Form No. S16-I
表格第 S16-I 號

APPLICATION FOR PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131)

根據《城市規劃條例》(第131章)第16條遞交的許可申請

Applicable to proposals not involving or not only involving:
適用於建議不涉及或不祇涉及:

(i) Construction of "New Territories Exempted House(s)";
興建「新界豁免管制屋宇」;

(ii) Temporary use/development of land and/or building not exceeding 3 years in rural areas or Regulated Areas; and
位於鄉郊地區或受規管地區土地上及/或建築物內進行為期不超過三年的臨時用途/發展;及

(iii) Renewal of permission for temporary use or development in rural areas or Regulated Areas
位於鄉郊地區或受規管地區的臨時用途或發展的許可續期

Applicant who would like to publish the notice of application in local newspapers to meet one of the Town Planning Board's requirements of taking reasonable steps to obtain consent of or give notification to the current land owner, please refer to the following link regarding publishing the notice in the designated newspapers:
https://www.tpb.gov.hk/en/plan_application/apply.html

申請人如欲在本地報章刊登申請通知,以採取城市規劃委員會就取得現行土地擁有人的同意或通知現行土地擁有人所指定的其中一項合理步驟,請瀏覽以下網址有關在指定的報章刊登通知:
https://www.tpb.gov.hk/tc/plan_application/apply.html

General Note and Annotation for the Form
填寫表格的一般指引及註解

\# "Current land owner" means any person whose name is registered in the Land Registry as that of an owner of the land to which the application relates, as at 6 weeks before the application is made
「現行土地擁有人」指在提出申請前六星期,其姓名或名稱已在土地註冊處註冊為該申請所關乎的土地的擁有人的人

& Please attach documentary proof 請夾附證明文件

^ Please insert number where appropriate 請在適當地方註明編號

Please fill "NA" for inapplicable item 請在不適用的項目填寫「不適用」

Please use separate sheets if the space provided is insufficient 如所提供的空間不足,請另頁說明

Please insert a「✔」at the appropriate box 請在適當的方格內上加上「✔」號

2403067 20/12 By hand

For Official Use Only 請勿填寫此欄	Application No. 申請編號	A/ST/1036
	Date Received 收到日期	- 9 JAN 2025

1. The completed form and supporting documents (if any) should be sent to the Secretary, Town Planning Board (the Board), 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong.
申請人須把填妥的申請表格及其他支持申請的文件 (倘有)，送交香港北角渣華道 333 號北角政府合署 15 樓城市規劃委員會(下稱「委員會」)秘書收。

2. Please read the "Guidance Notes" carefully before you fill in this form. The document can be downloaded from the Board's website at http://www.tpb.gov.hk/. It can also be obtained from the Secretariat of the Board at 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong (Tel: 2231 4810 or 2231 4835), and the Planning Enquiry Counters of the Planning Department (Hotline: 2231 5000) (17/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong and 14/F, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin, New Territories).
請先細閱《申請須知》的資料單張，然後填寫此表格。該份文件可從委員會的網頁下載 (網址：http://www.tpb.gov.hk/)，亦可向委員會秘書處 (香港北角渣華道 333 號北角政府合署 15 樓 – 電話：2231 4810 或 2231 4835)及規劃署的規劃資料查詢處(熱線：2231 5000) (香港北角渣華道 333 號北角政府合署 17 樓及新界沙田上禾輋路 1 號沙田政府合署 14 樓)索取。

3. This form can be downloaded from the Board's website, and obtained from the Secretariat of the Board and the Planning Enquiry Counters of the Planning Department. The form should be typed or completed in block letters. The processing of the application may be refused if the required information or the required copies are incomplete.
此表格可從委員會的網頁下載，亦可向委員會秘書處及規劃署的規劃資料查詢處索取。申請人須以打印方式或以正楷填寫表格。如果申請人所提交的資料或文件副本不齊全，委員會可拒絕處理有關申請。

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1. Name of Applicant 申請人姓名/名稱

(☐ Mr. 先生 / ☐ Mrs. 夫人 / ☐ Miss 小姐 / ☐ Ms. 女士 / ☑ Company 公司 / ☐ Organisation 機構)

Royal Billion Investment Limited

2. Name of Authorised Agent (if applicable) 獲授權代理人姓名/名稱（如適用）

(☐ Mr. 先生 / ☐ Mrs. 夫人 / ☐ Miss 小姐 / ☐ Ms. 女士 / ☑ Company 公司 / ☐ Organisation 機構)

Llewelyn-Davies Hong Kong Ltd

3. Application Site 申請地點

(a) Full address / location / demarcation district and lot number (if applicable) 詳細地址／地點／丈量約份及地段號碼（如適用）	Government Land in D.D.186, Tung Lo Wan Hill Road, Sha Tin
(b) Site area and/or gross floor area involved 涉及的地盤面積及／或總樓面面積	☑ Site area 地盤面積 237 sq.m 平方米 ☑ About 約 ☑ Gross floor area 總樓面面積 100 sq.m 平方米 ☑ About 約
(c) Area of Government land included (if any) 所包括的政府土地面積（倘有）	237 sq.m 平方米 ☑ About 約

(d)	Name and number of the related statutory plan(s) 有關法定圖則的名稱及編號	Approved Sha Tin Outline Zoning Plan No. S/ST/38
(e)	Land use zone(s) involved 涉及的土地用途地帶	"Government, Institution or Community"
(f)	Current use(s) 現時用途	The Application Site is an existing slope (If there are any Government, institution or community facilities, please illustrate on plan and specify the use and gross floor area) (如有任何政府、機構或社區設施，請在圖則上顯示，並註明用途及總樓面面積)

4. "Current Land Owner" of Application Site 申請地點的「現行土地擁有人」

The applicant 申請人 –

☐ is the sole "current land owner"#& (please proceed to Part 6 and attach documentary proof of ownership).
是唯一的「現行土地擁有人」#& (請繼續填寫第 6 部分，並夾附業權證明文件)。

☐ is one of the "current land owners"#& (please attach documentary proof of ownership).
是其中一名「現行土地擁有人」#& (請夾附業權證明文件)。

☐ is not a "current land owner"#.
並不是「現行土地擁有人」#。

☑ The application site is entirely on Government land (please proceed to Part 6).
申請地點完全位於政府土地上（請繼續填寫第 6 部分）。

5. Statement on Owner's Consent/Notification
就土地擁有人的同意/通知土地擁有人的陳述

(a) According to the record(s) of the Land Registry as at ..... (DD/MM/YYYY), this application involves a total of ..... "current land owner(s)"#.
根據土地註冊處截至 ..... 年 ..... 月 ..... 日的記錄，這宗申請共牽涉 ..... 名「現行土地擁有人」#。

(b) The applicant 申請人 –

☐ has obtained consent(s) of ..... "current land owner(s)"#.
已取得 ..... 名「現行土地擁有人」#的同意。

Details of consent of "current land owner(s)"# obtained 取得「現行土地擁有人」#同意的詳情		
No. of 'Current Land Owner(s)' 「現行土地擁有人」數目	Lot number/address of premises as shown in the record of the Land Registry where consent(s) has/have been obtained 根據土地註冊處記錄已獲得同意的地段號碼／處所地址	Date of consent obtained (DD/MM/YYYY) 取得同意的日期 (日/月/年)

(Please use separate sheets if the space of any box above is insufficient. 如上列任何方格的空間不足，請另頁說明)

☐ has notified ..... "current land owner(s)"[#]
已通知 ..... 名「現行土地擁有人」[#]。

Details of the "current land owner(s)"[#] notified 已獲通知「現行土地擁有人」[#]的詳細資料		
No. of 'Current Land Owner(s)' 「現行土地擁有人」數目	Lot number/address of premises as shown in the record of the Land Registry where notification(s) has/have been given 根據土地註冊處記錄已發出通知的地段號碼／處所地址	Date of notification given (DD/MM/YYYY) 通知日期(日/月/年)

(Please use separate sheets if the space of any box above is insufficient. 如上列任何方格的空間不足，請另頁說明)

☐ has taken reasonable steps to obtain consent of or give notification to owner(s):
已採取合理步驟以取得土地擁有人的同意或向該人發給通知。詳情如下：

Reasonable Steps to Obtain Consent of Owner(s) 取得土地擁有人的同意所採取的合理步驟

☐ sent request for consent to the "current land owner(s)" on _____ (DD/MM/YYYY)[#&]
於_____(日/月/年)向每一名「現行土地擁有人」[#]郵遞要求同意書[&]

Reasonable Steps to Give Notification to Owner(s) 向土地擁有人發出通知所採取的合理步驟

☐ published notices in local newspapers on _____ (DD/MM/YYYY)[&]
於_____(日/月/年)在指定報章就申請刊登一次通知[&]

☐ posted notice in a prominent position on or near application site/premises on _____ (DD/MM/YYYY)[&]
於_____(日/月/年)在申請地點／申請處所或附近的顯明位置貼出關於該申請的通知[&]

☐ sent notice to relevant owners' corporation(s)/owners' committee(s)/mutual aid committee(s)/management office(s) or rural committee on _____ (DD/MM/YYYY)[&]
於_____(日/月/年)把通知寄往相關的業主立案法團/業主委員會/互助委員會或管理處，或有關的鄉事委員會[&]

Others 其他

☐ others (please specify)
其他（請指明）

_____

_____

_____

_____

Note: May insert more than one「✔」.
Information should be provided on the basis of each and every lot (if applicable) and premises (if any) in respect of the application.
註: 可在多於一個方格內加上「✔」號
申請人須就申請涉及的每一地段（倘適用）及處所（倘有）分別提供資料

6. Type(s) of Application 申請類別

☐ Type (i) 第(i)類 Change of use within existing building or part thereof 更改現有建築物或其部分內的用途

☐ Type (ii) 第(ii)類 Diversion of stream / excavation of land / filling of land / filling of pond as required under Notes of Statutory Plan(s) 根據法定圖則《註釋》內所要求的河道改道／挖土／填土／填塘工程

☑ Type (iii) 第(iii)類 Public utility installation / Utility installation for private project 公用事業設施裝置/私人發展計劃的公用設施裝置

☐ Type (iv) 第(iv)類 Minor relaxation of stated development restriction(s) as provided under Notes of Statutory Plan(s) 略為放寬於法定圖則《註釋》內列明的發展限制

☐ Type (v) 第(v)類 Use / development other than (i) to (iii) above 上述的(i)至(iii)項以外的用途／發展

Note 1: May insert more than one「✓」.
註 1： 可在多於一個方格內加上「✓」號
Note 2: For Development involving columbarium use, please complete the table in the Appendix.
註 2： 如發展涉及靈灰安置所用途，請填妥於附件的表格。

(i) For Type (i) application 供第(i)類申請

(a) Total floor area involved 涉及的總樓面面積	sq.m 平方米		
(b) Proposed use(s)/development 擬議用途/發展	(If there are any Government, institution or community facilities, please illustrate on plan and specify the use and gross floor area) (如有任何政府、機構或社區設施，請在圖則上顯示，並註明用途及總樓面面積)		
(c) Number of storeys involved 涉及層數		Number of units involved 涉及單位數目	
(d) Proposed floor area 擬議樓面面積	Domestic part 住用部分 ..... sq.m 平方米 ☐About 約		
	Non-domestic part 非住用部分..... sq.m 平方米 ☐About 約		
	Total 總計 ..... sq.m 平方米 ☐About 約		

(e) Proposed uses of different floors (if applicable) 不同樓層的擬議用途(如適用)
(Please use separate sheets if the space provided is insufficient)
(如所提供的空間不足，請另頁說明)

Floor(s) 樓層	Current use(s) 現時用途	Proposed use(s) 擬議用途

(ii) For Type (ii) application 供第(ii)類申請	
(a) Operation involved 涉及工程	☐ Diversion of stream 河道改道 ☐ Filling of pond 填塘 Area of filling 填塘面積 ..... sq.m 平方米 ☐About 約 Depth of filling 填塘深度 ..... m 米 ☐About 約 ☐ Filling of land 填土 Area of filling 填土面積 ..... sq.m 平方米 ☐About 約 Depth of filling 填土厚度 ..... m 米 ☐About 約 ☐ Excavation of land 挖土 Area of excavation 挖土面積 ..... sq.m 平方米 ☐About 約 Depth of excavation 挖土深度 ..... m 米 ☐About 約 (Please indicate on site plan the boundary of concerned land/pond(s), and particulars of stream diversion, the extent of filling of land/pond(s) and/or excavation of land) (請用圖則顯示有關土地／池塘界線，以及河道改道、填塘、填土及／或挖土的細節及/或範圍))
(b) Intended use/development 有意進行的用途／發展	

(iii) For Type (iii) application 供第(iii)類申請	
(a) Nature and scale 性質及規模	☐ Public utility installation 公用事業設施裝置 ☑ Utility installation for private project 私人發展計劃的公用設施裝置 Please specify the type and number of utility to be provided as well as the dimensions of each building/structure, where appropriate 請註明有關裝置的性質及數量，包括每座建築物/構築物(倘有)的長度、高度和闊度

Name/type of installation 裝置名稱／種類	Number of provision 數量	Dimension of each installation /building/structure (m) (LxWxH) 每個裝置／建築物／構築物的尺寸 (米) (長 x 闊 x 高)
Pump Station for Salt and Fresh Water Svstem	1	12.5m x 8m x 4.2m (about)

(Please illustrate on plan the layout of the installation 請用圖則顯示裝置的布局)

(iv) For Type (iv) application 供第(iv)類申請

(a) Please specify the proposed minor relaxation of stated development restriction(s) and **also fill in the proposed use/development and development particulars in part (v) below** –
請列明擬議略為放寬的發展限制**並填妥於第(v)部分的擬議用途/發展及發展細節** –

☐	Plot ratio restriction 地積比率限制	From 由 ..... to 至 ..... [1]
☐	Gross floor area restriction 總樓面面積限制	From 由 .....sq. m 平方米 to 至 .....sq. m 平方米
☐	Site coverage restriction 上蓋面積限制	From 由 .....% to 至 ..... %
☐	Building height restriction 建築物高度限制	From 由 .....m 米 to 至 ..... m 米 From 由 ..... mPD 米 (主水平基準上) to 至 .....mPD 米 (主水平基準上) From 由 ..... storeys 層 to 至 ..... storeys 層
☐	Non-building area restriction 非建築用地限制	From 由 .....m to 至 ..... m
☐	Others (please specify) 其他（請註明）	.....

(v) For Type (v) application 供第(v)類申請

(a) Proposed use(s)/development 擬議用途/發展	(Please illustrate the details of the proposal on a layout plan 請用平面圖說明建議詳情)

(b) Development Schedule 發展細節表

Proposed gross floor area (GFA) 擬議總樓面面積 (1)	..... sq.m 平方米	☐About 約
Proposed plot ratio 擬議地積比率 (2)	.....	☐About 約
Proposed site coverage 擬議上蓋面積	.....	☐About 約
Proposed no. of blocks 擬議座數	.....	
Proposed no. of storeys of each block 每座建築物的擬議層數	..... storeys 層 ☐ include 包括_____storeys of basements 層地庫 ☐ exclude 不包括_____storeys of basements 層地庫	
Proposed building height of each block 每座建築物的擬議高度	..... mPD 米(主水平基準上) ..... m 米	☐About 約 ☐About 約

☐ Domestic part 住用部分

GFA 總樓面面積 ..... sq. m 平方米 ☐About 約

number of Units 單位數目 .....

average unit size 單位平均面積 .....sq. m 平方米 ☐About 約

estimated number of residents 估計住客數目 .....

☐ Non-domestic part 非住用部分

GFA 總樓面面積

☐ eating place 食肆 ..... sq. m 平方米 ☐About 約

☐ hotel 酒店 ..... sq. m 平方米 ☐About 約

(please specify the number of rooms 請註明房間數目) .....

☐ office 辦公室 ..... sq. m 平方米 ☐About 約

☐ shop and services 商店及服務行業 ..... sq. m 平方米 ☐About 約

☐ Government, institution or community facilities (2) 政府、機構或社區設施

(please specify the use(s) and concerned land area(s)/GFA(s) 請註明用途及有關的地面面積／總樓面面積)

.....

.....

.....

(2) GFA of not less than 760sqm for the social welfare facility shall be provided in accordance with the OZP stipulation. According to Notes of OZP, GFA dedicated for 60-place DE, as required by SWD, shall be disregarded from PR and GFA calculation.

☐ other(s) 其他

(please specify the use(s) and concerned land area(s)/GFA(s) 請註明用途及有關的地面面積／總樓面面積)

.....

.....

.....

☐ Open space 休憩用地

(please specify land area(s) 請註明地面面積)

☐ private open space 私人休憩用地 ..... sq. m 平方米 ☐ Not less than 不少於

☐ public open space 公眾休憩用地 ..... sq. m 平方米 ☐ Not less than 不少於

(c) Use(s) of different floors (if applicable) 各樓層的用途 (如適用)

[Block number] [座數]	[Floor(s)] [層數]	[Proposed use(s)] [擬議用途]
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

(d) Proposed use(s) of uncovered area (if any) 露天地方（倘有）的擬議用途

.....

.....

.....

.....

.....

7. Anticipated Completion Time of the Development Proposal 擬議發展計劃的預計完成時間

Anticipated completion time (in month and year) of the development proposal (by phase (if any)) (e.g. June 2023)
擬議發展計劃預期完成的年份及月份 (分期 (倘有)) (例：2023 年 6 月)
(Separate anticipated completion times (in month and year) should be provided for the proposed public open space and Government, institution or community facilities (if any))
(申請人須就擬議的公眾休憩用地及政府、機構或社區設施 (倘有) 提供個別擬議完成的年份及月份)

Year 2033

8. Vehicular Access Arrangement of the Development Proposal 擬議發展計劃的行車通道安排

Any vehicular access to the site/subject building? 是否有車路通往地盤／有關建築物？	Yes 是	☑ There is an existing access. (please indicate the street name, where appropriate) 有一條現有車路。(請註明車路名稱(如適用)) Tung Lo Wan Hill Road ☐ There is a proposed access. (please illustrate on plan and specify the width) 有一條擬議車路。（請在圖則顯示，並註明車路的闊度）
	No 否	☐
Any provision of parking space for the proposed use(s)? 是否有為擬議用途提供停車位？	Yes 是	☐ (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示) Private Car Parking Spaces 私家車車位(1) _____ Motorcycle Parking Spaces 電單車車位 _____ Light Goods Vehicle Parking Spaces 輕型貨車泊車位 _____ Medium Goods Vehicle Parking Spaces 中型貨車泊車位 _____ Heavy Goods Vehicle Parking Spaces 重型貨車泊車位 _____ Others (Please Specify) 其他 (請列明)(2) _____ _____ _____ _____ _____
	No 否	☑
Any provision of loading/unloading space for the proposed use(s)? 是否有為擬議用途提供上落客貨車位？	Yes 是	☐ (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示) Taxi Spaces 的士車位 _____ Coach Spaces 旅遊巴車位 _____ Light Goods Vehicle Spaces 輕型貨車車位 _____ Medium Goods Vehicle Spaces 中型貨車車位 _____ Heavy Goods Vehicle Spaces 重型貨車車位 _____ Others (Please Specify) 其他 (請列明) _____ _____ (3) _____ _____ _____
	No 否	☑

9. Impacts of Development Proposal 擬議發展計劃的影響

If necessary, please use separate sheets to indicate the proposed measures to minimise possible adverse impacts or give justifications/reasons for not providing such measures.
如需要的話，請另頁註明可盡量減少可能出現不良影響的措施，否則請提供理據/理由。

Does the development proposal involve alteration of existing building? 擬議發展計劃是否包括現有建築物的改動?	Yes 是	☐ Please provide details 請提供詳情 ....
	No 否	☑
Does the development proposal involve the operation on the right? 擬議發展是否涉及右列的工程? (Note: where Type (ii) application is the subject of application, please skip this section. 註：如申請涉及第(ii)類申請，請跳至下一條問題。)	Yes 是	☐ (Please indicate on site plan the boundary of concerned land/pond(s), and particulars of stream diversion, the extent of filling of land/pond(s) and/or excavation of land) (請用地盤平面圖顯示有關土地／池塘界線，以及河道改道、填塘、填土及／或挖土的細節及/或範圍) ☐ Diversion of stream 河道改道 ☐ Filling of pond 填塘 Area of filling 填塘面積 ..... sq.m 平方米 ☐About 約 Depth of filling 填塘深度 ..... m 米 ☐About 約 ☐ Filling of land 填土 Area of filling 填土面積 ..... sq.m 平方米 ☐About 約 Depth of filling 填土厚度 ..... m 米 ☐About 約 ☐ Excavation of land 挖土 Area of excavation 挖土面積..... sq.m 平方米 ☐About 約 Depth of excavation 挖土深度 .....m 米 ☐About 約
	No 否	☑ (involving site formation only)
Would the development proposal cause any adverse impacts? 擬議發展計劃會否造成不良影響？	On environment 對環境	Yes 會 ☐ No 不會 ☑
	On traffic 對交通	Yes 會 ☐ No 不會 ☑
	On water supply 對供水	Yes 會 ☐ No 不會 ☑
	On drainage 對排水	Yes 會 ☐ No 不會 ☑
	On slopes 對斜坡	Yes 會 ☐ No 不會 ☑
	Affected by slopes 受斜坡影響	Yes 會 ☐ No 不會 ☑
	Landscape Impact 構成景觀影響	Yes 會 ☐ No 不會 ☑
	Tree Felling 砍伐樹木	Yes 會 ☐ No 不會 ☑
	Visual Impact 構成視覺影響	Yes 會 ☐ No 不會 ☑
	Others (Please Specify) 其他 (請列明)	Yes 會 ☐ No 不會 ☑
	_____ _____	
	Please state measure(s) to minimise the impact(s). For tree felling, please state the number, diameter at breast height and species of the affected trees (if possible) 請註明盡量減少影響的措施。如涉及砍伐樹木，請說明受影響樹木的數目、及胸高度的樹幹直徑及品種(倘可) Please refer to Appendix B of the Planning Statement.	

10. Justifications 理由

The applicant is invited to provide justifications in support of the application. Use separate sheets if necessary.
現請申請人提供申請理由及支持其申請的資料。如有需要，請另頁說明。

Please refer to the Supporting Planning Statement.

11. Declaration 聲明

I hereby declare that the particulars given in this application are correct and true to the best of my knowledge and belief.
本人謹此聲明，本人就這宗申請提交的資料，據本人所知及所信，均屬真實無誤。

I hereby grant a permission to the Board to copy all the materials submitted in this application and/or to upload such materials to the Board's website for browsing and downloading by the public free-of-charge at the Board's discretion. 本人現准許委員會酌情將本人就此申請所提交的所有資料複製及/或上載至委員會網站，供公眾免費瀏覽或下載。

Signature 簽署 ..... ☐ Applicant 申請人 / ☑ Authorised Agent 獲授權代理人

Hui Chak Hung, Dickson ..... Director .....

Name in Block Letters 姓名（請以正楷填寫） Position (if applicable) 職位 （如適用）

Professional Qualification(s) 專業資格
☑ Member 會員 / ☐ Fellow of 資深會員
☑ HKIP 香港規劃師學會 / ☐ HKIA 香港建築師學會 /
☐ HKIS 香港測量師學會 / ☐ HKIE 香港工程師學會 /
☐ HKILA 香港園境師學會/ ☑ HKIUD 香港城市設計學會
☐ RPP 註冊專業規劃師
Others 其他 ..... MRTPI .....

on behalf of 代表 Llewelyn-Davies Hong Kong Ltd ..... Llewelyn-Davies Hong Kong Limited Authorized Signature .....

☑ Company 公司 / ☐ Organisation Name and Chop (if applicable) 機構名稱及蓋章（如適用）

Date 日期 19/12/2024 ..... (DD/MM/YYYY 日/月/年)

Remark 備註

The materials submitted in this application and the Board's decision on the application would be disclosed to the public. Such materials would also be uploaded to the Board's website for browsing and free downloading by the public where the Board considers appropriate.
委員會會向公眾披露申請人所遞交的申請資料和委員會對申請所作的決定。在委員會認為合適的情況下，有關申請資料亦會上載至委員會網頁供公眾免費瀏覽及下載。

Warning 警告

Any person who knowingly or wilfully makes any statement or furnish any information in connection with this application, which is false in any material particular, shall be liable to an offence under the Crimes Ordinance.
任何人在明知或故意的情況下，就這宗申請提出在任何要項上是虛假的陳述或資料，即屬違反《刑事罪行條例》。

Statement on Personal Data 個人資料的聲明

1. The personal data submitted to the Board in this application will be used by the Secretary of the Board and Government departments for the following purposes:
委員會就這宗申請所收到的個人資料會交給委員會秘書及政府部門，以根據《城市規劃條例》及相關的城市規劃委員會規劃指引的規定作以下用途：
   (a) the processing of this application which includes making available the name of the applicant for public inspection when making available this application for public inspection; and
   處理這宗申請，包括公布這宗申請供公眾查閱，同時公布申請人的姓名供公眾查閱；以及
   (b) facilitating communication between the applicant and the Secretary of the Board/Government departments.
   方便申請人與委員會秘書及政府部門之間進行聯絡。

2. The personal data provided by the applicant in this application may also be disclosed to other persons for the purposes mentioned in paragraph 1 above.
申請人就這宗申請提供的個人資料，或亦會向其他人士披露，以作上述第 1 段提及的用途。

3. An applicant has a right of access and correction with respect to his/her personal data as provided under the Personal Data (Privacy) Ordinance (Cap. 486). Request for personal data access and correction should be addressed to the Secretary of the Board at 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong.
根據《個人資料(私隱)條例》(第 486 章)的規定，申請人有權查閱及更正其個人資料。如欲查閱及更正個人資料，應向委員會秘書提出有關要求，其地址為香港北角渣華道 333 號北角政府合署 15 樓。

For Developments involving Columbarium Use, please also complete the following:
如發展涉及靈灰安置所用途，請另外填妥以下資料:

Ash interment capacity 骨灰安放容量@

Maximum number of sets of ashes that may be interred in the niches
在龕位內最多可安放骨灰的數量 _____

Maximum number of sets of ashes that may be interred other than in niches
在非龕位的範圍內最多可安放骨灰的數量 _____

Total number of niches 龕位總數 _____

Total number of single niches
單人龕位總數 _____

Number of single niches (sold and occupied)
單人龕位數目 (已售並佔用) _____

Number of single niches (sold but unoccupied)
單人龕位數目 (已售但未佔用) _____

Number of single niches (residual for sale)
單人龕位數目 (待售) _____

Total number of double niches
雙人龕位總數 _____

Number of double niches (sold and fully occupied)
雙人龕位數目 (已售並全部佔用) _____

Number of double niches (sold and partially occupied)
雙人龕位數目 (已售並部分佔用) _____

Number of double niches (sold but unoccupied)
雙人龕位數目 (已售但未佔用) _____

Number of double niches (residual for sale)
雙人龕位數目 (待售) _____

Total no. of niches other than single or double niches (please specify type)
除單人及雙人龕位外的其他龕位總數 (請列明類別)

_____

Number. of niches (sold and fully occupied)
龕位數目 (已售並全部佔用) _____

Number of niches (sold and partially occupied)
龕位數目 (已售並部分佔用) _____

Number of niches (sold but unoccupied)
龕位數目 (已售但未佔用) _____

Number of niches (residual for sale)
龕位數目 (待售) _____

Proposed operating hours 擬議營運時間 _____

_____

@ Ash interment capacity in relation to a columbarium means –
就靈灰安置所而言，骨灰安放容量指：
- the maximum number of containers of ashes that may be interred in each niche in the columbarium;
每個龕位內可安放的骨灰容器的最高數目;
- the maximum number of sets of ashes that may be interred other than in niches in any area in the columbarium; and
在該靈灰安置所並非龕位的範圍內，總共最多可安放多少份骨灰；以及
- the total number of sets of ashes that may be interred in the columbarium.
在該骨灰安置所內，總共最多可安放多少份骨灰。

Gist of Application 申請摘要

(Please provide details in both English and Chinese as far as possible. This part will be circulated to relevant consultees, uploaded to the Town Planning Board's Website for browsing and free downloading by the public and available at the Planning Enquiry Counters of the Planning Department for general information.)
(請盡量以英文及中文填寫。此部分將會發送予相關諮詢人士、上載至城市規劃委員會網頁供公眾免費瀏覽及下載及於規劃署規劃資料查詢處供一般參閱。)

Application No. 申請編號	(For Official Use Only) (請勿填寫此欄)
Location/address 位置／地址	Government Land in D.D.186, Tung Lo Wan Hill Road, Sha Tin 沙田銅鑼灣山路丈量約份第 186 約的政府土地
Site area 地盤面積	237 sq. m 平方米 ☑ About 約 (includes Government land of 包括政府土地 237 sq. m 平方米 ☑ About 約)
Plan 圖則	Approved Sha Tin Outline Zoning Plan No. S/ST/38 沙田分區計劃大綱核准圖編號S/ST/38
Zoning 地帶	"Government, Institution or Community" 「政府、機構或社區」
Applied use/ development 申請用途/發展	Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) 私人發展計劃的公用設施裝置（海水及食水泵房）

			sq.m 平方米	Plot Ratio 地積比率
(i)	Gross floor area and/or plot ratio 總樓面面積及／或地積比率	Domestic 住用	☐ About 約 ☐ Not more than 不多於	☐About 約 ☐Not more than 不多於
		Non-domestic 非住用	100 ☑ About 約 ☐ Not more than 不多於	0.422 ☑About 約 ☐Not more than 不多於
(ii)	No. of blocks 幢數	Domestic 住用		
		Non-domestic 非住用	1	
		Composite 綜合用途		

(iii)	Building height/No. of storeys 建築物高度／層數	Domestic 住用	m 米 ☐ (Not more than 不多於)
			mPD 米(主水平基準上) ☐ (Not more than 不多於)
			Storeys(s) 層 ☐ (Not more than 不多於) *(☐Include 包括/☐ Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
		Non-domestic 非住用	About 4.2 m 米 ☐ (Not more than 不多於)
			About 52.15 mPD 米(主水平基準上) ☐ (Not more than 不多於)
			1 Storeys(s) 層 ☐ (Not more than 不多於) *(☐Include 包括/☐ Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
		Composite 綜合用途	m 米 ☐ (Not more than 不多於)
			mPD 米(主水平基準上) ☐ (Not more than 不多於)
			Storeys(s) 層 ☐ (Not more than 不多於) *(☐Include 包括/☐ Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
(iv)	Site coverage 上蓋面積		42.2% ☑ About 約
(v)	No. of units 單位數目		
(vi)	Open space 休憩用地	Private 私人	sq.m 平方米 ☐ Not less than 不少於
		Public 公眾	sq.m 平方米 ☐ Not less than 不少於

(vii) No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle parking spaces 停車位總數 Private Car Parking Spaces 私家車車位 Motorcycle Parking Spaces 電單車車位 Light Goods Vehicle Parking Spaces 輕型貨車泊車位 Medium Goods Vehicle Parking Spaces 中型貨車泊車位 Heavy Goods Vehicle Parking Spaces 重型貨車泊車位 Others (Please Specify) 其他 (請列明) _____ _____	
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數 Taxi Spaces 的士車位 Coach Spaces 旅遊巴車位 Light Goods Vehicle Spaces 輕型貨車車位 Medium Goods Vehicle Spaces 中型貨車位 Heavy Goods Vehicle Spaces 重型貨車車位 Others (Please Specify) 其他 (請列明) _____ _____	

Submitted Plans, Drawings and Documents 提交的圖則、繪圖及文件

	Chinese 中文	English 英文
Plans and Drawings 圖則及繪圖		
Master layout plan(s)/Layout plan(s) 總綱發展藍圖／布局設計圖	☐	☑
Block plan(s) 樓宇位置圖	☐	☐
Floor plan(s) 樓宇平面圖	☐	☑
Sectional plan(s) 截視圖	☐	☑
Elevation(s) 立視圖	☐	☐
Photomontage(s) showing the proposed development 顯示擬議發展的合成照片	☐	☑
Master landscape plan(s)/Landscape plan(s) 園境設計總圖／園境設計圖	☐	☑
Others (please specify) 其他（請註明）	☐	☑
Location Plan		
Reports 報告書		
Planning Statement/Justifications 規劃綱領/理據	☐	☑
Environmental assessment (noise, air and/or water pollutions) 環境評估（噪音、空氣及／或水的污染）	☐	☐
Traffic impact assessment (on vehicles) 就車輛的交通影響評估	☐	☐
Traffic impact assessment (on pedestrians) 就行人的交通影響評估	☐	☐
Visual impact assessment 視覺影響評估	☐	☐
Landscape impact assessment 景觀影響評估	☐	☐
Tree Survey 樹木調查	☐	☐
Geotechnical impact assessment 土力影響評估	☐	☐
Drainage impact assessment 排水影響評估	☐	☐
Sewerage impact assessment 排污影響評估	☐	☐
Risk Assessment 風險評估	☐	☐
Others (please specify) 其他（請註明）	☐	☑
Pump Room Design Report, Tree Survey and Tree Preservation Proposal.		
Geotechnical Review Report		

Note: May insert more than one「✔」. 註：可在多於一個方格內加上「✔」號

Note: The information in the Gist of Application above is provided by the applicant for easy reference of the general public. Under no circumstances will the Town Planning Board accept any liabilities for the use of the information nor any inaccuracies or discrepancies of the information provided. In case of doubt, reference should always be made to the submission of the applicant.

註： 上述申請摘要的資料是由申請人提供以方便市民大眾參考。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

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December 2024

llewelyn davies

ARCHITECTS PLANNERS DESIGNERS
Llewelyn-Davies Hong Kong Ltd

in association with

AXXA GROUP LTD.
C M WONG & ASSOCIATES LTD.
MVA HONG KONG LIMITED
SAVILLS VALUATION AND PROFESSIONAL SERVICES LTD.

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

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EXECUTIVE SUMMARY

1. PURPOSE OF SUBMISSION

This planning application is submitted to seek permission from the Town Planning Board (the Board) in support of a proposed 'utility installation for private project (pump station for salt and fresh water system)' in "Government, Institution or Community" ("G/IC") zone on the Approved Sha Tin Outline Zoning Plan (OZP) No. S/ST/38 at Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (hereafter referred to as the 'Application Site') under Section 16 (S16) of the Town Planning Ordinance (CAP. 131).

A Section 12A (S12A) Application (No. Y/ST/58) to rezone Lot 380 RP (Part) in D.D. 186, Tung Lo Wan Hill Road, Sha Tin from "Green Belt" and "G/IC" zones to "Residential (Group B)3" for a proposed residential development was approved by the Board on 13.1.2023. The draft OZP incorporating the abovementioned amendment has been subsequently approved by the Chief Executive in Council on 28.5.2024.

Under the approved S12A Application, a Water Supply Impact Assessment (WSIA) was submitted to assess the potential water supply impact induced by the residential development. As the proposed residential development site has no existing fresh and salt water supply, the submitted WSIA indicated that an off-site sump and pump station and associated rising mains are required for the supply of fresh water and salt water to the residential development as a mitigation measure to the potential water supply impacts. A set of drawings was submitted along with the WSIA, depicting the location, pipe alignment, and the design of the proposed pump station and the associated rising mains which was agreed by relevant Government Departments along with the approved S12A Application.

According to the OZP, the proposed pump station (hereafter referred to as the 'Proposed Station') for salt and fresh water system in support of the approved residential development are regarded as 'utility installation for private project', which is a Column 2 use in the subject "G/IC" zone. As such, the Applicant submits herewith the subject S16 application to facilitate the implementation of the Proposed Station for the Board's approval.

2. THE PROPOSED PUMP STATION

The Application Site (about 237m^2) is situated on a man-made slope at To Fung Shan, northwest of the town centre of Sha Tin and it is accessible via Tung Lo Wan Hill Road. The Application Site is currently a piece of Government Land that falls within a portion of

the Government Land Allocation No. ST 336 allocated to Leisure and Cultural Services Department. Upon approval of the current planning application, the Applicant will negotiate with Lands Department to implement the Proposed Station.

The proposed single-storey pump station, with a building height of around 4.2m (main roof level about 52.15mPD), provides two twin water tank and two water pumps for fresh water and flush water, respectively, to serve the water demand of the approved residential development. The tentative completion year of the Proposed Station is 2030 and it will be constructed, operated and maintained by the Applicant.

3. KEY JUSTIFICATIONS

Major development justifications in support of the application are listed as follows:

- At present, there is no proper salt and fresh water supply provided to the approved residential development, As such, the Proposed Station is an essential infrastructure project to cater for the water demand of the approved residential development.

- The location of the Proposed Station is the most optimal location, which is similar to that as identified under the previous WSIA report for the approved residential development. Due consideration has been given to the site condition and surrounding context.

- The Proposed Station is only a small-scale utility installation instead of a large-scale development. Relevant planning criteria, which are applicable to this case, as stated in the Town Planning Board Guidelines No. 16 for Application for Development/Redevelopment within "Government, Institution or Community" Zone for Uses Other Than Government, Institution or Community Uses under Section 16 of the Town Planning Ordinance could be met.

- Various technical assessments have been conducted to demonstrate the proposed small-scale pump station would not cause any significant impacts in tree and landscape, visual, geotechnical, traffic, environmental and drainage aspect.

In light of the justifications presented in this Planning Statement, the Board is cordially invited to consider favourably this S16 application.

行政摘要

(聲明：此中文譯本僅供參考，如中文譯本和英文原文有歧異時，應以英文原文為準。)

1. 申請目的

申請人現根據《城市規劃條例》第16條(第131章)，向城市規劃委員會(下稱「城規會」)遞交規劃申請(下稱「本申請」)，在沙田銅鑼灣山路丈量約份第186約附近一塊政府土地(下稱「申請地點」)，於沙田分區計劃大綱核准圖(下稱「大綱圖」)編號S/ST/38，屬「政府、機構或社區」地帶的地盤上擬議作「私人發展計劃的公用設施裝置(海水及食水泵房)」(下稱「擬議泵房」)。

擬議泵房實為支持一宗第12A條改劃申請(編號Y/ST/58)，將沙田銅鑼灣山路丈量約份第186約地段第380號餘段(部分)由「綠化地帶」及「政府、機構或社區」改劃為「住宅(乙類)3」地帶，以進行擬議住宅發展。該改劃申請於二零二三年一月十三日獲城規會批准，而納入上述修訂的大綱圖其後已於二零二四年五月二十八日獲行政長官會同行政會議核准。

在已核准的改劃申請，申請人提交了一份供水影響評估，以評估擬議住宅發展在供水方面的潛在影響。由於該住宅發展的地盤沒有現有的食水和海水供應，提交的供水影響評估指出，需要提供場外泵房以及相關泵喉，以向住宅發展供應食水和海水，作緩解供水影響的措施。在供水影響評估中的圖則及繪圖描繪了擬議海水及食水泵房以及相關泵喉的位置、管道排列及設計，而該份供水影響評估中的圖則及繪圖連同改劃申請已獲得相關政府部門的同意。

為支持獲批的住宅發展而擬議的海水及食水泵房屬「私人發展計劃的公用設施裝置」用途，根據大綱圖，屬於「政府、機構或社區」地帶的第二欄用途。因此，申請人特此提交本申請，以落實擬議的海水及食水泵房，供城規會核准。

2. 擬議泵房

申請地點位於沙田市中心西北方道風山的一個人造斜坡上，可經銅鑼灣山道前往。申請用地現時是一塊政府土地，屬於分配給康樂及文化事務

署的政府撥地 GLA-ST 336 的一部分。規劃申請獲批後，申請人將與地政總署協商落實擬議泵房的安排。

擬建的單層泵房約 4.2 米高(主天台樓層為主水平基準上約 52.15 米)，設有兩組孖水缸和兩組水泵，分別用於供應食水和海水，以滿足獲批的住宅發展的用水需求。擬建泵房暫定竣工年份為 2030 年，泵房將由申請人負責興建、營運及維護。

3. 主要理據

支持申請的主要理據如下：

- 獲批的住宅項目目前尚未有海水及食水供應，因此，擬議泵房為獲批住宅項目提供用水需求必要的一項基礎設施。

- 擬議泵房的位置與獲批的住宅項目中的供水影響評估所確定的位置類似，也充分考慮了申請地點和周邊地區的環境。因此，現時擬議泵房的位置是最佳的位置。

- 擬議泵房為一項小型基礎設施而非大型發展項目，但仍符合有關「擬在「政府、機構或社區」地帶內發展/重建作「政府、機構或社區」用途以外的用途而按照城市規劃條例第 16 條提出的規劃申請」的城市規劃委員會規劃指引的主要規劃準則。

- 多項技術評估證明擬議泵房不會對樹木和景觀、視覺、岩土工程、交通、環境和排水方面造成任何重大影響。

基於以上理據，現懇請城規會接納是次規劃申請。

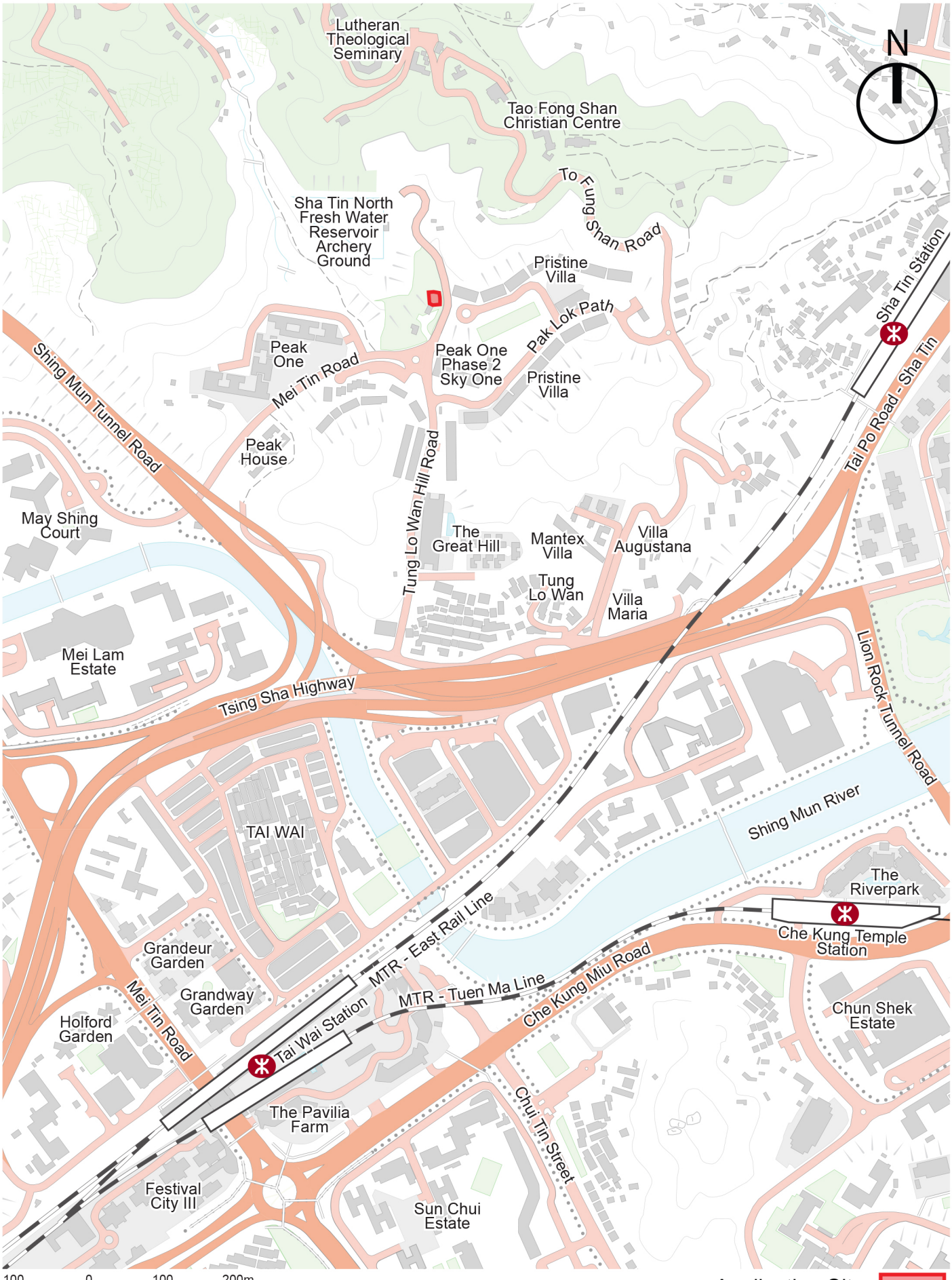
1 INTRODUCTION

1.1 Background

1.1.1 This planning application is submitted to seek permission from the Town Planning Board (the Board) in support of a proposed 'utility installation for private project (pump station for salt and fresh water system)' in "Government, Institution or Community" ("G/IC") zone on the Approved Sha Tin Outline Zoning Plan (the OZP) No. S/ST/38 at Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (hereafter referred to as the 'Application Site') under Section 16 (S16) of the Town Planning Ordinance (the Ordinance) (CAP. 131) (**Figures 1.1 and 1.2** refer).

1.1.2 A Section 12A (S12A) Application (No. Y/ST/58) to rezone Lot 380 RP (Part) in D.D. 186, Tung Lo Wan Hill Road, Sha Tin from "Green Belt" ("GB") and "G/IC" zones to "Residential (Group B)3" ("R(B)3") for a proposed residential development was approved by the Board on 13.1.2023. The draft OZP incorporating the abovementioned amendment has been subsequently approved by the Chief Executive in Council on 28.5.2024. Under the Notes of the Approved Sha Tin OZP S/ST/38, the subject "R(B)3" zone is subject to maximum plot ratio restriction of 2.5 and maximum building height restriction of 140mPD.

1.1.3 During the S12A stage of the approved residential development, the Applicant has submitted a Water Supply Impact Assessment (WSIA) to assess the potential water supply impact induced by the residential development in which relevant Government Departments had no objection to. As the residential development site has no existing fresh and salt water supply, the submitted WSIA indicated that an off-site sump and pump system and associated rising mains are required for the supply of fresh water and salt water to the residential development as a proposed mitigation measure to the potential water supply impacts. Moreover, due to the level difference between the residential development site and the existing Sha Tin North Fresh Water Service Reservoir (STNFWSR), which will be providing water supply to the residential development, a pump station is required. A set of drawings was submitted along with the WSIA, depicting the location, pipe alignment, and the design of the proposed pump station and the associated rising mains. The tentative proposed location of the sump and pump system during the S12A stage was at the Tung Lo Wan Hill Road Garden, and it was concluded in the WSIA that the exact location is subject to further review. The WSIA and the drawings were submitted along with the S12A application and relevant Government Departments did not



llewelyn davies	Title: Location Plan	Checked	DH	Drawn PW
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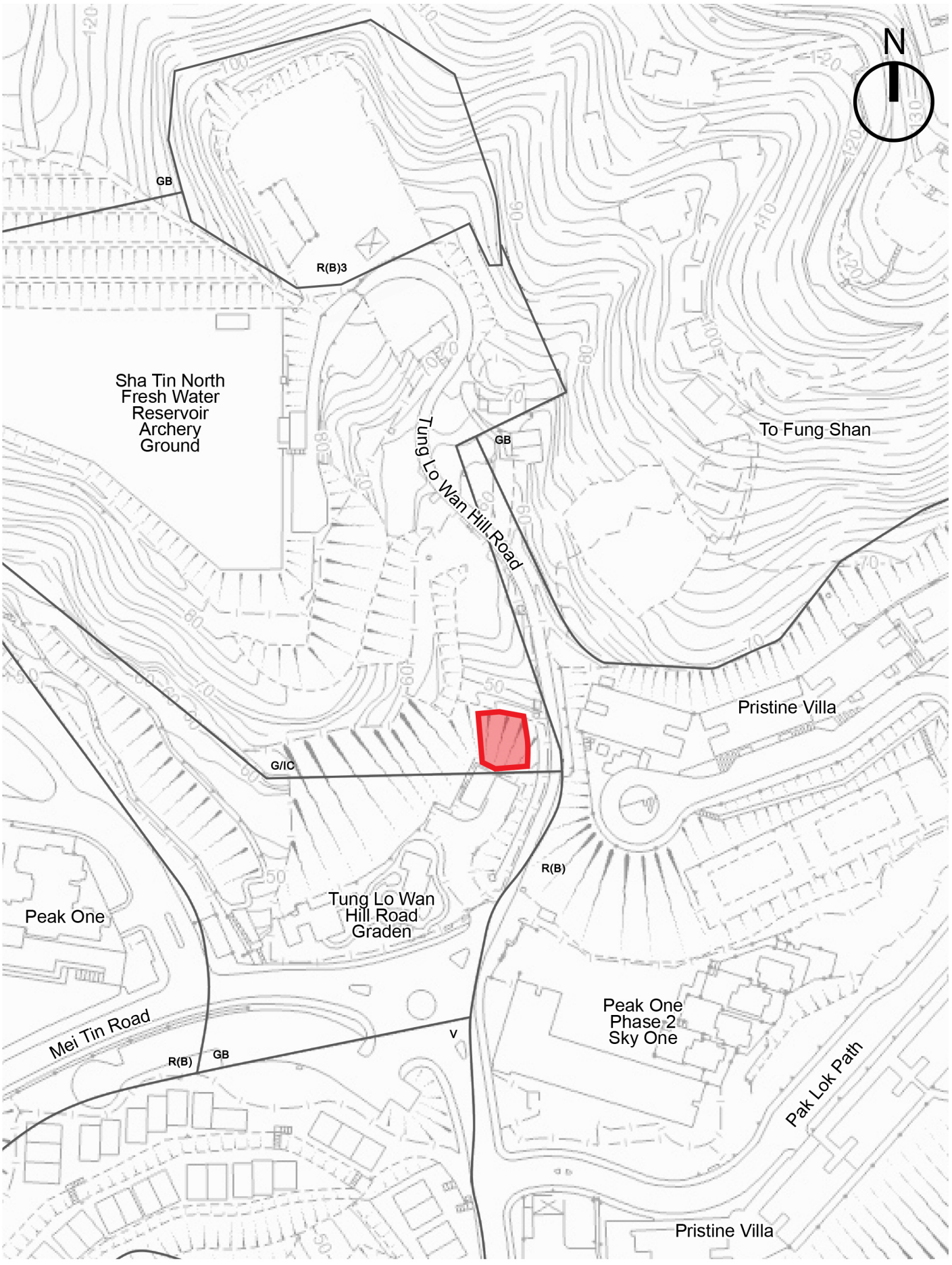
		Scale NA		Figure 1.1



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comment on the submissions.

1.1.4 According to the OZP, the proposed pump station (hereafter referred to as the 'Proposed Station') for salt and fresh water system in support of the approved residential development are regarded as 'utility installation for private project', which is a Column 2 use in the subject "G/IC" zone. As such, the Applicant submits herewith the subject S16 application to facilitate the implementation of the Proposed Station for the Board's approval.

1.2 Report Structure

1.2.1 This planning statement includes the following sections:

Section 2:	describes and analyses the Application Site, its surrounding and planning context, and reports the land status of the Application Site;
Section 3:	depicts the Proposed Station;
Section 4:	highlights the justifications of the Proposed Station; and
Section 5:	concludes the planning statement.

1.2.2 Detailed technical assessments and other supplementary information are attached in **Appendices A to C**.

Appendix A:	Pump Room Design Report
Appendix B:	Tree Survey and Tree Treatment Proposal
Appendix C:	Geotechnical Review Report

2 SITE AND SURROUNDING CONTEXTS

2.1 Site Context

2.1.1 The Application Site (about 237m^2) is located at To Fung Shan, northwest of the town centre of Sha Tin. It is accessible via Tung Lo Wan Hill Road, which is connected to Mei Tin Road and Chung Lin Road and further linked to the wider road network in Sha Tin and Tai Wai.

2.1.2 It is situated on a man-made slope area and is sloping up from southern side to northern side with existing ground level ranging from +41mPD to +47mPD. **Figure 2.1** illustrates the site and surrounding context of the Application Site.

2.2 Surrounding Context

2.2.1 To the northwest of the Application Site is the STNFWSR, which falls within the same "G/IC" zone as the Application Site. To the south of the Application Site is a refuse collection point (RCP) managed by the Food and Environmental Hygiene Department and the Tung Lo Wan Hill Road Garden operated by the Leisure and Cultural Services Department (LCSD).

2.2.2 The Application Site is also surrounded by existing "R(B)" zones, accommodating a number of residential developments, e.g. Peak One to its west, Sky One to its south and Pristine Villa to its east.

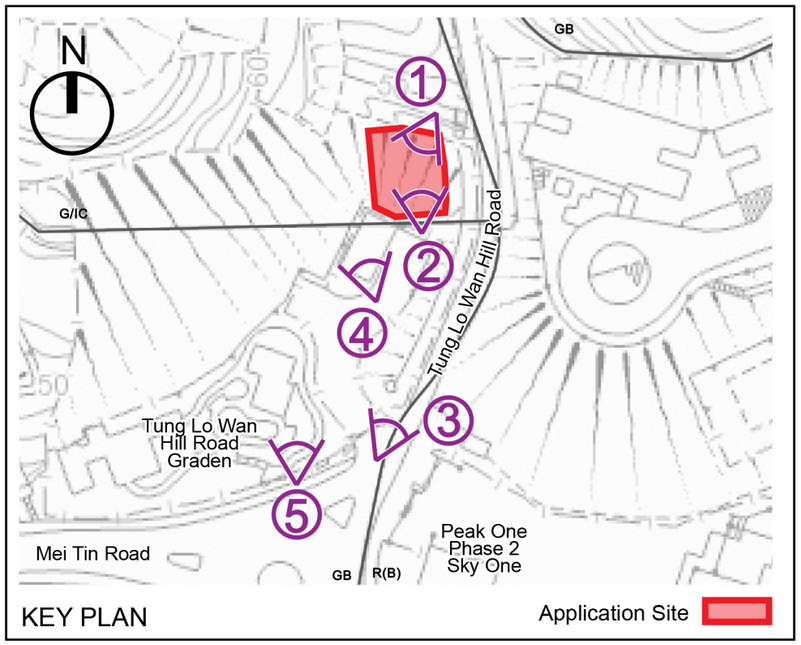
2.2.3 The "R(B)3" zone accommodating the approved residential development with maximum plot ratio restriction of 2.5 and maximum building height restriction of 140mPD, which the Proposed Station intended to support of, is around 160m to the North of the Application Site.

2.3 Land Status

2.3.1 The Application Site is a piece of Government Land that falls within a portion of the Government Land Allocation No. ST 336 (GLA-ST 336) allocated to LCSD for the Tung Lo Wan Hill Road Garden (**Figure 2.2** refers). Upon approval of the current planning application, the Applicant will negotiate with the Lands Department (LandsD) to implement the Proposed Station.

Existing Condition of Application Site viewed from the South-West of Tung Lo Wan Hill Road

Existing Condition of Application Site viewed from the North-West of Tung Lo Wan Hill Road



Existing View Near the intersection of Tung Lo Wan Hill Road and Mei Tin Road

Refuse Collection Point along Tung Lo Wan Hill Road

Tung Lo Wan Hill Road Garden

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Site and Surrounding Context

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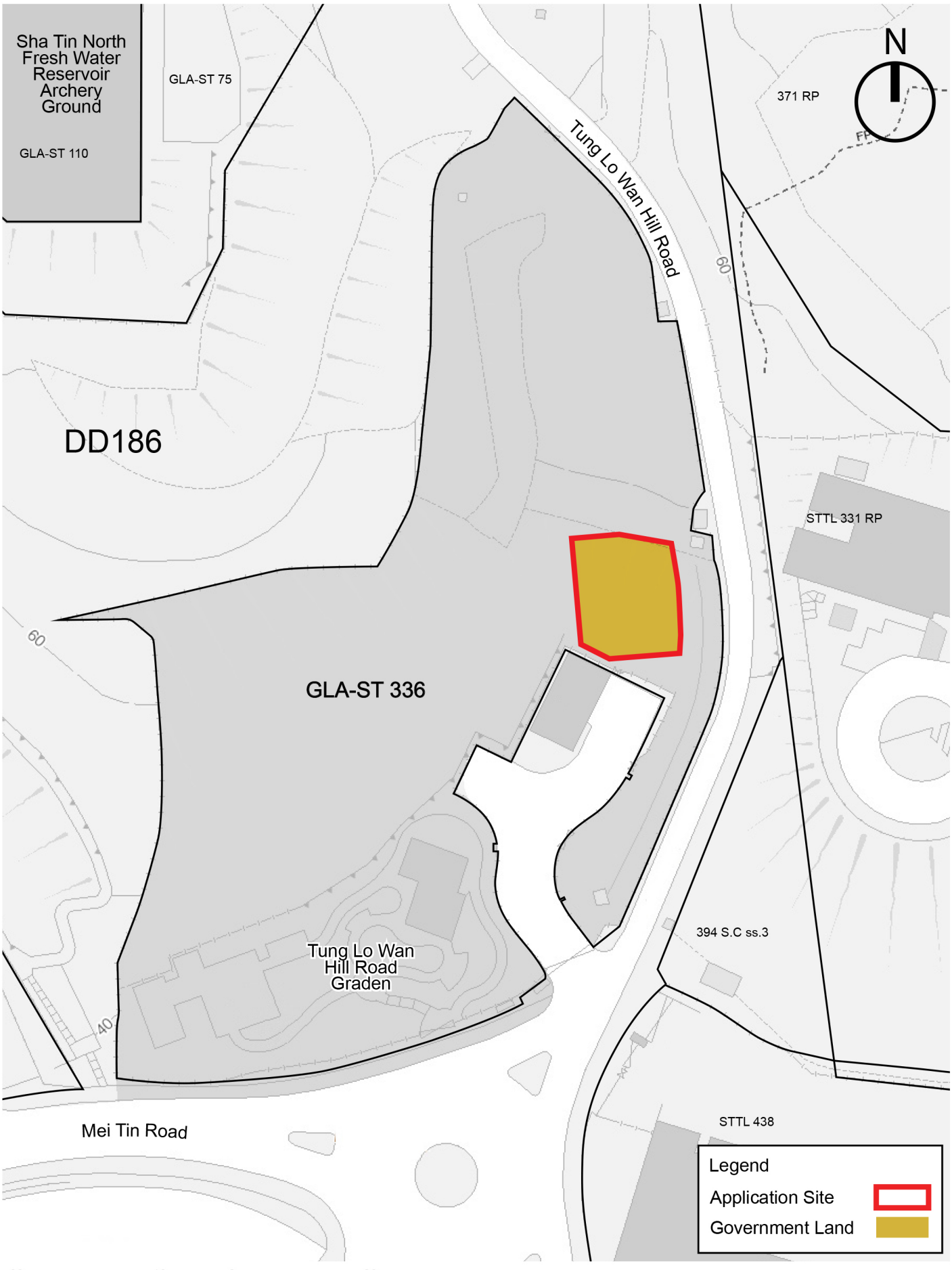

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Landholding Plan

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3 THE SUBJECT MATTER – PUMP STATION

3.1 The Proposed Pump Station

3.1.1 According to the previously submitted WSIA of the approved S12A application, a new water mains system is required to cater to the water demand from the approved residential development as the residential development site has no fresh and salt water supply. Moreover, due to the significant level difference between the existing water mains connection point (around 37mPD) and the approved residential development site (around 77mPD), an off-site pump station is required to supply fresh and salt water to the approved residential development.

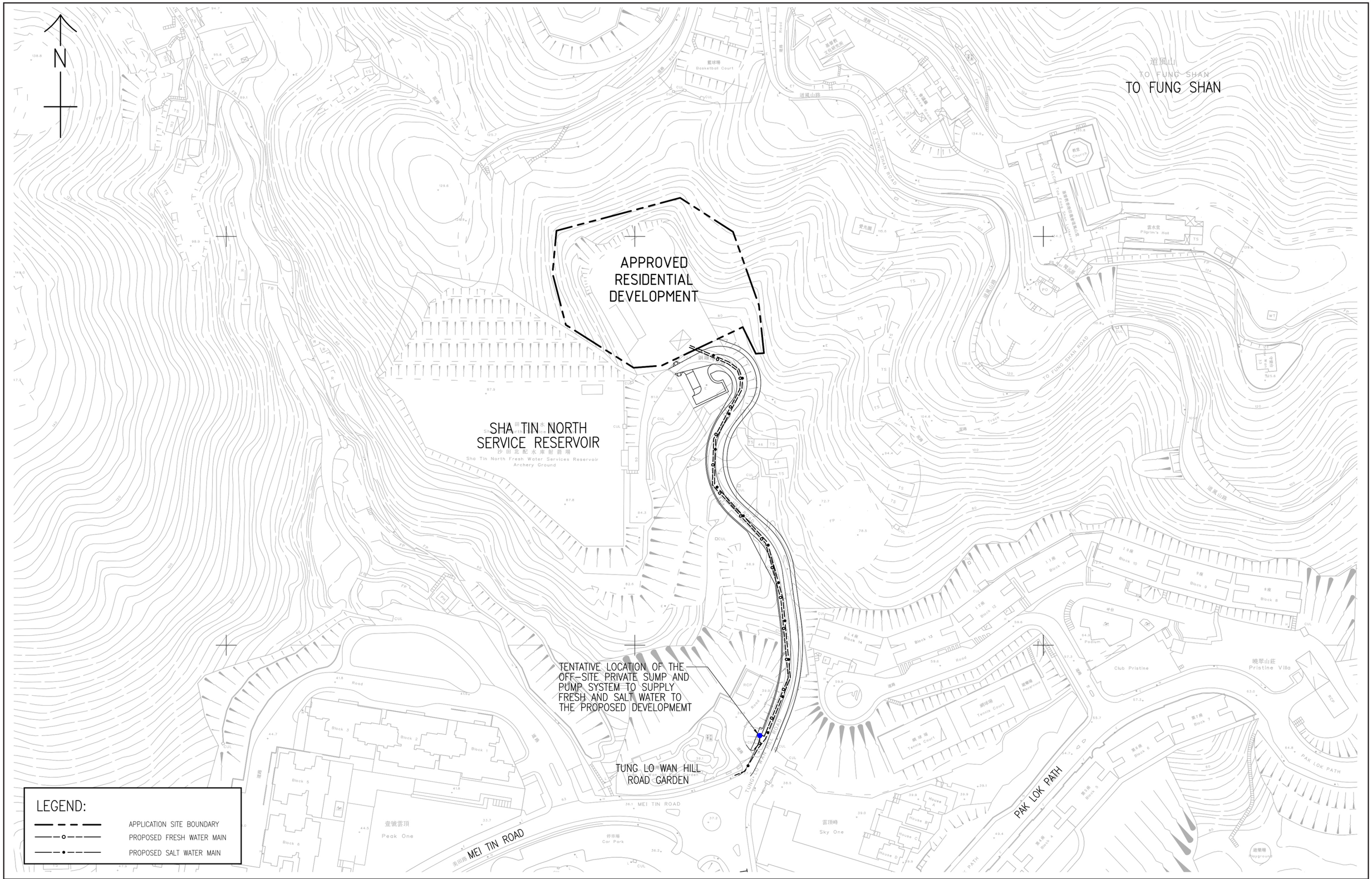
3.1.2 The submitted WSIA has depicted the tentative location of the pump station. The previously proposed location of the pump station is near Tung Lo Wan Hill Road Garden, as illustrated in **Figure 3.1**. The location of the Proposed Station and the alignments of the associated water mains is shown in **Figure 3.2**.

3.1.3 The proposed single-storey pump station, with a building height of about 4.2m (main roof level 52.15mPD) and gross floor area (GFA) of about 100m^2, provides two twin water tank and two water pumps for fresh water and flush water, respectively, to serve the water demand of the approved residential development (**Figures 3.3 and 3.4** refer). Key parameters of the Proposed Station are summarized in the development schedule below (**Table 3.1** refers). Details of the design of the Proposed Station are provided in **Appendix A**.

Table 3.1 Indicative Development Schedule

	Particulars
Site Area	About 237m^2
GFA	About 100m^2
Plot Ratio	About 0.422
Site Coverage	About 42.2%
Number of Storeys	1
Building Height	About 4.2m (about 52.15mPD) (1)
Capacity - **Fresh Water Sump Tank** - **Flush Water Sump Tank**	 15,700 L 2,800 L

Remark:
(1) based on a proposed foundation level of about 47.95mPD



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Proposed Pump Station and Water Mains under Approved Planning Application Y/ST/58

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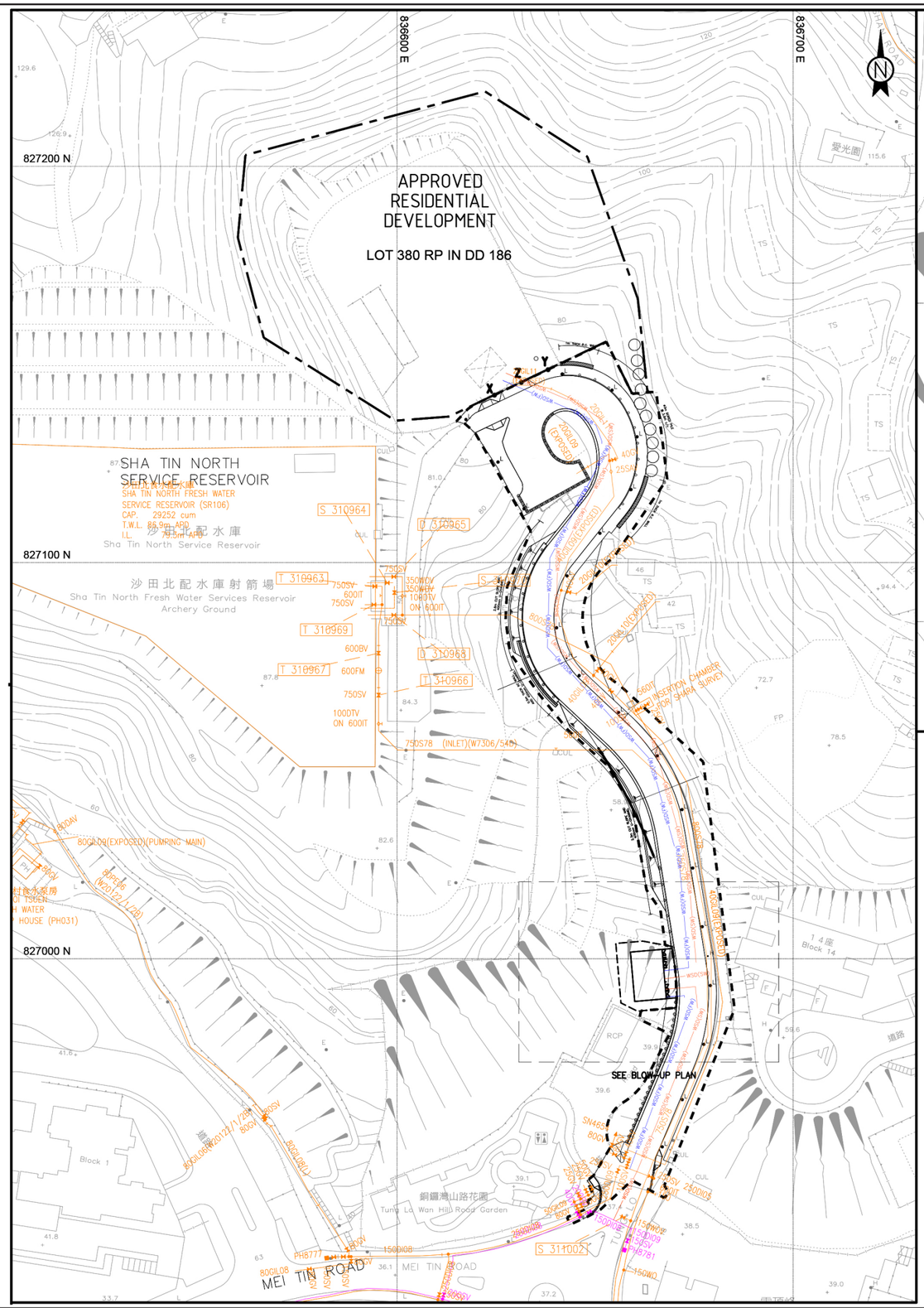

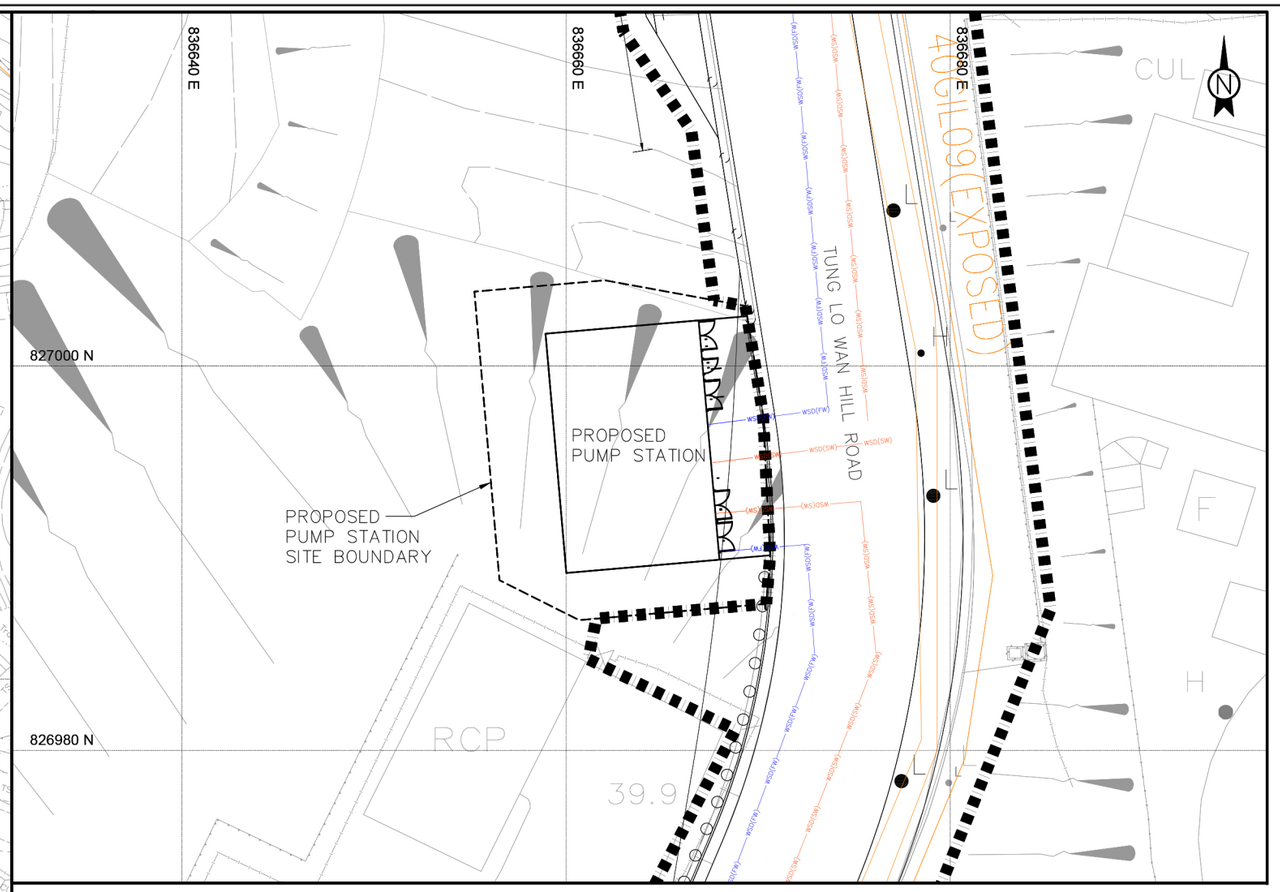

BLOW-UP PLAN

LEGEND :

- LOT BOUNDARY
- PROPOSED ACCESS ROAD EXTENT
- EXISTING SALT WATER MAINS
- EXISTING FRESH WATER MAINS
- PROPOSED SALT WATER MAINS
- PROPOSED FRESH WATER MAINS

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Title

Proposed Pump Station and Water Mains Alignment Plan

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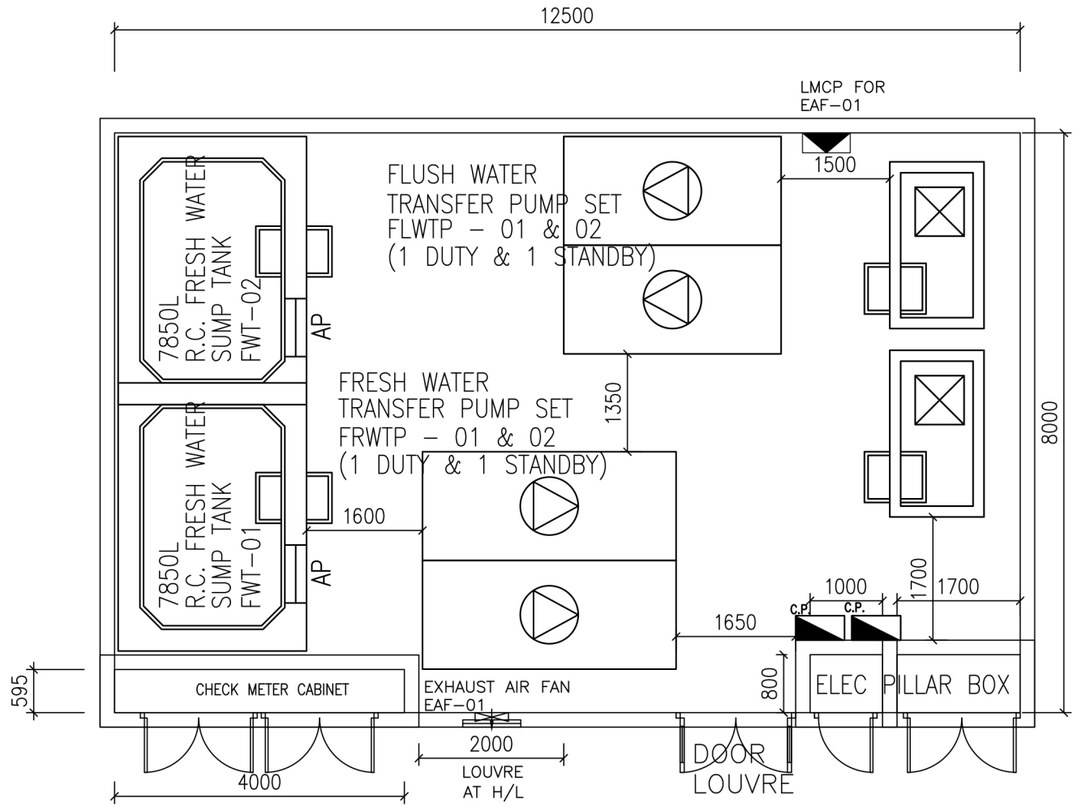
WATER TANK SCHEDULE

System	Water Tank Name	Tank Material	Water Tank Arrangement	Water Tank Designation	Location	Storage Capacity (L)		
						Chamber 1 of Twin Tank	Chamber 2 of Twin Tank	Total
Fresh Water System	Fresh Water Sump Tank	Reinforced Concrete	Twin-Tank	FRWT-01 & 02	G/F Sump Pump Room	**7850**	**7850**	**15700**
Flush Water System	Flush Water Sump Tank	Fibreglass	Twin-Tank	FLWT-01 & 02	G/F Sump Pump Room	**1400**	**1400**	**2800**

WATER PUMP SCHEDULE

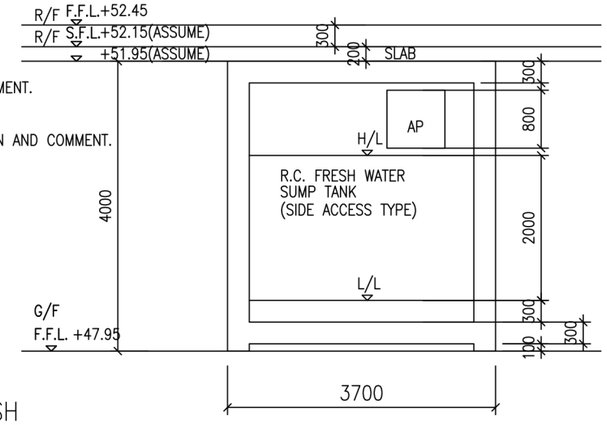
Pump No.	Pump Servies	Location	Flow Rate (L/s)	Pump Head (m)	Speed (rpm)	Required Pump Power (kW)	Rated Motor Power (kW)	Starting Method	Pump Casing
FRWTP-01&02	Fresh Water Transfer Pump Set (1 Duty & 1 Standby)	G/F Sump Pump Room	30.00	95.00	1450	58.25	75	3-phase, Star-delta	Casted Stainless Steel Grade 316
FLWTP-01&02	Flush Water Transfer Pump Set (1 Duty & 1 Standby)	G/F Sump Pump Room	4.00	85.00	1450	6.95	7.5	3-phase, Star-delta	Close Grain Cast Iron

REMARKS:
1. THE LOURVE AND EXHAUST AIR FAN AS SHOWN IN THE LAYOUT DRAWING ARE INDICATIVE ONLY. THE VENTILATION DESIGN AND THE CORRESPONDING PROVISION AND SPECIFICATION SHALL BE SUBJECTED TO MVAC DESIGNER'S INPUT. THE OVERALL PUMP ROOM SIZE SHALL BE FURTHER ADJUSTED IF NECESSSARY SUBJECTED TO MVAC DESIGNER'S DESIGN AND COMMENT.
2. THE ELECTRICAL PILLAR BOX AS SHOWN IN THE LAYOUT DRAWING IS INDICATIVE ONLY. THE ELECTRICAL SYSTEM DESIGN AND THE CORRESPONDING SPECIFICATION SHALL BE SUBJECTED TO ELECTRICAL DESIGNER'S INPUT. THE OVERALL PUMP ROOM SIZE SHALL BE FURTHER ADJUSTED IF NECESSSARY SUBJECTED TO ELECTRICAL DESIGNER'S DESIGN AND COMMENT.



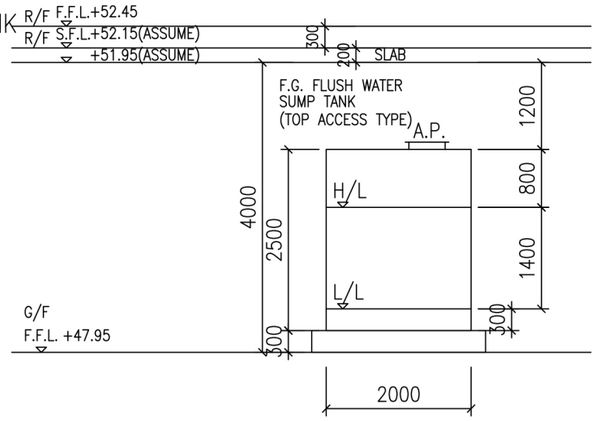
PROPOSED ROOM INTERNAL DIMENSION
= 12.5m(L) X 8m(W) X 4m(H)
(WITH 4m CLEAR HEADROOM REQUIRED)

1400L F.G. FLUSH WATER SUMP TANK FLWT–01



REQUIRED TANK CAPACITY = 7850L = 7.85m3
EFFECTIVE HEIGHT = 2m
REQUIRED EFFECTIVE AREA = 7.85/2 = 3.925m2
PROPOSED TANK AREA = 3.1m (L) X 2m (W) = 6.2m2
ASSUMING 50mm INTERNAL WALL FINISHING WITH CHAMFER:
PROPOSED TANK EFFECTIVE AREA = 5.55m2 (MEASURED FROM CAD)
PROPOSED TANK OVERALL DIMENSION = 3.7m (L) X 2.6m (W) X 4m (H)
(WITH 4m CLEAR HEADROOM REQUIRED)

1400L F.G. FLUSH WATER SUMP TANK FLWT–02



REQUIRED TANK CAPACITY = 1400L = 1.4m3
EFFECTIVE HEIGHT = 1.5m
REQUIRED EFFECTIVE AREA = 1.4/1.4 = 1m2
PROPOSED TANK EFFECTIVE AREA = 2m (L) X 1m (W) = 2m2
PROPOSED TANK OVERALL DIMENSION = 2m (L) X 1m (W) X 2.5m (H)
(WITH 4m CLEAR HEADROOM REQUIRED)

PROPOSED PUMP STATION LAYOUT

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Title

Proposed Pump Station Layout Plan

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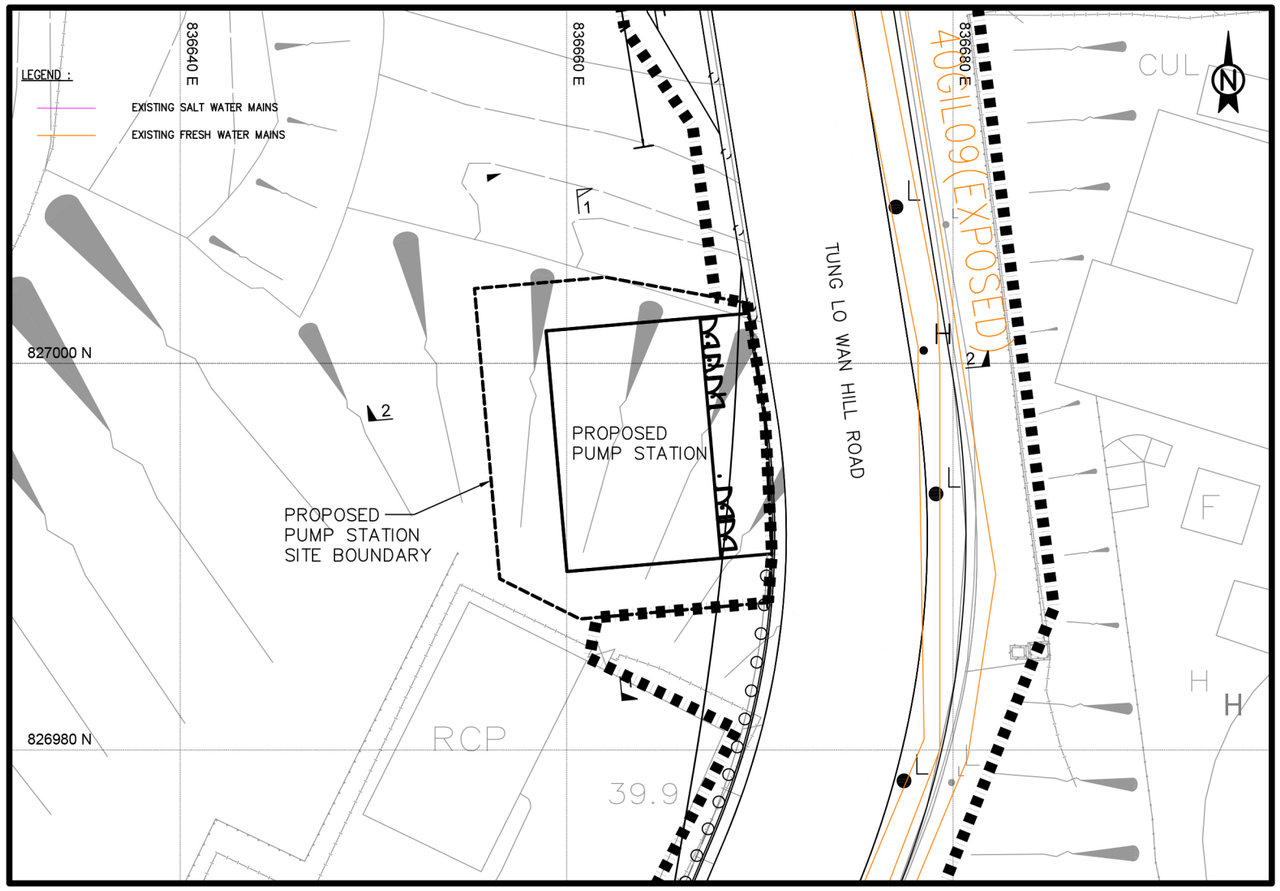
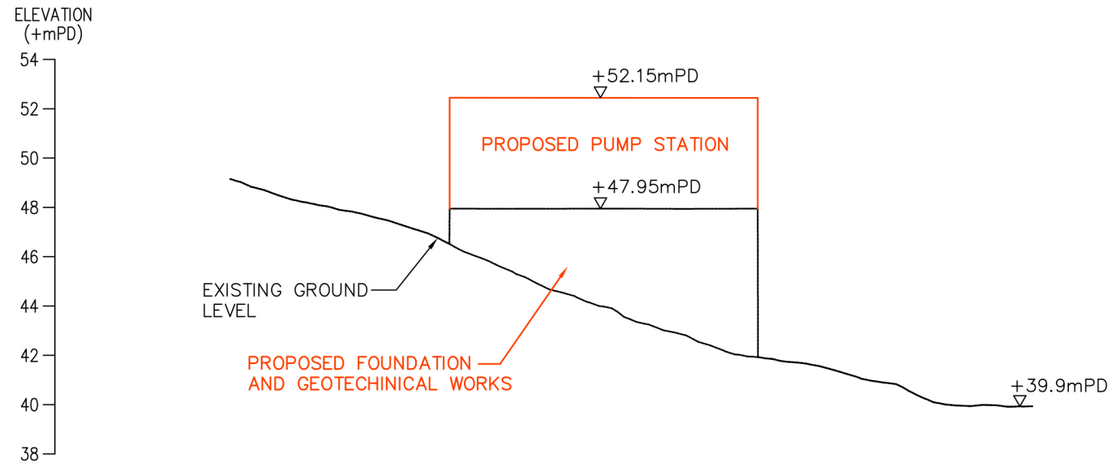
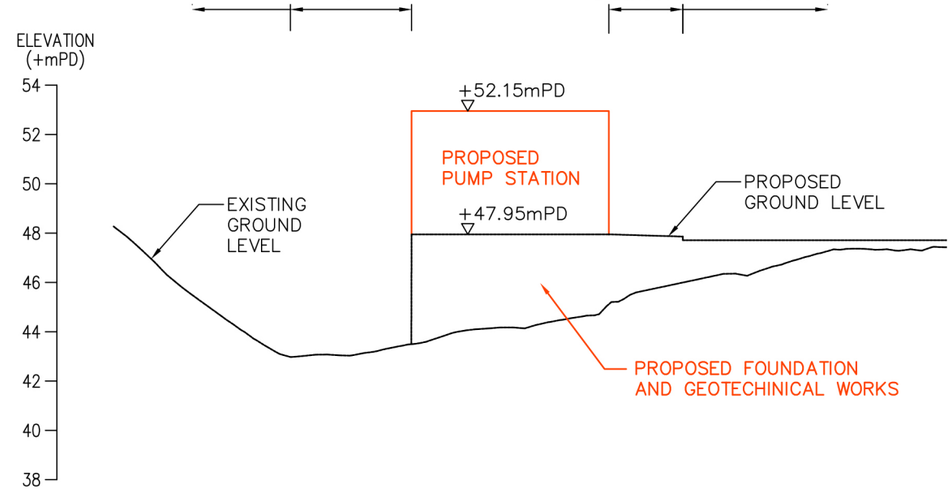


BLOW–UP PLAN



SECTION 1–1



SECTION 2–2

C M WONG & ASSOCIATES LTD	Title: Proposed Pump Station Section Plans	Checked	DH	Drawn PW
		Rev	0	Date Dec 2024
		Scale		Figure 3.4

3.1.4 Regarding the source and routing of the water supply, the Proposed Station is proposed to draw water supply from the existing Sha Tin North Fresh Water Service Reservoir via an existing water mains connection point located at the junction of Mei Tin Road and Tung Lo Wan Hill Road. The fresh and salt water will then pass through the new water mains under the widened Tung Lo Wan Hill Road to the Proposed Station and be connected to the approved residential development also through the new water mains under the widened Tung Lo Wan Hill Road.

3.2 Site Access

3.2.1 The Proposed Station is to serve the approved residential development located at the upper end of Tung Lo Wan Hill Road. This existing single-track access road is proposed to be upgraded and widened into a single 2-lane carriageway for the section between the approved development and the roundabout at Mei Tin Road by the Applicant. The Proposed Station is directly abutting this widened Tung Lo Wan Hill Road (hereafter referred to as the 'Access Road'), the relevant road design is currently under coordination with the Transport Department (TD) in the on-going land exchange application for the approved residential development. The construction works for the Proposed Station and the road widening works are to be implemented in parallel and both expected to be completed on or before the occupation of the approved residential development.

3.3 Lands Administration

3.3.1 After obtaining the S12A approval for the proposed residential development on 13 January 2023, the Applicant has submitted a land exchange application to LandsD on 2 August 2023 for the approved residential development including the proposal for the Access Road. The land exchange application is currently in departmental circulation stage.

3.3.2 Further details of the Proposed Station are developed during the land exchange application process. Schematic of the external water mains and the extent of the pump station have been conveyed to Water Supplies Department (WSD), LCSD and Planning Department for consideration via LandsD in May 2024.

3.3.3 A portion of the government land allocated to LCSD under the GLA-ST 336 will be required for the formation of the Access Road and the construction of the Proposed Station. As such, adjustment of the GLA boundary will be necessary. The Applicant

is prepared to take up the maintenance and management responsibility of the portion of land affected by the Access Road and the Proposed Station under lease.

3.3.4 The applicant will liaise with relevant departments regarding the necessary procedures and notice relevant departments for departmental procedures and arrangement for boundary adjustment of GLA-ST 336 after obtaining the S16 planning approval from the Town Planning Board.

3.4 Implementation

3.4.1 The Proposed Station is practically required to put forward the approved residential development. Upon approval of the current planning application, the Applicant will further proceed with the on-going land exchange application and obtain any necessary agreement/permit from the relevant government departments, if required, before the commencement of the construction work of the Proposed Station. The tentative completion year of the Proposed Station is 2033 and the tentative implementation program of the Proposed Station are provided in Table 3.2 below.

Table 3.2 Tentative Implementation Program

Tentative Timeframe	
S16 Planning Approval	Q1 2025
Land Exchange Execution	Q2 2026
General Building Plans Approval	Q4 2027
Construction Period	From Q4 2027 to Q4 2033
Completion	Q4 2033

3.4.2 In line with the previous proposal, the Proposed Station and subsequent external water mains leading to the approved residential development will be constructed, operated and maintained by the Applicant while the external water mains between the existing fresh water and salt water main and the Proposed Station is proposed to be constructed by the Applicant and will be handed over to government upon completion of the construction works (**Appendix A** refers).

Table 3.3 Responsible Parties of the Proposed Station and Water Mains

Facilities	Construction Parties	Maintenance Parties
Proposed Station	Applicant	Applicant
Water supply facilities within the Application Site (internal water mains and water supply lead-in valves)	Applicant	Applicant
External water mains within the private section of the Access Road	Applicant	Applicant
External water mains between the existing fresh water and salt water mains and the private section of the Access Road	Applicant	WSD

4 JUSTIFICATIONS

4.1 The Proposed Station in the Application Site is the Essential Infrastructure Project for the Approved Residential Development

4.1.1 At present, there is no proper salt and fresh water supply provided to the proposed residential development, which was approved under Y/ST/58. As such, to facilitate the approved residential development, it is necessary to provide a sump and pump station to cater for the water demand of the approved residential development.

4.1.2 Under the approved planning application Y/ST/58, the Applicant has already proposed a tentative location for the construction of the pump station in the submitted WSIA and it has been approved with the residential scheme. The current application is submitted only to take forward the approved residential scheme and provide the necessary supporting utilities for the residential units before the occupation of the residential development.

4.1.3 In the meantime, the land exchange application of the approved residential development has been submitted by the Applicant and the details of the implementation of the associated road widening works and the pump station are conveyed to LandsD for department circulation. Schematic of the external water mains and the extent of the pump station have been circulated to relevant departments including WSD, LCSD and PlanD for consideration in May 2024 and liaisons with departments have been carried out.

4.2 The Proposed Location of the Pump Station Is the Most Optimal Location

4.2.1 Under the previous S12A approved scheme, a preliminary location (similar to the current proposed location) of the Proposed Station has been indicated in the WSIA report. The location of the Proposed Station is the most optimal location for the approved residential development with due consideration given to the site condition and surrounding context. Relevant departments indicated that they had no adverse comments to the previous S12A application for the residential development.

4.2.2 Considering that the approved residential development under Y/ST/58 is situated at a high elevation of about 77mPD with no existing water supply available, an off-site pump station is necessary to be constructed to provide water supply to the approved residential development.

4.2.3 As the existing water mains connection point is located at the junction of Mei Tin Road and Tung Lo Wan Hill Road at about 37mPD, the pump station is required to be positioned at a relatively low elevation to ensure that there is sufficient pressure for water supply to reach the pump station from the existing connection point and then further provide water supply to the approved residential development through the water pumps inside the pump station.

4.2.4 In the vicinity of the existing water mains connection point at low elevation, there are no acquired lands owned by the Applicant that are available for the construction of the pump station. To avoid straddling on any third-party lots, the current Application Site, which is a piece of inaccessible Government Land, has been selected for the construction of the pump station.

4.2.5 The Applications Site, even though falling within an area allocated under the GLA-ST 336 for the Tung Lo Wan Hill Road Garden, is currently an inaccessible area not directly accessible from the adjacent road nor from the Tung Lo Wan Hill Road Garden. Also, the Application Site is segregated from the Tung Lo Wan Hill Road Garden by an existing RCP and a minimum clearance of 3.65m will be maintained between the Proposed Station and the RCP. As such, the Proposed Station would not reduce the area of the Tung Lo Wan Hill Road Garden that is currently enjoyed by the public nor affecting the operation of the existing RCP. The Proposed Station would not affect any existing/planned use of this small piece of Government Land which is currently left idle.

4.2.6 Moreover, the Application Site entirely confines within the "G/IC" zone and does not encroach onto the adjacent "GB" zone such that it could limit the Proposed Station within development zoning only and give due respect to the planning intention of the "GB" zone. The proposed location is also situated on a relatively gentle slope compared to the surrounding area, in order to reduce the scale and dimension of the site works and also the possible impacts on the surrounding slope and facilities.

4.2.7 Regarding the layout and the size of the Application Site, the Proposed Station is designed to effectively balance the water supply demand for the residents while minimising the works area with the consideration of the required equipment, and the maintenance envelope of the Pump Station. A necessary 2.5m to 3.5m wide works area around the Proposed Station for construction works and temporary hoarding and footing works is designated based on the boundary of the Proposed Station to form the Application Site boundary, which is considered to be minimised.

Adequate space for operational and maintenance demand, such as replacement of equipment has also been reserved within the Application Site.

4.2.8 In terms of the size of the Proposed Station, the proposed building footprint and building height is carefully designed with the consideration of the dimension of the required equipment and water tanks inside the Proposed Station. In order to site the Proposed Station in the space available adjacent to the Access Road, to serve its function, a balance between the size of the building footprint and the building height had been designed accordingly to suit the site context.

4.3 The Proposed Station Meets the Main Planning Criteria for Consideration of Development within "G/IC" Zone under Relevant TPB Guidelines

4.3.1 The Proposed Station is only a small-scale utility installation instead of a large-scale development. Relevant planning criteria, which are applicable to this case, as stated in the Town Planning Board Guidelines No. 16 for Application for Development/Redevelopment within "Government, Institution or Community" Zone for Uses Other Than Government, Institution or Community Uses under Section 16 of the Town Planning Ordinance (TPB PG-No.16) could be met. The guideline stated that use of "G/IC" sites for non-GIC uses which fall within Column 2 of the Notes for the "G/IC" zone may be permitted by the Board based on its individual merits and in accordance with the main planning criteria. The Proposed Station complies with the planning criteria set out in the guidelines, which is summarized as follows:-

Table 4.1 – Summary of Proposed Station being in Compliance with TPB PG-No.16

Planning Criteria	Compliance under Proposed Scheme
The proposed development should not adversely affect the normal operation of the existing GIC facilities nor delay the implementation of the planned GIC facilities within the "G/IC" site.	There is no existing/planned GIC facility within the application site.
The proposed development should be compatible in land-use terms with the GIC uses on the site, if any, and with the surrounding areas.	The Proposed Station is compatible with the surroundings GIC uses including the RCP and the public toilet within the Tung Lo Wan Hill Road Garden to its south.

Planning Criteria	Compliance under Proposed Scheme
The scale and intensity of the proposed development should be in keeping with that of the adjacent area.	The proposed single-storey station is in line with the development intensity of the surrounding residential developments and will blend in with the surrounding single-storey GIC uses.
The proposed development should be sustainable in terms of the capacities of existing and planned infrastructure.	N/A *(The Proposed Station is a supporting infrastructure for an approved residential development.)*
There should be adequate provision of parking and loading/unloading facilities to serve the proposed development in accordance with HKPSG and to the satisfaction of TD. Adequate vehicular access arrangements should also be provided to the satisfaction of TD.	N/A *(No parking and loading/unloading demand is anticipated. Relevant road design is currently under coordination with TD.)*
The proposed development should be sustainable in terms of the overall planned provision of open space and GIC facilities in the area.	N/A *(Based on Annex VII of TPB Paper No. 10964 regarding the Provision of Major GIC Facilities and Open Space in Sha Tin Planning Area, the open space and major GIC facilitates in the Sha Tin area are generally sufficient under HKPSG requirements.)*
The proposed development should not cause the surrounding areas to be susceptible to adverse environmental impacts and should not be susceptible to adverse environmental impacts.	No adverse environmental impact is anticipated.

Planning Criteria	Compliance under Proposed Scheme
For "G/IC" sites covered by mature trees and vegetation or located in areas of high landscape or amenity value, the design and layout of the proposed development should be compatible and should blend in well with the surrounding areas. The proposed development should not involve extensive clearance of existing natural vegetation, adversely affect the existing natural landscape, or cause adverse visual impact on the natural environment in the surrounding areas.	The Tree Survey conducted for the Proposed Station indicated that there is no endangered tree species and no rare and precious plants observed within the Application Site and a tree treatment proposal is submitted to enhance greenery within the Application Site.
The design and layout of the proposed development should have regard to the preservation of any existing buildings of historical or architectural values on or adjoining the application site.	There is no existing buildings of historical or architectural values located within or adjoining the Application Site.

4.4 No Adverse Technical Impacts Anticipated

4.4.1 Various technical assessments have been conducted to demonstrate the construction and operation of the proposed small-scale pump station would not cause any significant impacts in tree and landscape, visual, geotechnical, traffic, environmental and drainage aspect.

Tree and Landscape Aspect

4.4.2 A tree survey and tree treatment proposal identifying existing trees within the Application Site and proposing the tree treatment in relation to the construction of the Proposed Station are provided in **Appendix B**.

4.4.3 The tree survey conducted has identified a total 25 nos. of existing trees within the Application Site. Majority of the surveyed trees are in poor tree form, health or structural conditions with relatively low amenity value. No endangered trees species, rare and previous plants, registered Old and Valuable Trees and potential registrable trees in accordance with DEVB Technical Circular (Works) No. 6/2020 or "Champion" trees were observed within the Application Site.

4.4.4 Among the 25 nos. of surveyed trees within the Application Site, all trees are proposed to be felled. Due to the environmental and spatial constraints of the

Application Site, which is an existing slope, 11 nos. of new trees with higher ecological and aesthetic value will be provided surrounding the Proposed Station with replanting ratio of 1:0.44 to enhance greenery and compensate tree loss (**Figures 4.1** refer).

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED VERTICAL GREEN WITH SELF-CLIMBING SPECIES
- PROPOSED NEW TREES (11 nos.)
- PROPOSED SHRUBS AND GROUNDCOVERS
- PROPOSED LAWN (0.60m Maintenance Path)
- HARD PAVED AREA
- +47.95 PROPOSED LEVELS

N

0m 0.5m 1m 2m 4m

axxa group

Title

Landscape Proposal

Checked	DH	Drawn	PW
Rev	0	Date	Dec 2024
Scale		Figure	4.1

Visual Aspect

4.4.5 In terms of visual aspect, the building height of the Proposed Station has already been minimized to accommodate the necessary equipment. The Proposed Station is also partially sunken into the natural terrain from the view of Tung Lo Wan Hill Road to minimize the potential visual impact of the Proposed Station to the nearby residents/users.

4.4.6 To assess the visual impacts induced by the Proposed Station, two nearby viewpoints (i.e. from Tung Lo Wan Hill Road Garden and from the junction of Tung Lo Wan Hill Road and Mei Tin Road) are selected to illustrate that no adverse visual impacts are anticipated from the Proposed Station (see photos 1 and 2 below).

Photo 1: Viewing from Tung Lo Wan Hill Road Garden

Photo 2: Viewing from Junction of Tung Lo Wan Hill Road and Mei Tin Road

4.4.7 Photo 1 shows the view from Tung Lo Wan Hill Road Garden, a public open space that enables nearby residents to engage in recreation activities. The Proposed Station will be marginally visible from the viewpoint, thus, a photomontage is prepared to illustrate the visual impact of the Proposed Station (**Figure 4.2** refers). Although the upper portion of the Proposed Station is partially visible from this viewpoint, a significant portion of the Proposed Station is screened off by the existing trees, the public toilet located within the Tung Lo Wan Hill Road Garden and the adjacent RCP. Therefore, the visual impacts on the recreational users of the Tung Lo Wan Hill Road Garden induced by the Proposed Station is considered to be negligible.

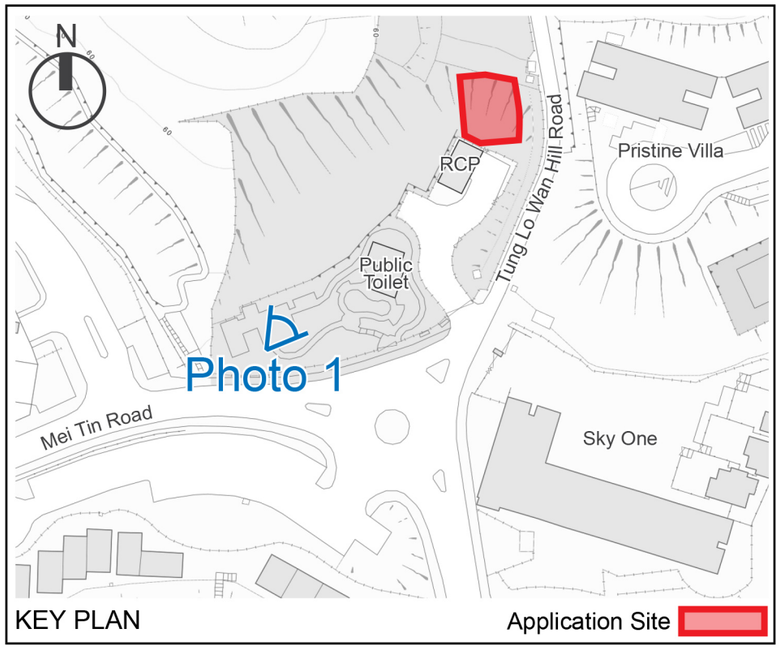
4.4.8 Regarding the view from the junction of Tung Lo Wan Hill Road and Mei Tin Road, which also serves as the ingress/egress point of the car park situated at Mei Tin Road, this viewpoint is an intersection point for both the pedestrian and vehicular movements among local residents. It is shown that the Proposed Station is completely screened off by existing building structures and vegetation inside the Tung Lo Wan Hill Road Garden and would not be visible from this viewpoint (Photo 2 above refers). As such, no visual impact on nearby travelers induced by the Proposed Station is envisaged.

4.4.9 From the southern side of the Proposed Station, which is inaccessible to the public, several screening measures have been proposed to obscure the Proposed Station from view. These measures include using subdue color and materials for the building façade, planting tall and evergreen trees as buffer vegetation, and providing vertical green with self-climbing species on the building façade. With these measures in place, it is anticipated that there will be no visual disruptions to the users of the adjacent Tung Lo Wan Hill Road Garden induced by the Proposed Station.

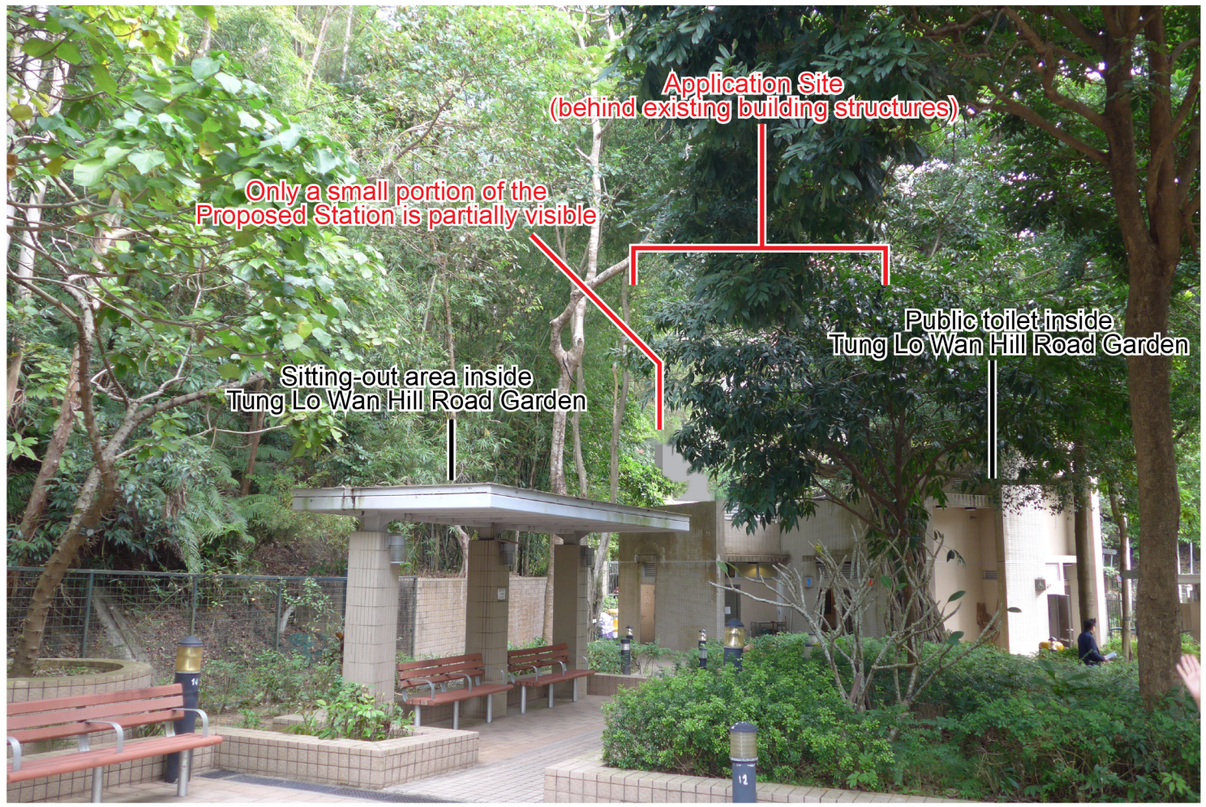
Geotechnical Aspect

4.4.10 A Geotechnical Review Report (GRR) has been prepared for the Proposed Station to assess the geotechnical feasibility of the Proposed Station. The details of the GRR are provided in **Appendix C**.

4.4.11 The Application Site falls within a man-made feature/slope 7SW-D/FR549 with two other man-made features/slopes 7SW-D/C1014 to its west and 7SW-B/FR25 to its south in the vicinity. To accommodate the Proposed Station, the feature boundary of the existing feature 7SW-D/FR549 is proposed to be reduced and modified. A



Existing Condition



Proposed Scheme

	Title: Photomontage – Viewing from Tung Lo Wan Hill Road Garden	Checked	DH	Drawn PW
		Rev	0	Date Dec 2024
		Scale		Figure 4.2

comprehensive monitoring program is also proposed during the on-site construction work to safeguard the adjacent utilities and structures. For the single-storey Proposed Station, foundation schemes including footings on soil or mini-piles are foundation methods that are technical feasible. The foundation of about 47.95mPD is anticipated to site on sloped ground with the Pump Station floor level raised to match the adjacent Access Road.

4.4.12 The Proposed Station is classified as an unmanned plant room, which does not fall into standard facility Group 1-3 in Table 2.2 of Geo Report No. 138. Therefore, a natural terrain hazard study is not required. Based on the findings and review provided in the GRR, it is concluded that the construction of the Proposed Station is considered geotechnically feasible.

Traffic Aspect

4.4.13 There are no traffic demands for the Proposed Station except for occasional maintenance or repair works, therefore, vehicular run-in/out would not be provided. Maintenance agent can directly access to the location via the widened Access Road connecting to the approved residential development which is under the Applicant's management and maintenance. If any major repair works such as loading/unloading of machinery is required in future, temporary traffic arrangement would be proposed and agreement from relevant authorities will be sought prior to implementation. In view of the above, it is considered that the Proposed Station will not have any adverse traffic impact to the surrounding road network.

4.4.14 According to a preliminary estimation of construction traffic for the Proposed Station, only a minimal traffic volume (approx. 1-2 vehicles per hour in 2-way) is expected. This negligible traffic flow is insignificant and shall not bring about any noticeable impact to the adjacent local road network.

Environmental Aspect

4.4.15 The Proposed Station will be a fully enclosed pump room. It is similar in nature to other pump rooms provided within typical residential developments. The Proposed Station will be designed in compliance with Chapter 9 of the Hong Kong Planning Standards and Guidelines (HKPSG) and Environmental Protection Department Good Practice on the Control of Noise from Electrical & Mechanical Systems. As such, it is expected that the Proposed Station is acceptable from noise perspective.

4.4.16 In terms of air quality, no equipment in the Proposed Station is anticipated to

generate air pollutants and affect the nearby residents. Therefore, the Proposed Station is considered acceptable in air quality terms.

Drainage Aspect

4.4.17 Due to the small footprint of 100m^2, the Proposed Station is not of sufficient scale to make significant change to the drainage characteristics of the surrounding stormwater drainage system. Insignificant drainage impact is anticipated from the Proposed Station.

5 CONCLUSION

5.1.1 This planning application is submitted to seek permission from the Town Planning Board (the Board) in support of a proposed 'utility installation for private project (pump station for salt and fresh water system)' at Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin.

5.1.2 The Proposed Station is necessary to cater for the water demand from an approved residential development under S12A Application Y/ST/58, as the residential development site has no existing fresh and salt water supply. Moreover, the Proposed Station concerns only a small piece of Government Land which has no designated use and there is no objection from relevant government departments to the previous S12A application.

5.1.3 The subject application is supported by the following justifications:

- The Proposed Station in the Application Site is the essential infrastructure project for the approved residential development;
- the proposed location of the pump station is the most optimal location;
- the Proposed Station meets the main planning criteria for consideration development within "G/IC" zone under relevant TPB Guidelines; and
- no adverse technical impacts are anticipated from the Proposed Station.

5.1.4 In light of the supporting justifications presented in this Planning Statement, the Board is cordially invited to consider the subject planning application favorably.

Appendix A

Pump Station Design Report

Tung Lo Wan Hill Road – Private residential development

Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories

Pump Room Design Report

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Document Verification

Project title		Tung Lo Wan Hill Road – Private residential development			Job number TLWSR
Document title		Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories Pump Room Design Report			File reference TLWSR/PSDR
Document ref					
Revision	Date				
0	August 2024		Prepared by	Checked by	Approved by
		Name	Sing Wong/ Angela Chao	Angela Chao	Terence Yau
		Signature			
1	October 2024				
			Prepared by	Checked by	Approved by
		Name	Angela Chao	Angela Chao	Terence Yau
		Signature			
		Filename			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

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Appendix

1. Introduction

1.1 Background

1.1.1 On 13 January 2023, the Town Planning Board accepted and approved the Section 12A Rezoning Application for Amendment to the Approved Sha Tin Outline Zoning Plan No. S/ST/36 at Lot 380 RP (Part) in DD 186, Tung Lo Wan Hill Road, Sha Tin (hereafter referred to as "Application Site"). The previously approved Indicative Master Layout Plan showing the Proposed Layout and Proposed Access Road are presented in **Appendix A**.

1.1.2 Under the same s. 12A Rezoning Application, Water Supply Impact Assessment (WSIA) was prepared and an off-site pump station (comprising sump and pump system and associated rising main) was proposed to supply of fresh water and salt water to the Application Site. The approved WSIA is adopted herein and presented in **Appendix B**.

1.1.3 This Pump Station Design Report (PSDR) serves as a supplementary document to the WSIA approved under Section 12A of Town Planning Ordinance in support of a Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories (herein after referred to as the "Proposed Pump Station Site").

1.2 Objectives

1.2.1 The main objectives of this report are as follow:-

A. Summarize the proposed water supply system from previous approved WSIA and justify the need of the pump station;

B. Outline the design of the pump station.

1.3 Report Structure

1.3.1 Following this introductory chapter, the report is structured as follows:

1.3.2 **Chapter 2 - The Application Site and Water Supply System**

1.3.3 This section outlines the details of the proposed development, the assessment methodology and water demand estimation of previous WSIA, and the proposed water supply system;

Chapter 3 - Proposed Pump Station

1.3.4 This section describes the site condition, design standards, guideline and references, and the detailed design and arrangement of the Proposed Pump Station;

Chapter 4 - Maintenance Responsibility

1.3.5 This section outlines the maintenance responsibility of Proposed Pumping Station and water supply;

Chapter 5 - Conclusion

2. The Application Site and Water Supply System

2.1 The Proposed Development (recap from s. 12A)

2.1.1 The Application Site has an area of approximately 6,150m^2. The existing topography across the Application Site varies in height, from the site entrance at +76.60mPD up to about +79.10mPD overall ground level.

2.1.2 The proposed development has a domestic Gross Floor Area (GFA) of not more than 15,375m^2. The proposed development comprises of 2 mid-rise residential towers, 1 clubhouse and 2 levels of basement carpark.

Table 2.1 – Development Schedule of the Application Site

Application Site Area	About 6,150 m^2
Plot Ratio	2.5
Total Domestic GFA	Not more than 15,375 m^2
No. of Blocks	2
Average Flat Size	About 96 m^2
No. of Units	About 160
Person/Unit	2.7
Anticipated Population	About 432
Clubhouse GFA	Not more than 768 m^2

For details, see Appendix B – WSIA Section 2

2.2 Water Demand Estimation (recap from s. 12A)

2.2.1 The water supply assessment methodology and water demand estimation are available in Sections 4 and 5 of the previous WSIA (Appendix B), and the water demands are summarized in Table 2.2 below. (Details available in Appendix B - WSIA Section 4 and Section 5.)

Table 2.2 – Summary of Water Demand Estimation

Development Type	**Fresh Water Demand (m^3/day)**	**Salt Water Demand (m^3/day)**
Domestic	130	30
Clubhouse	19	-
Total Demand	**149**	**30**

2.3 The Proposed Water Supply System (recap from s. 12A)

2.3.1 According to WSD Record Plans, Sha Tin North Fresh Water Service Reservoir (STNFWSR) is immediately next to the Application Site. There are existing fresh water mains along Tung Lo Wan Hill Road. Salt water mains are located on Tung Lo Wan Hill Road near Tung Lo Wan Hill Road Garden, as shown on **Figure 1**.

2.3.2 The existing Application Site currently has no fresh and salt water supply. New pipe system will be required to cater to the water demand from the proposed development. Due to the large level difference of the existing water mains connection point (around +37mPD) and the Application Site (around +77mPD), an off-site pump station was proposed. (Details of the water demand estimate and the proposed design are shown in Appendix B – WSIA Section 3-6 and are not repeated herein.)

2.3.3 New fresh water mains and salt water mains will be constructed from the existing fresh water main and salt water main located near the Tung Lo Wan Hill Road Garden to the Application Site. The proposed salt water and fresh water mains will be connected to the proposed private off-site sump and pump system with booster pump, housed in the Proposed Pump Station to be located near Tung Lo Wan Hill Road Garden. The proposed water supply layout plan is shown on **Figure 2**.

3. Proposed Pump Station

3.1 Site Description of the Proposed Pump Station

3.1.1 The Proposed Pump Station Site is located at Tung Lo Wan Hill Road, Sha Tin. To the north and west sides, the Proposed Pump Station Site is bound by existing slopes. To the south side, the Proposed Pump Station Site is bound by a Refuse Collection Point and its access road. To the east side, the Proposed Pump Station Site is bound by Tung Lo Wan Hill Road. The Proposed Pump Station Site is located at the man-made slope area and is sloping up from southern side to northern side with existing ground level ranging from +41mPD to +47mPD. **Figure 1** illustrates the location of the Proposed Pump Station Site. The proposed pump station general arrangements are presented on **Figures 3 and 4**.

3.2 Design standards, guideline and references

3.2.1 The following list of documents are used as reference for the design of the pump station:

a) EPD/TP1/05 Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (GESF) (Published by EPD, HK)

b) Plumbing Engineering Services Design Guide (IOP) 2002 (Published by The Institute of Plumbing, UK)

c) Technical Requirement for Plumbing Works in Buildings 2021 (TR) (Published by Water Supplies Department, HK)

d) 2021 Population By-Census (C&SD) (Published by Census and Statistics Department, HK)

e) Commercial and Industrial Floor Space Utilization Survey (CIFSUS) (Published by Planning Department, HK)

f) Manual of Mainlaying Practice 2012 (Published by Water Supplies Department, HK)

g) BS EN 12845:2004 (Published by the Authority of the Standards Policy and Strategy Committee, UK)

h) ASD Design Guide for Plumbing Installation (Published by ASD, HK)

i) ASD Design Guide for Public Swimming Pools (Published by ASD, HK)

j) HK Regulation CAP 132CA

k) WSIA (By AECOM)

l) Installation Notes of Different Types of Corrosion Resistant Pipe Materials as Inside Service in Buildingds (Published by Water Supplies Department, HK)

3.3 Design Parameters

3.3.1 The proposed pipe materials to be adopted in the water supplies system shall comply with WSD Manual of Mainlaying Section 1.1 and as shown in Table 3.1 below.

Table 3.1 – Proposed Pipe Size and Pipe Materials

Pipe Size (nominal diameter in mm)	**Type of Pipe Material**
700 and above	● Steel
200 to 600	● Ductile Iron (DI) ● Steel
150	● Buried Pipe: Blue Polyethylene (PE), steel, DI ● Exposed Pipe: Steel, DI
100 and below	● Buried Pipe: Blue PE, DI ● Exposed Fresh Water Pipe: steel, DI ● Exposed Salt Water Pipe: Black PE
Service Connections	● Buried Fresh Water Pipe: Blue PE ● Buried Salt Water Pipe: Blue PE ● Exposed Fresh Water Pipe: Stainless Steel, Corrugated Stainless Steel Tubes ● Exposed Salt Water Pipe: Black PE

3.3.2 Pipe and Pipe Fitting Loss shall adopt Hazen-Williams Formula: (BS EN 12845):

$$p = \frac{6.05 \times 10^{5}}{C^{1.85} \times d^{4.87}} \times L \times Q^{1.85}$$

where:

p is the pressure loss in the pipe, in bar;
Q is the flow through the pipe, in L/min;
d is the mean internal diameter of the pipe, in mm;
C is a constant for the type and condition of the pipe

3.3.3 C values and equivalent length of pipe and fittings shall comply with BS EN 12845:2004 Table 22 and Table 23, and as shown in in Table 3.2 and Table 3.3 below .

Table 3.2 – Equivalent length of fittings and valves (Extract from BS EN 12845:2004 Table 22)

EN 12845:2004 (E)

L is the equivalent length of pipe and fittings, in metres.

The values of *C* indicated in Table 22 shall be used.

Table 22 — C values for various types of pipe

Type of pipe	Value of *C*
cast iron	100
ductile iron	110
mild steel	120
galvanized steel	120
spun cement	130
cement lined cast iron	130
stainless steel	140
copper	140
reinforced glass fibre	140
NOTE The list is not exhaustive	

Table 3.3 – Equivalent length of fittings and valves (Extract from BS EN 12845:2004 Table 23)

Table 23 — Equivalent length of fittings and valves

Fittings and valves	Equivalent length of steel straight pipe for a *C* value of 120[a] (m)										
	Nominal diameter (mm)										
	20	25	32	40	50	65	80	100	150	200	250
90° Screwed elbow (standard)	0,76	0,77	1,0	1,2	1,5	1,9	2,4	3,0	4,3	5,7	7,4
90° Welded elbow (r/d = 1,5)	0,30	0,36	0,49	0,56	0,69	0,88	1,1	1,4	2,0	2,6	3,4
45° Screwed elbow (standard)	0,34	0,40	0,55	0,66	0,76	1,0	1,3	1,6	2,3	3,1	3,9
Standard screwed Tee or cross (flow through branch)	1,3	1,5	2,1	2,4	2,9	3,8	4,8	6,1	8,6	11,0	14,0
Gate valve - straight way	-	-	-	-	0,38	0,51	0,63	0,81	1,1	1,5	2,0
Alarm or non-return valve (swinging type)	-	-	-	-	2,4	3,2	3,9	5,1	7,2	9,4	12,0
	-	-	-	-	12,0	19,0	19,7	25,0	35,0	47,0	62,0
Alarm or non-return valve (mushroom type)	-	-	-	-	2,2	2,9	3,6	4,6	6,4	8,6	9,9
Butterfly valve Globe valve	-	-	-	-	16,0	21,0	26,0	34,0	48,0	64,0	84,0

[a] These equivalent lengths may be converted as necessary for pipes with other *C* values by multiplying by the following factors:

C value	100	110	120	130	140
Factor	0,714	0,85	1,00	1,16	1,33

3.3.4 The proposed arrangements of the Pump Station are presented in the following sub-sections, whereas details of the design of the proposed pump station are presented in **Appendix C**.

3.4 Proposed Pumps and Arrangement

3.4.1 The proposed water pump type, pump arrangement, material and speed are presented in Table 3.4 below:

Table 3.4 – Proposed Water Pump Type, Pump Arrangement, Material and Speed

Pump	Arrangement	Speed (rpm)	Pump Casing Material	Type
Fresh Water Transfer Pump Set	1 Duty, 1 Stand-by	1450	Casted Stainless Steel Grade 316	Constant Speed
Flush Water Transfer Pump Set	1 Duty, 1 Stand-by	1450	Close Grain Cast Iron	Constant Speed

3.5 Proposed Water Tank

3.5.1 The proposed water tank material and arrangement are presented in Table 3.5 below:

Table 3.5 – Proposed Water Tank Material and Arrangement

Water Tank	Water Tank Material	Water Tank Arrangement
Fresh Water Sump Tank	Reinforced Concrete	Twin-Tank
Flush Water Sump Tank	Fibreglass	Twin-Tank

3.5.2 The proposed size of the water tanks is presented in Table 3.6 below:

Table 3.6 – Proposed Size of Water Tanks

Water Tank	Storage Capacity (L)		
	Chamber 1 of Twin Tank	Chamber 2 of Twin Tank	Total
Fresh Water Sump Tank	7850	7850	15700
Flush Water Sump Tank	1400	1400	2800

3.6 Proposed Check meters

3.6.1 Fresh water and flush water check meters shall be provided on ground floor of the sump pump room with the following details:

Table 3.7 – Details of Proposed Check Meters

	Size of Check Meter	Water Distribution Main Size (mm dia.)	Water Distribution Main Material (By WSD Manual of Mainlaying Section 1.1)	
			Buried	Exposed
Fresh Water Check Meter Position	150	150	DI	DI
Flush Water Check Meter Position	50	50	Blue PE	Black PE

4. Maintenance Responsibility

4.1 Proposed Water Supply Lead-in within the Application Site

4.1.1 The Applicant is responsible for the construction and maintenance of all water supply facilities within the Application Site Boundary, including all internal watermains and water supply lead-in valves.

4.2 Proposed Private Off-site Pump Station

4.2.1 The proposed private off-site pump station is proposed to be constructed, operated and maintained by the Applicant.

4.3 Proposed External Water Supply Rising Main

4.3.1 The Applicant is responsible for the construction and maintenance of the proposed external watermains within the private section of widened Tung Lo Wan Hill Road to be managed and maintained by the Applicant (exact extent of the private section of widened Tung Lo Wan Hill Road shall be ascertained by Lands Department in the approval for the Land Exchange of the Development Site).

4.3.2 The proposed external watermains between the existing fresh water and salt water main and the private section of the widened Tung Lo Wan Hill Road (i.e. water mains to be laid in government land) will be constructed by the Applicant and are proposed to be handed over to Water Supplies Department after construction.

4.3.3 It is understood that the section of Tung Lo Wan Hill Road leading to Sha Tin North Fresh Water Service Reservoir (STNFWSR) has been allocated to Water Supplies Department (WSD) as waterwork maintenance access. The project proponent proposes to take up the management and maintenance responsibility of the widened section of road. Right of way will be given to the government at all times for vehicular access and maintenance purpose, as well as given to public for access to the Archery Ground above the STNFWSR.

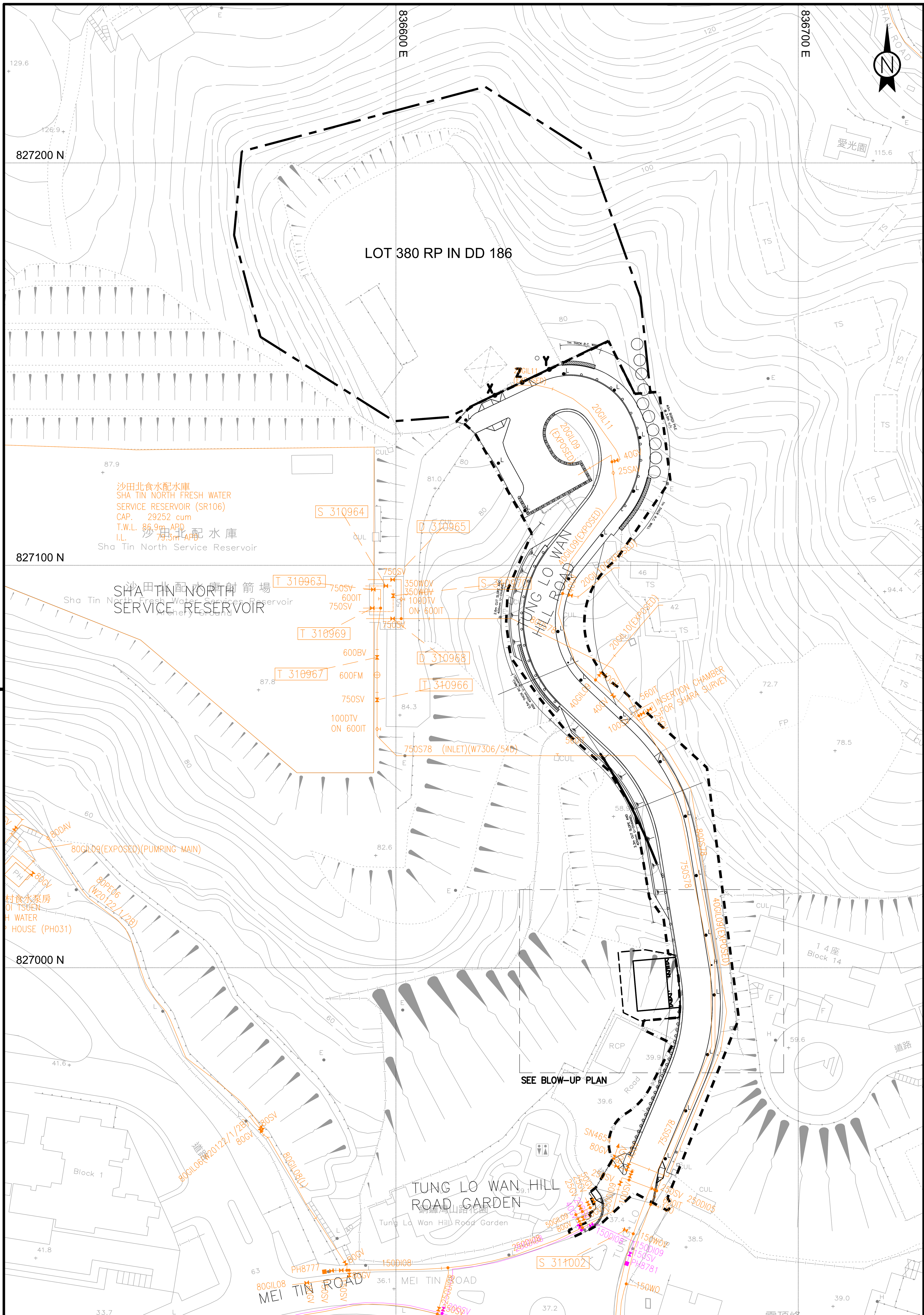
5. Conclusion

5.1.1 This report serves as a supplementary document to the WSIA approved under Section 12A of Town Planning Ordinance, for the application of pump station under Section 16 of Town Planning Ordinance (Cap 131). The water demand estimation, assessment methodology and proposed water supply system of the previously approved WSIA are adopted for the design of the Proposed Pump Station.

5.1.2 The Proposed Pump Station Site is located at Tung Lo Wan Hill Road near the Tung Lo Wan Hill Road Garden, and falls within an area zoned as "Government, Institution and Community" ("G/IC") on the Draft ed Sha Tin Outline Zoning Plan (OZP) No. S/ST/35.

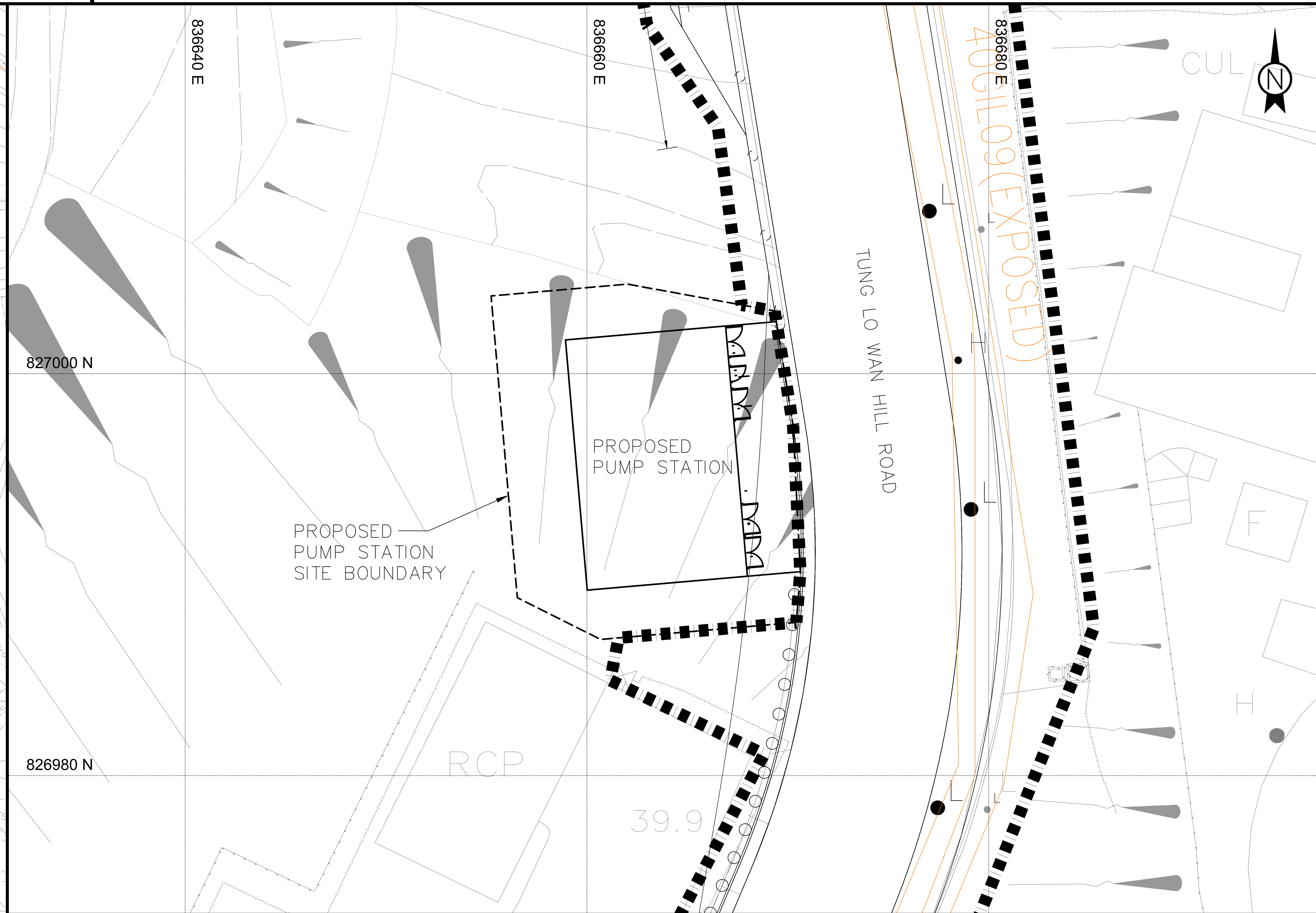
5.1.3 Preliminary design has been conducted for the Proposed Pump Station to supply the fresh water and flush water demand of the proposed Application Site, and as presented on **Figures 2 to 4**.

Figures



LOCATION PLAN

SCALE 1 : 600



BLOW-UP PLAN

SCALE 1 : 150

LEGEND :

LOT BOUNDARY

PROPOSED ACCESS ROAD EXTENT

EXISTING SALT WATER MAINS

EXISTING FRESH WATER MAINS

REVISION	DATE	DESCRIPTION	BY	CHK
–	AUG 24	FOR PUMP STATION DESIGN REPORT	KCW	ACS

DRG. TITLE
PROPOSED PUMP STATION LOCATION PLAN AND EXISTING WATERMAINS LAYOUT PLAN

PROJECT
TUNG LO WAN SHAN ROAD

DRG. TYPE
PROPOSED ACCESS ROAD EXTENT

DRG. NO
PSDR–FIG–01

SCALE	1 : 600
DATE	JUL 2024
DESIGNED	ACS
DRAWN	KCW
CHECKED	ACS
APPROVED	LTL

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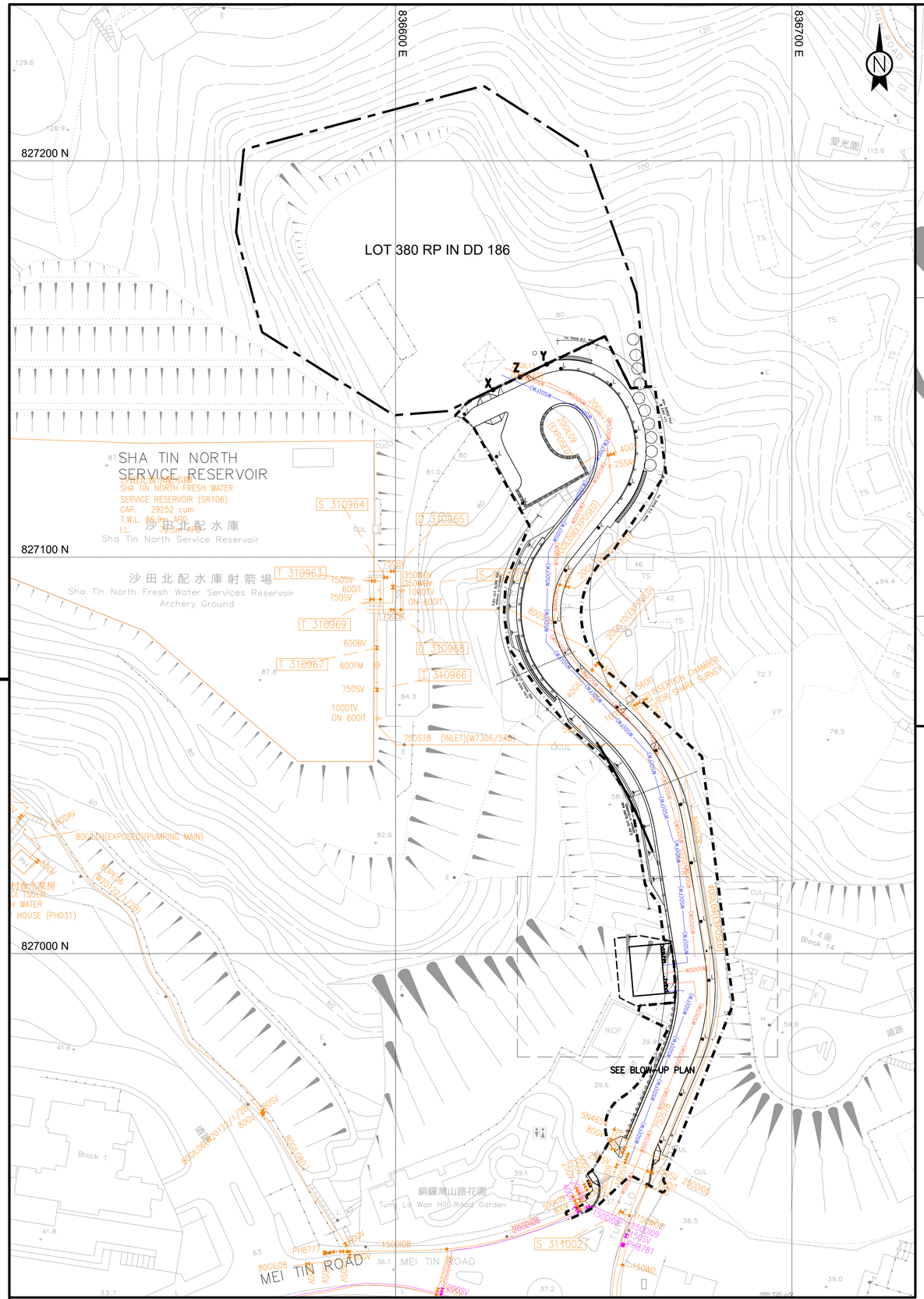

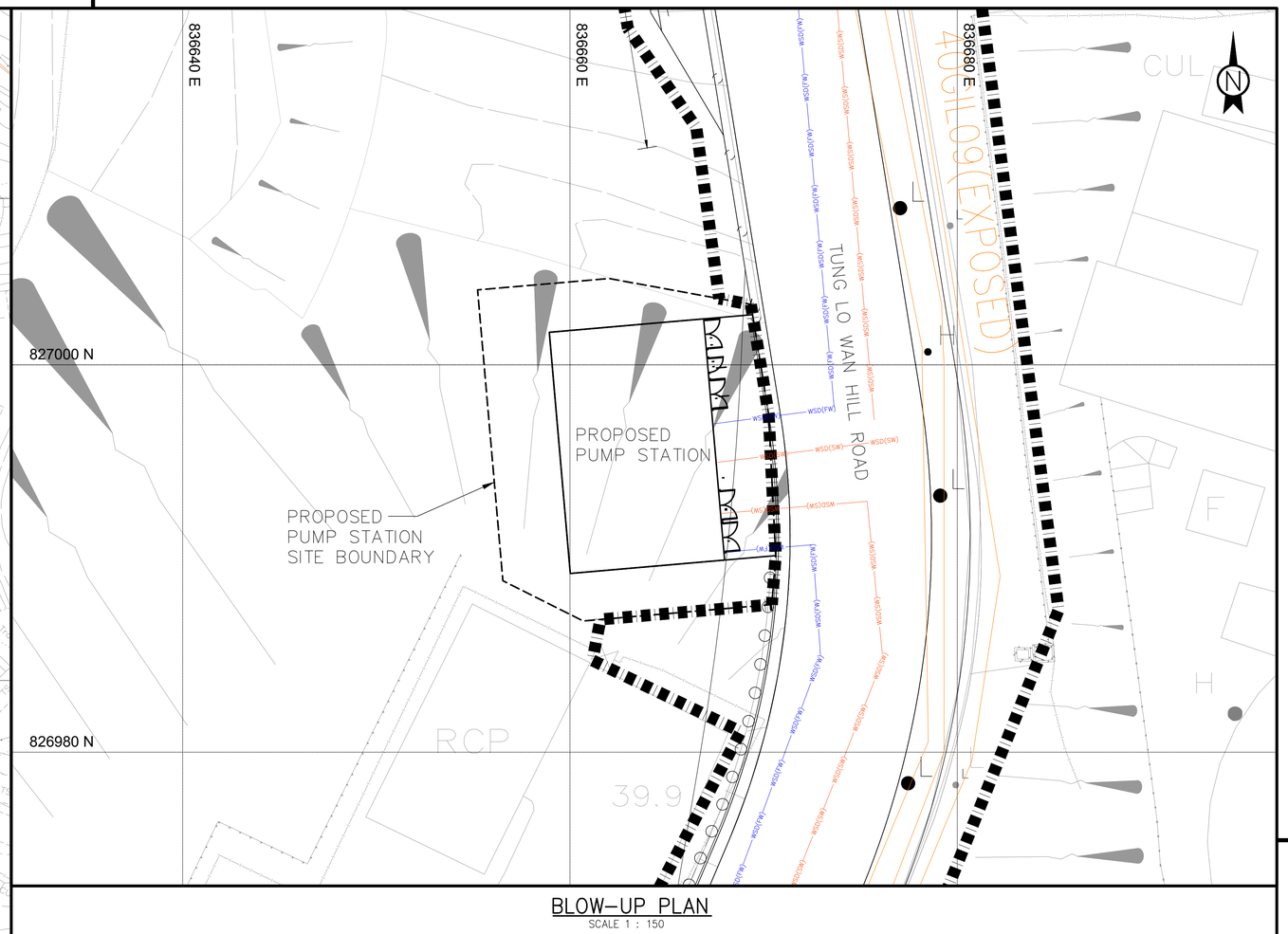

LEGEND :

- LOT BOUNDARY
- PROPOSED ACCESS ROAD EXTENT
- EXISTING SALT WATER MAINS
- EXISTING FRESH WATER MAINS
- WSD(SW) — PROPOSED SALT WATER MAINS
- WSD(FW) — PROPOSED FRESH WATER MAINS

REVISION	DATE	DESCRIPTION	BY	CHK
–	AUG 24	FOR PUMP STATION DESIGN REPORT	KCW	ACS
A	DEC 24	FOR S16 PUMP STATION DESIGN REPORT	KCW	ACS

DRG. TITLE

PROPOSED WATERMAINS LAYOUT PLAN

PROJECT: TUNG LO WAN SHAN ROAD	SCALE: 1 : 600
	DATE: JUL 2024
DRG. TYPE: PROPOSED ACCESS ROAD EXTENT	DESIGNED: ACS
	DRAWN: KCW
DRG. NO: PSDR–FIG–02	CHECKED: ACS
	APPROVED: LTL

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TEL: (852) 2522 1068
E-mail: cmwal@cmwal.com

WATER TANK SCHEDULE

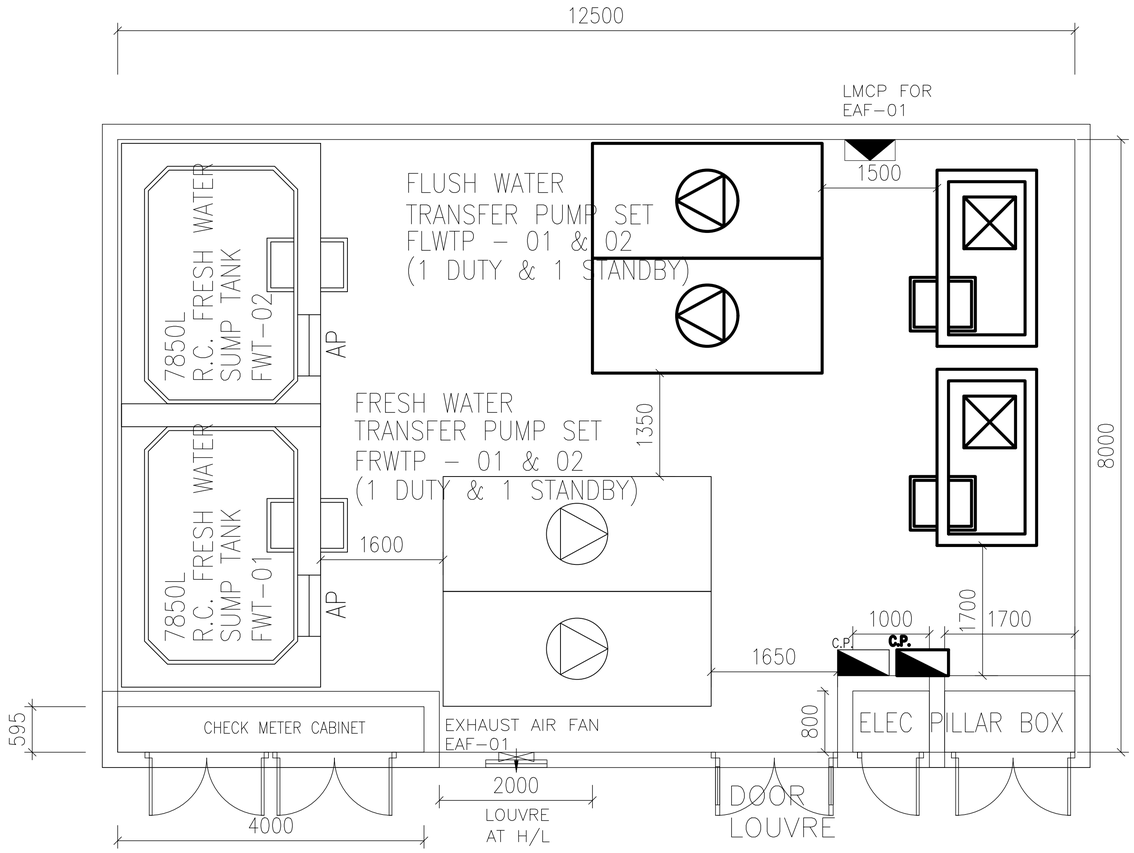
System	Water Tank Name	Tank Material	Water Tank Arrangement	Water Tank Designation	Location	Storage Capacity (L)		
						Chamber 1 of Twin Tank	**Chamber 2 of Twin Tank**	**Total**
Fresh Water System	Fresh Water Sump Tank	Reinforced Concrete	Twin-Tank	FRWT-01 & 02	G/F Sump Pump Room	**7850**	**7850**	**15700**
Flush Water System	Flush Water Sump Tank	Fibreglass	Twin-Tank	FLWT-01 & 02	G/F Sump Pump Room	**1400**	**1400**	**2800**

WATER PUMP SCHEDULE

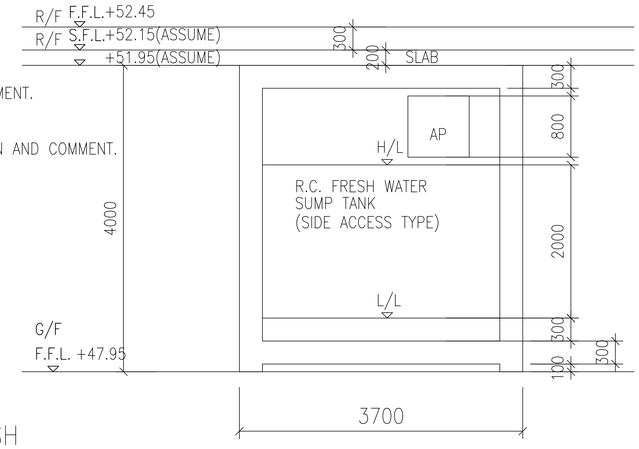
Pump No.	Pump Servies	Location	Flow Rate (L/s)	Pump Head (m)	Speed (rpm)	Required Pump Power (kW)	Rated Motor Power (kW)	Starting Method	Pump Casing
FRWTP-01&02	Fresh Water Transfer Pump Set (1 Duty & 1 Standby)	G/F Sump Pump Room	30.00	95.00	1450	58.25	75	3-phase, Star-delta	Casted Stainless Steel Grade 316
FLWTP-01&02	Flush Water Transfer Pump Set (1 Duty & 1 Standby)	G/F Sump Pump Room	4.00	85.00	1450	6.95	7.5	3-phase, Star-delta	Close Grain Cast Iron

REMARKS:

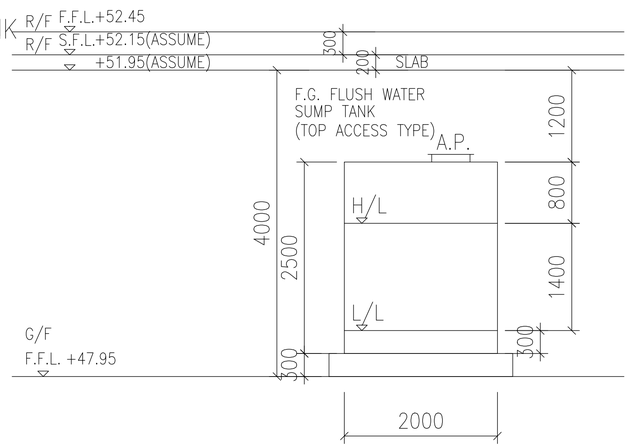
1. THE LOURVE AND EXHAUST AIR FAN AS SHOWN IN THE LAYOUT DRAWING ARE INDICATIVE ONLY. THE VENTILATION DESIGN AND THE CORRESPONDING PROVISION AND SPECIFICATION SHALL BE SUBJECTED TO MVAC DESIGNER'S INPUT. THE OVERALL PUMP ROOM SIZE SHALL BE FURTHER ADJUSTED IF NECESSSARY SUBJECTED TO MVAC DESIGNER'S DESIGN AND COMMENT.
2. THE ELECTRICAL PILLAR BOX AS SHOWN IN THE LAYOUT DRAWING IS INDICATIVE ONLY. THE ELECTRICAL SYSTEM DESIGN AND THE CORRESPONDING SPECIFICATION SHALL BE SUBJECTED TO ELECTRICAL DESIGNER'S INPUT. THE OVERALL PUMP ROOM SIZE SHALL BE FURTHER ADJUSTED IF NECESSSARY SUBJECTED TO ELECTRICAL DESIGNER'S DESIGN AND COMMENT.



PROPOSED ROOM INTERNAL DIMENSION
= 12.5m(L) X 8m(W) X 4m(H)
(WITH 4m CLEAR HEADROOM REQUIRED)



REQUIRED TANK CAPACITY = 7850L = 7.85m3
EFFECTIVE HEIGHT = 2m
REQUIRED EFFECTIVE AREA = 7.85/2 = 3.925m2
PROPOSED TANK AREA = 3.1m (L) X 2m (W) = 6.2m2
ASSUMING 50mm INTERNAL WALL FINISHING WITH CHAMFER:
PROPOSED TANK EFFECTIVE AREA = 5.55m2 (MEASURED FROM CAD)
PROPOSED TANK OVERALL DIMENSION = 3.7m (L) X 2.6m (W) X 4m (H)
(WITH 4m CLEAR HEADROOM REQUIRED)



REQUIRED TANK CAPACITY = 1400L = 1.4m3
EFFECTIVE HEIGHT = 1.5m
REQUIRED EFFECTIVE AREA = 1.4/1.4 = 1m2
PROPOSED TANK EFFECTIVE AREA = 2m (L) X 1m (W) = 2m2
PROPOSED TANK OVERALL DIMENSION = 2m (L) X 1m (W) X 2.5m (H)
(WITH 4m CLEAR HEADROOM REQUIRED)

PROPOSED PUMP STATION LAYOUT (SCALE: 1:40@A1)

REVISION	DATE	DESCRIPTION	BY	CHK
–	AUG 24	FOR PUMP STATION DESIGN REPORT	KCW	ACS

DRG. TITLE

PROPOSED PUMP STATION GENERAL ARRANGEMENT

PROJECT: TUNG LO WAN SHAN ROAD	SCALE: N.T.S.
	DATE: AUG 2024
	DESIGNED: ACS
DRG. TYPE: PROPOSED ACCESS ROAD EXTENT	DRAWN: KCW
	CHECKED: ACS
DRG. NO: PSDR–FIG–03	APPROVED: LTL

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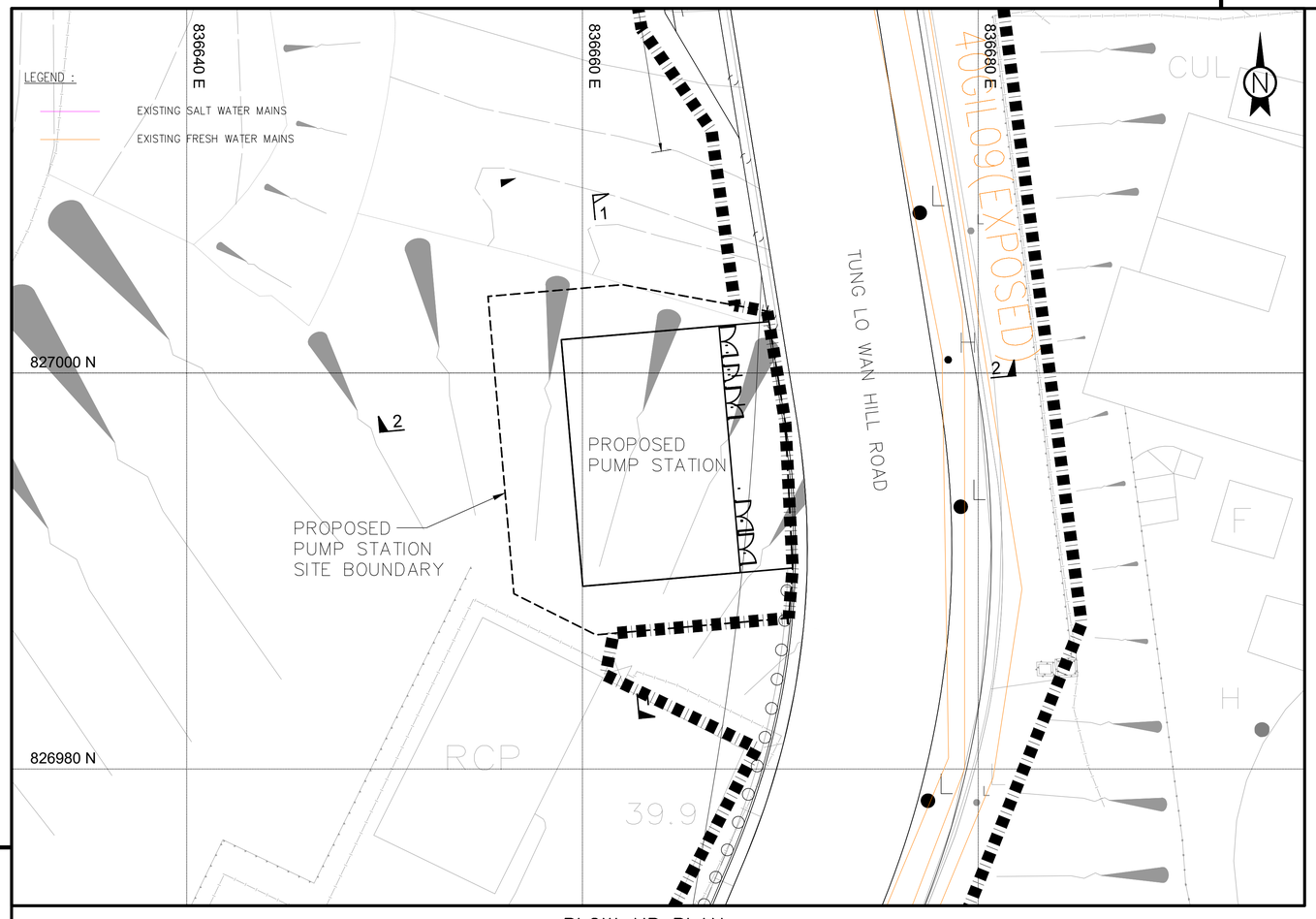
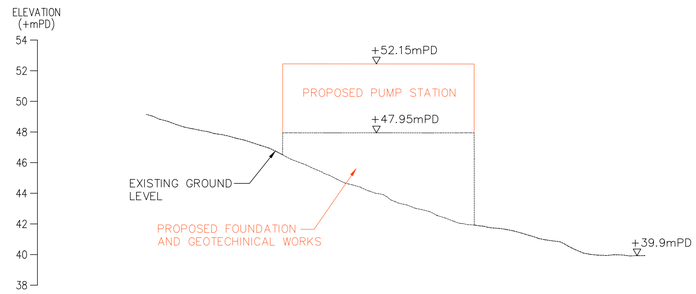
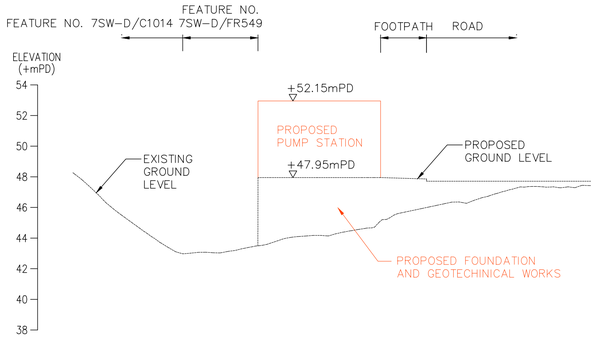


BLOW–UP PLAN
SCALE 1 : 150



SECTION 1–1
SCALE 1 : 200



SECTION 2–2
SCALE 1 : 200

–	AUG 24	FOR PUMP STATION DESIGN REPORT	KCW	ACS
REVISION	DATE	DESCRIPTION	BY	CHK

DRG. TITLE
PROPOSED PUMP STATION –SECTIONS

PROJECT
TUNG LO WAN SHAN ROAD

DRG. TYPE
PROPOSED ACCESS ROAD EXTENT

DRG. NO
PSDR–FIG–04

SCALE	1 : 600
DATE	JUL 2024
DESIGNED	ACS
DRAWN	KCW
CHECKED	ACS
APPROVED	LTL

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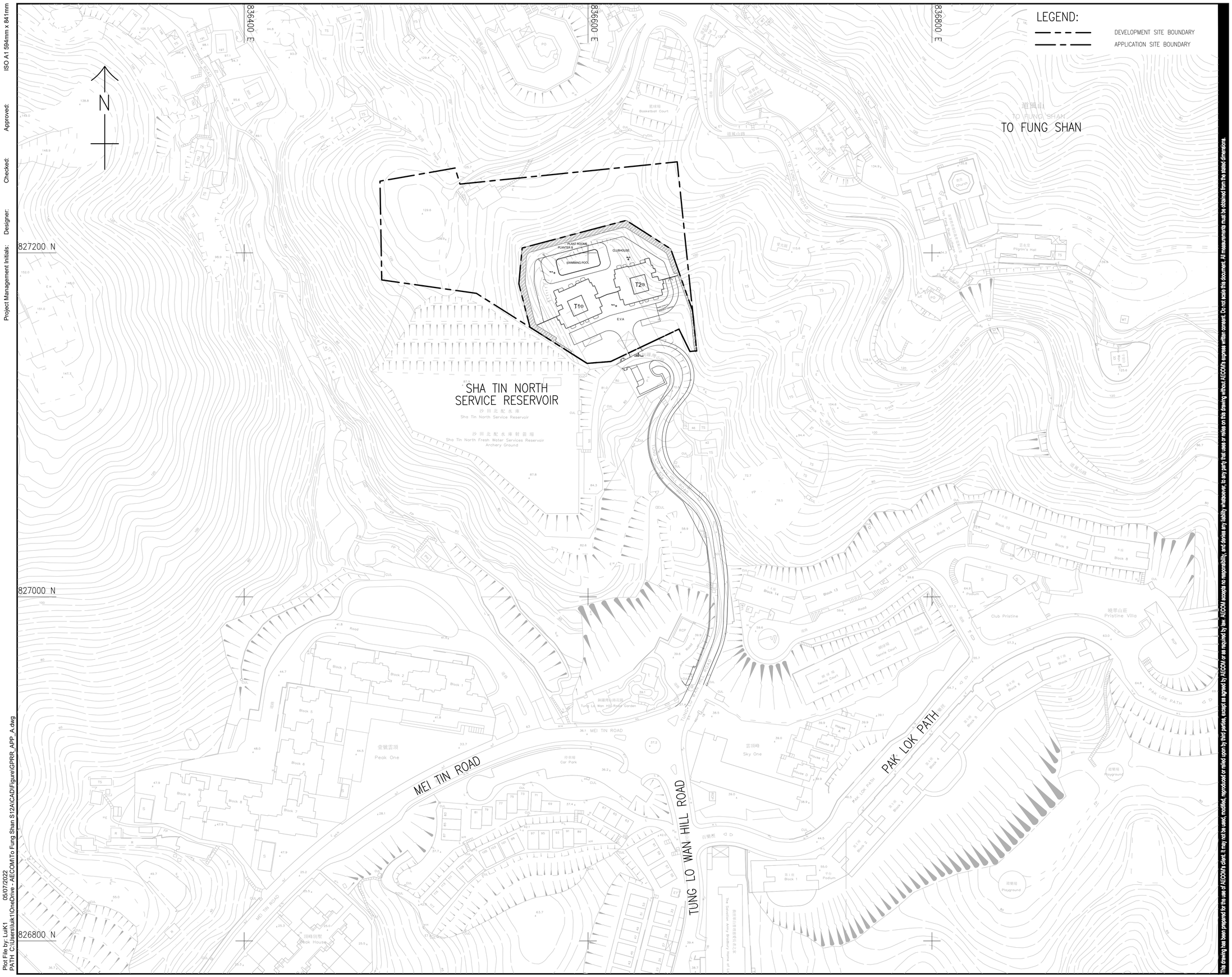
E-mail: cmwal@cmwal.com

Appendix A

Indicative Master Layout Plan from s.12A

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:



Plot File by: LuiK1 05/07/2022
PATH: C:\Users\luik1\OneDrive - AECOM\To Fung Shan S12A\CAD\Figure\GPRR_APP_A.dwg

AECOM

PROJECT
項目

SECTION 12A APPLICATION FOR PROPOSED ADMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT ON LOT 380 RP (PART) IN DD186, TUNG LO WAN HILL ROAD, SHA TIN

CLIENT
業主

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
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SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核

STATUS
用途

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
LKC

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
MASTER LAYOUT PLAN

SHEET NUMBER
圖紙編號
GPRR/APPENDIX A

Appendix B

Water Supply Impact Assessment from s.12A

Section 12A Application for Proposed Amendments to the Sha Tin Outline Zoning Plan in Support of a Private Residential Development at Lot 380 RP (Part) in DD 186, Tung Lo Wan Hill Road, Sha Tin

Water Supply Impact Assessment

August 2022

Delivering a better world

Prepared by:

AECOM Asia Company Limited
11/F, Block 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin
Hong Kong
aecom.com

Table of Contents

Tables

Figures

Annex

1. Introduction

1.1 Background

1.1.1 AECOM Asia Company Limited (AECOM) has been commissioned by the Applicant to act as the engineering consultant for the Proposed Development at To Fung Shan, Sha Tin.

1.1.2 The Application Site is situated at the hillside end of Tung Lo Wan Hill Road, adjacent to Sha Tin North Fresh Water Service Reservoir, **WSIA/Figure 1** refers.

1.1.3 The Site largely falls within an area zoned as "Green Belt" ("GB"), and minor portion of "Government, Institution and Community" ("G/IC") on the Draft Sha Tin Outline Zoning Plan (OZP) No. S/ST/35. The current proposal is to rezone the Subject Site into a new sub-zone under the "Residential (Group B)" ("R(B)") zoning, i.e. "R(B)3". This Water Supply Impact Assessment (WSIA) report serves as a supportive document for rezoning application under Section 12A of Town Planning Ordinance (Cap 131).

1.2 Objective of this Submission

1.2.1 This report outlines the assessment results of the potential water supply impacts caused by the Proposed Development at the Application Site. The main objectives of this assessment include the followings:

(i) Review the existing water supply condition of the Application Site;

(ii) Outline the methodology adopted in this assessment;

(iii) Identify any potential impact on the current water supply system due to the additional water supply demand from the proposed development;

(iv) Propose water supply mitigation measures where appropriate to mitigate the potential water supply impact.

1.3 Nomenclature

1.3.1 The following abbreviations and shortened expressions in **Table 1** are adopted in this report.

AC	Asbestos Cement
AECOM	AECOM Asia Company Limited
CIFSUS	Commercial and Industrial Floor Space Utilization Survey (PlanD)
EPD	Environmental Protection Department
F&B	Food and Beverage
GESF	Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (EPD)
GFA	Gross Floor Area
MDD	Mean Daily Demand
MLD	Million Litres per Day
mPD	Metres above Principal Datum
PlanD	Planning Department
STNFWSR	Sha Tin North Fresh Water Service Reservoir
UDD	Unit Daily Demand
WSD	Water Supplies Department
WSIA	Water Supply Impact Assessment

Table 1 – Nomenclature

2. Development Proposal

2.1 The Proposed Development

2.1.1 The Application Site has an area of approximately 6,150m^2 with a domestic Gross Floor Area (GFA) of not more than 15,375m^2. The proposed development comprises of 2 mid-rise residential towers, 1 clubhouse and 2 levels of basement carpark.

2.1.2 The anticipated completion year of the Proposed Development is 2028.

2.1.3 The Master Layout Plan (MLP) of the Proposed Development is shown in **WSIA/Figure 2**. The proposed development schedule is summarized in **Table 2** below.

Application Site Area	About 6,150m^2
Plot Ratio	2.5
Total Domestic GFA	Not more than 15,375m^2
No. of Blocks	2
Average Flat Size	About 96m^2
No. of Units	About 160
Person/Unit(1)	2.7
Anticipated Population	About 432
Clubhouse GFA	Not more than 768m^2

(1): Based on a person-per-flat ratio of 2.7 referenced to Population By-Census 2021.

Table 2 – Development Schedule

3. The Application Site

3.1 Site Description

3.1.1 The Application Site occupies an area of about 6,150 m^2, it is irregular in shape and is currently vacant. The existing topography across the Application Site varies in height, from the site entrance at 76.60mPD up to about 79.10mPD overall ground level.

3.2 Existing Water Supply System

3.2.1 According to WSD Fresh Water / Salt Water Record Plan, Sha Tin North Fresh Water Service Reservoir (STNFWSR) is immediately next to the Application Site. However, it is observed that the overall elevation of the proposed development is higher than that of STNFWSR, such that the operation invert level of the reservoir may not have adequate head to serve the proposed development.

3.2.2 Existing salt water mains are located on Tung Lo Wan Hill Road near Tung Lo Wan Hill Road Garden. Please refer to **WSIA/Figure 3** and **WSIA/Figure 4** for the existing fresh water and salt water supply layout respectively.

3.3 Proposed Water Supply System

3.3.1 Proposed water supply to the Application Site shall come from the existing STNFWSR, the location of which is indicated on **WSIA/Figure 3** and **WSIA/Figure 4**. However, due to the level difference, pump system is required.

3.3.2 An off-site sump and pump system is proposed. The tentative proposed location in the vicinity of the existing Tung Lo Wan Hill Road Garden, adjacent to the existing refuse collection point.

3.3.3 The proposed private off-site sump and pump system with booster pump and rising mains along Tung Lo Wan Hill Road can supply fresh and salt water to the Application Site. The indicative proposed pipe alignment is illustrated in **WSIA/Figure 3** and **WSIA/Figure 4**.

4. Assessment Methodology

4.1 Unit Demand

4.1.1 For estimation of water demands of non-domestic nature, "*EPD/TP1/05 Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0*" (GESF) published by Environmental Protection Department has been used as reference.

4.1.2 Unit demand of 300 L/head/day and 70 L/head/day have been adopted for domestic fresh water demand and salt water demand respectively; and 45 L/h/d has been adopted for service trades in Sha Tin.

4.1.3 A summary of the unit daily demand (UDD) used for different development types is shown in **Table 3** below.

Development Type	Flow Type	Fresh Water UDD (L/head/day)	Salt Water UDD (L/head/day)
Domestic	Private Residential – R2	300	70
Clubhouse	Service Trades	45	/

Table 3 – Unit Demand

4.2 Design Population

4.2.1 For domestic population, a person-per-flat ration of 2.7 had been adopted by referring to the 2021 Population By-Census.

4.2.2 A summary of design population can be found in the below **Table 4**.

Development Type	Population
Domestic	432
Non-domestic	Service Trades for a Population of 432

Note: Service trade adopted 100% of domestic population

Table 4 – Design Population

4.3 Peaking Factors

4.3.1 The peak demand factors below shall be adopted for design:

- Peak flow rate in fresh water distribution mains = 3 x mean daily demand (MDD)
- Peak flow in salt water distribution mains = 2 x mean daily demand (MDD)
- Peak flow rate in fresh water trunk mains = 1.5 x mean daily demand (MDD)
- Peak flow rate in salt water trunk mains = 1.2 x mean daily demand (MDD)

4.4 Fire-fighting

4.4.1 In addition to the aforementioned facilities of the Proposed Development, water supply for fire-fighting service has been considered in this WSIA. Fire-fighting requirement for residential zone is 6,000m^3/day with discharge pressure of 17m head. The fire hydrant should be of standard pattern with minimum output pressure of not less than 25 psi. With multiple hydrants operating at the same time, total output of not less than 4,000L/min shall last for 60 minutes. **Table 5** summarises the fire-fighting requirements.

Requirements	Minimum Values
Minimum fresh water supply	6,000 m^3/day
Discharge pressure	17m
Minimum output not less than 25 psi	4,000 L/min to last for an hour

Table 5 – Fire-fighting Requirement

4.5 Design Velocity and Head of Flow

4.5.1 The desirable flow velocities for hydraulic checking are as follows:

Maximum velocity (under peak flow condition)

Fresh water mains:

>DN700	≤ 3 m/s
DN700 – DN525	≤ 2.5 m/s
DN450 – DN375	≤ 2 m/s
DN300 – DN200	≤1.5 m/s

Salt water mains:

≥DN1000	≤ 3 m/s
DN900 – DN800	≤ 2.5 m/s
DN700 – DN300	≤ 2 m/s
DN450 – DN300	≤ 1.5 m/s

Minimum velocity (under peak flow condition)

Fresh water mains:	≥ 0.9 m/s
Salt water mains:	≥ 0.9 m/s

4.5.2 The pipeline shall have a minimum gradient of 1:400. Pipes shall be laid at a minimum separation of 300mm away from existing utilities and underground structures.

4.5.3 The adopted minimum residual heads at extremity of the fresh water and salt water supply system for the proposed development are as follow:

- Fresh water: 20m
- Salt water: 15m

5. Water Demand Estimation

5.1 Water Demand Estimates

5.1.1 By adopting the aforementioned design parameters, the fresh water demand and salt water demand generated by the proposed development are estimated to be 149 m^3/day and 30 m^3/day respectively upon full occupation. The estimation results are summarised in **Table 6** below.

Development Type	Flow Type	Fresh Water Demand (m^3/day)	Salt Water Demand (m^3/day)
Domestic	Private Residential – R2	130	30
Clubhouse	Service Trades	19	/
Total Demand		149	30

Table 6 – Water Demand Estimation

5.1.2 The water demand is anticipated to start at year 2028 which is the same as the completion year.

5.1.3 Please refer to **Annex W1** for the detail estimation of water demand.

6. Potential Water Supply Impacts and Mitigation Measures

6.1 Potential Water Supply Impacts

6.1.1 The existing Application Site currently has no fresh and salt water supply, new pipe system will be required and water demand from the proposed development will be considered additional water demand compared to pre-development scenario which has no water demand.

6.1.2 Subject to WSD's agreement, the proposed development will draw its water supply from the existing Sha Tin North Fresh Water Service Reservoir.

6.2 Proposed Mitigation Measures

6.2.1 New fresh water mains and salt water mains will be constructed and lead in to the Application Site.

6.2.2 The proposed fresh and salt water mains will be connected to the proposed private off-site sump and pump system with booster pump.

6.2.3 Water supply chamber / gate valve will be provided for the fresh water supply, coming from the proposed private off-site sump and pump system.

6.2.4 The proposed private off-site sump and pump system to be located at the existing Tung Lo Wan Hill Road Garden.

6.2.5 The location of the proposed private off-site sump and pump system is subject to the agreement of the relevant parties and shall be further reviewed.

6.2.6 The proposed salt water mains will be tee-off from an existing salt water main near Tung Lo Wan Hill Road Garden.

6.2.7 The proposed fresh and salt water supply layout plan can be found in **WSIA/Figure 3 and WSIA/Figure 4** respectively.

7. Maintenance Responsibility

7.1 Proposed Water Supply Lead-in

7.1.1 The Applicant is responsible for the construction, operation and maintenance of all proposed water supply facilities as mentioned in the WSIA of this Application including all internal water mains, water supply lead-in valves and those proposed water mains as shown in WSIA/Figure 3 and Figure/4.

7.2 Proposed Private Off-site Sump and Pump System

7.2.1 The proposed external water mains, the proposed private off-site sump and pump system with booster pump is proposed constructed, operated and maintained by the Applicant.

7.3 Proposed External Water Supply Rising Mains

7.3.1 It is understood that the section of Tung Lo Wan Hill Road leading to Sha Tin North Fresh Water Service Reservoir (STNFWSR) has been allocated to Water Supplies Department (WSD) as waterwork maintenance access. The project proponent proposes to take up the management and maintenance responsibility of the widened section of road. Right of way will be given to the government at all times for vehicular access and maintenance purpose.

8. Conclusion

8.1 Water Supply Impact Assessment

8.1.1 The Application Site is at the end of Tung Lo Wan Hill Road neighbouring WSD Sha Tin North Fresh Water Service Reservoir, the location can be referred to **WSIA/Figure 1**.

8.1.2 AECOM Asia Company Limited (AECOM) has been commissioned by the Applicant to act as the engineering consultant for the Proposed Development in To Fung Shan, Sha Tin.

8.1.3 The proposed amendment is to rezone the Application Site which is currently zoned "GB" with a minor portion zoned "G/IC" on the Draft Sha Tin OZP No. S/ST/35 to "R(B)3" and this Water Supply Impact Assessment (WSIA) report serves as a supportive document for rezoning application under Section 12A of Town Planning Ordinance (Cap 131).

8.1.4 The Application Site is mostly vacant, the plan area of the site is about 6,150 m^2, with hilly topography and heavily vegetated surroundings. The Proposed Development comprises of 2 mid-rise residential towers, 1 clubhouse and 2 levels of basement carpark.

8.1.5 Approximately 149 m^3/day of fresh water demand and 30 m^3/day of salt water demand will be generated by the proposed development. It is proposed to draw water supply from the nearby Sha Tin North Service Reservoir.

8.1.6 An off-site sump and pump system and associated rising main are proposed for the supply of fresh water to the Application Site. The tentative proposed location is at the existing Tung Lo Wan Hill Road Garden and the exact location is subject to the agreement of relevant government department and further review.

8.1.7 Proposed salt water main tee-off is located near the existing Tung Lo Wan Hill Road Garden.

8.1.8 It is concluded that the proposed development will generate additional water demand. The proposed watermains as well as the proposed private off-site sump and pump system will supply fresh water and salt water to the proposed development. The proposed development will draw its water supply from STNFWSR. No adverse water supply impact is envisaged.

End of Report

Figures

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

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AECOM

PROJECT
項目

SECTION 12A APPLICATION FOR PROPOSED AMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT AT LOT 380 RP (PART) IN DD 186, TUNG LO WAN HILL ROAD, SHA TIN

CLIENT
業主

CONSULTANT
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SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS
階段

SCALE 比例 | **DIMENSION UNIT** 尺寸單位
A1 1 : 2500 | METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號 | **CONTRACT NO.** 合約編號
60670879

SHEET TITLE
圖紙名稱

LOCATION PLAN

SHEET NUMBER
圖紙編號

60670879/WSIA/FIGURE 1

Plot File by: LIANJ2 16/08/2022
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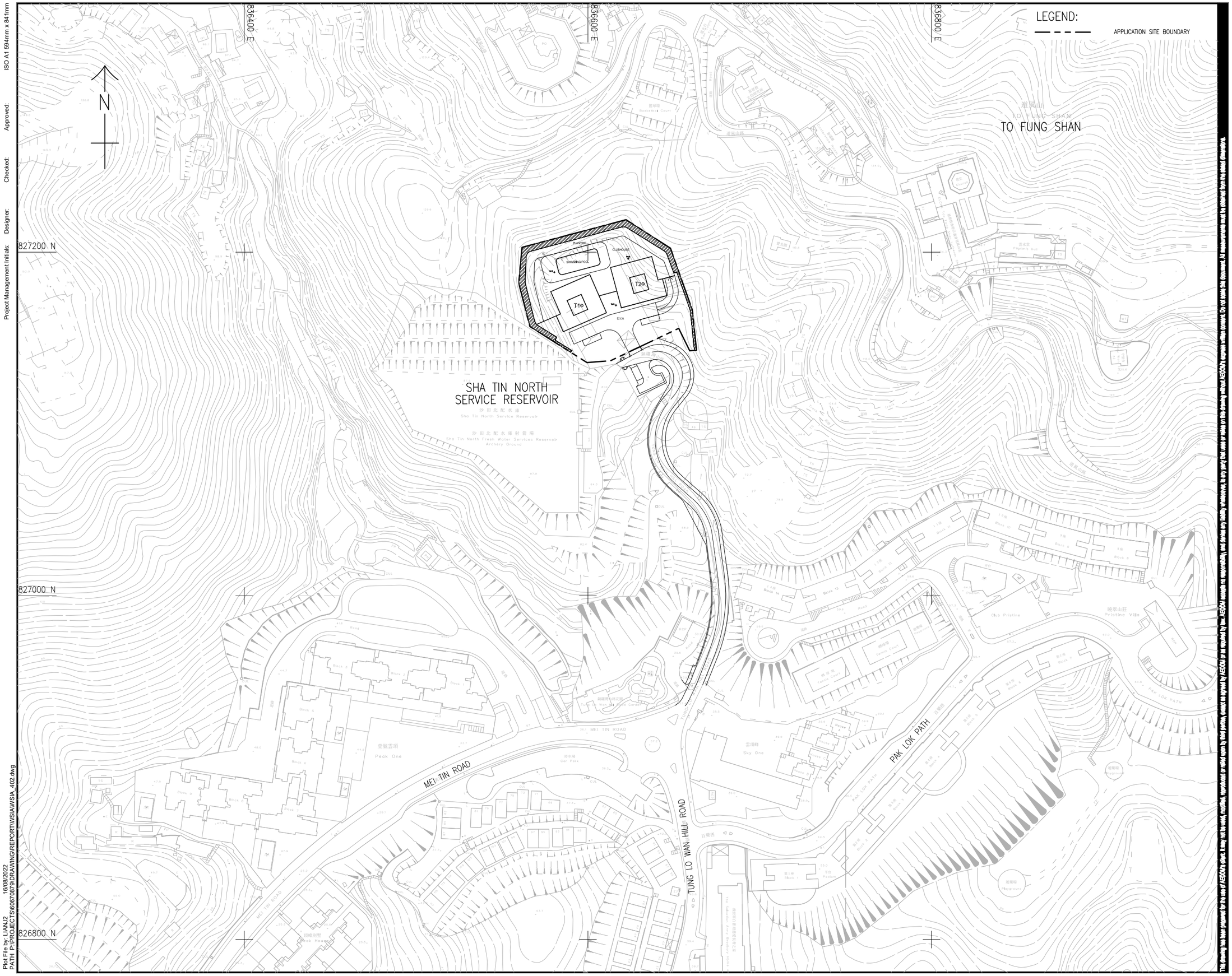
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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PROJECT

SECTION 12A APPLICATION FOR PROPOSED AMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT AT LOT 380 RP (PART) IN DD 186, TUNG LO WAN HILL ROAD, SHA TIN

CLIENT

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SCALE A1 1 : 1000

DIMENSION UNIT METRES

KEY PLAN

PROJECT NO. 60670879

CONTRACT NO.

SHEET TITLE

MASTER LAYOUT PLAN

SHEET NUMBER

60670879/WSIA/FIGURE 2

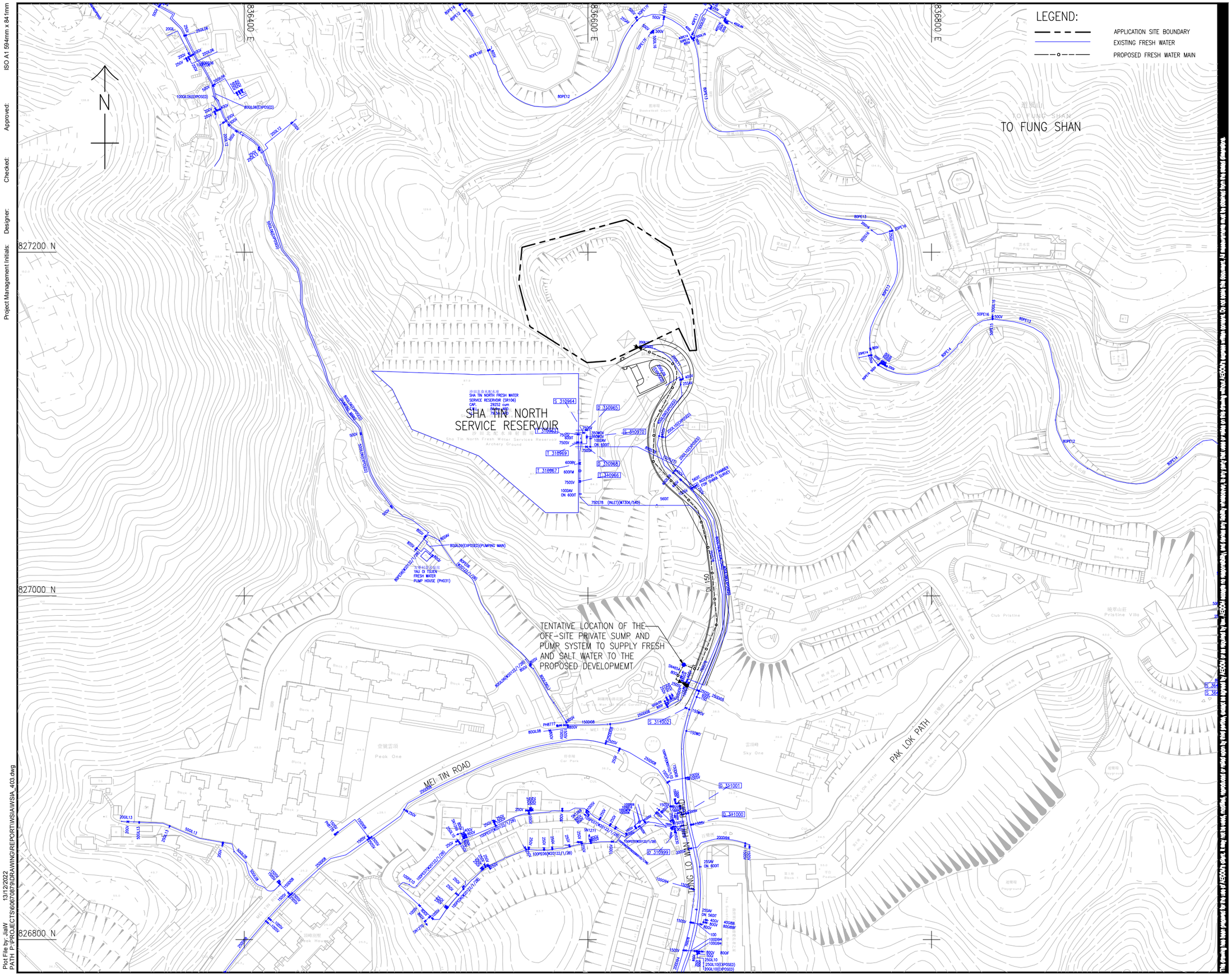
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:



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PROJECT

SECTION 12A APPLICATION FOR PROPOSED AMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT AT LOT 380 RP (PART) IN DD 186, TUNG LO WAN HILL ROAD, SHA TIN

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I/R	DATE	DESCRIPTION	CHK

STATUS

SCALE A1 1 : 1000

DIMENSION UNIT METRES

KEY PLAN

PROJECT NO. 60670879

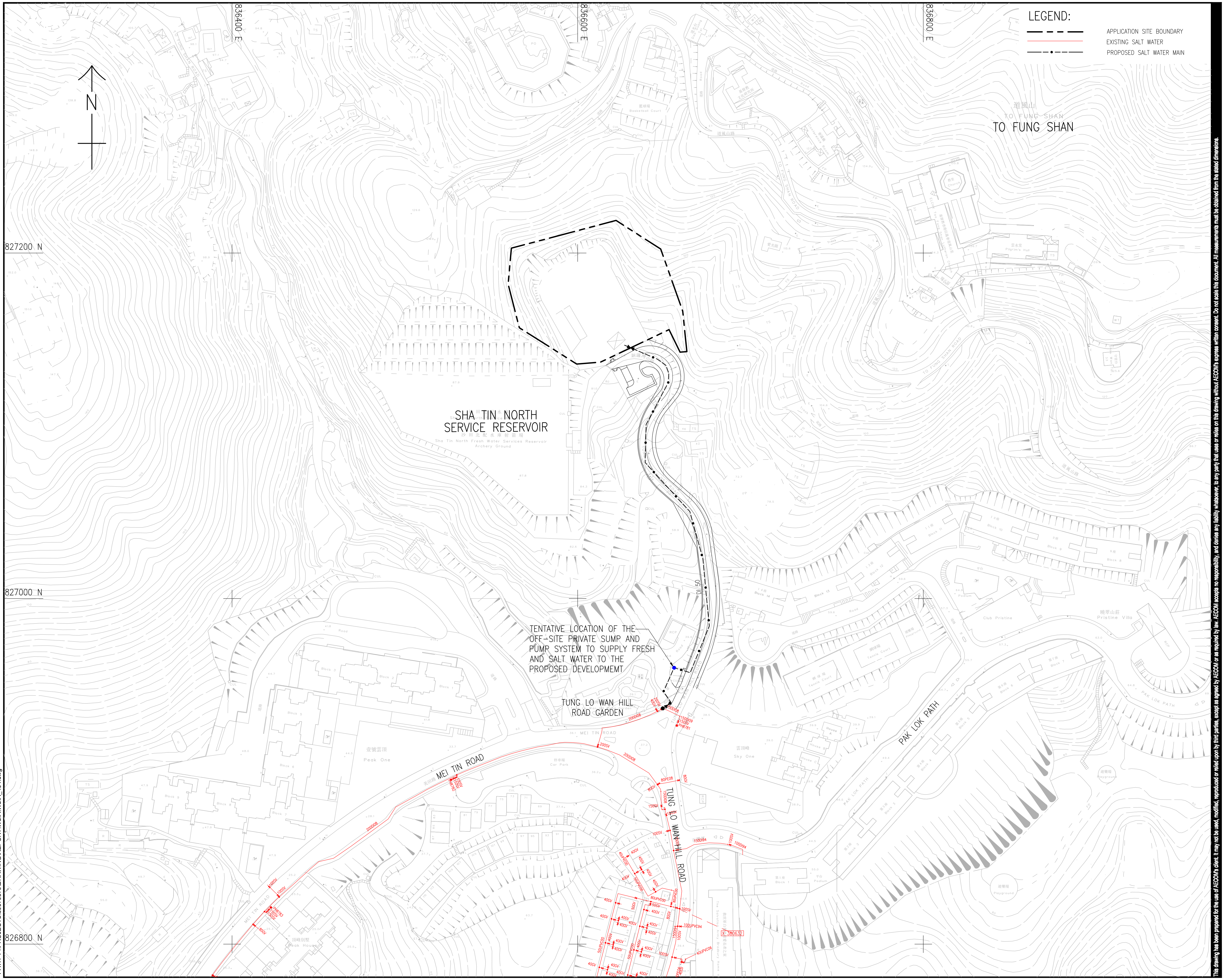
CONTRACT NO.

SHEET TITLE

EXISTING AND PROPOSED FRESH WATER SUPPLY LAYOUT PLAN

SHEET NUMBER

60670879/WSIA/FIGURE 3



ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

Plot File by: JiaW 13/12/2022
PATH P:\PROJECTS\60670879\DRAWING\REPORT\WSIA\WSIA_404.dwg

AECOM

PROJECT 項目

SECTION 12A APPLICATION FOR PROPOSED AMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT AT LOT 380 RP (PART) IN DD 186, TUNG LO WAN HILL ROAD, SHA TIN

CLIENT 業主

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
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ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 複核

STATUS 階段

SCALE 比例 — A1 1 : 1000

DIMENSION UNIT 尺寸單位 — METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號 — 60670879

CONTRACT NO. 合約編號

SHEET TITLE 圖紙名稱

EXISTING AND PROPOSED SALT WATER SUPPLY LAYOUT PLAN

SHEET NUMBER 圖紙編號

60670879/WSIA/FIGURE 4

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

836400 E

836600 E

836800 E

827200 N

827000 N

826800 N

N

LEGEND:

APPLICATION SITE BOUNDARY

PROPOSED FRESH WATER MAIN

PROPOSED SALT WATER MAIN

TO FUNG SHAN

SHA TIN NORTH SERVICE RESERVOIR

Sha Tin North Fresh Water Services Reservoir

Archery Ground

TENTATIVE LOCATION OF THE OFF-SITE PRIVATE SUMP AND PUMP SYSTEM TO SUPPLY FRESH AND SALT WATER TO THE PROPOSED DEVELOPMEMT

TUNG LO WAN HILL ROAD GARDEN

MEI TIN ROAD

TUNG LO WAN HILL ROAD

PAK LOK PATH

Peck One

Sky One

Club Pristine

Pristine Villa

Tennis Court

Car Park

Block 1

Block 2

Block 3

Block 4

Block 5

Block 6

Block 7

Block 8

Block 9

Block 10

Block 11

Block 12

Block 13

Block 14

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PROJECT

SECTION 12A APPLICATION FOR PROPOSED AMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT AT LOT 380 RP (PART) IN DD 186, TUNG LO WAN HILL ROAD, SHA TIN

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I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE A1 1 : 1000

DIMENSION UNIT METRES

KEY PLAN

PROJECT NO. 60670879

CONTRACT NO.

SHEET TITLE

PROPOSED WATER SUPPLY LAYOUT PLAN (SIMPLIFIED)

SHEET NUMBER

60670879/WSIA/FIGURE 5

Annex W1

Water Demand and Hydraulic Calculation

Section 12A Application for Proposed Amendments to the Sha Tin Outline Zoning Plan in Support of a Private Residential Development at Lot 380 RP (Part) in DD 186, Tung Lo Wan Hill Road, Sha Tin 8/16/2022

Water Demand Estimation for Fresh Water and Salt Water

Development Type	GFA (m^2)	Avg. Unit Size (m^2)	No. of Units	Person/Unit	Person/m^2	Population	Fresh Water UDD (L/head/day)	Daily Fresh Water Demand (m^3/day)	Salt Water UDD (L/head/day)	Daily Salt Water Demand (m^3/day)
Domestic	15,375.00	96.09	160	2.7	0.028	432	300	130	70	30
				Total Residential Population		**432**				
Retails: Service Trades for a Population of	432			/			45	19	/	
							Total Fresh Water Demand (m^3/day)	**149**	**Total Salt Water Demand (m^3/day)**	**30**

Note 1: Assuming the average unit size to be: 1,034.35 ft^2

Hydraulic Analysis by Flow Velocity

Fresh Water

Nominal Diameter of existing fresh water mains =	250	mm	
Internal Diameter of existing fresh water mains =	233	mm	
=	0.233	m	
Pipe Area =	0.043	m^2	
Assuming that the flow velocity of watermain =	1.5	m/s	WSD Manual of Mainlaying Practice Cl 1.2.1
The flow capacity of watermain =	0.064	m^3/s	
The water demand of the proposed development is equivalent to	**2.70%**	**of the existing water main**	
Estimated Fresh Water Demand for Proposed Development =	149	m^3/day	
=	0.0017	m^3/s	
Peaking Factor for Fresh Water Distribution Mains =	3		
Required Peak Flow Rate for Proposed Development =	0.0052	m^3/s	
To supply water for the Proposed Development,			
Nominal Diameter of Proposed Pipe Size =	**150**	**mm**	
Internal Diameter of Proposed Pipe Size=	138	mm	
=	0.138	m	
Pipe Area =	0.015	m^2	
Assuming that the flow velocity of watermain =	0.9	m/s	WSD Manual of Mainlaying Practice Cl 1.2.1
The flow capacity of watermain =	0.013	m^3/s	
Factor of Safety =	**2.60**		
=>	**OK**		

Salt Water	Nominal Diameter of existing salt water mains =	150	mm	
	Internal Diameter of existing salt water mains =	138	mm	
	=	0.138	m	
	Pipe Area =	0.015	m^2	
	Assuming that the flow velocity of watermain =	0.9	m/s	WSD Manual of Mainlaying Practice Cl 1.2.1
	The flow capacity of watermain =	0.013	m^3/s	
	The water demand of the proposed development is equivalent to	**2.60%**	**of the existing water main**	
	Estimated Salt Water Demand for Proposed Development =	30	m^3/day	
	=	0.0004	m^3/s	
	Peaking Factor for Salt Water Distribution Mains =	2		
	Required Peak Flow Rate for Proposed Development =	0.0007	m^3/s	
	To supply water for the Proposed Development,			
	Nominal Diameter of Proposed Pipe Size =	**50**	**mm**	
	Internal Diameter of Proposed Pipe Size=	50	mm	
	=	0.05	m	
	Pipe Area =	0.002	m^2	
	Assuming that the flow velocity of watermain =	0.9	m/s	WSD Manual of Mainlaying Practice Cl 1.2.1
	The flow capacity of watermain =	0.002	m^3/s	
	Factor of Safety =	**2.52**		
	=>	**OK**		

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Appendix C

Details of the Design Calculation of the Proposed Pump Station

Project: **Tung Lo Wan Shan Road - Private Residential Development**
Proposed Road Widening Works and Associated Infrastructure
Off-site Private Pump Room Design
Date: **8/11/2024**
Rev.: **2**

(A) Description

A private off-site sump and pump system with booster pump and rising main along Tung Lo Wan Hill Road would be constructed to suppply fresh and flush water to the Application Site.
The private pump room is proposed to be located at the existing Tung Lo Wan Hill Road Garden.

Site Information:

Recap From S.12A		
Site Area	6150	m2
Total GFA	15375	m2
Clubhouse GFA	768	m2
Max. Building Height	140	mPD
No. of Storeys (Residential Floors)	17	storeys
No. of Storeys (Lobby & Clubhouse)	2	storeys
No. of Units	160	units
Average Unit Size	96	m2

(B) Design Guideline / Standard

1) EPD/TP1/05 Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 (GESF) (Published by EPD, HK)
2) Plumbing Engineering Services Design Guide (IOP) 2002 (Published by The Institute of Plumbing, UK)
3) Technical Requirement for Plumbing Works in Buildings 2021 (TR) (Published by Water Supplies Department, HK)
4) 2021 Population By-Census (C&SD) (Published by Census and Statistics Department, HK)
5) Commercial and Industrial Floor Space Utilization Survey (CIFSUS) (Published by Planning Department, HK)
6) Manual of Mainlaying Practice 2012 (Published by Water Supplies Department, HK)
7) BS EN 12845:2004 (Published by the Authority of the Standards Policy and Strategy Committee, UK)
8) ASD Design Guide for Plumbing Installation (Published by ASD, HK)
9) ASD Design Guide for Public Swimming Pools (Published by ASD, HK)
10) HK Regulation CAP 132CA
11) WSIA (By AECOM)
12) Installation Notes of Different Types of Corrosion Resistant Pipe Materials as Inside Service in Buildingds (Published by Water Supplies Department, HK)

(C) Design Assumptions / Criteria (New Incoming Main)

1) Water Supply Parameters - Unit Demand

Unit Demand (UDD) for Fresh Water Demand:		270	L/head/day	(By GESF, Table III(b), Development Type: Domestic; Flow Type: Private Residential -R2)
	Take	**300**	L/head/day	(By WSIA)
Unit Demand (UDD) for Flush Water Demand:		80	L/head/day	(By GESF, Table III(c), Development Type: Domestic; Flow Type: Private Residential -R2)
	Take	**70**	L/head/day	(By WSIA)
Unit Demand (UDD) for Service Trade:		**45**	L/head/day	(By WSIA assumed, Development Type: Clubhouse; Flow Type: Service Trades)

2) Design Population

No. of Unit:	160	(From Arch)
Person/flat:	2.7	(By C&SD, Average Domestic Household Size)
Domestic Population:	432	
Clubhouse GFA (m2):	768	(From Arch)
Worker per 100m2 GFA:	5.1	(By CIFSUS, Industry Group: Restaurant)
No. of Employees (Clubhouse)	39	

3) Peaking Factors for Water Main

Peak Flow Rate in Fresh Water Distribution Mains:	3 x Mean Daily Demand (MDD)	(By WSIA)
Peak Flow Rate in Salt Water Distribution Mains:	2 x Mean Daily Demand (MDD)	(By WSIA)
Peak Flow Rate in Fresh Water Trunk Mains:	1.5 x Mean Daily Demand (MDD)	(By WSIA)
Peak Flow Rate in Salt Water Trunk Mains:	1.2 x Mean Daily Demand (MDD)	(By WSIA)

4) Fire-fighting

Min. Fresh Water Supply:	6000 m3/day	(By WSIA)
Discharge Pressure:	17 m	(By WSIA)
Fire Hydrant:	Standard Pattern with Min. Output Pressure of Not Less Than 25psi	(By WSIA)
Min. Output of fire hydrant not less than 25 psi:	4000 L/min to last for 60mins	(By WSIA)

Assuming the FS water supply of the proposed development would be supplied by the fresh water main.

5) Design Velocity and Head of Flow

a) Maximum flow velocity under peak flow for both pumping mains and distribution mains should be less than 3 m/s. (By WSD Manual of Mainlaying)

b) Desirable Flow Velocities for Hydraulic Checking: (By WSIA)

Maximum velocity (under peak flow condition)	
Fresh water mains:	
>DN700	**≤ 3 m/s**
DN700 – DN525	**≤ 2.5 m/s**
DN450 – DN375	**≤ 2 m/s**
DN300 – DN200	**≤1.5 m/s**
Salt water mains:	
≥DN1000	**≤ 3 m/s**
DN900 – DN800	**≤ 2.5 m/s**
DN700 – DN300	**≤ 2 m/s**
DN450 – DN300	**≤ 1.5 m/s**
Minimum velocity (under peak flow condition)	
Fresh water mains:	**≥ 0.9 m/s**
Salt water mains:	**≥ 0.9 m/s**

c) Min. Gradient of Pipeline: 1:400 Laid at Min. Separation of 300mm away from Existing Utilities and Underground Structures

d) Min. Residual Heads at Extremity of the Fresh Water and Salt Water Supply System for the Proposed Development:

Fresh Water:	20 m	(By WSD TR)
Salt Water:	15 m	(By WSD TR)

6) Water Main Sizing

The water main sizing shall fulfil the following criteria:

Water Daily Demand of the Proposed Development	< Flow Capacity of the Existing Water Main
Peak Flow Rate for Proposed Development:	= Water Daily Demand x Peaking Factor for Water Distribution Main < Flow Capacity of the Proposed Water Distribution Main

(D) Design Assumptions / Criteria (Sump Pump Room System)

1) Safety Factor for Pump and Pipe Sizing

A 30% safety buffer is allowed for the pump room system design.

2) Pipe Material

The proposed pipe material is shown below and comply with WSD Manual of Mainlaying Section 1.1:

	Incoming Water Distribution Main		Pumped Pipe	
	Buried	Exposed	Buried	Exposed
Fresh Water	DI	DI	DI	DI
Flush Water	Blue PE	Black PE	Blue PE	Black PE

3) Pipe and Pipe Fitting Loss

Pressure loss for pipe and pipe fitting for pump sizing is based on Hazen-Williams Formula: (By BS EN 12845)

$$p = \frac{6.05 \times 10^5}{C^{1.85} \times d^{4.87}} \times L \times Q^{1.85}$$

where:
p is the pressure loss in the pipe, in bar;
Q is the flow through the pipe, in L/min;
d is the mean internal diameter of the pipe, in mm;
C is a constant for the type and condition of the pipe

Based on BS EN 12845:2004, C values and equivalent length of pipe and fittings shall be referred:

EN 12845:2004 (E)

L is the equivalent length of pipe and fittings, in metres.

The values of *C* indicated in Table 22 shall be used.

Table 22 — C values for various types of pipe

Type of pipe	Value of *C*
cast iron	100
ductile iron	110
mild steel	120
galvanized steel	120
spun cement	130
cement lined cast iron	130
stainless steel	140
copper	140
reinforced glass fibre	140
NOTE The list is not exhaustive	

Table 23 — Equivalent length of fittings and valves

Fittings and valves	Equivalent length of steel straight pipe for a *C* value of 120* (m)									
	Nominal diameter (mm)									
	20	25	32	40	50	65	80	100	150	200	250
90° Screwed elbow (standard)	0,76	0,77	1,0	1,2	1,5	1,9	2,4	3,0	4,3	5,7	7,4
90° Welded elbow (r/d = 1,5) 45° Screwed elbow (standard)	0,30	0,36	0,49	0,56	0,69	0,88	1,1	1,4	2,0	2,6	3,4
	0,34	0,40	0,55	0,66	0,76	1,0	1,3	1,6	2,3	3,1	3,9
Standard screwed Tee or cross (flow through branch)	1,3	1,5	2,1	2,4	2,9	3,8	4,8	6,1	8,6	11,0	14,0
Gate valve - straight way	-	-	-	-	0,38	0,51	0,63	0,81	1,1	1,5	2,0
Alarm or non-return valve (swinging type)	-	-	-	-	2,4	3,2	3,9	5,1	7,2	9,4	12,0
	-	-	-	-	12,0	19,0	19,7	25,0	35,0	47,0	62,0
Alarm or non-return valve (mushroom type)	-	-	-	-	2,2	2,9	3,6	4,6	6,4	8,6	9,9
Butterfly valve Globe valve	-	-	-	-	16,0	21,0	26,0	34,0	48,0	64,0	84,0

* These equivalent lengths may be converted as necessary for pipes with other *C* values by multiplying by the following factors:

C value	100	110	120	130	140
Factor	0,714	0,85	1,00	1,16	1,33

4) Water Pump Type, Material and Speed

	Type	Arrangement
Fresh Water	Constant Speed	1 Duty, 1 Stand-by
Flush Water	Constant Speed	1 Duty, 1 Stand-by

5) Water Pump Sizing

a) Pump Head

Pump head (m) = Static Head Loss + Pipe and Pipe Fitting Loss + Required Residual Pressure

where
Pipe and pipe fitting loss shall be calculated by Hazen-Williams Formula
Required Residual Pressure = 20m (for Fresh Water) and 15m (for Flush Water)
Assuming the water would be pumped from the sump pump room to the Master Meter Room of the Proposed Development located at G/F (+80mPD) + 5m head buffer for pumping water to upper floor option

b) Pump Flow (For Fresh and Flush Water)

Assuming Requied Pump Flow (L/s) = Max. Flow Capacity of Pumped Pipe

b) Pump Power (For Fresh and Flush Water)

Required Pump Power (kW):

$$\frac{\text{Flow Rate (m3/hr) x Density of Water (kg/m3) x Acceleration of Gravity (m/s-2) x Pump Head (m)}}{\text{3.6*10\^6 x Pump Efficiency (\%) x Motor Efficiency (\%)}}$$

where

Motor efficiency:	80 %	(By Assumption and shall be complied with latest BEC)
Pump efficiency:	60 %	(By Assumption)
Density of Water:	1000 kg/m3	
Acceleration of Gravity:	9.81 m/s2	

6) Water Tank Material and Arrangement

	Arrangement	Material	Access Type
Fresh Water	Twin Tank	Reinforced Concrete	Side
Flush Water	Twin Tank	Fibreglass	Top

7) Water Tank Sizing

The water tank capacity shall be sized based on WSD TR:
Assuming no rainwater recycling, grey water recycling

a) Fresh Water

i) For Domestic Portion:

#6.2.5.3 Storage criteria for fresh water supply for domestic flats are given in Table 6.2.5.3.1.

Table 6.2.5.3.1 Storage criteria for domestic application (sump and pump system)

Up to 10 flats	135 litres/flat In case of a sump and pump system, the minimum total storage including sump tank is allowed to be 500 litre,
> 10 flats	90 litres for each additional flat

(By WSD TR)

ii) For Clubhouse Portion:

Requied Tank Size for Kitchen = 2.5 L/member (By WSD TR)
Assuming the No. of Member = No. of Resident + No. of Clubhouse Employees

Requied Tank Size for Changing Room = 90 L/shower (hot and cold combined) (By WSD TR)
Assuming the No. of Shower = 10

Required Surge Tank Size for Swimming Pool:
Bather Loading 0.1 m3/person (By ASD Design Guide, min. 0.075 m3/person, take 0.1 m3/person for heavy weight)
Max. No. of Occupant in Swimming Pool: 3 m2/person (By HK Regulation CAP 132CA Section 6 (2))
Proposed Swimming Pool Dimension: 25 m (Length) (By Arch)
10 m (Width) (By Arch)
1.5 m (Height) (By Arch)

$$\text{Surge Volume:} \quad \frac{\text{Swimming Pool Area x Bather Loading}}{\text{Max. No. of Occupant in Swimming Pool}}$$

Surge Volume = 0.5 of Surge Tank Volume (By ASD Design Guide)
Required Surge Tank Size for Swimming Pool = Surge Volume x 2

iii) For Cleansing Portion:

For storage of cleansing water, the calculation is normally based on 1 day consumption: (By ASD Design Guide)

Required Tank Size for Cleansing = 45 L/no. of water points (By ASD Design Guide)

Assuming the No. of Cleansing Point for Carpark = 10
Assuming the No. of Cleansing Point / Sink for Refuse Room = 20
Assuming the No. of Cleansing Point / Sink for Clubhouse = 10

iv) For Irrigation Portion:

For storage of irriagtion water, the calculation is normally based on 1 day consumption: (By ASD Design Guide)

Irrigation Water Daily Consumption: 7 L/day/m2 (By ASD Design Guide)

Assuming the Total Planter Area: 30 % of Site Area (m2)
= 0.3 x 6150
= 1845 m2

Sump Tank to Roof Tank Ratio: 1:3 (By WSD TR, Clause 6.2.5.1)

The Required Tank Size for the Sump Tank of Pump Room: Overall Required Tank Size of the Proposed Site x 1/4
= (Tank Size for Domestic + Tank Size for Clubhouse + Tank Size for Cleansing + Tank Size for Irrigation) x 1/4

b) Flush Water

Building types	Litres per flushing apparatus
1. Residential - Water closet	30

2. Commercial - Urinal - Water closet	30 40

i) For domestic Portion:

Assuming the Average No. of Water Closet per Flat Unit = 1.5

ii) For Clubhouse Portion:

Assuming the total no. of Urinal = 10
Assuming the total no. of Water Closet = 20

Sump Tank to Roof Tank Ratio: 1:3 (By WSD TR)

The Required Tank Size for the Sump Tank of Pump Room: Overall Required Tank Size of the Proposed Site x 1/4
= (Tank Size for Domestic + Tank Size for Clubhouse) x 1/4

8) Check Meter

Check meter cabinet with check meter position for fresh water and salt water shall be provided at G/F Sump Pump Room.
Meter size is based on the daily water consumption and WSD's reference by using the unit demand method with reference to the GESF.
The incoming pipe shall be equal to or max. one more commercial size larger than the check meter size to comply with WSD TR.

(E) Calculations for Daily Water Demand

No. of Unit: 160 (From Arch)
Person/flat: 2.7 (By C&SD, Average Domestic Household Size)
Domestic Population: 432

Clubhouse GFA (m2): 768 (From Arch)
Worker per 100m2 GFA: 5.1 (By CIFSUS, Industry Group: Restaurant)
No. of Employees (Clubhouse) 39

1) Fresh Water Daily Demand (Excluding Fire-fighting)

Unit Demand (UDD) for Fresh Water Demand: 270 L/head/day (By GESF, Table III(b), Development Type: Domestic; Flow Type: Private Residential -R2)
Take 300 L/head/day (By WSIA)
Unit Demand (UDD) for Service Trade: 45 L/head/day (By WSIA Assumed, Development Type: Clubhouse; Flow Type: Service Trades)

Domestic Fresh Water Daily Demand : Domestic Population X Unit Demand (UDD) for Fresh Water Demand
= 432 X 300
= 129600 L/day
= **130** m3/day

Clubhouse Fresh Water Daily Demand: No. of Employees (Clubhouse) X Unit Demand (UDD) for Service Trade:
= 39 X 45
= 1762.56 L/day
= **1.8** m3/day

Total Fresh Water Daily Demand: Domestic Fresh Water Daily Demand + Clubhouse Fresh Water Daily Demand
= 130 + 1.8
= **131.4** m3/day

2) Salt Water Daily Demand (Excluding Fire-fighting)

Unit Demand (UDD) for Flush Water Demand: 80 L/head/day (By GESF, Table III(c), Development Type: Domestic; Flow Type: Private Residential -R2)
Take **70** L/head/day (By WSIA)

Salt Water Daily Demand: Domestic Population + Unit Demand (UDD) for Flush Water Demand:
= 432 X 70
= 30240 L/day
= **30.2** m3/day

3) Firefighting Fresh Water Daily Water Demand

Min. Fresh Water Supply: 6000 m3/day (By WSIA)
Discharge Pressure: 17 m (By WSIA)
Fire Hydrant: Standard Pattern with Min. Output Pressure of Not Less Than 25psi (By WSIA)
Min. Output of fire hydrant not less than 25 psi: 4000 L/min to last for 60mins (By WSIA)

Assuming the FS water supply of the proposed development would be supplied by the fresh water main.

(F) Calculations for Water Incoming Distribution Main Size

1) Fresh Water

a) Verification of the Existing Water Main Size

Nominal Diameter of Existing Fresh Water Main: **250** mm (By WSIA & WSD Record Plan)
Internal Diameter of Existing Fresh Water Main: 233 mm
= 0.233 m
Pipe Area: 0.043 m2
Assuming that the Velocity of Watermain: 1.5 m/s (By WSIA)
The Flow Capacity of Watermain **0.064** m3/s

Estimated Fresh Water Demand for Proposed Development: 131.4 m3/day (By Calculation in Part (E)(1))
= **0.0015** m3/s

The Water Demand of the Proposed Development is Equivalent to **2.378** % of the Existing Water Main

b) Water Distribution Main Sizing

Estimated Fresh Water Demand for Proposed Development: 131.4 m3/day (By Calculation in Part (E)(1))
= 0.0015 m3/s
Peaking Factor for Fresh Water Distribution Main: 3 (By WSIA)
Required Peak Flow Rate for Proposed Development: **0.0046**

To Supply Water for the Proposed Development:
Nominal Diameter of the Proposed Pipe Size: **150** mm
Internal Diameter of Proposed Pipe Size: 138 mm
= 0.138 m
Pipe Area: 0.015 m2
Assuming that the Velocity of Water Distribution Main: 0.9 m/s (By WSIA)
The Flow Capacity of Water Distribution Main **0.013** m3/s

Factor of Safety:

$$= \frac{\text{The Flow Capacity of Watermain}}{\text{Required Peak Flow Rate for Proposed Developmen}} = \frac{0.013}{0.0046}$$

= **2.95** > **1**
=> **OK**

2) Flush Water

a) Verification of the Existing Water Main Size

Nominal Diameter of Existing Fresh Water Main:		**150**	mm	(By WSIA & WSD Record Plan)
Internal Diameter of Existing Fresh Water Main:		138	mm	
	=	0.138	m	
Pipe Area:		0.015	m2	
Assuming that the Velocity of Watermain:		1.5	m/s	(By WSIA)
The Flow Capacity of Watermain		**0.022**	m3/s	
Estimated Fresh Water Demand for Proposed Development:		30.2	m3/day	(By Calculation in Part (E)(1))
	=	**0.0004**	m3/s	
The Water Demand of the Proposed Development is Equivalent to		**1.561**	% of the Existing Water Main	

b) Water Distribution Main Sizing

Estimated Fresh Water Demand for Proposed Development:		30.2	m3/day	(By Calculation in Part (E)(2))
	=	0.0004	m3/s	
Peaking Factor for Fresh Water Distribution Main:		2		(By WSIA)
Required Peak Flow Rate for Proposed Development:		0.0007		
To Supply Water for the Proposed Development:				
Nominal Diameter of the Proposed Pipe Size:		**50**	mm	
Internal Diameter of Proposed Pipe Size:		50	mm	
	=	0.05	m	
Pipe Area:		0.002	m2	
Assuming that the Velocity of Water Distribution Main:		0.9	m/s	(By WSIA)
The Flow Capacity of Water Distribution Main		**0.002**	m3/s	

Factor of Safety:

$$= \frac{\text{The Flow Capacity of Watermain}}{\text{Required Peak Flow Rate for Proposed Developmen}} = \frac{0.002}{0.0007} = \mathbf{2.52} > \mathbf{1}$$

=> **OK**

(G) Check Meter Schedule

	Location	Daily Water Consumption (m3/day)	Size of Check Meter	Classification Code	Water Distribution Main Size (mm dia.)	Water Distribution Main Material (By WSD Manual of Mainlaying Section 1.1)	
						Buried	Exposed
Fresh Water Check Meter Position	G/F of Sump Pump Room	131.4	150	-	150	DI	DI
Flush Water Check Meter Position	G/F of Sump Pump Room	30.2	50	-	50	Blue PE	Black PE

(H) Water Tank Sizing

1) Fresh Water

a) For Domestic Portion:

According to Technical Requirement for Plumbing Works in Buildings (Dec 2021) (WSD TR), Table 6.2.5.3.1:

Total No. of Unit:	160	(From Arch)	
First 10 Required L/point (L):	135	L	(By WSD TR)
Remaining Flat Required L/point (L):	90	L	(By WSD TR)
Required Water Tank Storage:	**14850**	L	

b) For Clubhouse Portion:

According to Technical Requirement for Plumbing Works in Buildings (Dec 2021) (WSD TR), Table 6.2.5.6.1:

i) Kitchen

No. of Unit:			160	(From Arch)		
Person/flat:			2.7	(By C&SD, Average Domestic Household Size)		
Domestic Population:			432			
Clubhouse GFA (m2):			768	(From Arch)		
Worker per 100m2 GFA:			5.1	(By CIFSUS, Industry Group: Restaurant)		
No. of Employees (Clubhouse)			39			
Requied Water Tank Storage:			2.5	L/member		(By WSD TR)
Assuming the No. of Member =		No. of Resident			+	No. of Clubhouse Employees
	=	432			+	39
	=	471				
Requied Water Tank Storage:			**1178**	L		

ii) Changing Room

Requied Water Tank Storage:			90	L/shower (hot and cold combined)		(By WSD TR)
Assuming the No. of Shower =			10			
Requied Water Tank Storage:			**900**	L		

iii) Swimming Pool

Bather Loading			0.1	m3/person		(By ASD Design Guide, min. 0.075 m3/person, take 0.1 m3/person for heavy weight)
Max. no. occupant in swimming-pool:			3	m2/person		(By HK Regulation CAP 132CA Section 6 (2))
Swimming Pool Dimension:			25	m (Length)		(By Arch)
			10	m (Width)		(By Arch)
			1.5	m (Height)		(By Arch)
Swimming Pool Area:			250	m2		
Swimming Pool Volume:			375	m3		
Surge Volume:		Swimming Pool Area x Bather Loading				
		Max. No. of Occupant in Swimming Pool				
	=	8.33		m3		
Surge Volume =			0.5	of Surge Tank Volume		(By ASD Design Guide)
Required Surge Tank Storage:		Surge Volume x 2				
	=	16.67		m3		
	=	**16666.67**		L		

c) For Cleansing Portion:

For storage of cleansing water, the calculation is normally based on 1 day consumption: (By ASD Design Guide)

Required Tank Size for Cleansing =		45	L/no. of water points	(By ASD Design Guide)
Assuming the No. of Cleansing Point for Carpark =		10		
Assuming the No. of Cleansing Point / Sink for Refuse Room =		20		
Assuming the No. of Cleansing Point / Sink for Clubhouse =		10		
Total No. of Cleansing Point		40		
Requied Water Tank Storage:		**1800**	L	

d) For Irrigation Portion:

For storage of irrigation water, the calculation is normally based on 1 day consumption: (By ASD Design Guide)

Site Area:			6150	m2		(From Arch)
Irrigation Water Daily Consumption:			7	L/day/m2		(By ASD Design Guide)
Assuming the Total Planter Area:			30	% of Site Area (m2)		
	=	0.3			x	6150
	=	1845		m2		
Requied Water Tank Storage:			**12915**	L		

e) Summary:

Total Fresh Water Storage Required:		Water Storage for Domestic Portion + Water Storage for Clubhouse Portion + Water Storage for Cleansing + Water Storage for Irrigation				
	=	**48310**		L		
Under WSD TR Clause 6.2.5.1						
The Proportion of Capacity of Sump Tank to Roof Tank=		1		:		3 (By WSD TR)
The Required Water Storage for the Sump Tank of Pump Room:		Total Fresh Water Storage Required for the Proposed Site x 1/4				
	=	12077.40		L		
	=	15700.62		L		(30% safety factor)
	Say	**15700**		L		

2) Flush Water

a) For Domestic Portion:

According to Technical Requirement for Plumbing Works in Buildings (Dec 2021) (WSD TR), Table 6.2.5.2.1:

Requied Water Tank Storage:	30	L/Water Closet (Residential)	(By WSD TR)
Assuming the Average No. of Water Closet per Flat Unit =	1.5		
No. of Unit:	160	(From Arch)	
Total No. of WC:	240		
Requied Water Tank Storage:	**7200**	L	

b) For Clubhouse Portion:

According to Technical Requirement for Plumbing Works in Buildings (Dec 2021) (WSD TR), Table 6.2.5.2.1:

Requied Water Tank Storage:	30	L/Urinal (Commercial)	(By WSD TR)
	45	L/Water Closet (Commercial)	(By WSD TR)
Assuming the total no. of Urinal =	10		
Assuming the total no. of Water Closet =	20		
Requied Water Tank Storage:	**1200**	L	

e) Summary:

Total Flush Water Storage Required: Water Storage for Domestic Portion + Water Storage for Clubhouse Portion

= **8400** L

Under WSD TR Clause 6.2.5.1

The Proportion of Capacity of Sump Tank to Roof Tank= 1 : 3 (By WSD TR)

The Required Water Storage for the Sump Tank of Pump Room: Total Flush Water Storage Required for the Proposed Site x 1/4

=	2100.00	L	
=	2730.00	L	(30% safety factor)
Say	**2800**	L	

3) Summary of Water Tank Schedule

Under WSD TR Clause 6.2.6.2, when the capacity of water cistern exceeds 5,000 litres, adoption of twin-tank system is required:

System	Water Tank Name	Tank Material	Water Tank Arrangement	Water Tank Designation	Location	Storage Capacity (L)		
						Chamber 1 of Twin Tank	**Chamber 2 of Twin Tank**	**Total**
Fresh Water System	Fresh Water Sump Tank	Reinforced Concrete	Twin-Tank	FRWT-01 & 02	G/F Sump Pump Room	**7850**	**7850**	**15700**
Flush Water System	Flush Water Sump Tank	Fibreglass	Twin-Tank	FLWT-01 & 02	G/F Sump Pump Room	**1400**	**1400**	**2800**

(I) Water Pump Sizing

1) Fresh Water

a) Pump Flow

Assuming Pumped Pipe Size = Water Distribution Main Size =	**150**	mm dia.	
Pumped Pipe Material (Exposed):	**DI**	(By WSD Manual of Mainlaying Section 1.1)	
Assuming Requied Pump Flow = Max. Flow Capacity of Pumped Pipe			
Nominal Diameter of the Pumped Pipe Size:	**150**	mm	
Internal Diameter of Proposed Pipe Size:	138	mm	
=	0.138	mm	
Pipe Area:	0.015	m2	
Assuming that the Velocity of Pumped Pipe:	1.5	m/s	(By WSIA)
The Flow Capacity of Pumped Pipe:	0.022	m3/s	
=	22.42	l/s	
=	29.15	l/s	(30% safety factor)
Say	**30.00**	l/s	

b) Pump Head

i) Static Head Loss

Assuming the water would be pumped from the sump pump room to the Master Meter Room of the Proposed Development located at G/F (+80mPD) + 5m head buffer for pumping water to upper floor option:

Sump Pump Room Finsihed Floor Level:	39.6	m	(By Arch)	
Pump Outlet Level:	40.4	m	(Assune Pump Outlet =	0.8 m above sump pump room level
Master Meter Room Level of the Proposed Development located at G/F	80	m	(By Arch)	
Head Buffer for Pumping Water to Upper Floor Option	5	m		

Static Head Loss: = (Master Meter Room Level + Head Buffer for Pump Water to Upper Floor Option) - Pump Outlet Level

44.6 m

ii) Pipe and Pipe Fitting Loss

By Hazen-Williams Formula: (By BS EN 12845)

$$p = \frac{6.05 \times 10^{5}}{C^{1.85} \times d^{4.87}} \times L \times Q^{1.85}$$

where:
p is the pressure loss in the pipe, in bar;
Q is the flow through the pipe, in L/min;
d is the mean internal diameter of the pipe, in mm;
C is a constant for the type and condition of the pipe

Based on BS EN 12845:2004, C values and equivalent length of pipe and fittings shall be referred:

EN 12845:2004 (E)

L is the equivalent length of pipe and fittings, in metres.

The values of *C* indicated in Table 22 shall be used.

Table 22 — C values for various types of pipe

Type of pipe	Value of *C*
cast iron	100
ductile iron	110
mild steel	120
galvanized steel	120
spun cement	130
cement lined cast iron	130
stainless steel	140
copper	140
reinforced glass fibre	140
NOTE The list is not exhaustive	

Table 23 — Equivalent length of fittings and valves

Fittings and valves	Equivalent length of steel straight pipe for a *C* value of 120[a] (m)										
	Nominal diameter (mm)										
	20	25	32	40	50	65	80	100	150	200	250
90° Screwed elbow (standard)	0,76	0,77	1,0	1,2	1,5	1,9	2,4	3,0	4,3	5,7	7,4
90° Welded elbow (r/d = 1,5)	0,30	0,36	0,49	0,56	0,69	0,88	1,1	1,4	2,0	2,6	3,4
45° Screwed elbow (standard)	0,34	0,40	0,55	0,66	0,76	1,0	1,3	1,6	2,3	3,1	3,9
Standard screwed Tee or cross (flow through branch)	1,3	1,5	2,1	2,4	2,9	3,8	4,8	6,1	8,6	11,0	14,0
Gate valve - straight way	-	-	-	-	0,38	0,51	0,63	0,81	1,1	1,5	2,0
Alarm or non-return valve (swinging type)	-	-	-	-	2,4	3,2	3,9	5,1	7,2	9,4	12,0
	-	-	-	-	12,0	19,0	19,7	25,0	35,0	47,0	62,0
Alarm or non-return valve (mushroom type)	-	-	-	-	2,2	2,9	3,6	4,6	6,4	8,6	9,9
Butterfly valve Globe valve	-	-	-	-	16,0	21,0	26,0	34,0	48,0	64,0	84,0

[a] These equivalent lengths may be converted as necessary for pipes with other *C* values by multiplying by the following factors:

C value	100	110	120	130	140
Factor	0,714	0,85	1,00	1,16	1,33

Pumped Pipe Size: **150** mm (By Calculation in Part (I)(1)(a))
Pumped Pipe Material (Exposed): **DI** (By WSD Manual of Mainlaying Section 1.1)
The Flow Capacity of Pumped Pipe: 30.00 L/s (By Calculation in Part (I)(1)(a))
= **1800.00** L/min
C Value **110** (By BS EN 12845:2004, Table 22)
Converted Factor for C Value 0.85

Fitting Loss (By BS EN 12845:2004, Table 23)
From the Sump Pump Room to the Master Meter Room of the Proposed Development located at G/F

Fitting	Quantity	Equivalent Length (fitting) (m) x Converted Factor for C value	Sub-total of Equivalent Length (fitting) (m)
90 deg elbow	30	3.655	109.65
Tee / Cross	6	7.31	43.86
Gate valve	2	0.935	1.87
Alarm / Check valve (swing)	1	6.12	6.12
Alarm / Check valve (mushroom)	0	29.75	0
Butterfly valve	0	5.44	0
Globe valve	0	40.8	0
Flexible Connector (Assumed Equivalent Length = 5m)	1	5	5
Total Equivalent Length for Fitting (m)	-	-	166.5
Total Fitting Loss by Hazen-Williams Formula (m)	-	-	**4.48**

Pipe Loss
From the Sump Pump Room to the Master Meter Room of the Proposed Development located at G/F

Vertical distance From Pump Outlet at Pump Room to Check Meter Cabinet of the Proposed Development (m)	44.6	(By Calculation in Part (I)(1)(b)(i))
Horizontal distance From Pump Outlet at Pump Room to Check Meter Cabinet of the Proposed Development (m)	44.6	(Assume = 100% of Vertical Distance)
Total Pipe Length (m)	89.2	
Total Pipe Loss by Hazen-Williams Formula (m)	**2.40**	

Total Pipe & Fitting Loss
From the Sump Pump Room to the Master Meter Room of the Proposed Development located at G/F

Total Fitting loss (m) and Pipe Loss (m)	**6.88**

iii) Required Residual Head

Required Residual Pressure = Min. Available Residual Pressure by WSD for Fresh Water = **20** m (By WSD TR Clause 4.2.2.3)

iv) Pump Head Required

Requied Pump head (m) = Static Head Loss + Pipe Loss and Fitting Loss + Required Residual Pressure = 71.48 m
= 92.92 m (30% Safety Factor)
Say **95.00** m

c) Pump Power

Required Pump Power: $\frac{\text{Flow Rate (m3/hr) x Density of Water (kg/m3) x Acceleration of Gravity (m/s-2) x Pump Head (m)}}{\text{3.6*10^6 x Pump Efficiency (\%) x Motor Efficiency (\%)}}$

where

Motor efficiency:	80	%	(By Assumption and shall be complied with latest BEC)
Pump efficiency:	60	%	(By Assumption)
Density of Water:	1000	kg/m3	
Acceleration of Gravity:	9.81	m/s2	
Flow Rate:	30.00	L/s	(By Calculation in Part (I)(1)(a))
=	108.00	m3/hr	
Pump Head:	95.00	m	(By Calculation in Part (I)(1)(b))
Required Pump Power:	58.25	kW	
Motor Power:	**75**	**kW**	

2) Flush Water

a) Pump Flow

Assuming Pumped Pipe Size = Water Distribution Main Size =	**50**	mm dia.	
Pumped Pipe Material (Buried and Exposed):	**Black PE**	(By WSD Manual of Mainlaying Section 1.1)	
Assuming Requied Pump Flow = Max. Flow Capacity of Pumped Pipe			
Nominal Diameter of the Pumped Pipe Size:	**50**	mm	
Internal Diameter of Proposed Pipe Size:	50	mm	
=	0.05	mm	
Pipe Area:	0.002	m2	
Assuming that the Velocity of Pumped Pipe:	1.5	m/s	(By WSIA)
The Flow Capacity of Pumped Pipe:	0.003	m3/s	
=	2.94	l/s	
=	3.83	l/s	(30% safety factor)
Say	**4.00**	l/s	

b) Pump Head

i) Static Head Loss

Assuming the water would be pumped from the sump pump room to the Master Meter Room of the Proposed Development located at G/F (+80mPD) + 5m head buffer for pumping water to upper floor option:

Sump Pump Room Finsihed Floor Level:	39.6	m	(By Arch)	
Pump Outlet Level:	40.4	m	(Assune Pump Outlet =	0.8 m above sump pump room level
Master Meter Room Level of the Proposed Development located at G/F	80	m	(By Arch)	
Head Buffer for Pumping Water to Upper Floor Option	5	m		

Static Head Loss: = (Master Meter Room Level + Head Buffer for Pump Water to Upper Floor Option) - Pump Outlet Level

44.6 m

ii) Pipe and Pipe Fitting Loss

By Hazen-Williams Formula: (By BS EN 12845)

$$p = \frac{6.05 \times 10^5}{C^{1.85} \times d^{4.87}} \times L \times Q^{1.85}$$

where:
p is the pressure loss in the pipe, in bar;
Q is the flow through the pipe, in L/min;
d is the mean internal diameter of the pipe, in mm;
C is a constant for the type and condition of the pipe

Based on BS EN 12845:2004, C values and equivalent length of pipe and fittings shall be referred:

EN 12845:2004 (E)

L is the equivalent length of pipe and fittings, in metres.

The values of *C* indicated in Table 22 shall be used.

Table 22 — C values for various types of pipe

Type of pipe	Value of *C*
cast iron	100
ductile iron	110
mild steel	120
galvanized steel	120
spun cement	130
cement lined cast iron	130
stainless steel	140
copper	140
reinforced glass fibre	140
NOTE The list is not exhaustive	

Table 23 — Equivalent length of fittings and valves

Fittings and valves	Equivalent length of steel straight pipe for a *C* value of 120[a] (m)									
	Nominal diameter (mm)									
	20	25	32	40	50	65	80	100	150	200	250
90° Screwed elbow (standard)	0,76	0,77	1,0	1,2	1,5	1,9	2,4	3,0	4,3	5,7	7,4
90° Welded elbow (r/d = 1,5)	0,30	0,36	0,49	0,56	0,69	0,88	1,1	1,4	2,0	2,6	3,4
45° Screwed elbow (standard)	0,34	0,40	0,55	0,66	0,76	1,0	1,3	1,6	2,3	3,1	3,9
Standard screwed Tee or cross (flow through branch)	1,3	1,5	2,1	2,4	2,9	3,8	4,8	6,1	8,6	11,0	14,0
Gate valve - straight way	-	-	-	-	0,38	0,51	0,63	0,81	1,1	1,5	2,0
Alarm or non-return valve (swinging type)	-	-	-	-	2,4	3,2	3,9	5,1	7,2	9,4	12,0
	-	-	-	-	12,0	19,0	19,7	25,0	35,0	47,0	62,0
Alarm or non-return valve (mushroom type)	-	-	-	-	2,2	2,9	3,6	4,6	6,4	8,6	9,9
Butterfly valve Globe valve	-	-	-	-	16,0	21,0	26,0	34,0	48,0	64,0	84,0

[a] These equivalent lengths may be converted as necessary for pipes with other *C* values by multiplying by the following factors:

C value	100	110	120	130	140
Factor	0,714	0,85	1,00	1,16	1,33

Pumped Pipe Size: **50** mm
Pumped Pipe Material (Buried and Exposed): **Black PE** (By WSD Manual of Mainlaying Secti
The Flow Capacity of Pumped Pipe: 4.00 L/s (By Calculation in Part (I)(2)(a))

= **240.00** L/min

C Value **150** (By WSD Installation Notes of Different Types of Corrosion Resistant Pipe Materials as Inside Service in Buildingds)
Converted Factor for C Value 1.51

Fitting Loss (By BS EN 12845:2004, Table 23)
From the Sump Pump Room to the Master Meter Room of the Proposed Development located at G/F

Fitting	Quantity	Equivalent Length (fitting) (m) x Converted Factor for C value	Sub-total of Equivalent Length (fitting) (m)
90 deg elbow	30	2.265	67.95
Tee / Cross	6	4.379	26.274
Gate valve	2	0.5738	1.1476
Alarm / Check valve (swing)	1	3.624	3.624
Alarm / Check valve (mushroom)	0	18.12	0
Butterfly valve	0	3.322	0
Globe valve	0	24.16	0
Flexible Connector (Assumed Equivalent Length = 5m)	1	5	5
Total Equivalent Length for Fitting (m)	-	-	103.9956
Total Fitting Loss by Hazen-Williams Formula (m)	-	-	**2.80**

Pipe Loss
From the Sump Pump Room to the Master Meter Room of the Proposed Development located at G/F

Vertical distance From Pump Outlet at Pump Room to Check Meter Cabinet of the Proposed Development (m)	44.6	(By Calculation in Part (I)(2)(b)(i))
Horizontal distance From Pump Outlet at Pump Room to Check Meter Cabinet of the Proposed Development (m)	44.6	(Assume = 100% of Vertical Distance)
Total Pipe Length (m)	89.2	
Total Pipe Loss by Hazen-Williams Formula (m)	**2.40**	

Total Pipe & Fitting Loss
From the Sump Pump Room to the Master Meter Room of the Proposed Development located at G/F

Total Fitting loss (m) and Pipe Loss (m)	**5.20**

iii) Required Residual Head

Required Residual Pressure = Min. Available Residual Pressure by WSD for Fresh Water = **15** m (By WSD TR Clause 4.2.2.3)

iv) Pump Head Required

Requied Pump head (m) = Static Head Loss + Pipe Loss and Fitting Loss + Required Residual Pressure = 64.80 m
= 84.24 m (30% Safety Factor)
Say **85.00** m

c) Pump Power

Required Pump Power: Flow Rate (m3/hr) x Density of Water (kg/m3) x Acceleration of Gravity (m/s-2) x Pump Head (m) / 3.6*10^6 x Pump Efficiency (%) x Motor Efficiency (%)

where

Motor efficiency:		80 %	(By Assumption and shall be complied with latest BEC)
Pump efficiency:		60 %	(By Assumption)
Density of Water:		1000 kg/m3	
Acceleration of Gravity:		9.81 m/s2	
Flow Rate:		4.00 L/s	(By Calculation in Part (I)(2)(a))
	=	14.40 m3/hr	
Pump Head:		85.00 m	(By Calculation in Part (I)(2)(b))
Required Pump Power:		6.95 kW	
Motor Power:		**7.5 kW**	

3) Summary of Pump Schedule

Pump No.	Pump Servies	Location	Flow Rate (L/s)	Pump Head (m)	Speed (rpm)	Required Pump Power (kW)	Rated Motor Power (kW)	Starting Method	Pump Casing
FRWTP-01&02	Fresh Water Transfer Pump Set (1 Duty & 1 Standby)	G/F Sump Pump Room	30.00	95.00	1450	58.25	75	3-phase, Star-delta	Casted Stainless Steel Grade 316
FLWTP-01&02	Flush Water Transfer Pump Set (1 Duty & 1 Standby)	G/F Sump Pump Room	4.00	85.00	1450	6.95	7.5	3-phase, Star-delta	Close Grain Cast Iron

Appendix B

Tree Survey and
Tree Treatment Proposal

Section 16 Planning Application for Proposed Utility Installation for Private Project (Proposed Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

TREE SURVEY AND TREE TREATMENT PROPOSAL

December 2024

Landscape Government Submission Consultant

Axxa Group Limited

Signed by:

Mr. Jason TEO, Registered Landscape Architect (R-101)

axxa group

TABLE OF CONTENTS

Appendices

1.0 Introduction

1.1 This Tree Survey and Tree Treatment Proposal is submitted to seek permission from the Town Planning Board (the Board) in support of a proposed 'utility installation for private project (proposed pump station for salt and fresh water system)' in "Government, Institution or Community" ("G/IC") zone on the Approved Sha Tin Outline Zoning Plan (the OZP) No. S/ST/38 at Government Land in D.D.186, Tung Lo Wan Road, Sha Tin (hereafter referred to as the 'Application Site') under Section 16 (S16) of the Town Planning Ordinance (the Ordinance)(CAP.131).

2.0 Existing Site Context

2.1 The Application Site, with an area of about 237m^2, is located at To Fung Shan, northwest of the town centre of Sha Tin. It is accessible via Tung Lo Wan Hill Road, which is connected to Mei Tin Road and Chung Lin Road and further linked to the wider road network in Sha Tin and Tai Wai. It is situated at Feature No. 7SW-D/FR549 and is sloping up from southern side to northern side with existing ground level ranging from +41mPD to +47mPD. The Application Site is also surrounded by several existing residential developments, e.g. Peak One to its west, Sky One to its south and Pristine Villa to its east. Refer to **Figure 1**.

Figure 1: Site Location Plan

3.0 The Proposed Pump Station

3.1 According to the previous submitted Water Supply Impact Assessment (WSIA) of the approved S12A application (Application No. Y/ST/58), a new water mains system is required to cater to the water demand from the approved residential development as the residential development site has no fresh and salt water supply. Moreover, due to the significant level difference between the existing water mains connection point (around 37mPD) and the approved residential development site (around 77mPD), an off-site pump station is required to supply fresh and salt water to the approved residential development.

3.2 The proposed single-storey pump station ('the Proposed Pump Station'), with a building height of around 4.2m (main roof level 52.15mPD), provides two twin water tank and two water pumps for fresh water and flush water respectively, to serve the water demand of the approved residential development located at the upper

end of Tung Lo Wan Hill Road. Refer to **Appendix 1** for Proposed Pump Station Layout. Foundation works for the Proposed Pump Station is required at the periphery of Feature No. 7SW-D/FR549, existing trees on slope will be inevitably affected.

4.0 Survey Methods and Assessment Criteria

All living trees of 300mm girth (= 95mm diameter) or over (measured at 1.3m above ground level), within the Application Site were studied. Each tree was identified to species level, and its girth, height and spread measured. The condition of each tree was then evaluated according to the following criteria (Webb 1991)[1]:

- Trees of good form, moderate to large size (for their species type) and in good health are classified as *Good*.
- Trees of reasonable form, with few or no visible defects or health problems are classified as *Fair*.
- Trees which are of poor form, badly damaged or clearly suffering from decay, die back, or the effects of very heavy vine growth are classified as *Poor*.

A general description of the trees on the Site follows in **Section 5**.

5.0 General Description of Existing Trees

A tree survey was conducted in July 2024 and a total 25 nos. of existing trees were identified within the Application Site. Nearly half of them are exotic species. The dominant tree species include approx. 32% of *Eucalyptus camaldulensis*, approx. 32% of *Ficus microcarpa*, approx. 12% of *Macaranga tanarius var. tomentosa.* Majority of them are in poor tree form, health or structural conditions with relatively low amenity value.

1 no. *Eucalyptus camaldulensis* (Tree ID No. T741) has 25m in height which has met one of the criteria as 'Potential OVT' in accordance with para.6 of DEVB TC(W) No. 5/2020. However, after considering all necessary criteria of 'Potential OVT' such as "(a) Tree of precious or rare species; (b) Tree of particularly old age; (c) Tree of cultural, historical or memorable significance; or (e) Tree of outstanding form", T741 is a common exotic species with fast growing and high branching in nature. In fact, it is tall and thin of 320mm DBH and 5m narrow crown spread. Nevertheless, multiple attributes should be considered in determining its rarity of its kind in accordance with para.6 of DEVB TC(W) No. 5/2020. As such, T741 is not considered as 'Potential OVT'.

In summary, there are **no** endangered tree species identified in the tree survey under the listing in 'Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)'. Additionally, there is **no** rare and precious plants, **no** registered OVTs and potentially registrable trees in accordance with DEVB TC(W) No. 5/2020, and **no** "Champion" tree observed within the site or its periphery during the survey.

6.0 Tree Treatment Proposal

6.1 Trees Proposed to be Felled

Upon reviewing the conditions of all affected trees within the Proposed Pump Station of the Application Site, felling is considered only as a last resort after retention in-situ and transplanting have been precluded as no other alternate means can be found as viable to save them. Thus, a total **25** nos. of existing trees are proposed to be felled based on the following principles:

[1] Webb, R(ed.) 1991 Tree Planting & Maintenance in Hong Kong, Government Printer

- Trees in ***direct conflict with the Proposed Pump Station layout*** – To balance between development and tree preservation, site selection of pump station has considered minimal impact on existing trees. The proposed Pump Station is selected at the periphery of Feature No. 7SW-D/FR549. Only **25** nos. of trees, which are common species of low amenity value, will be inevitably affected by the foundation works of proposed Pump Station. Some existing trees are in direct conflict with proposed minimum 2.5m working area for construction access and formworks for necessary site formation works, manoeuvring of machineries and construction of site office.

- **Overgrown or Over-congested trees on slope** – Existing trees on slope are overgrown and their rootballs are technically not transplantable. Survival rate after tree transplanting is low.

- ***Dead Tree*** (1 no.)

- 1 no. common exotic species, *Eucalyptus camaldulensis* (Tree ID No. T741) has 25m in height growing on fully vegetated slope of which its rootball is hardly retrievable. It is also not practicable and cost-effective to clear a path on the vegetated slope for transplanting this common exotic species. With reference to the Guidelines on Tree Transplanting issued by DevB, the survival rate of transplanting a slope-growing tree is considered very low and can only be recommended "fell". Therefore, neither tree transplanting nor retention is considered suitable option for T741.

- 1 no. *Ficus macrocarpa,* (Tree ID No. T57) has 980mm DBH growing on slope and edge of drainage channel with roots merged with existing drainage channel where formation of healthy well-shaped rootball is not practicable. With reference to Photographic Record of Existing Trees in **Appendix 3**, T57 has unbalanced crown with some lateral branches hanging on other trees. According to the Guidelines on Tree Transplanting issued by DevB, the poor architecture of T57 will pose future tree failure and transplanting requires excessive pruning on the unbalanced crown and lateral branches that will absolutely undermine recovery rate from severe transplanting shock. After critically review of its very low post-transplanting survival, T57 is recommended "fell".

- Trees of ***unrecoverable health problem or in poor structural condition*** – Majority of trees proposed to be felled possess *Poor* structure condition and all of them growing on Feature Slope No. 7SW-D/FR549 that are not practicable to form rootball for transplanting, e.g. dead branches, root merged with adjacent drainage channel and leaning. The survival rate of tree transplanting is low and can only be recommended "fell".

- Trees of ***low amenity value and very common species*** – All trees proposed to be felled are of very common species with low amenity value, such a *Eucalyptus camaldulensis, Ficus microcarpa, Macaranga tanarius var. tomentosa, with* poor tree form, health or structural conditions.

The justifications are summarized in the **Table 1** below (to be read in conjunction with the Tree Treatment Schedule in **Appendix 2,** Photographic Record of Existing Trees in **Appendix 3** and Tree Treatment Plan in **Appendix 5-2**).

Table 1: Proposed Tree Felling Schedule

Proposed Tree Felling Schedule	
Tree No.	**Justifications for proposed felling of existing tree**
Please refer to Tree Treatment Schedule in **Appendix 2** for Tree Nos.	A total of **25** nos. of trees are recommended for *Fell* for the following justifications: • Trees in ***direct conflict with the proposed layout*** of proposed pump station and works area. • Necessary Slope upgrading for foundation and geotechnical works. Part of SIMAR Slope Feature No. 7SW-D/FR549 is to be

	relevelled for the formation of Pump Station. • Minimum 2.5m working area is necessary for construction access and formworks, including site formation works, manoeuvring of machineries, spatial provision for hoarding construction, construction of site office, etc. • Overgrown or Over-congested trees on slope - Existing trees on slope are overgrown and roots entangled with one another so that the tree rootballs are technically not transplantable. Survival rate after tree transplanting is low. • **Dead tree** (1 no.) • On the steep slope, two nos. large trees, T57 and T741 were found their rootball hardly retrievable. After critically review of their very low post-transplanting survival, they are recommended "fell". • The rest of trees are with: (i) unrecoverable health problem or in poor condition; (ii) low amenity value and common species; (iii) poor form with leaning trunk or imbalanced tree form; (iv) low survival rate after transplanting; and , (v) Dead branches and roots merged with adjacent drainage channel.

In summary, please find the following **Table 2** showing the Tree Treatment Proposal:

Table 2: Tree Treatment Proposal

Description	Current Scheme
Total Nos. of Trees ***Surveyed***	25 (incl. 1 dead tree)
Nos. of Trees Proposed to be ***Felled***	25 (incl. 1 dead tree)

7.0 Landscape Proposal

Major objectives of this current Landscape Proposal are listed below:

- To enhance greenery by planting trees;
- To replenish trees loss due to felling of existing trees;
- To plant native tree species for benefit of local habitat within the Application Site;
- To plant trees of suitable size on slope for sustainable natural process;
- To provide visual screening to the proposed pump station.

Please find the following **Table 3a, 3b and 3c** showing the proposed tree species & size for Tree Planting Proposal. Tree listed in the Table is selected to fit with the existing tree species nearby, the local climatic character, micro-climate and existing slope profile. Different environmental and spatial requirements are also taken into account during the development of the planting design. Thus, new trees will be planted on slope or sloping ground in form of pit planting subject to constraints of slope gradients. With reference to GEO Publication No. 1/2011, small tree planting on slope up to 35° is recommended. To balance initial greening and healthy tree growth, actual site condition and slope gradient on particular slope portion has been critically review. Standard Sized Trees are proposed within 6-24° slope gradient and Light Standard Sized Trees

proposed on slope with 16° slope gradient. Additionally, this proposal avoids tree planting on slopes with a gradient near 35°

Considering that some *Eucalyptus spp.* on existing slopes may not be beneficial to local habitat, native tree species as new tree planting is recommended. In addition, tree planting on open bottom is provided to ensure healthy long term roots growth. Please refer to Tree Planting Plan in **Appendix 5-3** and Slope Tree Planting Section in **Appendix 5-4**.

Table 3a: Proposed Tree Planting Schedule

Proposed Species	Chinese Name	Quantity/ Size
Bischofia javanica *	秋楓	7 nos. (Size: Standard Size 3-4m Height; 2-4m Spread)
*Celtis sinensis**	朴樹	4 nos. (Size: Light Standard Size 2-3m Height; 2-4m Spread)

Table 3b: Proposed Shrub and Groundcover Planting Schedule

Botanical Name	Chinese Name	Height x Spread (mm)	Spacing (mm)
Shrub Species			
Melastoma sanguineum *	毛蒽	600 x 500	500
Rhodomyrtus tomentosa *	桃金娘	400 x 300	250
Rhododendron simsii *	紅杜鵑	400 x 300	250
Ixora chinensis *	龍船花	600 x 500	500
Tibouchina semidecandra *	巴西野牡丹	400 x 350	300
Ground Cover Species			
Asparagus cochinchinensis *	天門冬	350 x 400	300
Nephrolepis auriculata *	腎蕨	350 x 400	300
Ophiopogon japonicus *	沿階草	100 x 150	100
Lawn Species			
Cynodon dactylon *	狗牙根	--	--

Table 3c: Proposed Vertical Green Planting Schedule

Proposed Species	Chinese Name	Quantity/ Size (Height x Spread)
Ficus pumila *	薜荔(文頭郎)	1000 mm x 250 mm

Remarks: * Native Species

Due to existing site constraints, replanting ratio of **1:0.44** in terms of quantity is the best we can achieve, with regards to the guidelines of *DEVB TC(W) No. 04/2020* replanting ratio of 1:1 may **NOT** be applied for trees growing on slope. To replenish the loss of greenery, new trees of higher ecological and aesthetic value are proposed. Nevertheless, the Applicant has maximized all available and feasible area for new tree planting. As such, planting of **11** nos. good quality new trees is the best to achieve. Refer to Tree Planting Plan in **Appendix 5-3**.

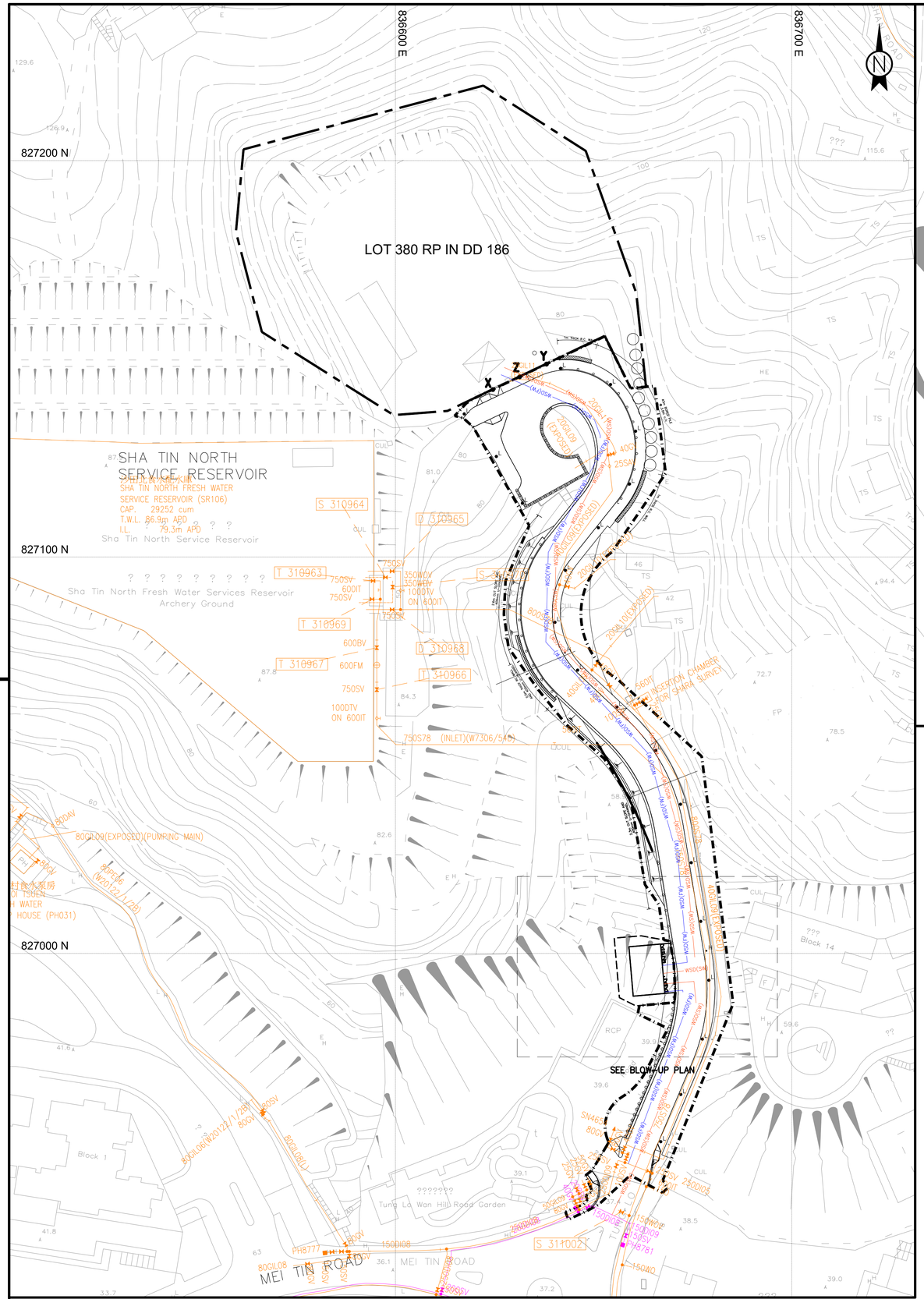
8.0 Summary of Tree Treatment and Planting Proposal

A summary of Tree Treatment and Planting Proposal in the Current Scheme is shown in **Table 4**:

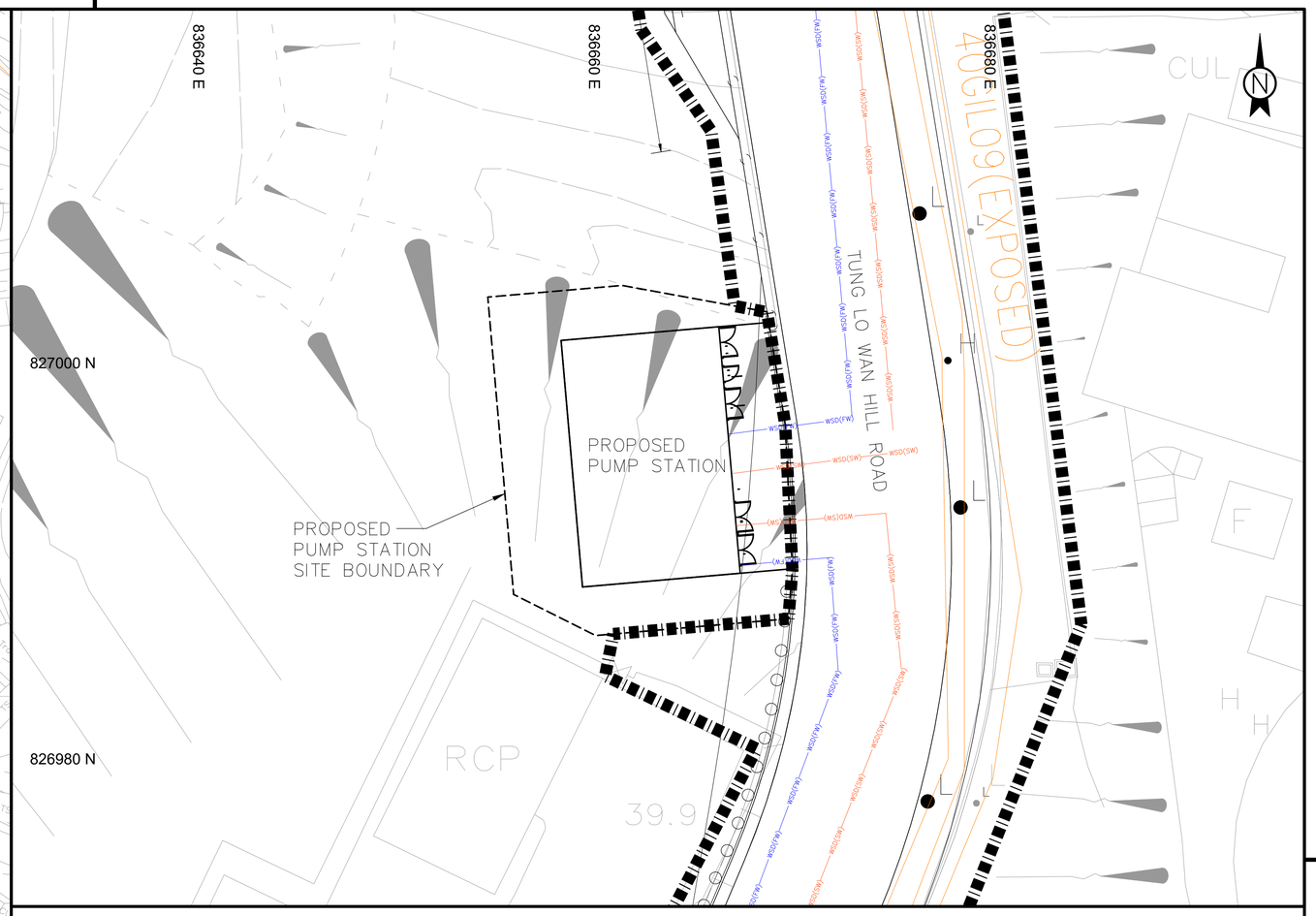
Table 4: Tree Treatment and Planting Schedule

Description	Current Scheme
Total Nos. of Trees ***Surveyed***	25
Nos. of Trees Proposed to be ***Felled***	25
Total Nos. of ***New Trees*** to be Planted	11

Appendix 1
Proposed Pump Station Layout



LOCATION PLAN
SCALE 1 : 600



BLOW-UP PLAN
SCALE 1 : 150

LEGEND :

- LOT BOUNDARY
- PROPOSED ACCESS ROAD EXTENT
- EXISTING SALT WATER MAINS
- EXISTING FRESH WATER MAINS
- WSD(SW) — PROPOSED SALT WATER MAINS
- WSD(FW) — PROPOSED FRESH WATER MAINS

REVISION	DATE	DESCRIPTION	BY	CHK
A	DEC 24	FOR S16 PUMP STATION DESIGN REPORT	KCW	ACS
–	AUG 24	FOR PUMP STATION DESIGN REPORT	KCW	ACS

DRG. TITLE

PROPOSED WATERMAINS LAYOUT PLAN

PROJECT: TUNG LO WAN SHAN ROAD	SCALE: 1 : 600
	DATE: JUL 2024
DRG. TYPE: PROPOSED ACCESS ROAD EXTENT	DESIGNED: ACS
	DRAWN: KCW
DRG. NO: PSDR–FIG–02	CHECKED: ACS
	APPROVED: LTL

C M WONG & ASSOCIATES LTD
TEL: (852) 2522 1068
E-mail: cmwal@cmwal.com

Appendix 2
Tree Treatment Schedule

Tree Treatment Schedule

Tree No.	Photo No.	Species		Tree Size			Proposed Treatment (Retain/ Transplant/ Fell/ Fell(Dead))	Remarks[1] (Old and Valuable Tree (OVT), potentially registrable OVT, rare species, protected species, ecological and historical significance, etc.)
		Scientific Name	Chinese Name	Height (m)	DBH[2] (mm)	Crown Spread (m)		
T47	T47	*Eucalyptus camaldulensis*	赤桉	18	300	5	F	On slope
T48	T48	*Eucalyptus camaldulensis*	赤桉	18	330	5	F	On slope
T49	T49	*Eucalyptus camaldulensis*	赤桉	18	250	5	F	Leaning/ on slope
T50	T50	*Ficus microcarpa*	細葉榕	6	320	6	F	Dead branch / large wound/ main branch broken/ on slope
T51	T51	*Macaranga tanarius* var. *tomentosa*	血桐	10	190	4	F	Poor branching system/ on slope
T52	T52	*Ficus microcarpa*	細葉榕	12	320	4	F	Decay / leaning / wound/ on slope
T53	T53	*Ficus microcarpa*	細葉榕	10	310	6	F	Dead branch / wound/ on slope
T57	T57	*Ficus microcarpa*	細葉榕	9	980	12	F	Roots merged with adjacent drainage channel/ on slope
T58	T58	*Litchi chinensis*	荔枝	7	180	3	F	Wound/ growing attached to fencing / on slope
T59	T59	*Litchi chinensis*	荔枝	8.5	340	3	F	Epicormics / wound/ hollow tree collar/ on slope
T60	T60	Dead tree	死樹	7	140	0	F(D)	Dead tree
T61	T61	*Macaranga tanarius* var. *tomentosa*	血桐	6	130	6	F	Significant cavity at trunk/ on slope
T735	T735	*Ficus microcarpa*	細葉榕	10	380	4	F	Dead branch / fungal fruiting bodies on branch / wound / leaning/ on slope
T736	T736	*Eucalyptus camaldulensis*	赤桉	20	210	5	F	Leaning/ on slope
T737	T737	*Eucalyptus camaldulensis*	赤桉	9	120	2	F	Dead branch / leaning/ on slope

Tree No.	Photo No.	Species		Tree Size			Proposed Treatment (Retain/ Transplant/ Fell/ Fell(Dead))	Remarks[1] (Old and Valuable Tree (OVT), potentially registrable OVT, rare species, protected species, ecological and historical significance, etc.)
		Scientific Name	Chinese Name	Height (m)	DBH[2] (mm)	Crown Spread (m)		
T738	T738	*Eucalyptus camaldulensis*	赤桉	20	290	5	F	On slope
T739	T739	*Eucalyptus camaldulensis*	赤桉	12	130	3	F	Leaning/ on slope
T740	T740	*Dimocarpus longan*	龍眼	8	410	5	F	Dead branch / leaning / wound/ loosen bark on trunk/ on slope
T741	T741	*Eucalyptus camaldulensis*	赤桉	25	320	5	F	On slope
T742	T742	*Ficus virens*	黃葛樹	10	390	4	F	Epicormics / leaning / wound/ on slope
T743	T743	*Livistona chinensis*	蒲葵	7	220	4	F	Leaning/ on slope
T744	T744	*Ficus microcarpa*	細葉榕	14	400	8	F	Epicormics / significant cut wound/ on slope
T745	T745	*Ficus microcarpa*	細葉榕	10	390	6	F	Co-dominant trunk/ on slope
T746	T746	*Macaranga tanarius* var. *tomentosa*	血桐	10	220	8	F	Exposed root / epicormics / leaning/ on slope
T747	T747	*Ficus microcarpa*	細葉榕	11	450	5	F	Climber / leaning / wound/ growing close to drainage channel/ on slope

Summary Table

	Number of Tree(s)
Tree to be Retained	0
Tree to be Transplated	0
Tree to be Felled	25
Total Number of Existing Tree(s)	25

[1] Please state whether the OVT, potentially registrable OVT, trees of rare or protected species, trees with ecological and historical significance, etc. within and/or adjacent to the site is likely to be affected by the proposed development.

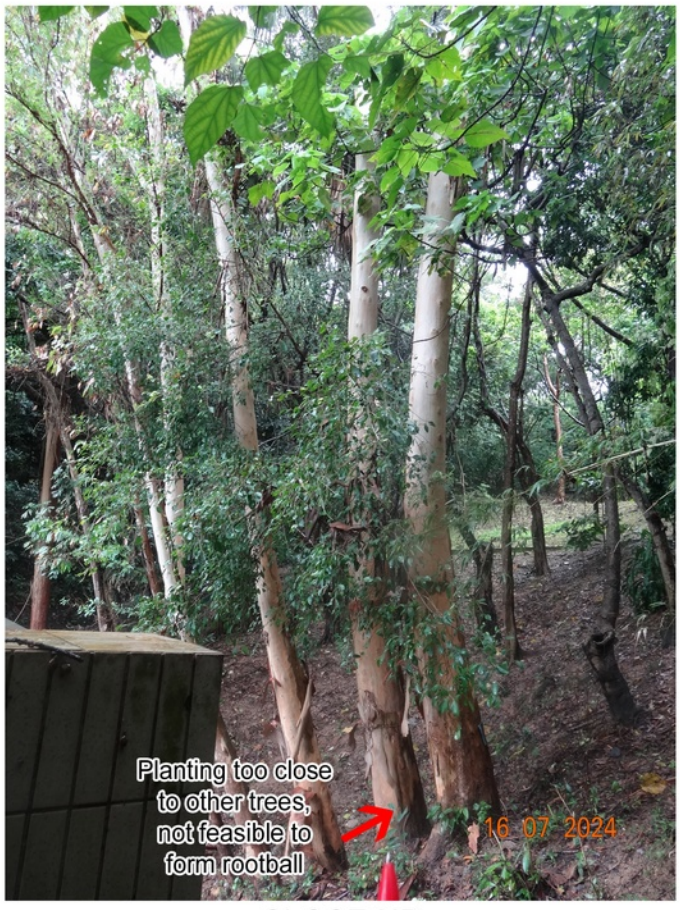
[2] DBH of a tree refers to its diameter at breast height (i.e. measured at 1.3m above ground level).

Appendix 3
Photographic Record of Existing Trees

T47

CLOSE UP

T48



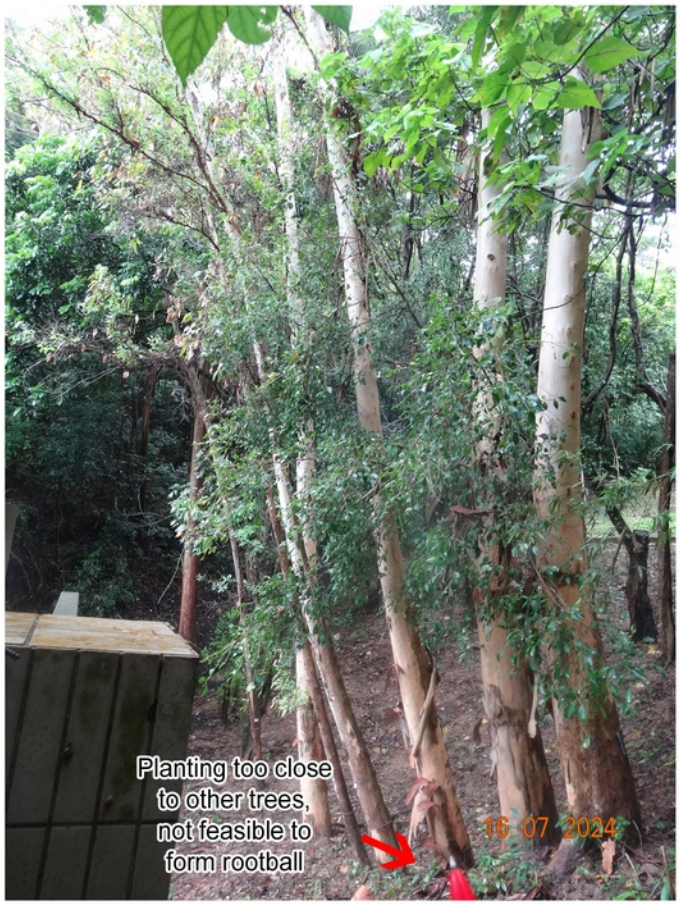
CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

R-Retain T-Transplant F-Fell D-Dead Tree

T49



CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

R-Retain T-Transplant F-Fell D-Dead Tree

T50

CLOSE UP

CLOSE UP

Proposed Comprehensive Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T51

CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T52

CLOSE UP

CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

R-Retain T-Transplant F-Fell D-Dead Tree

T53

CLOSE UP

CLOSE UP

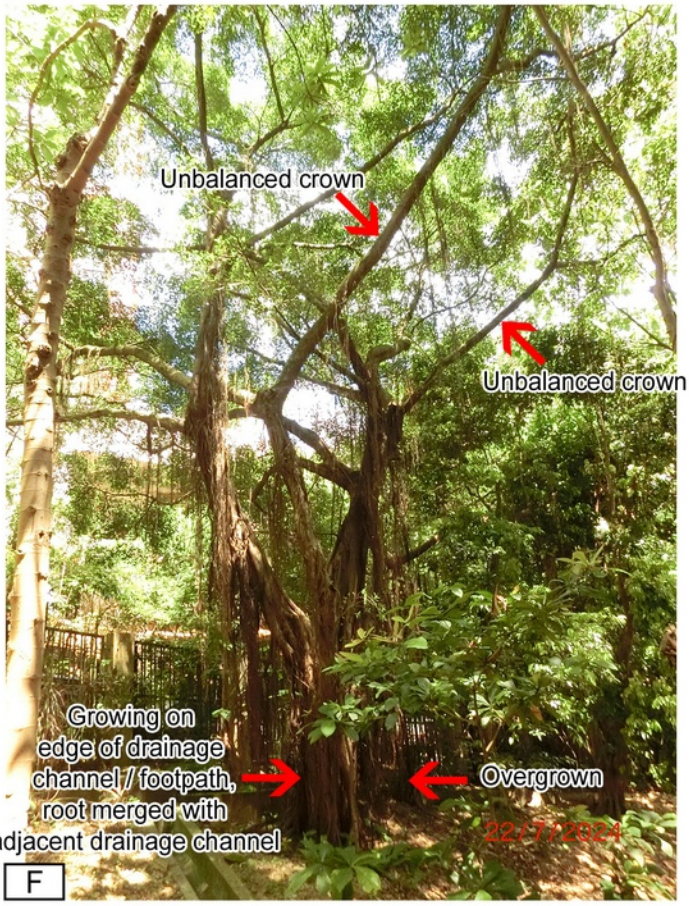
CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

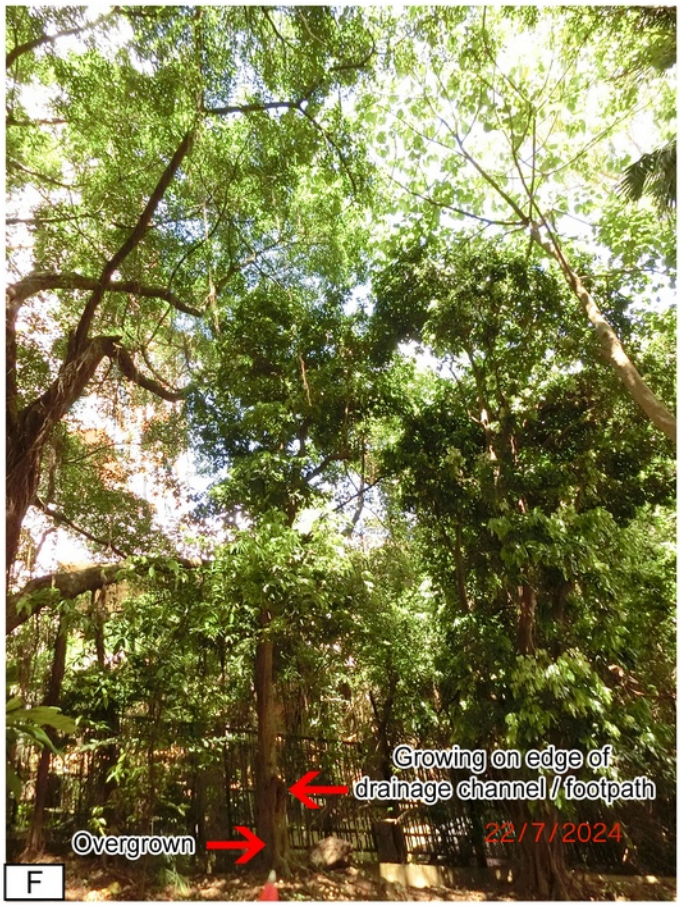
(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree



T57

CLOSE UP



T58

CLOSE UP

Proposed Comprehensive Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T59

CLOSE UP

T60

Proposed Comprehensive Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T61

CLOSE UP

CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T735

CLOSE UP

T736

CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

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T737

CLOSE UP

T738

CLOSE UP

Proposed Comprehensive Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T739

CLOSE UP

T740

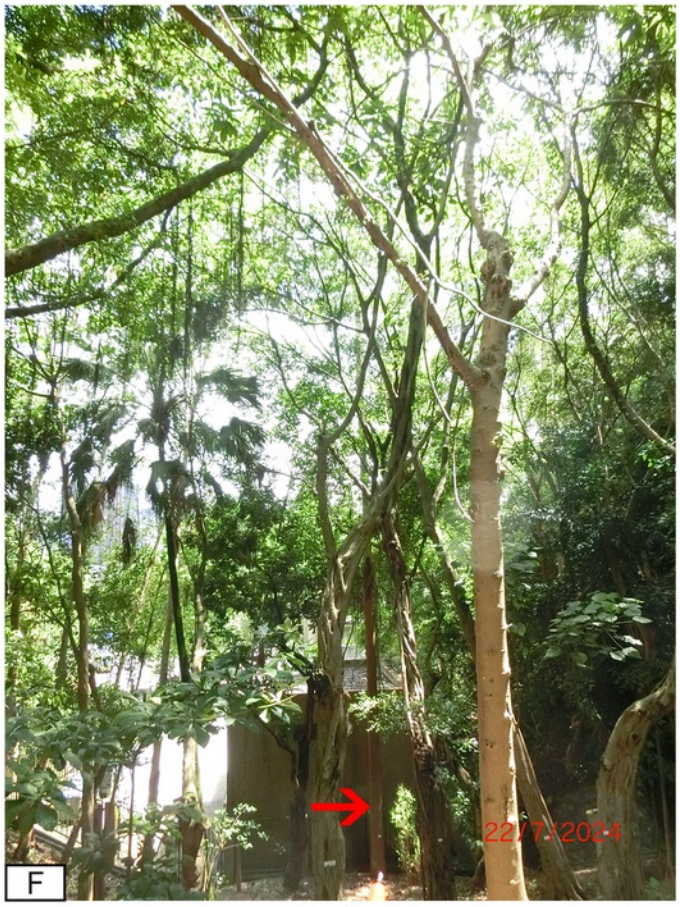
CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

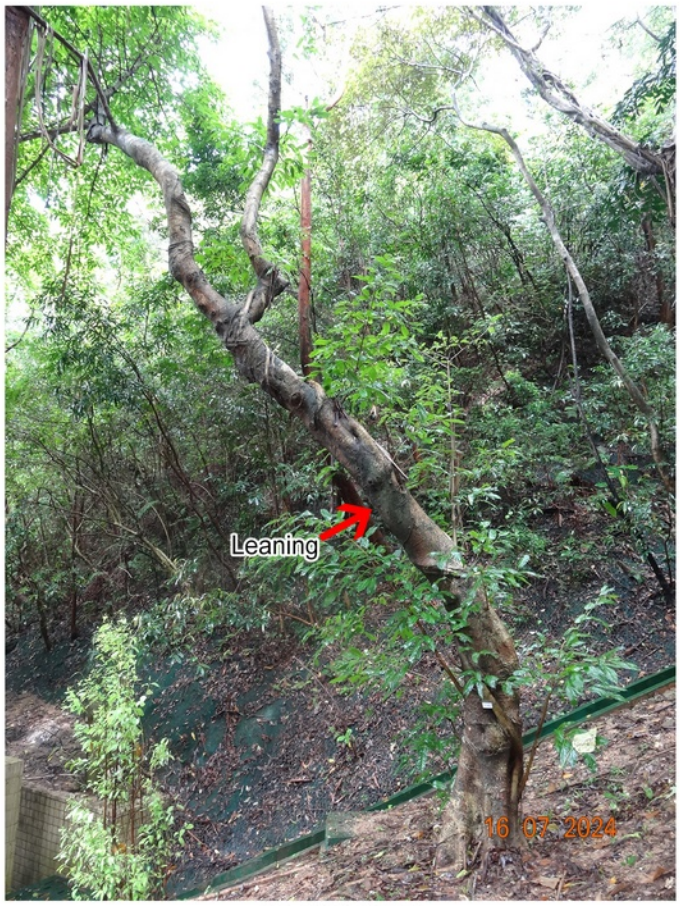
R-Retain T-Transplant F-Fell D-Dead Tree



T741

CLOSE UP

T742



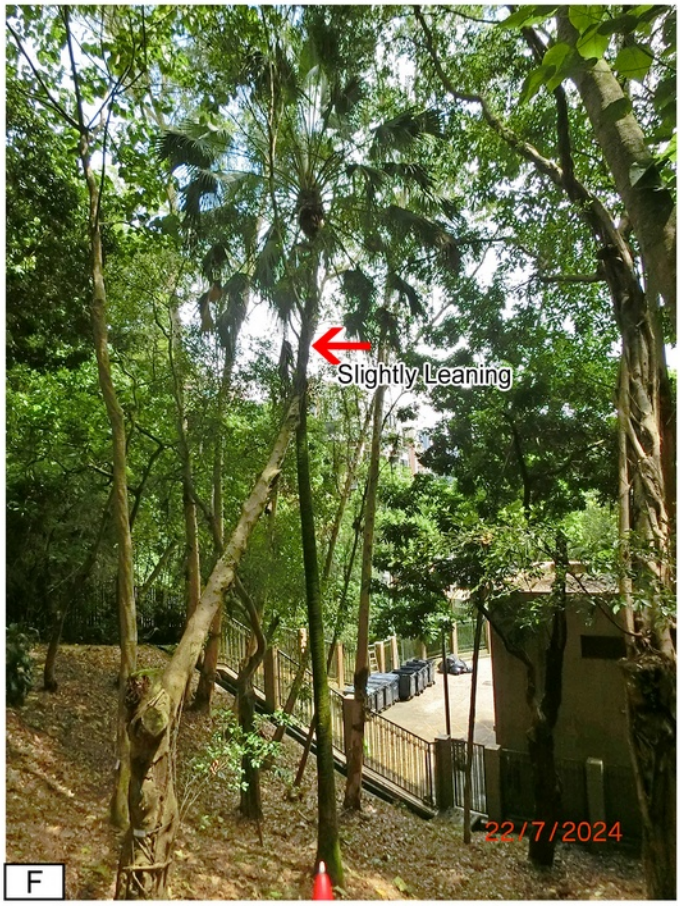
CLOSE UP

Proposed Comprehensive
Development at Lot No.

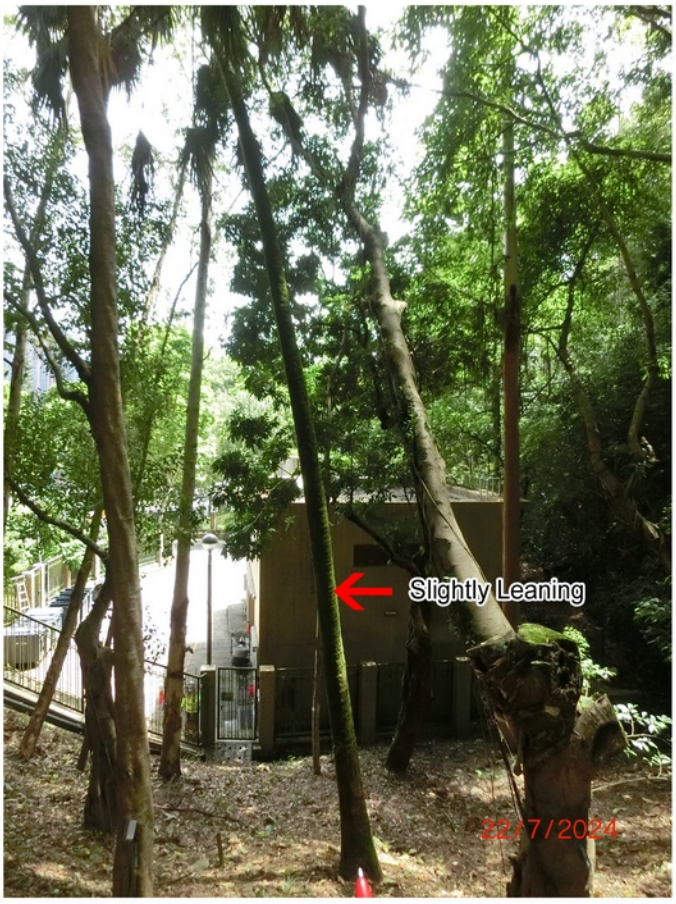
Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree



T743



CLOSE UP

T744

CLOSE UP

Proposed Comprehensive Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T745

CLOSE UP

T746

CLOSE UP

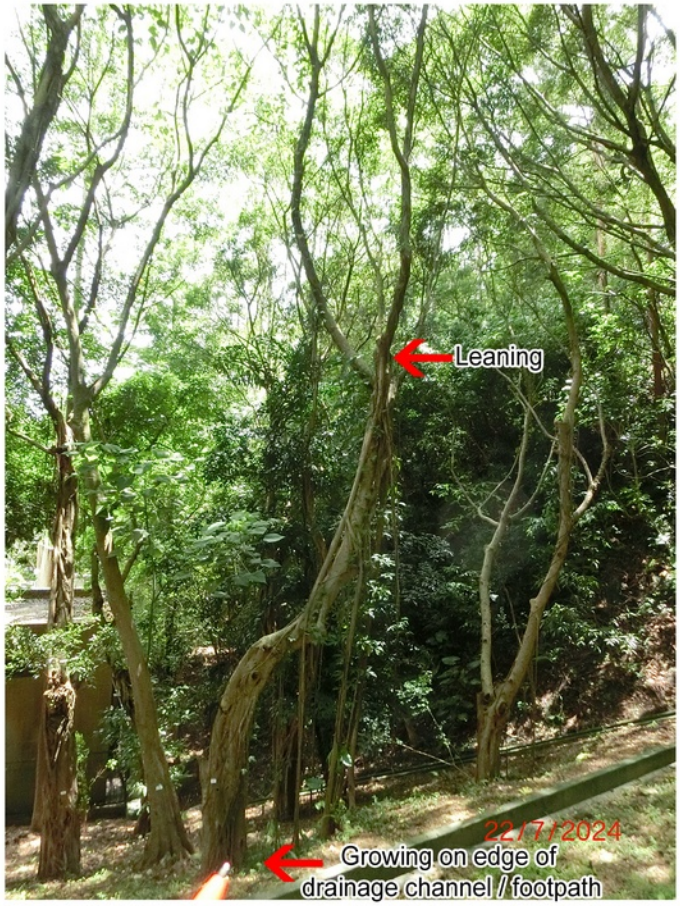
Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

T747



CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

Appendix 4
Landscape Proposal

4-1 Landscape Proposal

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED VERTICAL GREEN WITH SELF-CLIMBING SPECIES
- PROPOSED NEW TREES (11 nos.)
- PROPOSED SHRUBS AND GROUNDCOVERS
- PROPOSED LAWN (0.60m Maintenance Path)
- HARD PAVED AREA
- +47.95 PROPOSED LEVELS

N

0m 0.5m 1m 2m 4m

SCALE . 1:100 (A3)

Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

Landscape Proposal

Dwg. No. : 2017205-S16-PR-LMP-01a

Date : DEC 2024

(A3-size)

axxa group

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Appendix 5
Drawings

5-1 Tree Survey Plan

5-2 Tree Treatment Plan

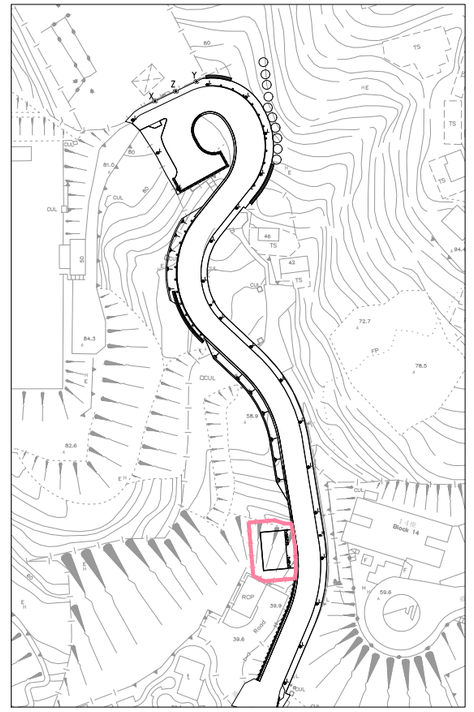
5-3 Tree Planting Plan

5-4 Slope Tree Planting Section

Slope No.:7SW-D/FR549

Slope No.:7SW-D/FR25(2)

T735 T747 T746 T745 T744 T742 T743 T740 T741 T739 T738 T737 T736 T53 T52 T51 T50 T57 T58 T59 T60 T61 T48 T47



KEY PLAN

LEGEND:

APPLICATION SITE BOUNDARY

EXISTING TREES SURVEYED (24 Nos.)

DEAD TREE (1 No.)

no.	description	date
A	GENERAL REVISION	

REVISION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO

- use figured dimension in preference to scalling
- verify all dimensions at the site
- report all discrepancies to the landscape architect and agree before proceeding
- determine location of all existing services prior to excavation

This drawing shall not be used for construction purposes unless signed by Landscape Architect

Date:

Approval:

axxa group

axxa group limited

UNIT 301-02, 3/F PLAZA 228,
No. 228 WAN CHAI ROAD, HONG KONG.
香港 灣仔 灣仔道 228號,
PLAZA 228, 3樓 301-02室.
T: (852) 2893 8586 F: (852) 2893 8997
E: ag@axxagroup.com.hk

PROJECT:
Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

DRAWING TITLE:
TREE SURVEY PLAN

Scale:	1:100
Date:	AUG 2024
Design:	CL
Drawn:	LS
Checked:	CL
Project No:	2017205

Drawing No.: TSP-PR-01

REV. A

CAD Ref.: 2017205-S16-PR-TSP-01

A3 420 x 297

Slope No.:7SW-D/FR549

Slope No.:7SW-D/FR25(2)

AROUND 2.5m WORKING AREA

AROUND 2.5m WORKING AREA

T735 T747 T746 T745 T744 T743 T742 T741 T740 T739 T738 T737 T53 T57 T52 T58 T59 T51 T50 T60 T61 T48 T47

HILL ROAD

KEY PLAN

LEGEND:

- APPLICATION SITE BOUNDARY
- WORKING AREA
- TREES PROPOSED TO BE FELLED (24 Nos.)
- DEAD TREE (1 No.)

no.	description	date
A	GENERAL REVISION	

REVISION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO

- use figured dimension in preference to scalling
- verify all dimensions at the site
- report all discrepancies to the landscape architect and agree before proceeding
- determine location of all existing services prior to excavation

This drawing shall not be used for construction purposes unless signed by Landscape Architect

Date:

Approval:

axxa group

axxa group limited

UNIT 301-02, 3/F PLAZA 228,
No. 228 WAN CHAI ROAD, HONG KONG.
香港 灣仔 灣仔道 228號,
PLAZA 228, 3樓 301-02室.
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E: ag@axxagroup.com.hk

PROJECT:
Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

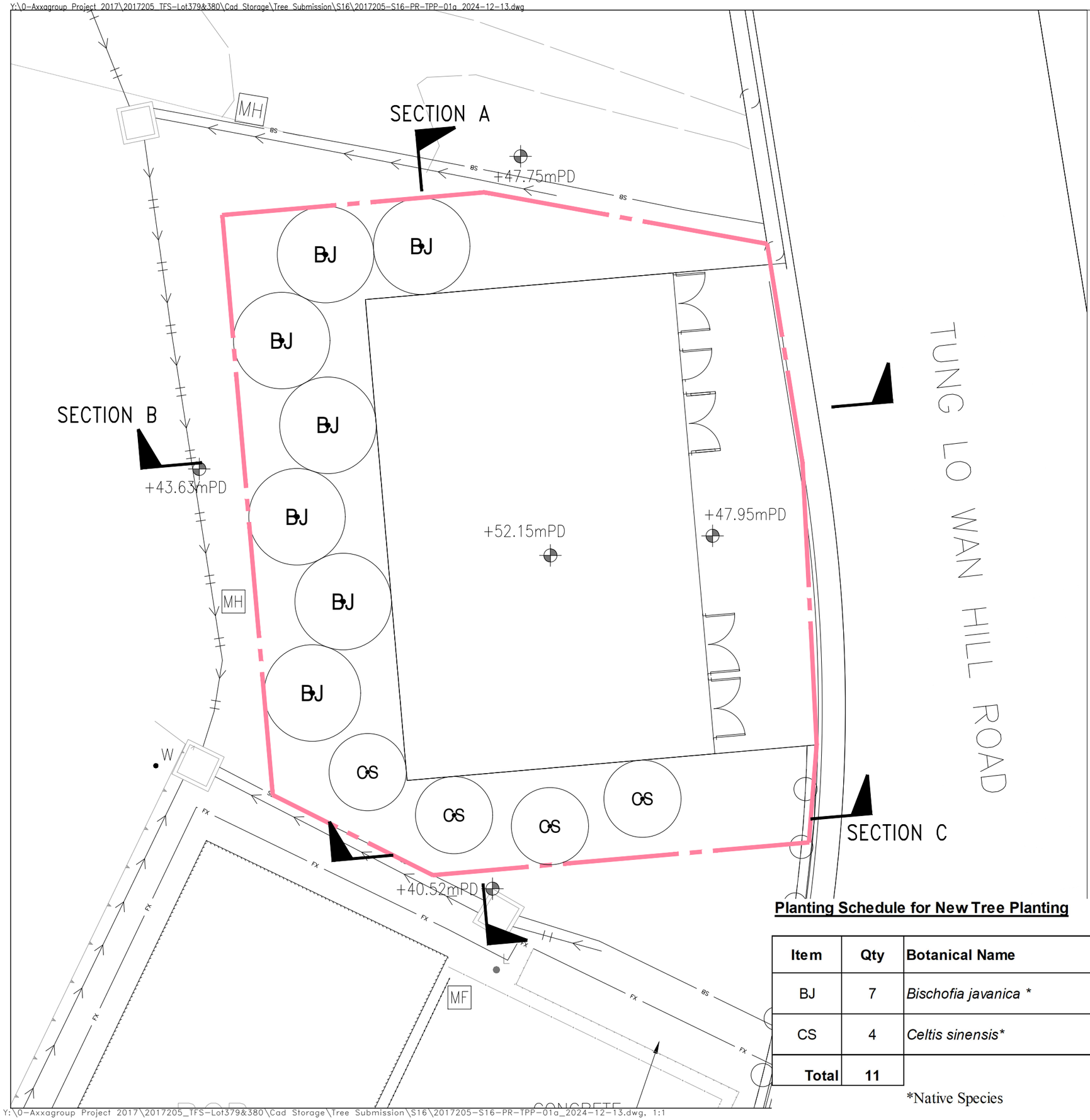
DRAWING TITLE:
TREE TREATMENT PLAN

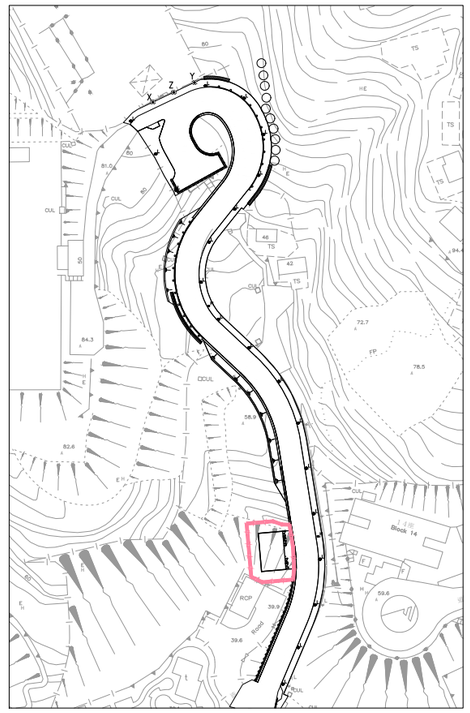
Scale:	1:100
Date:	AUG 2024
Design:	CL
Drawn:	LS
Checked:	CL
Project No:	2017205

Drawing No.: TTP-PR-01 REV. A

CAD Ref.: 2017205-S16-PR-TTP-01

A3 420 x 297





KEY PLAN

LEGEND:

APPLICATION SITE BOUNDARY

(BJ) PROPOSED NEW TREES (11 Nos.)

Planting Schedule for New Tree Planting

Item	Qty	Botanical Name	Chinese Name	Height (m)	Spread (m)
BJ	7	*Bischofia javanica* *	秋楓	Standard size (3-4m Height, 2-4m Spread)	
CS	4	*Celtis sinensis**	朴樹	Light Standard size (2-3m Height, 2-4m Spread)	
Total	**11**				

*Native Species

no.	description	date
A	GENERAL REVISION	

REVISION

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- determine location of all existing services prior to excavation

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Date:

Approval:

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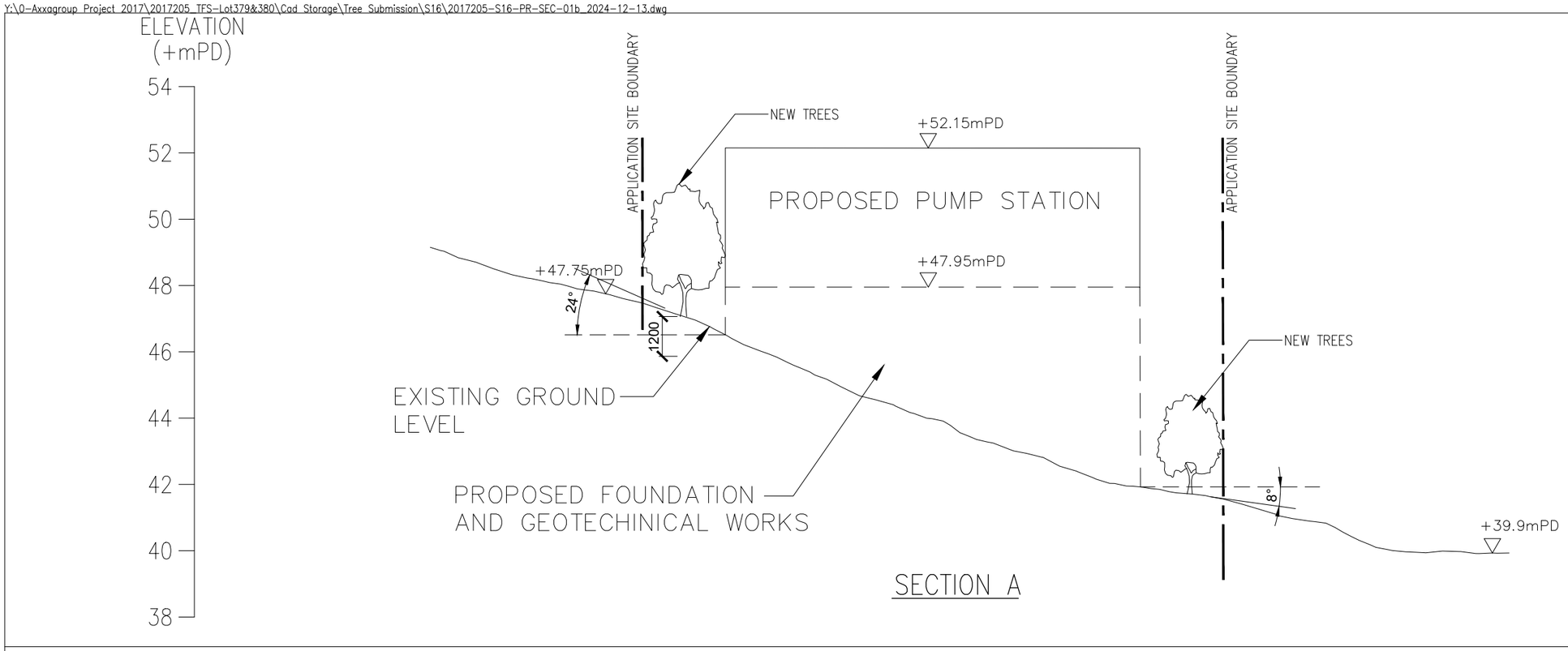
DRAWING TITLE:
TREE PLANTING PLAN

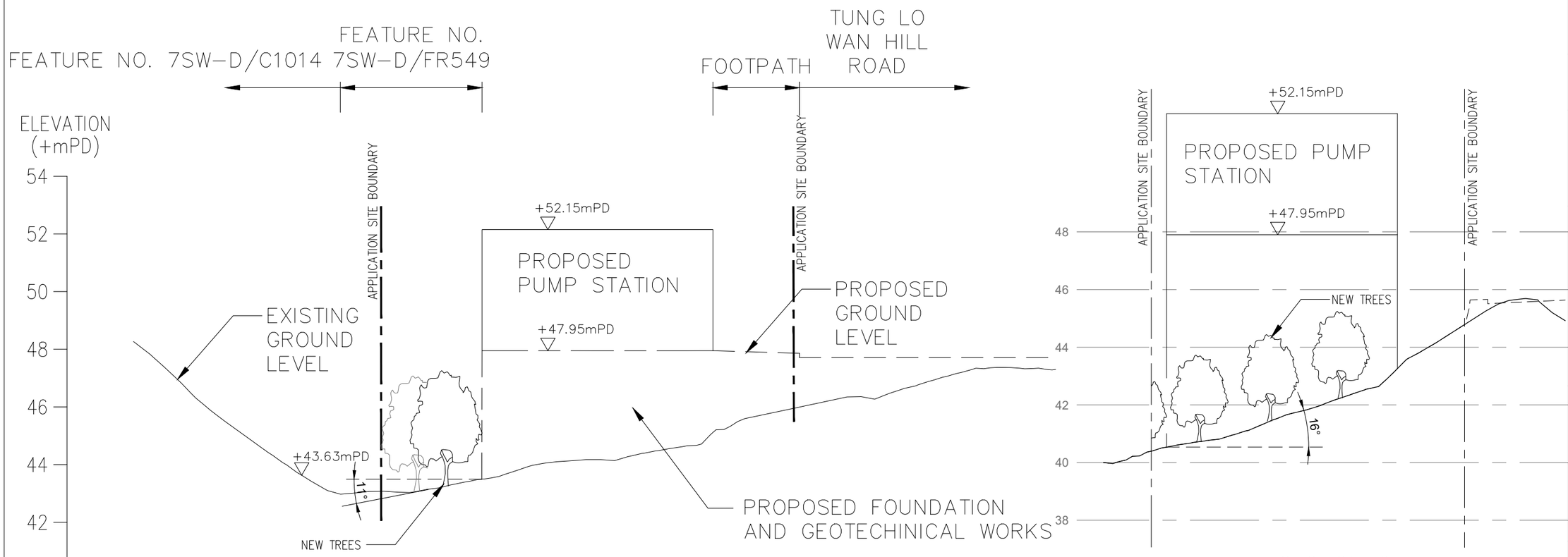
Scale:	1:100	Drawing No.:	TPP-PR-01
Date:	AUG 2024		
Design:	CL		
Drawn:	LS		
Checked:	CL		
Project No:	2017205	REV.	A

CAD Ref.: 2017205-S16-PR-TPP-01

A3 420 x 297



SECTION A



SECTION B

SECTION C

LEGEND:

APPLICATION SITE BOUNDARY

no.	description	date
B	GENERAL REVISION	
A	GENERAL REVISION	10/12/24

REVISION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO

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- verify all dimensions at the site
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- determine location of all existing services prior to excavation

This drawing shall not be used for construction purposes unless signed by Landscape Architect

Date:

Approval:

axxa group

axxa group limited
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PROJECT:
Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

DRAWING TITLE:
SLOPE TREE PLANTING SECTION

Scale:	1:150	Drawing No.:	
Date:	AUG 2024		
Design:	CL		SEC-PR-01
Drawn:	LS		
Checked:	CL		REV. B
Project No:	2017205		
CAD Ref.:	2017205-S16-PR-SEC-01		

Appendix C

Geotechnical Review Report

Tung Lo Wan Hill Road – Private residential development

Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories

Geotechnical Review Report

C M WONG & ASSOCIATES LTD
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cmwal@cmwal.com

CMA

Document Verification

Project title		Tung Lo Wan Hill Road – Private residential development			Job number TLWSR
Document title		Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories Geotechnical Review Report			File reference TLWSR/GRR
Document ref					
Revision	Date				
0	August 2024		Prepared by	Checked by	Approved by
		Name	Angus Yuen	Angela Chao	Terence Yau
		Signature			
1	October 2024				
			Prepared by	Checked by	Approved by
			Angus Yuen	Angela Chao	Terence Yau
		Signature			
		Filename			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

Table of Contents

Tables

Figures

Appendix

1. Introduction

1.1 Background

1.1.1 On 13 January 2023, the Town Planning Board accepted and approved the Section 12A Rezoning Application for Amendment to the Approved Sha Tin Outline Zoning Plan No. S/ST/36 at Lot 380 RP (Part) in DD 186, Tung Lo Wan Hill Road, Sha Tin (hereafter referred to as "Application Site"). The previously approved Indicative Master Layout Plan showing the layout and Proposed Access Road are presented in **Appendix A**.

1.1.2 Under the same s. 12A Rezoning Application, an off-site pump station (comprising sump and pump system and associated rising main) was proposed to supply fresh water and salt water to the Application Site.

1.1.3 This Geotechnical Review Report ("GRR") is prepared in support of a Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories (herein after referred to as the "Proposed Pump Station Site"), and more specifically located on Feature No. 7SW-D/FR549 at Tung Lo Wan Hill Road, Sha Tin., as shown on **Figure 1**.

1.2 Objectives

1.2.1 The main objectives of this report are as follow:-

A. Describe the geological setting of the Proposed Pump Station Site and indicate the location of features within and surrounding the Proposed Pump Station Site and the land status;

B. Review the sufficiency of previous ground investigation and laboratory testing conducted, and state the need and objectives of the proposed additional site investigation and laboratory testing;

C. Review the impacts of the Proposed Pump Station on the man-made slopes or retaining walls; and

D. Assess the geotechnical feasibility of the Proposed Pump Station Site

1.3 Report Structure

1.3.1 Following this introductory chapter, the GRR is structured as follows:

Chapter 2 - Site Description

1.3.2 This section reviews the current site conditions and existing man-made feature within/ in the vicinity of the Proposed Pump Station Site;

Chapter 3 - Site Geology

1.3.3 This section describes the geology within Proposed Pump Station Site and presents previous ground investigation study;

Chapter 4 – Proposed Works

1.3.4 This section presents feasible foundation works and the monitoring programme for safeguarding adjacent structures and utilities during construction for Proposed Pump Station;

Chapter 5 - Conclusion

2. Site Description

2.1 Site Descriptions and Topography

2.1.1 The Proposed Pump Station Site is located at Feature No. 7SW-D/FR549. To the north and west sides, the Proposed Pump Station Site is bound by Feature Nos. 7SW-B/FR25 and 7SW-D/C1014 respectively. To the south side, the Proposed Pump Station Site is bound by a Refuse Collection Point and its access road. To the east side, the Proposed Pump Station Site is bound by Tung Lo Wan Hill Road. The Proposed Pump Station Site is located at the man-made slope area and is sloping up from southern side to northern side with existing ground level ranging from +41mPD to +47mPD. **Figure 1** illustrates the location of the Proposed Pump Station Site.

2.2 Existing Features

2.2.1 There are 3 registered man-made features / slopes located within or in vicinity of the Proposed Pump Station Site. The locations of these 3 features are shown in **Figure 2**. Records of slopes within the site boundary retrieved from the SIS System of GEO and SIMAR of Lands Department are presented in **Appendix B** and summarized in **Table 2.1**.

Table 2.1 - Existing Geotechnical Feature within and adjoining to the Proposed Pump Station Site

Feature No.	Location	Max. Height (m)	Length (m)	Angle (°)	Material	Consequence -to-life	Responsible Parties	Maintenance Parties
Within the Proposed Pump Station Site								
7SW-D/FR549	GLA-STT336, Tung Lo Wan Hill Road	Slope: 7, Wall: 3.5	Slope: 45, Wall: 17	Slope: 27, Wall: 90	Slope: Vegetated Surface Wall: Concrete	3	LCSD	Arch SD
In vicinity of the Proposed Pump Station Site								
7SW-D/C1014	GLA-STT336, Tung Lo Wan Hill Road	25	138	40	Vegetated Surface	1	SD1: Private SD2: LCSD	SD1: N/A SD2: Arch SD
7SW-B/FR25	Within GLA-ST75 and GLA-STT336, and adjoining WSD Access Rd Item, adjoining Tung Lo Wan Hill Road to Sha Tin North F.W. S/R	Slope: 12, Wall: 2	Slope: 130, Wall: 12	Slope: 25, Wall: 85	Slope: Largely Vegetated and Partly Shotcrete Surface Wall: Concrete	1	SD1: WSD SD2: LCSD	SD1: WSD SD2: Arch SD

2.3 Existing Structures

2.3.1 There is an existing structure in the vicinity of the Proposed Pump Station Site: A refuse collection point is located to the south of the Proposed Pump Station Site.

2.3.2 According to record plan from BRAVO system, the foundation of the refuse collection point is pad footing, siting on soil ground.

2.4 Existing Utilities

2.4.1 The topographic survey records have been attached in the **Appendix C**.

2.4.2 According to the record plans, main existing utilities include several drainage channels located in the vicinity of the proposed pump station site and several water mains located along Tung Lo Wan Hill Road.

3. Site Geology

3.1 Solid and Superficial Geology

3.1.1 According to Sheet 7 of the 1:20000 scale HGM20 Series Solid and Superficial Geology Map published by the GEO, HKSAR, the Proposed Pump Station Site is generally underlain by Colluvium (Qd). Colluvium was recorded along the valley and a few bands of NE-trending feldsparphyric rhyodacite dykes were recorded in the vicinity. The nearest structural feature identified was a vertical joint at approx. 280m towards south of the Proposed Pump Station Site.

3.1.2 A NW-trending photo-lineament can be identified in the vicinity of the Proposed Pump Station Site and traversing along Tung Lo Wan Hill Road, along the valley. It is located 10m to the east of the Proposed Pump Station Site. Referring to existing GI in the vicinity, the photo-lineament is possibly associated with a fault zone.

3.1.3 The geological settings and ground conditions of the Proposed Pump Station Site are interpreted and confirmed based on the GI information obtained from the previous GI information obtained in GIU.

3.1.4 A part plan extract from the geological map is shown in **Figure 3**.

3.2 Existing Ground Investigation Information

3.2.1 No existing ground investigation (GI) information is available within the Proposed Pump Station Site.

3.3 Project Specific Ground Investigation

3.3.1 Given a lack of existing GI data within the Proposed Pump Station Site, project specific GI works are recommended to confirm the subsurface geological profile, groundwater conditions, as well as soil and rock material design parameters.

3.3.2 The GI should comprise of vertical boreholes and trial pits within both superficial and solid stratum. In respect to the upper superficial materials, appropriate sampling and in-situ testing should be undertaken in accordance with the principles set out in Geoguide 2. Rotary coring of the underlying solid likely bearing stratum should also be undertaken to establish a suitable bearing stratum with core recovery to enable the scheduling of appropriate laboratory tests. Allowances should also be made for the installation of groundwater monitoring instrumentation, i.e. standpipe or standpipe-piezometers. Groundwater samples will be collected for checking existence of contaminants. Details of proposed GI and laboratory tests will be confirmed during detailed design stage.

4. Proposed Works

4.1 Proposed Foundation Works

4.1.1 For the one-storey Proposed Pump Station, foundation schemes including footings on soil or mini-piles are technical feasible foundation systems for the proposed structure. These foundation systems are commonly adopted in Hong Kong construction industry.

4.1.2 Existing feature 7SW-D/FR549 will be modified as presented below.

Feature No. 7SW-D/FR549

4.1.3 The feature boundary of the existing feature 7SW-D/FR549 shall be reduced and modified to accommodate the Proposed Pump Station.

4.2 Monitoring Works During Construction

4.2.1 A comprehensive monitoring programme, which comprises the followings, shall be implemented on site to safeguard the adjacent utilities and/or structures:

1. Settlement check points around the Proposed Pump Station;
2. Settlement check points on surrounding utilities;
3. Tilting checkpoints on retaining walls and nearby buildings; and
4. Piezometers/standpipes at locations around the Proposed Pump Station Site.

The initial readings of all the above monitoring points and piezometers/standpipes shall be taken prior to the commencement of construction works on site and these devices shall be monitored regularly throughout the construction works.

4.3 Natural Terrain Hazard Review

4.3.1 The Application Site is overlooked by upslope natural terrain to the northeast, featuring a natural hillside with an angular elevation ranging from 22 to 40°. Since the Proposed Pumping Station is an unmanned plant room and classified as Non-dangerous storage site of facility Group 4, it does not fall into standard facility Group 1-3 stated in Table 2.2 of GEO Report No. 138. Therefore, the Application Site does not meet the alert criteria and a natural terrain hazard study is not required.

5. Conclusion

A geotechnical planning review has been conducted for Proposed Pump Station. The physical conditions as well as the geological conditions of the Proposed Pump Station Site have been reviewed and discussed.

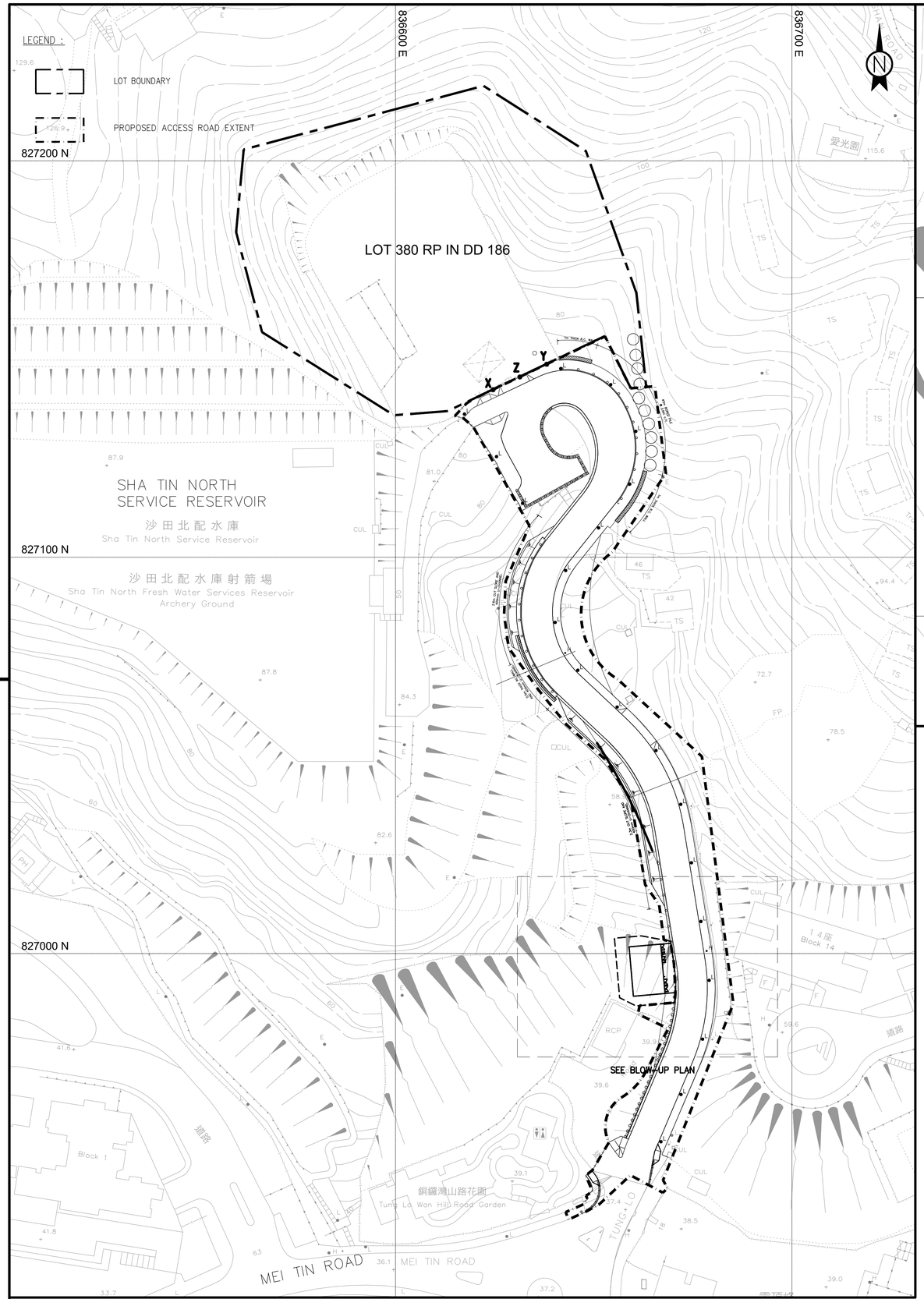
All slopes affecting or being affected by the Proposed Pump Station will be assessed. If necessary, upgrading works will be carried out in detailed design.

In conclusion, construction of the Proposed Pump Station are considered geotechnically feasible.

6. Reference

- Code of Practice for the Structural Use of Foundation 2017.
- Foundation Design & Construction, GEO Publication No. 1/2006. GEO, CEDD (GEO, 2006).
- Geoguide 1, Guide to Retaining Wall Design, 2nd Edition (GEO, 2017 Reprinted Version).
- Geoguide 2, Guide to Site Investigation, (GEO, 2017 Reprinted Version).
- Geoguide 3, Guide to Rock and Soil Descriptions, (GEO, 2017 Reprinted Version).
- Geoguide 5, Guide to Slope Maintenance, (GEO, 2003).
- Geotechnical Manual for Slopes (Second Edition). Geotechnical Engineering Office, Hong Kong. (GEO, 1994)
- Hong Kong Geological Survey, Sheet No. 7 –Solid and Superficial Geology Map, Series HGM20, scale 1:20,000, GEO (GEO, 2012)
- Slope Information System. (GEO)
- Slope Maintenance Responsibility Report. (LandsD)

Figures



LOCATION PLAN
SCALE 1 : 600

BLOW-UP PLAN
SCALE 1 : 150

REVISION	DATE	DESCRIPTION	BY	CHK
–	JUL 24	FOR TEAM'S REVIEW	KCW	ACS

DRG. TITLE

PROPOSED PUMP STATION LOCATION PLAN

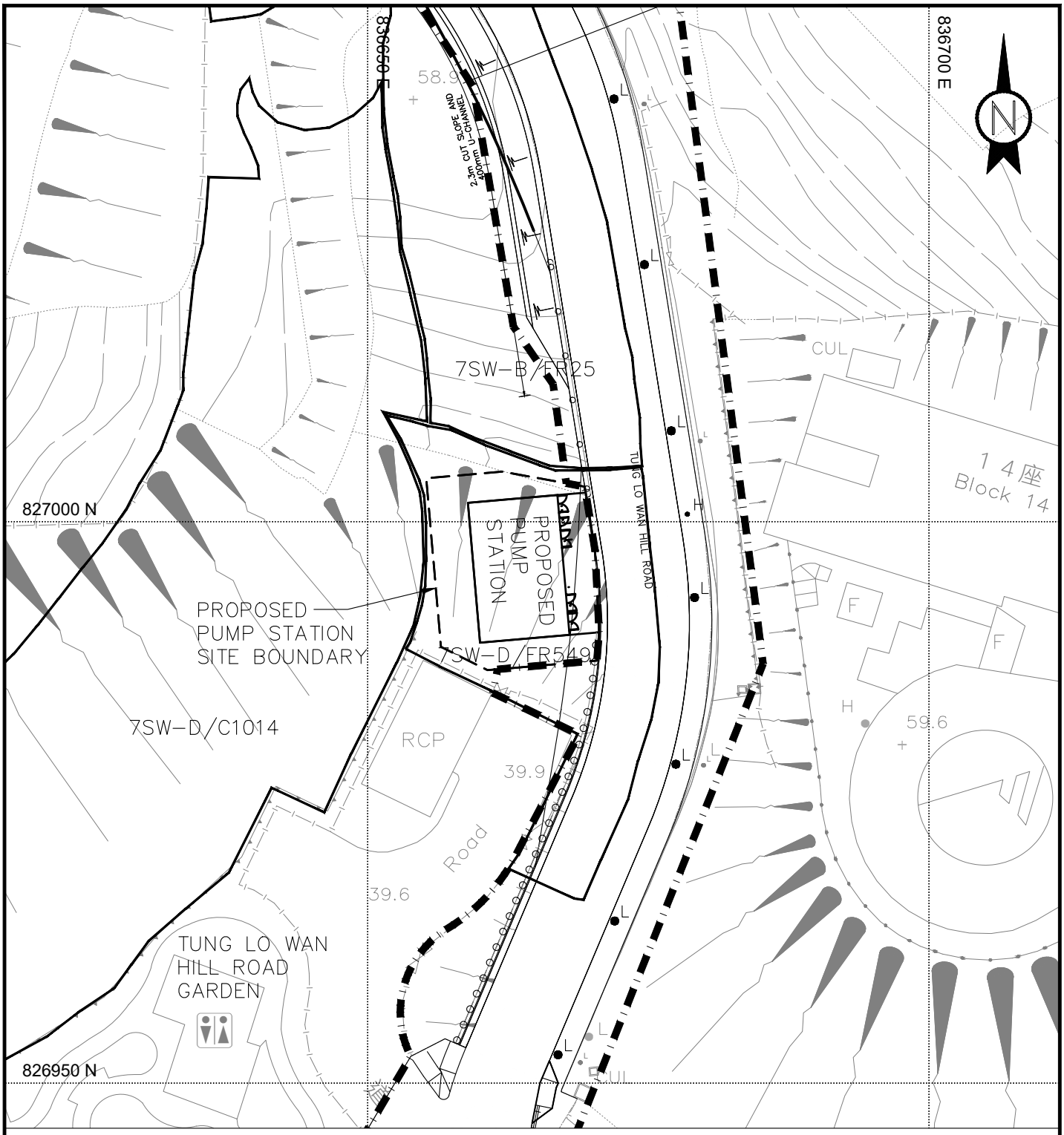
PROJECT
TUNG LO WAN
SHAN ROAD

DRG. TYPE
PROPOSED ACCESS
ROAD EXTENT

DRG. NO
GRR–FIG–01

SCALE	1 : 600
DATE	JUL 2024
DESIGNED	ACS
DRAWN	KCW
CHECKED	ACS
APPROVED	LTL

C M WONG & ASSOCIATES LTD
TEL: (852) 2522 1068
E-mail: cmwal@cmwal.com



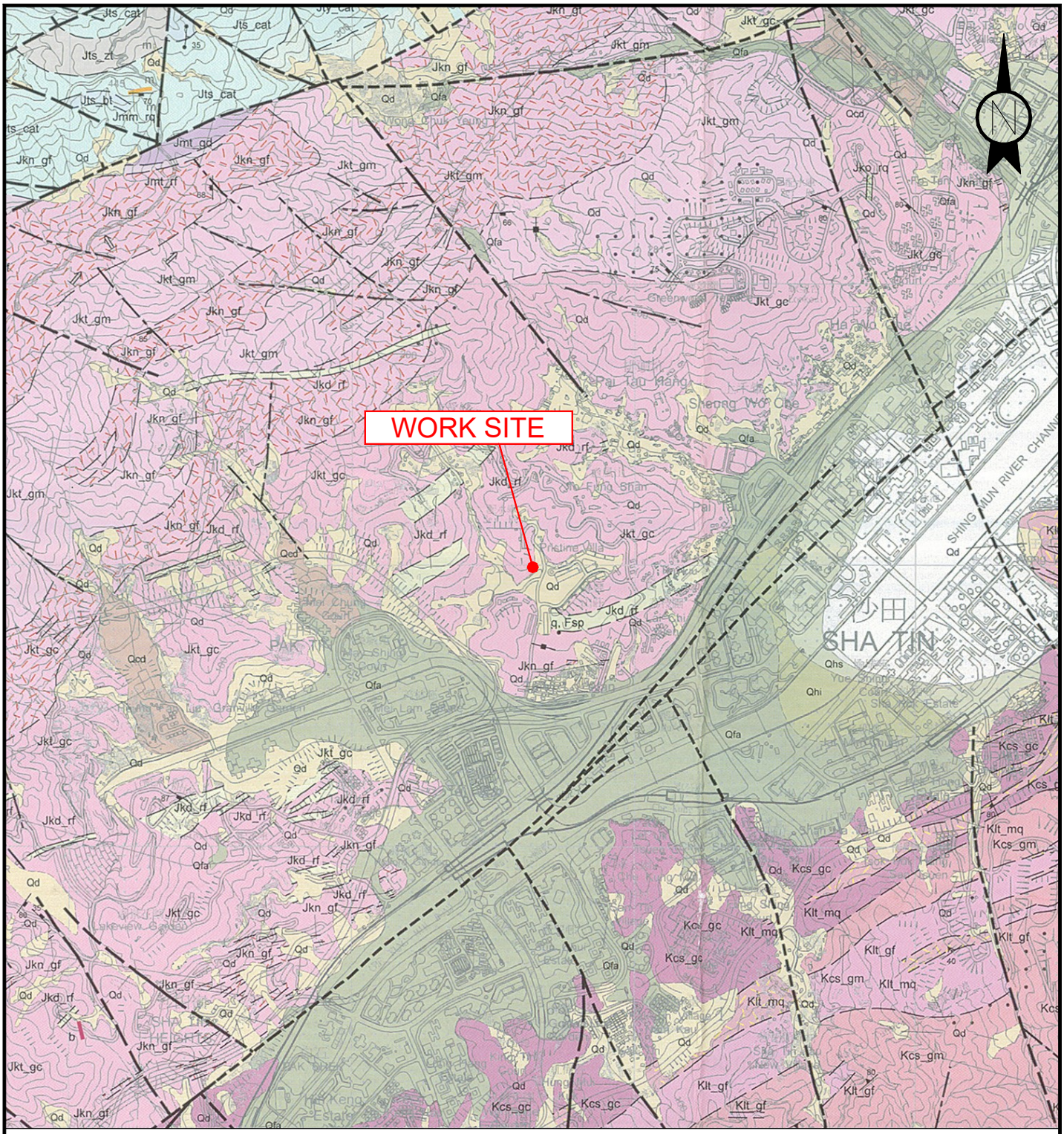
LEGEND:

FEATURE BOUNDARY

PROPOSED ACCESS ROAD EXTENT

REGISTERED FEATURE LAYOUT PLAN

DESIGNED : ACS	CHECKED : LTL	DRAWN : KCW	C M WONG & ASSOCIATES LTD TEL: (852) 2522 1068 E-mail: cmwal@cmwal.com	PROJECT : TUNG LO WAN SHAN ROAD
SCALE : 1 : 500	PROJECT REF. : TLWSR	DATE : JUL 2024		FIG. NO. : GRR-FIG-02



LEGEND:

Jkt_gc — COARSE-GRAINED BIOTITE GRANITE

GEOLOGICAL SURVEY MAP

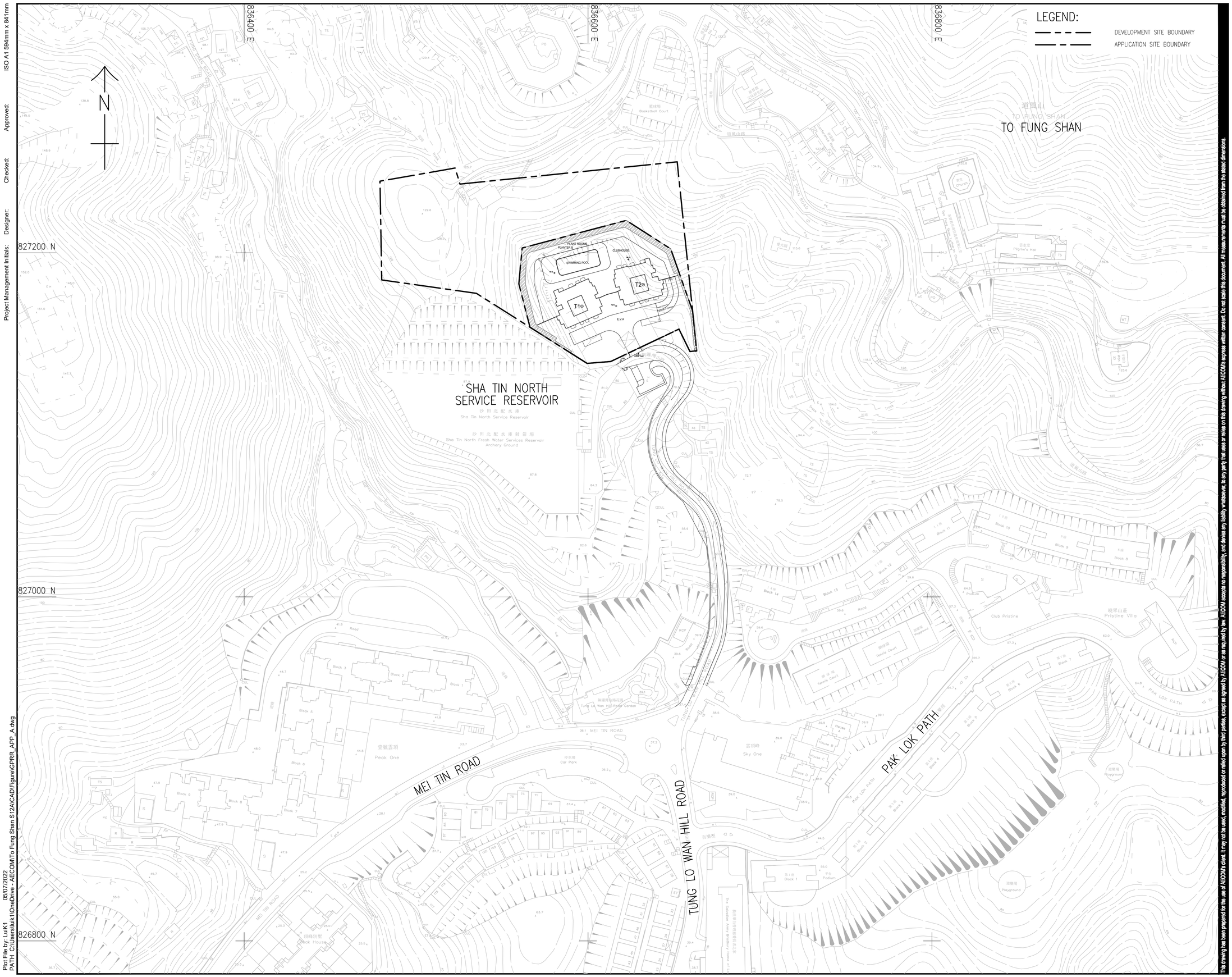
DESIGNED : ACS	CHECKED : LTL	DRAWN : KCW	C M WONG & ASSOCIATES LTD TEL: (852) 2522 1068 E-mail: cmwal@cmwal.com	PROJECT : TUNG LO WAN SHAN ROAD
SCALE : –	PROJECT REF. : TLWSR	DATE : JUL 2024		FIG. NO. : GRR-FIG-03

Appendix A

Indicative Master Layout Plan

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:



Plot File by: LuiK1 05/07/2022
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AECOM

PROJECT
項目

SECTION 12A APPLICATION FOR PROPOSED ADMENDMENTS TO THE SHA TIN OUTLINE ZONING PLAN IN SUPPORT OF A PRIVATE RESIDENTIAL DEVELOPMENT ON LOT 380 RP (PART) IN DD186, TUNG LO WAN HILL ROAD, SHA TIN

CLIENT
業主

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核

STATUS
用途

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
LKC

CONTRACT NO. 合約編號

SHEET TITLE
圖紙名稱
MASTER LAYOUT PLAN

SHEET NUMBER
圖紙編號
GPRR/APPENDIX A

Appendix B

SIS and SIMAR Reports

Slope Maintenance Responsibility Report (7SW-D/FR549)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**7SW-D/FR549**		**Sub-Division**	Not Applicable
	Location	WITHIN GLA-ST336, TUNG LO WAN HILL ROAD, SHA TIN		
	Responsible Lot/Party	Leisure and Cultural Services Department	**Maintenance Agent**	Architectural Services Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

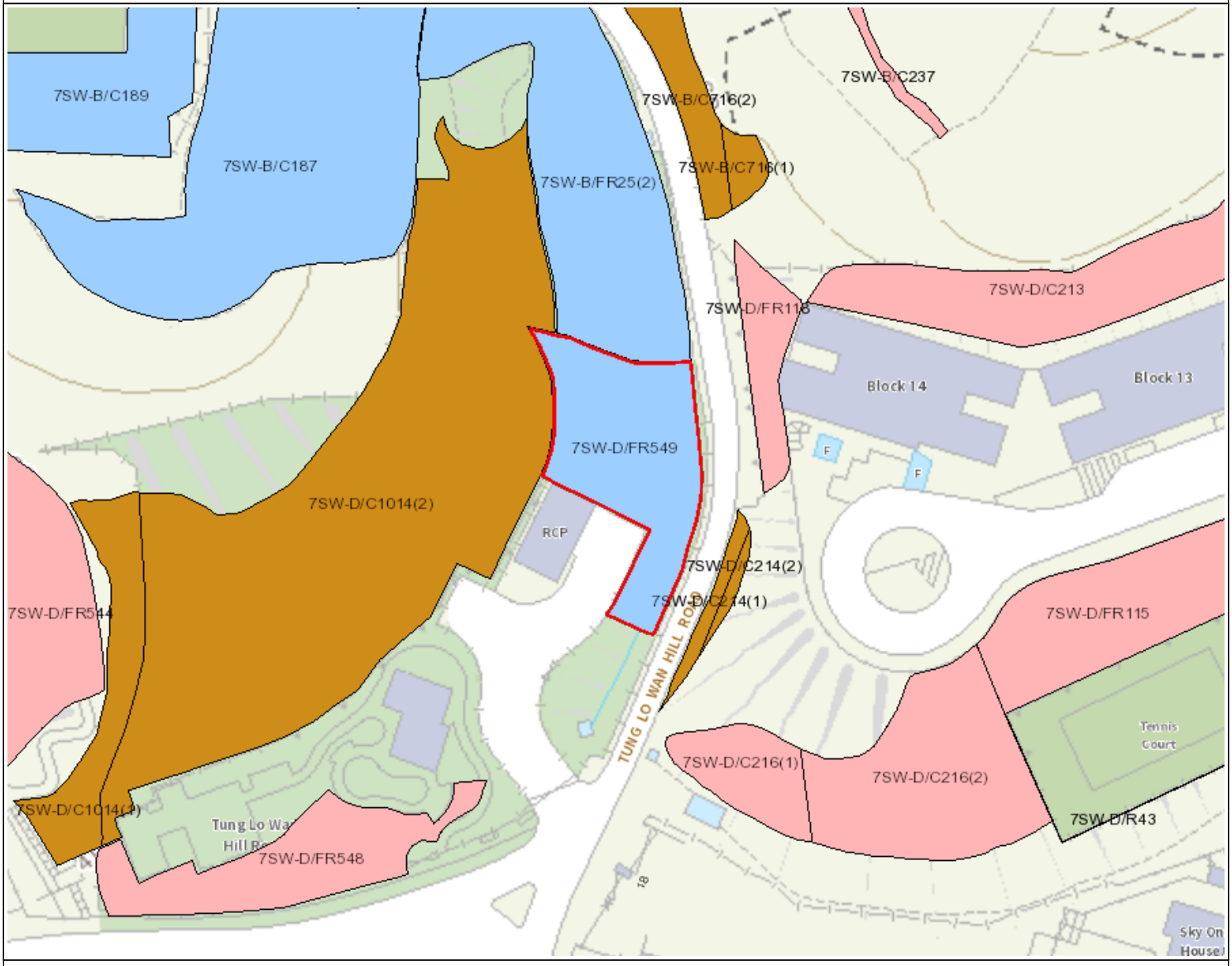
- End of Report -

Notes:

(i) The location plan in Annex is for identification purposes of slope(s) only.

(ii) The slope(s) as listed in the Slope Maintenance Responsibility Report may not be shown on the location plan in Annex.

Location Plan



Legend

- Slope Area(s)
- Search Location
- Slope(s) Maintained by Government
- Slope(s) Maintained by Private Party/Parties
- Slope(s) Maintained by Government and Private Party/Parties

ESTATE MANAGEMENT SECTION
LANDS DEPARTMENT

This Plan is **NOT TO SCALE** and intended for **IDENTIFICATION** only. All information shown on this plan **MUST** be verified by field survey.

Printed on: 02/08/2024

BASIC INFORMATION

Location:	Tao Fung Shan Phase 2, Site A, Shatin, STTL 421
Registration Date:	06-03-2009
Ranking Score (NPRS):	0 (EI)
Date of Formation:	post-1977
Date of Construction/ Modification:	02-01-2008
Data Source:	Project Office
Approximate Coordinates:	Easting : 836666 Northing : 826991

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	District open space
Distance of Facility from Crest (m):	0
Facility at Toe:	Lightly-used open area/facilities
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	3
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 7 Length (m): 45 Average Angle (deg): 27

WALL PART

(1) Max. Height (m): 3.5 Length (m): 17 Face Angle (deg): 90

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Government Feature Party: LCSD Agent: Arch SD Land Cat.: 2 Reason Code: 18 MR Endorsement Date: 31-07-2013

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	17-03-2009
Data Source:	Project Office
Slope Part Drainage:	(1) Position: Downpipe Size(mm): 375 (2) Position: On slope Size(mm): 300 (3) Position: Toe Size(mm): 300 (4) Position: Toe Size(mm): 300
Wall Part Drainage:	(1) Position: Downpipe Size(mm): 100 (2) Position: Toe Size(mm): 300 (3) Position: Toe Size(mm): 400

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 100 Chunam: 0 Shotcrete: 0 Other Cover: 0
Material Description: Material type: Soil Geology: N/A
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): N/A Spacing (m): N/A

WALL PART

Wall Part (1)
Type of Wall: Wall Material: Concrete Wall Location: Wall at toe
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): 50 Spacing (m): 1.2

SERVICES

(1) Utilities Type: Sewer/Drain Size(mm): 450 Location: On slope Remark: N/A
(2) Utilities Type: Sewer/Drain Size(mm): 450 Location: On crest Remark: N/A
(3) Utilities Type: Sewer/Drain Size(mm): 450 Location: On slope Remark: N/A
(4) Utilities Type: Sewer/Drain Size(mm): 375 Location: On crest Remark: N/A
(5) Utilities Type: Sewer/Drain Size(mm): 375 Location: On slope Remark: N/A
(6) Utilities Type: Sewer/Drain Size(mm): 450 Location: On crest Remark: N/A
(7) Utilities Type: Water Main Size(mm): 150 Location: On crest Remark: N/A
(8) Utilities Type: Water Main Size(mm): 15 Location: On crest Remark: N/A
(9) Utilities Type: Water Main Size(mm): 15 Location: On slope Remark: N/A
(10) Utilities Type: Water Main Size(mm): 100 Location: On crest Remark: N/A
(11) Utilities Type: Water Main Size(mm): 100 Location: On slope Remark: N/A
(12) Utilities Type: Water Main Size(mm): 50 Location: On crest Remark: N/A
(13) Utilities Type: Water Main Size(mm): 50 Location: On slope Remark: N/A
(14) Utilities Type: Water Main Size(mm): 150 Location: On slope Remark: N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_9623 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	17-03-2009

Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 01/08/2024)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Lightly-used open area/facilities
Distance from Toe(m):	0
Type of Crest Facility:	District open space
Distance from Crest(m):	0
Consequence Category:	
Engineering Judgement:	
Section No:	2-2
Type of Toe Facility:	
Distance from Toe(m):	
Type of Crest Facility:	
Distance from Crest(m):	
Consequence Category:	
Engineering Judgement:	
Sign of Seepage:	
Criterion A satisfied:	
Sign of Distress:	
Criterion D satisfied:	
Non-routine maintenance required:	
Note:	
Masonry wall/Masonry facing:	
Note:	

Consequence category (for critical section):	
Observations:	N/A
Emergency Action Required:	
Action By:	N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	
Action By:	N/A

OTHER EXTERNAL ACTION

Check / repair Services:	
Action By:	N/A
Non-routine Maintenance:	
Action By:	N/A

PHOTO


SLOPE REGISTRATION No.
斜坡登記號碼
7SW-D / FR549
MAINTENANCE DEPARTMENT
維修部門
ARCHITECTURAL SERVICES DEPARTMENT
建築署
2773 2333


7SW-B/C 196
7SW-B/C 194
7SW-B/C 202
7SW-B/R 87
7SW-B/R 86
7SW-B/C 200
7SW-B/C 199
7SW-B/C 243
7SW-B/CR 193
7SW-B/R 121
7SW-B/C 239
7SW-B/C 407
7SW-B/C 201
7SW-B/FR 116
7SW-B/C 13
7SW-B/C 428
7SW-B/C 192
7SW-B/CR 190
7SW-B/FR 115
7SW-B/C 664
7SW-B/R 78
7SW-B/C 731
7SW-B/R 20
7SW-B/FR 2
7SW-B/C 749
7SW-B/C 245
7SW-B/C 238
7SW-B/C 237
7SW-B/C 189
7SW-B/C 243
7SW-B/C 716
7SW-D/C 213
7SW-B/C 187
7SW-B/CR 667
7SW-B/C 746
7SW-B/F 114
7SW-D/FR 118
7SW-D/FR 549
7SW-D/FR 544
7SW-D/C 1014
7SW-D/C 214
7SW-D/FR 115
7SW-D/R 23
7SW-D/C 1009
7SW-D/R 43
7SW-D/C 216
7SW-D/FR 548
7SW-D/F 493
7SW-D/R 42
7SW-D/R 315
7SW-D/R 314
7SW-D/F 120
7SW-D/C 212
7SW-D/C 205
7SW-D/C 206
7SW-D/R 341
7SW-D/C 217
7SW-D/C 208
7SW-D/C 204
7SW-D/C 207
7SW-D/FR 524
7SW-D/C 115
7SW-D/R 40
7SW-D/R 57
7SW-D/C 1019
Sha Tin North Fresh Water Services Reservoir
Archery Ground
Sky One
Home for the Aged
PEAK LOK PATH
HILL ROAD
827 200N
827 000N
826 800N
836 600E
836 800E

Slope Maintenance Responsibility Report (7SW-B/FR25)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**7SW-B/FR25**		**Sub-Division**	1
	Location	WITHIN GLA-ST75, GLA-ST336 AND ADJOINING GOVERNMENT LAND, TUNG LO WAN HILL ROAD, SHA TIN		
	Responsible Lot/Party	Water Supplies Department	**Maintenance Agent**	Water Supplies Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

2	**7SW-B/FR25**		**Sub-Division**	2
	Location	WITHIN GLA-ST75, GLA-ST336 AND ADJOINING GOVERNMENT LAND, TUNG LO WAN HILL ROAD, SHA TIN		
	Responsible Lot/Party	Leisure and Cultural Services Department	**Maintenance Agent**	Architectural Services Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

- End of Report -

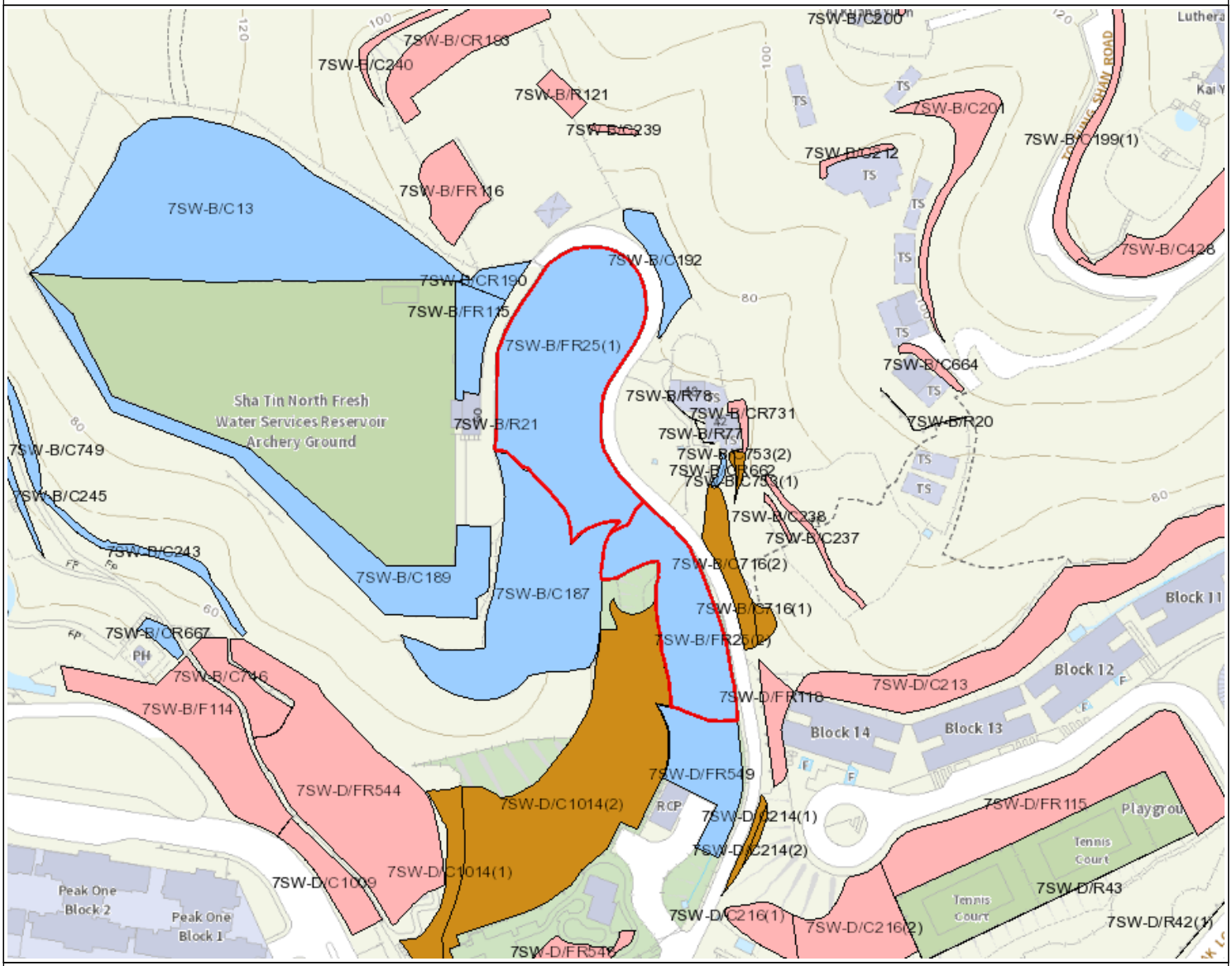
Notes:

(i) The location plan in Annex is for identification purposes of slope(s) only.

(ii) The slope(s) as listed in the Slope Maintenance Responsibility Report may not be shown on the location plan in Annex.

Annex

Location Plan



Legend

- Slope Area(s)
- Search Location
- Slope(s) Maintained by Government
- Slope(s) Maintained by Private Party/Parties
- Slope(s) Maintained by Government and Private Party/Parties

ESTATE MANAGEMENT SECTION
LANDS DEPARTMENT

This Plan is **NOT TO SCALE** and intended for **IDENTIFICATION** only. All information shown on this plan **MUST** be verified by field survey.

Printed on: 02/08/2024

BASIC INFORMATION

Location:	Within GLA-ST75 and adjoining WSD Access Rd Item, adjoining Tung Lo Wan Hill Road to Sha Tin North F.W. S/R
Registration Date:	19-11-1997
Ranking Score (NPRS):	71 (EI)
Date of Formation:	pre-1977
Date of Construction/ Modification:	01-01-1976
Data Source:	EI(WSD)
Approximate Coordinates:	Easting : 836627 Northing : 827075

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Service reservoir
Distance of Facility from Crest (m):	4
Facility at Toe:	Cottage, licensed and squatter area
Distance of Facility from Toe (m):	20
Consequence-to-life Category:	1
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 12 Length (m): 130 Average Angle (deg): 25

WALL PART

(1) Max. Height (m): 2 Length (m): 12 Face Angle (deg): 85

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 1 Government Feature Party: WSD Agent: WSD Land Cat.: 2,5b(vi) Reason Code: 16,61 MR Endorsement Date: 31-07-2013
(2) Sub Div.: 2 Government Feature Party: LCSD Agent: Arch SD Land Cat.: 2,5b(vi) Reason Code: 18,61 MR Endorsement Date: 31-07-2013

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	06-07-2015
Data Source:	EI(WSD)
Slope Part Drainage:	(1) Position: Crest Size(mm): 300 (2) Position: On slope Size(mm): 375 (3) Position: Toe Size(mm): 300
Wall Part Drainage:	N/A

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 80 Chunam: 0 Shotcrete: 20 Other Cover: 0
Material Description: Material type: Soil Geology: N/A
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): N/A Spacing (m): N/A

WALL PART

Wall Part (1)
Type of Wall: Wall Material: Concrete Wall Location: Wall at mid-slope
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): N/A Spacing (m): N/A

SERVICES

(1) Utilities Type: Electricity Size(mm): 0 Location: On slope Remark: Size cannot be determined
(2) Utilities Type: Telecom Size(mm): 0 Location: On slope Remark: Size cannot be determined
(3) Utilities Type: Water Main Size(mm): 80 Location: On slope Remark: N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_9691 Part: 0 Checking Status: Feature modified/upgraded to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	7SW15A9
Map Sheet Reference (1:1000):	7SW-15A
Aerial Photos:	30765 (1980), 30766 (1980)
Nearest Rainguage Station (Station Number):	R/F, Wing Wai House, Sun Tin Wai Estate(N42)
Data Collected On:	06-07-2015
Date of Construction, Subsequent Modification and Demolition:	Modification: Constructed Before: 1979 After: 1973
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 01/08/2024)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	MW
Section No:	1-1
Height(m):	
Type of Toe Facility:	Cottage, licensed and squatter area
Distance from Toe(m):	20
Type of Crest Facility:	Service reservoir
Distance from Crest(m):	4
Consequence Category:	
Engineering Judgement:	
Section No:	2-2
Type of Toe Facility:	
Distance from Toe(m):	
Type of Crest Facility:	
Distance from Crest(m):	
Consequence Category:	
Engineering Judgement:	
Sign of Seepage:	
Criterion A satisfied:	
Sign of Distress:	
Criterion D satisfied:	
Non-routine maintenance required:	
Note:	
Masonry wall/Masonry facing:	
Note:	
Consequence category (for critical section):	
Observations:	N/A
Emergency Action Required:	
Action By:	N/A

ACTION TO INITIATE PREVENTIVE WORKS

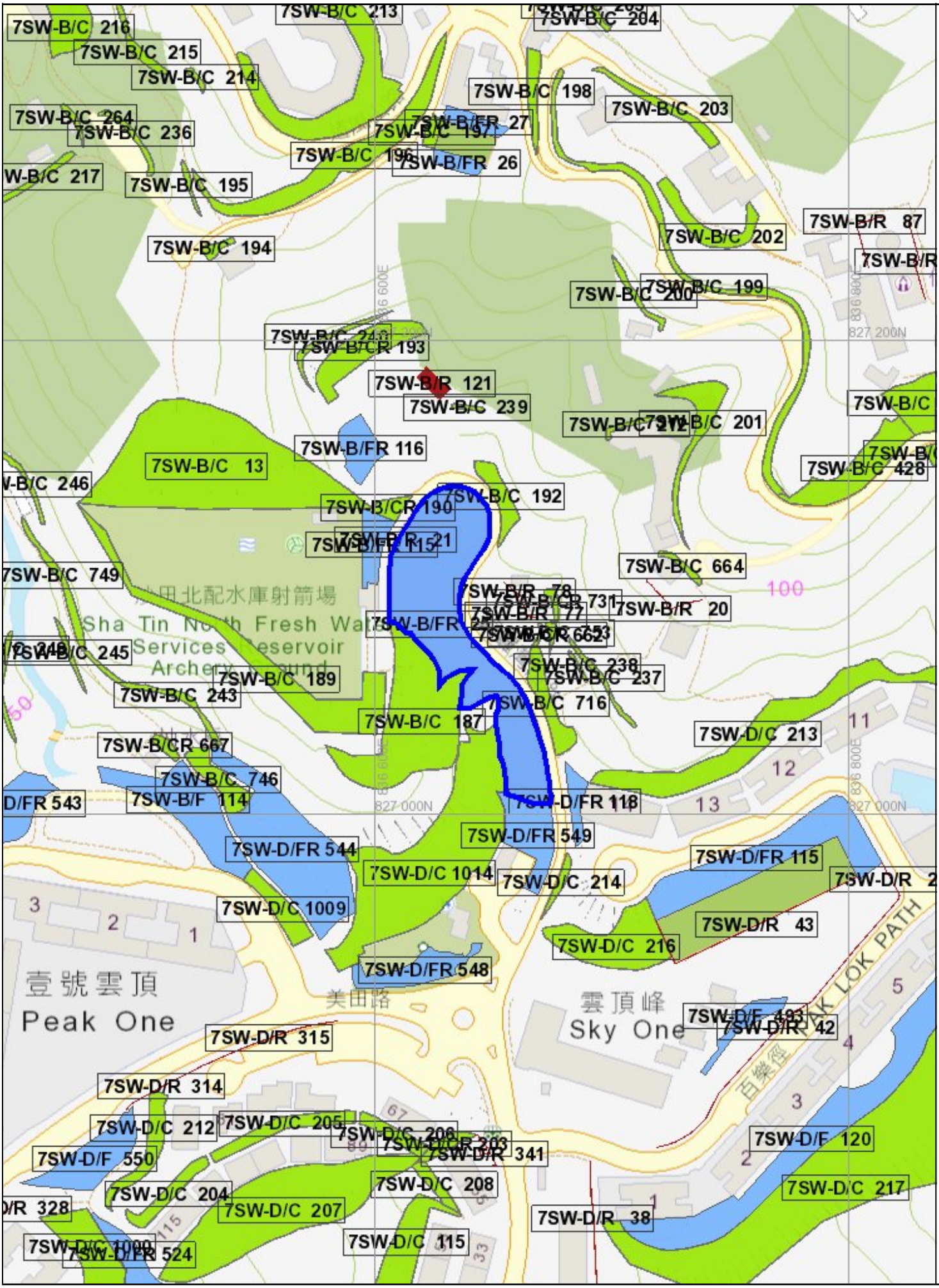
Criterion A/Criterion D:	N/A
Action By:	N/A

Further Study:
Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services:
Action By: N/A
Non-routine Maintenance:
Action By: N/A

PHOTO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7SW-B/C 215
7SW-B/C 214
7SW-B/C 213
7SW-B/C 204
7SW-B/C 198
7SW-B/C 203
7SW-B/C 264
7SW-B/C 236
7SW-B/FR 27
7SW-B/C 197
7SW-B/C 196
7SW-B/FR 26
7SW-B/C 217
7SW-B/C 195
7SW-B/R 87
7SW-B/C 202
7SW-B/C 194
7SW-B/C 199
7SW-B/C 200
7SW-B/CR 193
7SW-B/R 121
7SW-B/C 239
7SW-B/C 201
7SW-B/FR 116
7SW-B/C 13
7SW-B/C 428
7SW-B/C 246
7SW-B/C 192
7SW-B/CR 190
7SW-B/FR 115
7SW-B/C 749
7SW-B/C 664
7SW-B/R 78
7SW-B/R 77
7SW-B/R 20
7SW-B/FR 25
7SW-B/C 245
7SW-B/C 238
7SW-B/C 237
7SW-B/C 189
7SW-B/C 243
7SW-B/C 716
7SW-B/C 187
7SW-D/C 213
7SW-B/CR 667
7SW-B/C 746
7SW-B/F 114
7SW-D/FR 543
7SW-D/FR 118
7SW-D/FR 549
7SW-D/FR 544
7SW-D/FR 115
7SW-D/C 1014
7SW-D/C 214
7SW-D/C 1009
7SW-D/R 43
7SW-D/C 216
7SW-D/FR 548
7SW-D/F 493
7SW-D/R 42
7SW-D/R 315
7SW-D/R 314
7SW-D/C 212
7SW-D/C 205
7SW-D/C 206
7SW-D/CR 203
7SW-D/R 341
7SW-D/F 120
7SW-D/F 550
7SW-D/C 208
7SW-D/C 217
7SW-D/C 204
7SW-D/C 207
7SW-D/R 38
7SW-D/C 115
7SW-D/FR 524
壹號雲頂
Peak One
雲頂峰
Sky One
美田路
Sha Tin North Fresh Water Services Reservoir
Archery Ground
827 000N
827 200N
836 600E
836 800E

Slope Maintenance Responsibility Report (7SW-D/C1014)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**7SW-D/C1014**		**Sub-Division**	1
	Location	PARTLY ADJOINING STTL 421 (TAO FUNG SHAN PHRASE 2) AND PARTLY WITHIN GLA-ST336, SHATIN		
	Responsible Lot/Party	STTL 421	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

2	**7SW-D/C1014**		**Sub-Division**	2
	Location	PARTLY ADJOINING STTL 421 (TAO FUNG SHAN PHRASE 2) AND PARTLY WITHIN GLA-ST336, SHATIN		
	Responsible Lot/Party	Leisure and Cultural Services Department	**Maintenance Agent**	Architectural Services Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

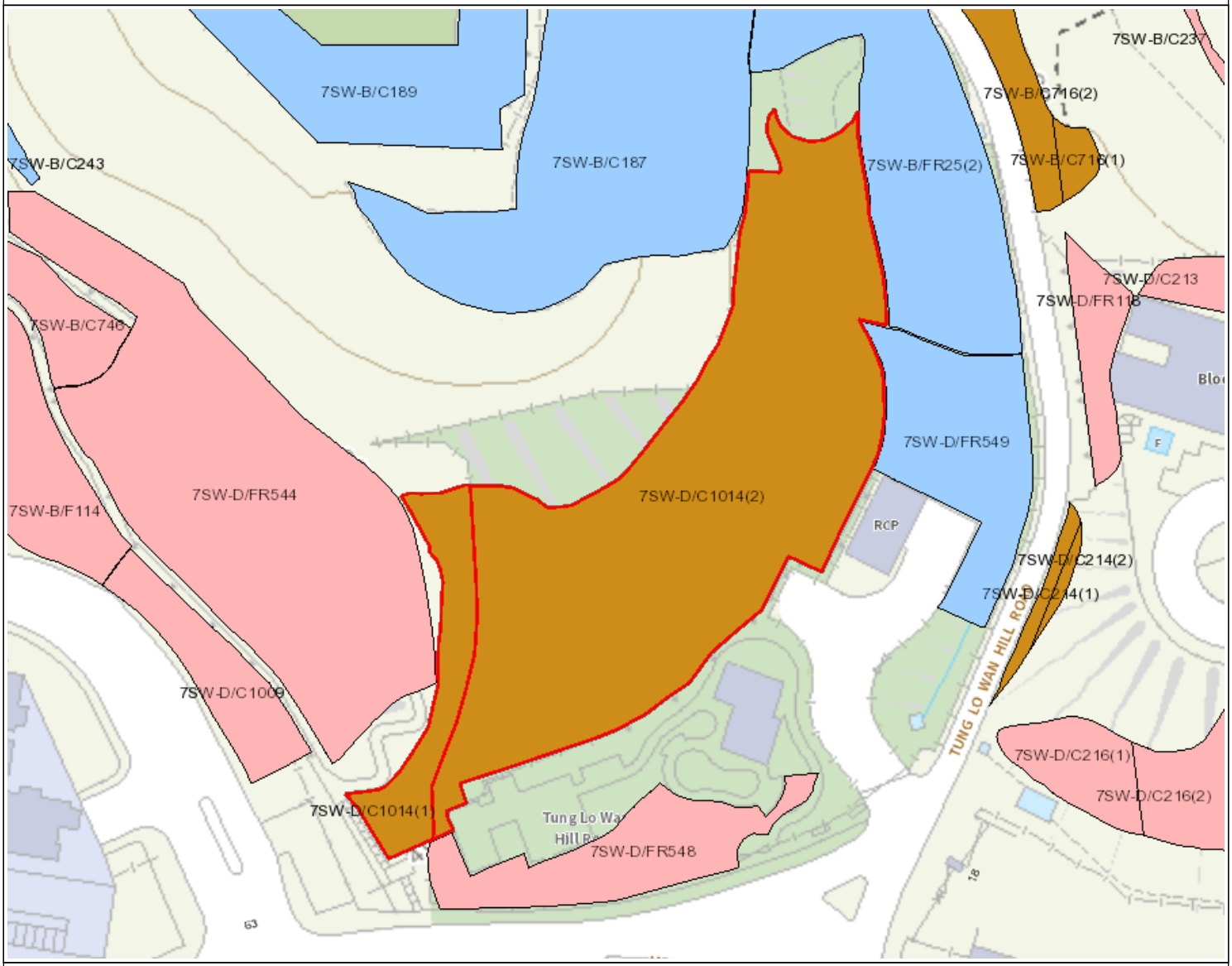
- End of Report -

Notes:

(i) The location plan in Annex is for identification purposes of slope(s) only.

(ii) The slope(s) as listed in the Slope Maintenance Responsibility Report may not be shown on the location plan in Annex.

Location Plan



Legend

- Slope Area(s)
- Search Location
- Slope(s) Maintained by Government
- Slope(s) Maintained by Private Party/Parties
- Slope(s) Maintained by Government and Private Party/Parties

ESTATE MANAGEMENT SECTION
LANDS DEPARTMENT

This Plan is **NOT TO SCALE** and intended for **IDENTIFICATION** only. All information shown on this plan **MUST** be verified by field survey.

Printed on: 02/08/2024

BASIC INFORMATION

Location:	Tao Fung Shan Phase 2, Site A, Shatin, STTL 421
Registration Date:	06-03-2009
Ranking Score (NPRS):	0 (EI)
Date of Formation:	post-1977
Date of Construction/ Modification:	02-01-2008
Data Source:	AP
Approximate Coordinates:	Easting : 836624 Northing : 826983

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Undeveloped green belt
Distance of Facility from Crest (m):	0
Facility at Toe:	Other thinly populated buildings
Distance of Facility from Toe (m):	1.5
Consequence-to-life Category:	1
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 25 Length (m): 138 Average Angle (deg): 40

WALL PART

N/A

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 1 Mixed Feature Party: STTL 421 Agent: N/A Land Cat.: 5a Reason Code: 43 MR Endorsement Date: 31-03-2014
(2) Sub Div.: 2 Mixed Feature Party: LCSD Agent: Arch SD Land Cat.: 2 Reason Code: 18 MR Endorsement Date: 31-03-2014

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	17-03-2009
Data Source:	AP
Slope Part Drainage:	(1) Position: Berm Size(mm): 150 (2) Position: Crest Size(mm): 300 (3) Position: On slope Size(mm): 450 (4) Position: Toe Size(mm): 300
Wall Part Drainage:	N/A

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 100 Chunam: 0 Shotcrete: 0 Other Cover: 0
Material Description: Material type: Soil Geology: N/A
Berm: No. of Berms: 2 Min. Berm Width (m): 0.6
Weepholes: Size (mm): N/A Spacing (m): N/A

WALL PART

N/A

SERVICES

(1) Utilities Type: Water Main Size(mm): 28 Location: On slope Remark: N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_9621 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	17-03-2009
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 01/08/2024)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Other thinly populated buildings
Distance from Toe(m):	1.5
Type of Crest Facility:	Undeveloped green belt
Distance from Crest(m):	0
Consequence Category:	
Engineering Judgement:	
Section No:	2-2
Type of Toe Facility:	
Distance from Toe(m):	
Type of Crest Facility:	
Distance from Crest(m):	
Consequence Category:	
Engineering Judgement:	
Sign of Seepage:	
Criterion A satisfied:	
Sign of Distress:	
Criterion D satisfied:	
Non-routine maintenance required:	
Note:	
Masonry wall/Masonry facing:	
Note:	
Consequence category (for critical section):	
Observations:	N/A
Emergency Action Required:	
Action By:	N/A

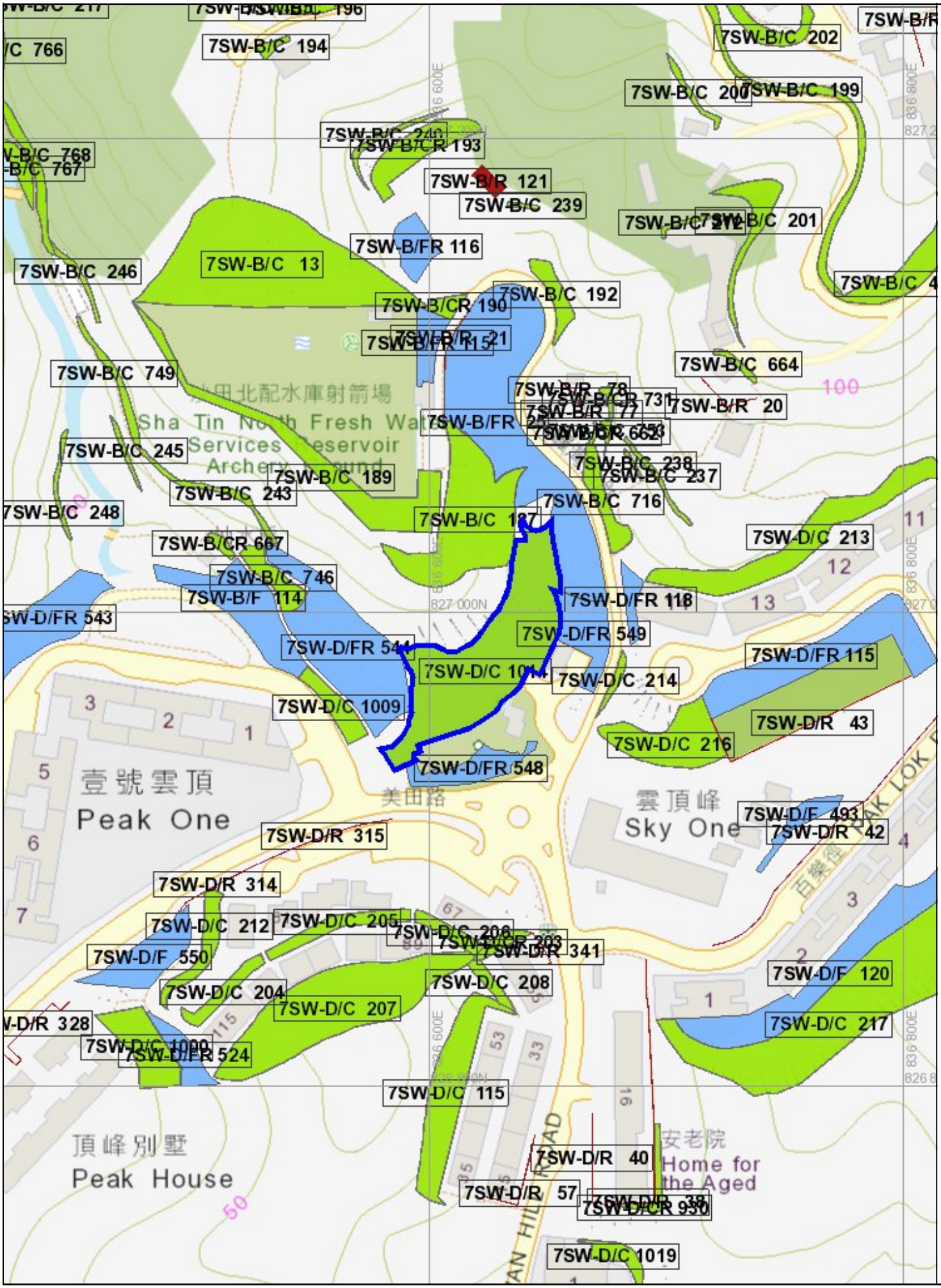
ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	
Action By:	N/A

OTHER EXTERNAL ACTION

Check / repair Services:
Action By: N/A
Non-routine Maintenance:
Action By: N/A

PHOTO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7SW-B/C 200
7SW-B/C 199
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7SW-B/C 193
7SW-B/R 121
7SW-B/C 239
7SW-B/C 201
7SW-B/FR 116
7SW-B/C 13
7SW-B/C 246
7SW-B/C 192
7SW-B/CR 190
7SW-B/FR 115
7SW-B/C 749
7SW-B/C 664
7SW-B/R 20
7SW-B/C 245
7SW-B/C 189
7SW-B/C 243
7SW-B/C 248
7SW-B/C 716
7SW-B/C 187
7SW-D/C 213
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7SW-D/F 493
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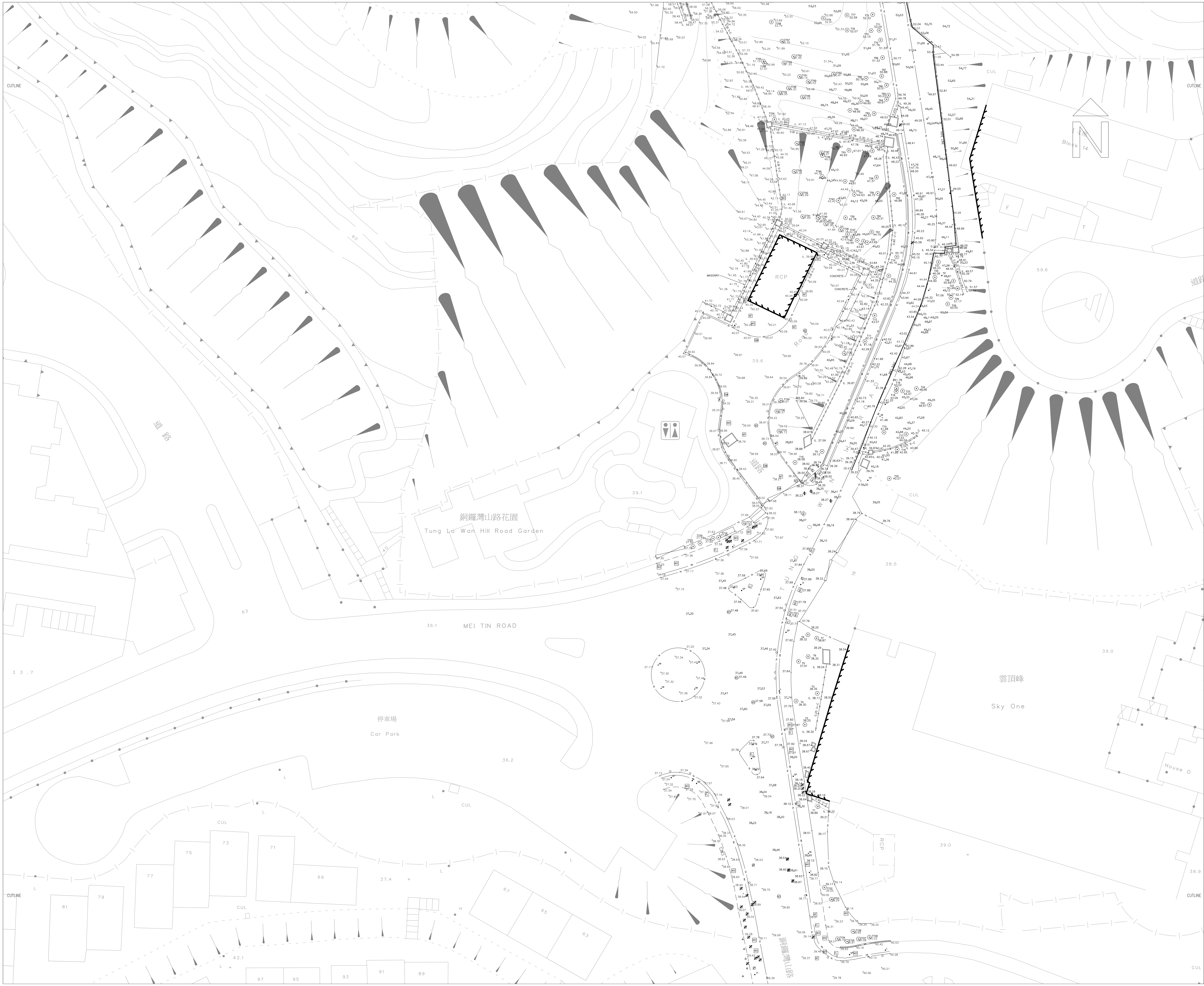
7SW-D/C 207
7SW-D/C 217
7SW-D/FR 524
7SW-D/C 115
7SW-D/R 40
7SW-D/R 57
7SW-D/C 1019
壹號雲頂
Peak One
雲頂峰
Sky One
頂峰別墅
Peak House
安老院
Home for the Aged
美田路
Sha Tin North Fresh Water Services Reservoir Archery Ground

Appendix C

Topographical Survey Records



LEGEND:

	ARTIFICIAL SLOPE	E ● PM	ELECTIRC POLE
800 U-C	CHANNEL WITH FLOW DIRECTION 0.80 WIDE OF CHANNEL	●	PARKING METER
800 S-C	STEP CHANNEL WITH FLOW DIRECTION 0.80 WIDE OF STEP CHANNEL		BOLLARD AT ROAD
	BOUNDARY LINE & BOUNDARY POINT	○	GULLY
	GATE		GRATING
	PERMANENT BUILDING AND CANOPY	BN	BENCH
T1	TREE WITH TREE NO.		VALVE FIRE
(TOP) (BOTTOM)	INCLINED WALL		VALVE GAS
G	GRAVE		VALVE WATER WORKS
—130—	CONTOURS	MH	MANHOLE
TS	TEMPORARY STRUCTURE	ATC	MANHOLE, ATC
PB	PILLAR BOX	CATV	MANHOLE, CABLE TV
— HR —	HAND RAILING	E&M	MANHOLE, ELECTRIC & MECHANICAL SERVICES DEPARTMENT
— HD —	HOARDING	HKTC	MANHOLE, PCCW-HKT TELEPHONE LIMITED
— KL —	KERB LINE (BOTTOM)	DSD	MANHOLE, DRAINAGE SERVICES DEPARTMENT
— ST —	SLOPE TOP	HCL	MANHOLE, HUTCHISON COMMUNICATION LIMITED
— SB —	SLOPE BOTTOM	HGC	MANHOLE, HUTCHISON GLOBAL CROSSING LIMITED BROADBAND
— FX —	FENCE		CATCH PIT
—×—×—	BARRIERS	MF	MANHOLE, FOUL WATER/SEWER
SB ●	SIGN BOARD	MS	MANHOLE, STORM WATER
SP ●	SIGN POLE	PCCW	MANHOLE, PACIFIC CENTURY CABLE & WIRELESS
L ●	LAMP POST	NWT	MANHOLE, NEW WORLD TELEPHONE
TP ●	TELEPHONE POLE	CLP	MANHOLE, CLP POWER
TL ●	TRAFFIC LIGHT	WT&T	MANHOLE, WHAFT T & T
H ●	FIRE HYDRANT	TGT	MANHOLE, TOWNGAS TELECOM
		PL	MANHOLE, PUBLIC LIGHTING

ABBREVIATION:

BD	BOULDER
BE	BERM
BS	BOUNDARY STONE
CA	CANOPY
CUL	CULVERT
CO	COLUMN
CONC	CONCRETE
EB	ELECTRIC BOX
END	END OF OBJECT
FB	FLOWER BED
FP	FOOTPATH
IL	INVERT LEVEL
NU	NULLAH
OH	OVERHANG
PL	PLATFORM
PO	POND
PZ	PIEZOMETER TUBE
RP	RAMP
RU	RUIN
SS	SHRINE
TS	TEMPORARY STRUCTURE
VB	VEHICLE BARRIERS
WE	WELL
WIP	WORK IN PROGRESS
WT	WATER TANK

PLAN DIAGRAM TO ADJACENT SHEET

N

01
02
03

Notes:
— — Cutline

REVISION	DATE	DESCRIPTION
INITIAL	18/12/2023	---

SCALE 1 : 200 (SIZE A0)

metres 0 4 8 12 16 20 metres

HONG KONG METRIC GRID
PRINCIPAL DATUM HONG KONG
ALL UNITS IN METRES

NOTE
ALL SPOT LEVEL POSITIONS ARE
THE DECIMAL POINT OR A CROSS

DATE OF SURVEY: OCTOBER 2023

ROYAL BILLION INVESTMENT LIMITED

Topographical Survey
Tung Lo Wan Hill Road
Sha Tin, New Territories

SAM MAK & ASSOCIATES SURVEYORS (HK) LTD.
CONSULTANTS IN LAND, ENGINEERING, MARINE & AERIAL SURVEYS
ROOM 901, MARINA HOUSE, NO.68 HING MAN STREET, SHAUKEIWAN, HONG KONG.
TEL : 28951918 FAX : 28901759 E-mail: hkoffice@sammak.com

PRELIMINARY
(18/12/2023)
Cheung Chee Pak
Authorized Land Surveyor

PLAN NO. 9369/01/01 (Sheet 2 of 3)

Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water Supply) in "Government, Institution or Community" Zone on Government Land in D.D. 186 (under GLA-ST 336), Sha Tin, New Territories

llewelyn davies
ARCHITECTS PLANNERS DESIGNERS
Llewelyn-Davies Hong Kong Ltd

14 February 2025

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

By Hand and By Email

Dear Sir,

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (A/ST/1036)

Reference is made to the captioned application submitted to the Town Planning Board (the Board) on 19 December 2024 and subsequent departmental comments received via District Planning Office / Sha Tin, Tai Po and North District of Planning Department in February 2025.

In response to departmental comments, the Applicant would like to submit herewith 4 copies of responses-to-comments (RtoC) table (**Appendix A**) with replacement pages of Planning Statement, replacement pages of Tree Survey and Tree Treatment Proposal and Submitted Photomontage and Coloured Graphical Illustration of Section C enclosed herewith in **Attachments 1 to 3** for the Board's consideration.

Please note that the current submission is mainly made for rectification of editorial error and providing minor clarifications/justifications on the tree treatment proposal with no changes to the proposed scheme and the previously submitted technical assessments. The Applicant therefore sincerely requests that the captioned application be processed and considered by the Board at the Rural and New Town Planning Committee Meeting as scheduled on 28 February 2025.

.../2

Thank you for your kind attention. Should there be any queries, please do not hesitate to contact the undersigned at [redacted] or our Ms. Winnie Wu at [redacted] / Mr. Davy Lam at [redacted]

Yours faithfully
for Llewelyn-Davies Hong Kong Ltd

Dickson Hui
Director

DH/WW/dl
Encl.

S:\13596 Tung Lo Wan Shan Road (off-site pump stn)\FI\FI-1\20250214_Letter to TPB_FI-1 Submission_TLWHR.doc

cc (w/ encl)
DPO/STN - Ms. Elizabeth Ng (by email)

Appendix A

Responses-to-comments Table

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (Application No. A/ST/1036)

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	Departmental Comments	**Responses to Comments**
1.	**Comments of Buildings Department (BD) received on 6.2.2025**	
1.1	He has no in-principle objection under the Buildings Ordinance (BO) to the proposed use on the application site subject to the following comments:	Noted.
	a) Before any new building works are to be carried out on the application site, the prior approval and consent of the BD should be obtained, otherwise they are Unauthorized Building Works (UBW). An Authorized Person (AP) should be appointed as the co-ordinator for the proposed building works in accordance with the BO.	Noted.
	b) The site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the Building (Planning) Regulations respectively.	Noted.
	c) If the site does not abut on a specified street of not less than 4.5m wide, its permitted development intensity shall be determined under Regulation 19(3) of the Building (Planning) Regulation at the building plan submission	Noted.
	d) Detailed comments under the BO will be provided at the building plan submission stage.	Noted.

	Departmental Comments	**Responses to Comments**
2.	**Comments of Geotechnical Engineering Office, Civil Engineering and Development Department (GEO, CEDD) received on 6.2.2025**	
2.1	Please be advised that the Geotechnical Engineering Office (GEO) has no geotechnical comment on the captioned planning application.	Noted.
2.2	Please remind the applicant that the detailed design of the proposed geotechnical works should be submitted to the GEO for review and comment.	Noted.
2.3	Should there be any water-carrying services to be constructed adjacent to slopes and/or retaining walls, please draw the attention of the applicant regarding the recommendations and requirements given in "Code of Practice on Monitoring and Maintenance of Water-carrying Services affecting Slopes" published by the Development Bureau.	Noted.
3.	**Comments of Food and Environmental Hygiene Department (FEHD) received on 6.2.2025**	
3.1	The proposed works and operation should generate no environmental nuisance to the surroundings. Its state should not be a nuisance or injurious or dangerous to health and surrounding environment. For any waste generated from the such activity / operation, the applicant should arrange disposal properly at their own expenses.	Noted.

	Departmental Comments	**Responses to Comments**
3.2	The proposed works and operation should not cause obstruction to the operation of the RCP, including but not limited to the open space in front of the RCP as well as the access road thereto.	Noted.
4.	**Comments of Fire Services Department (FSD) received on 6.2.2025**	
4.1	He has no specific comment on the captioned application. Detailed fire services requirements will be formulated upon receipt of formal submission of general building plans. The EVA provision shall comply with the standard as stipulated in Section 6, Part D of the Code of Practice for Fire Safety in Buildings 2011, which is administered by the Buildings Department.	Noted.
5.	**Comments of Landscape Unit, Urban Design & Landscape Section, Planning Department (PlanD) received on 6.2.2025**	
5.1	<u>General Comment</u> Based on aerial photo of 2023, the site is situated in an area of Residential Urban Fringe landscape character comprising of medium-density residential development, G/IC facilities, and dense woodland. The proposed use is considered not entirely incompatible with the surrounding environment.	Noted.

	Departmental Comments	**Responses to Comments**
5.2	With reference to Appendix B - Tree Survey and Tree Treatment Proposal, 25 nos. of existing trees (including 2 large trees, T57 with DBH ~980mm and T741 with height ~25m) are identified within the site.	Noted.
	a) According to section 6.0 of Appendix B, T57 is growing on slope and edge of drainage channel with roots merged with existing drainage channel where formation of healthy well-shaped rootball is not practicable. Furthermore, T57 has unbalanced crown with lateral branches hanging on other trees. The poor architecture will pose future tree failure and transplanting requires excessive pruning on the unbalanced crown and lateral branches.	Noted.
	b) T741 is growing on vegetated slope and its rootball is hardly retrievable. It is also a common exotic species with fast growing and high branching in nature.	Noted.
	c) All 25 nos. of existing trees are proposed to be felled due to direct conflict with the proposed development layout, and poor tree health/ structural condition. Mitigation measure including 11 no. of native new trees in light standard-standard size (compensation ratio of 1:0.44), shrubs and groundcover plantings and vertical green are proposed.	Noted.

	Departmental Comments	**Responses to Comments**
	Advisory Comments on Planning Statement (PS)	
5.3	Para 4.4.3:- Editorial error "6/2020" is observed. The captioned technical circular should be DEVB TC(W) No. 5/2020. Please revise accordingly.	Noted. Please refer to the revised paragraph 4.4.3 of the replacement pages of Planning Statement in **Attachment 1** for consideration.
	Advisory Comments on Appendix B - Tree Survey and Tree Treatment Proposal	
5.4	Full justification for less than 1:1 compensatory ratio should be provided (e.g. the applicant is advised to indicate the extent of slope with gradient of over 35 degree should be indicated).	Justifications for tree compensation ratio for less than 1:1 in quantity are elaborated below for reference which are also consolidated in Section 7 of the replacement pages of Tree Survey and Tree Treatment Proposal in **Attachment 2** for consideration: **(A) Areas reserved for necessary and basic facilities for the Proposed Pump Station** Only a minimal footprint is proposed for the Pump Station with a minimum required size of 237m^2. Other provisions, such as hard paved circulation/ maintenance paths, loading/ unloading/ drop off areas, are considered basic and essential to the development of Proposed Pump Station. **(B) Topographical constraints – Slope gradient of over 30 degrees** Despite part of SIMAR Slope Feature No. 7SW-D/FR54 being re-levelled, around 10% of the slope in the vicinity remains at a slope gradient of over 30degrees. According to GEO Publication No. 1/2011, this gradient is not suitable for tree planting. Please refer to the Tree Planting Plan of Tree Survey and Tree Treatment Proposal which indicates the extent of the slope gradient of over 30 degrees. For healthy and sustainable tree growth on slope gradient of over 30 degrees, sufficient spacing for new tree planting has to be considered to achieve future optimal landscape value on slope.

	Departmental Comments	Responses to Comments
		(C) Utilization of available planting space The Applicant has fully utilized all available and feasible spaces for tree planting within the development limits and constraints mentioned above. All areas previously required for the construction of Proposed Pump Station have been allocated for new tree planting. Provided that a 1:1 compensation ratio in terms of quantity is adopted (i.e. 25 nos. new trees), it would occupy at least four times the current available planting space. With the principle of "right tree right place", the Applicant aims to achieve high-quality landscaping, tree planting with sufficient planting space should be prioritized. Given the above site constraints, **11** native trees are the optimal number to be achieved. Please refer to the "Space Allocation Diagram" in Table 4 (also provided below) and "Tree Planting Plan" (*dwg. no. TPP-PR-01, rev. B*) in Appendix 4 of the replacement pages of Tree Survey and Tree Treatment Proposal in **Attachment 2** for consideration

Space Allocation Diagram	
Items	**Area (approx. %)**
(A) Area reserved for necessary and basic facilities for the Proposed Station	**64%**
• Building footprint	42%
• Loading / unloading / drop off area	7%
• Hardscape & maintenance / circulation path	15%
(B) Topographical constraints - Slope gradient of over 30 degrees	**10%**
(C) Utilization of available planting space	**26%**
• Available and feasible tree planting area	26%
Total Site Area = (A) + (B) + (C)	**100%**

	Departmental Comments	**Responses to Comments**
5.5	Tree photo of T741 could not show the full extent of the tree height. Please provide additional photos and/ or annotation indicating the extent of the tree height.	Please refer to the additional photo of T741 in Appendix 3 - Photographic Record of Existing Trees of the replacement pages of the Tree Survey and Tree Treatment Proposal in **Attachment 2** for consideration.
5.6	No vertical green is observed in DWG No. 2017205-S16-PR-LMP-01a. Please review. The applicant is also advised to provide elevation indicating the extent of vertical green to demonstrate the effectiveness of proposed landscape treatments.	Please refer to the revised Landscape Proposal in Appendix 4 and revised Slope Tree Planting Section and Elevation (dwg. Nos SEC-S16PR-01, rev. C) in Appendix 5-4 of the Tree Survey and Tree Treatment Proposal in **Attachment 2** for consideration.
5.7	DWG No. 2017205-S16-PR-LMP-01A:- It is noted that some proposed new trees are located on lawn area and in the immediate vicinity of the proposed pump station/ its foundation. The applicant is reminded that sufficient growing space should be provided to avoid conflict between trees and building/ structure and ensure healthy tree growth.	Sufficient spacing between trees and the Proposed Station has been reserved. Please refer to the revised Slope Tree Planting Section and Elevation (dwg. Nos SEC-S16PR-01, rev. C) in Appendix 5-4 of the Tree Survey and Tree Treatment Proposal in **Attachment 2** for consideration.
5.8	DWG No. 2017205-S16-PR-LMP-01a:- Some planting area for shrubs and groundcovers are observed at the southern and northern periphery of the site. The applicant is advised to maximize opportunities for tree plantings to mitigate the loss of existing trees.	Please refer to the above response 5.4. Apart from tree planting, area feasible for under-storey planting, such as shrubs and groundcovers, are introduced as a means of landscape enhancement. To promote ecological value in the vicinity of site, native species is introduced. Vertical greening such as self-clinging climbing plants is proposed on the southern façade of the proposed station for better screening when viewing from downhill of Tung Lo Wan Hill Road. With adoption of multiple landscape measures, it is envisioned that the existing greenery and the green backdrop can be maintained and enhanced. Please refer to Landscape Proposal in Appendix 4 of the Tree Survey and Tree Treatment Proposal in **Attachment 2** for consideration.

	Departmental Comments	**Responses to Comments**
5.9	The applicant is advised that landscape information outside the application boundary is for reference only and would not be reviewed by PlanD.	Noted.
5.10	The applicant should be advised that approval of the application does not imply approval of tree works such as pruning, transplanting and felling. The applicant is reminded to seek approval for any proposed tree works from relevant departments prior to commencement of the works.	Noted.
6.	**Comments of Sha Tin, Tai Po and North District Planning Office, PlanD received on 6.2.2025**	
6.1	Please provide revision pages to remove the inaccurate statements in English and Chinese about government department's agreement on the proposed use.	Noted. Please refer to the updated executive summary of the replacement pages of the Planning Statement in **Attachment 1** for consideration.

	Departmental Comments	**Responses to Comments**
6.2	Please also provide graphical illustration to demonstrate the appearance of the proposed installation and the effectiveness of the visual mitigation measures as mentioned in para. 4.4.9 of the Planning Statement.	As enclosed in the Planning Statement submitted in December 2024, a photomontage (extracted and enclosed again in **Attachment 3** for easy reference) has already been included to visually illustrate the public view from a point easily accessible by the public from Tung Lo Wan Hill Road Garden towards the Proposed Station. It has already demonstrated that the Proposed Station will be largely screened off by the existing trees, by the public toilet, as well as by the RCP. To further provide graphical illustration to demonstrate the appearance of the Proposed Station and the effectiveness of the visual mitigation measures, please find a coloured graphical illustration (enclosed in **Attachment 3**) prepared based on Section C as enclosed in the Tree Survey and Tree Treatment Proposal submitted in December 2024 for consideration. It should be highlighted that the visual impact of the Proposed Station is considered to be negligible as demonstrated in the photomontage and the coloured graphical illustration based on Section C.

Attachment 1

Replacement Pages of
Planning Statement

EXECUTIVE SUMMARY

1. PURPOSE OF SUBMISSION

This planning application is submitted to seek permission from the Town Planning Board (the Board) in support of a proposed 'utility installation for private project (pump station for salt and fresh water system)' in "Government, Institution or Community" ("G/IC") zone on the Approved Sha Tin Outline Zoning Plan (OZP) No. S/ST/38 at Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (hereafter referred to as the 'Application Site') under Section 16 (S16) of the Town Planning Ordinance (CAP. 131).

A Section 12A (S12A) Application (No. Y/ST/58) to rezone Lot 380 RP (Part) in D.D. 186, Tung Lo Wan Hill Road, Sha Tin from "Green Belt" and "G/IC" zones to "Residential (Group B)3" for a proposed residential development was approved by the Board on 13.1.2023. The draft OZP incorporating the abovementioned amendment has been subsequently approved by the Chief Executive in Council on 28.5.2024.

Under the approved S12A Application, a Water Supply Impact Assessment (WSIA) was submitted to assess the potential water supply impact induced by the residential development. As the proposed residential development site has no existing fresh and salt water supply, the submitted WSIA indicated that an off-site sump and pump station and associated rising mains are required for the supply of fresh water and salt water to the residential development as a mitigation measure to the potential water supply impacts. A set of drawings was submitted along with the WSIA, depicting the location, pipe alignment, and the design of the proposed pump station and the associated rising mains.

According to the OZP, the proposed pump station (hereafter referred to as the 'Proposed Station') for salt and fresh water system in support of the approved residential development are regarded as 'utility installation for private project', which is a Column 2 use in the subject "G/IC" zone. As such, the Applicant submits herewith the subject S16 application to facilitate the implementation of the Proposed Station for the Board's approval.

2. THE PROPOSED PUMP STATION

The Application Site (about 237m^2) is situated on a man-made slope at To Fung Shan, northwest of the town centre of Sha Tin and it is accessible via Tung Lo Wan Hill Road. The Application Site is currently a piece of Government Land that falls within a portion of the Government Land Allocation No. ST 336 allocated to Leisure and Cultural Services

Department. Upon approval of the current planning application, the Applicant will negotiate with Lands Department to implement the Proposed Station.

The proposed single-storey pump station, with a building height of around 4.2m (main roof level about 52.15mPD), provides two twin water tank and two water pumps for fresh water and salt water, respectively, to serve the water demand of the approved residential development. The tentative completion year of the Proposed Station is 2033 and it will be constructed, operated and maintained by the Applicant.

3. KEY JUSTIFICATIONS

Major development justifications in support of the application are listed as follows:

- At present, there is no proper salt and fresh water supply provided to the approved residential development. As such, the Proposed Station is an essential infrastructure project to cater for the water demand of the approved residential development.

- The location of the Proposed Station is the most optimal location, which is similar to that as identified under the previous WSIA report for the approved residential development. Due consideration has been given to the site condition and surrounding context.

- The Proposed Station is only a small-scale utility installation instead of a large-scale development. Relevant planning criteria, which are applicable to this case, as stated in the Town Planning Board Guidelines No. 16 for Application for Development/Redevelopment within "Government, Institution or Community" Zone for Uses Other Than Government, Institution or Community Uses under Section 16 of the Town Planning Ordinance could be met.

- Various technical assessments have been conducted to demonstrate the proposed small-scale pump station would not cause any significant impacts in tree and landscape, visual, geotechnical, traffic, environmental and drainage aspect.

In light of the justifications presented in this Planning Statement, the Board is cordially invited to consider favourably this S16 application.

行政摘要

(聲明：此中文譯本僅供參考，如中文譯本和英文原文有歧異時，應以英文原文為準。)

1. 申請目的

申請人現根據《城市規劃條例》第16條(第131章)，向城市規劃委員會(下稱「城規會」)遞交規劃申請(下稱「本申請」)，在沙田銅鑼灣山路丈量約份第186約附近一塊政府土地(下稱「申請地點」)，於沙田分區計劃大綱核准圖(下稱「大綱圖」)編號S/ST/38，屬「政府、機構或社區」地帶的地盤上擬議作「私人發展計劃的公用設施裝置(海水及食水泵房)」(下稱「擬議泵房」)。

擬議泵房實為支持一宗第12A條改劃申請(編號Y/ST/58)，將沙田銅鑼灣山路丈量約份第186約地段第380號餘段(部分)由「綠化地帶」及「政府、機構或社區」改劃為「住宅(乙類)3」地帶，以進行擬議住宅發展。該改劃申請於二零二三年一月十三日獲城規會批准，而納入上述修訂的大綱圖其後已於二零二四年五月二十八日獲行政長官會同行政會議核准。

在已核准的改劃申請，申請人提交了一份供水影響評估，以評估擬議住宅發展在供水方面的潛在影響。由於該住宅發展的地盤沒有現有的食水和海水供應，提交的供水影響評估指出，需要提供場外泵房以及相關泵喉，以向住宅發展供應食水和海水，作緩解供水影響的措施。在供水影響評估中的圖則及繪圖描繪了擬議海水及食水泵房以及相關泵喉的位置、管道排列及設計。

為支持獲批的住宅發展而擬議的海水及食水泵房屬「私人發展計劃的公用設施裝置」用途，根據大綱圖，屬於「政府、機構或社區」地帶的第二欄用途。因此，申請人特此提交本申請，以落實擬議的海水及食水泵房，供城規會核准。

2. 擬議泵房

申請地點(約237平方米)位於沙田市中心西北方道風山的一個人造斜坡上，可經銅鑼灣山道前往。申請用地現時是一塊政府土地，屬於分配給康樂及文化事務署的政府撥地GLA-ST 336的一部分。規劃申請獲批

後，申請人將與地政總署協商落實擬議泵房的安排。

擬建的單層泵房約 4.2 米高(主天台樓層為主水平基準上約 52.15 米)，設有兩組孖水缸和兩組水泵，分別用於供應食水和海水，以滿足獲批的住宅發展的用水需求。擬建泵房暫定竣工年份為 2033 年，泵房將由申請人負責興建、營運及維護。

3. 主要理據

支持申請的主要理據如下：

- 獲批的住宅項目目前尚未有海水及食水供應，因此，擬議泵房為獲批住宅項目提供用水需求必要的一項基礎設施。

- 擬議泵房的位置與獲批的住宅項目中的供水影響評估所確定的位置類似，也充分考慮了申請地點和周邊地區的環境。因此，現時擬議泵房的位置是最佳的位置。

- 擬議泵房為一項小型基礎設施而非大型發展項目，但仍符合有關「擬在「政府、機構或社區」地帶內發展/重建作「政府、機構或社區」用途以外的用途而按照城市規劃條例第 16 條提出的規劃申請」的城市規劃委員會規劃指引的主要規劃準則。

- 多項技術評估證明擬議泵房不會對樹木和景觀、視覺、岩土工程、交通、環境和排水方面造成任何重大影響。

基於以上理據，現懇請城規會接納是次規劃申請。

Planning Criteria	Compliance under Proposed Scheme
For "G/IC" sites covered by mature trees and vegetation or located in areas of high landscape or amenity value, the design and layout of the proposed development should be compatible and should blend in well with the surrounding areas. The proposed development should not involve extensive clearance of existing natural vegetation, adversely affect the existing natural landscape, or cause adverse visual impact on the natural environment in the surrounding areas.	The Tree Survey conducted for the Proposed Station indicated that there is no endangered tree species and no rare and precious plants observed within the Application Site and a tree treatment proposal is submitted to enhance greenery within the Application Site.
The design and layout of the proposed development should have regard to the preservation of any existing buildings of historical or architectural values on or adjoining the application site.	There is no existing buildings of historical or architectural values located within or adjoining the Application Site.

4.4 No Adverse Technical Impacts Anticipated

4.4.1 Various technical assessments have been conducted to demonstrate the construction and operation of the proposed small-scale pump station would not cause any significant impacts in tree and landscape, visual, geotechnical, traffic, environmental and drainage aspect.

Tree and Landscape Aspect

4.4.2 A tree survey and tree treatment proposal identifying existing trees within the Application Site and proposing the tree treatment in relation to the construction of the Proposed Station are provided in **Appendix B**.

4.4.3 The tree survey conducted has identified a total 25 nos. of existing trees within the Application Site. Majority of the surveyed trees are in poor tree form, health or structural conditions with relatively low amenity value. No endangered trees species, rare and previous plants, registered Old and Valuable Trees and potential registrable trees in accordance with DEVB Technical Circular (Works) No. 5/2020 or "Champion" trees were observed within the Application Site.

4.4.4 Among the 25 nos. of surveyed trees within the Application Site, all trees are proposed to be felled. Due to the environmental and spatial constraints of the

Attachment 2

Replacement Pages of
Tree Survey and
Tree Treatment Proposal

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Appendices

	relevelled for the formation of Pump Station. • Minimum 2.5m working area is necessary for construction access and formworks, including site formation works, manoeuvring of machineries, spatial provision for hoarding construction, construction of site office, etc. • Overgrown or Over-congested trees on slope - Existing trees on slope are overgrown and roots entangled with one another so that the tree rootballs are technically not transplantable. Survival rate after tree transplanting is low. • **Dead tree** (1 no.) • On the steep slope, two nos. large trees, T57 and T741 were found their rootball hardly retrievable. After critically review of their very low post-transplanting survival, they are recommended "fell". • The rest of trees are with: (i) unrecoverable health problem or in poor condition; (ii) low amenity value and common species; (iii) poor form with leaning trunk or imbalanced tree form; (iv) low survival rate after transplanting; and , (v) Dead branches and roots merged with adjacent drainage channel.

In summary, please find the following **Table 2** showing the Tree Treatment Proposal:

Table 2: Tree Treatment Proposal

Description	Current Scheme
Total Nos. of Trees ***Surveyed***	25 (incl. 1 dead tree)
Nos. of Trees Proposed to be ***Felled***	25 (incl. 1 dead tree)

7.0 Landscape Proposal

Major objectives of this current Landscape Proposal are listed below:

- To enhance greenery by planting trees;
- To replenish trees loss due to felling of existing trees;
- To plant native tree species for benefit of local habitat within the Application Site;
- To plant trees of suitable size on slope for sustainable natural process;
- To provide visual screening to the proposed pump station.

Please find the following **Table 3a, 3b and 3c** showing the proposed tree species & size for Tree Planting Proposal. Tree listed in the Table is selected to fit with the existing tree species nearby, the local climatic character, micro-climate and existing slope profile. Different environmental and spatial requirements are also taken into account during the development of the planting design. Thus, new trees will be planted on slope or sloping ground in form of pit planting subject to constraints of slope gradients. With reference to GEO Publication No. 1/2011, small tree planting on slope gradient of over 30 degrees is not recommended. To balance initial greening and healthy tree growth, actual site condition and slope gradient on particular slope portion has been critically review. Please refer to Tree Planting Plan in **Appendix 5-3** indicating the extent of

the slope with slope gradient of over 30 degrees. Other limitations of tree planting due to existing site condition please refer to the Site Allocation Diagram in **Table 4**.

Considering that some *Eucalyptus spp.* on existing slopes may not be beneficial to local habitat, native tree species as new tree planting is recommended. In addition, tree planting on open bottom is provided to ensure healthy long term roots growth. Please refer to Tree Planting Plan in **Appendix 5-3** and Slope Tree Planting Section and Elevation in **Appendix 5-4**.

Table 3a: Proposed Tree Planting Schedule

Proposed Species	Chinese Name	Quantity/ Size
Bischofia javanica *	秋楓	7 nos. (Size: Standard Size 3-4m Height; 2-4m Spread)
*Celtis sinensis**	朴樹	4 nos. (Size: Light Standard Size 2-3m Height; 2-4m Spread)

Table 3b: Proposed Shrub and Groundcover Planting Schedule

Botanical Name	Chinese Name	Height x Spread (mm)	Spacing (mm)
Shrub Species			
Melastoma sanguineum *	毛蒽	600 x 500	500
Rhodomyrtus tomentosa *	桃金娘	400 x 300	250
Rhododendron simsii *	紅杜鵑	400 x 300	250
Ixora chinensis *	龍船花	600 x 500	500
Tibouchina semidecandra *	巴西野牡丹	400 x 350	300
Ground Cover Species			
Asparagus cochinchinensis *	天門冬	350 x 400	300
Nephrolepis auriculata *	腎蕨	350 x 400	300
Ophiopogon japonicus *	沿階草	100 x 150	100
Lawn Species			
Cynodon dactylon *	狗牙根	--	--

Table 3c: Proposed Vertical Green Planting Schedule

Proposed Species	Chinese Name	Quantity/ Size (Height x Spread)
Ficus pumila *	薜荔(文頭郎)	1000 mm x 250 mm

Remarks: * Native Species

The above proposal outlines the proposed landscape design, along with the limitations imposed by the current site constraints as listed in the Space Allocation Diagram in **Table 4** and Tree Planting Plan in **Appendix 5-3**.

Table 4: Space Allocation Diagram

Space Allocation Diagram	
Items	**Area (approx. %)**
(A) Areas reserved for necessary and basic facilities for Proposed Pump Station	**64%**
• Building footprint	42%
• Loading/ unloading/ drop off area	7%
• Hardscape & maintenance/ circulation path	15%
(B) Topographical constraints – Slope gradient of over 30 degrees	**10%**
(C) Utilization of available planting space	**26%**
• Available and feasible tree planting area	26%
Total Site Area= (A) + (B) + (C)	**100%**

(A) Areas reserved for necessary and basic facilities for the Proposed Pump Station

Only a minimal footprint is proposed for the Pump Station with a minimum required size of 237m2. Other provisions, such as hard paved circulation/ maintenance paths, loading/ unloading/ drop off areas, are considered basic and essential to the development of Proposed Pump Station.

(B) Topographical constraints – Slope gradient of over 30 degrees

Despite part of SIMAR Slope Feature No. 7SW-D/FR54 being re-levelled, around 10% of the slope in the vicinity remains at a slope gradient of over 30 degrees. According to GEO Publication No. 1/2011, this gradient is not suitable for tree planting. Please refer to the attached "Tree Planting Plan" which indicates the extent of the slope gradient of over 30 degrees. For healthy and sustainable tree growth on slope gradient of over 30 degrees, sufficient spacing for new tree planting has to be considered to achieve future optimal landscape value on slope.

(C) Utilization of available planting space

The Applicant has fully utilized all available and feasible spaces for tree planting within the development limits and constraints mentioned above. All areas previously required for the construction of Proposed Pump Station have been allocated for new tree planting. Provided that a 1:1 compensation ratio in terms of quantity is adopted (i.e. 25 nos. new trees), it would occupy at least four times the current available planting space. With the principle of "right tree right place", the Applicant aims to achieve high-quality landscaping, tree planting with sufficient planting space should be prioritized.

Due to existing site constraints, replanting ratio of **1:0.44** in terms of quantity is the best we can achieve, with regards to the guidelines of *DEVB TC(W) No. 04/2020* replanting ratio of 1:1 may **NOT** be applied for trees growing on slope. To replenish the loss of greenery, new trees of higher ecological and aesthetic value are proposed. Nevertheless, the Applicant has maximized all available and feasible area for new tree planting. Consequently, **11** native trees are the optimal number we can achieve given the constraints. Refer to Tree Planting Plan in **Appendix 5-3**.

T741

CLOSE UP

T742

CLOSE UP

Proposed Comprehensive
Development at Lot No.

Tree Photographic Record

(Pump Room)

R-Retain T-Transplant F-Fell D-Dead Tree

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED VERTICAL GREEN WITH SELF-CLIMBING SPECIES
- PROPOSED NEW TREES (11 nos.)
- PROPOSED SHRUBS AND GROUNDCOVERS
- PROPOSED LAWN (0.60m Maintenance Path)
- HARD PAVED AREA
- +47.95 PROPOSED LEVELS

N

0m 0.5m 1m 2m 4m

SCALE : 1:100 (A3)

Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

Landscape Proposal

Dwg. No. : 2017205-S16-PR-LMP-01b

Date : FEB 2025

(A3-size)

axxa group

Slope No.:7SW-D/FR549

Slope No.:7SW-D/FR25(2)

AROUND 2.5m WORKING AREA

AROUND 2.5m WORKING AREA

T735 T747 T746 T745 T744 T743 T742 T741 T740 T739 T738 T737 T53 T57 T52 T58 T59 T51 T50 T60 T61 T48 T47

HILL ROAD

KEY PLAN

LEGEND:

- APPLICATION SITE BOUNDARY
- WORKING AREA
- TREES PROPOSED TO BE FELLED (24 Nos.)
- DEAD TREE (1 No.)

no.	description	date
A	GENERAL REVISION	

REVISION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO

- use figured dimension in preference to scalling
- verify all dimensions at the site
- report all discrepancies to the landscape architect and agree before proceeding
- determine location of all existing services prior to excavation

This drawing shall not be used for construction purposes unless signed by Landscape Architect

Date:

Approval:

axxa group

axxa group limited

UNIT 301-02, 3/F PLAZA 228,
No. 228 WAN CHAI ROAD, HONG KONG.
香港 灣仔 灣仔道 228號,
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T: (852) 2893 8586 F: (852) 2893 8997
E: ag@axxagroup.com.hk

PROJECT:
Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

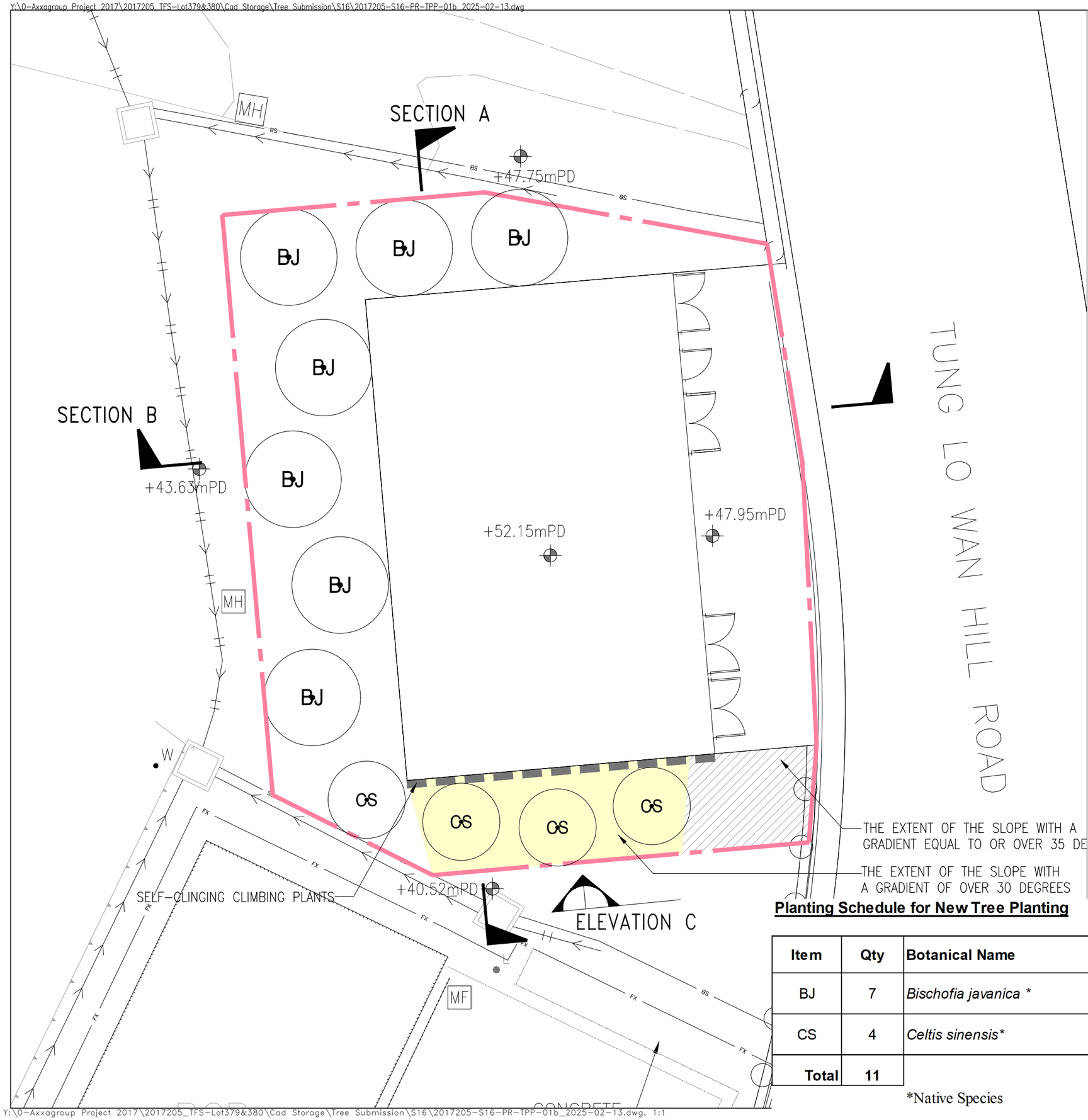
DRAWING TITLE:
TREE TREATMENT PLAN

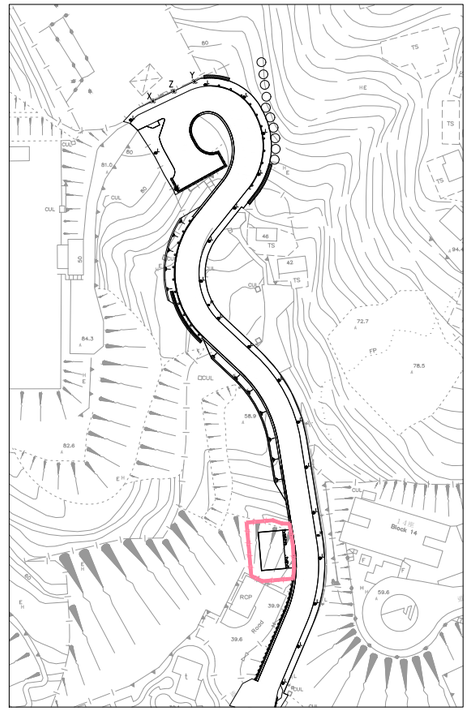
Scale:	1:100
Date:	AUG 2024
Design:	CL
Drawn:	LS
Checked:	CL
Project No:	2017205

Drawing No.: TTP-PR-01 REV. A

CAD Ref.: 2017205-S16-PR-TTP-01

A3 420 x 297





KEY PLAN

LEGEND:

- APPLICATION SITE BOUNDARY
- (BJ) PROPOSED NEW TREES (11 Nos.)

Planting Schedule for New Tree Planting

Item	Qty	Botanical Name	Chinese Name	Height (m)	Spread (m)
BJ	7	*Bischofia javanica* *	秋楓	Standard size (3-4m Height, 2-4m Spread)	
CS	4	*Celtis sinensis**	朴樹	Light Standard size (2-3m Height, 2-4m Spread)	
Total	**11**				

*Native Species

no.	description	date
B	GENERAL REVISION	
A	GENERAL REVISION	19/12/24

REVISION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO
- use figured dimension in preference to scalling
- verify all dimensions at the site
- report all discrepancies to the landscape architect and agree before proceeding
- determine location of all existing services prior to excavation

This drawing shall not be used for construction purposes unless signed by Landscape Architect

Date:

Approval:

axxa group

axxa group limited
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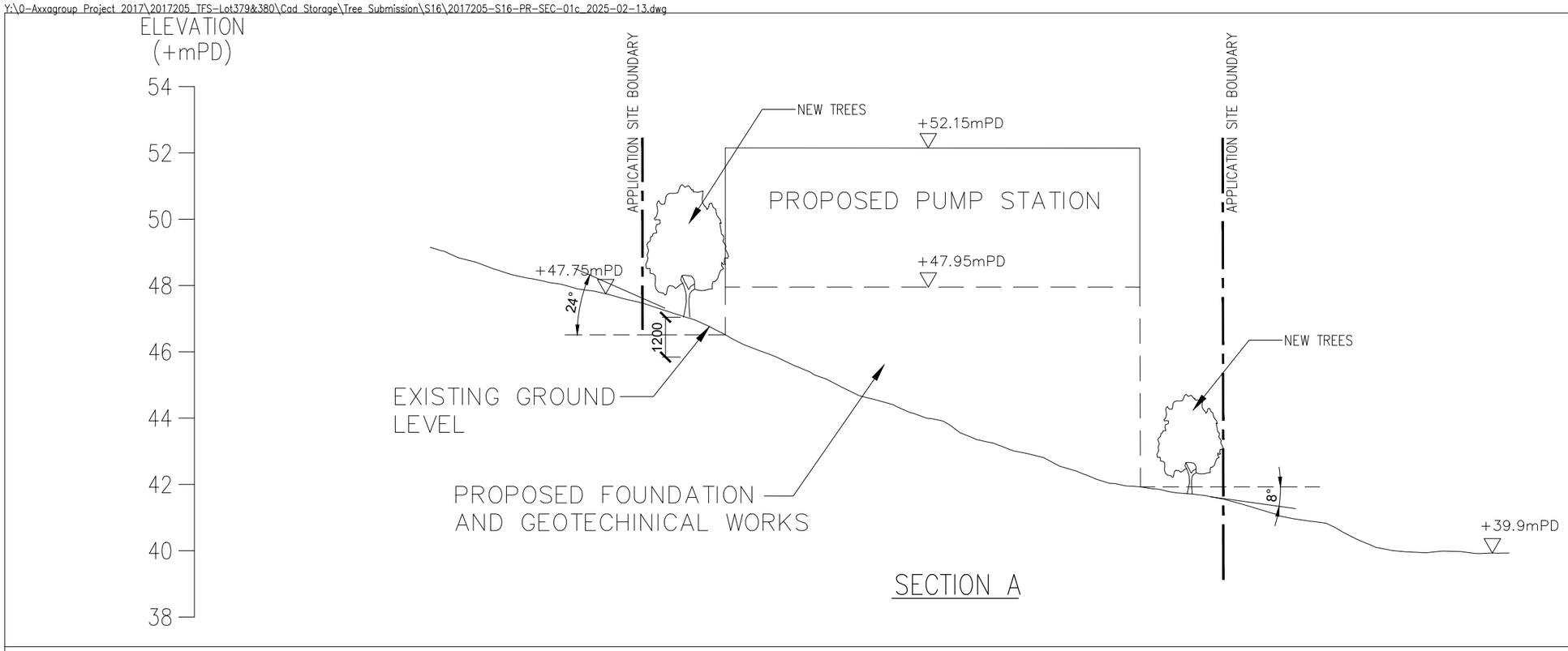
PROJECT:
Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

DRAWING TITLE:
TREE PLANTING PLAN

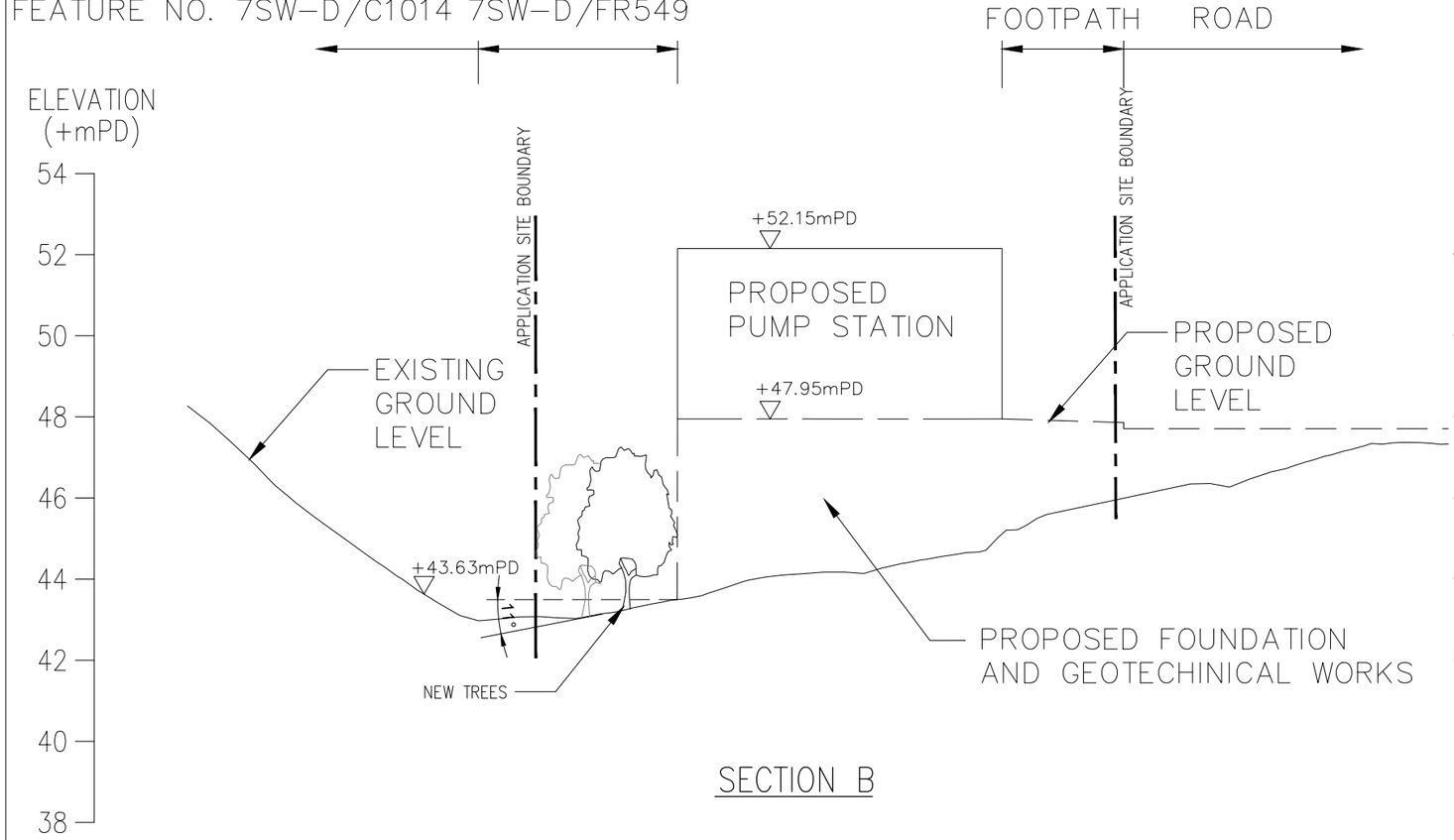
Scale:	1:100	Drawing No.:	TPP-PR-01
Date:	AUG 2024		
Design:	CL		
Drawn:	LS		
Checked:	CL		
Project No:	2017205	REV.	B

CAD Ref.: 2017205-S16-PR-TPP-01

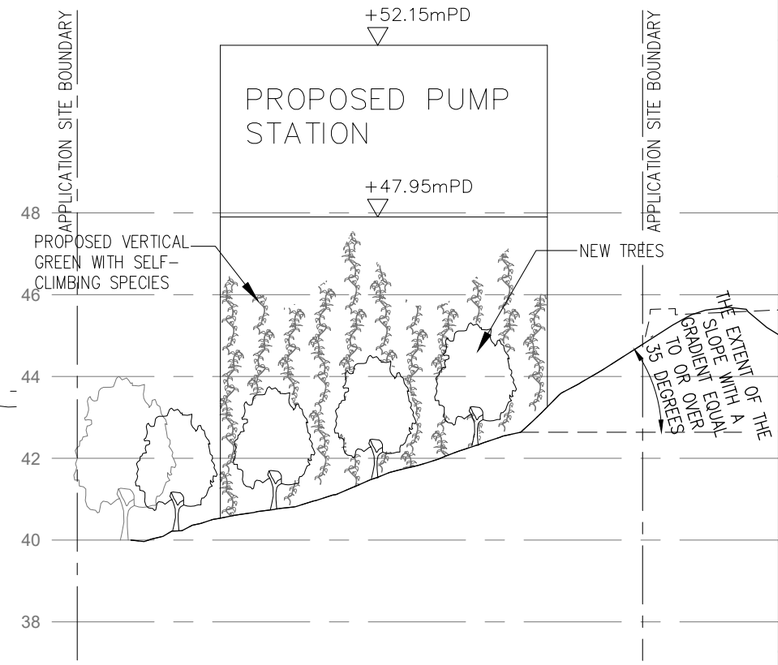
A3 420 x 297



SECTION A



SECTION B



ELEVATION C

LEGEND:

APPLICATION SITE BOUNDARY

no.	description	date
C	GENERAL REVISION	
B	GENERAL REVISION	19/12/24
A	GENERAL REVISION	10/12/24

REVISION

IT IS THE CONTRACTOR'S RESPONSIBILITY TO
- use figured dimension in preference to scalling
- verify all dimensions at the site
- report all discrepancies to the landscape architect and agree before proceeding
- determine location of all existing services prior to excavation

This drawing shall not be used for construction purposes unless signed by Landscape Architect

Date:

Approval:

axxa group
axxa group limited
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PROJECT:
Section 16 Planning Application for Proposed Utility Installation for Private Project (Sump and Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin

DRAWING TITLE:
SLOPE TREE PLANTING SECTION & ELEVATION

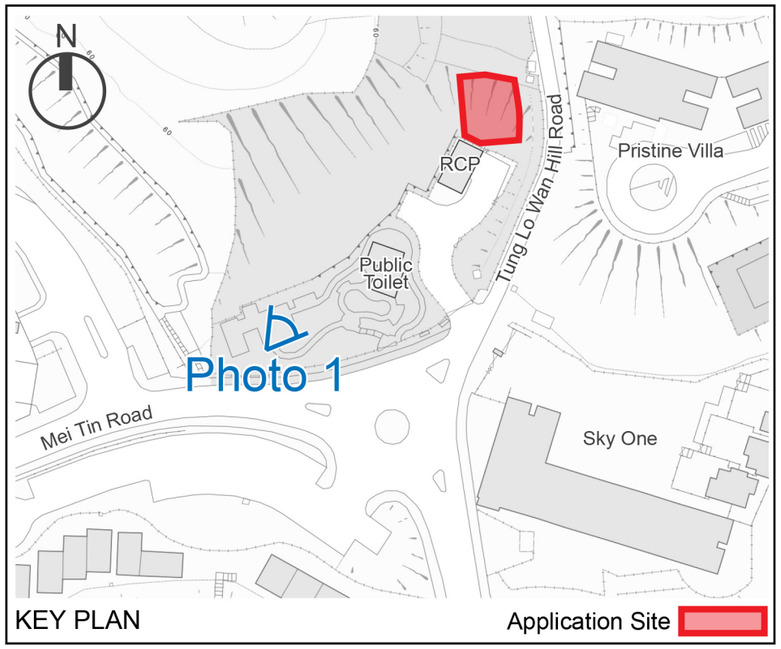
Scale:	1:150
Date:	AUG 2024
Design:	CL
Drawn:	LS
Checked:	CL
Project No:	2017205

Drawing No.: SEC-PR-01 REV. C

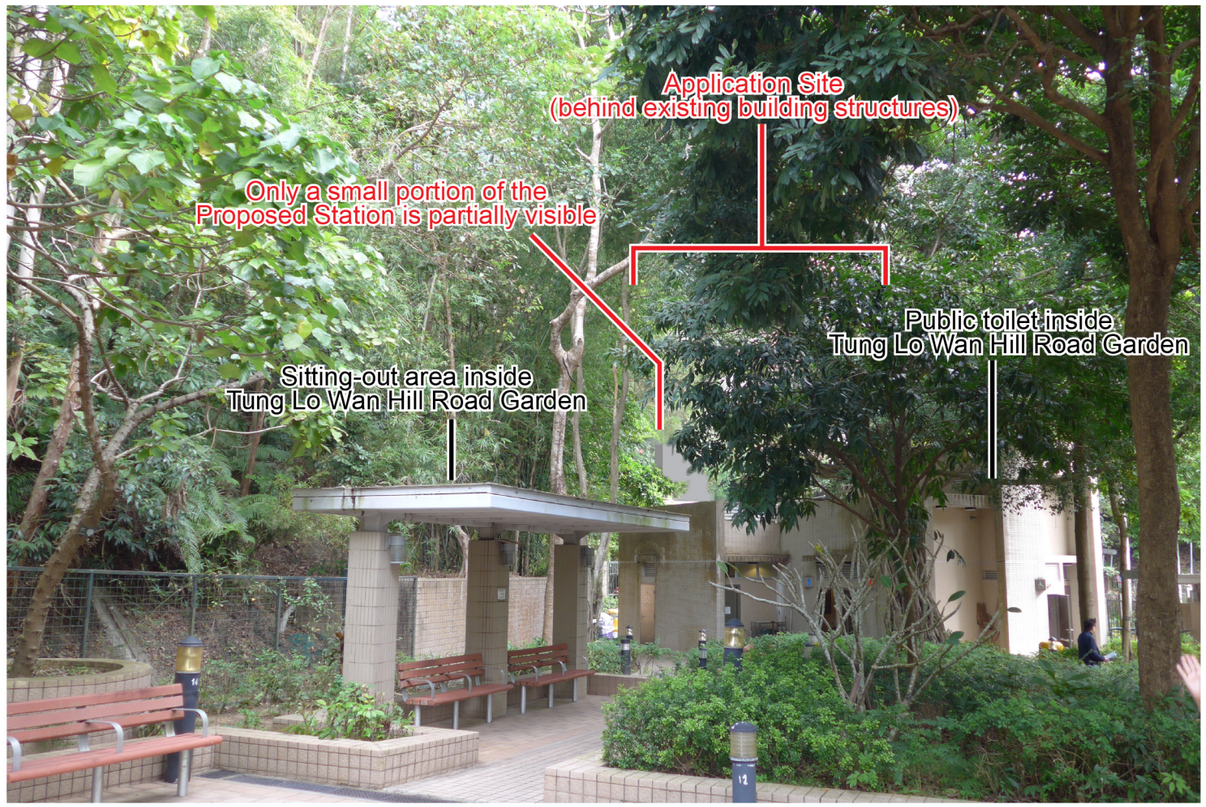
CAD Ref.: 2017205-S16-PR-SEC-01

Attachment 3

Submitted Photomontage and
Coloured Graphical Illustration of Section C

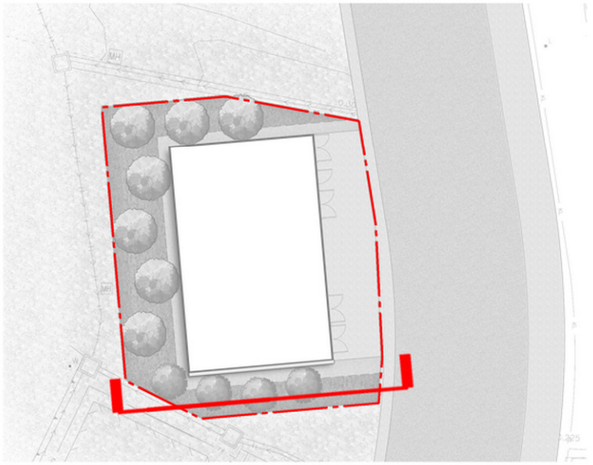


Existing Condition

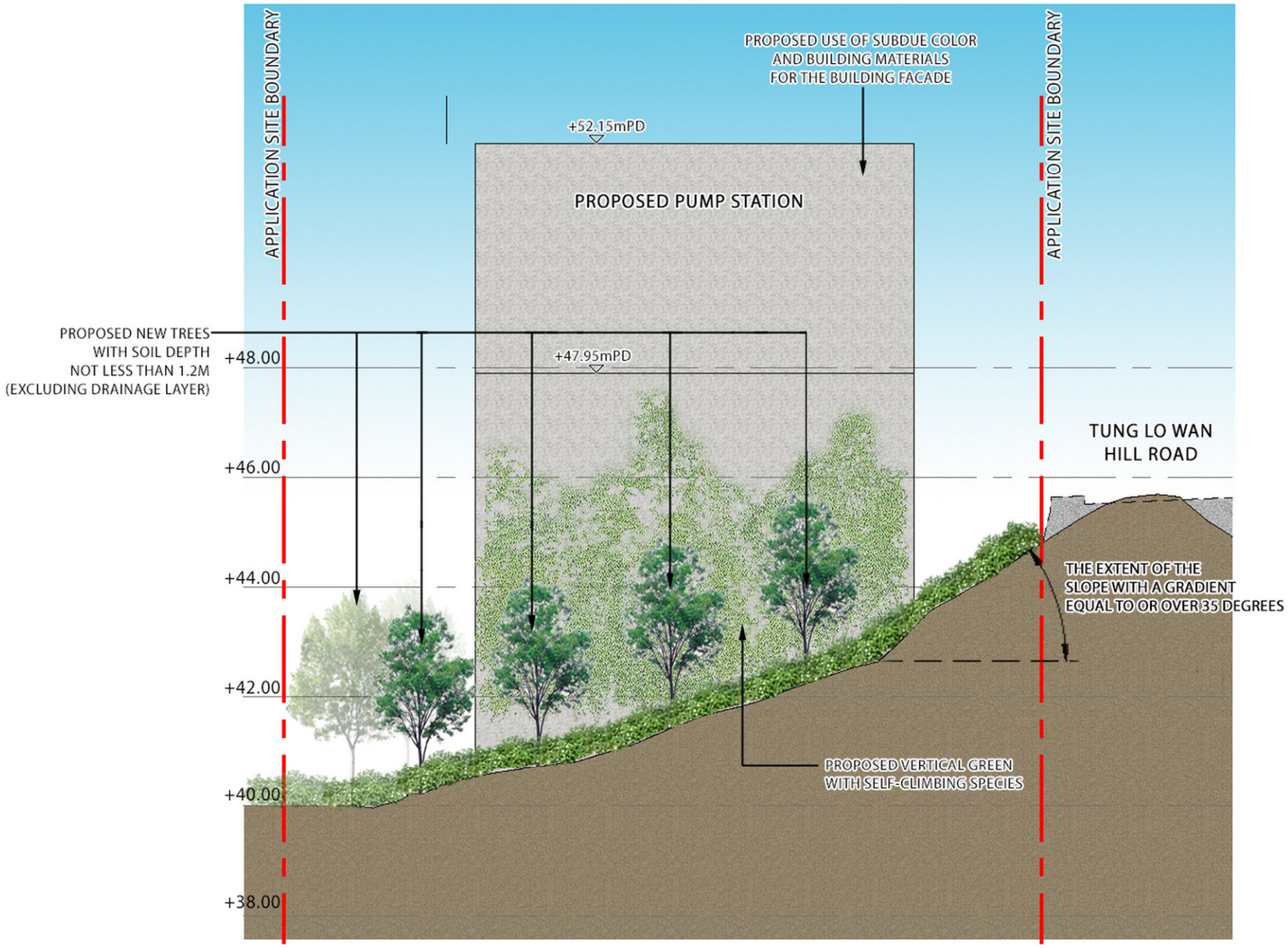


Proposed Scheme

	Title: Photomontage – Viewing from Tung Lo Wan Hill Road Garden	Checked	DH	Drawn PW
		Rev	0	Date Dec 2024
		Scale		Figure 4.2



KEYPLAN



Coloured Graphical Illustration Based on Section C in the Tree Survey and Tree Treatment Proposal

llewelyn davies
ARCHITECTS PLANNERS DESIGNERS
Llewelyn-Davies Hong Kong Ltd

19 February 2025

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

By Hand and By Email

Dear Sir

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (Application No. A/ST/1036)

Reference is made to the captioned application submitted to the Town Planning Board (the Board) on 19 December 2024, Further Information submitted to the Board on 14 February 2025 and subsequent departmental comments received via District Planning Office / Sha Tin, Tai Po and North District of Planning Department in February 2025.

In response to departmental comments, the Applicant would like to submit herewith 4 copies of responses-to-comments (RtoC) table (**Appendix A**) with replacement page of geotechnical review report, replacement pages of planning statement, demarcation plan of the proposed management and maintenance responsibilities, replacement page of pump room design report and illustrative plan of the proposed management and maintenance responsibility of water mains enclosed herewith in **Attachments 1 to 5** for the Board's consideration.

Please note that the current submission is made to provide minor clarifications/justifications on the proposed pump station with no changes to the proposed scheme and the previously submitted technical assessments. The Applicant therefore sincerely requests that the captioned application be processed and considered by the Board at the Rural and New Town Planning Committee Meeting as scheduled on 28 February 2025.

.../2

llewelyn davies

Thank you for your kind attention. Should there be any queries, please do not hesitate to contact the undersigned at [redacted] or our Ms. Winnie Wu at [redacted] / Mr. Davy Lam at [redacted]

Yours faithfully
for Llewelyn-Davies Hong Kong Ltd

Dickson Hui
Director

DH/WW/dl
Encl.

S:\13596 Tung Lo Wan Shan Road (off-site pump stn)\FI\FI-2\20250219_Letter to TPB_FI-2 Submission_TLWHR.doc

cc (w/ encl)
DPO/STN - Ms. Elizabeth Ng (by email)

Appendix A

Responses-to-comments Table

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (Application No. A/ST/1036)

Index Page

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (Application No. A/ST/1036)

	Departmental Comments	**Responses to Comments**
1.	**Comments of Architectural Services Department (ArchSD) received on 14.2.2025**	
1.1	Based on the information provided, it is noted that the proposal mainly consists of a one-storey utility building for a private project approved under a separate planning application. From the photomontages provided, it appears that the proposal has little visual impact to the surrounding environment. We have no comment on the application from visual point of view subject to Planning Department (PlanD)'s view.	Noted.
1.2	It is also noted that the application site may have encroached onto a Slope Feature No.7SW-D/FR549, which is currently maintained by ArchSD. To this end, please see below comment from our Property Services Manager for your information: *"Based on DWG No. PSDR-FIG-02, it is noted that a pump station would be built at Slope Feature No. 7SW-D/FR549. Based on 'owner-maintains' principle, it is assumed that the applicant would take up the future maintenance responsibility of whole Slope Feature No. 7SW-D/FR549. I have no comment from slope maintenance point of view on the s.16 planning application based on my assumption. Please ask the applicant to indicate clearly regarding the maintenance responsibility of the slope."*	The applicant has agreed to take up the management and maintenance responsibility for Feature No. 7SW-D/FR549. Please refer to the updated paragraph 4.1.3 of the replacement page of Geotechnical Review Report (GRR) in **Attachment 1** and extracted below for consideration: *"The feature boundary of the existing feature no. 7SW-D/FR549 shall be reduced and modified to accommodate the Proposed Pump Station. The management and maintenance responsibilities for feature no. 7SW-D/FR549 upon the completion of the pump station construction shall be taken up by the project proponent."* It should be noted that the management and maintenance responsibilities of the abovementioned slope features is subject to liaisons and agreements with relevant government departments in detailed design and land exchange stages.

	Departmental Comments	**Responses to Comments**
2.	**Comments of Lands Department (LandsD) received on 14.2.2025**	
2.1	The Application Site falls entirely within the existing permeant government land allocation No. ST-336 ("PGLA ST-336") which is allocated to LCSD for public open space (currently known as Tung Lo Wan Hill Road Garden) and the Slope Feature No. 7SW-D/FR549 maintained by ArchSD.	Noted.
2.2	For implementation of the proposed residential development approved by TPB in Jan 2023 ("the proposed residential development") and the proposed Pump Station under the application, the applicant has proposed to upgrade and widen the existing single-lane Tung Lo Wan Hill Road to a 2-lane carriageway as indicated on Figures 3.1 and 3.2 of the Planning Statement ("the Widened Road"). The Widened Road would encroach upon (i) the area allocated to Waters Supplies Department ("WSD") for the use of Sha Tin North Service Reservoir; (ii) the area allocated to Food and Environment Hygiene Department ("FEHD") for the use of the refuse collection point; (iii) the PGLA ST-336; and (iv) various registered slope features currently maintained by different government department including LCSD, ArchSD and WSD. Notwithstanding, the alignment of the Widened Road has not been finalised and is still pending for the liaison of the applicant and Transport Department (TD) according to para. 3.2.1 of the Planning Statement.	Noted.

	Departmental Comments	**Responses to Comments**
2.3	For the Application, our comments are below: (a) The owner of the lots for the proposed residential development (same as the applicant) has applied for land exchange to implement the proposed residential development. Subject to TPB's approval for the proposed Pump Station and the relevant departments' agreement to release their areas in para. 2 and 3 above, our office may consider to integrate the Application Site in the land exchange and process the necessary statutory provisions, i.e. Road (Works, Use and Compensation) Ordinance (Cap 370) for the Widened Road as agreed by the relevant departments as aforesaid. However, our office would like to stress that there is also no guarantee that the land exchange will be approved. The land exchange will be considered by LandsD acting in its capacity as the landlord at its own discretion and any approval for the land exchange would be subject to such terms and conditions including, inter alia, the payment of premium and administrative fee, as may be imposed by LandsD. Moreover, it shall not be construed that the schematic designs and alignment of the Widened Road as proposed in the application will be accepted or approved under Cap 370. In particular, the extent and scale of such schematic designs and the alignment may need to be reduced/revised subject to the comments of the relevant departments for compliance with the minimum statutory requirement so as to minimize disturbance to the surrounding environment.	Noted. The Applicant will continue liaise and coordinate with relevant departments as part of the on-going land exchange application. The design and extent of the Proposed Station and the widen access road will be further reviewed in land exchange stage in accordance with relevant ordinances and regulations.

	Departmental Comments	**Responses to Comments**
	(b) Regarding the proposed responsibility of the applicant for the Widened Road in para. 3.3.3 of the Planning Statement, please note that Tung Lo Wan Hill Road is currently open for public use at all time and the Widened Road upon completion should also maintain such public use. As such, it is advised that the applicant should explore the possibility for TD and HyD to take up the future management and maintenance responsibility of the Widened Road as an alternative option for the land exchange application.	Noted. The applicant will liaise and coordinate with relevant departments on the management and maintenance responsibilities of the widen access road in land exchange stage.
	(c) According to Table 3.2 of the Planning Statement, the applicant has intended to execute the land exchange in Q2 2026. However, LandsD is unable to commit such timeframe as the processing time of the land exchange may be subject to various factors, e.g. completion of Cap 370 procedure for the Widened Road, premium negotiation, etc.	Noted. The tentative implementation programme outlined in Table 3.2 of the Planning Statement that provides a target timeframe for the implementation is intended for reference only.
	(d) The Planning Statement (i.e. the Executive Summary and para. 1.1.3) has stated that the Water Supply Impact Assessment ("WSIA") submitted for the approved S12A Application for the proposed residential development contained the design of the proposed pump station and the associated rising mains, which were agreed by the relevant Government Departments. It is noted that the locality of such pump station, associated rising mains as well as the alignment of the Widened Road in the WSIA are different from the subject application. For clarity, our office did not accept nor give "no objection" comment on the locality of such pump station, associated rising mains and the alignment of the Widened Road in the WSIA when commenting the relevant S12A Application. Normally, details of such facilities would be examined when the finalised scheme or proposal is available under the land exchange application as aforesaid.	Noted. The relevant sections have been revised in the previous further information submitted on 14.2.2024. Please refer to the replacement pages of the Planning Statement enclosed again in **Attachment 2** for consideration. The Applicant will continue liaise and coordinate with relevant departments as part of the on-going land exchange application. The design and extent of the Proposed Station will be further reviewed in land exchange stage in accordance with relevant ordinances and regulations.

	Departmental Comments	**Responses to Comments**
3.	**Comments of Leisure and Cultural Services Department (LCSD) received on 14.2.2025**	
	<u>Comments from Sha Tin District Leisure Services Office (STDLSO)</u>	
3.1	LCSD has no in-principle objection to the application subject to Lands Department's decision as concerned area within Tung Lo Wan Hill Road Garden (PGLA ST-336) will be alienated to LandsD. Even though concerned area is an unattended area without public facilities, the project proponent should clearly marked the demarcation and interfacing issues including the M&M between the sites. LCSD reserves the right to provide further comment on the applications including the TPRP, design of pump station, fence-off area, arrangement of site access and underground utilities, etc.	Noted. Please refer to the Demarcation Plan of the Proposed Management and Maintenance Responsibilities in **Attachment 3** for consideration. The Applicant will take up the management and maintenance responsibilities of the Proposed Station (coloured in yellow) and the Slope Features No. 7SW-D/FR549 (coloured in green) based on the "beneficiary-maintain" principle. It should be noted that the management and maintenance responsibilities of the concerned area is subject to liaisons and agreements with relevant government departments in detailed design and land exchange stages.
3.2	On the other hand, the application site is fall on the SIMAR Slop "7SW-D/FR549" which is maintained by ArchSD. The works may affect the structure of the SIMAR slope and the trees fall on the slope, therefore comments from ArchSD shall be sought.	Please note that the subject planning application has been circulated to ArchSD for comments. Please refer to the above responses-to-comments 1.1 and 1.2 for reference.
	<u>Comments from New Territories East Tree Team (NTETT)</u>	
3.3	On the understanding that no existing tree maintained by LCSD (NTETT) would be affected, LCSD has no specific comment on the subject.	Noted.

	Departmental Comments	**Responses to Comments**
4.	**Comments of Transport Department (TD) received on 18.2.2025**	
4.1	He has no objection in-principle on the application from traffic engineering point of view.	Noted.
4.2	It is noted that there would be construction vehicles accessing the Site during the construction stage, and the traffic generated is expected to be insignificant compared to that generated by the planned residential development. Significant adverse traffic impact and road safety issue are not anticipated.	Noted.
4.3	While the management responsibilities of the proposed widened section of Tung Lo Wan Hill Road is being reviewed, it should also be reviewed whether the management and maintenance of any underground utilities such as water mains underneath the proposed widened section of Tung Lo Wan Hill Road would be taken up the relevant government department.	Noted. The management and maintenance responsibilities of the widen access road and the underground utilities is subject to liaisons and agreements with relevant government departments in detailed design and land exchange stages.

	Departmental Comments	**Responses to Comments**
5.	**Comments of Water Supplies Department (WSD) received on 6.2.2025**	
5.1	From the operational perspective, it is proposed to adopt the following demarcation of responsibilities between WSD and the applicant for the proposed watermains from the existing connection to the private pumping station and then to the residential development. (1) Maintenance responsibility of the proposed water mains (both fresh water and salt water (FW& SW)) between the private pumping station and the residential development shall rest with the applicant; and (2) Maintenance responsibility of the proposed water mains (both FW & SW) between the existing water mains and the inlet of the private pumping station shall rest with WSD. Therefore, our comments on the Submission are marked in RED below for your consolidation. (i) <u>"TLWHR Pump Station Consolidated Planning Statement (Highlighted Changes) 20250110"</u> In Table 3.3, the maintenance parties of the external water mains between the existing FW and SW mains and the inlet of private pumping station ~~section of the Access Road~~ would be WSD. (ii) <u>"A ST 1036 Pump Station Design Report"</u> In Para. 4.3.2, the proposed external water mains between the existing FW and SW main and the inlet of private pumping station ~~section of the widened Tung Lo Wan Hill Road~~ (i.e. water mains to be laid in the widened Tung Lo Wan Hill Road which is government land and maintained by the Applicant) will be constructed by the Applicant and are proposed to be handed over to WSD after construction.	Noted. Please refer to the revised paragraph 4.3.2 of the replacement page of the Pump Room Design Report in **Attachment 4** and extracted below for consideration: *"The proposed external watermains between the existing fresh water and salt water main and the inlet of private pumping station (i.e. water mains to be laid under the widened Tung Lo Wan Hill Road which is maintained by the Applicant) will be constructed by the Applicant and are proposed to be handed over to Water Supplies Department after construction."* Please also refer to Table 3.3 of the replacement pages of the Planning Statement in **Attachment 2** and the illustrative plan of the proposed management and maintenance responsibilities of the water mains in **Attachment 5** for consideration. It should be noted that the extent of the watermains demarcated on the plan is for indicative purpose and reference only. The management and maintenance responsibilities of the watermains is subject to liaisons and agreements with relevant government departments in detailed design and land exchange stages.

	Departmental Comments	**Responses to Comments**
6.	**Comments of Sha Tin, Tai Po and North District Planning Office, PlanD received on 18.2.2025**	
6.1	Please provide a plan to demarcate the relevant areas of the proposed management and maintenance responsibilities.	Please refer to the illustrative plan of the proposed management and maintenance responsibilities of the water mains in **Attachment 5** for consideration.
6.2	Please further elaborate about the trees compensation.	The Applicant has explained the site constraints and provided full justifications about the compensation ratio in the previous Further Information (1) submitted on 14.2.2025. The Applicant would like to further elaborate that opportunity will be explored at the detailed design stage for possible location for additional trees planting as far as practicable within the private residential site in the "R(B)3" zone in future.

Attachment 1

Replacement Page of
Geotechnical Review Report

4. Proposed Works

4.1 Proposed Foundation Works

4.1.1 For the one-storey Proposed Pump Station, foundation schemes including footings on soil or mini-piles are technical feasible foundation systems for the proposed structure. These foundation systems are commonly adopted in Hong Kong construction industry.

4.1.2 Existing feature 7SW-D/FR549 will be modified as presented below.

Feature No. 7SW-D/FR549

4.1.3 The feature boundary of the existing feature no. 7SW-D/FR549 shall be reduced and modified to accommodate the Proposed Pump Station. The management and maintenance responsibilities for feature no. 7SW-D/FR549 upon the completion of the pump station construction shall be taken up by the project proponent.

4.2 Monitoring Works During Construction

4.2.1 A comprehensive monitoring programme, which comprises the followings, shall be implemented on site to safeguard the adjacent utilities and/or structures:

1. Settlement check points around the Proposed Pump Station;
2. Settlement check points on surrounding utilities;
3. Tilting checkpoints on retaining walls and nearby buildings; and
4. Piezometers/standpipes at locations around the Proposed Pump Station Site.

The initial readings of all the above monitoring points and piezometers/standpipes shall be taken prior to the commencement of construction works on site and these devices shall be monitored regularly throughout the construction works.

4.3 Natural Terrain Hazard Review

4.3.1 The Application Site is overlooked by upslope natural terrain to the northeast, featuring a natural hillside with an angular elevation ranging from 22 to 40°. Since the Proposed Pumping Station is an unmanned plant room and classified as Non-dangerous storage site of facility Group 4, it does not fall into standard facility Group 1-3 stated in Table 2.2 of GEO Report No. 138. Therefore, the Application Site does not meet the alert criteria and a natural terrain hazard study is not required.

Attachment 2

Replacement Pages of
Planning Statement

EXECUTIVE SUMMARY

1. PURPOSE OF SUBMISSION

This planning application is submitted to seek permission from the Town Planning Board (the Board) in support of a proposed 'utility installation for private project (pump station for salt and fresh water system)' in "Government, Institution or Community" ("G/IC") zone on the Approved Sha Tin Outline Zoning Plan (OZP) No. S/ST/38 at Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (hereafter referred to as the 'Application Site') under Section 16 (S16) of the Town Planning Ordinance (CAP. 131).

A Section 12A (S12A) Application (No. Y/ST/58) to rezone Lot 380 RP (Part) in D.D. 186, Tung Lo Wan Hill Road, Sha Tin from "Green Belt" and "G/IC" zones to "Residential (Group B)3" for a proposed residential development was approved by the Board on 13.1.2023. The draft OZP incorporating the abovementioned amendment has been subsequently approved by the Chief Executive in Council on 28.5.2024.

Under the approved S12A Application, a Water Supply Impact Assessment (WSIA) was submitted to assess the potential water supply impact induced by the residential development. As the proposed residential development site has no existing fresh and salt water supply, the submitted WSIA indicated that an off-site sump and pump station and associated rising mains are required for the supply of fresh water and salt water to the residential development as a mitigation measure to the potential water supply impacts. A set of drawings was submitted along with the WSIA, depicting the location, pipe alignment, and the design of the proposed pump station and the associated rising mains.

According to the OZP, the proposed pump station (hereafter referred to as the 'Proposed Station') for salt and fresh water system in support of the approved residential development are regarded as 'utility installation for private project', which is a Column 2 use in the subject "G/IC" zone. As such, the Applicant submits herewith the subject S16 application to facilitate the implementation of the Proposed Station for the Board's approval.

2. THE PROPOSED PUMP STATION

The Application Site (about 237m^2) is situated on a man-made slope at To Fung Shan, northwest of the town centre of Sha Tin and it is accessible via Tung Lo Wan Hill Road. The Application Site is currently a piece of Government Land that falls within a portion of the Government Land Allocation No. ST 336 allocated to Leisure and Cultural Services

Department. Upon approval of the current planning application, the Applicant will negotiate with Lands Department to implement the Proposed Station.

The proposed single-storey pump station, with a building height of around 4.2m (main roof level about 52.15mPD), provides two twin water tank and two water pumps for fresh water and salt water, respectively, to serve the water demand of the approved residential development. The tentative completion year of the Proposed Station is 2033 and it will be constructed, operated and maintained by the Applicant.

3. KEY JUSTIFICATIONS

Major development justifications in support of the application are listed as follows:

- At present, there is no proper salt and fresh water supply provided to the approved residential development. As such, the Proposed Station is an essential infrastructure project to cater for the water demand of the approved residential development.

- The location of the Proposed Station is the most optimal location, which is similar to that as identified under the previous WSIA report for the approved residential development. Due consideration has been given to the site condition and surrounding context.

- The Proposed Station is only a small-scale utility installation instead of a large-scale development. Relevant planning criteria, which are applicable to this case, as stated in the Town Planning Board Guidelines No. 16 for Application for Development/Redevelopment within “Government, Institution or Community” Zone for Uses Other Than Government, Institution or Community Uses under Section 16 of the Town Planning Ordinance could be met.

- Various technical assessments have been conducted to demonstrate the proposed small-scale pump station would not cause any significant impacts in tree and landscape, visual, geotechnical, traffic, environmental and drainage aspect.

In light of the justifications presented in this Planning Statement, the Board is cordially invited to consider favourably this S16 application.

行政摘要

(聲明：此中文譯本僅供參考，如中文譯本和英文原文有歧異時，應以英文原文為準。)

1. 申請目的

申請人現根據《城市規劃條例》第16條(第131章)，向城市規劃委員會(下稱「城規會」)遞交規劃申請(下稱「本申請」)，在沙田銅鑼灣山路丈量約份第186約附近一塊政府土地(下稱「申請地點」)，於沙田分區計劃大綱核准圖(下稱「大綱圖」)編號S/ST/38，屬「政府、機構或社區」地帶的地盤上擬議作「私人發展計劃的公用設施裝置(海水及食水泵房)」(下稱「擬議泵房」)。

擬議泵房實為支持一宗第12A條改劃申請(編號Y/ST/58)，將沙田銅鑼灣山路丈量約份第186約地段第380號餘段(部分)由「綠化地帶」及「政府、機構或社區」改劃為「住宅(乙類)3」地帶，以進行擬議住宅發展。該改劃申請於二零二三年一月十三日獲城規會批准，而納入上述修訂的大綱圖其後已於二零二四年五月二十八日獲行政長官會同行政會議核准。

在已核准的改劃申請，申請人提交了一份供水影響評估，以評估擬議住宅發展在供水方面的潛在影響。由於該住宅發展的地盤沒有現有的食水和海水供應，提交的供水影響評估指出，需要提供場外泵房以及相關泵喉，以向住宅發展供應食水和海水，作緩解供水影響的措施。在供水影響評估中的圖則及繪圖描繪了擬議海水及食水泵房以及相關泵喉的位置、管道排列及設計。

為支持獲批的住宅發展而擬議的海水及食水泵房屬「私人發展計劃的公用設施裝置」用途，根據大綱圖，屬於「政府、機構或社區」地帶的第二欄用途。因此，申請人特此提交本申請，以落實擬議的海水及食水泵房，供城規會核准。

2. 擬議泵房

申請地點(約237平方米)位於沙田市中心西北方道風山的一個人造斜坡上，可經銅鑼灣山道前往。申請用地現時是一塊政府土地，屬於分配給康樂及文化事務署的政府撥地GLA-ST 336的一部分。規劃申請獲批

後，申請人將與地政總署協商落實擬議泵房的安排。

擬建的單層泵房約 4.2 米高(主天台樓層為主水平基準上約 52.15 米)，設有兩組孖水缸和兩組水泵，分別用於供應食水和海水，以滿足獲批的住宅發展的用水需求。擬建泵房暫定竣工年份為 2033 年，泵房將由申請人負責興建、營運及維護。

3. 主要理據

支持申請的主要理據如下：

- 獲批的住宅項目目前尚未有海水及食水供應，因此，擬議泵房為獲批住宅項目提供用水需求必要的一項基礎設施。

- 擬議泵房的位置與獲批的住宅項目中的供水影響評估所確定的位置類似，也充分考慮了申請地點和周邊地區的環境。因此，現時擬議泵房的位置是最佳的位置。

- 擬議泵房為一項小型基礎設施而非大型發展項目，但仍符合有關「擬在「政府、機構或社區」地帶內發展/重建作「政府、機構或社區」用途以外的用途而按照城市規劃條例第 16 條提出的規劃申請」的城市規劃委員會規劃指引的主要規劃準則。

- 多項技術評估證明擬議泵房不會對樹木和景觀、視覺、岩土工程、交通、環境和排水方面造成任何重大影響。

基於以上理據，現懇請城規會接納是次規劃申請。

3 THE SUBJECT MATTER – PUMP STATION

3.1 The Proposed Pump Station

3.1.1 According to the previously submitted WSIA of the approved S12A application, a new water mains system is required to cater to the water demand from the approved residential development as the residential development site has no fresh and salt water supply. Moreover, due to the significant level difference between the existing water mains connection point (around 37mPD) and the approved residential development site (around 77mPD), an off-site pump station is required to supply fresh and salt water to the approved residential development.

3.1.2 The submitted WSIA has depicted the tentative location of the pump station. The previously proposed location of the pump station is near Tung Lo Wan Hill Road Garden, as illustrated in **Figure 3.1**. The location of the Proposed Station and the alignments of the associated water mains is shown in **Figure 3.2**.

3.1.3 The proposed single-storey pump station, with a building height of about 4.2m (main roof level 52.15mPD) and gross floor area (GFA) of about 100m^2, provides two twin water tank and two water pumps for fresh water and salt water, respectively, to serve the water demand of the approved residential development (**Figures 3.3 and 3.4** refer). Key parameters of the Proposed Station are summarized in the development schedule below (**Table 3.1** refers). Details of the design of the Proposed Station are provided in **Appendix A**.

Table 3.1 Indicative Development Schedule

	Particulars
Site Area	About 237m^2
GFA	About 100m^2
Plot Ratio	About 0.422
Site Coverage	About 42.2%
Number of Storeys	1
Building Height	About 4.2m (about 52.15mPD) (1)
Capacity - **Fresh Water Sump Tank** - **Salt Water Sump Tank**	 15,700 L 2,800 L

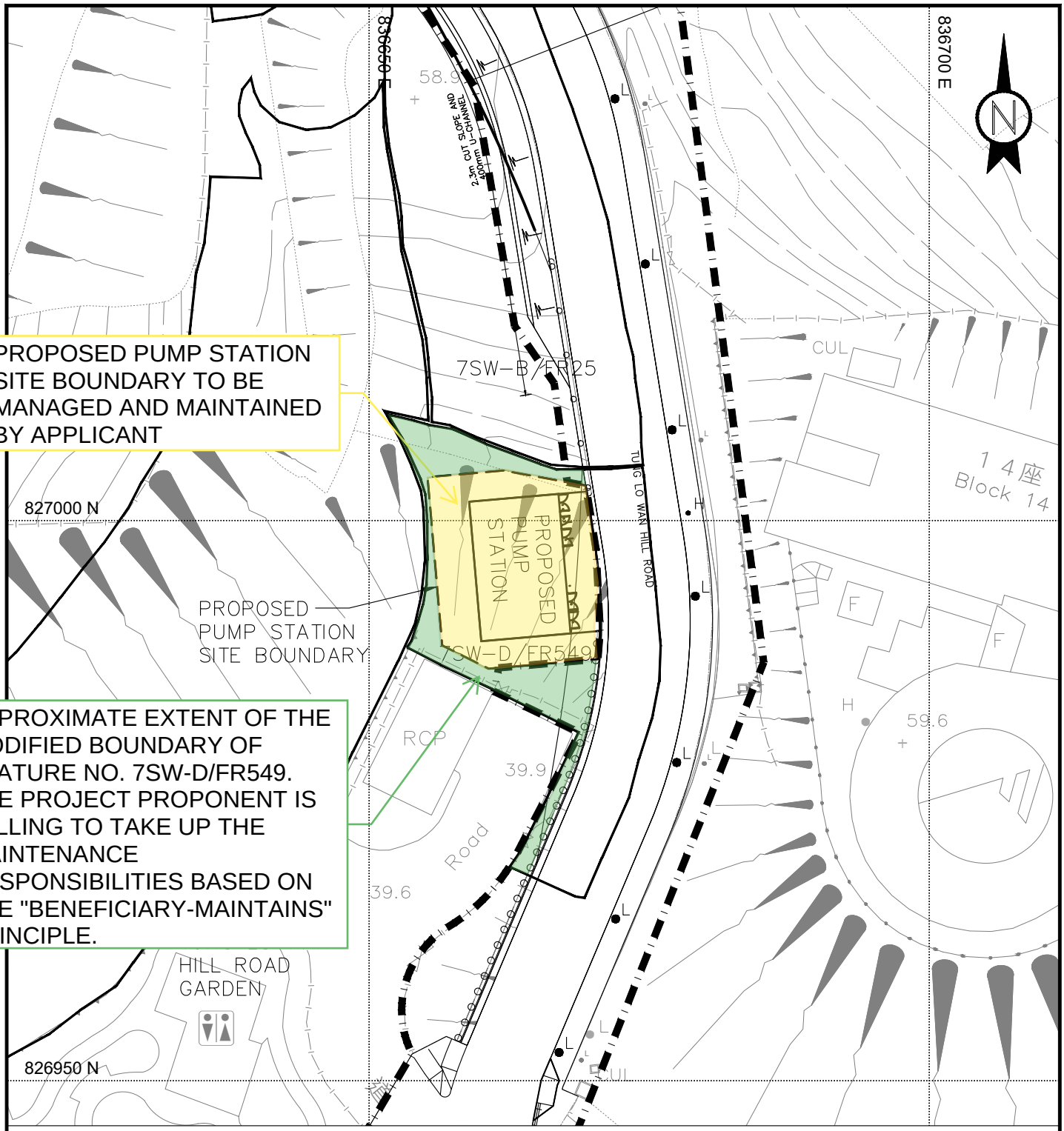
Remark:
(1) based on a proposed foundation level of about 47.95mPD

Table 3.3 Responsible Parties of the Proposed Station and Water Mains

Facilities	Construction Parties	Maintenance Parties
Proposed Station	Applicant	Applicant
Water supply facilities within the Application Site (internal water mains and water supply lead-in valves)	Applicant	Applicant
External water mains within the private section of the Access Road	Applicant	Applicant
External water mains between the existing fresh water and salt water mains and the inlet of Proposed Station	Applicant	WSD

Attachment 3

Demarcation Plan of
the Proposed Management and
Maintenance Responsibilities



DEMARCATION PLAN OF THE PROPOSED MANAGEMENT AND MAINTENANCE RESPONSIBILITIES

DESIGNED : ACS	CHECKED : LTL	DRAWN : KCW	C M WONG & ASSOCIATES LTD TEL: (852) 2522 1068 E-mail: cmwal@cmwal.com	PROJECT : TUNG LO WAN SHAN ROAD
SCALE : 1 : 500	PROJECT REF. : TLWSR	DATE : JUL 2024		FIG. NO. : S16-PS-SK-01

Attachment 4

Replacement Page of
Pump Room Design Report

4. Maintenance Responsibility

4.1 Proposed Water Supply Lead-in within the Application Site

4.1.1 The Applicant is responsible for the construction and maintenance of all water supply facilities within the Application Site Boundary, including all internal watermains and water supply lead-in valves.

4.2 Proposed Private Off-site Pump Station

4.2.1 The proposed private off-site pump station is proposed to be constructed, operated and maintained by the Applicant.

4.3 Proposed External Water Supply Rising Main

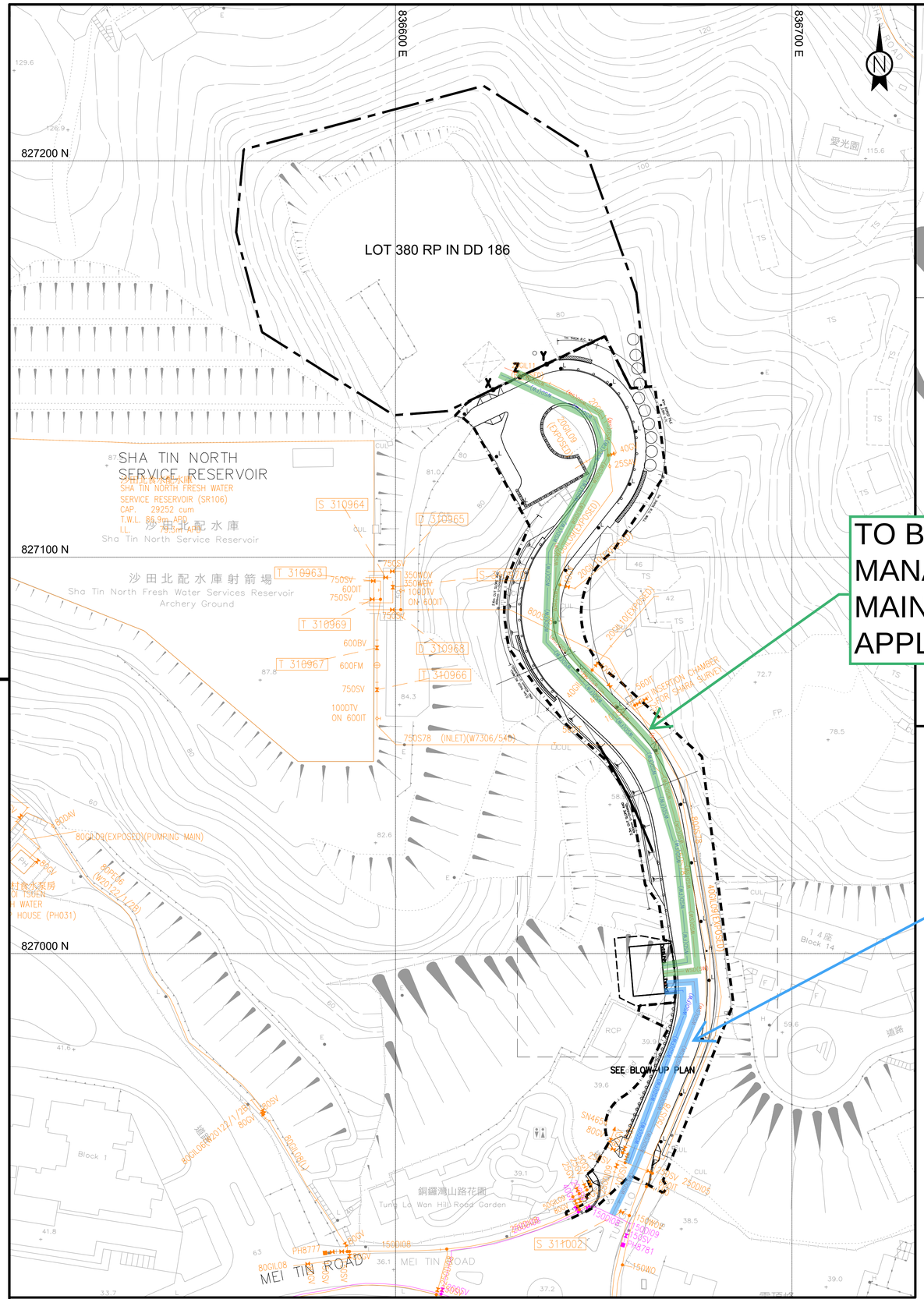
4.3.1 The Applicant is responsible for the construction and maintenance of the proposed external watermains within the private section of widened Tung Lo Wan Hill Road to be managed and maintained by the Applicant (exact extent of the private section of widened Tung Lo Wan Hill Road shall be ascertained by Lands Department in the approval for the Land Exchange of the Development Site).

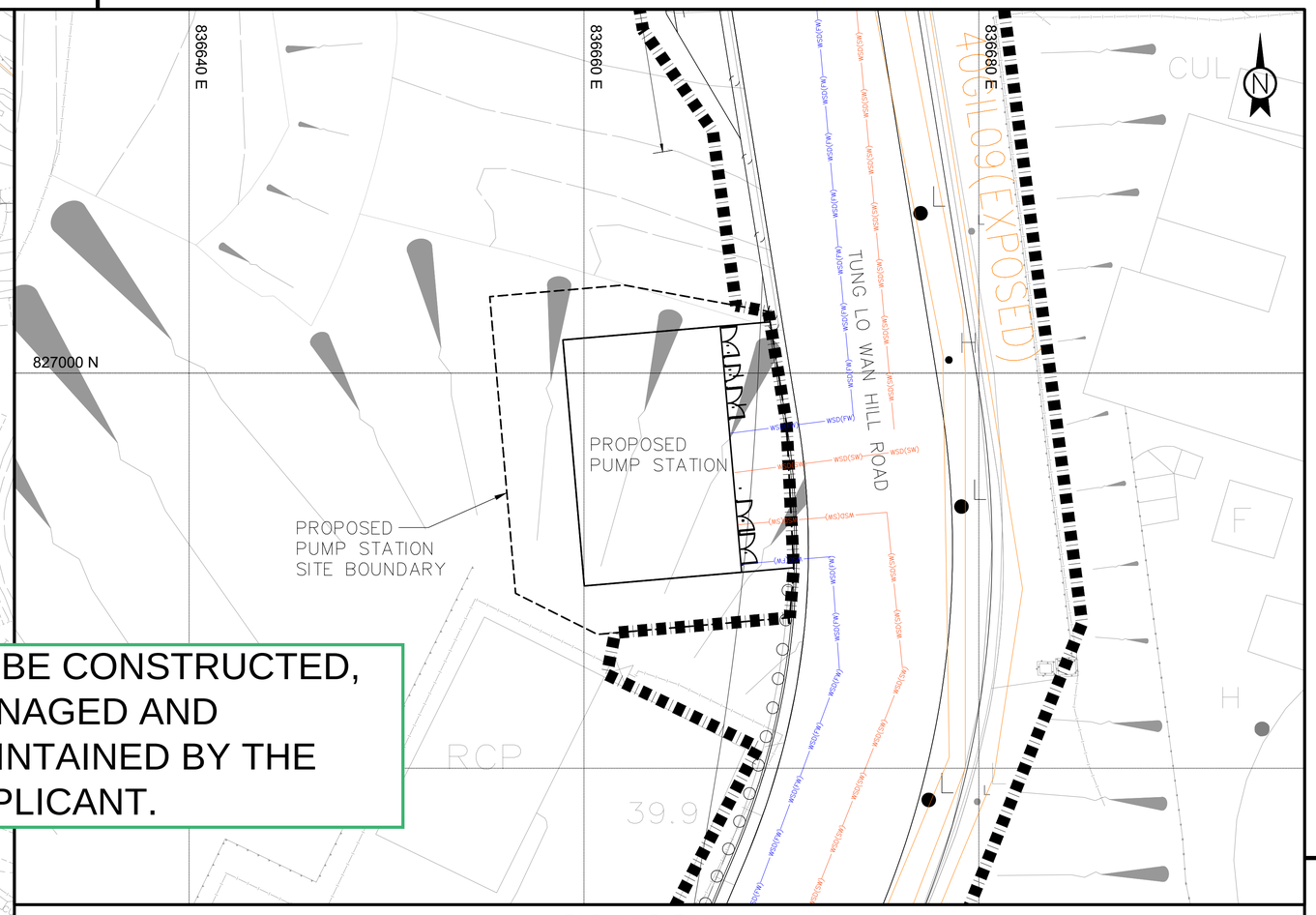
4.3.2 The proposed external watermains between the existing fresh water and salt water main and the inlet of private pumping station (i.e. water mains to be laid under the widened Tung Lo Wan Hill Road which is maintained by the Applicant) will be constructed by the Applicant and are proposed to be handed over to Water Supplies Department after construction.

4.3.3 It is understood that the section of Tung Lo Wan Hill Road leading to Sha Tin North Fresh Water Service Reservoir (STNFWSR) has been allocated to Water Supplies Department (WSD) as waterwork maintenance access. The project proponent proposes to take up the management and maintenance responsibility of the widened section of road. Right of way will be given to the government at all times for vehicular access and maintenance purpose, as well as given to public for access to the Archery Ground above the STNFWSR.

Attachment 5

Illustrative Plan of
the Proposed Management and Maintenance
Responsibilities of the Water Mains





TO BE CONSTRUCTED, MANAGED AND MAINTAINED BY THE APPLICANT.

PIPE SECTIONS BETWEEN THE EXISTING WSD WATER MAIN AND THE PROPOSED PUMP STATION TO BE CONSTRUCTED BY THE APPLICANT AND HAND OVER TO WSD FOR MANAGEMENT AND MAINTENANCE.

ALL EXISTING WATER MAINS TO BE MANAGED AND MAINTAINED BY WSD.

LEGEND :

- LOT BOUNDARY
- PROPOSED ACCESS ROAD EXTENT
- EXISTING SALT WATER MAINS
- EXISTING FRESH WATER MAINS
- WSD(SW) — PROPOSED SALT WATER MAINS
- WSD(FW) — PROPOSED FRESH WATER MAINS

REVISION	DATE	DESCRIPTION	BY	CHK
A	DEC 24	FOR S16 PUMP STATION DESIGN REPORT	KCW	ACS
–	AUG 24	FOR PUMP STATION DESIGN REPORT	KCW	ACS

DRG. TITLE

PROPOSED WATERMAINS LAYOUT PLAN

PROJECT: TUNG LO WAN SHAN ROAD	SCALE: 1 : 600
	DATE: JUL 2024
DRG. TYPE: PROPOSED ACCESS ROAD EXTENT	DESIGNED: ACS
	DRAWN: KCW
DRG. NO: PSDR–FIG–02	CHECKED: ACS
	APPROVED: LTL

C M WONG & ASSOCIATES LTD
TEL: (852) 2522 1068
E-mail: cmwal@cmwal.com

ILLUSTRATIVE PLAN OF THE PROPOSED MANAGEMENT AND MAINTENANCE RESPONSIBILITIES OF THE WATERMAINS

llewelyn davies
ARCHITECTS PLANNERS DESIGNERS
Llewelyn-Davies Hong Kong Ltd

21 February 2025

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

By Hand and By Email

Dear Sir

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (Application No. A/ST/1036)

Reference is made to the captioned application submitted to the Town Planning Board (the Board) on 19 December 2024, Further Information submitted to the Board on 14 and 19 February 2025. The Applicant would like to submit clarifications in response to verbal comments received from Planning Department (PlanD) on 20 February 2025 as below:

There are no traffic demands for the Proposed Station except for occasional maintenance or repair works. As such, no vehicular run-in/out or vehicular loading/unloading space will be provided at the Application Site. Replacement page of tree survey and tree treatment proposal is enclosed herewith in **Appendix A** for the Board's consideration.

In addition to the above clarifications, the Applicant has also taken into account the public comments received. A responses-to-comments table has been prepared and enclosed in **Appendix B** for consideration.

Please note that the current submission is made to provide minor clarifications on the proposed pump station and address public comments. There are no changes to the proposed scheme or the previously submitted technical assessments. The Applicant therefore sincerely requests that the captioned application be processed and considered by the Board at the Rural and New Town Planning Committee Meeting as scheduled on 28 February 2025.

.../2

llewelyn davies

Thank you for your kind attention. Should there be any queries, please do not hesitate to contact the undersigned at [redacted] or our Ms. Winnie Wu at [redacted] / Mr. Davy Lam at [redacted]

Yours faithfully
for Llewelyn-Davies Hong Kong Ltd

Dickson Hui
Director

DH/WW/dl
Encl.

S:\18596 Tung Lo Wan Shan Road (off-site pump stn)\FI\FI-3\20250221_Letter to TPB_FI-3 Submission_TLWHR.doc

cc (w/ encl)
DPO/STN - Ms. Elizabeth Ng (by email)

Appendix A

Replacement Page of
Tree Survey and
Tree Treatment Proposal

The above proposal outlines the proposed landscape design, along with the limitations imposed by the current site constraints as listed in the Space Allocation Diagram in **Table 4** and Tree Planting Plan in **Appendix 5-3**.

Table 4: Space Allocation Diagram

Space Allocation Diagram	
Items	**Area (approx. %)**
(A) Areas reserved for necessary and basic facilities for Proposed Pump Station	**64%**
• Building footprint	42%
• Hardscape & maintenance area	22%
(B) Topographical constraints – Slope gradient of over 30 degrees	**10%**
(C) Utilization of available planting space	**26%**
• Available and feasible tree planting area	26%
Total Site Area= (A) + (B) + (C)	**100%**

(A) Areas reserved for necessary and basic facilities for the Proposed Pump Station
Only a minimal footprint is proposed for the Pump Station with a minimum required size of 237m2. Other provisions, such as hard paved maintenance area are considered basic and essential to the development of Proposed Pump Station.

(B) Topographical constraints – Slope gradient of over 30 degrees
Despite part of SIMAR Slope Feature No. 7SW-D/FR54 being re-levelled, around 10% of the slope in the vicinity remains at a slope gradient of over 30 degrees. According to GEO Publication No. 1/2011, this gradient is not suitable for tree planting. Please refer to the attached "Tree Planting Plan" which indicates the extent of the slope gradient of over 30 degrees. For healthy and sustainable tree growth on slope gradient of over 30 degrees, sufficient spacing for new tree planting has to be considered to achieve future optimal landscape value on slope.

(C) Utilization of available planting space
The Applicant has fully utilized all available and feasible spaces for tree planting within the development limits and constraints mentioned above. All areas previously required for the construction of Proposed Pump Station have been allocated for new tree planting. Provided that a 1:1 compensation ratio in terms of quantity is adopted (i.e. 25 nos. new trees), it would occupy at least four times the current available planting space. With the principle of "right tree right place", the Applicant aims to achieve high-quality landscaping, tree planting with sufficient planting space should be prioritized.

Due to existing site constraints, replanting ratio of **1:0.44** in terms of quantity is the best we can achieve, with regards to the guidelines of *DEVB TC(W) No. 04/2020* replanting ratio of 1:1 may **NOT** be applied for trees growing on slope. To replenish the loss of greenery, new trees of higher ecological and aesthetic value are proposed. Nevertheless, the Applicant has maximized all available and feasible area for new tree planting. Consequently, **11** native trees are the optimal number we can achieve given the constraints. Refer to Tree Planting Plan in **Appendix 5-3**.

Appendix B

Responses-to-comments Table

Section 16 Planning Application for Proposed Utility Installation for Private Project (Pump Station for Salt and Fresh Water System) in "Government, Institution or Community" Zone on Government Land in D.D. 186, Tung Lo Wan Hill Road, Sha Tin (Application No. A/ST/1036)

	Public Comments	**Responses to Comments**
1.	Construction and operation of the Proposed Station would have adverse noise, air quality and environmental impacts on surrounding areas, nearby residents and local ecosystem.	The Proposed Station will be fully enclosed and no equipment in the Proposed Station will generate air pollutants. It is also designed in compliance with relevant government standards and guidelines and no adverse noise, air quality and environment impacts are anticipated. Kindly note that the Environmental Protection Department has also no objection to the subject application.
2.	Construction and operation of the Proposed Station would generate heavy vehicle traffic, worsening existing traffic congestion on Tung Lo Wan Hill Road and creating safety ricks for pedestrian.	Preliminary estimates indicate that construction traffic will be minimal, with only 1-2 vehicles per hour in both directions, causing negligible impact on the local road network. During operation, the Proposed Station will not generate additional traffic, except for occasional maintenance or repairs. Furthermore, the Transport Department has no objection in principle to the application and does not anticipate significant adverse traffic or road safety issues.

	Public Comments	**Responses to Comments**
3.	The Proposed Utility Installation for Private Project should not occupy government land and the GLA allocated to the Leisure and Cultural Services Department, disregarding the recreational needs of the nearby residents.	The Proposed Station is a necessary supporting facility to provide proper salt and fresh water to the approved residential development under Application No. Y/ST/58. Without the Proposed Station, the approved residential development cannot be adequately served with essential salt and fresh water supply. The location for the implementation of the Proposed Station, which is situated on a piece of inaccessible Government Land, has been carefully selected with due consideration given to the site condition and surrounding context. Positioned at a low elevation and on a relatively gentle slope, the location of the application site ensures a sufficient water pressure for water supply and minimizes the potential impacts on the surrounding slope and facilities. The Application Site is also selected without straddling on any third-party lots and the existing Tung Lo Wan Hill Road Garden, therefore the recreational needs of the nearby residents are not affected.
4.	The Proposed Scheme involves tree felling, substantially altering the view from nearby residences.	The submitted photos and photomontage, depicting the views from Tung Lo Wan Hill Road Garden and the junction of Tung Lo Wan Hill Road and Mei Tin Road, has demonstrated that the Proposed Station will be largely screened off by existing vegetation and other public facilities. It should be noted that the two viewpoints were carefully selected to present public views that are easily accessible and popular to the public. As demonstrated by the photos and photomontage, the visual impact of the Proposed Station is considered to be negligible for both recreation users of the Tung Lo Wan Hill Road Garden and travellers in the vicinity, especially with 11 new trees to be planted to further screen off the Proposed Station from public view.

就規劃申請/覆核提出意見 **Making Comment on Planning Application / Review**

參考編號 **Reference Number:**	250122-111933-24914
提交限期 **Deadline for submission:**	07/02/2025
提交日期及時間 **Date and time of submission:**	22/01/2025 11:19:33
有關的規劃申請編號 **The application no. to which the comment relates:**	A/ST/1036
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Chung Fu Sang

意見詳情
Details of the Comment :

因設施鄰近本山莊14座位置，興建泵房或泵房運作時會對周邊環境造成影響，而且會產生噪音問題，故本山莊反對有關規劃建議

2

致城市規劃委員會秘書：
專人送遞或郵遞:香港北角渣華道 333 號北角政府合署 15 樓
傳真 : 2877 0245 或 2522 8426
電郵: tpbpd@pland.gov.hk

To : Secretary, Town Planning Board
By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
By Fax : 2877 0245 or 2522 8426
By e-mail : tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates
A/ST/1036

意見詳情 (如有需要，請另頁說明)
Details of the Comment (use separate sheet if necessary)

由於早前已向 貴會提出反對於上述地段興建私人住宅，故本法團亦會反對是次規劃詢詢。

詳細請參閱附件（規劃署 Ref: TPB/Y/ST/58）

「提意見人」姓名/名稱 Name of person/company making this comment Mr. Adrian Tse

簽署 Signature _____ 日期 Date 22/1/2025

THE INCORPORATED OWNERS OF THE PEAK HILL 嘉御山 業主立案法團

致城市規劃委員會秘書：
專人送遞或郵遞:香港北角渣華道 333 號北角政府合署 15 樓
傳真 : 2877 0245 或 2522 8426
電郵: tpbpd@pland.gov.hk

To : Secretary, Town Planning Board
By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
By Fax : 2877 0245 or 2522 8426
By e-mail : tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates
Y/ST/58

意見詳情 (如有需要，請另頁說明) 嘉御山法團反對上述規劃申請
Details of the Comment (use separate sheet if necessary)
1) 附近空氣污染指數屬於高，加劇空氣污染惡化，本區實應盡量增加綠化地帶的面積，以改善空氣污染，有利居民健康。
2) 此改劃會對本區人口大幅增加，生產增加交通流量，對本區交通構成重大負荷及會增加交通噪音，將會對本區毗鄰嘉御山和銅鑼灣山路附近不斷要忍受多次交通噪音的滋擾。
3) 銅鑼灣山路道路狹窄問題，另創不應已向運輸署及映行人路及車路狹窄問題，但該署回覆銅鑼灣山路沒有擴闊的空間，此改劃會造成有大量車輛使用銅鑼灣山路，致劃定時間，工程及運輸車輛更會對該道路增更交通負荷，同時對本區造成空氣污染。

「提意見人」姓名/名稱 Name of person/company making this comment 謝嘉琪

簽署 Signature _____ 日期 Date 7 OCT 2022

規劃署

沙田、大埔及北區規劃處
香港新界沙田上禾輋路一號
沙田政府合署
十三樓1301-1314室

Planning Department

Sha Tin, Tai Po & North
District Planning Office
Rooms 1301-1314, 13/F,
Shatin Government Offices,
1 Sheung Wo Che Road, Sha Tin,
N.T., Hong Kong

來函檔號	Your Reference	
本署檔號	Our Reference	TPB/Y/ST/58
電話號碼	Tel. No.:	2158 6278
傳真機號碼	Fax No.:	2691 2806

掛號函件

嘉御山業主立案法團

先生／女士：

**新界沙田銅鑼灣山路丈量約份第186約地段第380號餘段(部分)
把申請地點由「綠化地帶」及「政府、機構或社區」地帶改劃為「住宅(乙類)3」地帶
(申請編號：Y/ST/58)**

請參閱隨函夾附由城市規劃委員會(下稱「城規會」)發出的法定通知。一如通知所述，城規會現邀請公眾就標題所述的規劃申請(涉及你鄰近的地點)提供意見。如果你欲提供意見，則**必須於2022年10月21日或之前以書面方式直接向城規會提出**。根據《城市規劃條例》，任何逾時提出的意見將不獲接納。你可以在夾附的表格上填寫意見。詳細的申請資料可於城規會網頁(https://www.info.gov.hk/tpb/tc/plan_application/Y_ST_58.html 或掃描以下二維碼)或規劃署的規劃資料查詢處(查詢熱線 2231 5000)查閱。

城規會考慮申請的暫定會議日期已上載於城規會的網頁(https://www.info.gov.hk/tpb/)。

供城規會在考慮申請時參閱的文件，會在發送給城規會委員後存放於規劃署的規劃資料查詢處(查詢熱線 2231 5000)及城規會網頁(https://www.info.gov.hk/tpb/tc/meetings/meetings.html)，以及在會議當日存放於會議轉播室，以供公眾查閱。

在城規會考慮申請後，可致電 2231 4810 或 2231 4835 查詢有關決定，或是在會議結束後，在城規會的網頁上查閱決定摘要。

請就上述事宜通知你的大廈內所有業主和租客。

規劃署沙田、大埔及北區規劃專員
(吳智恩 代行)

2022 年 9 月 30 日
(此函件為電腦列印，無須簽署)

3

致城市規劃委員會秘書：
專人送遞或郵遞：香港北角渣華道 333 號北角政府合署 15 樓
傳真：2877 0245 或 2522 8426
電郵：tpbpd@pland.gov.hk

To: Secretary, Town Planning Board
By hand or post: 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
By Fax: 2877 0245 or 2522 8426
By e-mail: tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates A/ST/1036

意見詳情（如有需要，請另頁說明）
Details of the Comment (use separate sheet if necessary)

我們爲沙田銅鑼灣村村代表，現附上信件對上述規劃申請提出反對。

「提意見人」姓名／名稱 Name of person/company making this comment 丘漢波
簽署 Signature 丘漢波 日期 Date 24-1-2025

RECEIVED
25 JAN 2025
Town Planning Board

沙田銅鑼灣村公所
SHA TIN TUNG LO WAN VILLAGE OFFICE. N.T.

TEL NO.:

逕啓者:

新界沙田銅鑼灣山路丈量約份第 186 約的政府土地
擬議私人發展計劃的公用設施裝置 (海水及食水泵房)
(申請編號：A/ST/1036)

我們爲沙田銅鑼灣村村代表，就上述規劃申請提出反對，理由如下：

(一) 上述規劃申請要設置的海水及食水泵房明明只是爲某擬議私人發展計劃所用，怎可能冠以“公用設施裝置”的稱謂。我們認爲如果某擬議私人發展計劃獲批，上述規劃申請的海水及食水泵房只可設置在該擬議私人發展計劃的地段內，不應佔用政府土地及設在鄰近本村之處。

(二) 上述規劃申請的海水及食水泵房所在地點距離本村第二期擴展區不遠，其噪音將嚴重影響該區村民，對該區村民的健康造成很大損害。

(三) 上述規劃申請的位置處於本村後山，會影響本村的環境、風水，對本村村民的生命、健康及財產等造成負面的後果。

我們懇請城市規劃委員會、規劃署及其它有關政府部門，考慮我們上述意見，否決該申請，爲本區及本村居民造福，我們實感激不已。

此致

城市規劃委員會

沙田銅鑼灣村村代表謹啓

邱瑞棠
丘漢波
邱貴傑

二零二五年一月二十四日

聯絡人： 銅鑼灣村村代表丘漢波先生
通訊地址：

副本送： 沙田民政事務專員余懷誠先生, JP
沙田鄉事委員會主席莫錦貴先生, BBS

★ SHATIN TUNG LO WAN VILLAGE OFFICE ★ 沙田銅鑼灣村公所

4

致城市規劃委員會秘書：
專人送遞或郵遞:香港北角渣華道 333 號北角政府合署 15 樓
傳真 ：2877 0245 或 2522 8426
電郵: tpbpd@pland.gov.hk

To : Secretary, Town Planning Board
By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
By Fax : 2877 0245 or 2522 8426
By e-mail : tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates
A/ST/1036

意見詳情 (如有需要，請另頁說明)
Details of the Comment (use separate sheet if necessary)

本會收到銅鑼灣村的意見，該村提出反對，本會認為申請方可否提供更詳細資料釋除附近村民居民的疑慮，甚至召開會議向該村解釋上述申請，上述申請確實影響到銅鑼灣村，望申請方提供更多資料或召開會議讓銅鑼灣村了解有關申請，望規劃署謹慎考慮附近持份持的意見，暫緩上述申請批核。

「提意見人」姓名/名稱 Name of person/company making this comment 莫錦貴(沙田鄉事委員會)

簽署 Signature [illegible]　　日期 Date 6-2-2025

☐Urgent ☐Return receipt ☐Expand Group ☐Restricted ☐Prevent Copy

5

From:
Sent: 2025-02-06 星期四 17:10:12
To: tpbpd/PLAND <tpbpd@pland.gov.hk>
Cc:

Subject: Comments on Application no. A/ST/1036
Attachment: RE-SO-2025-02-002-L-JL-vn 有關反對擬議私人發展計劃公用設施裝置(AST1036).pdf

Dear SIr/ Madam,

Please see the attached letter in relation to the subject.

Best regards,
Virginia Ng
Sky One Customer Service Office

Love Green, Save Paper

ROYAL ELITE

帝 譽 服 務

檔案編號：RE-SO-2025-02-002-L-JL-vn

香港北角渣華道 333 號

北角政府合署 15 樓

城市規劃委員會秘書

敬啟者:

有關：新界沙田銅鑼灣山路丈量約份第 186 約的政府土地
擬議私人發展計劃公用設施裝置(海水及食水泵房)
(申請編號: A/ST/1036)

傾接　貴處於 2025 年 1 月 17 日之來信，有關上述事宜經已備悉。本司為新界沙田銅鑼灣山路 18 號雲頂峰的大廈經理人，就有團體申請將新界沙田銅鑼灣山路丈量約份第 186 約的政府土地擬議私人發展計劃公用設施裝置(海水及食水泵房)事宜，經向雲頂峰業主委員會及各業主進行諮詢後，現代表雲頂峰業主委員會及所有業主就有關申請提出反對，理由如下：

社區需求

是次申請為配合私人發展計劃，而動用本身屬於康樂及文化事務署的政府撥地，忽視鄰近市民的精神健康所需要的康樂設施。先前的申請改變「綠化地帶」至住宅用地，已大大影響鄰近居民身在的綠化環境。而政府土地規劃署在將原有綠化的土地作住宅用地後，直至現在由因私人發展改變土地用途，忽視鄰近市民應用但未有發展成康樂設施的土地。

破壞環境生態

現時銅鑼山及道風山上居住了多種野生動物及有不同樹木及植物生長，具有生態及保育價值，這是應該得到保留的。興建工程進行期間，會為鄰近地區及屋苑帶來噪音及空氣污染。同時，申請位置乃屬於區內受歡迎的遠足路徑，故於該處大興土木會破壞市民康樂及休憩活動場所。

工程對附近居民的影響

再者，現時由雲頂峰外的迴旋處至沙田北食水配水庫的銅鑼灣山路一段馬路為單程路段，坡道較高，而於工程進行期間會有大量重型汽車行駛，而於路段下方為雲頂峰屋苑的出入口，故會對行經有關位置的行人及車輛構成危險。

嚴重視覺影響

從申請人所提供景觀提案，由銅鑼灣山道花園向上觀望，景觀當然會被花園的樹木遮蔽，造

ROyal elite

帝 譽 服 務

成未有影響景觀的效果。惟附近居民所居住的地方大部份較銅鑼灣山道花園高，現時可見一片叢林景色會被移除，換來是矮身的灌木，嚴重影響景觀。

總結

早在 2022 年 10 月 21 日，本司為新界沙田美田路 63 號壹號雲頂的大廈經理人，代表雲頂峰業主委員會及所有業主已提出反對改變「綠化地帶」為可改建住宅。可惜，2023 年 1 月 13 日城規會已批准該申請，而現時以私人住宅發展項目對供水有影響前提下，又額外提出擬議私人發展計劃公用設施裝置。以此為例，預計私人發展項目的影響會一直增加，而鄰近居民只能接受。

如有任何查詢，請致電 與客戶服務處吳小姐聯絡。

雲頂峰客戶服務處
高級分區經理

梁仲輝謹啟

2025 年 2 月 6 日

☐Urgent ☐Return receipt ☐Expand Group ☐Restricted ☐Prevent Copy

6

From:
Sent: 2025-02-06 星期四 16:58:20
To: tpbpd/PLAND <tpbpd@pland.gov.hk>
Cc:

Subject: Comments on Application no. A/ST/1036
Attachment: RE-PO-2025-01-003-L-JL-vn 有關反對擬議私人發展計劃公用設施裝置(AST1036).pdf

Dear SIr/ Madam,

Please see the attached letter in relation to the subject.

Best regards,
Virginia Ng
Peak One Customer Service Office

Love Green, Save Paper

ROYAL ELITE

帝 譽 服 務

檔案編號：RE/PO/2025/01-003/L/JL/vn

香港北角渣華道 333 號

北角政府合署 15 樓

城市規劃委員會秘書

敬啟者:

有關：新界沙田銅鑼灣山路丈量約份第 186 約的政府土地
擬議私人發展計劃公用設施裝置(海水及食水泵房)
(申請編號: A/ST/1036)

傾接　貴處於 2025 年 1 月 17 日之來信，有關上述事宜經已備悉。本司為新界沙田美田路 63 號壹號雲頂的大廈經理人，就有團體申請將新界沙田銅鑼灣山路丈量約份第 186 約的政府土地擬議私人發展計劃公用設施裝置(海水及食水泵房)事宜，經向壹號雲頂業主委員會及各業主進行諮詢後，現代表壹號雲頂業主委員會及所有業主就有關申請提出反對，理由如下：

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ROYAL ELITE
帝 譽 服 務

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如有任何查詢，請致電 [redacted] 與客戶服務處吳小姐聯絡。

壹號雲頂客戶服務處
高級分區經理

梁仲輝謹啟

2025 年 2 月 6 日

Recommended Advisory Clauses

(a) to note the comments of the District Lands Officer/Sha Tin, Lands Department (DLO/ST, LandsD) that:

(i) he has noted that the applicant has proposed to take up the management and maintenance responsibility of Slope Feature No. 7SW-D/FR549 ("the Slope Feature") currently maintained by Water Supplies Department (WSD) upon completion of the development. LandsD will consider the area and extent of the Slope Feature adjoining the proposed pump station, which may all form part of the lot to be granted under the proposed land exchange to reflect the above intention;

(ii) he has noted that the future maintenance of different sections of the proposed water mains to be laid underneath the Proposed Access as indicated is proposed to be taken up by the applicant and WSD respectively. The proposed pump station together with construction and the agreed maintenance and management responsibilities of the water mains within the Proposed Access will be reflected in the proposed land exchange after consultation with relevant government departments including WSD;

(iii) regarding the proposed responsibility of the applicant for the widened Tung Lo Wan Hill Road proposed by the applicant under application No. Y/ST/58 (the Proposed Access) in paragraph 3.3.3 of the Supporting Planning Statement (SPS), please note that Tung Lo Wan Hill Road is currently open for public use at all time and the Proposed Access upon completion should also maintain such public use. As such, it is advised that the applicant should explore the possibility for Transport Department and Highways Department to take up the future management and maintenance responsibility of the Proposed Access as an alternative option for the land exchange application;

(iv) according to Table 3.2 of the SPS, the applicant has intended to execute the land exchange in Q2 2026. However, LandsD is unable to commit such timeframe as the processing time of the land exchange may be subject to various factors, e.g. completion of Cap. 370 procedure for the Proposed Access, premium negotiation, etc.; and

(v) there is also no guarantee that the land exchange will be approved. The land exchange will be considered by LandsD acting in its capacity as the landlord at its own discretion and any approval for the land exchange would be subject to such terms and conditions including, *inter alia*, the payment of premium and administrative fee, as may be imposed by LandsD. Moreover, it shall not be construed that the schematic designs and alignment of the Proposed Access as proposed in the application will be accepted or approved under Cap. 370. In particular, the extent and scale of such schematic designs and the alignment may need to be reduced/revised subject to the comments of the relevant departments for

compliance with the minimum statutory requirement so as to minimise disturbance to the surrounding environment.

(b) to note the comments of the Chief Engineer/Construction, Water Supplies Department (CE/C, WSD) that:

(i) the proposed water mains between the existing water mains and the proposed off-site sump pump system can be handed over to WSD for maintenance subject to the provision of Waterworks Reserve Area in accordance with the following conditions:

i the lot owner shall accept and acknowledge that there will be Government water mains running on, across, through, over, above, under, below or within those portions of the lot marked "Waterworks Reserve Area";

ii no development of the lot or any part thereof which requires resiting of the water mains will be allowed;

iii no structures shall be built or materials stored within the "Waterworks Reserve Area" or 1.5 metres from the centre lines of Government water mains. Free access shall be made available at all times for staff of the Director of Water Supplies or their contractor to carry out construction, inspection, operation, maintenance and repair works;

iv no trees or shrubs with penetrating roots may be planted within the Waterworks Reserve Area or in the vicinity of the Government water mains. No change of existing site condition may be undertaken within the Waterworks Reserve Area without the prior written agreement of the Director of Water Supplies. Rigid root barriers may be required if the clear distance between the proposed tree and the pipe is 2.5 metres or less, and the barrier must extend below the invert level of the pipe; and

v within the Waterworks Reserve Area, no planting or obstruction of any kind except turfing shall be permitted within the space of 1.5 metres around the cover of any valve or within a distance of 1 metre from any hydrant outlet.

(c) to note the comments of the Chief Town Planner / Urban Design and Landscape, Planning Department (CTP/UD&L, PlanD) that:

(i) the applicant is reminded that sufficient growing space should be provided to avoid conflict between trees and building/structure and ensure healthy tree growth;

(ii) the applicant is advised that landscape information outside the application boundary is for reference only and would not be reviewed by PlanD; and

(iii) the applicant is advised that approval of the application does not imply approval of tree works such as pruning, transplanting and felling. The applicant is reminded to seek approval for any proposed tree works from relevant departments prior to commencement of the works.

(d) to note the comments of the Director of Leisure and Cultural Services (DLCS) that:

(i) the applicant should seek her further comment on the applications proposed pump station including the tree preservation and removal proposal, design of pump station, fence-off area, arrangement of site access and underground utilities, etc. at the detailed design stage. The design of the proposed pump station and associated facilities should comply with all relevant prevailing guidelines;

(ii) for the proposed pump station and SIMAR Slopes as well as other facilities which the applicant has proposed to take up the relevant management and maintenance responsibilities, the concerned facilities will be excluded from the boundary of Tung Lo Wan Hill Road Garden (i.e. Permanent Government Land Allocation No. ST-336). Clear demarcation of the boundaries, as well as management and maintenance responsibilities of such facilities, shall be provided at the detailed design stage to the satisfaction of DLCS; and

(iii) she reserve the right to offer further comment when more details are provided at later stage.

(e) to note the comments of the Director of Food and Environmental Hygiene (DFEH) that:

(i) the proposed works and operation should generate no environmental nuisance to the surroundings. Its state should not be a nuisance or injurious or dangerous to health and surrounding environment. For any waste generated from the such activity/operation, the applicant should arrange disposal properly at their own expenses; and

(ii) the proposed works and operation should not cause obstruction to the operation of the refuse collection point (RCP), including but not limited to the open space in front of the RCP as well as the access road thereto.

(f) to note the comments of the Chief Building Surveyor/New Territories East 2 and Rail, Buildings Department (CBS/NTE2&Rail, BD) that:

(i) before any new building works are to be carried out on the application site, the prior approval and consent of the BD should be obtained, otherwise they are Unauthorized Building Works. An Authorized Person should be appointed as the co-ordinator for the proposed building works in accordance with the Building Ordinance (BO);

(ii) the Site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the Building (Planning) Regulations respectively; and

(iii) if the Site does not abut on a specified street of not less than 4.5m wide, its permitted development intensity shall be determined under Regulation 19(3) of the Building (Planning) Regulation at the building plan submission stage. Detail comments under the BO will be provided at the building plan submission stage.

(g) to note the comments of the Director of Fire Services (D of FS) that:

(i) detailed fire services requirements will be formulated upon receipt of formal submission of general building plans. The emergency vehicular access provision shall comply with the standard as stipulated in Section 6, Part D of the Code of Practice for Fire Safety in Buildings 2011, which is administered by the BD.

(h) to note the comments of the Head of Geotechnical Engineering Office, Civil Engineering and Development Department (H(GEO), CEDD) that:

(i) the detailed design of the proposed geotechnical works should be submitted to the his office for review and comment; and

(ii) should there be any water-carrying services to be constructed adjacent to slopes and/or retaining walls, please draw the attention of the applicant regarding the recommendations and requirements given in "Code of Practice on Monitoring and Maintenance of Water-carrying Services affecting Slopes" published by the Development Bureau.