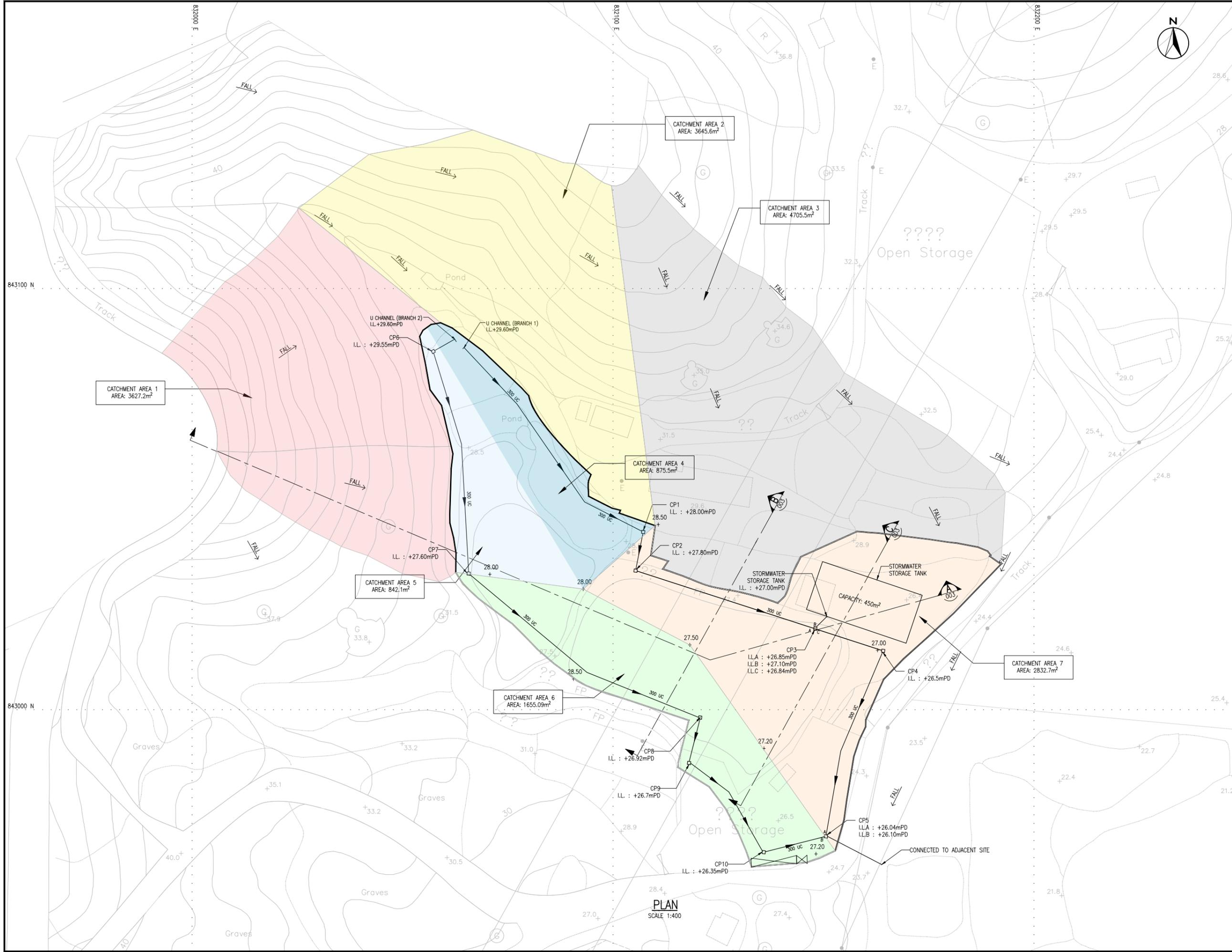
PROJECT: DRAINAGE CONSULTANCY SERVICES FOR S16 PLANNING APPLICATION AT LOT NOS. 342 RP (PART) AND 343 RP IN D.D. 87, NORTH NEW TERRITORIES, HONG KONG

DRAWING TITLE: GENERAL NOTES AND LAYOUT PLAN

DRAWING NO: WNG/24227/C/DRA/001

REV: A





B.D. REF.	
F.S.D. REF.	
<b>LEGEND:</b>	
	BOUNDARY OF LOTS FOR THIS APPLICATION
	PROPOSED VEHICULAR ACCESS

REV	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED

ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING  
 ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.

SIGNATURE FOR SUBMISSION/ CONSTRUCTION

PROJECT NO:	24277
DRAWN BY:	JC 10/24
DESIGNED BY:	JC 10/24
CHECKED BY:	RM 10/24
APPROVED BY:	VT 10/24
SCALE:	1:400 (A1)
CAD FILE:	WNG_24227_C_DRA_002a

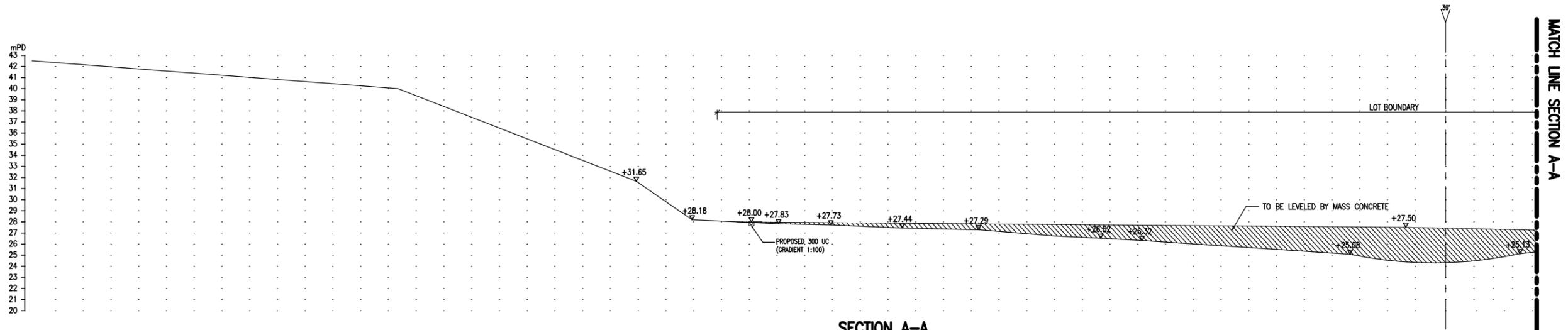
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 DRAINAGE CONSULTANCY SERVICES FOR  
 S16 PLANNING APPLICATION AT LOT  
 NOS. 342 RP (PART) AND 343 RP IN  
 D.D. 87, NORTH NEW TERRITORIES,  
 HONG KONG

DRAWING TITLE:  
 PROPOSED EFFECTIVE CATCHMENT  
 AREA FOR SURFACE RUNOFF  
 AFFECTING SUBJECT LOTS

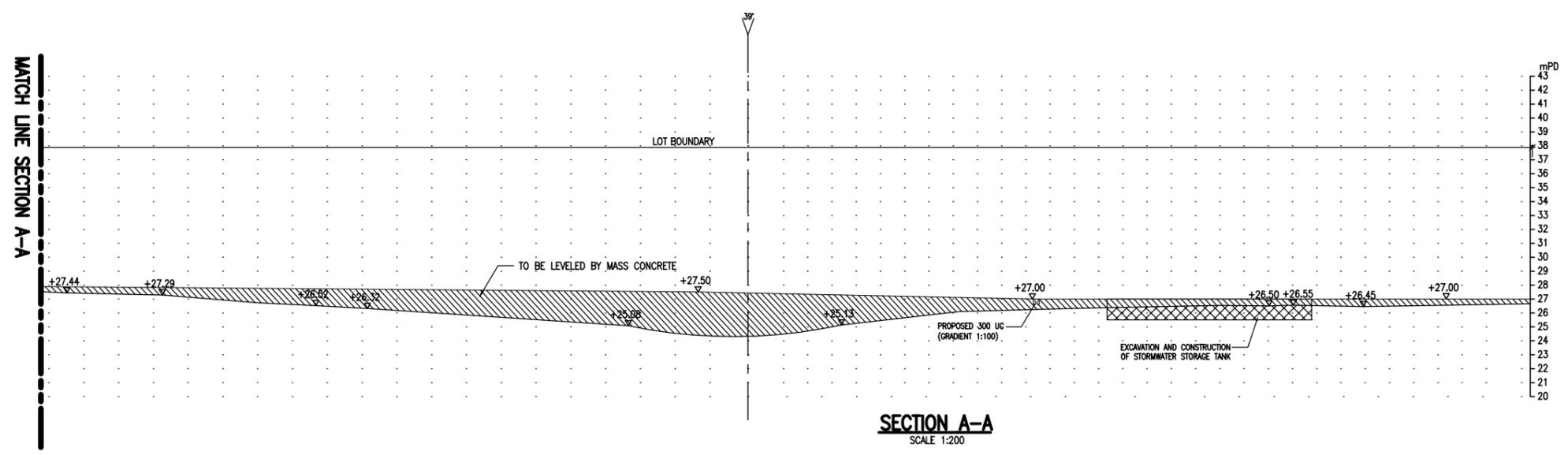
DRAWING NO:	WNG/24277/C/DRA/002	REV:	A
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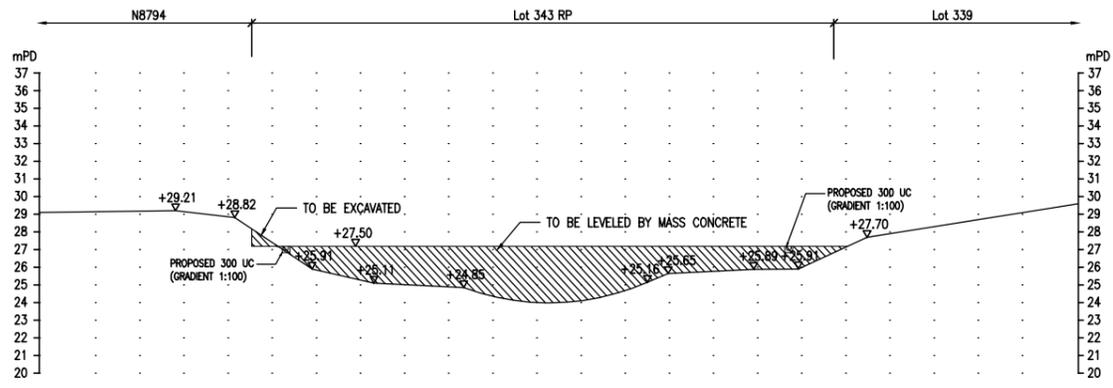
ISO A1 594mm x 841mm



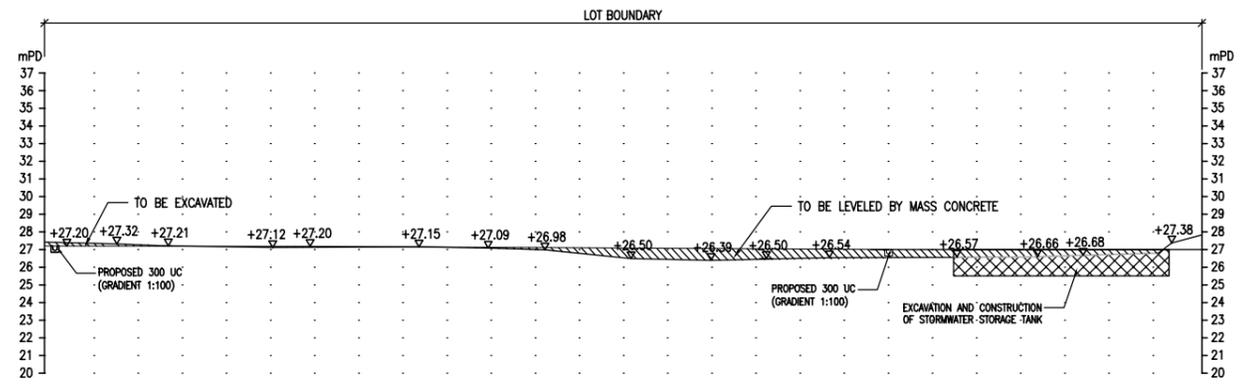
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SCALE 1:200



**SECTION A-A**  
SCALE 1:200



**SECTION B-B**  
SCALE 1:200



**SECTION C-C**  
SCALE 1:200

B.D. REF.					
F.S.D. REF.					
REV	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
<p>ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING.          ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF          ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE          COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION          PURPOSES UNLESS EXPRESSLY CERTIFIED.</p>					
SIGNATURE FOR SUBMISSION/ CONSTRUCTION					

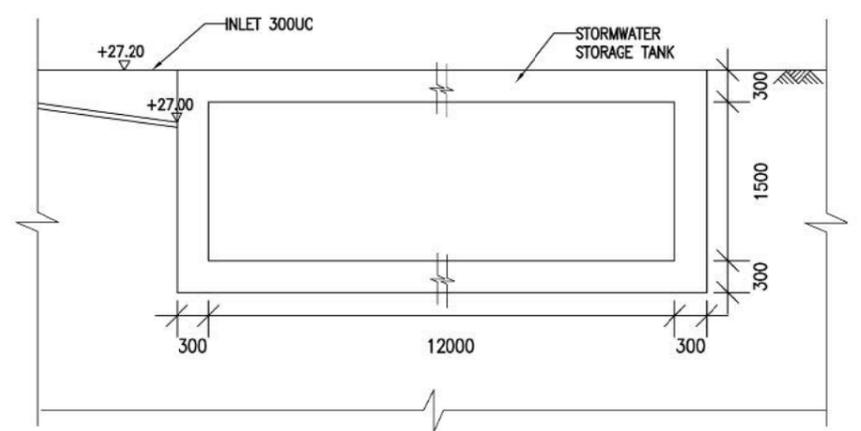
PROJECT NO:	24277				
DRAWN BY:	JC				10/24
DESIGNED BY:	SL				10/24
CHECKED BY:	RM				10/24
APPROVED BY:	VT				10/24
SCALE:	1 : 200 (A1)				
CAD FILE:	WNG_24227_C_DRA_003				

PROJECT:  
**DRAINAGE CONSULTANCY SERVICES FOR  
 S16 PLANNING APPLICATION AT LOT  
 NOS. 342 RP (PART) AND 343 RP IN  
 D.D. 87, NORTH NEW TERRITORIES,  
 HONG KONG**

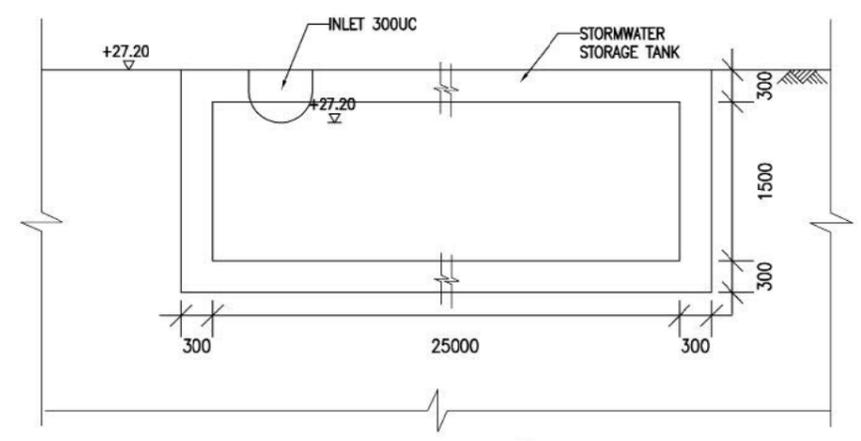
DRAWING TITLE:  
**DRAINAGE SECTIONS**

DRAWING NO:	WNG/24227/C/DRA/003	REV:	-
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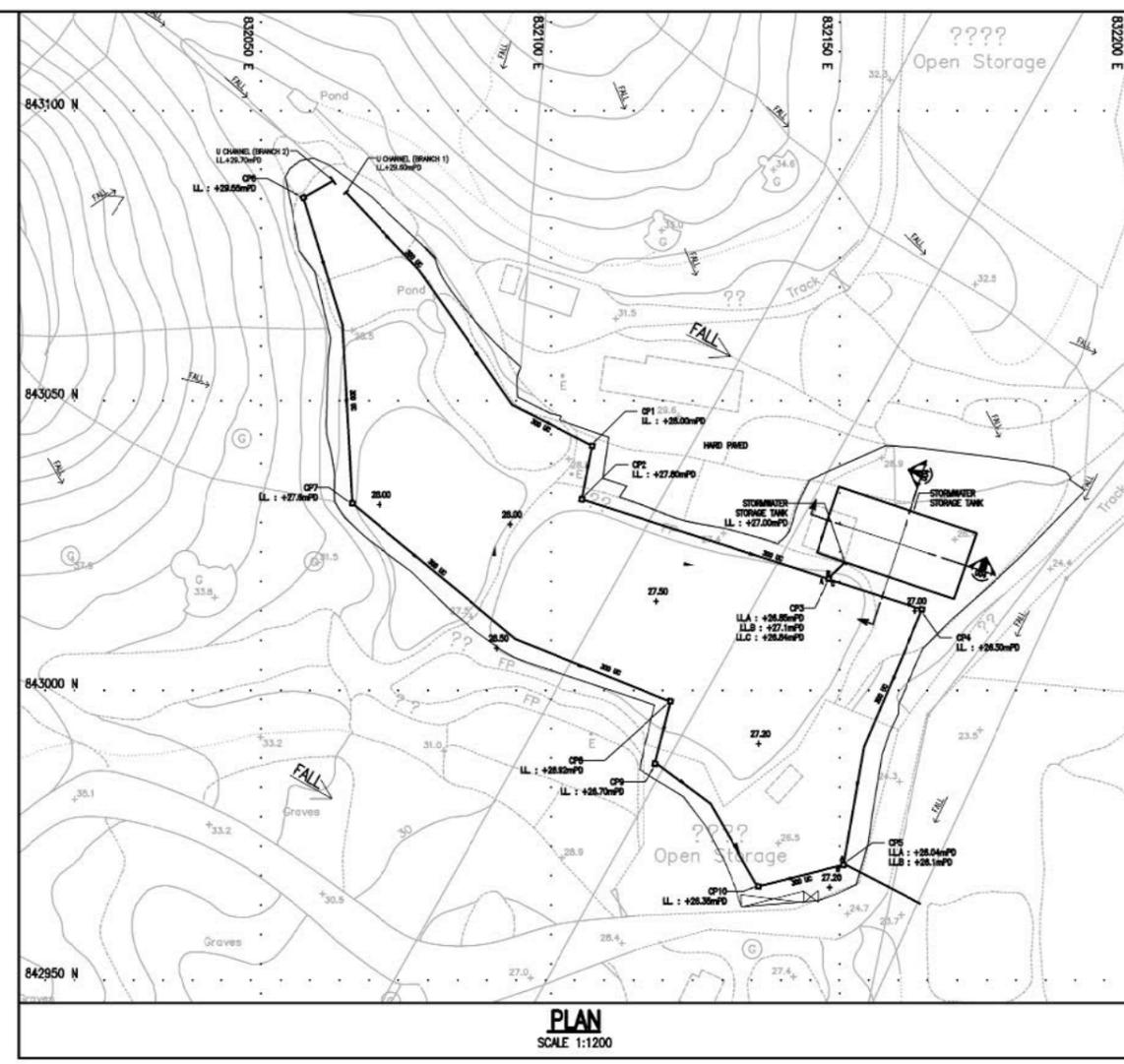




**SECTION A**  
SCALE N.T.S.  
004



**SECTION B**  
SCALE N.T.S.  
004



**PLAN**  
SCALE 1:1200

B.D. REF.	
F.S.D. REF.	

**LEGEND:**  
→ FLOW DIRECTION

REV	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.					

SIGNATURE FOR SUBMISSION/ CONSTRUCTION

PROJECT NO:	24277		
DRAWN BY:	QYD		04/24
DESIGNED BY:	HT		04/24
CHECKED BY:	MC		04/24
APPROVED BY:	VT		04/24
SCALE:	AS SHOWN (A3)		
CAD FILE:	WNG_24227_C_DRA_001a		

PROJECT:  
DRAINAGE CONSULTANCY SERVICES FOR S16 PLANNING APPLICATION AT LOT NOS. 342 RP (PART) AND 343 RP IN D.D. 87, NORTH NEW TERRITORIES, HONG KONG

DRAWING TITLE:  
SECTIONS OF STORMWATER DRAINAGE TANK

DRAWING NO:	WNG/24227/C/DRA/004	REV:	-
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## **APPENDIX E**

### **InfoWorks Checking for Downstream**

proposed development with mitigation\_node result  
Original

Node results before lot 342's  
development

