Form No. S16-III
表格第 S16-III 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 Proposal Only Involving Temporary Use/Development of Land and/or Building Not Exceeding 3 Years in Rural Areas or Regulated Areas, or Renewal of Permission for such Temporary Use or Development*

適用於祇涉及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/發展或該等臨時用途/發展的許可續期的建議*

****Form No. S16-I should be used for other Temporary Use/Development of Land and/or Building (e.g. temporary use/developments in the Urban Area)and Renewal of Permission for such Temporary Use or Development.***
****其他土地上及/或建築物內的臨時用途/發展 (例如位於市區內的臨時用途或發展)及有關該等臨時用途/發展的許可續期，應使用表格第 S16-I 號。***

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

2401631 5/7 By hand Form No. S16-III 表格第 S16-III 號

For Official Use Only 請勿填寫此欄	Application No. 申請編號	A/NE-TKLN/86
	Date Received 收到日期	11 JUL 2024

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。

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)

Luck Great Global Engineering Limited 興盛環球工程有限公司

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)

Tai Wah Development Consultants Limited 大華發展顧問有限公司

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）	Lots 1366 RP, 1412 RP, 1413 RP, 1415, 1416 RP, 1417 RP, 1418 RP, 1419 RP, 1422 RP, 1425 RP, 1426 RP, 1427 RP, 1429 RP, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1440, 1441, 1442 S.B, 1443, 1479 S.B ss. 1 RP, 1479 S.B ss. 3, 1480 S.B RP, 1481 S.B RP, 1482 S.B RP in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories
(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 24,446 sq.m 平方米 ☑About 約 ☑Gross floor area 總樓面面積 23,758 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）	4,150 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 Ta Kwu Ling North Outline Zoning Plan No. S/NE-TKLN/2
(e)	Land use zone(s) involved 涉及的土地用途地帶	"Recreation" zone
(f)	Current use(s) 現時用途	Vacant (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 15/5/2024 (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 14/5/2024 (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

(A) Temporary Use/Development of Land and/or Building Not Exceeding 3 Years in Rural Areas or Regulated Areas
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
(For Renewal of Permission for Temporary Use or Development in Rural Areas or Regulated Areas, please proceed to Part (B))
(如屬位於鄉郊地區或受規管地區臨時用途/發展的規劃許可續期，請填寫(B)部分)

(a) Proposed use(s)/development 擬議用途/發展	Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years (Please illustrate the details of the proposal on a layout plan) (請用平面圖說明擬議詳情)
(b) Effective period of permission applied for 申請的許可有效期	☑ year(s) 年 ..... 3 ..... ☐ month(s) 個月 .....

(c) Development Schedule 發展細節表

Proposed uncovered land area 擬議露天土地面積	12,567	sq.m ☑About 約
Proposed covered land area 擬議有上蓋土地面積	11,879	sq.m ☑About 約
Proposed number of buildings/structures 擬議建築物／構築物數目	2	
Proposed domestic floor area 擬議住用樓面面積	N/A	sq.m ☐About 約
Proposed non-domestic floor area 擬議非住用樓面面積	23,758	sq.m ☑About 約
Proposed gross floor area 擬議總樓面面積	23,758	sq.m ☑About 約

Proposed height and use(s) of different floors of buildings/structures (if applicable) 建築物/構築物的擬議高度及不同樓層的擬議用途 (如適用) (Please use separate sheets if the space below is insufficient) (如以下空間不足，請另頁說明)

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	WAREHOUSE (EXCL. D.G.G.) SITE OFFICE AND WASHROOM	8,332 m^2 (ABOUT)	16,664 m^2 (ABOUT)	15 m (ABOUT)(2-STOREY)
B2	WAREHOUSE (EXCL. D.G.G.) SITE OFFICE AND WASHROOM	3,547 m^2 (ABOUT)	7,094 m^2 (ABOUT)	15 m (ABOUT)(2-STOREY)
	TOTAL	11,879 m^2 (ABOUT)	23,758 m^2 (ABOUT)	

Proposed number of car parking spaces by types 不同種類停車位的擬議數目

Private Car Parking Spaces 私家車車位	12 (Private Car)
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)	4 (Container Vehicle)

Proposed number of loading/unloading spaces 上落客貨車位的擬議數目

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	4 (Medium Goods Vehicle)
Heavy Goods Vehicle Spaces 重型貨車車位	
Others (Please Specify) 其他 (請列明)	7 (Container Vehicle)

Proposed operating hours 擬議營運時間
Monday to Saturday from 07:00 to 20:00. No operation on Sunday and public holiday

(d) 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)) Accessible from Lin Ma Hang Road via a local access ☐ 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	☐

(e) 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。)

(i) 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	☑
(ii) Does the development proposal involve the operation on the right? 擬議發展是否涉及右列的工程?	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 .....24,446.... 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	☐

(iii) 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) ....

(B) 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臨時用途/發展的許可續期	
(a) Application number to which the permission relates 與許可有關的申請編號	A/_____/_____
(b) Date of approval 獲批給許可的日期	..... (DD 日/MM 月/YYYY 年)
(c) Date of expiry 許可屆滿日期	..... (DD 日/MM 月/YYYY 年)
(d) Approved use/development 已批給許可的用途／發展	
(e) Approval conditions 附帶條件	☐ The permission does not have any approval condition 許可並沒有任何附帶條件 ☐ Applicant has complied with all the approval conditions 申請人已履行全部附帶條件 ☐ Applicant has not yet complied with the following approval condition(s): 申請人仍未履行下列附帶條件： _____ _____ _____ Reason(s) for non-compliance: 仍未履行的原因： _____ _____ _____ (Please use separate sheets if the space above is insufficient) (如以上空間不足，請另頁說明)
(f) Renewal period sought 要求的續期期間	☐ year(s) 年 ..... ☐ month(s) 個月 .....

7. 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 planning statement.

8. 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

B. Tang ..... Manager .....

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 .....

on behalf of 代表 Tai Wah Development Consultants Limited 大華發展顧問有限公司 .....

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

Date 日期 5/7/2024 ..... (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。

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	Lots 1366 RP, 1412 RP, 1413 RP, 1415, 1416 RP, 1417 RP, 1418 RP, 1419 RP, 1422 RP, 1425 RP, 1426 RP, 1427 RP, 1429 RP, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1440, 1441, 1442 S.B, 1443, 1479 S.B ss. 1 RP, 1479 S.B ss. 3, 1480 S.B RP, 1481 S.B RP, 1482 S.B RP in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories
Site area 地盤面積	24,446 sq. m 平方米 ☑ About 約 (includes Government land of 包括政府土地 4,150 sq. m 平方米 ☑ About 約)
Plan 圖則	Approved Ta Kwu Ling North Outline Zoning Plan No. S/NE-TKLN/2
Zoning 地帶	"Recreation" zone
Type of Application 申請類別	☑ Temporary Use/Development in Rural Areas or Regulated Areas for a Period of 位於鄉郊地區或受規管地區的臨時用途/發展為期 ☑ Year(s) 年 3 ☐ Month(s) 月 _____ ☐ Renewal of Planning Approval for Temporary Use/Development in Rural Areas or Regulated Areas for a Period of 位於鄉郊地區或受規管地區臨時用途/發展的規劃許可續期為期 ☐ Year(s) 年 _____ ☐ Month(s) 月 _____
Applied use/ development 申請用途/發展	Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years

(i)	Gross floor area and/or plot ratio 總樓面面積及／或地積比率		sq.m 平方米	Plot Ratio 地積比率
		Domestic 住用	N/A ☐ About 約 ☐ Not more than 不多於	N/A ☐About 約 ☐Not more than 不多於
		Non-domestic 非住用	23,758 ☑ About 約 ☐ Not more than 不多於	0.97 ☑About 約 ☐Not more than 不多於
(ii)	No. of blocks 幢數	Domestic 住用	N/A	
		Non-domestic 非住用	2	
(iii)	Building height/No. of storeys 建築物高度／層數	Domestic 住用	N/A m 米 ☐ (Not more than 不多於)	
			N/A Storeys(s) 層 ☐ (Not more than 不多於)	
		Non-domestic 非住用	15 (about) m 米 ☐ (Not more than 不多於)	
			2 Storeys(s) 層 ☐ (Not more than 不多於)	
(iv)	Site coverage 上蓋面積	49 % ☑ About 約		
(v)	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		16
		Private Car Parking Spaces 私家車車位		12 (PC)
		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) Container Vehicle		4 (CV)
		Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數		11
		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		4 (MGV)
		Heavy Goods Vehicle Spaces 重型貨車車位		
		Others (Please Specify) 其他 (請列明) Container Vehicle		7 (CV)

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, Plans showing the zoning, land status and aerial photo of the application site		
Plans showing the details of the original premises, Swept path analysis		
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）	☐	☐

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。

SECTION 16 PLANNING APPLICATION

PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOFD OF 3 YEARS IN "RECREATION" ZONE,

VARIOUS LOTS IN D.D. 78 AND ADJOINING GOVERNMENT LAND,
LIN MA HANG, NEW TERRITORIES

PLANNING STATEMENT

Applicant
Luck Great Global Engineering Limited

Consultancy Team
Planning Consultant: **Tai Wah Development Consultants Limited**

July 2024
Version 1.0

CONTENT PAGE

APPENDICES

LIST OF PLANS

LIST OF TABLES

EXECUTIVE SUMMARY

- The applicant seeks planning permission from the Town Planning Board (the Board) under Section (S.) 16 of the Town Planning Ordinance (Cap. 131)(the Ordinance) to use *Various Lots in D.D. 78 and Adjoining Government Land (GL), Lin Ma Hang, New Territories* (the Site) for '**Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years**'.

- The Site falls within an area zoned as "Recreation" ("REC") on the Approved Ta Kwu Ling North Outline Zoning Plan (OZP) No. S/NE-TKLN/2. The Site area is 24,446 m^2 (about), including 4,150 m^2 (about) of Government Land (GL). A total of two 2-storey structures are proposed at the Site for warehouses (excluding dangerous goods godown), site offices and washrooms with total GFA of 23,758 m^2 (about), the remaining area is reserved for vehicle parking and loading/unloading (L/UL) spaces and circulation area.

- The Site is accessible from Lin Ma Hang Road via a local access. The operation hours of the proposed development are Monday to Saturday from 07:00 to 20:00. No operation on Sunday and public holiday.

- Justifications for the proposed development are as follows:
  - The applicant's original premises are affected by land resumption for the development of Northern Link Main Line
  - The applicant has spent effort in identifying suitable site for relocation.
  - The applied use is the same as the applicant's original premises.
  - No significant adverse impact is anticipated from the proposed development.
  - The proposed development is only on a temporary basis, approval of the application will not frustrate the long-term planning intention of the "REC" zone.

- Details of development parameters are as follows:

Application Site Area	24,446 m^2 (about), incl. 4,150 m^2 (about) of GL
Covered Area	11,879 m^2 (about)
Uncovered Area	12,567 m^2 (about)
Plot Ratio	0.97 (about)
Site Coverage	49% (about)
Number of Structure	2
Total GFA - *Domestic GFA* - *Non-Domestic GFA*	23,758 m^2 (about) Not applicable 23,758 m^2 (about)
Building Height	15 m (about)
No. of Storey	2

行政摘要 (*內文如與英文版本有任何差異，應以英文版本為準*)

- 申請人現根據《城市規劃條例》(第 131 章)第 16 條，向城市規劃委員會提交有關*新界打鼓嶺丈量約份第 78 約多個地段及毗鄰政府土地*的規劃申請，於上述地點作「**擬議臨時貨倉（危險品倉庫除外）連附屬設施（為期 3 年）**」。

- 申請地點所在的地區在《打鼓嶺北分區計劃大綱核准圖編號 S/NE-TKLN/2》上劃為「康樂」用途地帶。申請地盤面積為 24,446 平方米（約），包括 4,150 平方米（約）的政府土地。申請地點將設有 2 座兩層高的構築物作貨倉（危險品倉庫除外）、辦公室及洗手間，構築物的總樓面面積合共為 23,758 平方米（約），其餘地方將預留作車輛上／落貨及停泊位及流轉空間。

- 申請地點可從蓮麻坑路經一條地區道路前往。擬議發展的作業時間為星期一至六上午七時至下午八時。星期日及公眾假期休息。

- 擬議發展的申請理據如下：
  - 申請人原來的經營處所受到北環線主線發展收地影響。
  - 申請的用途與申請人先前受影響的發展場地用途一致。
  - 申請人曾經致力尋找合適的搬遷地點。
  - 擬議發展不會對周邊地區帶來重大負面影響。
  - 擬議發展只屬臨時性質，批出規劃許可則不會影響「康樂」用途地帶的長遠規劃意向。

- 擬議發展的詳情發展參數如下：

申請地盤面積：	24,446 平方米（約） （包括 4,150 平方米（約）的政府土地）
上蓋總面積：	11,879 平方米（約）
露天地方面積：	12,567 平方米（約）
地積比率：	0.97（約）
上蓋覆蓋率：	49%（約）
樓宇數目：	2 座
總樓面面積 *住用總樓面面積：* *非住用總樓面面積：*	23,758 平方米（約） *不適用* *23,758 平方米（約）*
構築物高度：	15 米（約）
構築物層數：	2 層

1. INTRODUCTION

Background

1.1 **Tai Wah Development Consultants Limited** has been commissioned by **Luck Great Global Engineering Limited**[1] (the applicant) to make submission on their behalf to the Board under the S.16 of the Ordinance in respect to *Lots 1366 RP, 1412 RP, 1413 RP, 1415, 1416 RP, 1417 RP, 1418 RP, 1419 RP, 1422 RP, 1425 RP, 1426 RP, 1427 RP, 1429 RP, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1440, 1441, 1442 S.B, 1443, 1479 S.B ss. 1 RP, 1479 S.B ss. 3, 1480 S.B RP, 1481 S.B RP, 1482 S.B RP in D.D. 78 and Adjoining GL, Lin Ma Hang, New Territories* (the Site)(**Plans 1** to **3**).

1.2 The applicant would like to use the Site for '**Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years**' (proposed development). The Site currently falls within an area zoned as "REC" on the Approved Ta Kwu Ling North OZP No. S/NE-TKLN/2 (**Plan 2**). According to the Notes of the OZP, the proposed use, i.e. 'warehouse (excluding dangerous goods godown)' is not column one nor two uses within the "REC" zone. Therefore, planning permission is required to be obtained from the Board by the applicant to facilitate the proposed development at the Site.

1.3 In support of the proposal, a set of indicative development plans and drawings are provided with the planning statement (**Plans 1** to **11** and **Appendix I** to **III**). Furthermore, a drainage impact assessment (DIA) is submitted to mitigate potential adverse impacts for the consideration of Government departments and members of the Board (**Appendix III**).

[1] **Luck Great Global Engineering Limited** (the applicant) is authorized by **YTAD Warehousing Logistics Co. Limited** (the affected business operator) to facilitate the relocation of their existing business premises in Ngau Tam Mei. Details of the affected business operator are provided at **Appendix I**.

2. JUSTIFICATIONS

To facilitate the relocation of the applicant's business premises affected by the development of the Northern Link Main Line

2.1 The current application is intended to facilitate the relocation of the applicant's affected business premises in Ngau Tam Mei due to land resumption to pave way for the development of the Northern Link Main Line. The affected premises (i.e. Various Lots in D.D. 104 and Adjoining GL) had been occupied by 'storage' use since the late-1980s (**Plans 4** to **6**). Until early 2010, there was a significant demand for local warehouses due to the proliferation of e-commerce. As the original premises had been storing goods in an unorganized and exposed manner since the 1980s, the premises were later transformed into a 'warehouse' in 2015, in order to alleviate the pressing demand for the local warehousing and logistics industry. Since then, the Site has been used for the applied use with valid Short Term Waiver.

2.2 The affected premises currently falls within area zoned as "Residential (Group D)" ("R(D)") on the Draft Ngau Tam Mei OZP No. S/YL-NTM/13. Although 'warehouse' use is not a column one nor two use within the "R(D)" zone according to the Notes of the OZP, the Site has been used for 'storage' before the first gazettal of the Ngau Tam Mei Interim Development Permission Area Plan No. IPDA/YL-NTM/1 (i.e. 14/9/1990), hence, an "Existing Use" (**Plan 5**).

2.3 As land where the affected business premises are located will be developed for the Northern Link Main Line, the concerned parcels of land will be resumed and reverted to the Government in the future. Therefore, the applicant desperately needs to identify a suitable site for relocation to continue their business operations.

Applicant's effort in identifying suitable site for relocation

2.4 Whilst the applicant has spent effort to relocate its premises to a number of alternative sites in the New Territories, those sites were considered not suitable or impracticable due to various issues such as land use incompatibility, environmental concerns, land ownership, accessibility or site area being too small (**Appendix II** and **Plan 7**). After a lengthy site search process, the Site was identified for relocation as it is relatively flat and easily accessible from Heung Yuen Wai Highway via Lin Ma Hang Road (**Plan 1**).

Applied Use Is the Same as the Affected Business in Ngau Tam Mei

2.5 The proposed development involves the operation of warehouse (excluding dangerous goods godown) with ancillary facilities to support the daily operation of the Site. The applied use is also the same as the affected business premises in Ngau Tam Mei.

2.6 Although the area of the Site (*i.e. about 24,446 m^2*) and GFA *(i.e. about 23,758 m^2*) are larger than the original premises, a significant portion of the Site (*i.e 12,567 m^2, 51%*) is uncovered and designated for manoeuvring and parking of vehicles, in order to support the daily operation of the Site. According to the applicant, the original premises currently lack adequate circulation space, resulting in prolonged waiting times for vehicles for L/UL of goods. Therefore, a substantial amount of circulation space is reserved at the Site in order to increase the Site's overall efficiency, as well as to minimise the potential adverse traffic impact to the surrounding road network.

2.7 The increase in development intensity from the original premises offers an excellent opportunity to enhance operational efficiency by providing additional space for the storage, bulk breaking, and packaging of goods. Higher development intensity would also better utilize land resources in the New Territories and provide opportunities to support the overall supply chain. The development of large-scale development in Lin Ma Hang also echoes with the Government's Northern Metropolis Strategy, which aims to transform the New Territories into a new economic engine for Hong Kong. The proposed development could alleviate burden on the city's core areas and diversify Hong Kong's economy by converting the northern part of the New Territories into a thriving economic centre.

2.8 The Site is also geographically close to the Mainland China with convenient access to Heung Yuen Wai Highway, facilitating the efficient movement of goods between the Mainland China and Hong Kong. The proposed development would attract investment from different industries looking to take advantage of Hong Kong's strong business environment and proximity to mainland China. This would ultimately promote greater economic growth and better integration between the Mainland China and Hong Kong.

Approval of the application would not frustrate the long-term planning intention of the "REC" zone

2.9 Although the Site falls within area zoned as "REC" on the Approved Ta Kwu Ling North OZP No. S/NE-TKLN/2, there is no known long-term recreational development at the Site within the applied planning period. Therefore, approval of the current application on a temporary basis would not frustrate the long-term planning intention of the "REC" zone and would better utilize deserted land in the New Territories.

2.10 Despite the fact that the proposed development is not in line with planning intention of the "REC" zone, the special background of the application should be considered on its individual merit, which approval of the current application would therefore not set an undesirable precedent for the "REC" zone. Upon approval of the planning application, the applicant will make effort in complying with approval conditions related to fire services and drainage aspects, to minimize potential adverse impact arisen from the proposed development.

3. SITE CONTEXT

Site Location

3.1 The Site is located approximately 5 m west of Lin Ma Hang Road; 300 m west of Heung Yuen Wai Highway; 700 m south of Heung Yuen Wai Boundary Control Point; 2.6 km east of Man Kam To Boundary Control Point; 4.8 km north of Sheung Shui MTR Station; and 15.4 km northeast of the original premises in Ngau Tam Mei (**Plan 1**).

Accessibility

3.2 The Site is accessible from Lin Ma Hang Road via a local access (**Plan 1**).

Existing Site Condition

3.3 The Site is currently vacant and partially fenced off. The Site is generally flat, partially hard-paved and the remaining area consists of soiled ground (**Plans 1**, **3** and **8**).

Surrounding Area

3.4 The Site is mainly surrounded by vacant land, woodland, public roads, temporary structures and village houses (**Plans 1**, **3** and **8**).

3.5 To its immediate north is the local access connecting the western portion of the Site to Lin Ma Hang Road. To its further north are woodland, vacant land covered by vegetation, Heung Yuen Wai Highway and Heung Yuen Wai Boundary Control Point.

3.6 To its immediate east is Lin Ma Hang Road. To its further east across Lin Ma Hang Road are the application site of an approved S.16 planning application No. A/NE-TKLN/77 (i.e. vacant land covered by vegetation and woodland) and Heung Yuen Wai Highway.

3.7 To its immediate south are some village houses of Kau Liu Tsuen. To its further south are some vacant land covered by vegetation, woodland and Ping Yuen River

3.8 To its immediate west across a cluster of trees is Sham Chun River. To its further west are some residential blocks in Shenzhen.

4. PLANNING CONTEXT

Zoning of the Application Site

4.1 The Site falls within an area zoned as "REC" on the Approved Ta Kwu Ling North OZP No. S/NE-TKLN/2 (**Plan 2**). According to the Notes of the OZP, 'warehouse (excluding dangerous goods godown)' use is not a column 1 nor column 2 use within the "REC" zone, which requires permission from the Board.

Planning Intention

4.2 This planning intention of the subject "REC" zone is *intended primarily for low-density recreational developments for the use of the general public. It encourages the development of active and/or passive recreation and tourism/eco-tourism. Uses in support of the low-density recreational developments may be permitted subject to planning permission*.

Previous Application

4.3 There is no previous approved S.16 application in respect of the Site.

Similar Application

4.4 There is one similar S.16 planning application within the same "REC" zone. The application (No. A/NE-TKLN/77) was for '*Temporary Logistic Centre, Warehouse (Excluding Dangerous Goods Godown) and Container Vehicle Park with Ancillary Facilities*', which was approved by the Board on a temporary basis of 15/3/2024.

Land Status of the Application Site

4.5 The Site falls mostly on private lots, i.e. *Lots 1366 RP, 1412 RP, 1413 RP, 1415, 1416 RP, 1417 RP, 1418 RP, 1419 RP, 1422 RP, 1425 RP, 1426 RP, 1427 RP, 1429 RP, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1440, 1441, 1442 S.B, 1443, 1479 S.B ss. 1 RP, 1479 S.B ss. 3, 1480 S.B RP, 1481 S.B RP, 1482 S.B RP in D.D. 78* with total land area of 20,296 m^2 (about) of Old Schedule Lots held under the Block Government Lease (**Plan 3**). The remaining area, i.e. 4,150 m^2 (about) falls on GL (**Plan 3**).

4.6 Since there is the restriction that no structure is allowed to be erected without the prior approval of the Government, the applicant will submit Short Term Waiver (STW) and Short Term Tenancy (STT) applications to the Lands Department to make way for erection of the proposed structures and occupation of GL at the Site respectively after planning approval has been obtained from the Board. No structure is proposed for domestic use.

5. DEVELOPMENT PROPOSAL

Development Details

5.1 The site consists of an area of 24,446 m^2 (about), including 4,150 m^2 of GL. Details of development parameters are shown at **Table 1** below.

Table 1*:* Development Parameters of the Proposed Development

Application Site Area	24,446 m^2 (about), incl. 4,150 m^2 (about) of GL
Covered Area	11,879 m^2 (about)
Uncovered Area	12,567 m^2 (about)
Plot Ratio	0.97 (about)
Site Coverage	49% (about)
Number of Structure	2
Total GFA - *Domestic GFA* - *Non-Domestic GFA*	23,758 m^2 (about) *Not applicable* *23,758 m^2 (about)*
Building Height	15 m (about)
No. of Storey	2

5.2 A total of two 2-storey structures are proposed at the Site for warehouses (excluding dangerous goods godown), site offices and washrooms with total GFA of 23,758 m^2 (about), the remaining area is reserved for parking and L/UL spaces and circulation area (**Plan 9**). Details of structures are shown at **Table 2** below:

Table 2: Details of Proposed Structures

Structure	Use	Covered Area	Gross Floor Area	Building Height
B1	Warehouses (excluding D.G.G.), Site Offices and Washrooms	8,332 m^2	16,664 m^2	15 m (2-storey)
B2		3,547 m^2	7,094 m^2	
Total		**11,879 m^2 (about)**	**23,758 m^2 (about)**	**-**

**D.G.G. – Dangerous Goods Godown*

Hard-Paving at the Site

5.3 The Site is proposed to be hard-paved wholly for site formation of structures, parking, L/UL spaces and circulation area. As majority of the Site currently consists of soiled ground, concrete site formation is required to provide a relatively flat surface for erection of structures and circulation purpose.

Therefore, hard-paving the Site is considered required and has been kept to minimal to meet the operational needs of the proposed development.

Operation Mode

5.4 The Site will be used as warehouse (excluding dangerous goods godown) for storage of miscellaneous goods, including but not limited to packaged food, package beverage, apparel, footwear, electronic goods, etc.. The operation hours of the proposed development are Monday to Saturday from 07:00 to 20:00. No operation on Sunday and public holiday.

5.5 It is estimated that the Site would be able to accommodate not more than 30 staff. The site office is proposed to provide indoor office space for administrative staff to support the daily operation of the Site. As no shopfront is proposed at the Site, visitor is not anticipated at the Site.

Minimal Traffic Impact

5.6 The Site is accessible from Lin Ma Hang Road via a local access (**Plan 1**). Two 15 m (about) wide ingress/egress are provided at the northern and western part of the Site (**Plan 9**). A total of 27 parking and L/UL spaces are provided at the Site, details of spaces are provided at **Table 3** below:

Table 3*:* Parking and L/UL Provisions

Type of Parking Space:	**Number of Space**
Private Car (PC) Parking Space - *2.5 m (W) X 5 m (L)*	12
Container Vehicle (CV) Parking Space - *3.5 m (W) X 16 m (L)*	4
Type of L/UL Space:	**Number of Space**
L/UL Space for Medium Goods Vehicle (MGV) - *3.5 m (W) X 11 m (L)*	4
L/UL Space for Container Vehicle (CV) - *3.5 m (W) X 16 m (L)*	7

5.7 Sufficient space is provided for vehicle to smoothly manoeuvere within the Site to ensure that no vehicle will be allowed to queue back to or reverse onto/from the Site to the public road (**Plans 10** and **11**). Staff is deployed to station at the ingress/egress of the Site to direct incoming/outgoing vehicle to enhance pedestrian safety.

Minimal Environmental Impact

5.8 The applicant will strictly follow the 'Code of Practice on Handling the Environmental Aspects of Temporary Uses and Open Storage Sites' issued by Environmental Protection Department (EPD) to minimise adverse environmental impacts and nuisance to the surrounding area. The applicant

will also comply with all environmental protection / pollution control ordinances, i.e. Water Pollution Control Ordinance, Air Pollution Control Ordinance, Noise Control Ordinance etc. at all times during the planning approval period.

5.9 During the construction stage, the applicant will follow the good practices stated in Professional Persons Environmental Consultative Committee Practice Notes (ProPECC PNs) 1/94 to minimize the impact on the nearby watercourse water quality. Surface run-off from the construction phase will be discharged into storm drains through appropriately designed sand/silt removal facilities such as sand traps, silt traps, and sediment basins. Silt removal facilities, channels, and manholes will be maintained, and the deposited silt and grit will be removed on a regular basis, at the start and end of each rainstorm, to ensure that these facilities are always operational.

5.10 During the operation of the proposed development, the major source of wastewater will be sewage from toilets generated by staff. The applicant will implement good practices under ProPECC PN 1/23 when designing on-site drainage system with the Site. Licensed collectors will be employed by the applicant to collect and dispose of sewage regularly, and the location of portable toilets are located away from the watercourse in the vicinity.

5.11 2.5m high solid metal wall will be erected along the site boundary by the applicant to minimize noise nuisance to the surrounding area. The boundary wall will be installed properly by licensed contractor to prevent misalignment of walls, to ensure that there is no gap or slit on boundary wall. In addition, maintenance will be conducted by the applicant on a regular basis.

Minimal Landscape Impact

5.12 No old and valuable tree or protected species has been identified at the Site. Due to proposed hard-paving works for circulation purpose, majority of the Site area will be disturbed. The remaining area will be affected by the erection of structures; consequently, all existing trees will be affected, and it is not proposed to retain any of the existing trees at the Site.

Minimal Drainage Impact

5.13 The applicant has submitted a DIA to review the drainage arrangements for the proposed development (**Appendix III**). The proposed hard-paving works has already been taken into consideration of the submitted DIA. The result of the DIA has shown that with the implementation of proposed drainage system and upgrade of existing downstream U-channels, no adverse drainage impact is anticipated.

Fire Safety Aspect

5.14 The applicant will submit a fire service installations (FSIs) proposal to enhance

fire safety of the Site. The applicant will implement the proposed FSIs at the Site once the proposal is accepted by Fire Services Department/the Board.

6. CONCLUSION

6.1 The current application is intended to facilitate the relocation of the applicant's business premises in Ngau Tam Mei, which will be affected by the development of Northern Link Main Line (**Plans 4** to **6**). Whilst the applicant attempted to relocate their premises to a number of alternative sites in the New Territories, those sites were considered not suitable or impracticable (**Appendix II** and **Plan 7**). Since the applied use is the same as the affected business premises, approval of the application could facilitate relocation prior to land resumption, thereby minimizing the impact on the Northern Link implementation programme.

6.2 Although the Site is not in line with the long-term planning intention of the "REC" zone, there is no known long-term implementation programme of the "REC", which approval of the application on a temporary basis would better utilize deserted land in the New Territories. Furthermore, the application site of a similar S.16 planning application (No. A/NE-TKLN/77) is located approximately 15 m east of the Site. As the current application is in similar nature, approval of the current application is in line with the Board's previous decisions.

6.3 The Site is surrounded by vacant land and closely connected to nearby public road network; the proposed development is considered not incompatible with surroundings. Given that the application's special background is to facilitate the development of the Northern Link Main Line, approval of the current application would not set an undesirable precedent within the "REC" zone and should be considered on its own merits.

6.4 The proposed development will not create significant nuisance to the surrounding areas. Adequate mitigation measures will be provided, i.e. submission of drainage and FSIs proposals etc. to mitigate any adverse impact arising from the proposed development. The applicant will also strictly follow the '*Code of Practice on Handling the Environmental Aspects of Temporary Uses and Open Storage Sites*' by the EPD to minimize all possible environmental impacts on the nearby sensitive receivers.

6.5 In view of the above, the Board is hereby respectfully recommended to approve the subject application for '**Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years**'.

Tai Wah Development Consultants Limited
July 2024

APPENDICES

Appendix I

Details of the Affected Business Premises

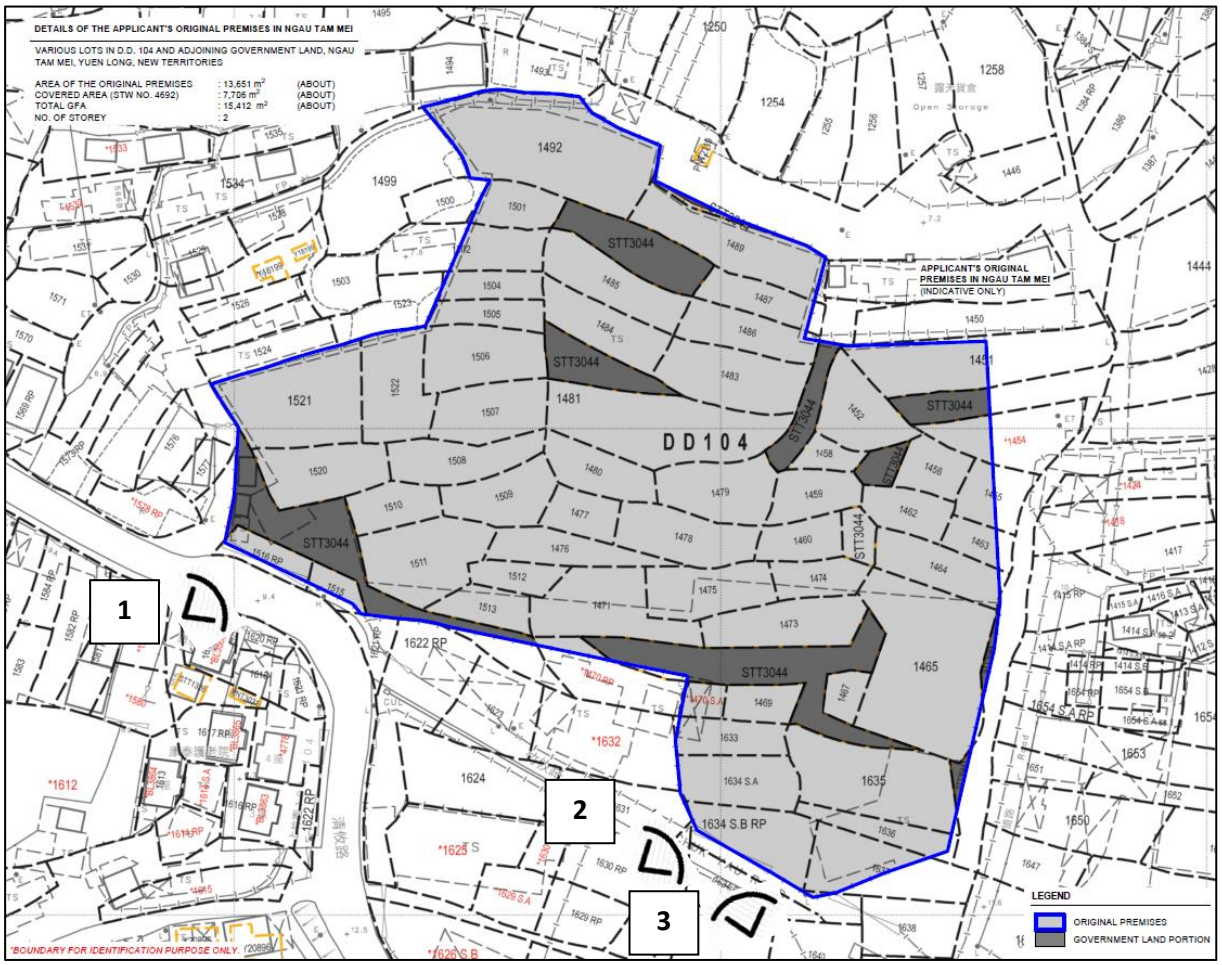
Appendix I – Details of the Affected Business Premises

Company Name: **YTAD Warehousing Logistics Co. Limited**
(*authorised Luck Great Global Engineering Limited as applicant of the current application*)

Details of Business Premises

Location: Various Lots in D.D. 104 and Adjoining Government Land, Ngau Tam Mei, Yuen Long, New Territories

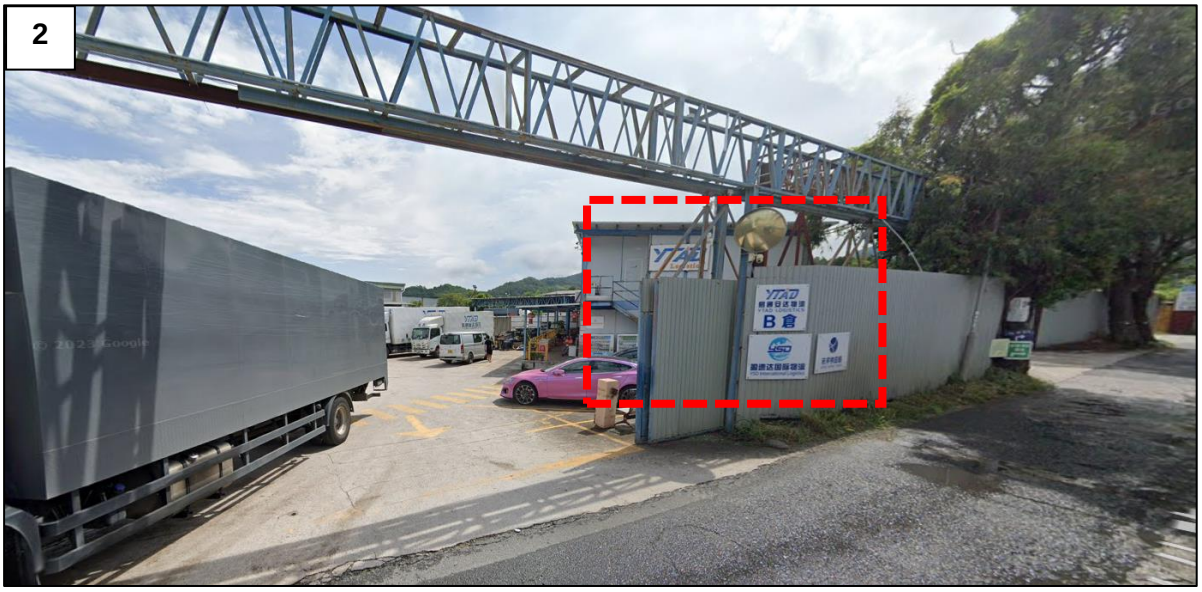
Use of Premises: Warehouse with Ancillary Facilities



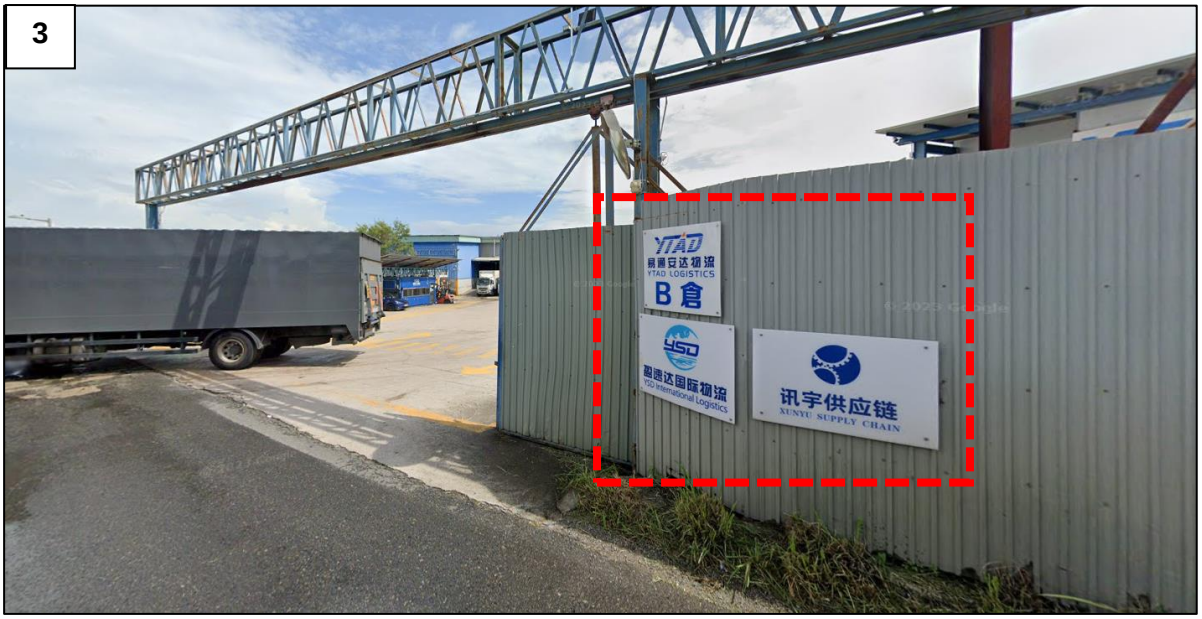
1


YTAD
Logistics
Yau Tam Mei Tsuen

2


YTAD
B 倉

3


YTAD
YTAD LOGISTICS
B 倉
YSD
YSD International Logistics
讯宇供应链
XUNYU SUPPLY CHAIN

Appendix II

Details of Alternative Sites for Relocation

Appendix II – Alternative Sites for the Relocation of the Applicant's Original Premises in Ngau Tam Mei, Yuen Long

Alternative Site / Application Site	Site 1	Site 2	Site 3	Site 4	Site 5	Application Site
Location	Various Lots in D.D. 86, San Uk Ling, Man Kam To, New Territories	Various Lots in D.D. 93, Ma Tso Lung, New Territories	Various Lots in D.D. 122, Long Ping Road, Ping Shan, New Territories	Various Lots in D.D. 129, Lau Fau Shan, Yuen Long, New Territories	Various Lots in D.D. 130, Lam Tei, Tuen Mun, New Territories	Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories,
Site Area	3,678 m^2 (about)	30,190 m^2 (about)	2,815 m^2 (about)	10,740 m^2 (about)	7,130 m^2 (about)	24,446m^2 (about)
Accessibility	Accessible from Lin Ma Hang Road via a local access	Accessible from Ma Tso Lung Road via a local access	Accessible from Long Ping Road via a local access	Accessible from Deep Bay Road via a local access	Accessible from Fuk Hang Tsuen Road via a local access	Accessible from Heung Yuen Wai Highway via Lin Ma Hang Road
Distance from Original Premises	12.8 km (about) from the original premises	8.3 km (about) from the original premises	8.4 km (about) from the original premises	15.6 km (about) from the original premises	11.4 km (about) from the original premises	15.4 km (about) from the original premises
Outline Zoning Plan	Approved Man Kam To OZP No. S/NE-MKT/4	Approved Ma Tso Lung and Hoo Hok Wai OZP No. S/NE-MTL/3	Approved Ping Shan OZP No. S/YL-PS/20	Approved Lau Fau Shan & Tsim Bei Tsui OZP No. S/YL-LFS/11	Approved Lam Tei and Yick Yuen OZP No. S/TM-LTYY/12	Approved Ta Kwu Ling North OZP S/NE-TKLN/2
Zoning	"Green Belt"	"Conservation Area (1)"	"Conservation Area"	"Green Belt"	"Comprehensive Development Area"	"Recreation"
Existing Condition	Covered by tree groups and vegetation	Mostly vacant, covered by vegetation and occupied by fishpond.	Woodland and partly vacant	Covered by vegetation and woodland	Hard paved and occupied by temporary structures	Mostly vacant, partially hard-paved and the remaining area consists of soiled ground
Surrounding Area	Surrounded by residential development and woodland	Surrounded by vegetation, pond, some GIC uses and residential use	Surrounded by woodland and graves	Surrounded by tree groups, temporary structures for open storage and residential use	Surrounded by warehouse, workshop, logistic centre and land covered by residential use	Surrounded by vacant land, woodland, public roads, temporary structures and village houses
Suitability for Relocation	Not suitable for relocation - 73% smaller than the original premises - Tree felling is required - Tenancy for portion of the site is not feasible - Not compatible with the surrounding area	Not suitable for relocation - 55% larger than the original premises - Within the closed area - Falls within the "Conservation Area" zone - Tenancy for portion of the site is not feasible - Not compatible with the surrounding area	Not suitable for relocation - 385% smaller than the original premises - Not compatible with the surrounding area - Within "Conservation Area" Zone - Tenancy for portion of the site is not feasible	Not suitable for relocation - 21% smaller than the original premises - Tree felling is required - Tenancy for portion of the site is not feasible - Not compatible with the surrounding area Tenancy for portion of the site is not feasible	Not suitable for relocation - 48% smaller than the original premises - Not compatible with the surrounding area - Tenancy for portion of the site is not feasible	Comparatively Suitable for relocation: - In close vicinity of Heung Yuen Wai Highway - Relatively flat and mostly vacant - No active agricultural activity

Appendix III

Drainage Impact Assessment

Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

Drainage Impact Assessment Report

June 2024

Table of Content

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1. Introduction

1.1 Background

1.1.1 The applicant seeks planning permission from the Town Planning Board (the Board) under Section (S.) 16 of the Town Planning Ordinance (Cap. 131)(the Ordinance) to use Various Lots in D.D. 78 and Adjoining Government Land (GL), Lin Ma Hang, New Territories (the Site) for 'Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years'.

1.1.2 This Drainage Impact Assessment aim to support the development in drainage aspect.

1.2 The Site

1.2.1 The Application Site situate between Lin Ma Hang Road and Shenzhen River. It has an area of about 24,446 m^2. The site is partially hard-paved at the south east corner and the remaining area is covered by vegetation. The site location plan is shown in **Figure 1**.

1.2.2 The existing site ground levels beside Lin Ma Hang Road is about +9.1 mPD. The site generally falling towards Shenzhen river to about +6.6 mPD. There is no major site level changes proposed.

1.2.3 There is an existing 800mm channel to the northeast of the site and beside Lin Ma Hang Road. Shenzhen River is situated at the west side of the site. This existing channel pass through the site and discharge toward Shenzhen River at the west. Existing Drainage Plan are shown in **Figure 2** for reference.

1.2.4 Proposed Development Layout plan is shown in **Appendix B** for reference.

2. Development Proposal

2.1 The Proposed Development

2.1.1 The total site area is approximately 24,446 m^2. The indicative development schedule is summarized in **Table 1** below for technical assessment purpose. The catchment plan is shown in **Figure 4.1** and **Figure 4.2**.

Proposed Development	
Total Site Area (m^2)	24,446
Paved Area (m^2) Assume all proposed site area as paved area for assessment purpose	24,446

Table 1 - Key Development Parameters

3. Assessment Criteria

3.1.1 The Recommended Design Return Period based on Flood Level from SDM (Table 10) is adopted for this DIA. The recommendation is summarized in **Table 2** below.

Description	Design Return Periods
Intensively Used Agricultural Land	2 – 5 Years
Village Drainage Including Internal Drainage System under a polder Scheme	10 Years
Main Rural Catchment Drainage Channels	50 Years
Urban Drainage Trunk System	200 Years
Urban Drainage Branch System	50 Years

Table 2– Design Return Periods under SDM

3.1.2 The proposed drainage system intended to collect runoff from internal site and external catchment. 1 in 50 years return period is adopted for the drainage design.

3.1.3 Stormwater drainage design will be carried out in accordance with the criteria set out in the Stormwater Drainage Manual published by DSD. The proposed design criteria to be adopted for design of this stormwater drainage system and factors which have been considered are summarised below.

1. Intensity-Duration-Frequency Relationship – The Recommended Intensity-Duration-Frequency relationship is used to estimate the intensity of rainfall. It can be expressed by the following algebraic equation.

$$i = \frac{a}{(t_d + b)^c}$$

The site is located within the North District Zone. Therefore, for 50 years return period, the following values are adopted.

a	=	474.6
b	=	2.9
c	=	0.371

(Corrigendum_No.1_2024)

2. The peak runoff is calculated by the Rational Method
   i.e. $Q_p = 0.278CiA$

where	Q_p	=	peak runoff in m^3/s
	C	=	runoff coefficient (dimensionless)
	i	=	rainfall intensity in mm/hr
	A	=	catchment area in km^2

3. The run-off coefficient (C) of surface runoff are taken as follows:

   1. Paved Area: C = 0.95
   2. Unpaved Area: C = 0.35

4. Manning's Equation is used for calculation of velocity of flow inside the channels:

Manning's Equation: $v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Where,

V = velocity of the pipe flow (m/s)
S_f = hydraulic gradient
n = manning's coefficient
R = hydraulic radius (m)

5. Colebrook-White Equation is used for calculation of velocity of flow inside the pipes:

Colebrook-White Equation: $\underline{v} = -\sqrt{32gRS}\ log\ log\ (\frac{k_s}{14.8R} + \frac{1.255v}{R\sqrt{32gRS_f}})$

where,

V	=	velocity of the pipe flow (m/s)
S_f	=	hydraulic gradient
k_f	=	roughness value (m)
v	=	kinematics viscosity of fluid
D	=	pipe diameter (m)
R	=	hydraulic radius (m)

4. Proposed Drainage System and Mitigation Measure

4.1. Proposed UChannel

4.1.1 The existing U-channel is proposed to be diverted starting at the northeast of the application site and connect to proposed U-channel UC1. It would discharge to the original discharge point and eventually fall to Shenzhen River.

4.1.2 Proposed U-channels are designed for collection of runoff within and near the Development Site. Please refer to the **Figure 4.2** for proposed catchment plan. The U-channels are proposed to be connect to original existing channel to the southwest of the site and eventually discharge to Shenzhen River. The design calculations of proposed UChannel are shown in **Appendix A**.

4.2. Upgrade of Existing Downstream UChannel

4.1.3 The increase in runoff due to the change of application site's pavement ratio is calculated in **Appendix A**. Please refer to existing catchment plan **Figure 4.1**. The existing channel downstream is proposed to be upgraded such that the increase in capacity is not less than the increase in runoff.

4.1.4 The alignment, size, gradient and details of the proposed drains are shown in **Figure 3.**

4.1.5 The reference standard drawings of drains are shown in **Appendix C**.

5. Conclusion

5.1.1 Drainage impact assessment has been conducted for the Proposed Development. With implementation of proposed drainage system and upgrade of existing downstream U-channels, no adverse drainage impact is anticipated.

- End of Text -

FIGURES

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

TO HEUNG YUEN WAI
BORDER CONTROL POINT

DEVELOPMENT SITE
(FOR IDENTIFICATION ONLY)

SHENZHEN RIVER

LIN MA HANG ROAD

HEUNG YUEN WAI HIGHWAY

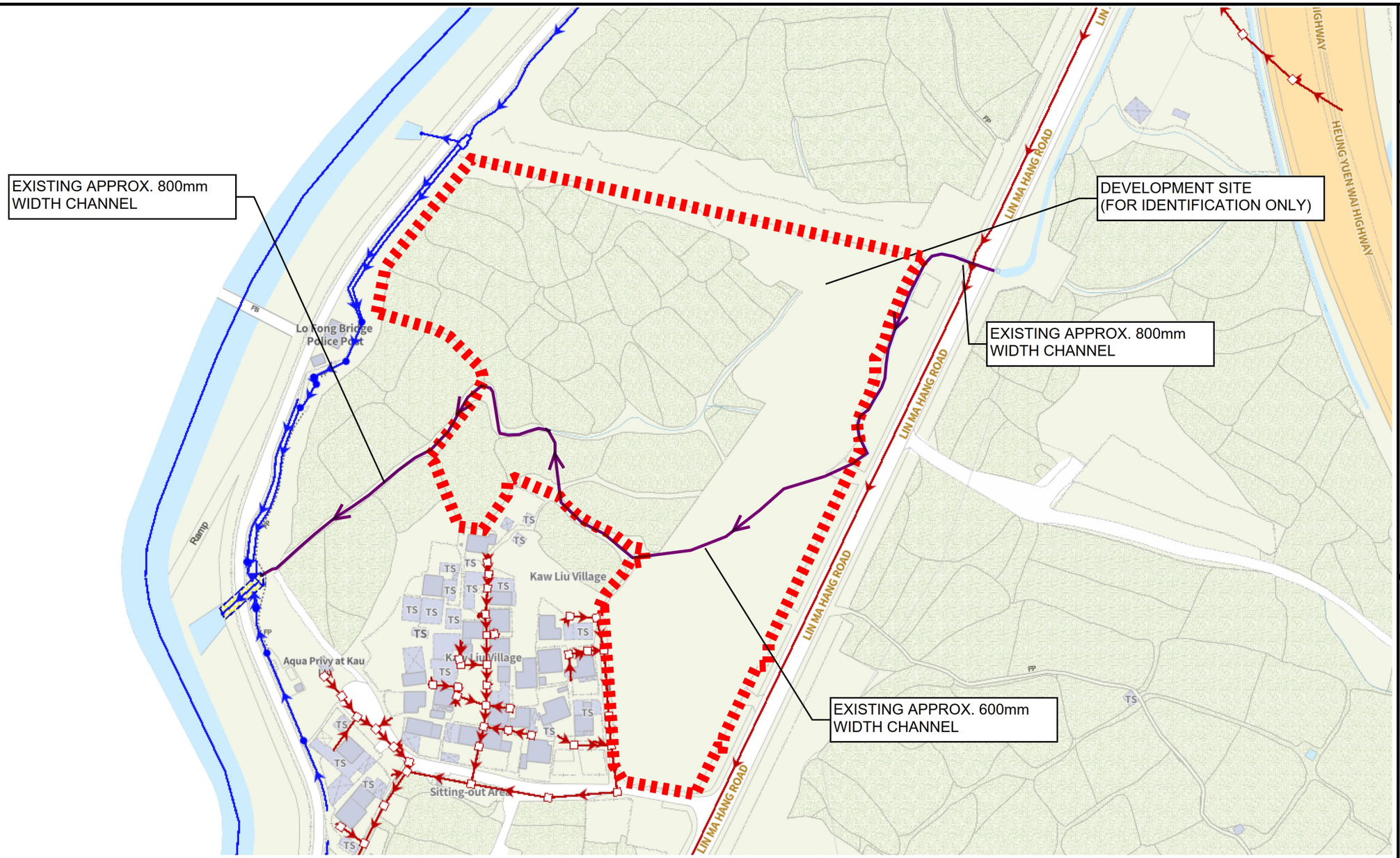
Kaw Liù Village

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
SITE LOCATION PLAN

DRAWING NUMBER
FIGURE 1



LEGEND:

Combined Manhole	Tapping Point (Sewer)	Tapping Point (Storm)	APPLICATION SITE BOUNDARY (FOR IDENTIFICATION PURPOSE ONLY)
Overflow (Combined)	Sewer Terminal Manhole	Storm Water Terminal Manhole	EXISTING CHANNELS TOWARDS SHENZHEN RIVER
Pipe (Combined)	Catchpit	Tunnel Protection Zone (100m / 200m)	
Interface Valve Chamber	Inlet	Tunnel Protection Zone (General Range)	
Sewer Manhole	Storm Water Manhole	Tunnel / Box Culvert (Sewer)	
Oil / Petrol Interceptor	Outlet	Tunnel / Box Culvert (Storm)	
Overflow (Sewer)	Pipe (Storm)		
Pipe (Sewer)	Sand Trap		

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
EXISTING DRAINAGE PLAN

DRAWING NUMBER
FIGURE 2

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

EXISTING APPROX. 800mm
WIDTH UCHANNEL

PROPOSED CATCHPIT

PROPOSED UCHANNEL

PROPOSED CATCHPIT W/ TRAP

DP2.1
CL +7.61
IL +7.25

IL +7.53

UC2 600, 1 IN 200

DP1.3
CL +8.2
IL +7.51

EXISTING CHANNEL
TO BE CONNECTED
TO UC1

DP1.2
CL +9.0
IL +7.82

DP1.1
CL +9.0
IL +8.07

UC1 1000, 1 IN 200

UC2 600, 1 IN 200

DP2.2
CL +7.6
IL +6.68

UC1 1000, 1 IN 200

UC2 600, 1 IN 200

DP1.5
CL +7.8
IL +6.15

IL +6.6

UC6 1350, 1 IN 200

IL +7.10

EXISTING CHANNEL
TO BE UPGARDED
TO 1350mm 1 IN 200

IL +6.74

DP1.4
CL +8.2
IL +6.8

UC1 1000, 1 IN 200

IL +8.47

EXISTING CHANNEL
TO BE CONNECTED
TO UC3

DP4.1
CL +8.2
IL +7.55

UC4 800, 1 IN 200

UC5 450,
1 IN 200

DP3.4
CL +8.3
IL +7.10

DP4.4
CL +8.0
IL +6.91

DP3.1
CL +9.46
IL +7.67

DP3.3
CL +8.7
IL +7.29

UC3 800, 1 IN 300

UC3 800, 1 IN 300

DP4.3
CL +8.0
IL +7.05

DP4.2
CL +8.0
IL +7.45

DP3.5
CL +8.2
IL +7.03

Kaw Liu Village

IL +7.68

UC7 525,
1 IN 200

DP7.3
CL +9.0
IL +7.86

DP3.2
CL +9.6
IL +7.47

DP7.2
CL +9.0
IL +7.97

UC7 525, 1 IN 200

UC7 525, 1 IN 200

LIN MA HANG ROAD

UC7 525,
1 IN 200

IL +8.4

IL +8.4

DP7.1
CL +9.0
IL +8.27

羅芳橋警崗
Lo Fong Bridge Police Post

深圳河

Ramp

Track

Road

Sitting-out Area

休憩處

NOTE:
1. CONNECTION LEVELSHOULD BE VERTIFIED ON SITE.

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
PROPOSED DRAINAGE SYSTEM

DRAWING NUMBER
FIGURE 3

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

ZONE E2
19,010 m²
(UNPAVED)

ZONE E1
5,436 m²
(PAVED)

較寮村
Kaw Liu Village

羅芳橋警崗
Lo Fong Bridge Police Post

深圳河

LIN MA HANG ROAD

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
EXISTING CATCHMENT PLAN

DRAWING NUMBER
FIGURE 4.1

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

FALL

ZONE B4
4,967 m²
(PAVED)

ZONE B3
2,329 m²
(PAVED)

ZONE B2
2,935 m²
(PAVED)

ZONE B1
3,377 m²
(PAVED)

ZONE A1
1,064 m²
(10%PAVED)

ZONE C4
1,424 m²
(PAVED)

ZONE C3
1,053 m²
(PAVED)

ZONE C2
2,561 m²
(PAVED)

ZONE C1
1,821 m²
(PAVED)

ZONE D2
1,437 m²
(50%PAVED)

ZONE D1
3,930 m²
(PAVED)

ZONE A2
604 m²
(20%PAVED)

Lo Fong Bridge Police Post 羅芳橋警岗

Liu Village 較寮村

LIN MA HANG ROAD 蓮麻坑路

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
PROPOSED CATCHMENT PLAN

DRAWING NUMBER
FIGURE 4.2

Appendix

Appendix A - Design Calculation

Checking of Peak Flow of Existing Channel at Upstream of the Application Site

U Channel Capacity Estimiation				
Channel Size			800	(mm)
Gradient (approx.)		1 in	186	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)
R	0.571 / 2.057 =		0.278	(m)
Velocity			2.23	m/s
Capacity			1.275	m3/s

$$v = \frac{1}{n} R^{\frac{1}{6}} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

The estimated capacity of existing channel is 1.275 m3/s
Assume the utilitiation of the existing channel is 80%
The estimated peak flow of existing channel is 1.02 m3/s

Checking of Additional Flow due to the Development

Runoff Estimation (before development)				
Design Return Period		1 in	50	years
Paved Area	5436 =		5436	(m2)
Unpaved Area	19010 =		19010	(m2)
Total Equivalent Area	5436 x 0.95 + 19010 x 0.35 =		11818	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 19010 x 220 / 1000000 =		0.724	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

Runoff Estimation (after development)				
Design Return Period		1 in	50	years
Paved Area	24446 =		24446	(m2)
Unpaved Area	0 =		0	(m2)
Total Equivalent Area	24446 x 0.95 + 0 x 0.35 =		23224	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 23224 x 220 / 1000000 =		1.423	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

Additional flow due to development 1.423 -0.724 = 0.699 m3/s

Proposed Upgrade of Existing Channel at Downstream of Application Site

	Existing U Channel				**Proposed Updated Channel**			
Channel Size			800	(mm)			1350	(mm)
Gradient		1 in	186			1 in	200	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)	π x 1.35^2 /8 + 1.35 x 1.35/2 =		1.627	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)	π x 1.35 / 2 + 1.35/2 x 2 =		3.471	(m)
R	0.571 / 2.057 =		0.278	(m)	1.627 / 3.471 =		0.469	(m)
Velocity $v = \frac{1}{n} R^{\frac{1}{6}} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$			2.23	m/s			3.05	m/s
Capacity			1.275	m3/s			4.96	m3/s

Capacity of upgraded channel is incareased by 4.959 - 1.275 = 3.684 > 0.699 m3/s
Therefore, it is proposed to upgrade of downstream channel from 800mm, 1 in 186 to 1350mm, 1 in 200

U Channel 1 (Zone B1 + B2 + B3 + Peak Flow from Existing Channel)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	3377 + 2935 + 2329=		8641	(m2)
Unpaved Area	0 =		0	(m2)
Total Equivalent Area	8641 x 0.95 + 0 x 0.35 =		8209	(m2)
Rainfall Intensity, I *			220	mm/hr
Q	0.278 x 8209 x 220 / 1000000 =		0.503	m3/s
Q + Peak Flow from existing channel	0.503 + 1.02		1.523	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

U Channel				
Channel Size			1000	(mm)
Gradient		1 in	200	
Area	π x 1^2 /8 + 1 x 1/2 =		0.893	(m2)
Wetted Perimeter	π x 1 / 2 + 1/2 x 2 =		2.571	(m)
R	0.893 / 2.571 =		0.347	(m)
Velocity			2.50	m/s
Capacity			2.228	m3/s

$$v = \frac{1}{n} R^{\frac{1}{6}} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

Utilization 1.523 / 2.228 = **68.37** % OK (less than 90%, for 10% siltation allowance)

U Channel 2 (ZONE B4)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	4967 =		4967	(m2)
Unpaved Area	0 =		0	(m2)
Total Equivalent Area	4967 x 0.95 + 0 x 0.35 =		4719	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 4719 x 220 / 1000000 =		0.289	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

U Channel				
Channel Size			600	(mm)
Gradient		1 in	200	
Area	π x 0.6^2 /8 + 0.6 x 0.6/2 =		0.321	(m2)
Wetted Perimeter	π x 0.6 / 2 + 0.6/2 x 2 =		1.542	(m)
R	0.321 / 1.542 =		0.208	(m)
Velocity			1.78	m/s
Capacity			0.570	m3/s

$$v = \frac{1}{n} R^{\frac{1}{6}} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

Utilization 0.289 / 0.57 = **50.69** % OK (less than 90%, for 10% siltation allowance)

U Channel 3 (Zone A1 + A2 + C1 + D1)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	1821 + 1064 x 0.1 + 604 x 0.2 + 3930=		5978	(m2)
Unpaved Area	0 + 1064 x 0.9 + 604 x 0.8 =		1441	(m2)
Total Equivalent Area	5978 x 0.95 + 1441 x 0.35 =		6184	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 6184 x 220 / 1000000 =		0.379	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel				
Channel Size			800	(mm)
Gradient		1 in	300	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)
R	0.571 / 2.057 =		0.278	(m)
Velocity			1.76	m/s
Capacity			1.003	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Utilization	0.379 / 1.003	=	**37.78**	%	OK	(less than 90%, for 10% siltation allowance)

U Channel 4 (Zone [A1 + A2 + C1 + D1] + C2 + C3 + D2)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	5978 + 2561 + 1053 + 1437 x 0.5 =		10311	(m2)
Unpaved Area	1441 + 1053 + 1437 x 0.5 =		2159	(m2)
Total Equivalent Area	10311 x 0.95 + 2159 x 0.35 =		10551	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 10551 x 220 / 1000000 =		0.647	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel				
Channel Size			800	(mm)
Gradient		1 in	200	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)
R	0.571 / 2.057 =		0.278	(m)
Velocity			2.15	m/s
Capacity			1.229	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Utilization	0.647 / 1.229	=	**52.63**	%	OK	(less than 90%, for 10% siltation allowance)

U Channel 5 (Zone C4 + D2)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	1424 + 1437 x 0.5 =		2143	(m2)
Unpaved Area	0 + 1437 x 0.5 =		719	(m2)
Total Equivalent Area	2143 x 0.95 + 719 x 0.35 =		2287	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 2287 x 220 / 1000000 =		0.140	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel				
Channel Size			450	(mm)
Gradient		1 in	200	
Area	π x 0.45^2 /8 + 0.45 x 0.45/2 =		0.181	(m2)
Wetted Perimeter	π x 0.45 / 2 + 0.45/2 x 2 =		1.157	(m)
R	0.181 / 1.157 =		0.156	(m)
Velocity			1.47	m/s
Capacity			0.265	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Utilization	0.14 / 0.265	=	**52.91**	%	OK	(less than 90%, for 10% siltation allowance)

U Channel 6 (Whole Site (paved) + A1 + A2 + D2 + Peak Flow from Existing Channel)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	24446 + 1064 x 0.1 + 604 x 0.2+ 1437 x 0.5=		25392	(m2)
Unpaved Area	0 + 1064 x 0.9 + 604 x 0.8+ 1437 x 0.5=		2159	(m2)
Total Equivalent Area	25392 x 0.95 + 2159 x 0.35 =		24878	(m2)
Rainfall Intensity, I *			220	mm/hr
Q	0.278 x 24878 x 220 / 1000000 =		1.525	m3/s
Q + Peak Flow from existing channel	1.525 + 1.02		2.544	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel				
Channel Size			1350	(mm)
Gradient		1 in	200	
Area	π x 1.35^2 /8 + 1.35 x 1.35/2 =		1.627	(m2)
Wetted Perimeter	π x 1.35 / 2 + 1.35/2 x 2 =		3.471	(m)
R	1.627 / 3.471 =		0.469	(m)
Velocity			3.05	m/s
Capacity			4.959	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Utilization	1.525 / 4.959	=	**51.31**	%	OK	(less than 90%, for 10% siltation allowance)

U Channel 7 (Zone A2, D1)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	3930 + 604 x 0.2=		4051	(m2)
Unpaved Area	0 + 604 x 0.8 =		483	(m2)
Total Equivalent Area	4051 x 0.95 + 483 x 0.35 =		4017	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 4017 x 220 / 1000000 =		0.246	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel				
Channel Size			525	(mm)
Gradient		1 in	200	
Area	π x 0.53^2 /8 + 0.53 x 0.53/2 =		0.246	(m2)
Wetted Perimeter	π x 0.53 / 2 + 0.53/2 x 2 =		1.350	(m)
R	0.246 / 1.35 =		0.182	(m)
Velocity			1.62	m/s
Capacity			0.400	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

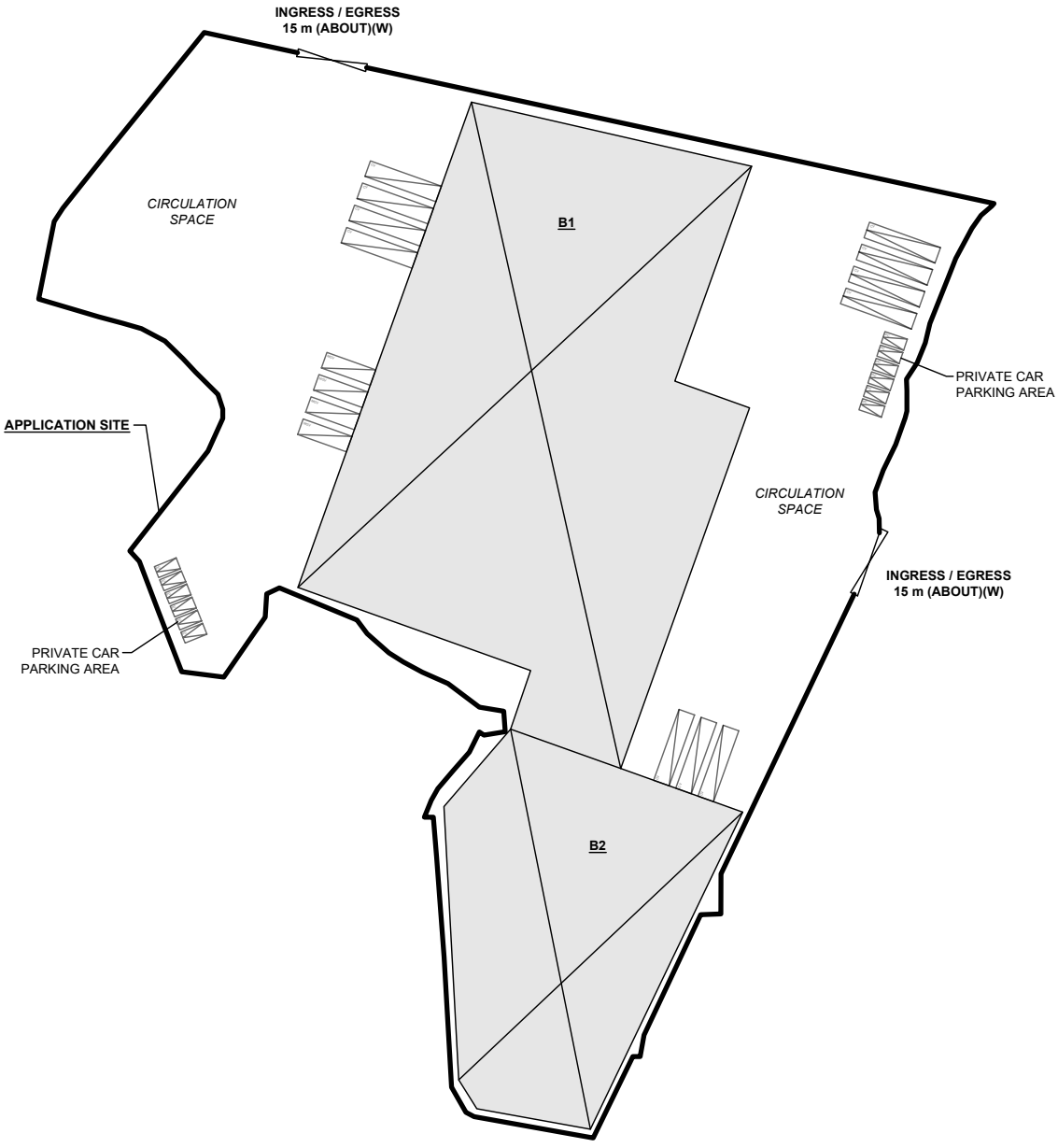
Utilization	0.246 / 0.4	=	**61.62**	%	OK	(less than 90%, for 10% siltation allowance)

Appendix B - Proposed Development Layout Plan

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 24,446 m^2	(ABOUT)
COVERED AREA	: 11,879 m^2	(ABOUT)
UNCOVERED AREA	: 12,567 m^2	(ABOUT)
PLOT RATIO	: 0.97	(ABOUT)
SITE COVERAGE	: 49 %	(ABOUT)
NO. OF STRUCTURE	: 2	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 23,758 m^2	(ABOUT)
TOTAL GFA	: 23,758 m^2	(ABOUT)
BUILDING HEIGHT	: 15 m	(ABOUT)
NO. OF STOREY	: 2	

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	WAREHOUSE (EXCL. D.G.G.) SITE OFFICE AND WASHROOM	8,332 m^2 (ABOUT)	16,664 m^2 (ABOUT)	15 m (ABOUT)(2-STOREY)
B2	WAREHOUSE (EXCL. D.G.G.) SITE OFFICE AND WASHROOM	3,547 m^2 (ABOUT)	7,094 m^2 (ABOUT)	15 m (ABOUT)(2-STOREY)
	TOTAL	**11,879 m^2 (ABOUT)**	**23,758 m^2 (ABOUT)**	



PARKING AND LOADING / UNLOADING (L/UL) PROVISIONS

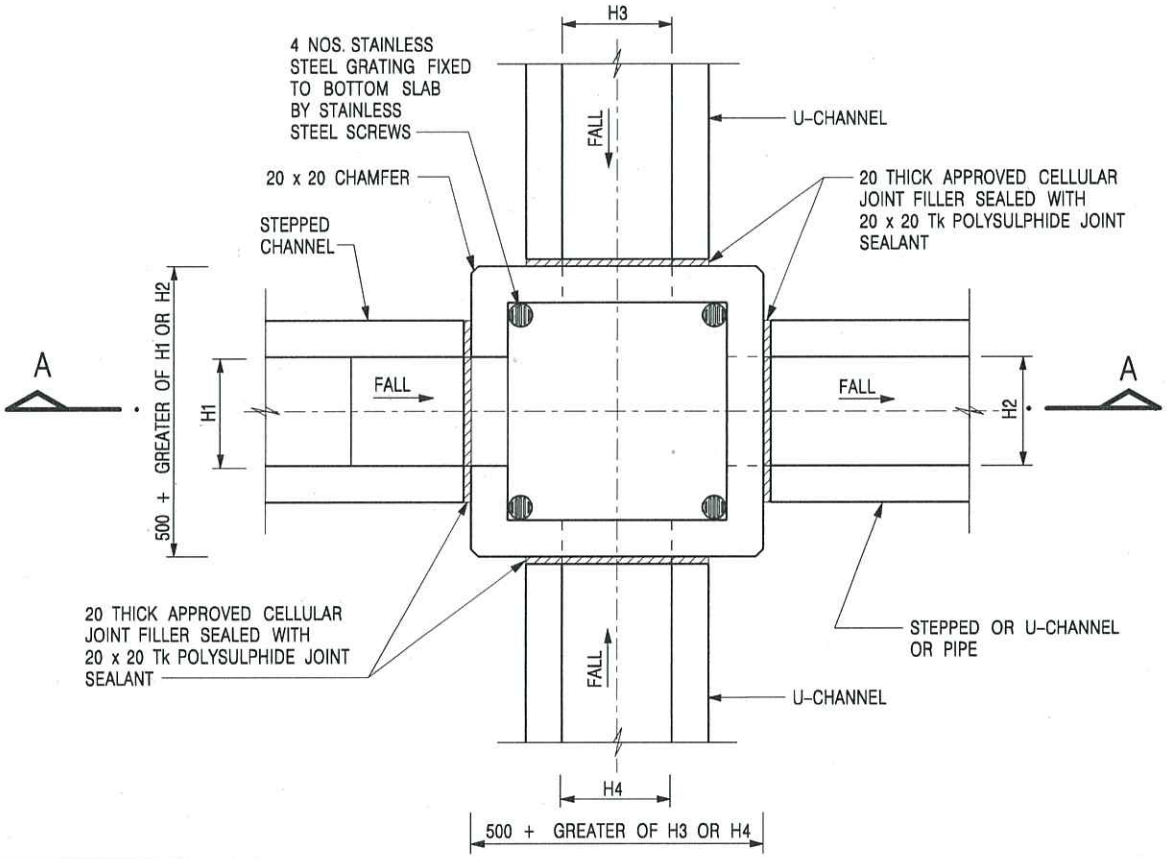
NO. OF PRIVATE CAR PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 5 m (L) x 2.5 m (W)
NO. OF CONTAINER VEHICLE PARKING SPACE	: 4
DIMENSION OF LOADING/UNLOADING SPACE	: 16 m (L) x 3.5 m (W)
NO. OF L/UL SPACE FOR MEDIUM GOODS VEHICLE (MGV)	: 4
DIMENSION OF LOADING/UNLOADING SPACE	: 11 m (L) x 3.5 m (W)
NO. OF L/UL SPACE FOR CONTAINER VEHICLE	: 7
DIMENSION OF LOADING/UNLOADING SPACE	: 16 m (L) x 3.5 m (W)

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- PARKING SPACE (CV)
- LOADING / UNLOADING SPACE (MGV)
- LOADING / UNLOADING SPACE (CV)
- INGRESS / EGRESS

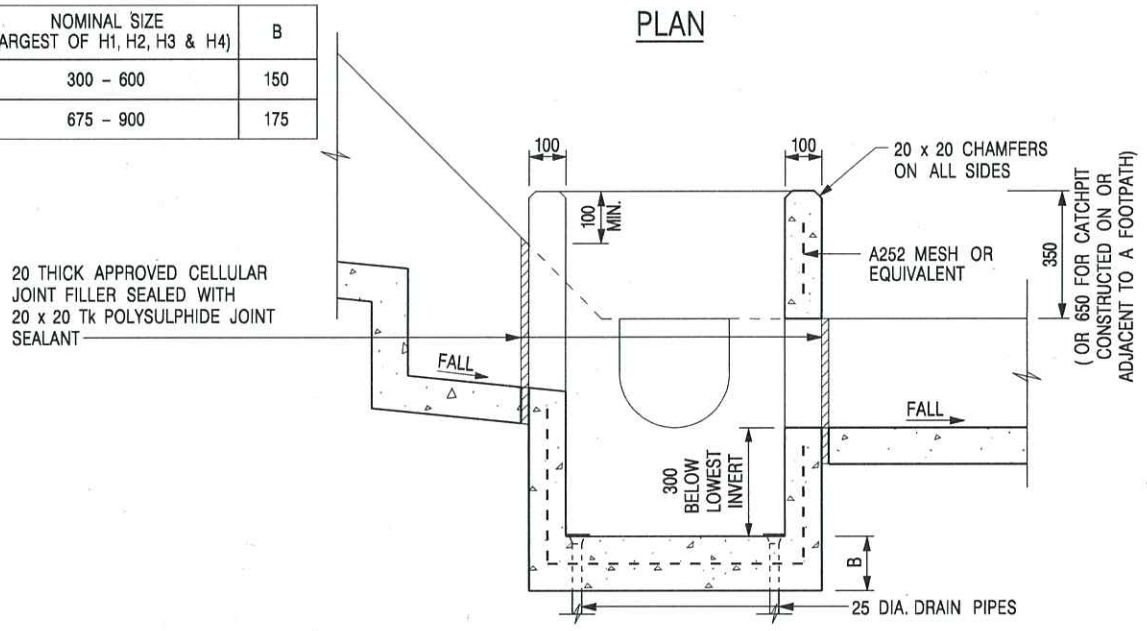
PLANNING CONSULTANT: R-Riches Property Consultants Ltd.	PROJECT: PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS	ADDRESS: VARIOUS LOTS IN D.D. 78 AND ADJOINING GOVERNMENT LAND, LIN MA HANG, NEW TERRITORIES	SCALE: 1 : 1500 @ A4	TITLE: LAYOUT PLAN	NORTH
			DRAWN BY: MN / DATE: 14.5.2024		
			REVISED BY / DATE	DWG NO.: PLAN 9 / VER.: 001	

Appendix C - Reference Drawings



PLAN

NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 – 600	150
675 – 900	175



SECTION A – A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP

(SHEET 1 OF 2)

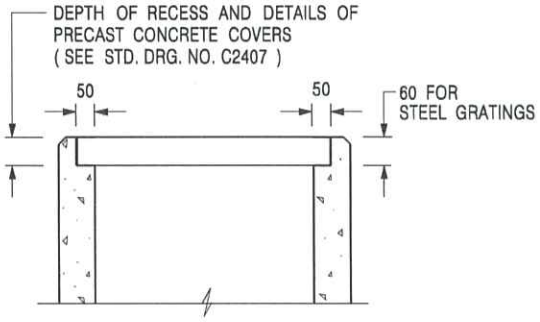
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1

卓越工程 建設香港 We Engineer Hong Kong's Development



ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 /2) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON STD. DRG. NO. C2405 /5; EXCEPT ON THE UPSLOPE SIDE) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 c/c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON STD. DRG. NO. C2405 /4.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

REF.	REVISION	SIGNATURE	DATE
A	MINOR AMENDMENT.	Original Signed	04.2016
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

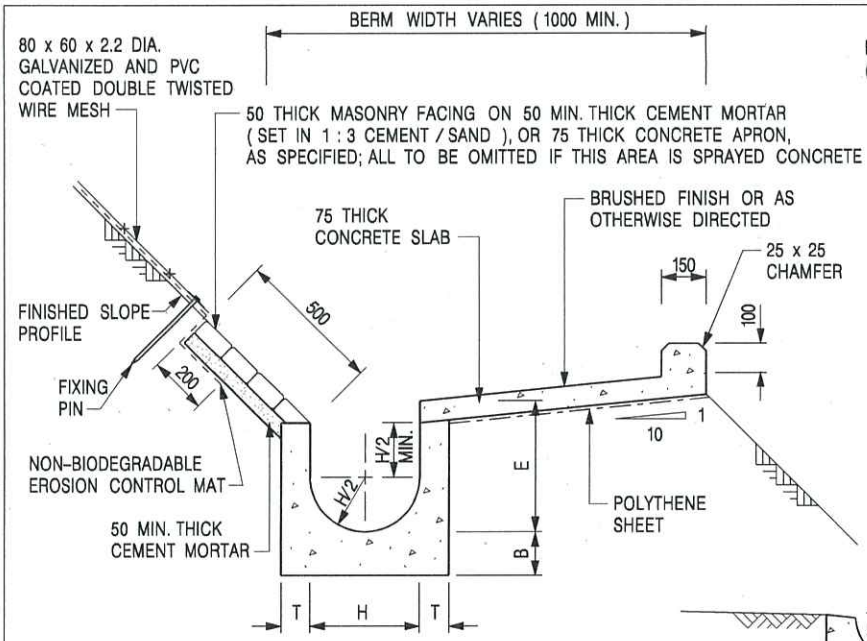
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

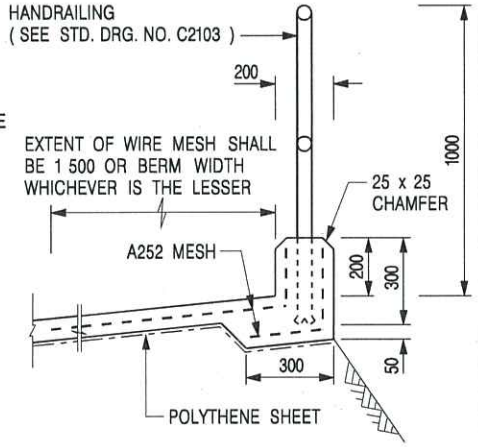
SCALE 1 : 20

DATE JAN 1991

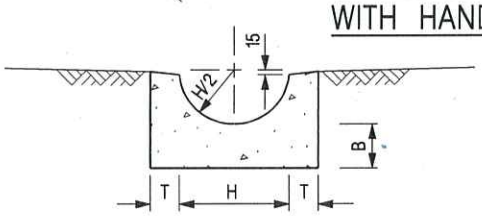
DRAWING NO. C2406 /2A



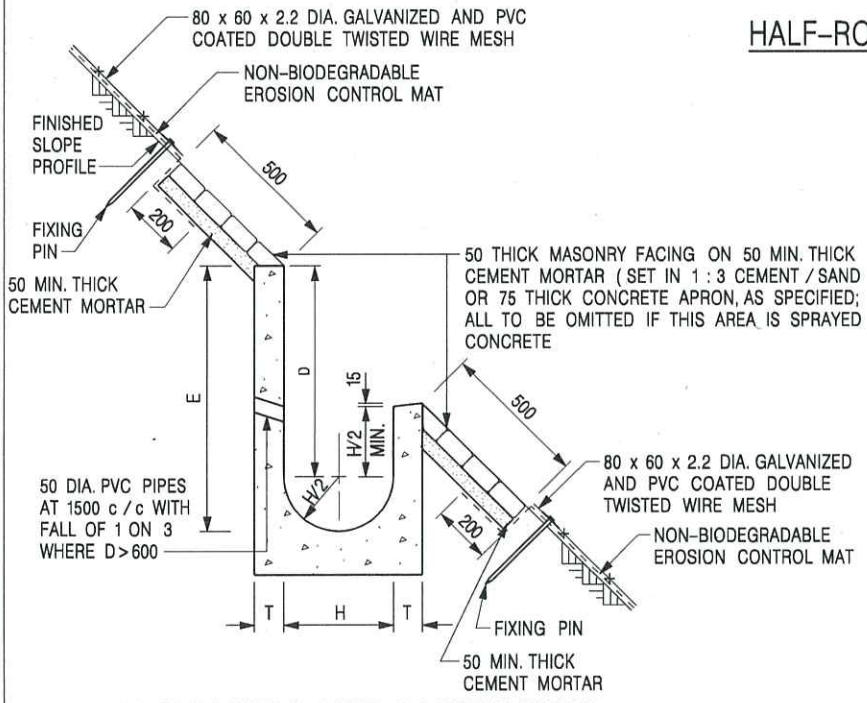
U-CHANNELS CONSTRUCTED ON BERM



DETAILS OF BERM WITH HANDRAILING



HALF-ROUND CHANNEL



U-CHANNELS NOT CONSTRUCTED ON BERM

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20 / 20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
7. BIODEGRADABLE EROSION CONTROL MAT IF REQUIRED, SEE STD. DRG. NO. C2511/1E.
8. CONCRETE TO BE COLOURED AS SPECIFIED.
9. CONCRETE U-CHANNEL CAN BE CAST IN-SITU OR PRECAST CONCRETE SUBJECT TO THE ENGINEER'S AGREEMENT ON THE DETAILS.
10. DETAILS OF EROSION CONTROL MAT AND WESH MESH ON BERM. (SEE STD DRG. NO. C2511/1E)

NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

REF.	REVISION	SIGNATURE	DATE
I	MINOR AMENDMENT.	Original Signed	07.2018
H	THICKNESS OF MASONRY FACING AMENDED.	Original Signed	01.2005
G	MINOR AMENDMENT.	Original Signed	01.2004
F	GENERAL REVISION.	Original Signed	12.2002
E	DRAWING TITLE AMENDED.	Original Signed	11.2001
D	MINOR AMENDMENT.	Original Signed	08.2001
C	150 x 100 UPSTAND ADDED AT BERM.	Original Signed	6.99
B	MINOR AMENDMENTS.	Original Signed	3.94

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A - WITH MASONRY APRON)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE 1 : 25

DATE JAN 1991

DRAWING NO. C2409I

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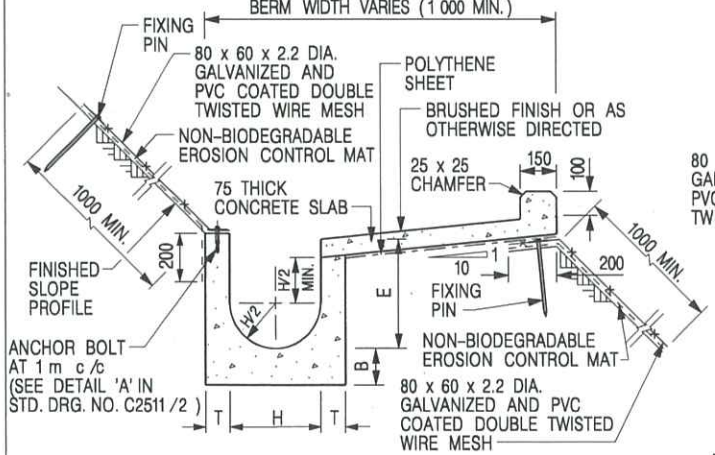
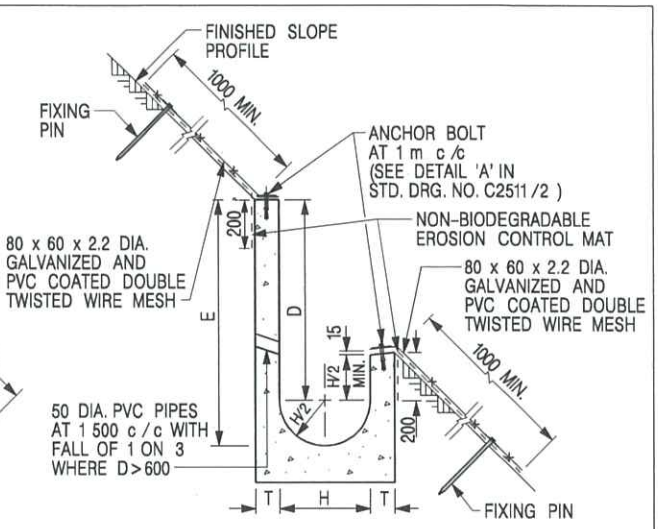
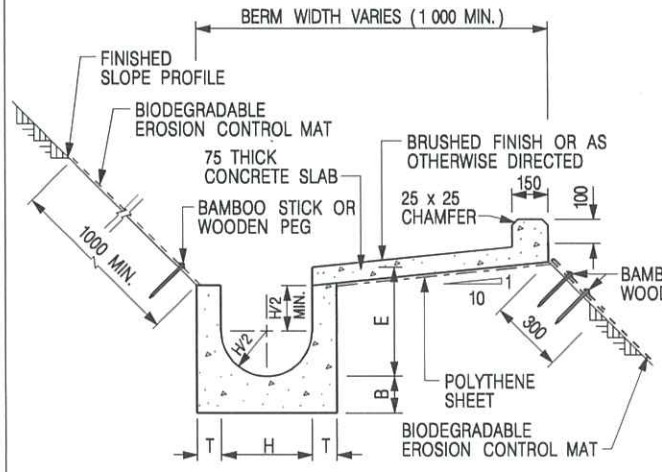


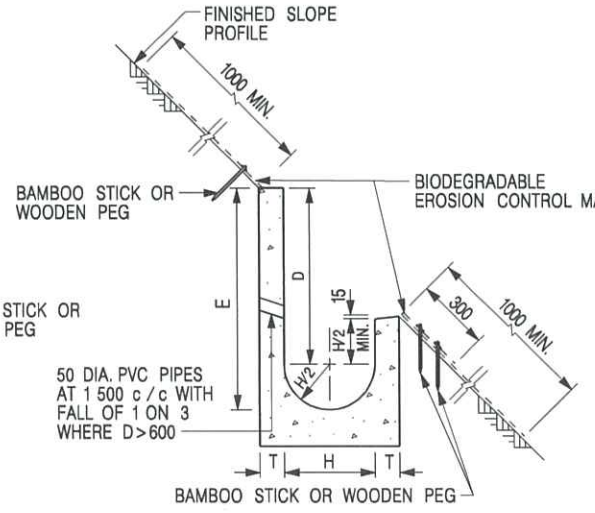
U-CHANNELS CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS NOT CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS CONSTRUCTED ON BERM WITH BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS NOT CONSTRUCTED ON BERM WITH BIODEGRADABLE EROSION CONTROL MAT

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
7. FOR TYPICAL FIXING PIN DETAILS, SEE STD. DRG. NO. C2511/2.
8. MINIMUM SIZE OF 25 x 50 x 300mm SHALL BE PROVIDED FOR WOODEN PEG.
9. MINIMUM SIZE OF 10mm DIAMETER WITH 200mm LONG SHALL BE PROVIDED FOR BAMBOO STICK.
10. THE FIXING DETAILS OF NON-BIODEGRADABLE AND BIODEGRADABLE EROSION CONTROL MATS ON EXISTING BERM SHALL REFER TO STD. DRG. NO. C2511/1.

NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

REF.	REVISION	SIGNATURE	DATE
I	MINOR AMENDMENT.	Original Signed	07.2018
H	FIXING DETAILS OF BIODEGRADABLE EROSION CONTROL MAT ADDED.	Original Signed	12.2017
G	DIMENSION TABLE AMENDED.	Original Signed	01.2005
F	MINOR AMENDMENT.	Original Signed	01.2004
E	GENERAL REVISION.	Original Signed	12.2002
D	MINOR AMENDMENT.	Original Signed	08.2001
C	150 x 100 UPSTAND ADDED AT BERM.	Original Signed	6.99
B	MINOR AMENDMENT.	Original Signed	3.94
A	MINOR AMENDMENT.	Original Signed	10.92

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE B - WITH EROSION CONTROL MAT APRON)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE DIAGRAMMATIC

DATE JAN 1991

DRAWING NO. C2410I

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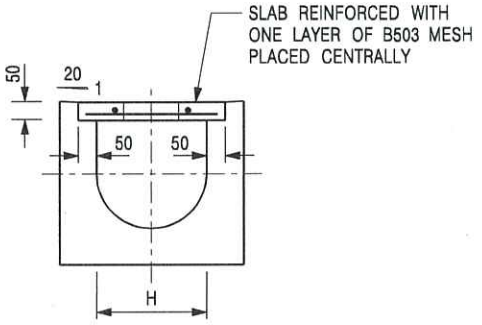
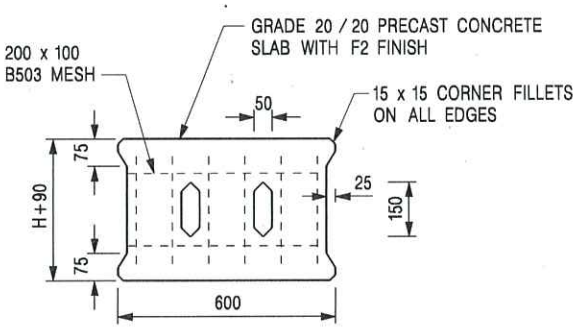


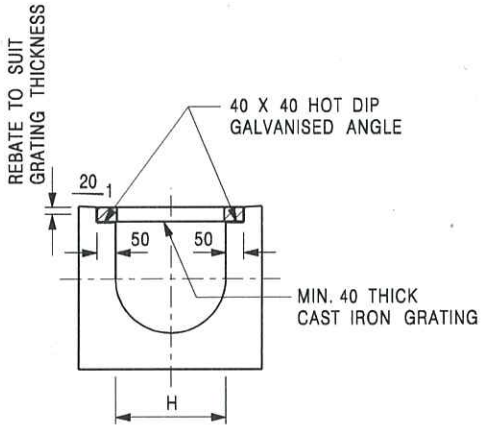
TYPICAL SECTION



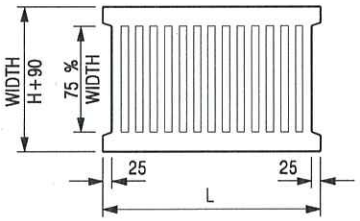
PLAN OF SLAB

U-CHANNELS WITH PRECAST CONCRETE SLABS

(UP TO H OF 525)



TYPICAL SECTION



L = 600mm FOR H ≤ 375mm
L = 400mm FOR H > 375mm

CAST IRON GRATING

(DIMENSIONS ARE FOR GUIDANCE ONLY, CONTRACTOR MAY SUBMIT EQUIVALENT TYPE)

U-CHANNEL WITH CAST IRON GRATING

(UP TO H OF 525)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. H = NOMINAL CHANNEL SIZE.
3. ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
4. FOR COVERED CHANNELS TO BE HANDED OVER TO HIGHWAYS DEPARTMENT FOR MAINTENANCE, THE GRATING DETAILS SHALL FOLLOW THOSE AS SHOWN ON HyD STD. DRG. NO. H3156.

REF.	REVISION	SIGNATURE	DATE
E	NOTES 3 & 4 AMENDED.	Original Signed	12.2014
D	NOTE 4 ADDED.	Original Signed	06.2008
C	MINOR AMENDMENT. NOTE 3 ADDED.	Original Signed	12.2005
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	CAST IRON GRATING AMENDED.	Original Signed	12.2002

COVER SLAB AND CAST IRON GRATING FOR CHANNELS

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2412E

Tai Wah Development Consultants Limited

Our Ref.: DD78 Lot 1366 RP & VL
Your Ref.: TPB/A/NE-TKLN/86

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

By Email

15 July 2024

Dear Sir,

Supplementary Information

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D. 78 and Adjoining Government Land, Ta Kwu Ling North, Lin Ma Hang Road, New Territories

(S16 Planning Application No. A/NE-TKLN/86)

We are writing to submit supplementary information (i.e. a traffic impact assessment) to support the subject application please (**Appendix I**).

Should you require more information regarding the application, please contact the undersigned at your convenience. Thank you for your kind attention.

Yours faithfully,

Matthew NG
Tai Wah Development Consultants Limited

cc DPO/STN, PlanD (Attn.: Mr. William WONG email: wstwong@pland.gov.hk)
(Attn.: Ms. Katie LEUNG email: kyyleung@pland.gov.hk)

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years

Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories

Final TIA Report
July 2024

Ozzo Technology (HK) Ltd
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Wanchai, Hong Kong
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Section 16 Planning Application

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years

Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories

Final TIA Report
July 2024

Contents Amendment Record

This report has been issued and amended as follows:

Revision	Description	Prepared / Date	Checked / Date	Approved / Date
R0a	Final TIA	10/07/2024 TC	12/07/2024 DP	12/07/2024 SC

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Appendix A Layout Plan and Swept Path Analysis

Appendix B 2024 Junction Calculation Sheets

Appendix C 2029 Junction Calculation Sheets

Appendix D 2026 Junction Calculation Sheets

1 INTRODUCTION

1.1 General

1.1.1 Ozzo Technology (HK) Limited was commissioned to undertake a Traffic Impact Assessment (TIA) Study in support of the S16 planning application for the Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years ("Application Site").

1.2 Project Descriptions

1.2.1 The Application Site is located at Lin Ma Hang, abutting Lin Ma Hang Road which can be accessed via Heung Yuen Wai Highway.

1.3 Study Objectives

1.3.1 The main objectives of this Traffic Impact Assessment ("TIA") Study are to:

(i) evaluate the existing vehicular traffic and transport conditions of the project site and to assess the traffic and transport implications of the development to the adjacent road network and pedestrian facilities for the operation of the Application Site;

(ii) identify any existing and potential traffic and transport problems and to recommend possible mitigation measures and advise any necessary traffic arrangement;

(iii) recommend traffic improvement measures for the Application Site, as necessary.

1.4 Report Structure

1.4.1 Following this introductory chapter, this report is arranged as follow:

- Chapter 2 describes the Application Site;
- Chapter 3 outlines the existing traffic conditions;
- Chapter 4 presents the finding of traffic forecast;
- Chapter 5 illustrates the result of Construction TIA;
- Chapter 6 provides the conclusion of the TIA.

2 DESCRIPTONS OF THE APPLICATION SITE

2.1 Site Location

2.1.1 The site is located in Lin Ma Hang and can be accessed via Lin Ma Hang Road which serve as the ingress / egress route of site as shown in **Figure 2-1**.

2.2 Development Parameters for the Application Site

2.2.1 The Application Site consisting of various Lots in D.D. 78 in Lin Ma Hang, with a Site area of 24,446m^2.

2.2.2 The Site involves a temporary warehouse with ancillary facilities excluding dangerous goods.The current application is intended to facilitate the relocation of the applicant's affected business premises in Ngau Tam Mei to the Application Site.

2.2.3 The operation hours of the proposed development are Monday to Saturday from 07:00 to 20:00. No operations on Sunday and public holiday. It is anticipated to accommodate not more than 30 staff. Visitor is not anticipated at the Site.

2.3 Parking and Loading/Unloading Facilities

2.3.1 As franchised bus (KMB route no. 79K) would be the main mode of transport for staffs travelling to the warehouse, private car generation/ attraction is expected to be minimal. **Table 2-1** presents the traffic induced by the operation of the warehouse.

Table 2-1 Development Traffic

Time Period	Trip Generation and Attraction (veh/hr)					
	PC		MGV		CV	
	In	Out	In	Out	In	Out
Trip at AM Peak hour	10	1	2	1	2	1
Trip at PM Peak hour	0	6	1	2	2	2
Trip at Non-peak per hour (average)	2	2	1	1	1	1

2.3.2 **Table 2-2** summarizes the internal transport facilities to be provided in the Application Site. As there are no specific parking and loading/unloading requirements for temporary warehouse development in accordance to HKPSG, ancillary transport facilities are provided based on users' requirements to meet operational needs.

Table 2-2 Ancillary Transport Facilities Based on User's Requirement

Type of Ancillary Transport Facilities	Size	Provision based on User's Requirement
Private Car Parking Space	2.5m (W) x 5m (L)	12
Container Vehicle Parking Space	3.5m (W) x 16m (L)	4
Total Parking Facilities	**-**	**16**
L/UL Spaces for MGV	3.5m (W) x 11m (L)	4
L/UL Spaces for Container Vechicle	3.5m (W) x 16m (L)	7
Total L/UL Facilities	**-**	**11**

2.3.3 The conceptual layout plan of the Project Site is included in **Appendix A** for easy reference.

2.4 Vehicular Access Arrangement and Proposed Access Road

2.4.1 The Application Site consist of two vehicular accesses which are located at the north of the site and at the east of the site (hereinafter named as "North Gate" and "East Gate") as shown in **Figure 2.2**. Vehicles can access the site via both gates and pedestrian can only access the site via the East Gate. The East Gate can be accessed by Lin Ma Hang Road while the North Gate is currently inaccessible by vehicles.

2.4.2 To facilitate the vehicular access of the North Gate, a 4.5m wide single track access road with a 12m long passing bay is proposed. Layout of the proposed access road is also presented in **Figure 2-2**. The 12m long passing bay is able to accommodate two light vehicles (or a MGV), as overhead traffic of two 16m long container vehicles is very unlikely, a 12m long passing bay is considered to be adequate.

2.4.3 Swept path analysis is also conducted for the vehicular accesses and the proposed access road, indicating sufficient turning spaces for goods vehicles. **Appendix A** presents the swept path analysis for the vehicular access of the Application Site, as well as internal circulation to/from the parking spaces/ L/UL spaces within the site.

2.4.4 Staffs will be deployed to conduct traffic management/ control measures at the accesses of the site to ensure smooth maneuvering of vehicles entering/ exiting the site and to ensure no queueing of vehicles outside the site. In case there are overlapping traffic (e.g. vehicles entering/ exiting thar site at the same time, which should be very unlikely), traffic entering the site will have priority over the leaving traffic in order to minimize the impact to public road.

2.4.5 To ensure pedestrian safety, staffs would also alert nearby pedestrians by blowing whistle when vehicles approaching/ exiting the Application Site.

3 EXISTING TRAFFIC AND TRANSPORT CONDITIONS

3.1 Existing Road Network

3.1.1 The Site is bounded by Lin Ma Hang Road as shown in **Figure 2-1** which is a single 2-lanes carriageway and can be accessed via Heung Yuen Wai Highway.

3.2 Traffic Surveys

3.2.1 Vehicular count survey was conducted on a typical weekday in January 2024 at the critical junctions and links shown in **Figure 3.1** during the period of 0730-1000 for AM peak and 1700-1930 for PM peak. The details of the critical junction are listed in **Table 3-1** below.

Table 3-1 Critical Junctions and Links

Index	Location	Type
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	Road Link
L2	Heung Yuen Wai Hwy Slip Road NB	Road Link
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	Road Link

3.3 Existing Vehicle Traffic Conditions

All vehicle flows recorded during the traffic surveys have been converted to passenger car unit (PCU) based on the PCU factors as indicated in Table 2.3.1.1 of Volume 2 of Transport Planning and Design Manual (TPDM) as illustrated in **Table 3-2**.

Table 3-2 Passenger Car Unit Conversion Factors

Vehicle Type	PCU Conversion Factor(1)
	Priority junction/ Roundabout
Car / Taxi	1.00
Public Light Bus / Minibus / Light Goods Vehicle	1.50
Medium Goods Vehicle	2.00
Heavy Goods Vehicle	2.50
Bus / Coach	2.50

Notes: (1) Table 2.3.1.1, Chapter 2.3, Volume 2, TPDM-2023

3.3.1 By applying the above PCU factors, vehicular traffic flows in PCUs are calculated and the AM and PM peak hour is identified to occur at 08:45-09:45 and 16:30-17:30 for AM peak and PM peak respectively. **Figure 3-2** presents the 2024 observed Weekday AM and PM peak hour traffic flows on the road network in the vicinity of the Application Site.

3.3.2 Based on the existing traffic flows, the peak hour performances of the key junctions are assessed. The assessment results are indicated in **Table 3-3** and detailed junction calculation sheets are given in **Appendix B**.

Table 3-3 2024 Peak Hour Junction Capacity Assessment

Jn. ID.	Location(1)	Type	Capacity Index(2)	2024 Weekday	
				AM Peak	PM Peak
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout	DFC	0.20	0.18
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority	DFC	0.07	0.07

Notes:
(1) Refer to Figure 3-1 for junction locations
(2) DFC = Design Flow to Capacity for priority junction and roundabout

3.3.3 The results reveal that all the assessed key junctions are operated satisfactorily during the peak hours.

3.3.4 Based on the existing traffic flows, the peak hour performances of the key road links in the vicinity of the Application Site are also assessed and the results are indicated in **Table 3-4**.

Table 3-4 2024 Peak Hour Road Link Capacity Assessment

No.	Location[1]	Direction	Design[2] Capacity (veh/hr)	Weekday AM Peak		Weekday PM Peak	
				Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	EB	400	167	0.42	159	0.4
		WB	400	142	0.36	132	0.33
L2	Heung Yuen Wai Hwy Slip Road	NB	1500	127	0.08	101	0.07
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	NB	400	69	0.17	77	0.19
		SB	400	166	0.42	156	0.39

Notes: (1) Refer to Figure 3-1 for road link locations
(2) TPDM Vol 2 Chapter 2.4.1.1
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

3.3.5 The results reveal that all the key road links in the vicinity of the Project Site operate within capacity during the peak hours.

4 TRAFFIC FORCAST

4.1 Design Year

4.1.1 According to current programme, the proposed warehouse development will commission in the year of 2026 and last for 3 years, the design year for traffic forecast is therefore set to be 2029.

4.2 Methodology

4.2.1 In forecasting the future traffic flows on the road network in the Study Area, due considerations are given to the following information and factors:

- Historical traffic data from Annual Traffic Census (ATC) published by Transport Department;
- The forecasted population and employment from the 2019-based Territorial Population and Employment Data Matrices (TPEDM) planning data published by Planning Department;
- Committed and planned developments in the Study Area.

4.2.2 The following steps are undertaken to derive the 2029 Peak Hour Reference Flows (i.e. without the Project Site) and Design Flows (i.e. with the Application Site).

2029 Background Flows = 2024 Flows x annual growth factors

2029 Reference Flows = 2029 Background Flows + additional traffic by planned and committed developments

2029 Design Flows = 2029 Reference Flows + development traffic

4.2.3 The traffic impact to be induced by the Development is assessed by comparing the Peak Hour Reference Traffic Flows against the Peak Hour Design Traffic Flows for the Design Year.

4.3 Future Year Traffic Flows

Historical Traffic Growth

4.3.1 The TPEDM data in NENT(others) covers larger scale of the North East area. Considering the application site is located in the rural area (close to boundary area) and is not in the proximity to town centre or other planned NDA, the TPEDM data in NENT(others) is deemed to be less relevant to reflect the population and employment situations of the vicinity of the Application Site.

4.3.2 To obtain a more relevant growth rate, reference is also made to the historical traffic data from Annual Traffic Census (ATC) published by Transport Department. The historical trend of traffic growth on the nearby road network over the 5-year period of 2018 to 2022 are extracted from the Annual Traffic Census (ATC) Reports for the ATC stations in the vicinity of the site. **Table 4-1** describes the locations of the nearby ATC stations and provides the corresponding traffic data.

Table 4-1 Traffic Data from ATC in the vicinity of the site

Station	Road	Between		2018	2019	2020	2021	2022	Average Annual Growth 2018-2022
6653	Ping Che Rd	Sha Tau Kok Rd	Lin Ma Hang Rd	11,430	11,820	11,030	11,870	11,510	0.17%
5041	Lung Shan Tunnel (1)	Fanling Highway	Sha Tau Kok Road – Wo Hang	-	13,540	13,840	16,870	16,400	6.60%
Total				11,430	25,360	24,870	28,740	27,910	**3.25%**

Note: (1) Station 5041 started to record since year 2019 when the Heung Yuen Wai Highway commissioned

4.3.3 As indicated in **Table 4-1**, the traffic on the road network in the vicinity of the Application Site is increased by 3.25% p.a. on average over the period from 2019 – 2022. This will be adopted as annual growth rate to project future traffic flow.

Planned and Committed Developments

4.3.4 By referring to the TPB website, it is known that there would be other planned developments commissioned in the vicinity of the application site, as listed in **Table 4-2**.

Table 4-2 Planned / Committed Developments in the Site Vicinity

Application No.	Location	Land Use	Site Area (m^2)
A/NE-TKLN/85	Lots 1364 S.B RP and 1364 S.B ss.1 RP in D.D. 78, Ta Kwu Ling North, Lin Ma Hang Road, New Territories	Proposed Temporary Warehouse (Storage of Building Materials and Metal)	1,105

A/NE-TKLN/77	Various Lots in D.D. 78 and 82 and Adjoining Government Land, Ta Kwu Ling North, Lin Ma Hang Road, New Territories	Proposed Temporary Logistic Centre, Warehouse (Excluding Dangerous Goods Godown) and Container Vehicle Park	122,819
A/NE-TKLN/63	Lots 1309 S.B ss.3 and 1313 RP in D.D. 78 and Adjoining Government Land, Ta Kwu Ling North, New Territories	Proposed Temporary Private Club	451.5

2029 Reference Flows

4.3.5 By incorporating the planned development traffic and annual growth mentioned in **Section 4.3.4** and **Section 4.3.2** respectively, the 2029 Reference Traffic Flow are presented in **Figure 4-1**.

2029 Design Flows

4.3.6 The additional development traffic mentioned in **Section 2.3** is then assigned onto the nearby road network in addition to the Reference Traffic Flow presented in **Figure 4-1**. The resulting 2029 Design Traffic Flow are shown in **Figure 4-2.**

4.4 Future Year Junction Capacity Assessments

4.4.1 The critical road junction as identified in **Section 3.2** are assessed in the light of traffic forecast for the design year 2029 defined in **Section 4.1**. The results are shown in in **Table 4-3** with detailed junction calculation sheets provided in **Appendix C**.

Table 4-3 2029 Peak Hour Junction Capacity Assessment

Jn. ID.	Location(1)	Type	Capacity Index(2)	2029 Reference Scenario		2029 Design Scenario	
				AM Peak	PM Peak	AM Peak	PM Peak
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout	DFC	0.33	0.31	0.34	0.32
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority	DFC	0.09	0.08	0.09	0.08

Notes:
(1) Refer to Figure 3-1 for junction locations
(2) DFC = Design Flow to Capacity for priority junction and roundabout

4.4.2 It is indicated in the above **Table 4-3** that the identified critical junctions would operate satisfactorily during peak hours in the design years of 2029 without and with the Development in place, taking account of the known planned/ committed major developments in the vicinity of the Application Site.

4.5 Future Year Link Capacity Assessments

4.5.1 The critical road links as identified in **Section 3.2** are also assessed based on the future year traffic flow derived in **Section 4.3** and the results are presented in **Table 4-4**.

Table 4-4 2029 Peak Hour Road Link Capacity Assessment

No.	Location[1]	Dir.	Design[2] Capacity (veh/hr)	2029 Reference Scenario (AM Peak)		2029 Reference Scenario (PM Peak)		2029 Design Scenario (AM Peak)		2029 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	EB	400	219	0.55	244	0.61	222	0.56	254	0.64
		WB	400	223	0.56	178	0.45	237	0.59	181	0.45
L2	Heung Yuen Wai Hwy Slip Road	NB	1500	172	0.11	176	0.12	175	0.12	186	0.12
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	NB	400	81	0.2	91	0.23	81	0.20	91	0.23
		SB	400	251	0.63	207	0.52	265	0.66	210	0.53

Notes: (1) Refer to Figure 3-1 for road link locations
(2) TPDM Vol 2 Chapter 2.4.1.1 and
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

4.5.2 The results in the above **Table 4-4** indicate that all the key road links would be operating within their capacity in the design year of 2029.

5 CONSTRUCTION TRAFFIC IMPACT ASSESSMENT

5.1 Design Year Peak Hour Construction Traffic

5.1.1 Under current programme, the construction works will be completed in the year of 2026. Thus 2026 is adopted as the design year for construction traffic impact assessment.

5.1.2 The construction traffic mainly consists of concrete delivery and dump trucks. A conservative estimation of 8 veh/hr, which is equivalent to 16 pcu/hr is adopted in this Construction Traffic Impact Assessment.

5.1.3 The same approach in forecasting the 2029 Design Peak Hour Traffic (refers to Chapter 4) is adopted to forecast the 2026 Design Peak Hour Traffic as summarized below:

2026 Background Flows = 2024 Flows x annual growth factors

2026 Reference Flows = 2026 Background Flows + additional traffic by planned and committed developments

2026 Design Flows = 2026 Reference Flows + construction traffic

5.2 Construction Traffic Impact Assessment

5.2.1 The 2026 Peak Hour Traffic Flows during construction period are shown in **Figure 5-1** and **Figure 5-2** respectively. Based on the traffic forecasts, results of the junctions and links capacity assessments during the construction year are presented in **Table 5-1** and **Table 5-2** respectively. Detailed calculation sheets of the junction assessments are provided in **Appendix D**.

Table 5-1 2026 Peak Hour Junction Capacity Assessment

Jn. ID.	Location(1)	Type	Capacity Index(2)	2026 Reference Scenario		2026 Design Scenario	
				AM Peak	PM Peak	AM Peak	PM Peak
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout	DFC	0.31	0.29	0.32	0.30
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority	DFC	0.08	0.07	0.08	0.07

Notes:
(1) Refer to Figure 3-1 for junction locations
(2) DFC = Design Flow to Capacity for priority junction and roundabout

Table 5-2 2026 Peak Hour Road Link Capacity Assessment

No.	Location[1]	Dir.	Design[2] Capacity (veh/hr)	2026 Reference Scenario (AM Peak)		2026 Reference Scenario (PM Peak)		2026 Design Scenario (AM Peak)		2026 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	EB	400	201	0.50	226	0.57	209	0.52	234	0.59
		WB	400	207	0.52	164	0.41	215	0.54	172	0.43
L2	Heung Yuen Wai Hwy Slip Road	NB	1500	158	0.11	165	0.11	166	0.11	173	0.12
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	NB	400	74	0.19	82	0.21	74	0.19	82	0.21
		SB	400	233	0.58	189	0.47	241	0.60	197	0.49

Notes: (1) Refer to Figure 3-1 for road link locations
(2) TPDM Vol 2 Chapter 2.4.1.1
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

5.2.2 The results indicate that the key junctions and road links in the vicinity of the application site would operate at an acceptable level during the weekday AM and PM peak hours even with the construction traffic to be generated during the construction period.

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 Ozzo Technology (HK) Limited is commissioned to undertake this Traffic Impact Assessment (TIA) Study to assess the traffic impact to be induced by the Application Site on the nearby road network.

6.1.2 Capacity assessments are undertaken to reveal the AM and PM peak hour traffic conditions for year 2024 and 2029 in the vicinity of the Application Site. The assessment results indicate that all the key junctions and road links perform satisfactorily during the AM and PM peak hours on a normal weekday for both the Reference and Design scenarios.

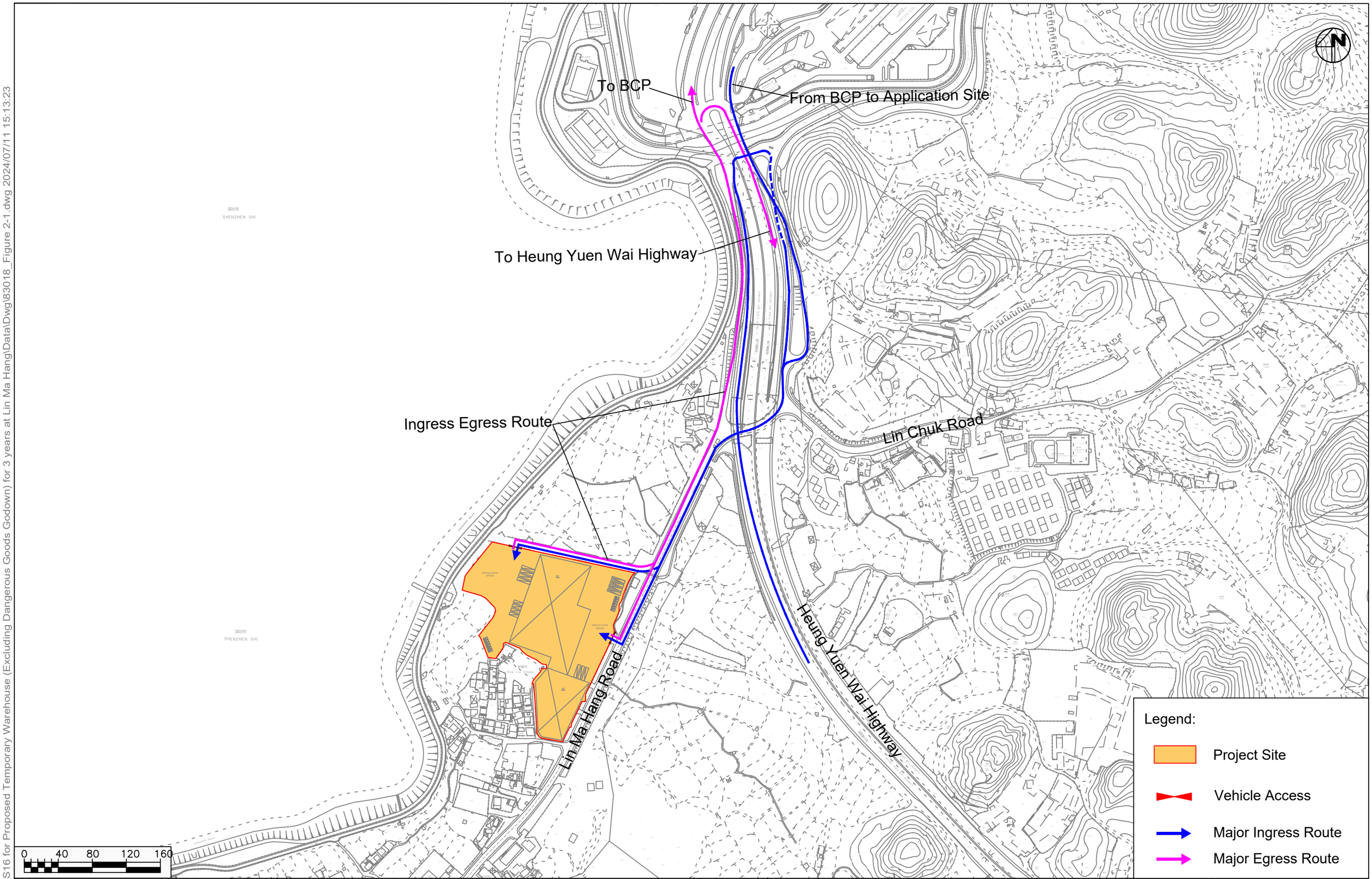
6.1.3 To facilitate the vehicular access of the North Gate, a single track access road with a 12m long passing bay is proposed.

6.1.4 Construction traffic impact assessment is also conducted and indicates that the key junctions and road links in the vicinity of the project site would operate at an acceptable level during the weekday AM and PM peak hours even with the construction traffic to be generated during the construction period.

6.2 Conclusion

6.2.1 The impact assessment results indicate that the Application Site would not induce significant traffic impacts and considered acceptable from traffic engineering viewpoint.

Figures



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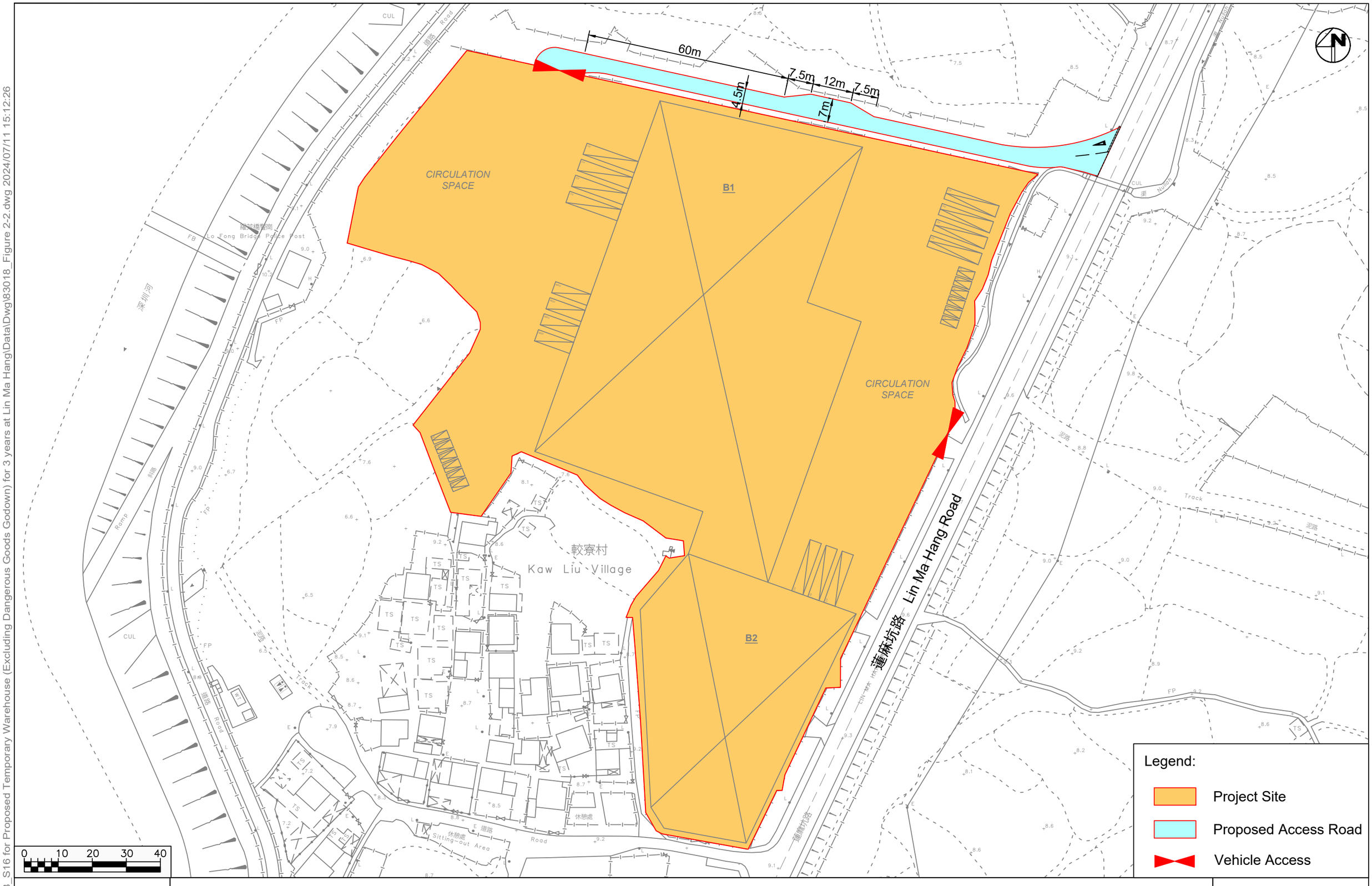
OZZO TECHNOLOGY

Date	Scale
11/07/2024	1:4000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Major Ingress / Egress Route

Project No.	83018	Rev.
Dwg No.	Figure 2-1	-



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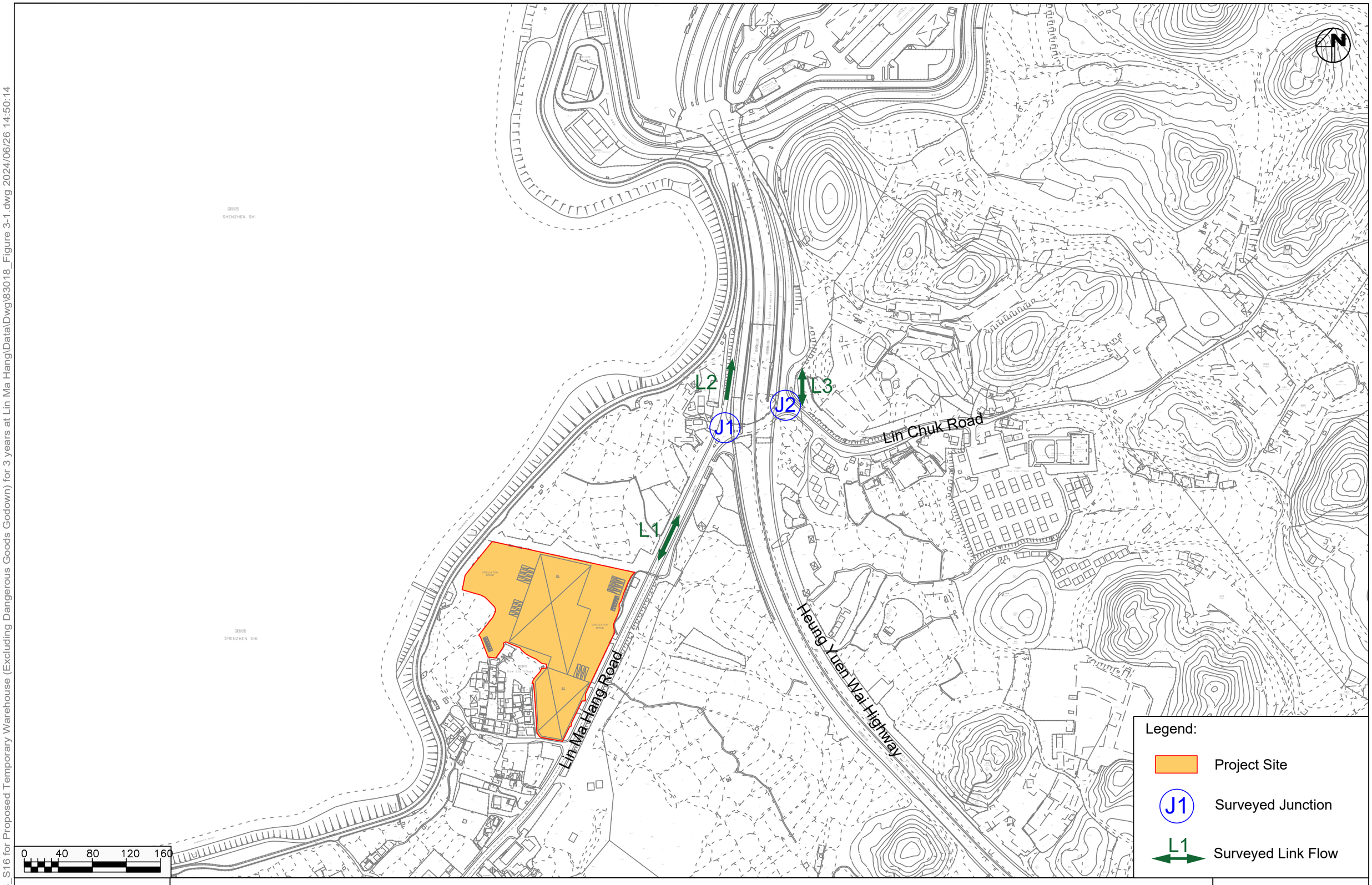
OZZO TECHNOLOGY

Date	Scale
11/07/2024	1:1000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Proposed Access Road

Project No. 83018	Rev.
Dwg No. Figure 2-2	-



OZZO TECHNOLOGY

Date 26/06/2024

Scale 1:4000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Survey Locations

Project No. 83018

Dwg No. Figure 3-1

Rev. -

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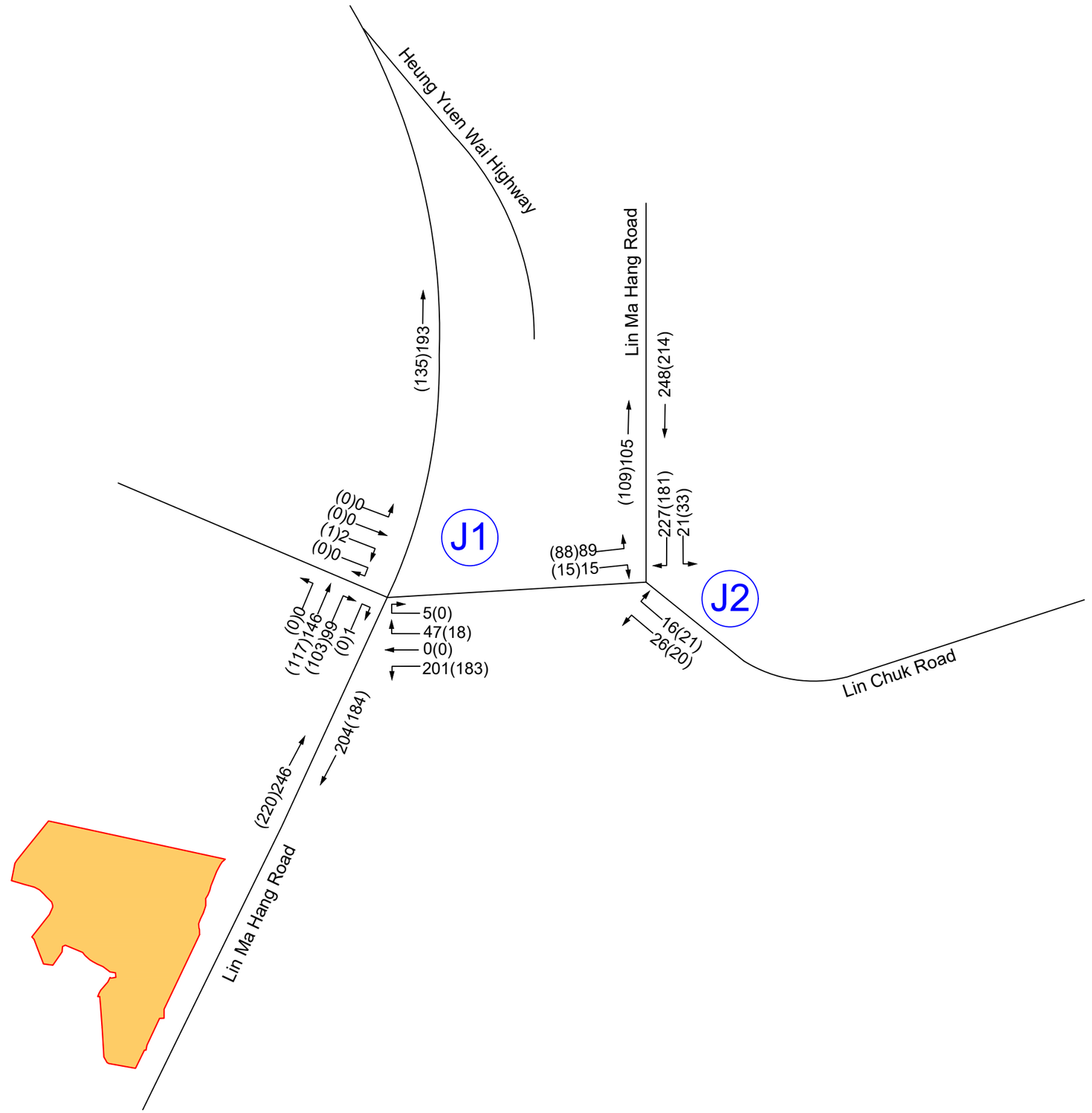


Legend:

- Application Site
- J1 Surveyed Junction
- Weekday AM Peak Hour Traffic Flow
- 123(123) Weekday PM Peak Hour Traffic Flow

Note: Traffic Flows at Junction in PCU values
Minor Road not shown for Clarity

OZZO TECHNOLOGY

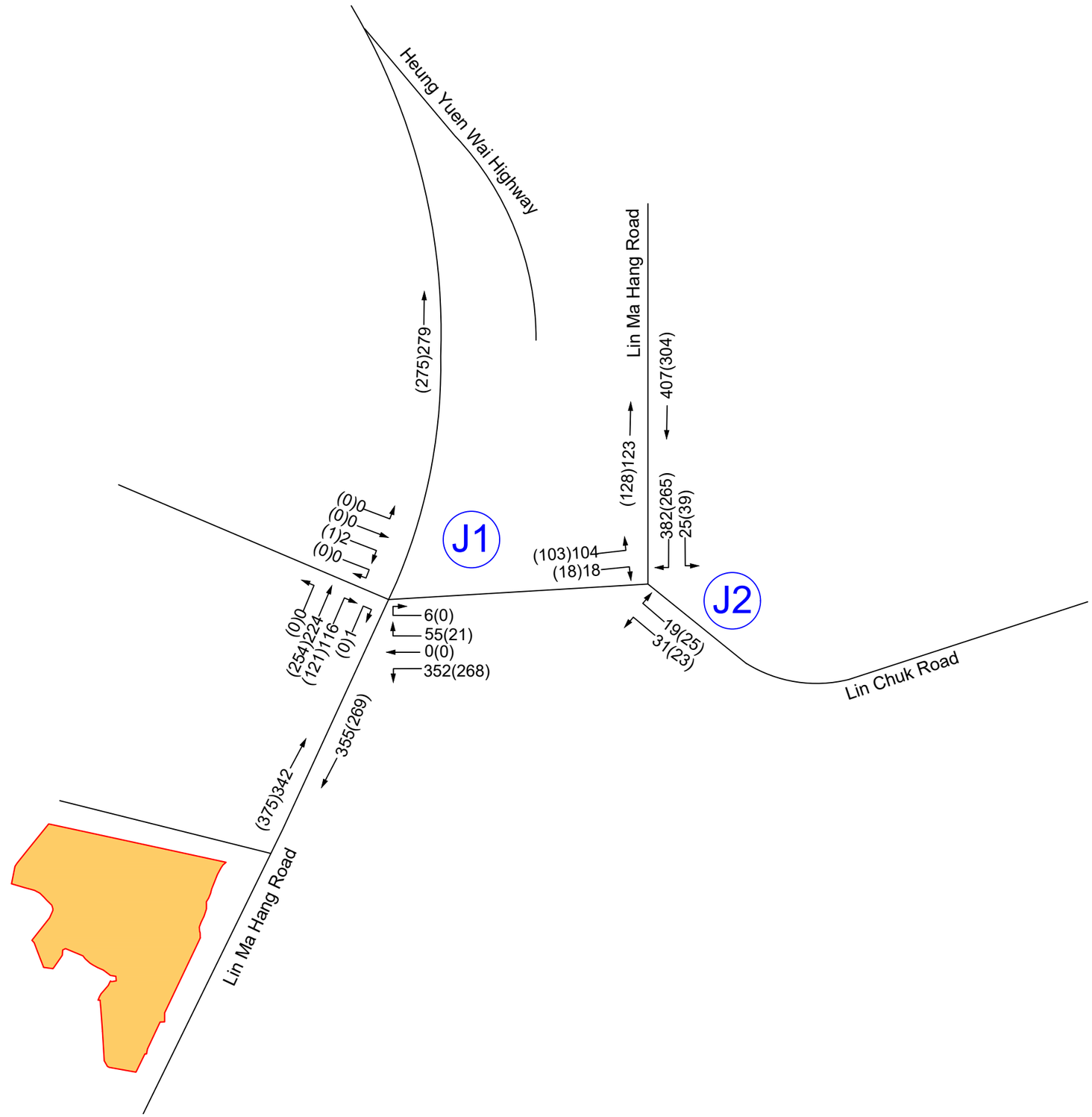
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2024 Existing Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

Project No.	Rev.
83018	-
Dwg No. Figure 3-2	

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_Figure 3-2.dwg 2024/07/11 11:25:35



Legend:

- Application Site
- J1 Surveyed Junction
- Weekday AM Peak Hour Traffic Flow
- 123(123) Weekday PM Peak Hour Traffic Flow

Note: Traffic Flows at Junction in PCU values
Minor Road not shown for Clarity

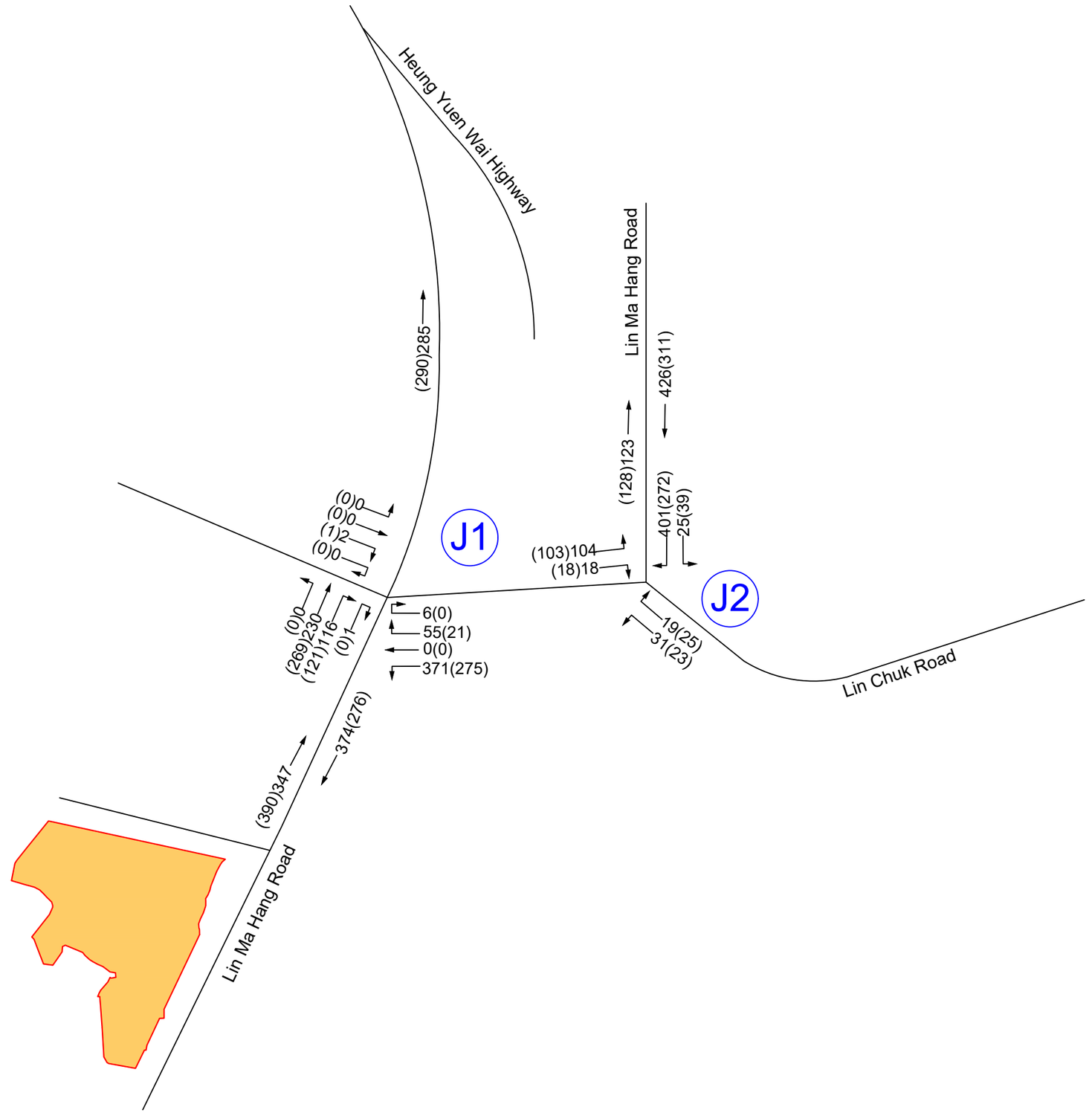
OZZO TECHNOLOGY

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2029 Reference Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 4-1	-



S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

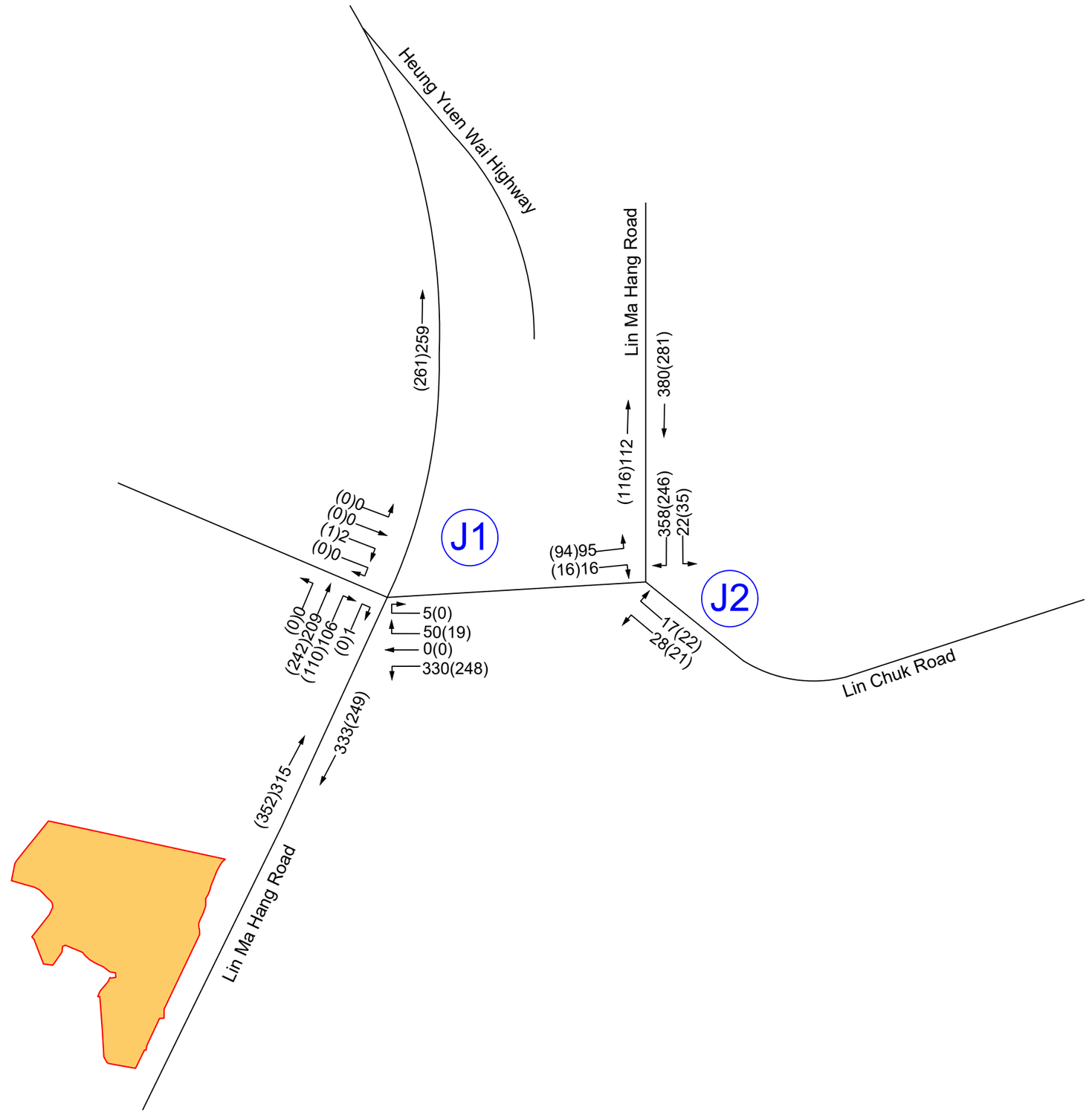
2029 Design Peak Hour Traffic Flows

OZZO TECHNOLOGY

Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 4-2	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_Figure 4-2.dwg 2024/07/11 11:25:16



Legend:

- Application Site
- J1 Surveyed Junction
- Weekday AM Peak Hour Traffic Flow
- 123(123) Weekday PM Peak Hour Traffic Flow

Note: Traffic Flows at Junction in PCU values
Minor Road not shown for Clarity

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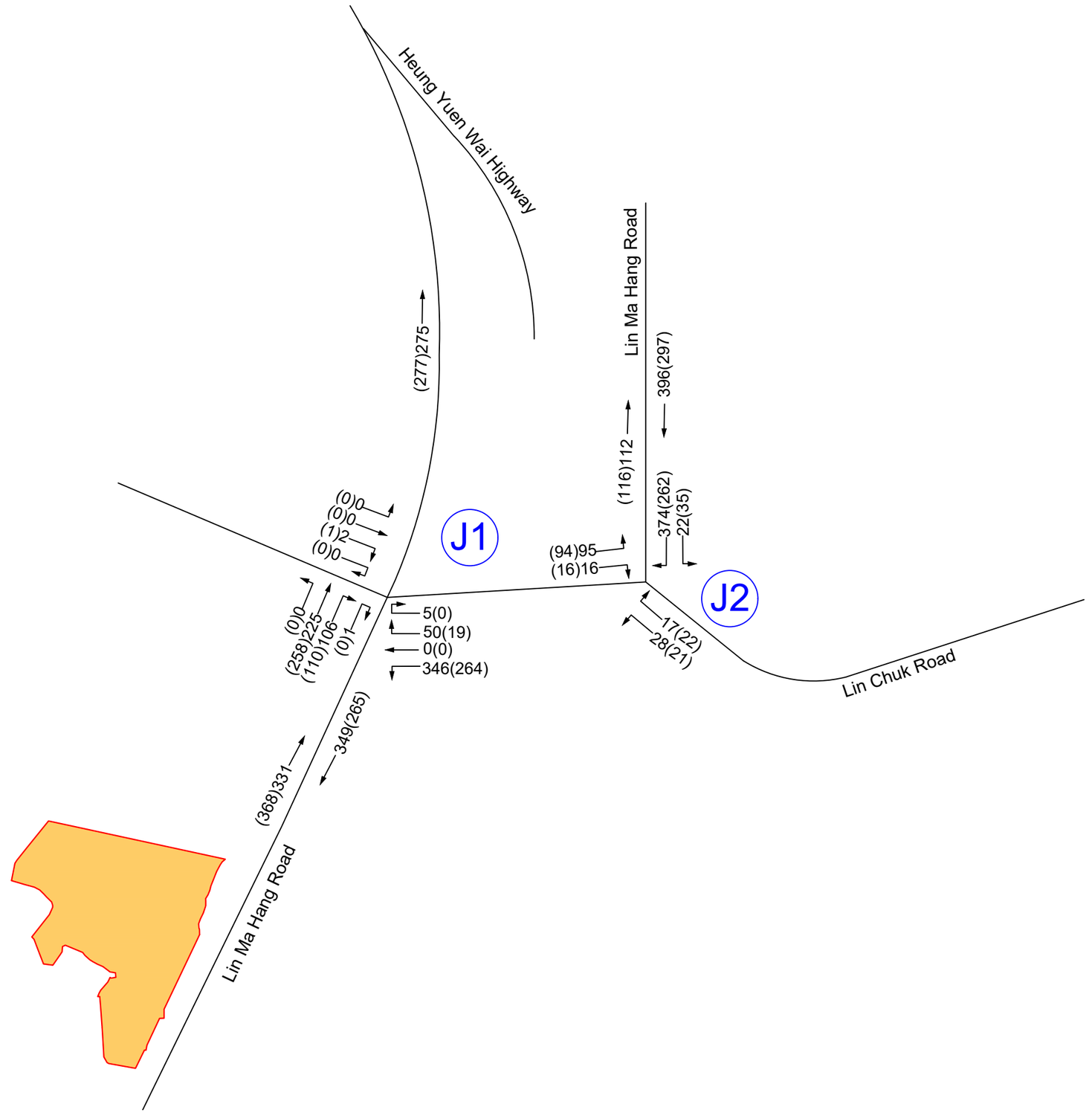
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2026 Reference Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 5-1	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_Figure 5-1.dwg 2024/07/11 11:25:04



OZZO TECHNOLOGY

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2026 Design Peak Hour Traffic Flows

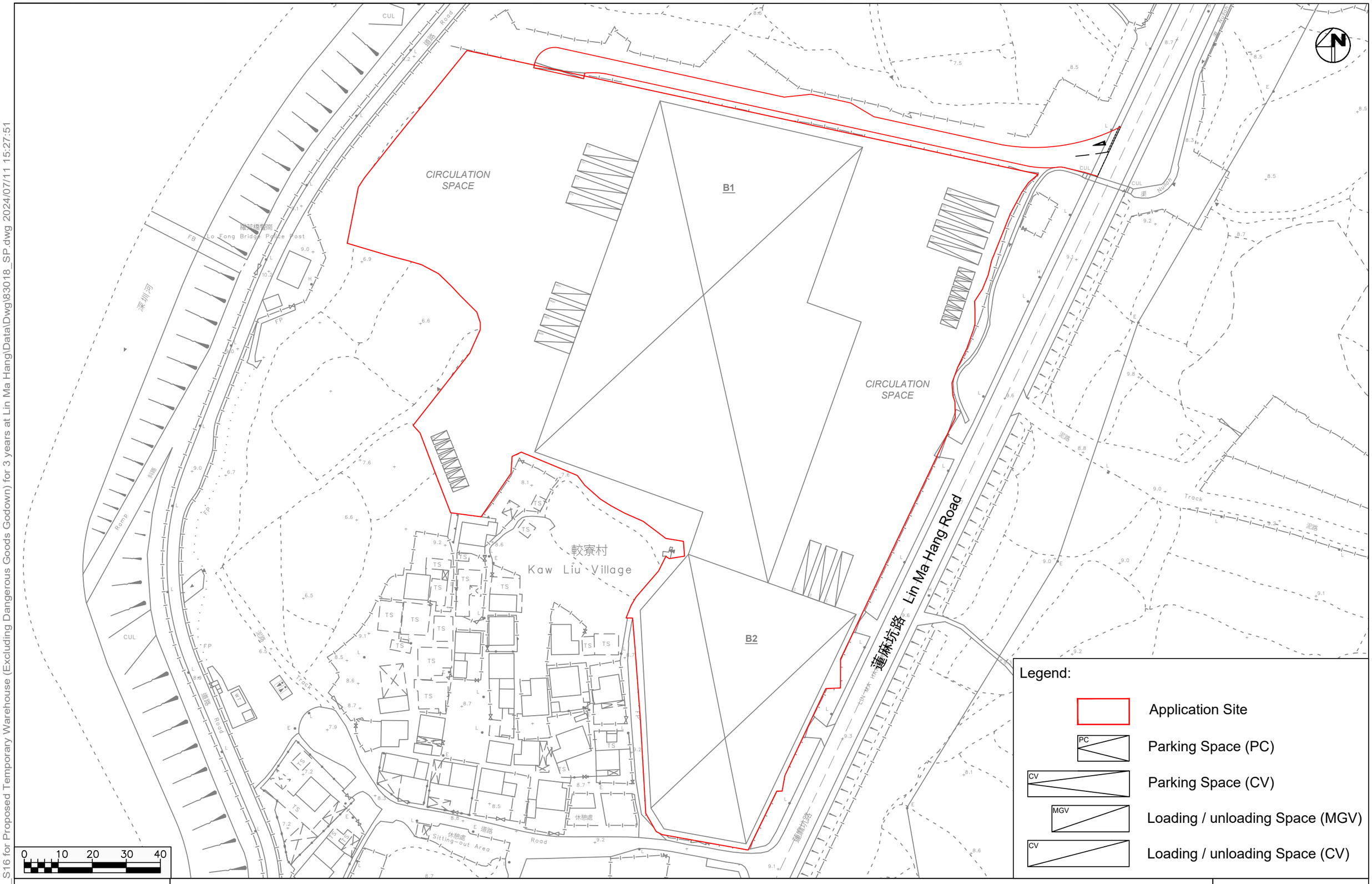
Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 5-2	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_Figure 5-2.dwg 2024/07/11 11:24:49

Appendix A

Conceptual Layout Plan and Swept Path Analysis



Legend:

- Application Site
- Parking Space (PC)
- Parking Space (CV)
- Loading / unloading Space (MGV)
- Loading / unloading Space (CV)

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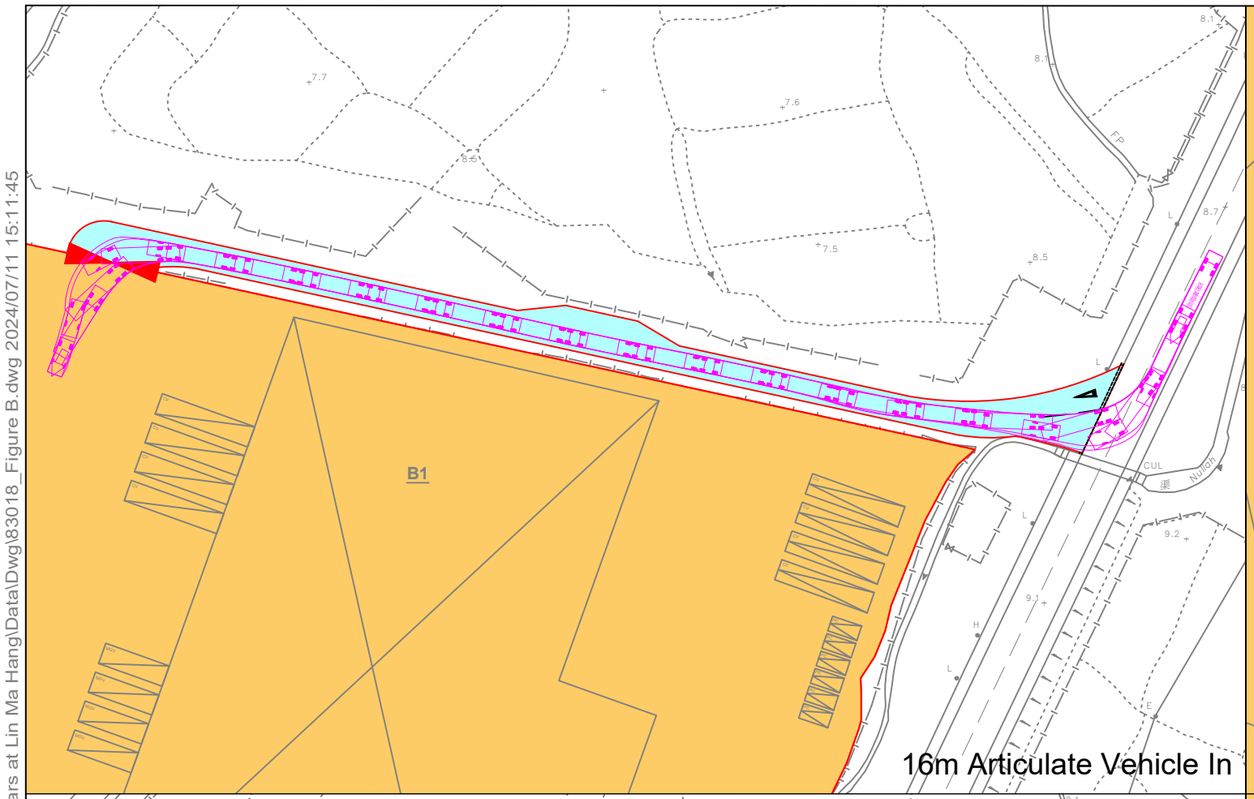
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

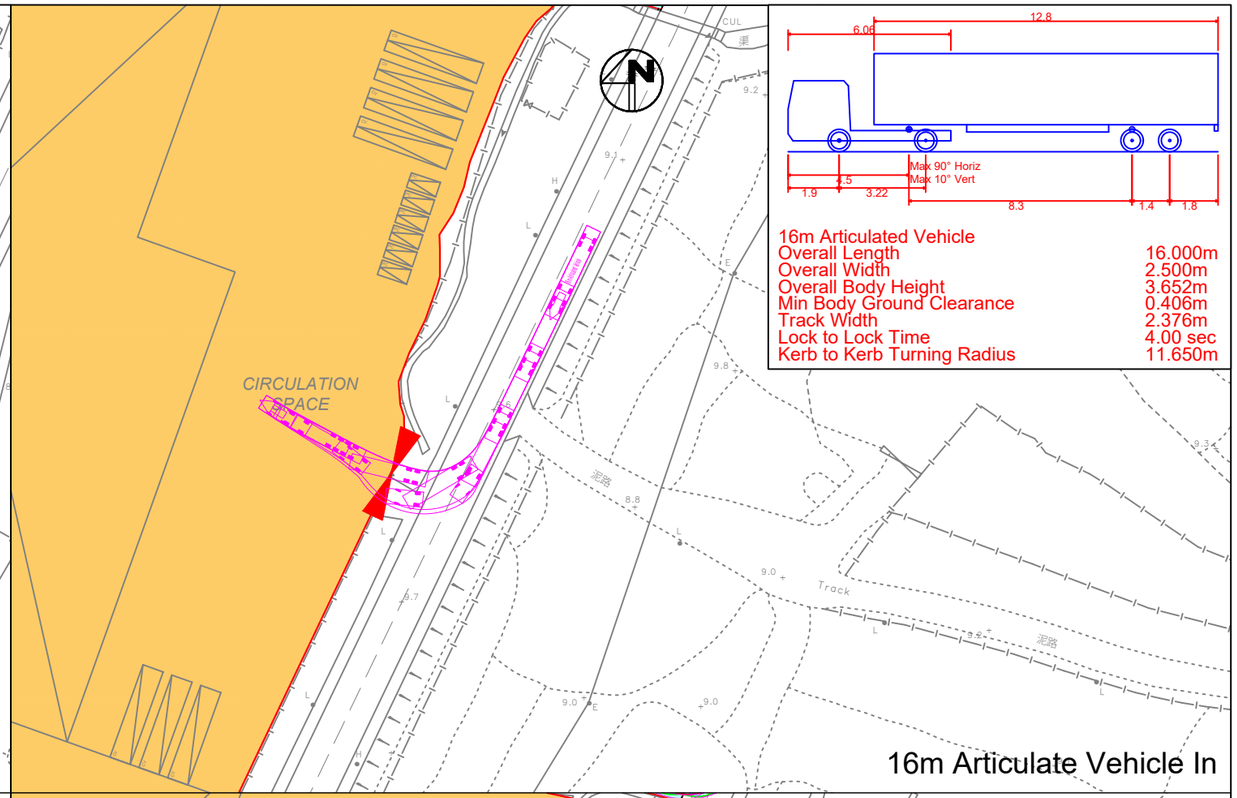
Layout Plan

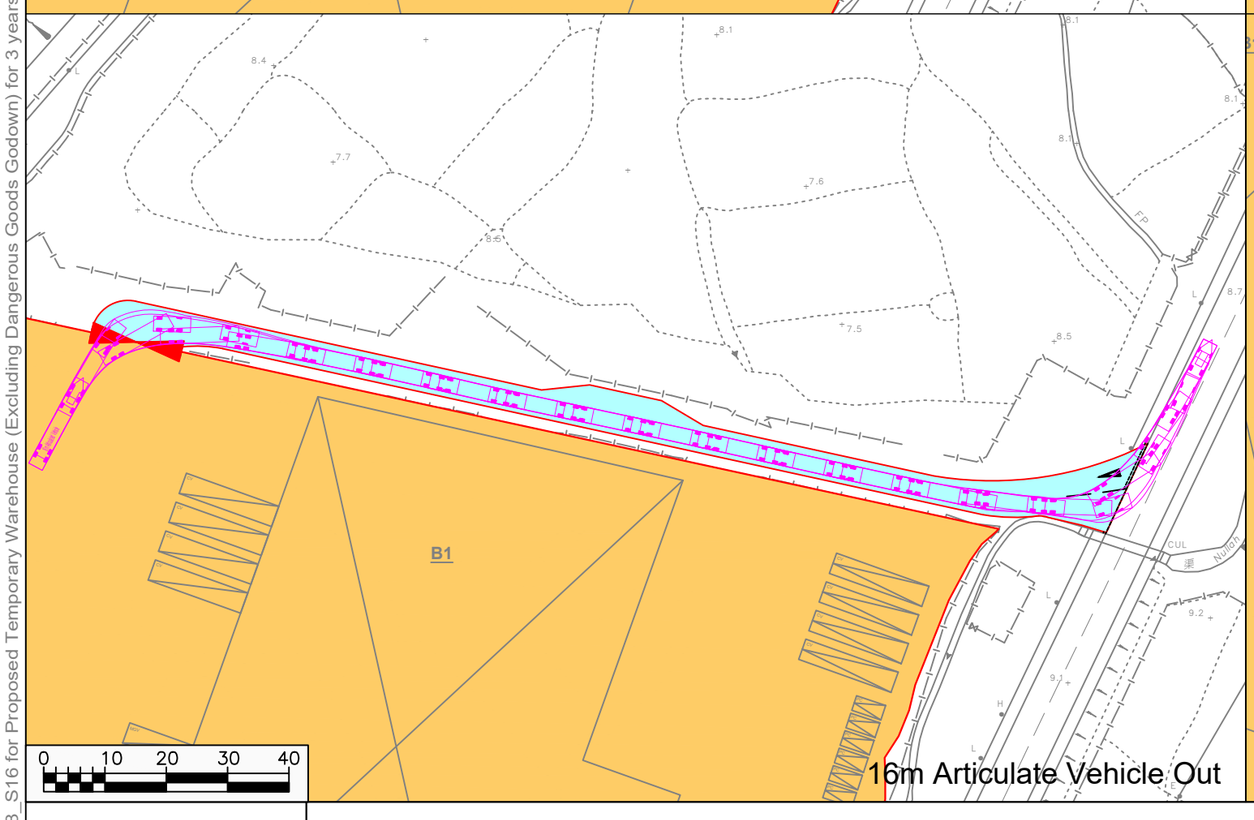
Date	Scale
11/07/2024	1:1000

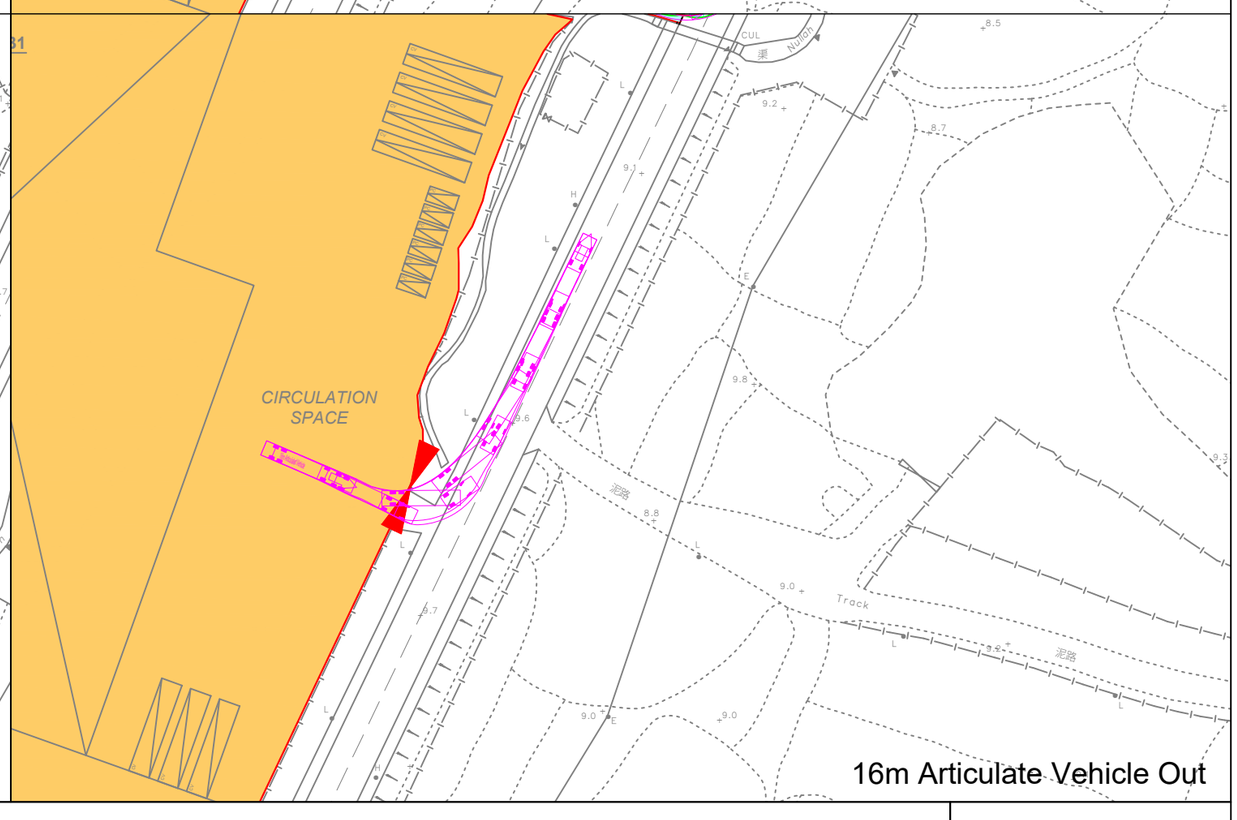
Project No.	83018	Rev.
Dwg No.	Figure A	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_SP.dwg 2024/07/11 15:27:51









0 10 20 30 40

OZZO TECHNOLOGY

Date 11/07/2024 | Scale 1:1000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Proposed Access Road and 16m Articulate Vehicle Swept Path

Project No. 83018 | Rev. -

Dwg No. Figure B

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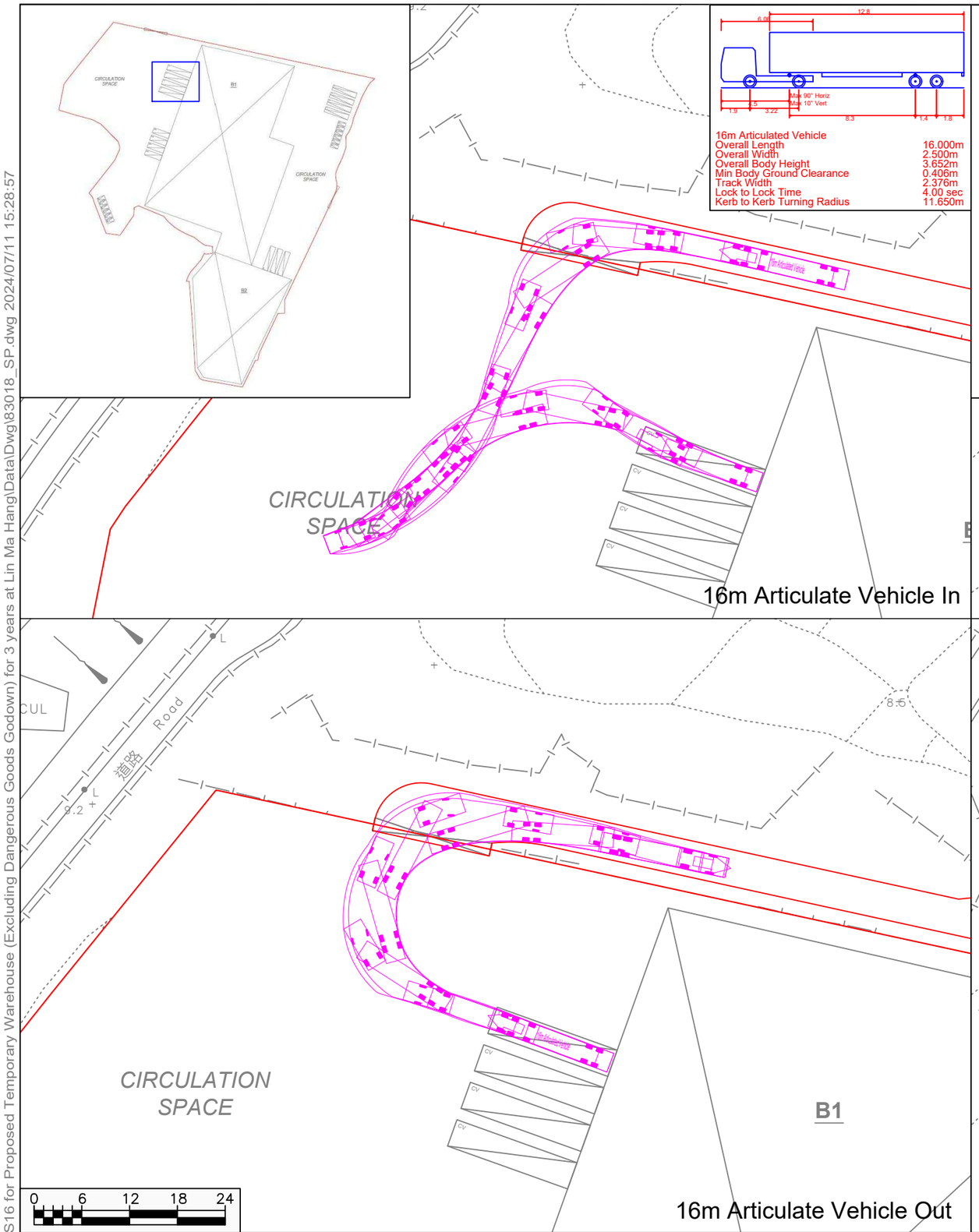
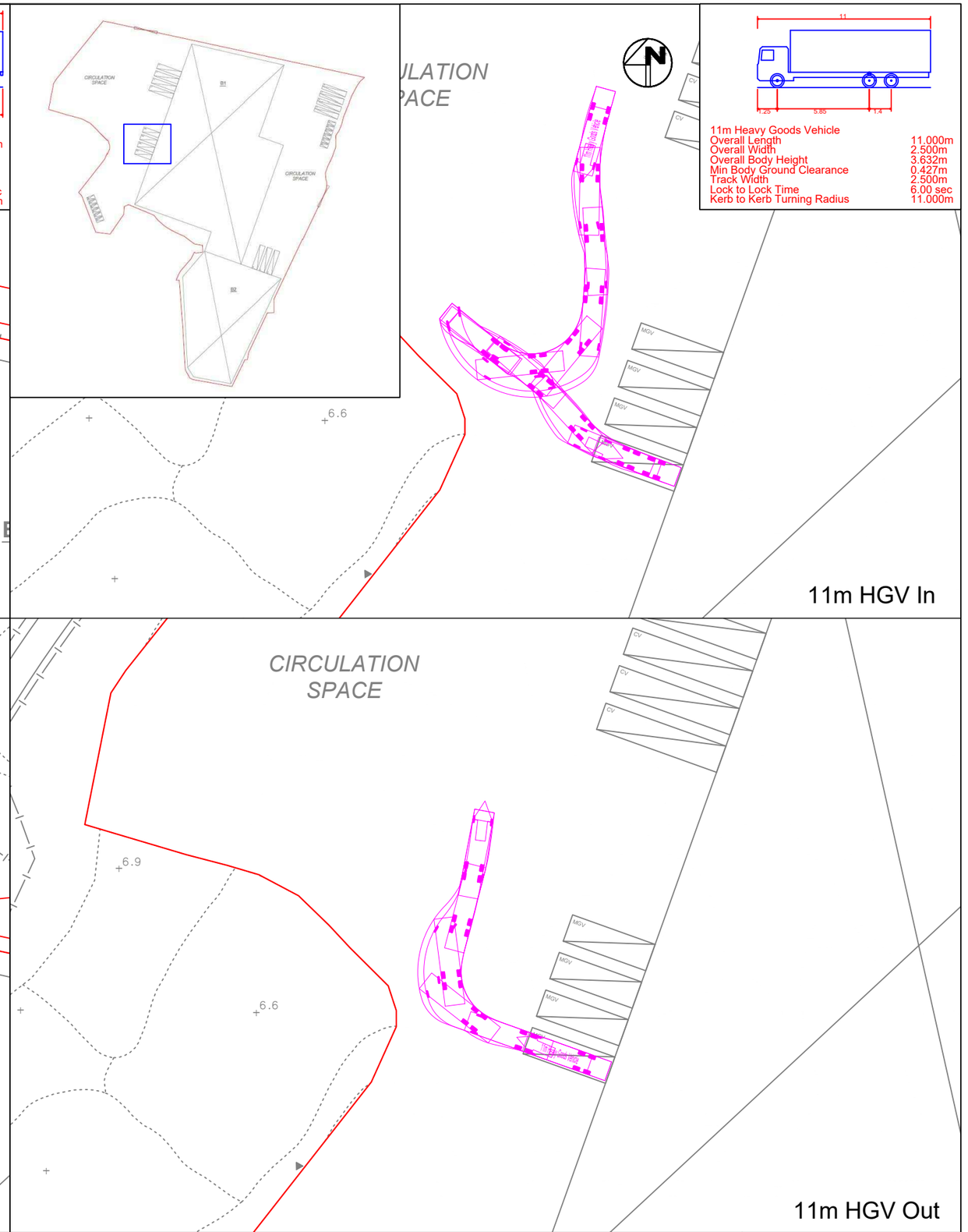




0 6 12 18 24

OZZO TECHNOLOGY

Date 11/07/2024 | Scale 1:600

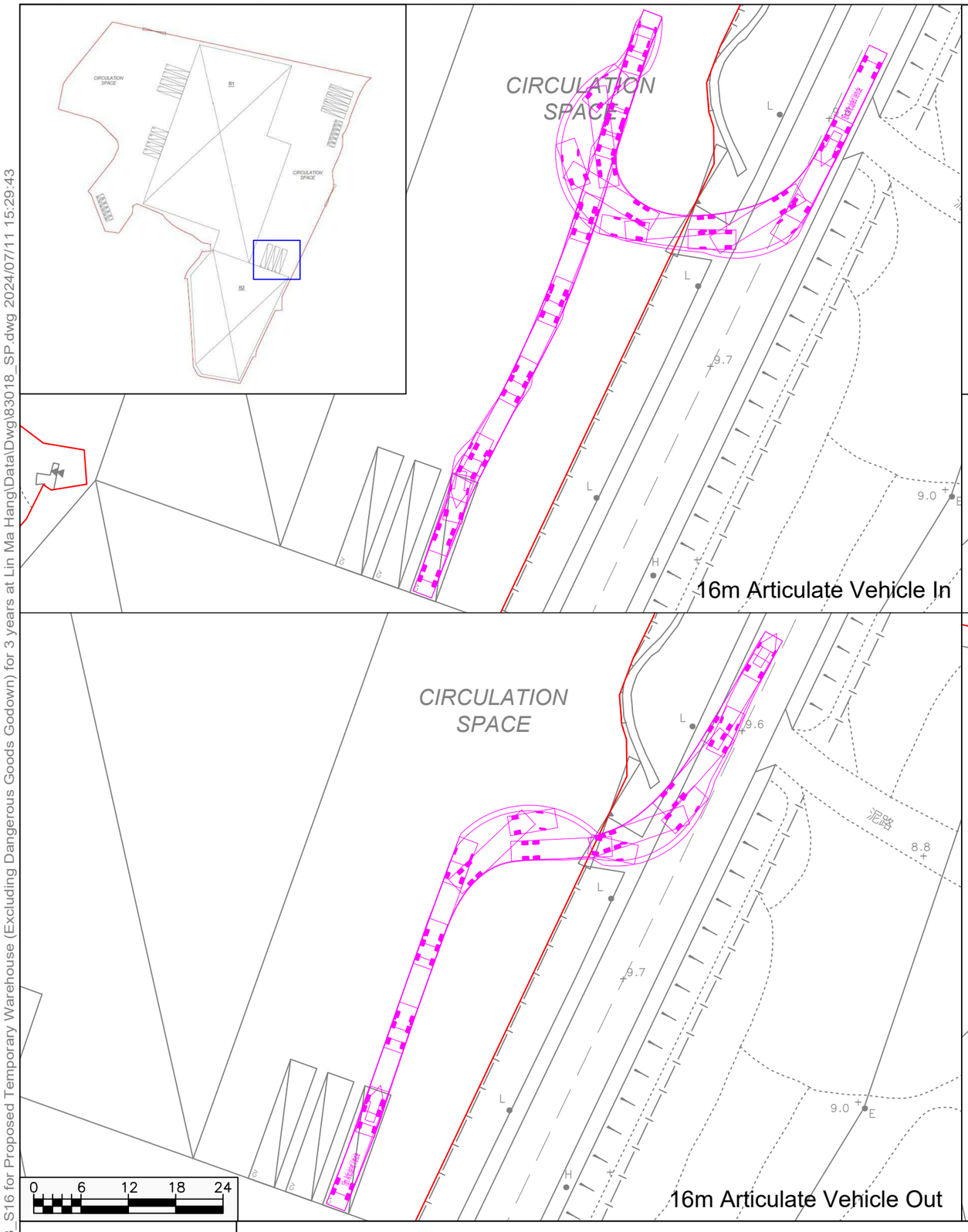
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

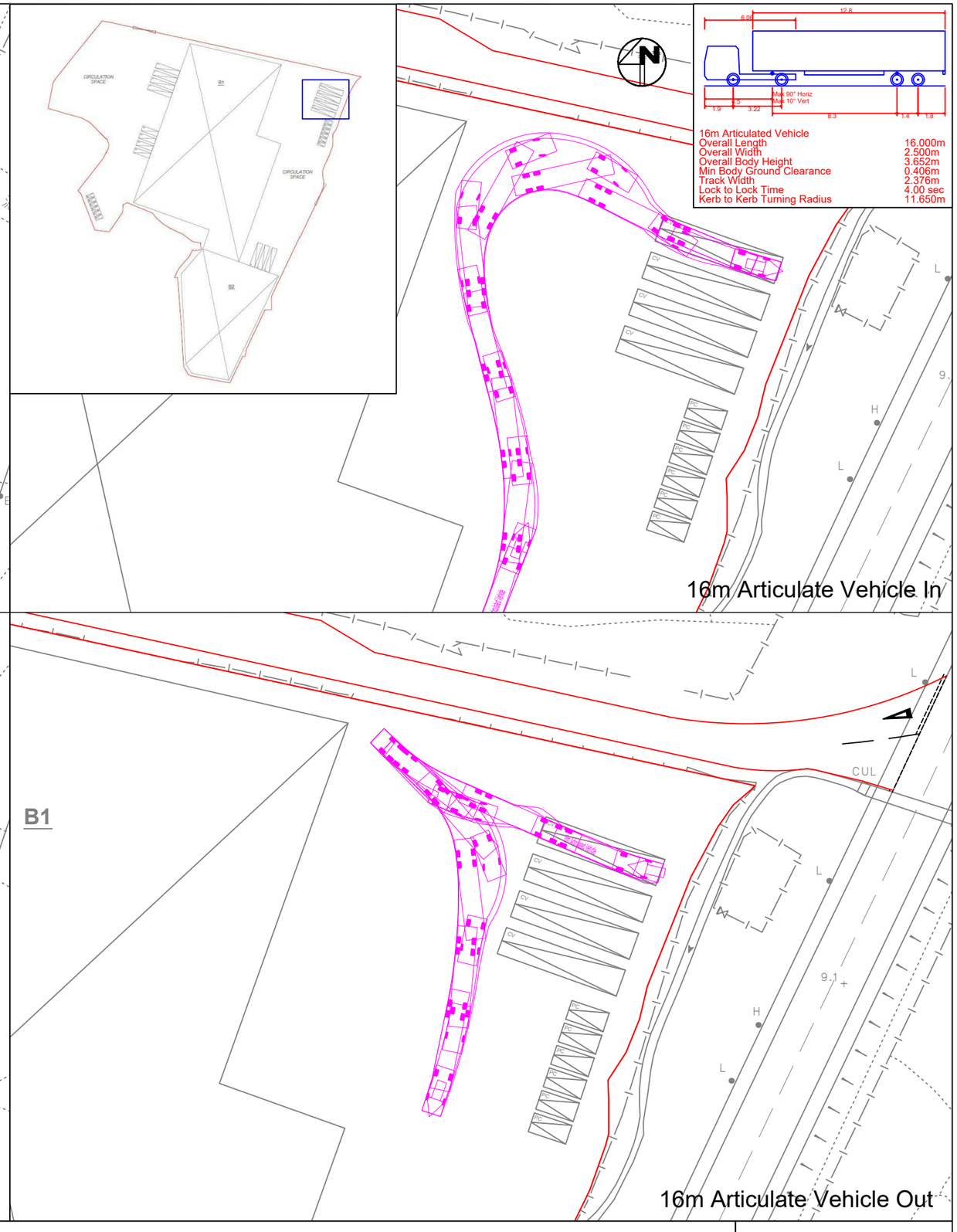
Swept Path Assessments 16m Articulate Vehicle and 11m Heavy Goods Vehicle

Project No. 83018 | Rev. -

Dwg No. Figure C

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_SP.dwg 2024/07/11 15:28:57





0 6 12 18 24

OZZO TECHNOLOGY

Date	Scale
11/07/2024	1:600

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Swept Path Assessments 16m Articulate Vehicle

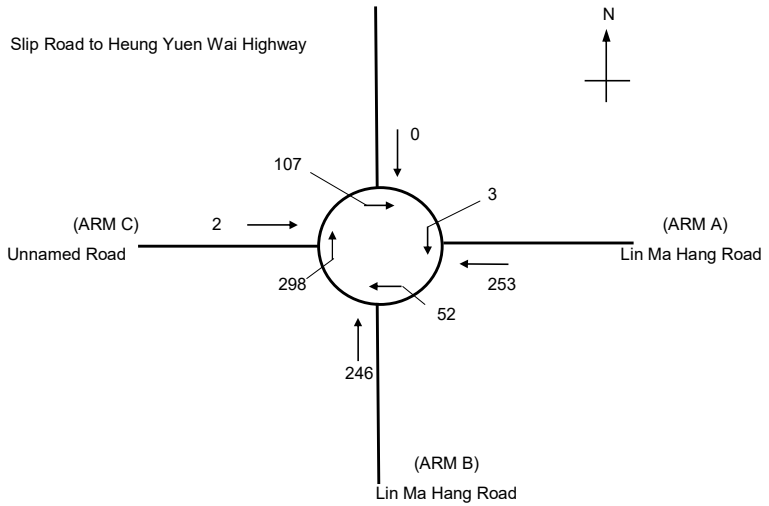
Project No. 83018	Rev.
Dwg No. Figure D	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_SP.dwg 2024/07/11 15:29:43

Appendix B

2024 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2024_AM**	FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

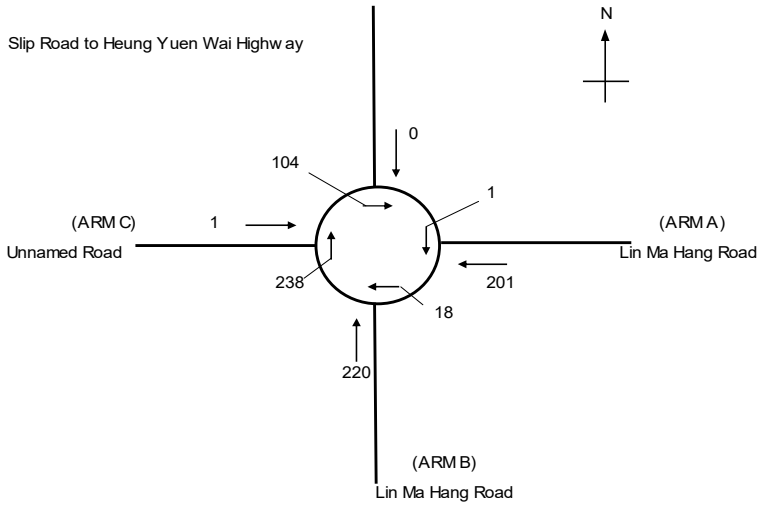


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	253	246	2
Qc	=	Circulating flow across entry (pcu/h)	3	52	298
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1262	1202	995
DFC	=	Design flow/Capacity = Q/Qe	0.20	0.20	0.00

Total In Sum = 501 PCU

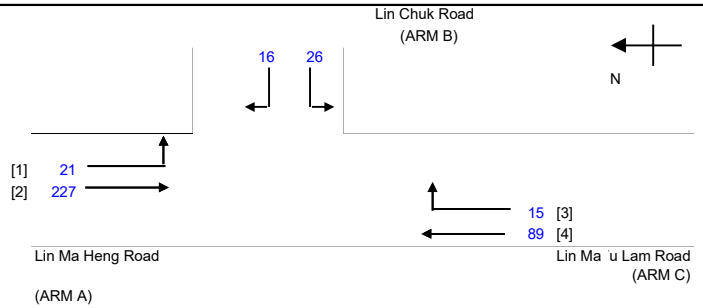
DFC of Critical Approach = **0.20**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2024_PM**	FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24



ARM			A	B	C		
INPUT PARAMETERS:							
V	=	Approach half width (m)	3.6	3.8	3.6		
E	=	Entry width (m)	4.1	3.9	3.9		
L	=	Effective length of flare (m)	4.3	2.6	4.0		
R	=	Entry radius (m)	46.0	100.0	20.0		
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0		
A	=	Entry angle (degree)	23.0	28.0	31.0		
Q	=	Entry flow (pcu/h)	201	220	1		
Qc	=	Circulating flow across entry (pcu/h)	1	18	238		
OUTPUT PARAMETERS:							
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12		
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00		
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84		
M	=	EXP((D-60)/10)	0.01	0.01	0.01		
F	=	303*X2	1201	1178	1164		
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49		
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56		
Qe	=	K(F-Fc*Qc)	1263	1222	1028	Total In Sum =	422 PCU
DFC	=	Design flow/Capacity = Q/Qe	0.16	0.18	0.00	DFC of Critical Approach =	**0.18**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2024 AM**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	21	(pcu/hr)
q a-c	=	227	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	89	(pcu/hr)
q c-b	=	15	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	16	(pcu/hr)
q b-c	=	26	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.6190476

THE CAPACITY OF MOVEMENT :

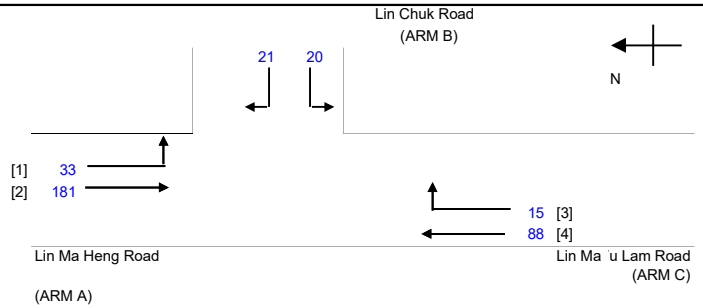
Q b-a	=	542		
Q b-c	=	702	Q b-c (O) =	696.8
Q c-b	=	679		
Q b-ac	=	631		
TOTAL FLOW	=	394	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0295
DFC b-c	=	0.0370
DFC c-b	=	0.0221
DFC b-ac	=	0.0666

CRITICAL DFC = 0.07

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2024 PM**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	33	(pcu/hr)
q a-c	=	181	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	88	(pcu/hr)
q c-b	=	15	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	21	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4878049

THE CAPACITY OF MOVEMENT :

Q b-a	=	554		
Q b-c	=	714	Q b-c (O) =	707.2
Q c-b	=	689		
Q b-ac	=	622		
TOTAL FLOW	=	358	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

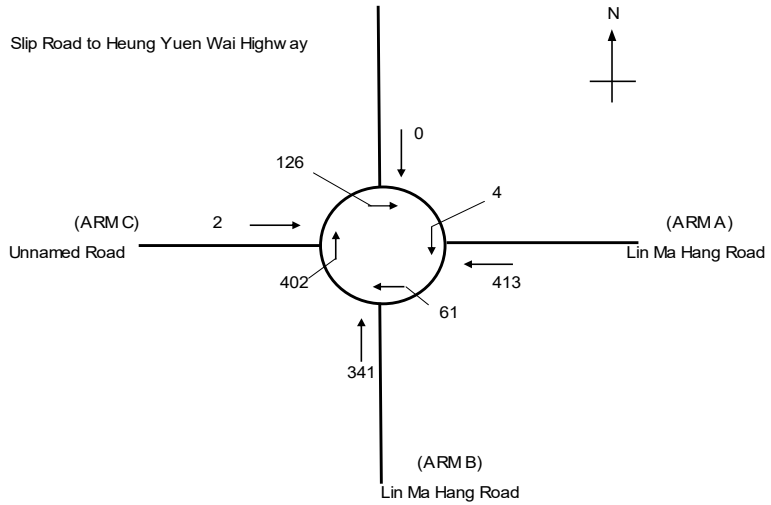
DFC b-a	=	0.0379
DFC b-c	=	0.0280
DFC c-b	=	0.0218
DFC b-ac	=	0.0659

CRITICAL DFC = 0.07

Appendix C

2029 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_AM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Reference AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

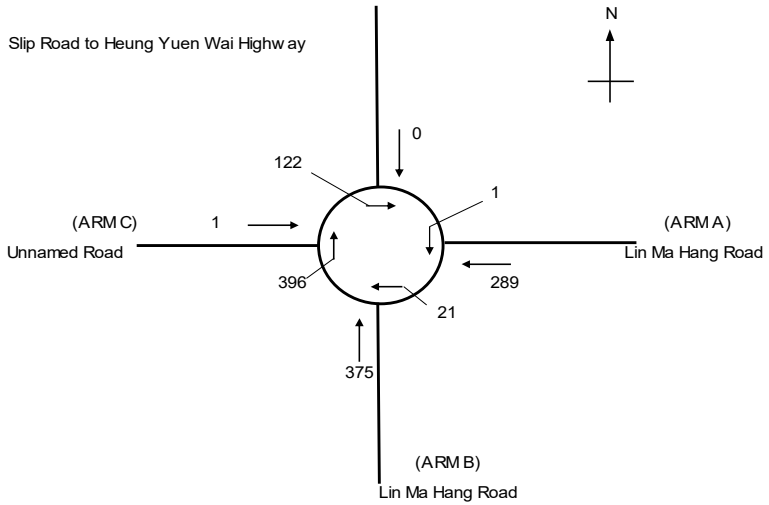


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	413	341	2
Qc	=	Circulating flow across entry (pcu/h)	4	61	402
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1261	1197	938
DFC	=	Design flow/Capacity = Q/Qe	0.33	0.28	0.00

Total In Sum = 756 PCU

DFC of Critical Approach = **0.33**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_PM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Reference PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

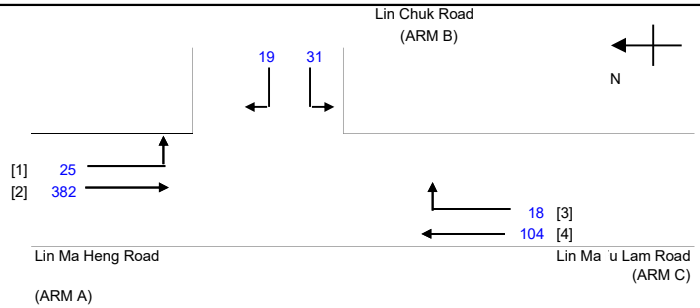


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	289	375	1
Qc	=	Circulating flow across entry (pcu/h)	1	21	396
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1220	941
DFC	=	Design flow/Capacity = Q/Qe	0.23	0.31	0.00

Total In Sum = 665 PCU

DFC of Critical Approach = **0.31**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 AM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Reference AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	25	(pcu/hr)
q a-c	=	382	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	104	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	19	(pcu/hr)
q b-c	=	31	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.62

THE CAPACITY OF MOVEMENT :

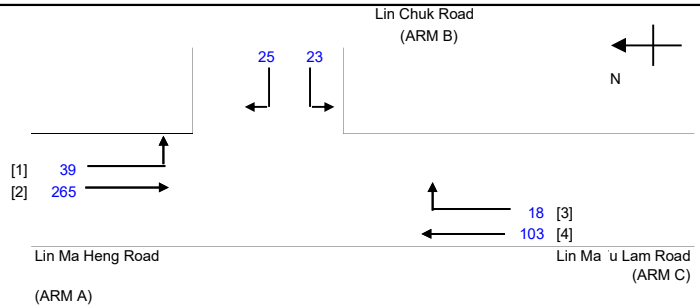
Q b-a	=	496		
Q b-c	=	659	Q b-c (O) =	652.7
Q c-b	=	636		
Q b-ac	=	585.8		
TOTAL FLOW	=	579	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0383
DFC b-c	=	0.0470
DFC c-b	=	0.0283
DFC b-ac	=	0.0853

CRITICAL DFC = 0.09

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 PM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Referenced PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	39	(pcu/hr)
q a-c	=	265	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	103	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	25	(pcu/hr)
q b-c	=	23	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4791667

THE CAPACITY OF MOVEMENT :

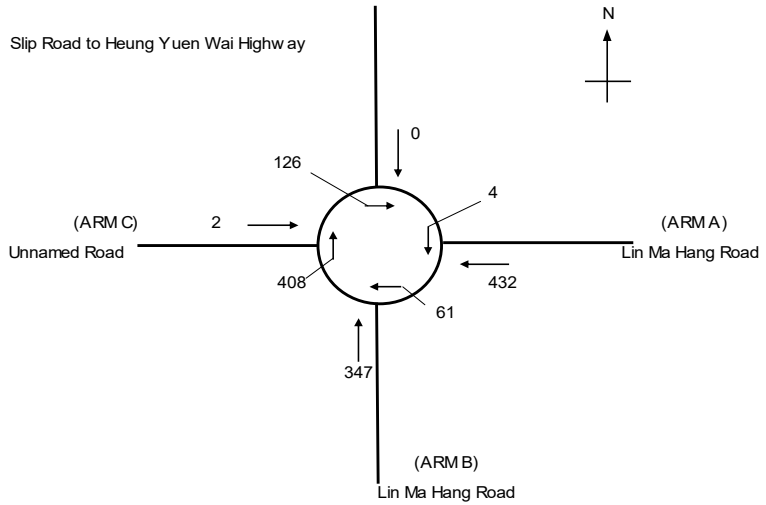
Q b-a	=	527		
Q b-c	=	690	Q b-c (O) =	681.8
Q c-b	=	664		
Q b-ac	=	594.3		
TOTAL FLOW	=	473	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0474
DFC b-c	=	0.0333
DFC c-b	=	0.0271
DFC b-ac	=	0.0808

CRITICAL DFC = 0.08

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_AM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

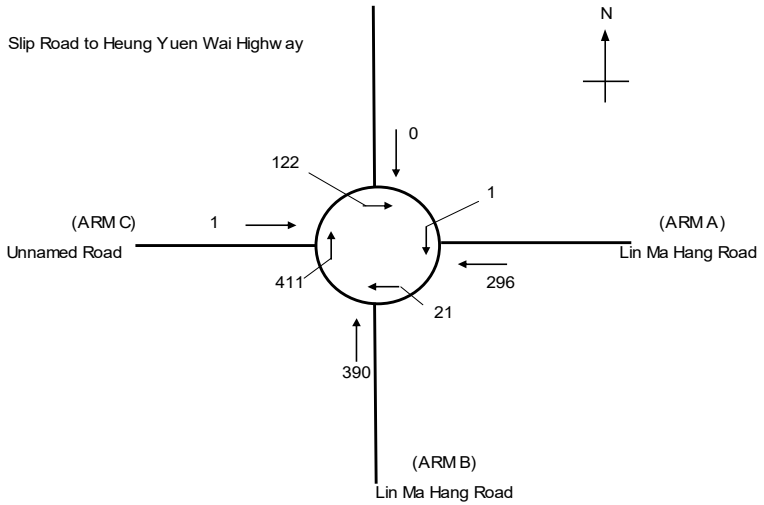


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	432	347	2
Qc	=	Circulating flow across entry (pcu/h)	4	61	408
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1261	1197	934
DFC	=	Design flow/Capacity = Q/Qe	0.34	0.29	0.00

Total In Sum = 781 PCU

DFC of Critical Approach = **0.34**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_PM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

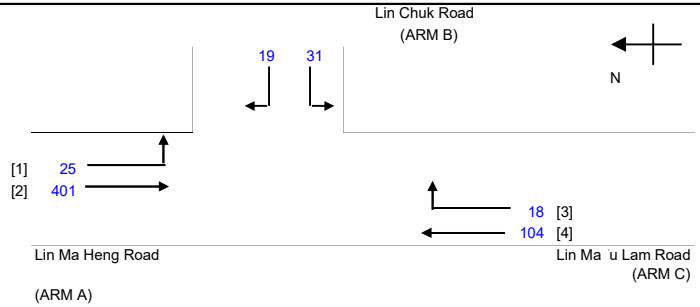


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	296	390	1
Qc	=	Circulating flow across entry (pcu/h)	1	21	411
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1220	933
DFC	=	Design flow/Capacity = Q/Qe	0.23	0.32	0.00

Total In Sum = 687 PCU

DFC of Critical Approach = **0.32**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 AM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	25	(pcu/hr)
q a-c	=	401	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	104	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	19	(pcu/hr)
q b-c	=	31	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.62

THE CAPACITY OF MOVEMENT :

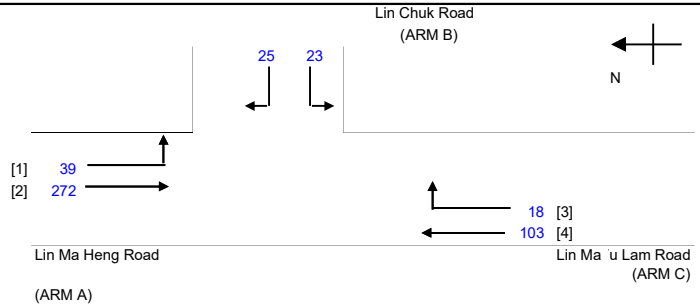
Q b-a	=	491		
Q b-c	=	653	Q b-c (O) =	646.7
Q c-b	=	631		
Q b-ac	=	580.3		
TOTAL FLOW	=	598	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0387
DFC b-c	=	0.0475
DFC c-b	=	0.0285
DFC b-ac	=	0.0862

CRITICAL DFC = 0.09

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 PM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	39	(pcu/hr)
q a-c	=	272	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	103	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	25	(pcu/hr)
q b-c	=	23	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4791667

THE CAPACITY OF MOVEMENT :

Q b-a	=	525		
Q b-c	=	688	Q b-c (O) =	679.8
Q c-b	=	662		
Q b-ac	=	592.2		
TOTAL FLOW	=	480	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

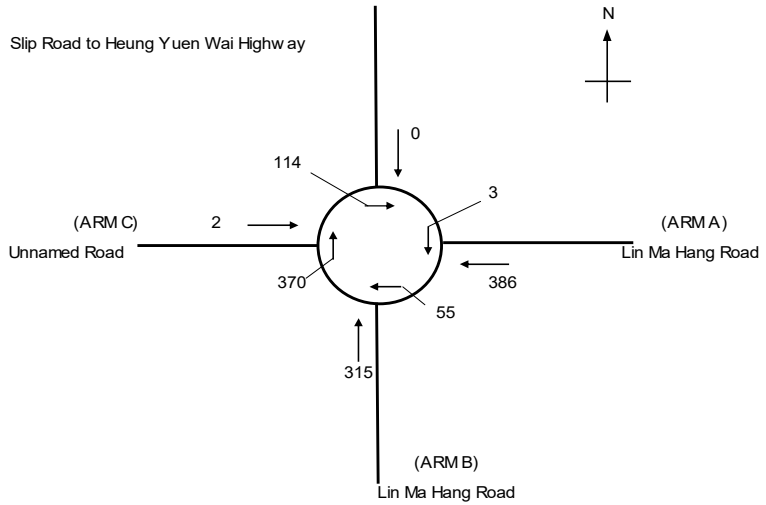
DFC b-a	=	0.0476
DFC b-c	=	0.0334
DFC c-b	=	0.0272
DFC b-ac	=	0.0810

CRITICAL DFC = 0.08

Appendix D

2026 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_AM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Reference AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

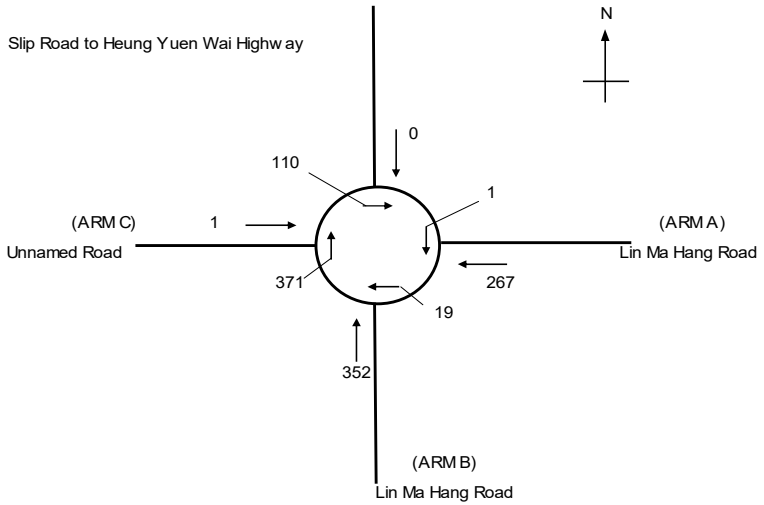


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	386	315	2
Qc	=	Circulating flow across entry (pcu/h)	3	55	370
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1262	1201	955
DFC	=	Design flow/Capacity = Q/Qe	0.31	0.26	0.00

Total In Sum = 703 PCU

DFC of Critical Approach = **0.31**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_PM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Reference PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

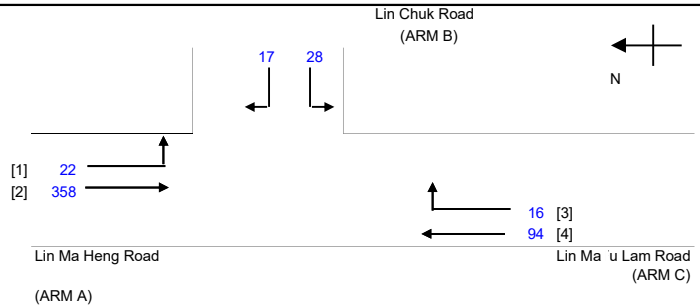


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	267	352	1
Qc	=	Circulating flow across entry (pcu/h)	1	19	371
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1222	955
DFC	=	Design flow/Capacity = Q/Qe	0.21	0.29	0.00

Total In Sum = 620 PCU

DFC of Critical Approach = **0.29**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 AM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Reference AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	22	(pcu/hr)
q a-c	=	358	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	94	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	17	(pcu/hr)
q b-c	=	28	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.6222222

THE CAPACITY OF MOVEMENT :

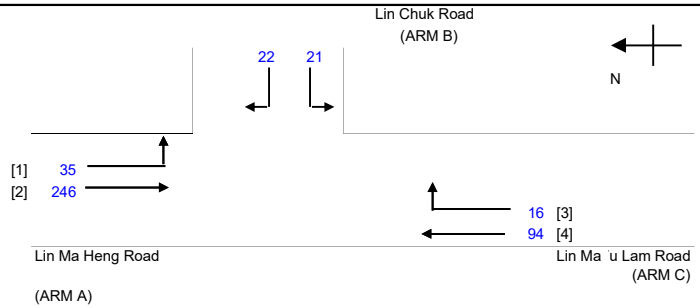
Q b-a	=	505		
Q b-c	=	666	Q b-c (O) =	660.4
Q c-b	=	643		
Q b-ac	=	594.4		
TOTAL FLOW	=	535	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0337
DFC b-c	=	0.0420
DFC c-b	=	0.0249
DFC b-ac	=	0.0757

CRITICAL DFC = 0.08

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 PM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Referenced PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	35	(pcu/hr)
q a-c	=	246	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	94	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	22	(pcu/hr)
q b-c	=	21	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4883721

THE CAPACITY OF MOVEMENT :

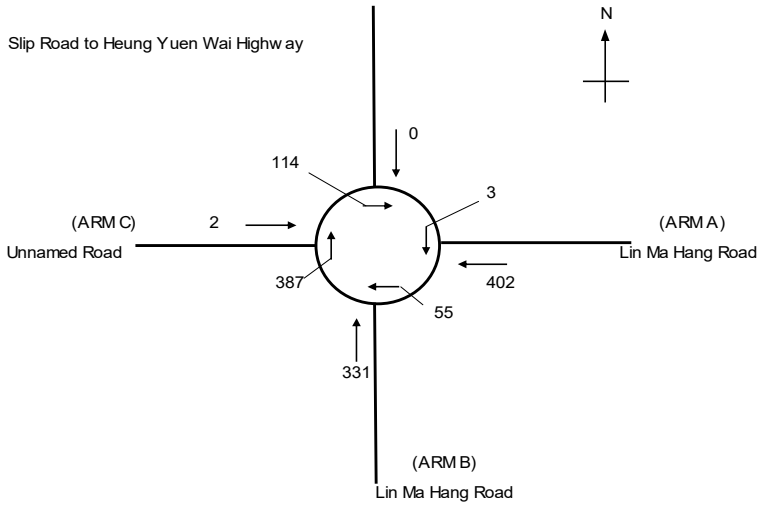
Q b-a	=	534		
Q b-c	=	696	Q b-c (O) =	688.8
Q c-b	=	670		
Q b-ac	=	602.5		
TOTAL FLOW	=	434	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0412
DFC b-c	=	0.0302
DFC c-b	=	0.0239
DFC b-ac	=	0.0714

CRITICAL DFC = 0.07

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_AM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

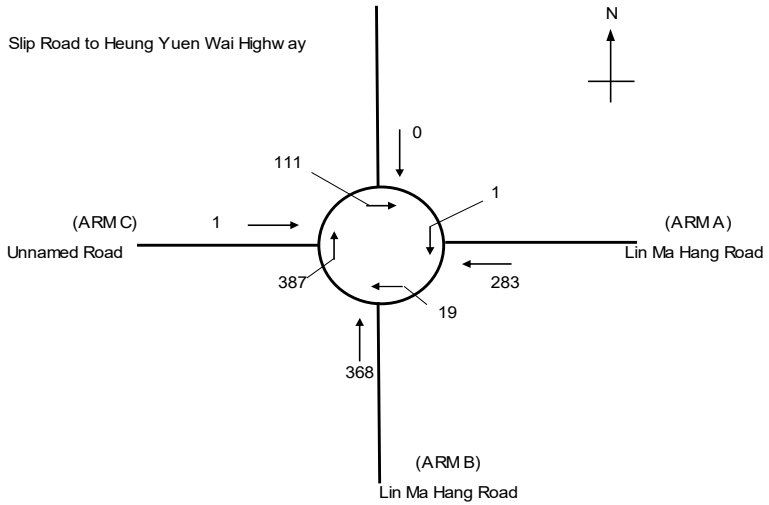


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	402	331	2
Qc	=	Circulating flow across entry (pcu/h)	3	55	387
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1262	1201	946
DFC	=	Design flow/Capacity = Q/Qe	0.32	0.28	0.00

Total In Sum = 735 PCU

DFC of Critical Approach = **0.32**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_PM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

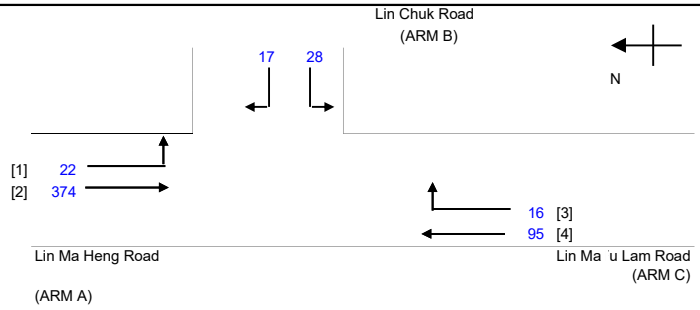


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	283	368	1
Qc	=	Circulating flow across entry (pcu/h)	1	19	387
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1222	946
DFC	=	Design flow/Capacity = Q/Qe	0.22	0.30	0.00

Total In Sum = 652 PCU

DFC of Critical Approach = **0.30**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 AM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	22	(pcu/hr)
q a-c	=	374	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	95	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	17	(pcu/hr)
q b-c	=	28	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.6222222

THE CAPACITY OF MOVEMENT :

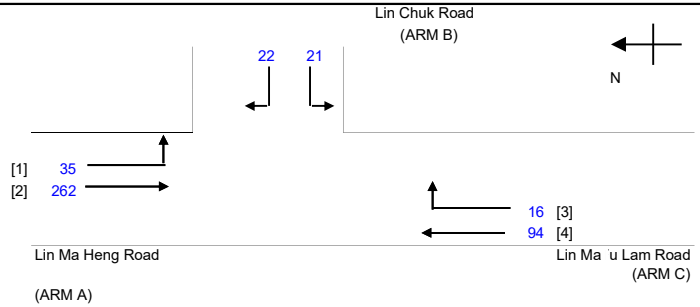
Q b-a	=	501			
Q b-c	=	661	Q b-c (O) =	655.4	
Q c-b	=	639			
Q b-ac	=	589.8			
TOTAL FLOW	=	552	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0339
DFC b-c	=	0.0424
DFC c-b	=	0.0250
DFC b-ac	=	0.0763

CRITICAL DFC = 0.08

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 PM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	35	(pcu/hr)
q a-c	=	262	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	94	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	22	(pcu/hr)
q b-c	=	21	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4883721

THE CAPACITY OF MOVEMENT :

Q b-a	=	530		
Q b-c	=	691	Q b-c (O) =	683.8
Q c-b	=	666		
Q b-ac	=	598.1		
TOTAL FLOW	=	450	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0415
DFC b-c	=	0.0304
DFC c-b	=	0.0240
DFC b-ac	=	0.0719

CRITICAL DFC = 0.07

Tai Wah Development Consultants Limited

Our Ref.: DD78 Lot 1366 RP & VL
Your Ref.: TPB/A/NE-TKLN/86

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

By Email

29 August 2024

Dear Sir,

1st Further Information

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, Ta Kwu Ling North, New Territories

(S.16 Planning Application No. A/NE-TKLN/86)

We write to submit further information to address the departmental comments of the subject application (**Appendix I**).

Should you require more information regarding the application, please contact the undersigned at your convenience. Thank you for your kind attention.

Yours faithfully,

Matthew NG
Tai Wah Development Consultants Limited

cc DPO/STN, PlanD (Attn.: Mr. Timothy WU email: twpwu@pland.gov.hk)

Responses-to-Comments

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, Ta Kwu Ling North, New Territories

(Application No. A/NE-TKLN/86)

(i) A RtoC Table:

	Departmental Comments	Applicant's Responses
1.	**Comments of the Director of Agriculture, Fisheries and Conservation (DAFC)**	
(a)	Based on the aerial photo, the subject site is largely vacant with a watercourse located within the subject site. The applicant should clarify whether there will be any impact to the watercourse and measures to be proposed for our further consideration.	It is noted that an existing engineering channel is located within the application site (the Site) (site photos at **Annex 1** refers). The said channel is proposed to be diverted as illustrated in Figure 3B of the revised Drainage Impact Assessment (DIA) (**Annex 2**). Please also be advised that with the implementation of the proposed drainage system and upgrade of the existing downstream U-channels, no adverse impact to the existing channel is anticipated.
2.	**Comments of the Chief Engineer/Mainland North, Drainage Services Department (CE/MN, DSD)**	
(a)	There are pre-existing drainage channels located on government land within the site and along the planned access road in the north. These channels currently receive flows from outside the site and direct them downstream. The proposed drainage plan involves the removal of these existing channels and relies on the newly proposed channels situated on private lots to accommodate the upstream flow. This approach would require the applicant to undertake additional maintenance efforts and could potentially expose the site and the adjacent areas to unnecessary flood risks.	Further to the discussion with DSD, a 1,750 mm channel is proposed for diversion of the upstream channel to divert to existing manhole SSH1004962 at the north-west side of the Site. Such that the channel is located on government land as far as possible. DSD also commented to connect the site drainage to the existing downstream channel in the southwest instead of the proposed 1,750 mm. As the upstream flow is diverted, the overall flow to the downstream channel is reduced. Therefore, no adverse drainage impact to the downstream channel is anticipated.

	To address this concern, it is recommended to implement a diversion scheme that includes drainage alignments on government land wherever feasible. This approach would allow the government to continue carrying out necessary maintenance works effectively. A suggested alignment is appended below for consideration. 	The proposed diversion and calculation are shown in Figure 3B and Appendix A of the revised DIA respectively for your perusal (**Annex 2**). DSD also suggested to install railing at the top of 1,750 mm channel if cover is not provided for safety consideration.
(b)	To avoid flooding at the site and to the adjacent lots, the proposed diversion scheme should be designed to receive the upstream flows entering the site according to the assessment criteria in Section 3. The assumed 80% full of the upstream channel in Appendix A should be justified with catchment delineation at the upstream.	Further to the discussion with DSD, the upstream catchment and estimated flow of the upstream channel is calculated. The updated calculation of the diversion as discussed in item (a) is shown in Appendix A of the revised DIA for your perusal (**Annex 2**).
(c)	You are suggested to refer to "Technical Note to prepare a Drainage Submission" in preparing drainage submission in future. The key general requirements are extracted below for your easy reference (https://www.dsd.gov.hk/EN/Files/Technical_Manual/dsd_guideline/Drainage_Submission.pdf). - The cover levels of proposed channels should be flush with the existing adjoining ground level. ● The formation levels and fall direction of the subject site and the areas in the vicinity should be clearly shown on the plan for reference.	Noted.

	- The applicant should check and ensure that the existing drainage channel downstream to which the proposed connection will be made have adequate capacity and satisfactory condition to cater for the additional discharge from the captioned lot. He should also ensure that the flow from this site will not overload the existing drainage system. - The applicant is reminded that where walls are erected or kerbs are laid along the boundary of the same, peripheral channels should be provided on both sides of the walls or kerbs with details to be agreed by DSD. - The applicant is reminded that all existing flow paths as well as the run-off falling onto and passing through the site should be intercepted and disposed of via proper discharge points. The applicant shall also ensure that no works, including any site formation works, shall be carried out as may adversely interfere with the free flow condition of the existing drain, channels and watercourses on or in the vicinity of the subject site any time during or after the works. - The proposed drainage works, whether within or outside the lot boundary, should be constructed and maintained by the lot owner at their own expense. - For works to be undertaken outside the lot boundary, the applicant should obtain prior consent and agreement from DLO/N and/or relevant private lot owners.	

	- The applicant should make good all the adjacent affected areas upon the completion of the drainage works. - The applicant should construct and maintain the proposed drainage works properly and rectify the system if it is found to be inadequate or ineffective during operation. ● The applicant should construct and maintain the proposed drainage works properly and rectify the system if it is found to be inadequate or ineffective during operation. ● The applicant should construct and maintain the proposed drainage works properly and rectify the system if it is found to be inadequate or ineffective during operation.	
3.	**Comments of the Chief Highway Engineer/New Territories West, Highways Department (CHE/NTW, HyD)**	
(a)	The area between the application site and the footway of Lin Ma Hang Road is not and will not be maintained by HyD.	Noted.
(b)	The applicant should maintain the existing run-in/out in accordance with prevailing HyD Standard Drawings to the satisfaction of TD and HyD.	
(c)	The access arrangement of the application site should be commented and approved by TD.	
(d)	Adequate drainage measures should be provided to prevent surface water running from the application site to the nearby public roads and drains.	

4.	**Comments of the Commissioner for Transport (C for T)**	
(a)	The planned and committed developments listed in Table 4-2 of the TIA should be confirmed with PlanD.	Noted.
(b)	The applicant shall demonstrate the satisfactory manoeuvring of the goods vehicles entering and exiting the subject site, it seems that left turns of long vehicles entering/leaving the site need to encroach onto the opposite lane.	The swept path analysis at Appendix A of the Traffic Impact Assessment (TIA) report (**Annex 3**) has been revised to avoid left turns of long vehicles encroaching onto the opposite lane when entering/leaving the Site.
(c)	The applicant shall advise the provision and management of pedestrian facilities to ensure pedestrian safety.	Sections 2.4.5 and 2.4.6 of the TIA report have been revised. Staff will be deployed by the applicant to direct vehicle entering/exiting the Site. "STOP AND GIVE WAY" and "BEWARE OF PEDESTRIANS" signs will be erected to ensure pedestrian safety to/from the Site. In addition, flashing light and alarm system will be installed at the entrance of the Site, whenever vehicles are to be accessed to/exit from the Site, the flashing light and alarm system will work immediately to alert the pedestrians. Adequate lights will be provided for safety concerns.
(d)	The proposed vehicular access road between Lin Ma Hang Road and the application site is not managed by TD. The applicant should seek comments/approvals from the responsible parties (particularly LandsD on the land matters) to validate the feasibility to form the proposed vehicular access road.	Noted. The applicant will liaise with relevant authorities, including the Lands Department (LandsD), regarding the proposed vehicular access road.
(e)	The applicant shall advise whom shall be undertaking the design and construction of the proposed vehicular road.	The detail design and construction of the proposed vehicular access road will be conducted by the applicant at a later stage. The applicant undertakes to open the vehicular access road for 24-hour public use and manage/maintain the vehicular access road upon its completion.

5.	**Comments of the Chief Town Planner/Urban Design & Landscape, Planning Department (CTP/UD&L, PlanD)**	
(a)	With reference to the aerial photo of 2023, the site is located in an area of rural inland plains landscape character comprising of farmlands, small houses, clusters of tree groups and vegetated areas. Noticeable change of landscape character arising from the proposed use within the "REC" zone is anticipated. Based on our site record taken on 29.7.2024, the site is partly hard paved to the east and partly covered by wild grasses and existing trees to the west. Existing trees of common and undesirable species are observed within the site. Two large trees, *Celtis sinensis* 朴樹, with approximately 750 to 900mm DBH are observed to the northern and southern periphery within the site, and may be in conflict with the proposed structure. According to Para. 5.12 of the Planning Statement, all existing trees will be affected and it is not proposed to retain any of the existing trees at the site. However, there is no information on the existing trees within the site, proposed tree treatment and landscape treatment/mitigation measures. Potential impact on the existing landscape resources cannot be ascertained.	The site inspection conducted on 22.08.2024 identified 17 nos. of tree, including 1 no. of dead tree (T15), within the Site. The tree survey report is enclosed at **Annex 4a**. The applicant is an affected operator who is desperately in need of identifying a suitable site for relocation due to land resumption for the Northern Link (NOL) Main Line project. All existing trees are of common species. T1 to T11 are in direct conflict with structure B1, whilst T12 to T17 overlaps the vehicle manoeuvring path, which is essential to the operation of the proposed development at the Site. As such, all existing trees are proposed to be felled. 1 no. of dead tree (T15) was spot at the Site. The current condition of T15 is a broken trunk which is apparently dead and covered with some climbing plants. Tree photos showing the broken trunk of T15 are enclosed in **Annex 4b**. In order to mitigate the potential adverse landscape impact that would have arisen from the proposed development, the applicant proposes to plant 17 nos. of new tree i.e. *Senna surattensis* along the western periphery of the Site. Spacing of not less than 4 m apart will be reserved for the proposed new trees (landscape plan at **Annex 5** refers). Regular horticultural maintenance on the proposed new trees will be provided.
(b)	The applicant is advised to provide broad-brush survey with basic information (e.g. numbers, species, size, general conditions and tree photos) on existing trees within and along the site boundary, proposed tree treatment and proposed mitigation measures, if any, for TPB's consideration.	
(c)	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	Noted.

	proposed tree works from relevant authority prior to commencement of the works.	
6.	**Comments of the District Lands Officer/North (DLO/N), LandsD**	
(a)	The application site comprises Old Schedule Agricultural Lots held under the Block Government Lease which contains the restriction that no structures are allowed to be erected without the prior approval of the Government. No right of access via Government Land (GL) is granted to the application site.	Noted. The applicant will submit applications for Short Term Waiver and Short Term Tenancy to DLO/N, LandsD to rectify the current situation upon obtaining planning approval from the Town Planning Board.
(b)	No consent is given for inclusion of GL (about 4,150 m^2 mentioned in the application form) in the application site. The Applicant should be reminded that any occupation of GL without Government's prior approval is an offence. For direct grant of Short Term Tenancy (STT) of the adjoining GL to the Applicant for temporary uses, prior policy support from the relevant Bureau has to be obtained. As the application does not provide any details on the policy support, please seek comments from the relevant Bureau, especially the application highlights the existing business operation is affected by the development of the Northern Link Main Line.	
(c)	<u>Unauthorised structures within the said private lots covered by the planning application</u> There are unauthorised structures on the private lots. The lot owners should immediately rectify the lease breaches and this office reserves the rights to take necessary lease enforcement action against the breaches without further notice.	

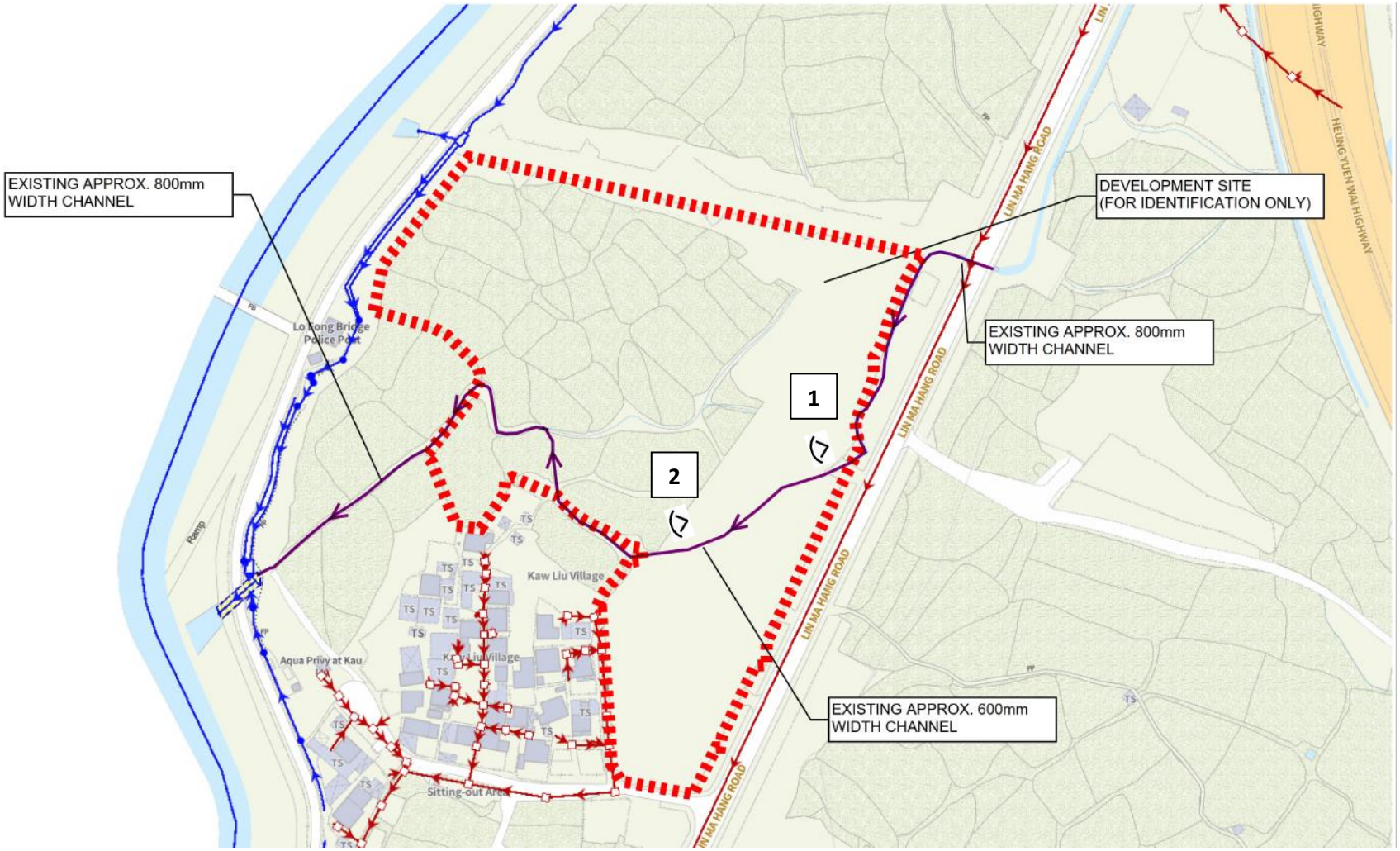
(d)	<u>Unlawful occupation of Government land covered by the planning application</u> The Government land within the application site (about 4,150 m^2 as mentioned in the application form) has been fenced off without any permission. Any occupation of GL without Govermnent's prior approval is an offence under Cap. 28. LandsD objects to the planning application since there is illegal occupation of Government Land (GL) which regularization would not be considered according to the prevailing land policy. The lot owners should immediately cease the illegal occupation of GL and remove the unauthorised structures as demanded by LandsD. This office reserves the rights to take necessary land control action against the illegal occupation of Government land without further notice. The lot owners/applicant shall cease the illegal occupation of G.L.. If the planning application is approved and subject to the availability of policy support as mentioned in para.2 above, the lot owners should apply to this office for Short Term Waiver (STW) and STT to permit the structures erected and occupation of G.L.. The applications for STW and STT will be considered by the Government in its capacity as a landlord and there is no guarantee that they will be approved. Application for STWs have to be submitted by all lot owners (approx. 31 lots). The STW will be considered on a whole lot basis and unauthorised structures have to be demolished. The STW and STT, if approved, will be subject to such terms and conditions including the payment of waiver fee/rent and administrative fee as considered appropriate to be imposed by LandsD. In addition, LandsD reserves the right to take enforcement action against the lot owners/applicant for any breach of the lease conditions, including the breaches	

	already in existence or to be detected at any point of time in future and land control action for any unlawful occupation of Government land. Besides, given the proposed use is temporary in nature, only erection of temporary structures will be considered.	
(e)	Unless and until the unlawful occupation of Government land are duly rectified by the lot owners/applicant, please take it as this office's objection to the application which must be brought to the attention of the Town Planning Board when they consider the application.	

Annex 1

Photos showing the existing engineering channel at the Site

Annex 1 – Photos showing the existing engineering channel at the Site



*(extracted from Figure 2 of the Drainage Impact Assessment at **Annex 2** of this FI)*

1

2

Annex 2

Revised Drainage Impact Assessment

Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

Drainage Impact Assessment Report

August 24

Table of Content

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1. Introduction

1.1 Background

1.1.1 The applicant seeks planning permission from the Town Planning Board (the Board) under Section (S.) 16 of the Town Planning Ordinance (Cap. 131)(the Ordinance) to use Various Lots in D.D. 78 and Adjoining Government Land (GL), Lin Ma Hang, New Territories (the Site) for 'Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years'.

1.1.2 This Drainage Impact Assessment aim to support the development in drainage aspect.

1.2 The Site

1.2.1 The Application Site situate between Lin Ma Hang Road and Shenzhen River. It has an area of about 24,446 m^2. The site is partially hard-paved at the south east corner and the remaining area is covered by vegetation. The site location plan is shown in **Figure 1**.

1.2.2 The existing site ground levels beside Lin Ma Hang Road is about +9.1 mPD. The site generally falling towards Shenzhen river to about +6.6 mPD. There is no major site level changes proposed.

1.2.3 There is an existing 800mm channel to the northeast of the site and beside Lin Ma Hang Road. Shenzhen River is situated at the west side of the site. This existing channel pass through the site and discharge toward Shenzhen River at the west. Existing Drainage Plan are shown in **Figure 2** for reference.

1.2.4 Proposed Development Layout plan is shown in **Appendix B** for reference.

2. Development Proposal

2.1 The Proposed Development

2.1.1 The total site area is approximately 24,446 m^2. The indicative development schedule is summarized in **Table 1** below for technical assessment purpose. The catchment plan is shown in **Figure 4.1** and **Figure 4.2**.

Proposed Development	
Total Site Area (m^2)	24,446
Paved Area (m^2) Assume all proposed site area as paved area for assessment purpose	24,446

Table 1 - Key Development Parameters

3. Assessment Criteria

3.1.1 The Recommended Design Return Period based on Flood Level from SDM (Table 10) is adopted for this DIA. The recommendation is summarized in **Table 2** below.

Description	Design Return Periods
Intensively Used Agricultural Land	2 – 5 Years
Village Drainage Including Internal Drainage System under a polder Scheme	10 Years
Main Rural Catchment Drainage Channels	50 Years
Urban Drainage Trunk System	200 Years
Urban Drainage Branch System	50 Years

Table 2– Design Return Periods under SDM

3.1.2 The proposed drainage system intended to collect runoff from internal site and external catchment. 1 in 50 years return period is adopted for the drainage design.

3.1.3 Stormwater drainage design will be carried out in accordance with the criteria set out in the Stormwater Drainage Manual published by DSD. The proposed design criteria to be adopted for design of this stormwater drainage system and factors which have been considered are summarised below.

1. Intensity-Duration-Frequency Relationship – The Recommended Intensity-Duration-Frequency relationship is used to estimate the intensity of rainfall. It can be expressed by the following algebraic equation.

$$i = \frac{a}{(t_d + b)^c}$$

The site is located within the North District Zone. Therefore, for 50 years return period, the following values are adopted.

a	=	474.6
b	=	2.9
c	=	0.371

(Corrigendum_No.1_2024)

2. The peak runoff is calculated by the Rational Method
   i.e. $Q_p = 0.278CiA$

where	Q_p	=	peak runoff in m^3/s
	C	=	runoff coefficient (dimensionless)
	i	=	rainfall intensity in mm/hr
	A	=	catchment area in km^2

3. The run-off coefficient (C) of surface runoff are taken as follows:

   1. Paved Area: C = 0.95
   2. Unpaved Area: C = 0.35

4. Manning's Equation is used for calculation of velocity of flow inside the channels:

Manning's Equation: $v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Where,

V = velocity of the pipe flow (m/s)
S_f = hydraulic gradient
n = manning's coefficient
R = hydraulic radius (m)

5. Colebrook-White Equation is used for calculation of velocity of flow inside the pipes:

Colebrook-White Equation: $\underline{v} = -\sqrt{32gRS}\ log\ log\ (\frac{k_s}{14.8R} + \frac{1.255v}{R\sqrt{32gRS_f}})$

where,

V	=	velocity of the pipe flow (m/s)
S_f	=	hydraulic gradient
k_f	=	roughness value (m)
v	=	kinematics viscosity of fluid
D	=	pipe diameter (m)
R	=	hydraulic radius (m)

4. Proposed Drainage System and Mitigation Measure

4.1. Proposed Diversion of Upstream Channel

4.1.1 The existing upstream U-channel is proposed to be diverted starting at the northeast of the application site and connect to proposed 1750mm channel along the northern site boundary. It would discharge to the existing manhole SSH1004962 and eventually fall to Shenzhen River. The design calculations of proposed UChannels are shown in **Appendix A**.

4.2. Proposed U Channels

4.2.1 Proposed U-channels are designed for collection of runoff within and near the Development Site. Please refer to the **Figure 4.2** for proposed catchment plan. The U-channels of the site are proposed to be connect to original existing channel to the southwest. The runoff would eventually discharge to Shenzhen River. The design calculations of proposed UChannels are shown in **Appendix A**.

4.3. Checking of Existing Downstream Channel

4.3.1 As the original flow from existing upstream channel in section 4.1.1 is diverted. The flow to the downstream channel is much less. The runoff discharge to the existing downstream channel after the development is reduced. Please refer to the checking in **Appendix A**. It is noted there is no adverse impact on the existing downstream channel.

4.3.2 The alignment, size, gradient and details of the proposed drains are shown in **Figure 3.**

4.3.3 The reference standard drawings of drains are shown in **Appendix C**.

5. Conclusion

5.1.1 Drainage impact assessment has been conducted for the Proposed Development. With implementation of proposed diversion, proposed drainage system and upgrade of existing downstream U-channels, no adverse drainage impact is anticipated.

- End of Text -

FIGURES

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

TO HEUNG YUEN WAI
BORDER CONTROL POINT

DEVELOPMENT SITE
(FOR IDENTIFICATION ONLY)

SHENZHEN RIVER

LIN MA HANG ROAD

HEUNG YUEN WAI HIGHWAY

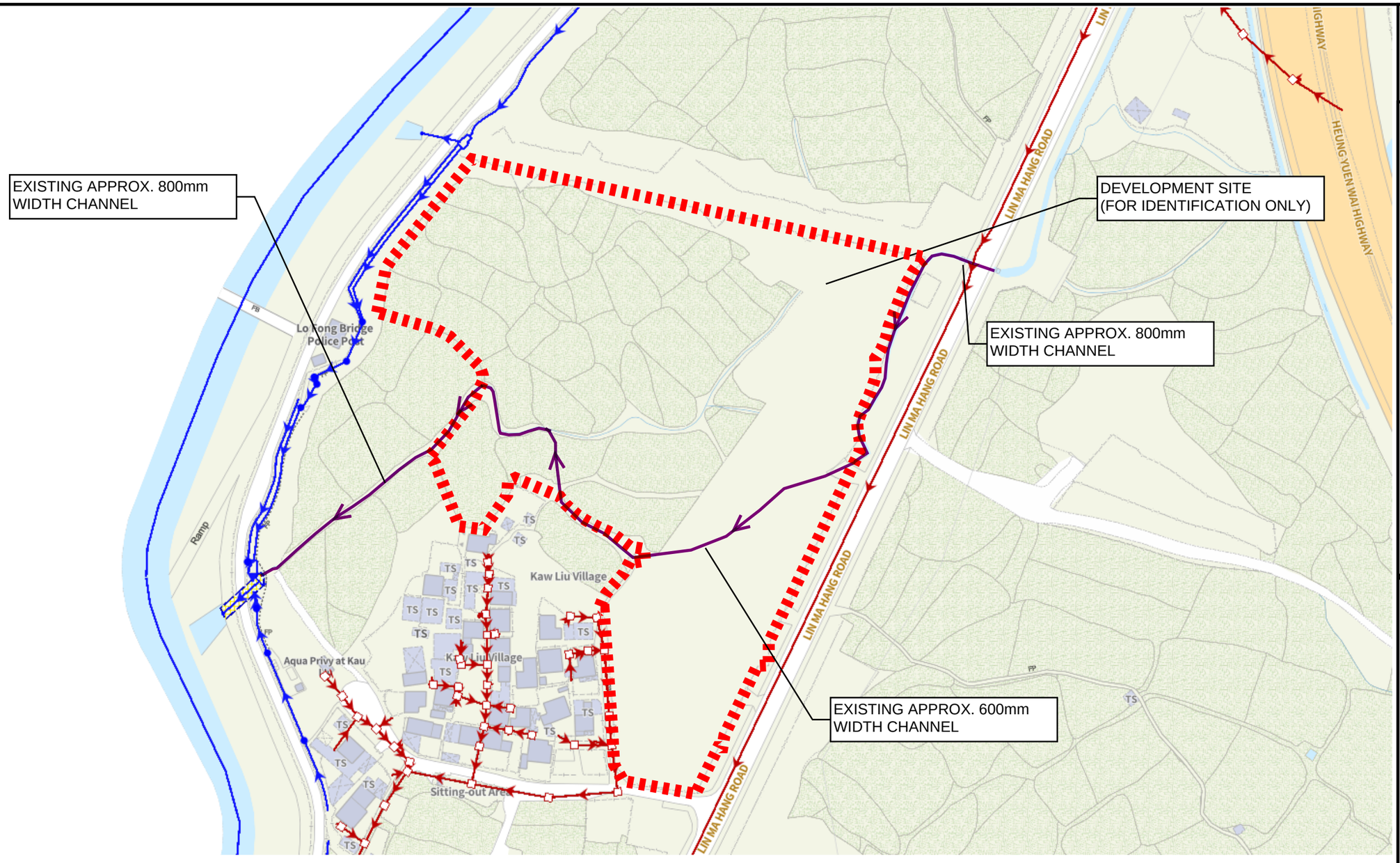
Kaw Liu Village

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
SITE LOCATION PLAN

DRAWING NUMBER
FIGURE 1



LEGEND:

Combined Manhole	Tapping Point (Sewer)	Tapping Point (Storm)	APPLICATION SITE BOUNDARY (FOR IDENTIFICATION PURPOSE ONLY)
Overflow (Combined)	Sewer Terminal Manhole	Storm Water Terminal Manhole	EXISTING CHANNELS TOWARDS SHENZHEN RIVER
Pipe (Combined)	Catchpit	Tunnel Protection Zone (100m / 200m)	
Interface Valve Chamber	Inlet	Tunnel Protection Zone (General Range)	
Sewer Manhole	Storm Water Manhole	Tunnel / Box Culvert (Sewer)	
Oil / Petrol Interceptor	Outlet	Tunnel / Box Culvert (Storm)	
Overflow (Sewer)	Pipe (Storm)		
Pipe (Sewer)	Sand Trap		

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
EXISTING DRAINAGE PLAN

DRAWING NUMBER
FIGURE 2

LEGEND:

- APPLICATION SITE BOUNDARY (FOR IDENTIFICATION PURPOSE ONLY)
- EXISTINGUCHANNEL
- PROPOSED CATCHPIT
- PROPOSED UCHANNEL
- PROPOSED CATCHPIT W/ TRAP
- DIVERSION UCHANNEL ALONG OUTSIDE NORTHERN SITE BOUNDARY

CONNECTION TO EXISTING SSH1004962

CONNECTION TO EXISTING U CHANNEL

UC 1750, 1 IN 122

DP2.1
CL +7.61
IL +7.09

UC2 525, 1 IN 200

IL +7.60

DP1.3
CL +8.2
IL +7.53

UC1 675, 1 IN 200

CL +9.0
IL +7.25

DP1.2
CL +9.0
IL +8.03

UC1 675, 1 IN 200

DP1.1
CL +9.0
IL +8.30

LIN MA HANG ROAD

DP2.2
CL +7.6
IL +6.75

UC2 525, 1 IN 200

UC1 675, 1 IN 200

DP1.5
CL +7.8
IL +6.50

UC6 800, 1 IN 71

IL +7.12

DP1.4
CL +8.2
IL +6.87

IL +6.74

UC1 675, 1 IN 200

IL +8.70

EXISTING CHANNEL TO BE MAINTAINED

EXISTING CHANNEL TO BE CONNECTED TO UC3

DP4.1
CL +8.2
IL +7.55

UC4 800, 1 IN 200

UC5 450, 1 IN 200

DP3.4
CL +8.3
IL +7.10

DP3.1
CL +9.46
IL +7.67

DP4.4
CL +8.0
IL +6.91

DP3.3
CL +8.7
IL +7.29

UC3 800, 1 IN 300

UC3 800, 1 IN 300

DP4.3
CL +8.0
IL +7.05

DP4.2
CL +8.0
IL +7.45

DP3.5
CL +8.2
IL +7.03

Kaw Liu Village

IL +7.68

UC7 525, 1 IN 200

DP7.3
CL +9.0
IL +7.86

DP3.2
CL +9.6
IL +7.47

DP7.2
CL +9.0
IL +7.97

UC7 525, 1 IN 200

UC7 525, 1 IN 200

UC7 525, 1 IN 200

DP7.1
CL +9.0
IL +8.27

IL +8.4

IL +8.4

NOTE:
1. CONNECTION LEVELSHOULD BE VERTIFIED ON SITE.

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
PROPOSED DRAINAGE SYSTEM

DRAWING NUMBER
FIGURE 3B

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

ZONE E2
19,010 m²
(UNPAVED)

ZONE E1
5,436 m²
(PAVED)

較寮村
Kaw Liu Village

羅芳橋警崗
Lo Fong Bridge Police Post

深圳河

Ramp 斜路

Road 道路

Track 徑

休憩處
Sitting-out Area

LIN MA HANG ROAD

通菉坑路

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
EXISTING CATCHMENT PLAN

DRAWING NUMBER
FIGURE 4.1

LEGEND:

APPLICATION SITE BOUNDARY
(FOR IDENTIFICATION PURPOSE ONLY)

FALL

ZONE E1
9,688m^2
(PAVED)

ZONE B4
4,967 m^2
(PAVED)

ZONE B3
2,329 m^2
(PAVED)

ZONE B2
2,935 m^2
(PAVED)

ZONE B1
3,377 m^2
(PAVED)

ZONE A1
1,064 m^2
(10%PAVED)

ZONE C4
1,424 m^2
(PAVED)

ZONE C3
1,053 m^2
(PAVED)

ZONE C2
2,561 m^2
(PAVED)

ZONE C1
1,821 m^2
(PAVED)

ZONE A2
604 m^2
(20%PAVED)

ZONE D2
1,437 m^2
(50%PAVED)

ZONE D1
3,930 m^2
(PAVED)

LIN MA HANG ROAD

PROJECT:
Proposed Temporary Warehouse (Excluding D.G.G.) with Ancillary Facilities for a Period of 3 Years in "Recreation" Zone, Various Lots in D.D.78 and Adjoining GL, Lin Ma Hang, New Territories

REV	DESCRIPTION	DATE

DRAWING TITLE
PROPOSED CATCHMENT PLAN

DRAWING NUMBER
FIGURE 4.2A

APPENDIX

Appendix A - Design Calculation

Diversion of Existing Channel U/S at Northwest to Existing SSH1004962 (Upstream Catchment shown in Page 3. Catchment E1)

Runoff Estimation

Design Return Period		1 in	50	years
Paved Area	9688 x 0.05 + 380794 x 0.2 =		76643	(m2)
Unpaved Area	9688 x 0.95 + 380794 x 0.8 =		313839	(m2)
Total Equivalent Area	76643 x 0.95 + 313839 x 0.35 =		182655	(m2)
Time of Concentration			26.95	min
Rainfall Intensity, I *			135	mm/hr
Design Discharge Rate, Q	0.278 x 182655 x 135 / 1000000 =		6.836	m3/s

* $i = \frac{a}{(t_d + b)^c}$

Design checking for diversion channal along the northern boundary is shown in Page 3.

Checking of Flow to Existing Downstream Channel Before and After Development

Runoff Estimation from site (before development)

Design Return Period		1 in	50	years
Paved Area	5436 + 380794 x 0.2=		81595	(m2)
Unpaved Area	19010 + 380794 x 0.8=		323645	(m2)
Total Equivalent Area	81595 x 0.95 + 323645 x 0.35 =		190791	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 323645 x 220 / 1000000 =		11.693	m3/s

Catchment in Figure 4.1 & Catchment from existing U/S Channel

* $i = \frac{a}{(t_d + b)^c}$

Runoff Estimation from site (after development)

Design Return Period		1 in	50	years
Paved Area	1064 x 0.1 + 604 x 0.2 + 1437 x 0.5 + 24446 =		25392	(m2)
Unpaved Area	1064 x 0.9 + 604 x 0.8 + 1437 x 0.5 + 0 =		2159	(m2)
Total Equivalent Area	25392 x 0.95 + 2159 x 0.25 =		24662	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 24662 x 220 / 1000000 =		1.511	m3/s

Catchment from whole site after the development

* $i = \frac{a}{(t_d + b)^c}$

Flow the the channel is reduced by 1.511 - 11.693 = -10.182 m3/s
No Additional flow and advserse impact is induced to the D/S channel.

* The original runoff from existing U/S channel is proposed to be diverted. The flow to this D/S channel is much less.

U Channel 1 (Zone B1 + B2 + B3)

Runoff Estimation

Design Return Period		1 in	50	years
Paved Area	3377 + 2935 + 2329=		8641	(m2)
Unpaved Area	2159 =		2159	(m2)
Total Equivalent Area	8641 x 0.95 + 2159 x 0.35 =		8965	(m2)
Rainfall Intensity, I *			220	mm/hr
Q	0.278 x 8965 x 220 / 1000000 =		0.549	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel

Channel Size			675	(mm)
Gradient		1 in	200	
Area	π x 0.68^2 /8 + 0.68 x 0.68/2 =		0.407	(m2)
Wetted Perimeter	π x 0.68 / 2 + 0.68/2 x 2 =		1.735	(m)
R	0.407 / 1.735 =		0.234	(m)
Velocity			1.68	m/s
Capacity			0.683	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Utilization	0.549 / 0.683	=	**80.40**	%	OK	(less than 90%, for 10% siltation allowance)

U Channel 2 (ZONE B4)

Runoff Estimation

Design Return Period		1 in	50	years
Paved Area	4967 =		4967	(m2)
Unpaved Area			0	(m2)
Total Equivalent Area	4967 x 0.95 + 0 x 0.35 =		4719	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 4719 x 220 / 1000000 =		0.289	m3/s

* $i = \frac{a}{(t_d + b)^c}$

U Channel

Channel Size			525	(mm)
Gradient		1 in	200	
Area	π x 0.53^2 /8 + 0.53 x 0.53/2 =		0.246	(m2)
Wetted Perimeter	π x 0.53 / 2 + 0.53/2 x 2 =		1.350	(m)
R	0.246 / 1.35 =		0.182	(m)
Velocity			1.42	m/s
Capacity			0.350	m3/s

$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$

Utilization	0.289 / 0.35	=	**82.71**	%	OK	(less than 90%, for 10% siltation allowance)

U Channel 3 (Zone A1 + A2 + C1 + D1)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	1821 + 1064 x 0.1 + 604 x 0.2 + 3930=		5978	(m2)
Unpaved Area	0 + 1064 x 0.9 + 604 x 0.8 =		1441	(m2)
Total Equivalent Area	5978 x 0.95 + 1441 x 0.35 =		6184	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 6184 x 220 / 1000000 =		0.379	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

U Channel				
Channel Size			800	(mm)
Gradient		1 in	300	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)
R	0.571 / 2.057 =		0.278	(m)
Velocity			1.54	m/s
Capacity			0.878	m3/s
Utilization	0.379 / 0.878	=	**43.18**	%

$$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

OK (less than 90%, for 10% siltation allowance)

U Channel 4 (Zone [A1 + A2 + C1 + D1] + C2 + C3 + D2)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	5978 + 2561 + 1053 + 1437 x 0.5 =		10311	(m2)
Unpaved Area	1441 + 1053 + 1437 x 0.5 =		2159	(m2)
Total Equivalent Area	10311 x 0.95 + 2159 x 0.35 =		10551	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 10551 x 220 / 1000000 =		0.647	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

U Channel				
Channel Size			800	(mm)
Gradient		1 in	200	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)
R	0.571 / 2.057 =		0.278	(m)
Velocity			1.88	m/s
Capacity			1.075	m3/s
Utilization	0.647 / 1.075	=	**60.15**	%

$$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

OK (less than 90%, for 10% siltation allowance)

U Channel 5 (Zone C4 + D2)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	1424 + 1437 x 0.5 =		2143	(m2)
Unpaved Area	0 + 1437 x 0.5 =		719	(m2)
Total Equivalent Area	2143 x 0.95 + 719 x 0.35 =		2287	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 2287 x 220 / 1000000 =		0.140	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

U Channel				
Channel Size			450	(mm)
Gradient		1 in	200	
Area	π x 0.45^2 /8 + 0.45 x 0.45/2 =		0.181	(m2)
Wetted Perimeter	π x 0.45 / 2 + 0.45/2 x 2 =		1.157	(m)
R	0.181 / 1.157 =		0.156	(m)
Velocity			1.28	m/s
Capacity			0.232	m3/s
Utilization	0.14 / 0.232	=	**60.47**	%

$$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

OK (less than 90%, for 10% siltation allowance)

U Channel 6 (Whole Site + A1 + A2 + D2)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	24446 + 1064 x 0.1 + 604 x 0.2+ 1437 x 0.5=		25392	(m2)
Unpaved Area	1064 x 0.9 + 604 x 0.8+ 1437 x 0.5=		2159	(m2)
Total Equivalent Area	25392 x 0.95 + 2159 x 0.35 =		24878	(m2)
Rainfall Intensity, I *			220	mm/hr
Q	0.278 x 24878 x 220 / 1000000 =		1.525	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

U Channel				
Channel Size			800	(mm)
Gradient		1 in	71	
Area	π x 0.8^2 /8 + 0.8 x 0.8/2 =		0.571	(m2)
Wetted Perimeter	π x 0.8 / 2 + 0.8/2 x 2 =		2.057	(m)
R	0.571 / 2.057 =		0.278	(m)
Velocity			3.16	m/s
Capacity			1.804	m3/s
Utilization	1.525 / 1.804	=	**84.50**	%

$$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

OK (less than 90%, for 10% siltation allowance)

U Channel 7 (Zone A2, D1)

Runoff Estimation				
Design Return Period		1 in	50	years
Paved Area	3930 + 604 x 0.2=		4051	(m2)
Unpaved Area	0 + 604 x 0.8 =		483	(m2)
Total Equivalent Area	4051 x 0.95 + 483 x 0.35 =		4017	(m2)
Rainfall Intensity, I *			220	mm/hr
Design Discharge Rate, Q	0.278 x 4017 x 220 / 1000000 =		0.246	m3/s

$$* \quad i = \frac{a}{(t_d + b)^c}$$

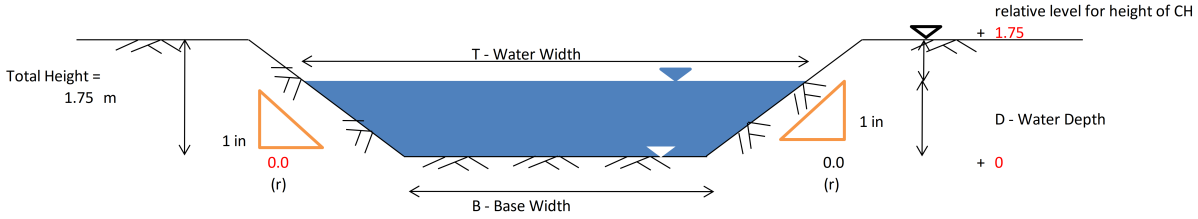
U Channel				
Channel Size			525	(mm)
Gradient		1 in	200	
Area	π x 0.53^2 /8 + 0.53 x 0.53/2 =		0.246	(m2)
Wetted Perimeter	π x 0.53 / 2 + 0.53/2 x 2 =		1.350	(m)
R	0.246 / 1.35 =		0.182	(m)
Velocity			1.42	m/s
Capacity			0.350	m3/s
Utilization	0.246 / 0.35	=	**70.42**	%

$$v = \frac{R^{\frac{1}{6}}}{n} R^{\frac{1}{2}} S_f^{\frac{1}{2}}$$

OK (less than 90%, for 10% siltation allowance)

Manning's to estimate Capacity of Proposed Channel Along Northern Boundary for Channel Diversion

Checking of Capacity of Channel



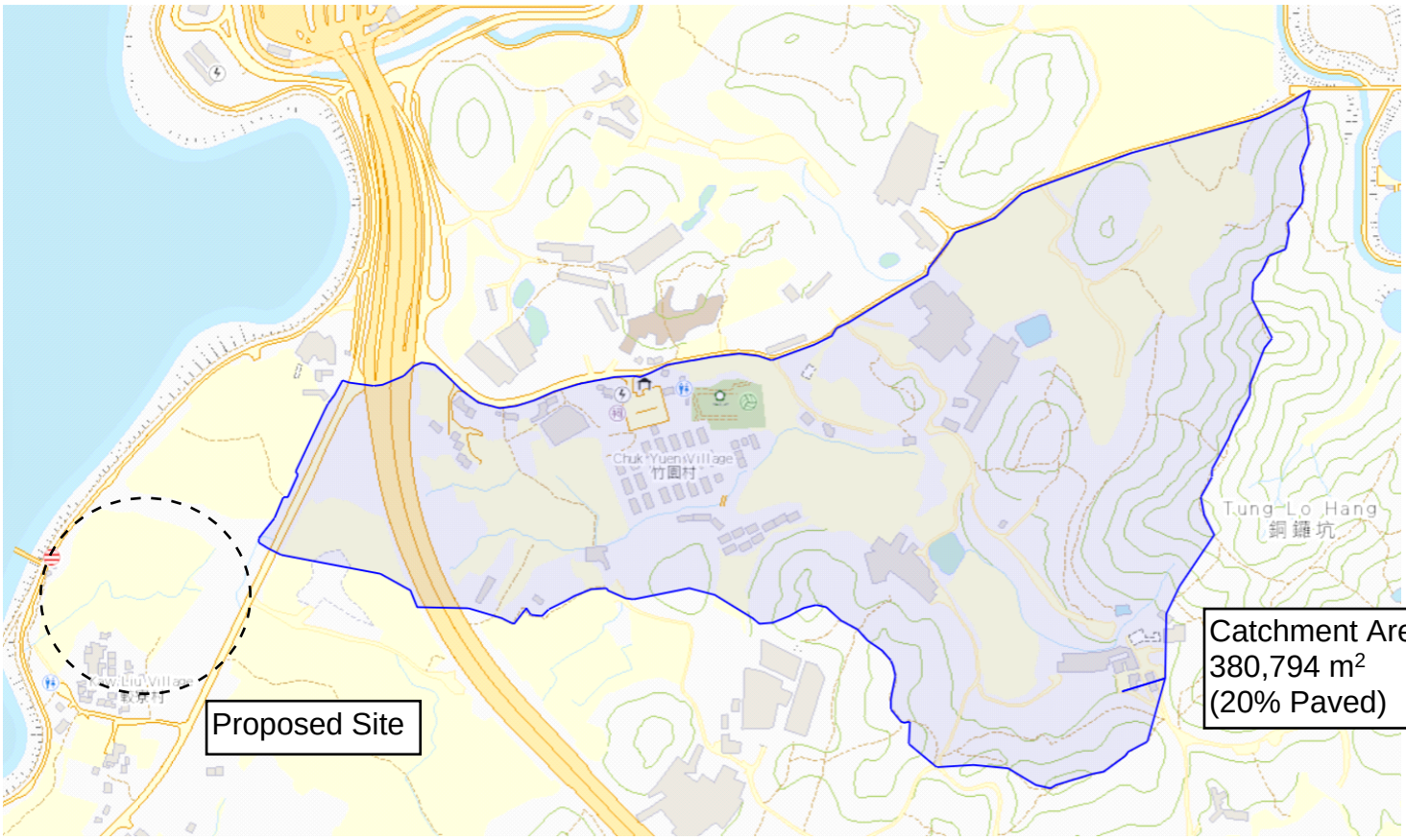
Scenario & Case	Assumed Water Depth (m)	Water Width (m)	Base Width (m)	Area (m^2)	Wetted Perimeter (m)	Hydralic Radius (m)	Manning's Roughness n	Friction Slope S_f (1 in)	Velocity (m/s)	Capacity (m^3/s)
A	D_1	T	B	A_1	P_1	R_1	n	S_f	V_1	Q_1
	1.45	1.75	1.75	2.54	4.65	0.55	0.016	122	3.7786	9.588

Runoff from Existing Catchment for U/S Channel				=	6.84	m^3/s
Utilitization	=	6.84 / 9.59	71.29	%	OK	(less than 90%, for 10% siltation allowance)

Therefore, proposed 1.75 m, 1 in 122 Rectanglar Channel is sufficient for the diversion channel

Time of Concentration for Existing Catchement

Catchment	Flow Distance	Highest Level	Lowest Level	Gradient (per 100m) = (H1-H2)/L x 100	to (min) = 0.14465L/ ($H^{0.2}A^{0.1}$)	tc = to + tf
A	L			H		
(m2)	(m)	(mPD)	(mPD)		(min)	(min)
380794	1012	86.6	9	7.668	26.946	26.946

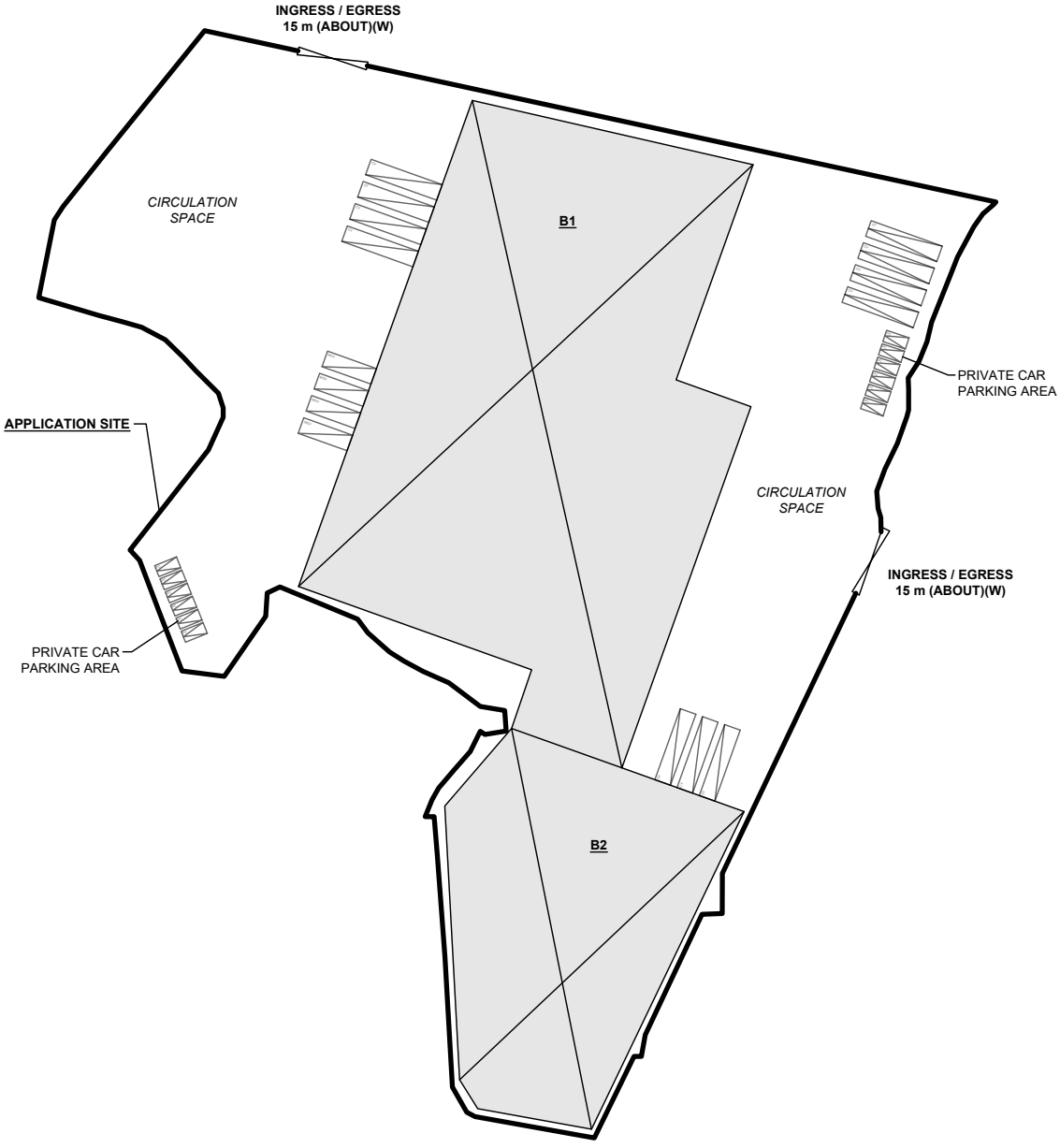


Appendix B - Proposed Development Layout Plan

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 24,446 m^2	(ABOUT)
COVERED AREA	: 11,879 m^2	(ABOUT)
UNCOVERED AREA	: 12,567 m^2	(ABOUT)
PLOT RATIO	: 0.97	(ABOUT)
SITE COVERAGE	: 49 %	(ABOUT)
NO. OF STRUCTURE	: 2	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 23,758 m^2	(ABOUT)
TOTAL GFA	: 23,758 m^2	(ABOUT)
BUILDING HEIGHT	: 15 m	(ABOUT)
NO. OF STOREY	: 2	

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	WAREHOUSE (EXCL. D.G.G.) SITE OFFICE AND WASHROOM	8,332 m^2 (ABOUT)	16,664 m^2 (ABOUT)	15 m (ABOUT)(2-STOREY)
B2	WAREHOUSE (EXCL. D.G.G.) SITE OFFICE AND WASHROOM	3,547 m^2 (ABOUT)	7,094 m^2 (ABOUT)	15 m (ABOUT)(2-STOREY)
	TOTAL	**11,879 m^2 (ABOUT)**	**23,758 m^2 (ABOUT)**	



PARKING AND LOADING / UNLOADING (L/UL) PROVISIONS

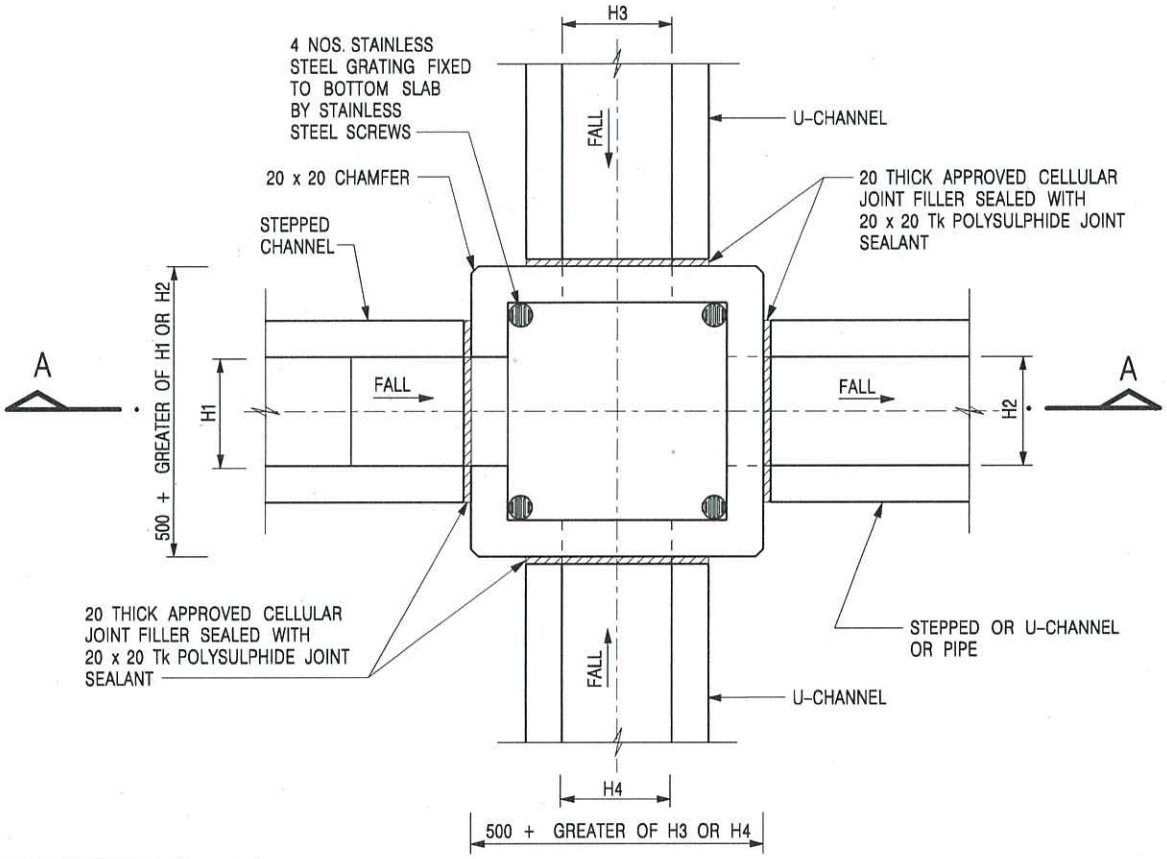
NO. OF PRIVATE CAR PARKING SPACE	: 10
DIMENSION OF PARKING SPACE	: 5 m (L) x 2.5 m (W)
NO. OF CONTAINER VEHICLE PARKING SPACE	: 4
DIMENSION OF LOADING/UNLOADING SPACE	: 16 m (L) x 3.5 m (W)
NO. OF L/UL SPACE FOR MEDIUM GOODS VEHICLE (MGV)	: 4
DIMENSION OF LOADING/UNLOADING SPACE	: 11 m (L) x 3.5 m (W)
NO. OF L/UL SPACE FOR CONTAINER VEHICLE	: 7
DIMENSION OF LOADING/UNLOADING SPACE	: 16 m (L) x 3.5 m (W)

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- PARKING SPACE (CV)
- LOADING / UNLOADING SPACE (MGV)
- LOADING / UNLOADING SPACE (CV)
- INGRESS / EGRESS

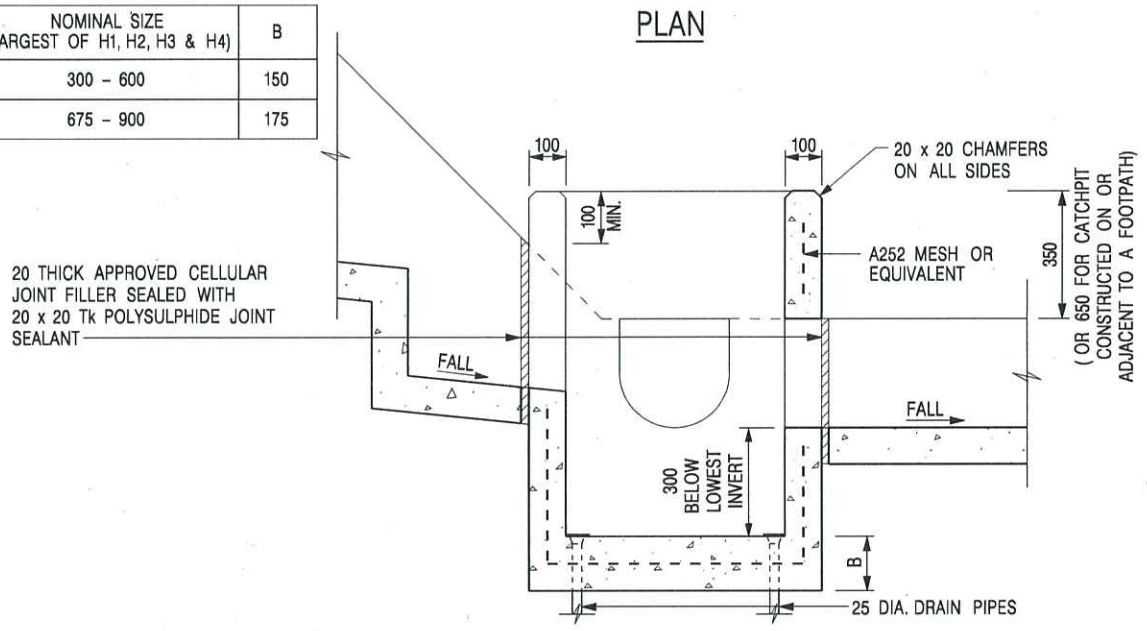
PLANNING CONSULTANT: R-Riches Property Consultants Ltd.	PROJECT: PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS	ADDRESS: VARIOUS LOTS IN D.D. 78 AND ADJOINING GOVERNMENT LAND, LIN MA HANG, NEW TERRITORIES	SCALE: 1 : 1500 @ A4	TITLE: LAYOUT PLAN	NORTH
			DRAWN BY: MN / DATE: 14.5.2024		
			REVISED BY / DATE	DWG NO.: PLAN 9 / VER.: 001	

Appendix C - Reference Drawings



PLAN

NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 – 600	150
675 – 900	175



SECTION A – A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP

(SHEET 1 OF 2)

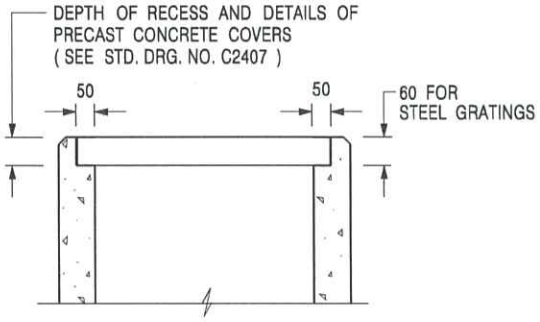
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1

卓越工程 建設香港 We Engineer Hong Kong's Development



ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 /2) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON STD. DRG. NO. C2405 /5; EXCEPT ON THE UPSLOPE SIDE) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 c/c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON STD. DRG. NO. C2405 /4.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

REF.	REVISION	SIGNATURE	DATE
A	MINOR AMENDMENT.	Original Signed	04.2016
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

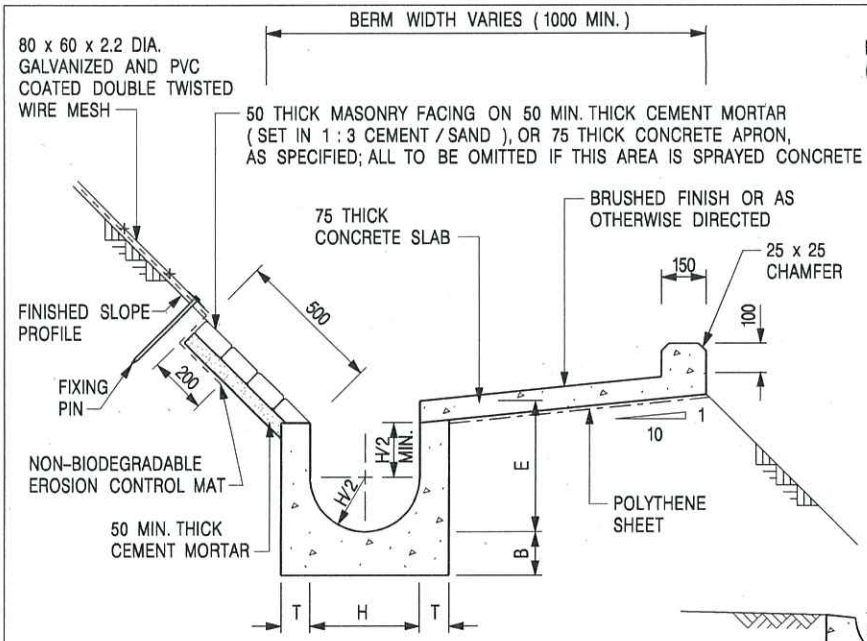
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

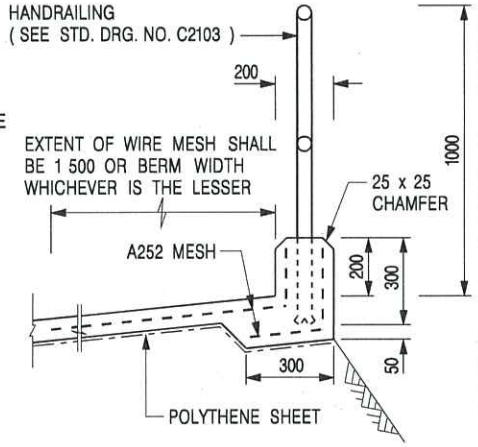
SCALE 1 : 20

DATE JAN 1991

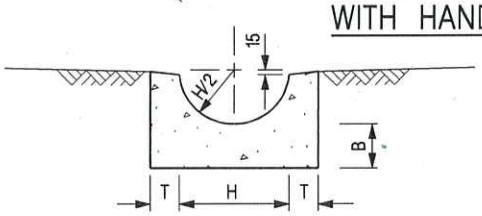
DRAWING NO. C2406 /2A



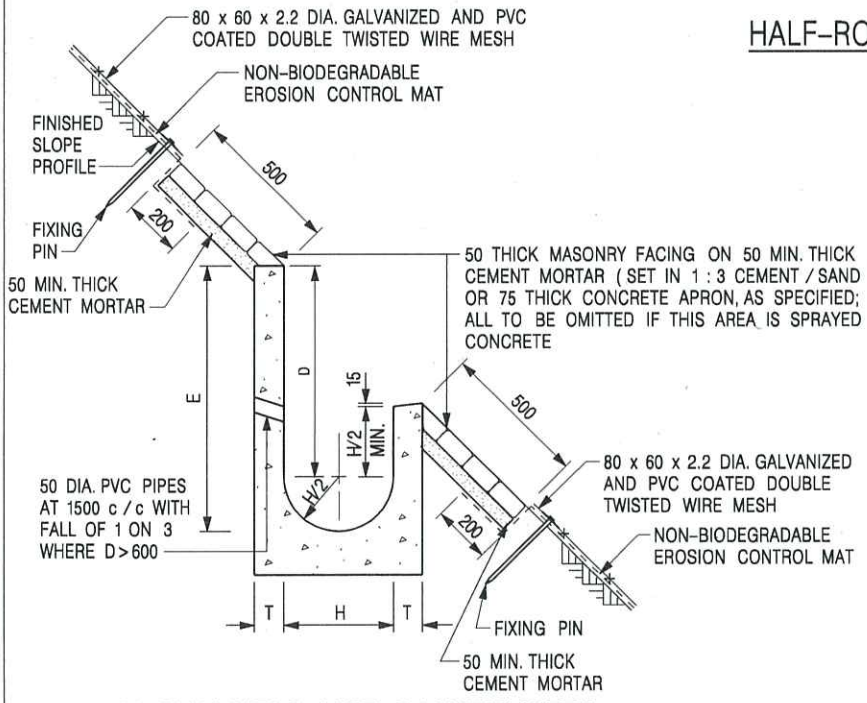
U-CHANNELS CONSTRUCTED ON BERM



DETAILS OF BERM WITH HANDRAILING



HALF-ROUND CHANNEL



U-CHANNELS NOT CONSTRUCTED ON BERM

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20 / 20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
7. BIODEGRADABLE EROSION CONTROL MAT IF REQUIRED, SEE STD. DRG. NO. C2511/1E.
8. CONCRETE TO BE COLOURED AS SPECIFIED.
9. CONCRETE U-CHANNEL CAN BE CAST IN-SITU OR PRECAST CONCRETE SUBJECT TO THE ENGINEER'S AGREEMENT ON THE DETAILS.
10. DETAILS OF EROSION CONTROL MAT AND WESH MESH ON BERM. (SEE STD DRG. NO. C2511/1E)

NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

REF.	REVISION	SIGNATURE	DATE
I	MINOR AMENDMENT.	Original Signed	07.2018
H	THICKNESS OF MASONRY FACING AMENDED.	Original Signed	01.2005
G	MINOR AMENDMENT.	Original Signed	01.2004
F	GENERAL REVISION.	Original Signed	12.2002
E	DRAWING TITLE AMENDED.	Original Signed	11.2001
D	MINOR AMENDMENT.	Original Signed	08.2001
C	150 x 100 UPSTAND ADDED AT BERM.	Original Signed	6.99
B	MINOR AMENDMENTS.	Original Signed	3.94

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A - WITH MASONRY APRON)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE 1 : 25

DATE JAN 1991

DRAWING NO. C2409I

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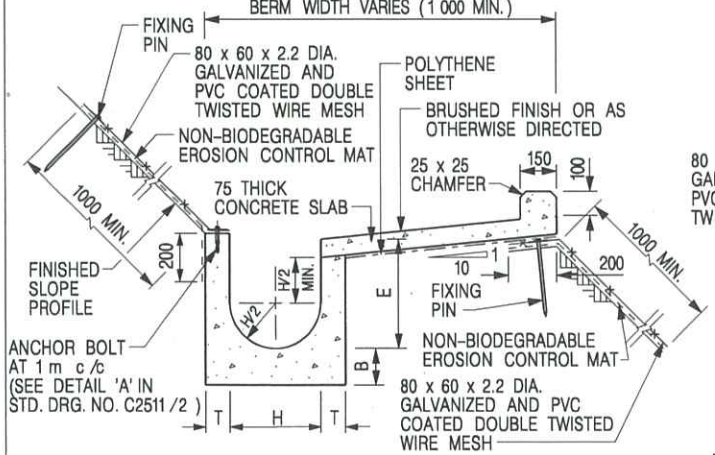
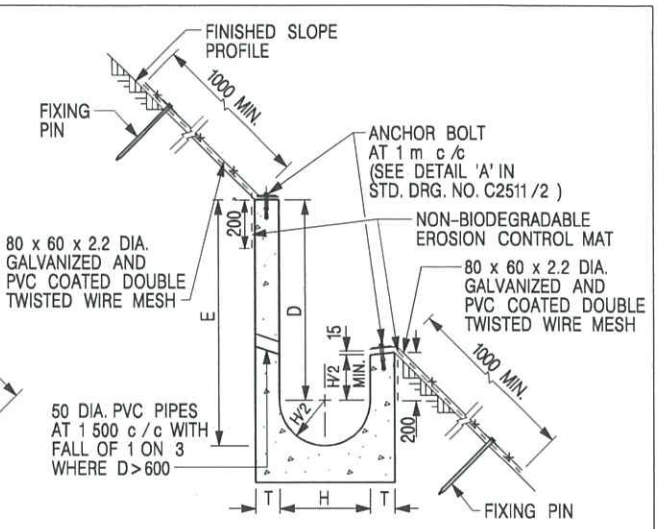
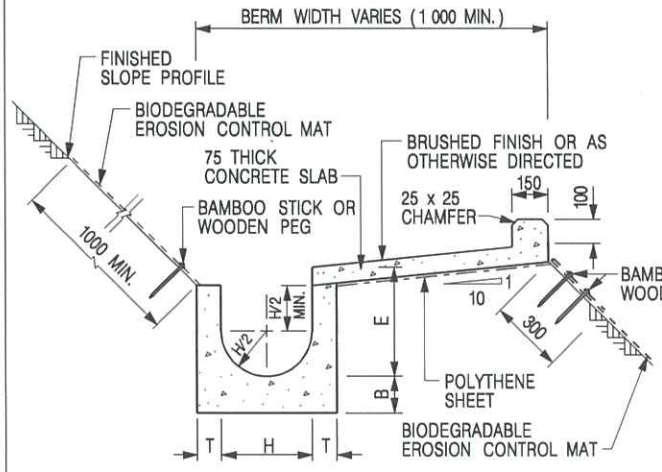


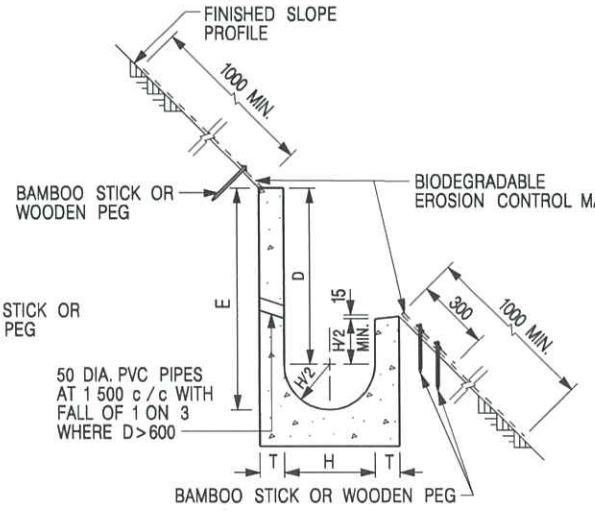
U-CHANNELS CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS NOT CONSTRUCTED ON BERM WITH NON-BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS CONSTRUCTED ON BERM WITH BIODEGRADABLE EROSION CONTROL MAT



U-CHANNELS NOT CONSTRUCTED ON BERM WITH BIODEGRADABLE EROSION CONTROL MAT

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
7. FOR TYPICAL FIXING PIN DETAILS, SEE STD. DRG. NO. C2511/2.
8. MINIMUM SIZE OF 25 x 50 x 300mm SHALL BE PROVIDED FOR WOODEN PEG.
9. MINIMUM SIZE OF 10mm DIAMETER WITH 200mm LONG SHALL BE PROVIDED FOR BAMBOO STICK.
10. THE FIXING DETAILS OF NON-BIODEGRADABLE AND BIODEGRADABLE EROSION CONTROL MATS ON EXISTING BERM SHALL REFER TO STD. DRG. NO. C2511/1.

NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

REF.	REVISION	SIGNATURE	DATE
I	MINOR AMENDMENT.	Original Signed	07.2018
H	FIXING DETAILS OF BIODEGRADABLE EROSION CONTROL MAT ADDED.	Original Signed	12.2017
G	DIMENSION TABLE AMENDED.	Original Signed	01.2005
F	MINOR AMENDMENT.	Original Signed	01.2004
E	GENERAL REVISION.	Original Signed	12.2002
D	MINOR AMENDMENT.	Original Signed	08.2001
C	150 x 100 UPSTAND ADDED AT BERM.	Original Signed	6.99
B	MINOR AMENDMENT.	Original Signed	3.94
A	MINOR AMENDMENT.	Original Signed	10.92

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE B - WITH EROSION CONTROL MAT APRON)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

SCALE DIAGRAMMATIC

DATE JAN 1991

DRAWING NO. C2410I

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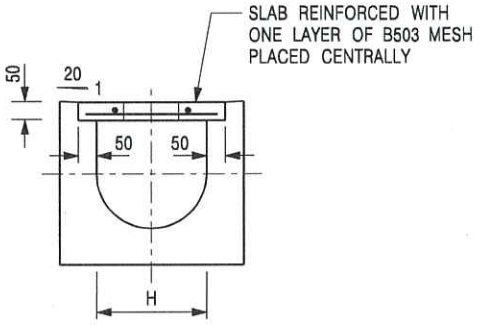
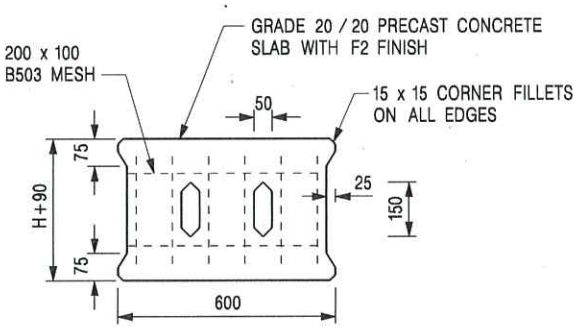


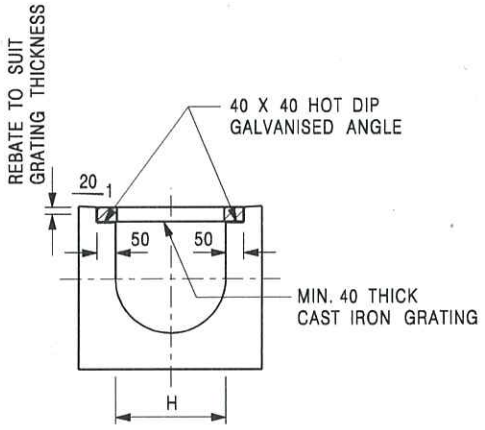
TYPICAL SECTION



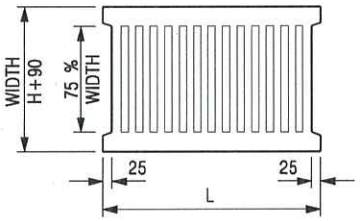
PLAN OF SLAB

U-CHANNELS WITH PRECAST CONCRETE SLABS

(UP TO H OF 525)



TYPICAL SECTION



L = 600mm FOR H ≤ 375mm
L = 400mm FOR H > 375mm

CAST IRON GRATING

(DIMENSIONS ARE FOR GUIDANCE ONLY, CONTRACTOR MAY SUBMIT EQUIVALENT TYPE)

U-CHANNEL WITH CAST IRON GRATING

(UP TO H OF 525)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. H = NOMINAL CHANNEL SIZE.
3. ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
4. FOR COVERED CHANNELS TO BE HANDED OVER TO HIGHWAYS DEPARTMENT FOR MAINTENANCE, THE GRATING DETAILS SHALL FOLLOW THOSE AS SHOWN ON HyD STD. DRG. NO. H3156.

REF.	REVISION	SIGNATURE	DATE
E	NOTES 3 & 4 AMENDED.	Original Signed	12.2014
D	NOTE 4 ADDED.	Original Signed	06.2008
C	MINOR AMENDMENT. NOTE 3 ADDED.	Original Signed	12.2005
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	CAST IRON GRATING AMENDED.	Original Signed	12.2002

COVER SLAB AND CAST IRON GRATING FOR CHANNELS

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2412E

Annex 3

Revised Traffic Impact Assessment

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years

Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories

Final TIA Report
August 2024

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15/F, Heng Shan Centre
145 Queen's Road East
Wanchai, Hong Kong
Tel: 3488 5449 Fax: 3020 0370
http:// www.ozzotec.com

Section 16 Planning Application

Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years

Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories

Final TIA Report
August 2024

Contents Amendment Record

This report has been issued and amended as follows:

Revision	Description	Prepared / Date	Checked / Date	Approved / Date
R0a	Final TIA	10/07/2024 TC	12/07/2024 DP	12/07/2024 SC
R1a	Final TIA	15/08/2024 TC	16/08/2024 DP	16/08/2024 SC

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1 INTRODUCTION

1.1 General

1.1.1 Ozzo Technology (HK) Limited was commissioned to undertake a Traffic Impact Assessment (TIA) Study in support of the S16 planning application for the Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years ("Application Site").

1.2 Project Descriptions

1.2.1 The Application Site is located at Lin Ma Hang, abutting Lin Ma Hang Road which can be accessed via Heung Yuen Wai Highway.

1.3 Study Objectives

1.3.1 The main objectives of this Traffic Impact Assessment ("TIA") Study are to:

(i) evaluate the existing vehicular traffic and transport conditions of the project site and to assess the traffic and transport implications of the development to the adjacent road network and pedestrian facilities for the operation of the Application Site;

(ii) identify any existing and potential traffic and transport problems and to recommend possible mitigation measures and advise any necessary traffic arrangement;

(iii) recommend traffic improvement measures for the Application Site, as necessary.

1.4 Report Structure

1.4.1 Following this introductory chapter, this report is arranged as follow:

- Chapter 2 describes the Application Site;
- Chapter 3 outlines the existing traffic conditions;
- Chapter 4 presents the finding of traffic forecast;
- Chapter 5 illustrates the result of Construction TIA;
- Chapter 6 provides the conclusion of the TIA.

2 DESCRIPTONS OF THE APPLICATION SITE

2.1 Site Location

2.1.1 The site is located in Lin Ma Hang and can be accessed via Lin Ma Hang Road which serve as the ingress / egress route of site as shown in **Figure 2-1**.

2.2 Development Parameters for the Application Site

2.2.1 The Application Site consisting of various Lots in D.D. 78 in Lin Ma Hang, with a Site area of 24,446m^2.

2.2.2 The Site involves a temporary warehouse with ancillary facilities excluding dangerous goods.The current application is intended to facilitate the relocation of the applicant's affected business premises in Ngau Tam Mei to the Application Site.

2.2.3 The operation hours of the proposed development are Monday to Saturday from 07:00 to 20:00. No operations on Sunday and public holiday. It is anticipated to accommodate not more than 30 staff. Visitor is not anticipated at the Site.

2.3 Parking and Loading/Unloading Facilities

2.3.1 As franchised bus (KMB route no. 79K) would be the main mode of transport for staffs travelling to the warehouse, private car generation/ attraction is expected to be minimal. **Table 2-1** presents the traffic induced by the operation of the warehouse.

Table 2-1 Development Traffic

Time Period	Trip Generation and Attraction (veh/hr)					
	PC		MGV		CV	
	In	Out	In	Out	In	Out
Trip at AM Peak hour	10	1	2	1	2	1
Trip at PM Peak hour	0	6	1	2	2	2
Trip at Non-peak per hour (average)	2	2	1	1	1	1

2.3.2 **Table 2-2** summarizes the internal transport facilities to be provided in the Application Site. As there are no specific parking and loading/unloading requirements for temporary warehouse development in accordance to HKPSG, ancillary transport facilities are provided based on users' requirements to meet operational needs.

Table 2-2 Ancillary Transport Facilities Based on User's Requirement

Type of Ancillary Transport Facilities	Size	Provision based on User's Requirement
Private Car Parking Space	2.5m (W) x 5m (L)	12
Container Vehicle Parking Space	3.5m (W) x 16m (L)	4
Total Parking Facilities	**-**	**16**
L/UL Spaces for MGV	3.5m (W) x 11m (L)	4
L/UL Spaces for Container Vechicle	3.5m (W) x 16m (L)	7
Total L/UL Facilities	**-**	**11**

2.3.3 The conceptual layout plan of the Project Site is included in **Appendix A** for easy reference.

2.4 Vehicular Access Arrangement and Proposed Access Road

2.4.1 The Application Site consist of two vehicular accesses which are located at the north of the site and at the east of the site (hereinafter named as "North Gate" and "East Gate") as shown in **Figure 2.2**. Vehicles can access the site via both gates and pedestrian can only access the site via the East Gate. The East Gate can be accessed by Lin Ma Hang Road while the North Gate is currently inaccessible by vehicles.

2.4.2 To facilitate the vehicular access of the North Gate, a 4.5m wide single track access road with a 12m long passing bay is proposed. Layout of the proposed access road is also presented in **Figure 2-2**. The 12m long passing bay is able to accommodate two light vehicles (or a MGV), as overhead traffic of two 16m long container vehicles is very unlikely, a 12m long passing bay is considered to be adequate.

2.4.3 Swept path analysis is also conducted for the vehicular accesses and the proposed access road, indicating sufficient turning spaces for goods vehicles. **Appendix A** presents the swept path analysis for the vehicular access of the Application Site, as well as internal circulation to/from the parking spaces/ L/UL spaces within the site.

2.4.4 Staffs will be deployed to conduct traffic management/ control measures at the accesses of the site to ensure smooth maneuvering of vehicles entering/ exiting the site and to ensure no queueing of vehicles outside the site. In case there are overlapping traffic (e.g. vehicles entering/ exiting the site at the same time, which should be very unlikely), traffic entering the site will have priority over the leaving traffic in order to minimize the impact to public road.

2.4.5 To ensure pedestrian safety, staff will be deployed by the applicant to direct vehicle entering / exiting the site. “Stop and Give way” and “beware of pedestrians’ signs would be erected to ensure pedestrian safety to/from the Site.

2.4.6 In addition, flashing light and alarm systems will be set at the entrance of the Application Site, whenever vehicles are to be accessed to / exit from the Application Site, the flashing light and alarm will work immediately to alarm the pedestrians. Adequate lights would be provided by adding lights for safety concerns.

3 EXISTING TRAFFIC AND TRANSPORT CONDITIONS

3.1 Existing Road Network

3.1.1 The Site is bounded by Lin Ma Hang Road as shown in **Figure 2-1** which is a single 2-lanes carriageway and can be accessed via Heung Yuen Wai Highway.

3.2 Traffic Surveys

3.2.1 Vehicular count survey was conducted on a typical weekday in January 2024 at the critical junctions and links shown in **Figure 3.1** during the period of 0730-1000 for AM peak and 1700-1930 for PM peak. The details of the critical junction are listed in **Table 3-1** below.

Table 3-1 Critical Junctions and Links

Index	Location	Type
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	Road Link
L2	Heung Yuen Wai Hwy Slip Road NB	Road Link
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	Road Link

3.3 Existing Vehicle Traffic Conditions

All vehicle flows recorded during the traffic surveys have been converted to passenger car unit (PCU) based on the PCU factors as indicated in Table 2.3.1.1 of Volume 2 of Transport Planning and Design Manual (TPDM) as illustrated in **Table 3-2**.

Table 3-2 Passenger Car Unit Conversion Factors

Vehicle Type	PCU Conversion Factor(1)
	Priority junction/ Roundabout
Car / Taxi	1.00
Public Light Bus / Minibus / Light Goods Vehicle	1.50
Medium Goods Vehicle	2.00
Heavy Goods Vehicle	2.50
Bus / Coach	2.50

Notes: (1) Table 2.3.1.1, Chapter 2.3, Volume 2, TPDM-2023

3.3.1 By applying the above PCU factors, vehicular traffic flows in PCUs are calculated and the AM and PM peak hour is identified to occur at 08:45-09:45 and 16:30-17:30 for AM peak and PM peak respectively. **Figure 3-2** presents the 2024 observed Weekday AM and PM peak hour traffic flows on the road network in the vicinity of the Application Site.

3.3.2 Based on the existing traffic flows, the peak hour performances of the key junctions are assessed. The assessment results are indicated in **Table 3-3** and detailed junction calculation sheets are given in **Appendix B**.

Table 3-3 2024 Peak Hour Junction Capacity Assessment

Jn. ID.	Location(1)	Type	Capacity Index(2)	2024 Weekday	
				AM Peak	PM Peak
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout	DFC	0.20	0.18
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority	DFC	0.07	0.07

Notes:
(1) Refer to Figure 3-1 for junction locations
(2) DFC = Design Flow to Capacity for priority junction and roundabout

3.3.3 The results reveal that all the assessed key junctions are operated satisfactorily during the peak hours.

3.3.4 Based on the existing traffic flows, the peak hour performances of the key road links in the vicinity of the Application Site are also assessed and the results are indicated in **Table 3-4**.

Table 3-4 2024 Peak Hour Road Link Capacity Assessment

No.	Location[1]	Direction	Design[2] Capacity (veh/hr)	Weekday AM Peak		Weekday PM Peak	
				Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	EB	400	167	0.42	159	0.4
		WB	400	142	0.36	132	0.33
L2	Heung Yuen Wai Hwy Slip Road	NB	1500	127	0.08	101	0.07
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	NB	400	69	0.17	77	0.19
		SB	400	166	0.42	156	0.39

Notes: (1) Refer to Figure 3-1 for road link locations
(2) TPDM Vol 2 Chapter 2.4.1.1
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

3.3.5 The results reveal that all the key road links in the vicinity of the Project Site operate within capacity during the peak hours.

4 TRAFFIC FORCAST

4.1 Design Year

4.1.1 According to current programme, the proposed warehouse development will commission in the year of 2026 and last for 3 years, the design year for traffic forecast is therefore set to be 2029.

4.2 Methodology

4.2.1 In forecasting the future traffic flows on the road network in the Study Area, due considerations are given to the following information and factors:

- Historical traffic data from Annual Traffic Census (ATC) published by Transport Department;
- The forecasted population and employment from the 2019-based Territorial Population and Employment Data Matrices (TPEDM) planning data published by Planning Department;
- Committed and planned developments in the Study Area.

4.2.2 The following steps are undertaken to derive the 2029 Peak Hour Reference Flows (i.e. without the Project Site) and Design Flows (i.e. with the Application Site).

2029 Background Flows = 2024 Flows x annual growth factors

2029 Reference Flows = 2029 Background Flows + additional traffic by planned and committed developments

2029 Design Flows = 2029 Reference Flows + development traffic

4.2.3 The traffic impact to be induced by the Development is assessed by comparing the Peak Hour Reference Traffic Flows against the Peak Hour Design Traffic Flows for the Design Year.

4.3 Future Year Traffic Flows

Historical Traffic Growth

4.3.1 The TPEDM data in NENT(others) covers larger scale of the North East area. Considering the application site is located in the rural area (close to boundary area) and is not in the proximity to town centre or other planned NDA, the TPEDM data in NENT(others) is deemed to be less relevant to reflect the population and employment situations of the vicinity of the Application Site.

4.3.2 To obtain a more relevant growth rate, reference is also made to the historical traffic data from Annual Traffic Census (ATC) published by Transport Department. The historical trend of traffic growth on the nearby road network over the 5-year period of 2018 to 2022 are extracted from the Annual Traffic Census (ATC) Reports for the ATC stations in the vicinity of the site. **Table 4-1** describes the locations of the nearby ATC stations and provides the corresponding traffic data.

Table 4-1 Traffic Data from ATC in the vicinity of the site

Station	Road	Between		2018	2019	2020	2021	2022	Average Annual Growth 2018-2022
6653	Ping Che Rd	Sha Tau Kok Rd	Lin Ma Hang Rd	11,430	11,820	11,030	11,870	11,510	0.17%
5041	Lung Shan Tunnel (1)	Fanling Highway	Sha Tau Kok Road – Wo Hang	-	13,540	13,840	16,870	16,400	6.60%
Total				11,430	25,360	24,870	28,740	27,910	**3.25%**

Note: (1) Station 5041 started to record since year 2019 when the Heung Yuen Wai Highway commissioned

4.3.3 As indicated in **Table 4-1**, the traffic on the road network in the vicinity of the Application Site is increased by 3.25% p.a. on average over the period from 2019 – 2022. This will be adopted as annual growth rate to project future traffic flow.

Planned and Committed Developments

4.3.4 By referring to the TPB website, it is known that there would be other planned developments commissioned in the vicinity of the application site, as listed in **Table 4-2**.

Table 4-2 Planned / Committed Developments in the Site Vicinity

Application No.	Location	Land Use	Site Area (m^2)
A/NE-TKLN/85	Lots 1364 S.B RP and 1364 S.B ss.1 RP in D.D. 78, Ta Kwu Ling North, Lin Ma Hang Road, New Territories	Proposed Temporary Warehouse (Storage of Building Materials and Metal)	1,105

A/NE-TKLN/77	Various Lots in D.D. 78 and 82 and Adjoining Government Land, Ta Kwu Ling North, Lin Ma Hang Road, New Territories	Proposed Temporary Logistic Centre, Warehouse (Excluding Dangerous Goods Godown) and Container Vehicle Park	122,819
A/NE-TKLN/63	Lots 1309 S.B ss.3 and 1313 RP in D.D. 78 and Adjoining Government Land, Ta Kwu Ling North, New Territories	Proposed Temporary Private Club	451.5

2029 Reference Flows

4.3.5 By incorporating the planned development traffic and annual growth mentioned in **Section 4.3.4** and **Section 4.3.2** respectively, the 2029 Reference Traffic Flow are presented in **Figure 4-1**.

2029 Design Flows

4.3.6 The additional development traffic mentioned in **Section 2.3** is then assigned onto the nearby road network in addition to the Reference Traffic Flow presented in **Figure 4-1**. The resulting 2029 Design Traffic Flow are shown in **Figure 4-2.**

4.4 Future Year Junction Capacity Assessments

4.4.1 The critical road junction as identified in **Section 3.2** are assessed in the light of traffic forecast for the design year 2029 defined in **Section 4.1**. The results are shown in in **Table 4-3** with detailed junction calculation sheets provided in **Appendix C**.

Table 4-3 2029 Peak Hour Junction Capacity Assessment

Jn. ID.	Location(1)	Type	Capacity Index(2)	2029 Reference Scenario		2029 Design Scenario	
				AM Peak	PM Peak	AM Peak	PM Peak
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout	DFC	0.33	0.31	0.34	0.32
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority	DFC	0.09	0.08	0.09	0.08

Notes:
(1) Refer to Figure 3-1 for junction locations
(2) DFC = Design Flow to Capacity for priority junction and roundabout

4.4.2 It is indicated in the above **Table 4-3** that the identified critical junctions would operate satisfactorily during peak hours in the design years of 2029 without and with the Development in place, taking account of the known planned/ committed major developments in the vicinity of the Application Site.

4.5 Future Year Link Capacity Assessments

4.5.1 The critical road links as identified in **Section 3.2** are also assessed based on the future year traffic flow derived in **Section 4.3** and the results are presented in **Table 4-4**.

Table 4-4 2029 Peak Hour Road Link Capacity Assessment

No.	Location[1]	Dir.	Design[2] Capacity (veh/hr)	2029 Reference Scenario (AM Peak)		2029 Reference Scenario (PM Peak)		2029 Design Scenario (AM Peak)		2029 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	EB	400	219	0.55	244	0.61	222	0.56	254	0.64
		WB	400	223	0.56	178	0.45	237	0.59	181	0.45
L2	Heung Yuen Wai Hwy Slip Road	NB	1500	172	0.11	176	0.12	175	0.12	186	0.12
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	NB	400	81	0.2	91	0.23	81	0.20	91	0.23
		SB	400	251	0.63	207	0.52	265	0.66	210	0.53

Notes: (1) Refer to Figure 3-1 for road link locations
(2) TPDM Vol 2 Chapter 2.4.1.1 and
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

4.5.2 The results in the above **Table 4-4** indicate that all the key road links would be operating within their capacity in the design year of 2029.

5 CONSTRUCTION TRAFFIC IMPACT ASSESSMENT

5.1 Design Year Peak Hour Construction Traffic

5.1.1 Under current programme, the construction works will be completed in the year of 2026. Thus 2026 is adopted as the design year for construction traffic impact assessment.

5.1.2 The construction traffic mainly consists of concrete delivery and dump trucks. A conservative estimation of 8 veh/hr, which is equivalent to 16 pcu/hr is adopted in this Construction Traffic Impact Assessment.

5.1.3 The same approach in forecasting the 2029 Design Peak Hour Traffic (refers to Chapter 4) is adopted to forecast the 2026 Design Peak Hour Traffic as summarized below:

2026 Background Flows = 2024 Flows x annual growth factors

2026 Reference Flows = 2026 Background Flows + additional traffic by planned and committed developments

2026 Design Flows = 2026 Reference Flows + construction traffic

5.2 Construction Traffic Impact Assessment

5.2.1 The 2026 Peak Hour Traffic Flows during construction period are shown in **Figure 5-1** and **Figure 5-2** respectively. Based on the traffic forecasts, results of the junctions and links capacity assessments during the construction year are presented in **Table 5-1** and **Table 5-2** respectively. Detailed calculation sheets of the junction assessments are provided in **Appendix D**.

Table 5-1 2026 Peak Hour Junction Capacity Assessment

Jn. ID.	Location(1)	Type	Capacity Index(2)	2026 Reference Scenario		2026 Design Scenario	
				AM Peak	PM Peak	AM Peak	PM Peak
J1	Lin Ma Hang Road/ Slip road of Heung Yuen Wai Highway	Roundabout	DFC	0.31	0.29	0.32	0.30
J2	Lin Ma Hang Road/ Lin Chuk Road	Priority	DFC	0.08	0.07	0.08	0.07

Notes:
(1) Refer to Figure 3-1 for junction locations
(2) DFC = Design Flow to Capacity for priority junction and roundabout

Table 5-2 2026 Peak Hour Road Link Capacity Assessment

No.	Location[1]	Dir.	Design[2] Capacity (veh/hr)	2026 Reference Scenario (AM Peak)		2026 Reference Scenario (PM Peak)		2026 Design Scenario (AM Peak)		2026 Design Scenario (PM Peak)	
				Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]	Flows (veh/hr)	P/Df[3]
L1	Lin Ma Hang Road (section between application site and Heung Yuen Wai Hwy Slip Road NB)	EB	400	201	0.50	226	0.57	209	0.52	234	0.59
		WB	400	207	0.52	164	0.41	215	0.54	172	0.43
L2	Heung Yuen Wai Hwy Slip Road	NB	1500	158	0.11	165	0.11	166	0.11	173	0.12
L3	Lin Ma Hang Road (section between Lin Chuk Road and Heung Yuen Wai Hwy Slip Road SB)	NB	400	74	0.19	82	0.21	74	0.19	82	0.21
		SB	400	233	0.58	189	0.47	241	0.60	197	0.49

Notes: (1) Refer to Figure 3-1 for road link locations
(2) TPDM Vol 2 Chapter 2.4.1.1
(3) P/Df = Peak Hourly Flows/Design Flow Ratios (P/Df) for road links

5.2.2 The results indicate that the key junctions and road links in the vicinity of the application site would operate at an acceptable level during the weekday AM and PM peak hours even with the construction traffic to be generated during the construction period.

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 Ozzo Technology (HK) Limited is commissioned to undertake this Traffic Impact Assessment (TIA) Study to assess the traffic impact to be induced by the Application Site on the nearby road network.

6.1.2 Capacity assessments are undertaken to reveal the AM and PM peak hour traffic conditions for year 2024 and 2029 in the vicinity of the Application Site. The assessment results indicate that all the key junctions and road links perform satisfactorily during the AM and PM peak hours on a normal weekday for both the Reference and Design scenarios.

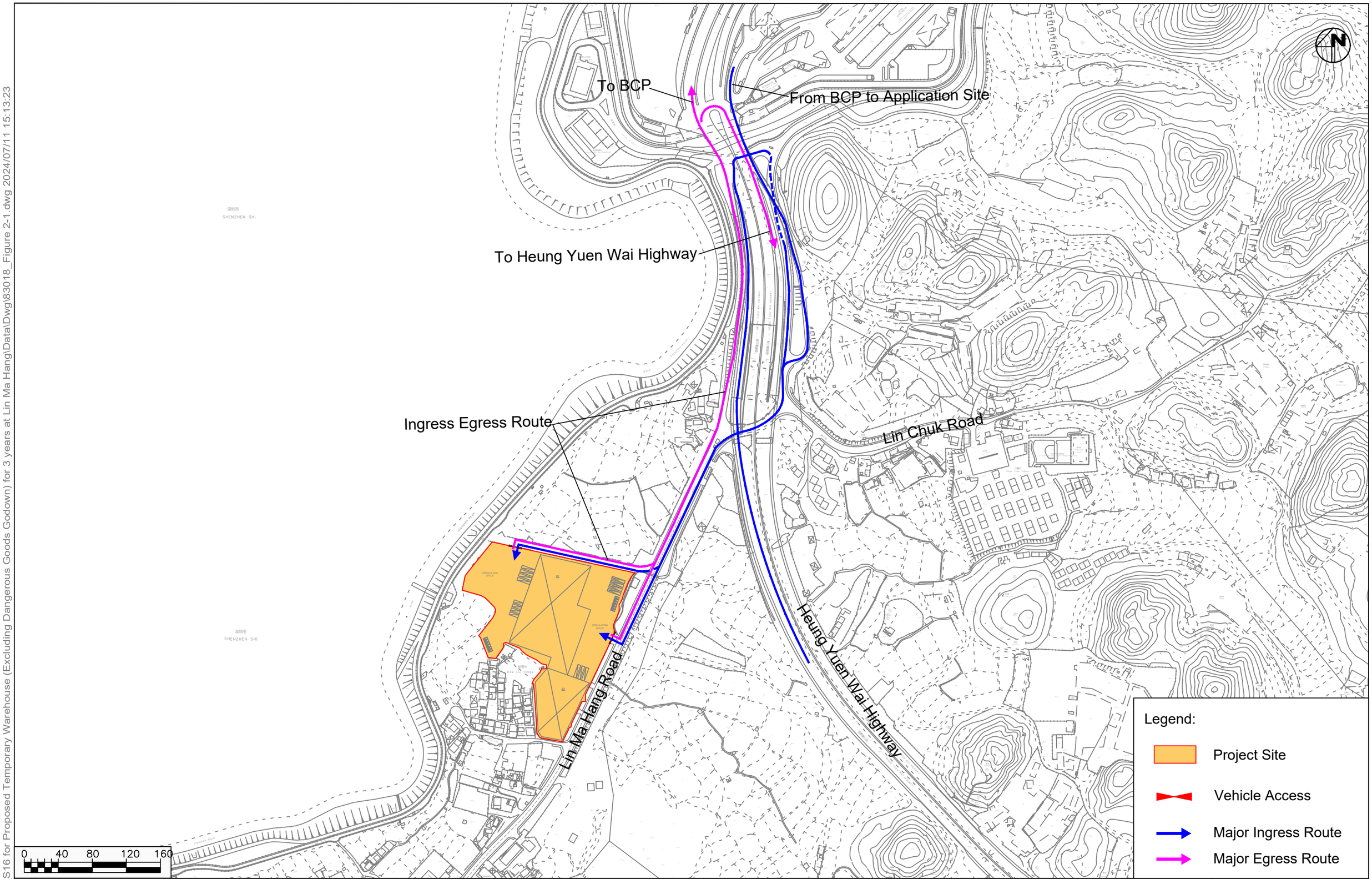
6.1.3 To facilitate the vehicular access of the North Gate, a single track access road with a 12m long passing bay is proposed.

6.1.4 Construction traffic impact assessment is also conducted and indicates that the key junctions and road links in the vicinity of the project site would operate at an acceptable level during the weekday AM and PM peak hours even with the construction traffic to be generated during the construction period.

6.2 Conclusion

6.2.1 The impact assessment results indicate that the Application Site would not induce significant traffic impacts and considered acceptable from traffic engineering viewpoint.

Figures



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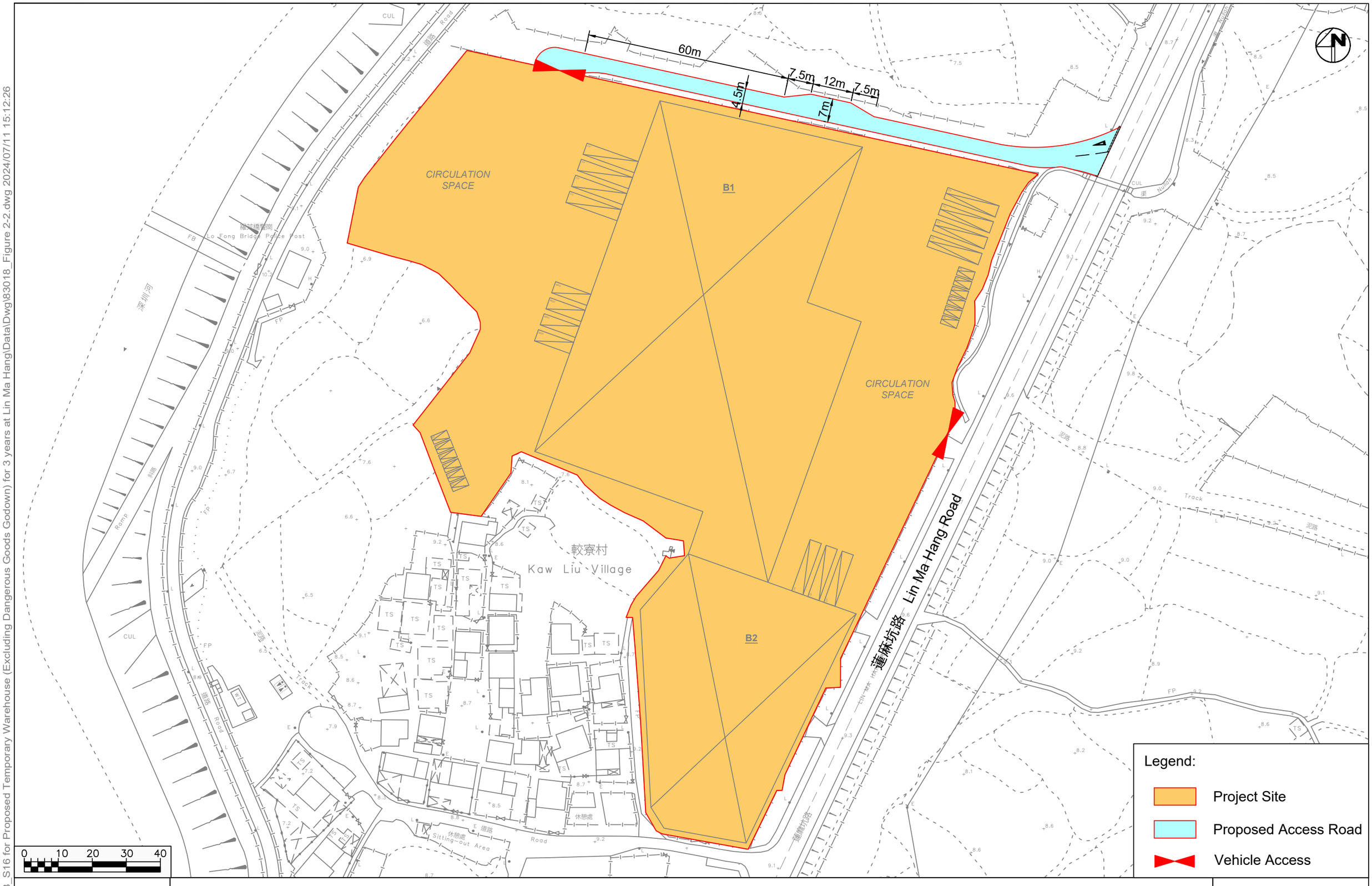
OZZO TECHNOLOGY

Date	Scale
11/07/2024	1:4000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Major Ingress / Egress Route

Project No.	83018	Rev.
Dwg No.	Figure 2-1	-



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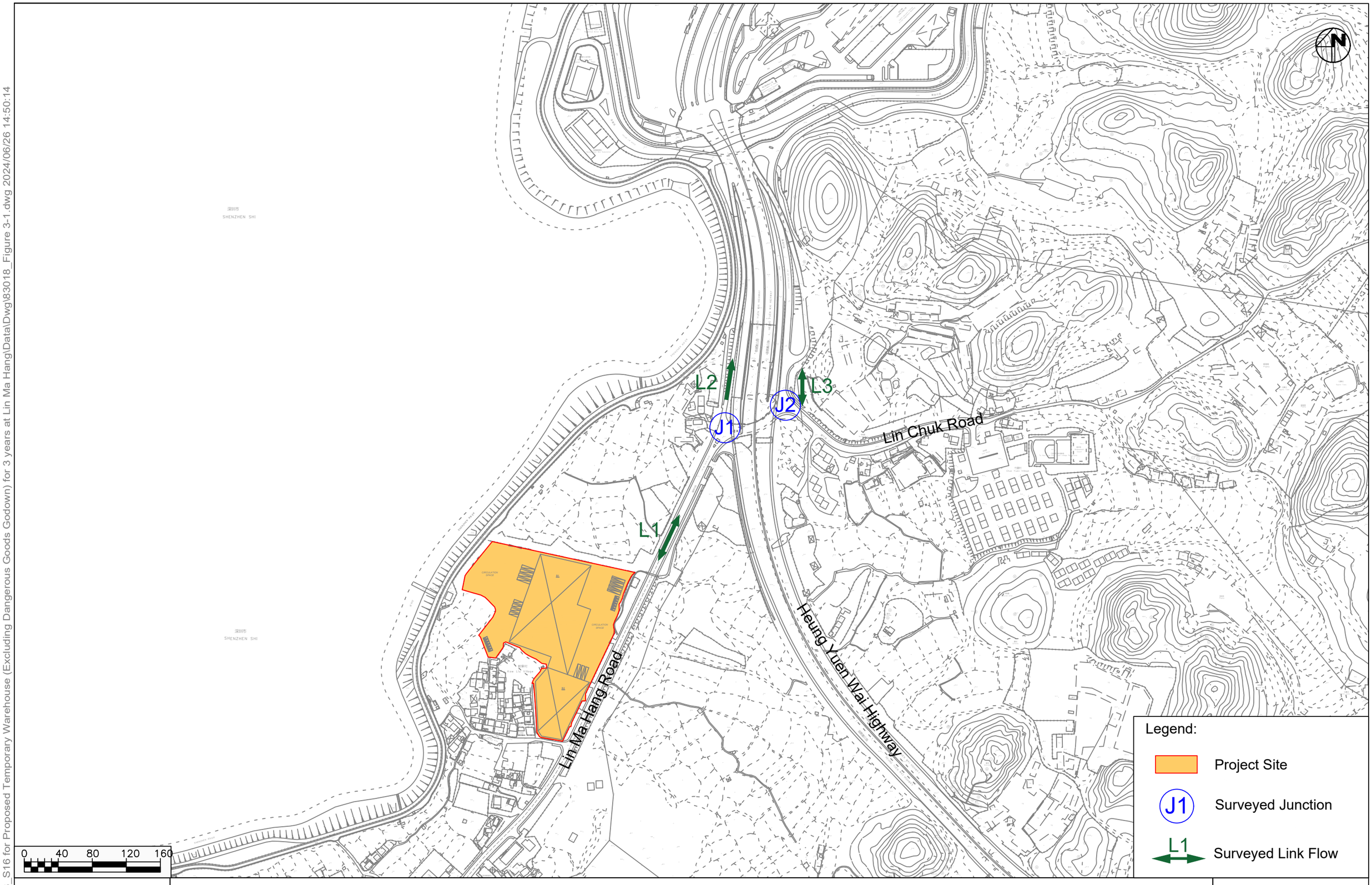
Date	Scale
11/07/2024	1:1000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Proposed Access Road

Project No. 83018	Rev.
Dwg No. Figure 2-2	-



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Date 26/06/2024

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S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Survey Locations

Project No. 83018

Dwg No. Figure 3-1

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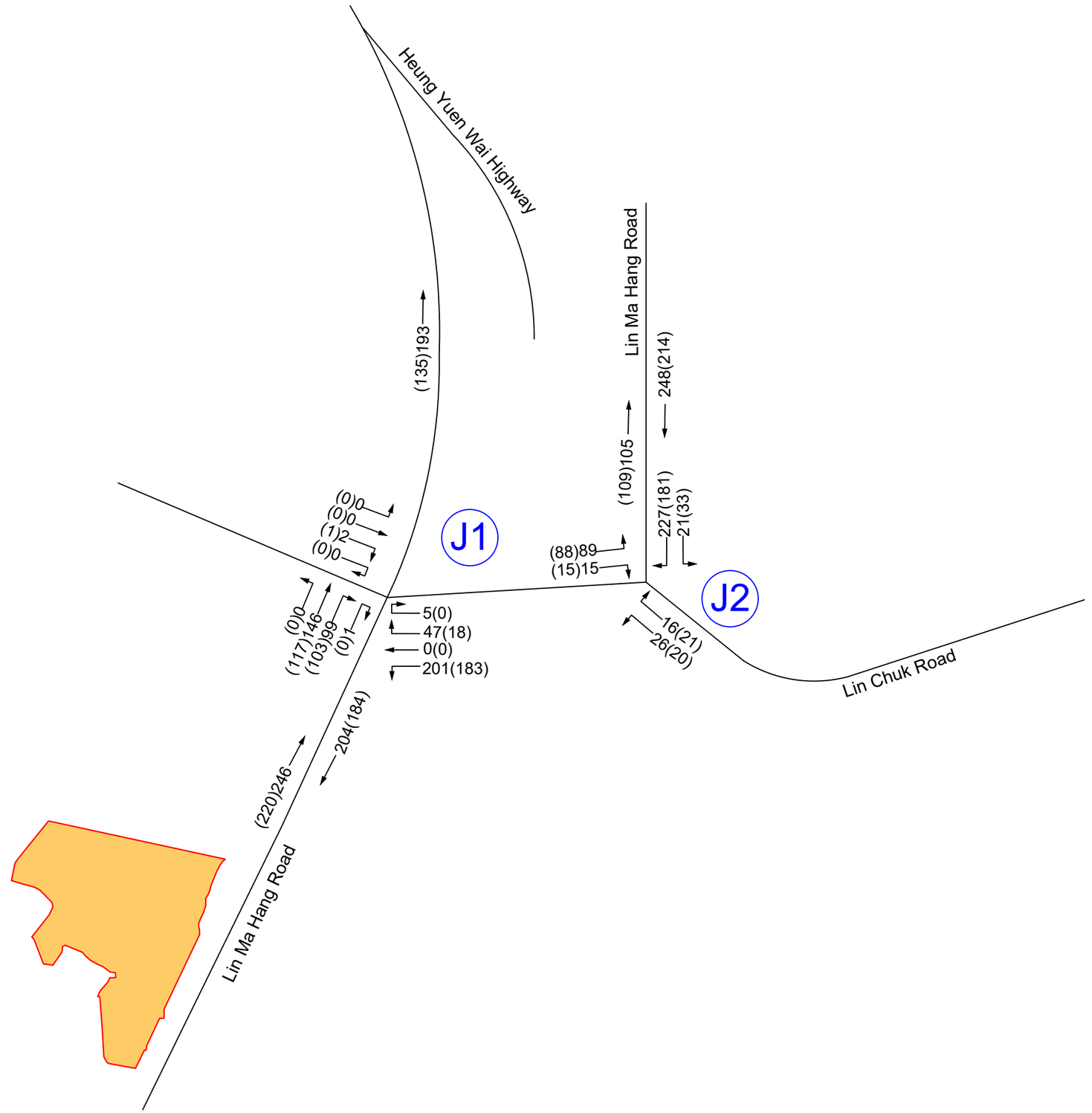

Legend:

- Application Site
- J1 Surveyed Junction
- Weekday AM Peak Hour Traffic Flow
- 123(123) Weekday PM Peak Hour Traffic Flow

Note: Traffic Flows at Junction in PCU values
Minor Road not shown for Clarity

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S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2024 Existing Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

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83018	-
Dwg No. Figure 3-2	

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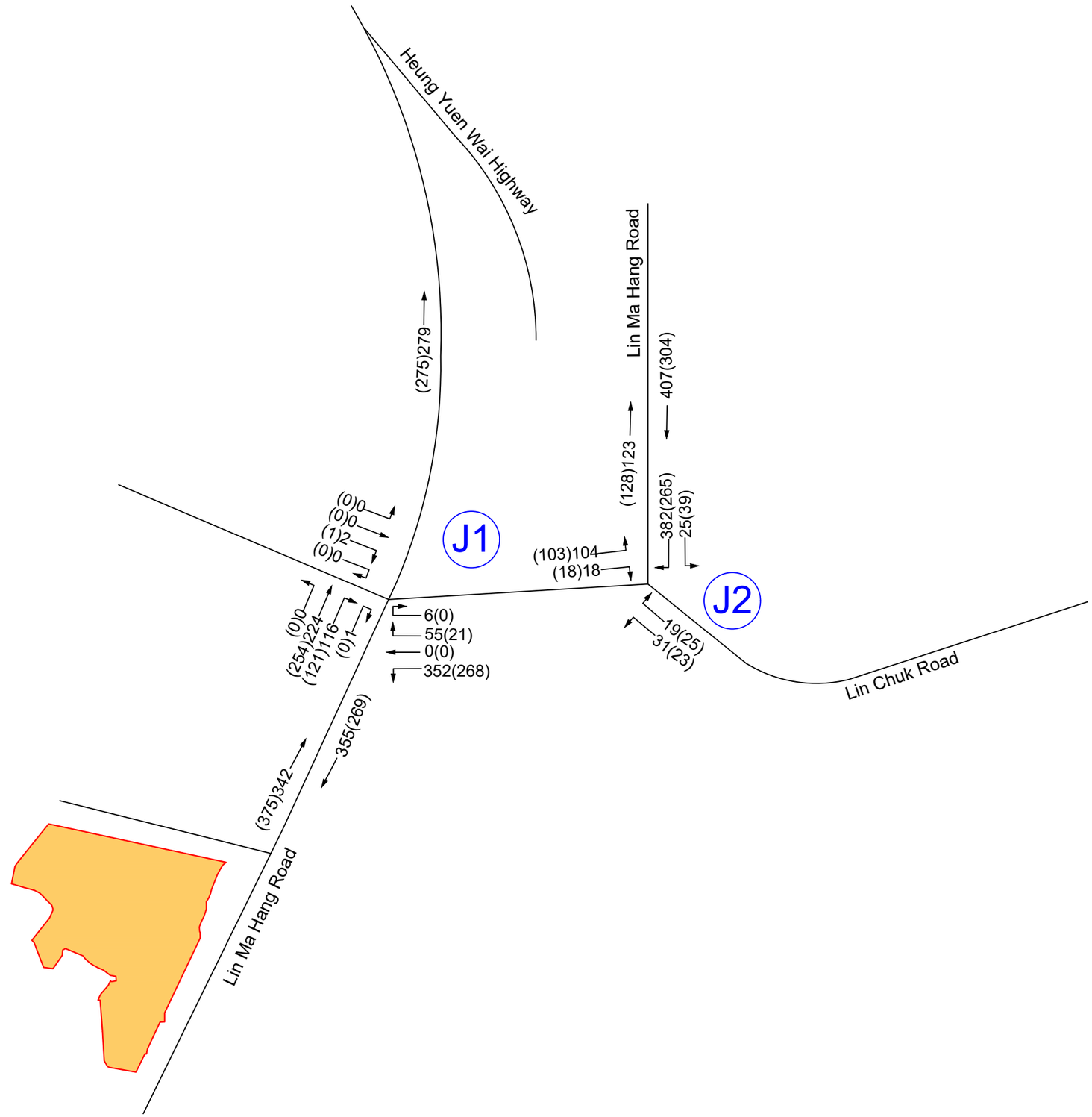

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- Weekday AM Peak Hour Traffic Flow
- 123(123) Weekday PM Peak Hour Traffic Flow

Note: Traffic Flows at Junction in PCU values
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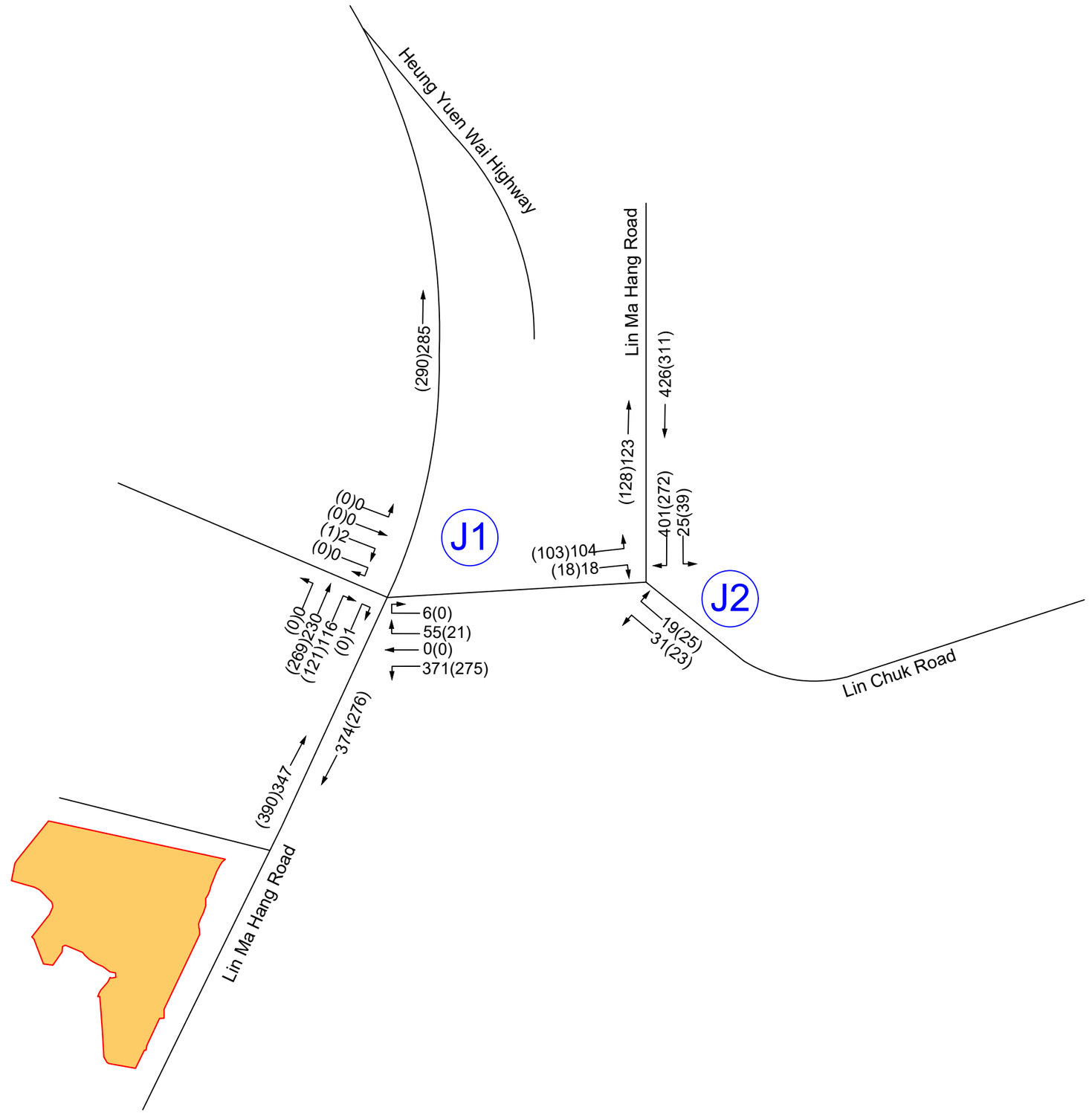
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2029 Reference Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 4-1	-



S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2029 Design Peak Hour Traffic Flows

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Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 4-2	-

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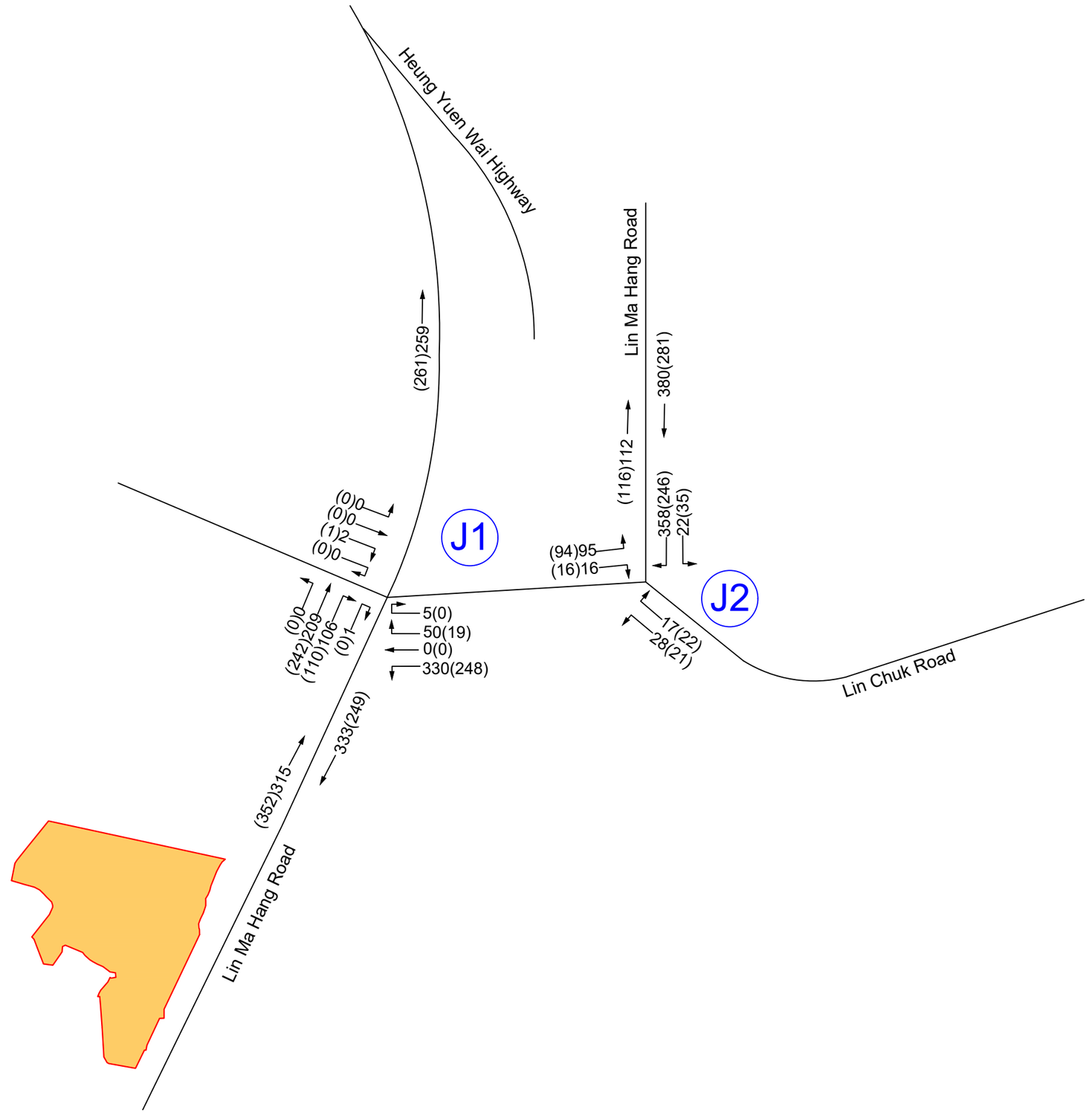

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Note: Traffic Flows at Junction in PCU values
Minor Road not shown for Clarity

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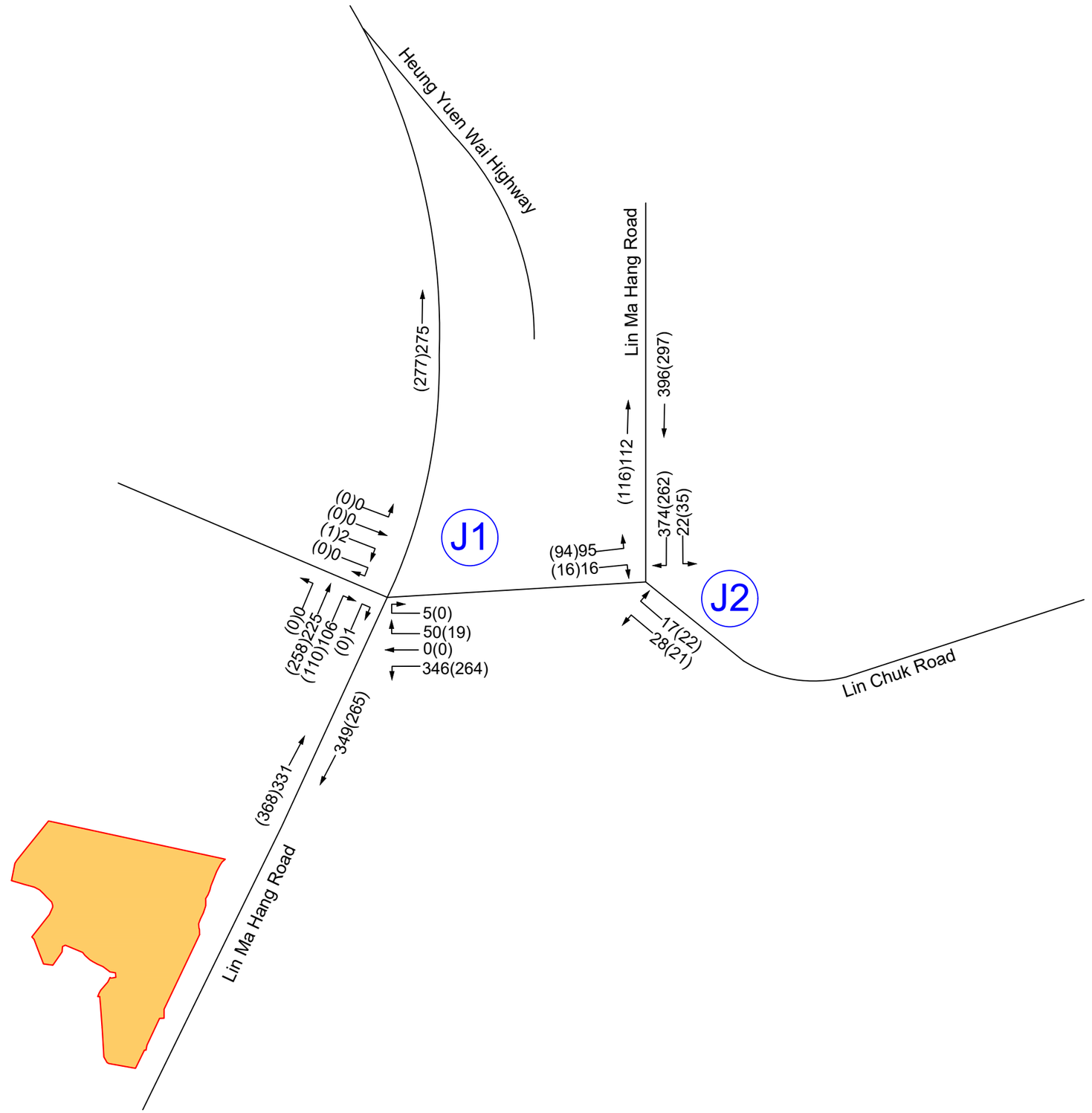
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2026 Reference Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 5-1	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_Figure 5-1.dwg 2024/07/11 11:25:04



OZZO TECHNOLOGY

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

2026 Design Peak Hour Traffic Flows

Date	Scale
10/07/2024	N.T.S

Project No.	83018	Rev.
Dwg No.	Figure 5-2	-

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_Figure 5-2.dwg 2024/07/11 11:24:49

Appendix A

Conceptual Layout Plan and Swept Path Analysis

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_SP.dwg 2024/07/11 15:27:51

CIRCULATION SPACE

B1

CIRCULATION SPACE

B2

較寮村
Kaw Liu Village

Lo Fong Bridge Police Post

Lin Ma Hang Road

蓮麻坑路

深圳河

Legend:

- Application Site
- PC — Parking Space (PC)
- CV — Parking Space (CV)
- MGV — Loading / unloading Space (MGV)
- CV — Loading / unloading Space (CV)

0 10 20 30 40

OZZO TECHNOLOGY

Date 11/07/2024

Scale 1:1000

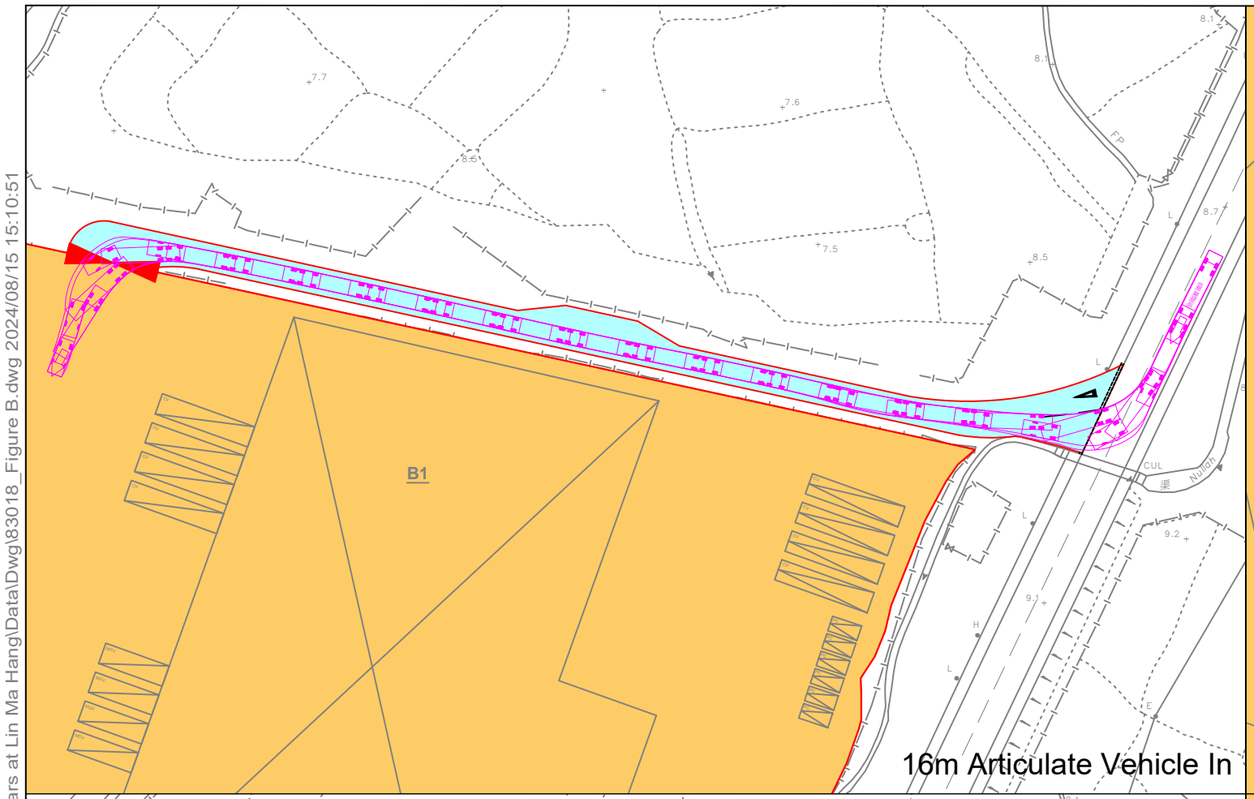
S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

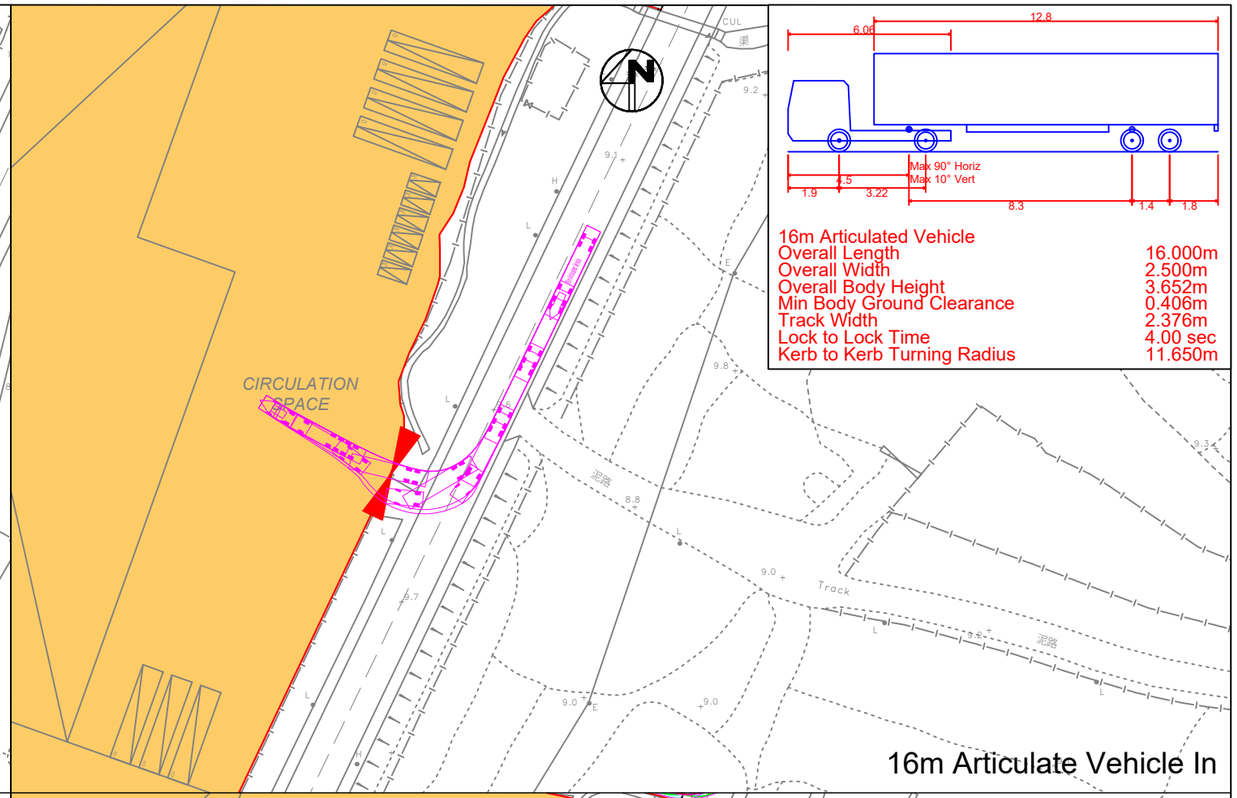
Layout Plan

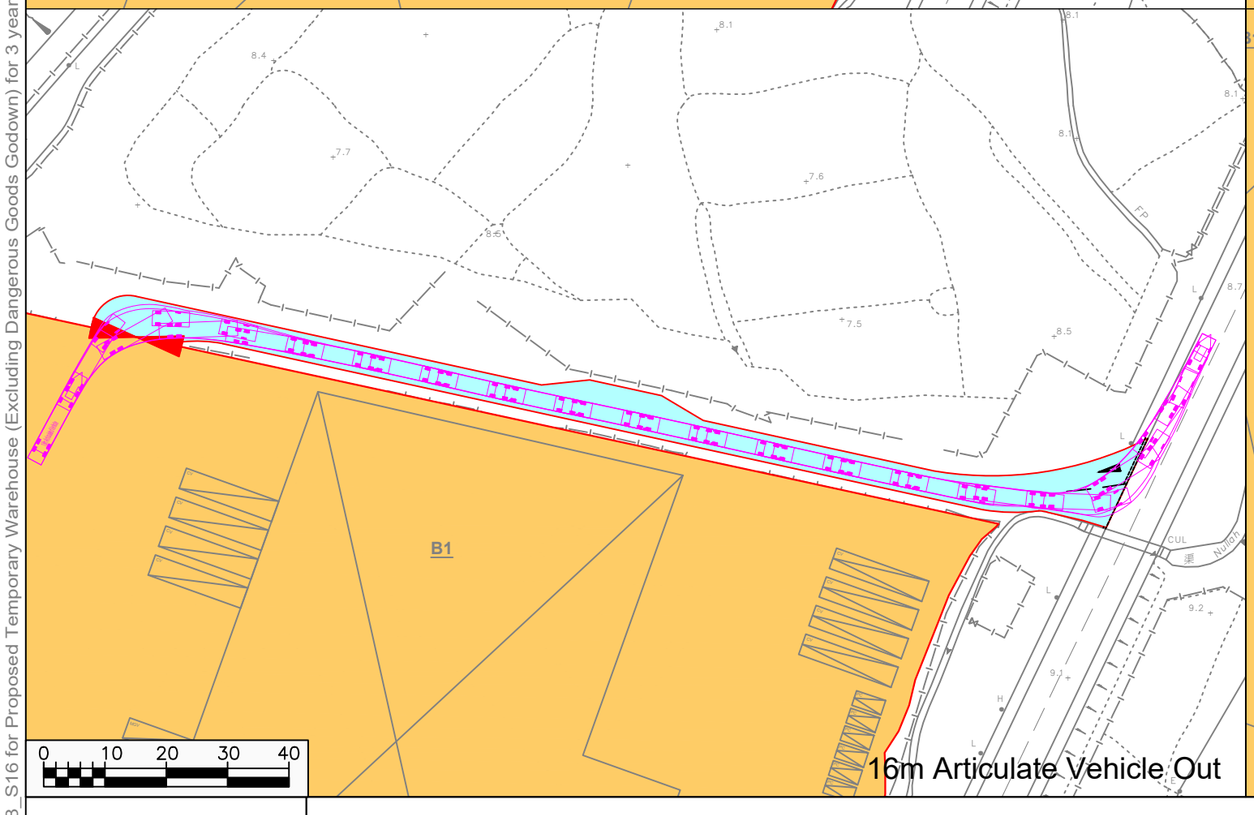
Project No. 83018

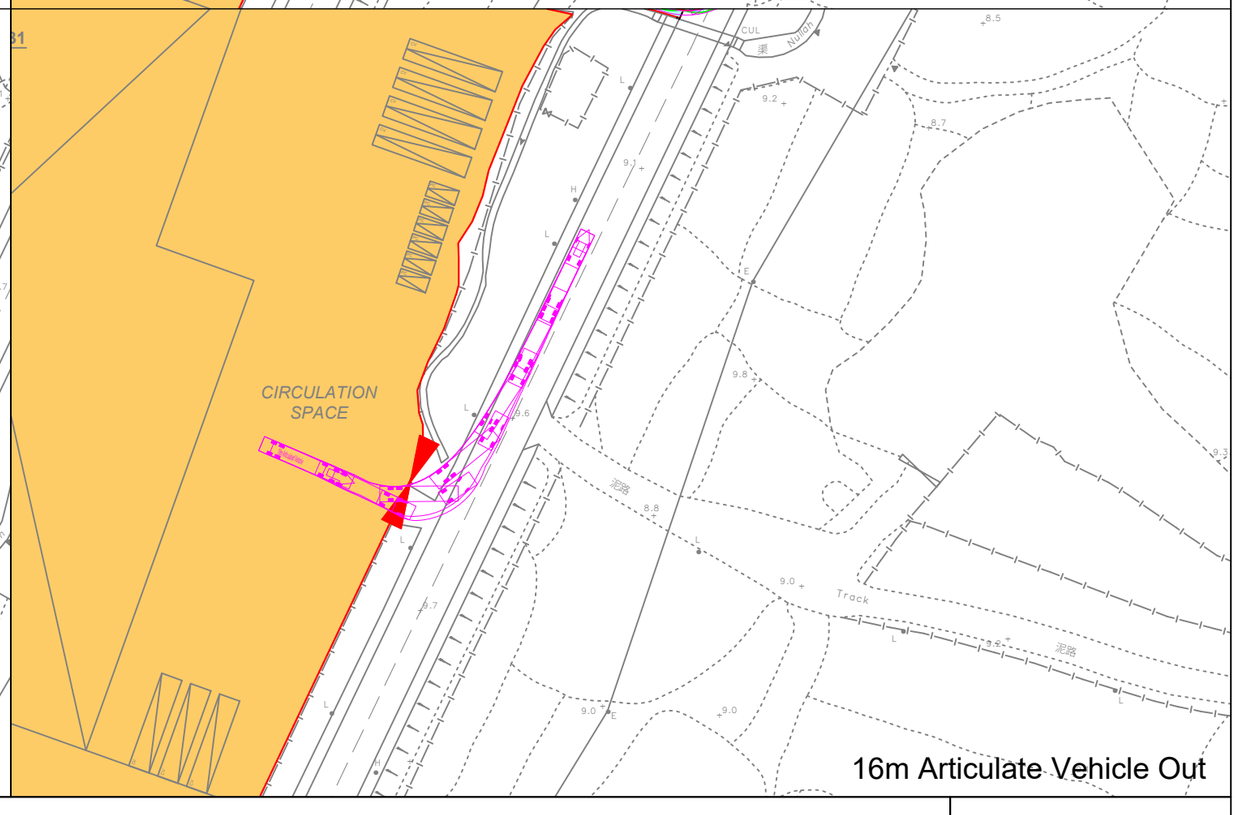
Dwg No. Figure A

Rev. -









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OZZO TECHNOLOGY

Date	Scale
11/07/2024	1:1000

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Proposed Access Road and 16m Articulate Vehicle Swept Path

Project No. 83018	Rev.
Dwg No. Figure B	-

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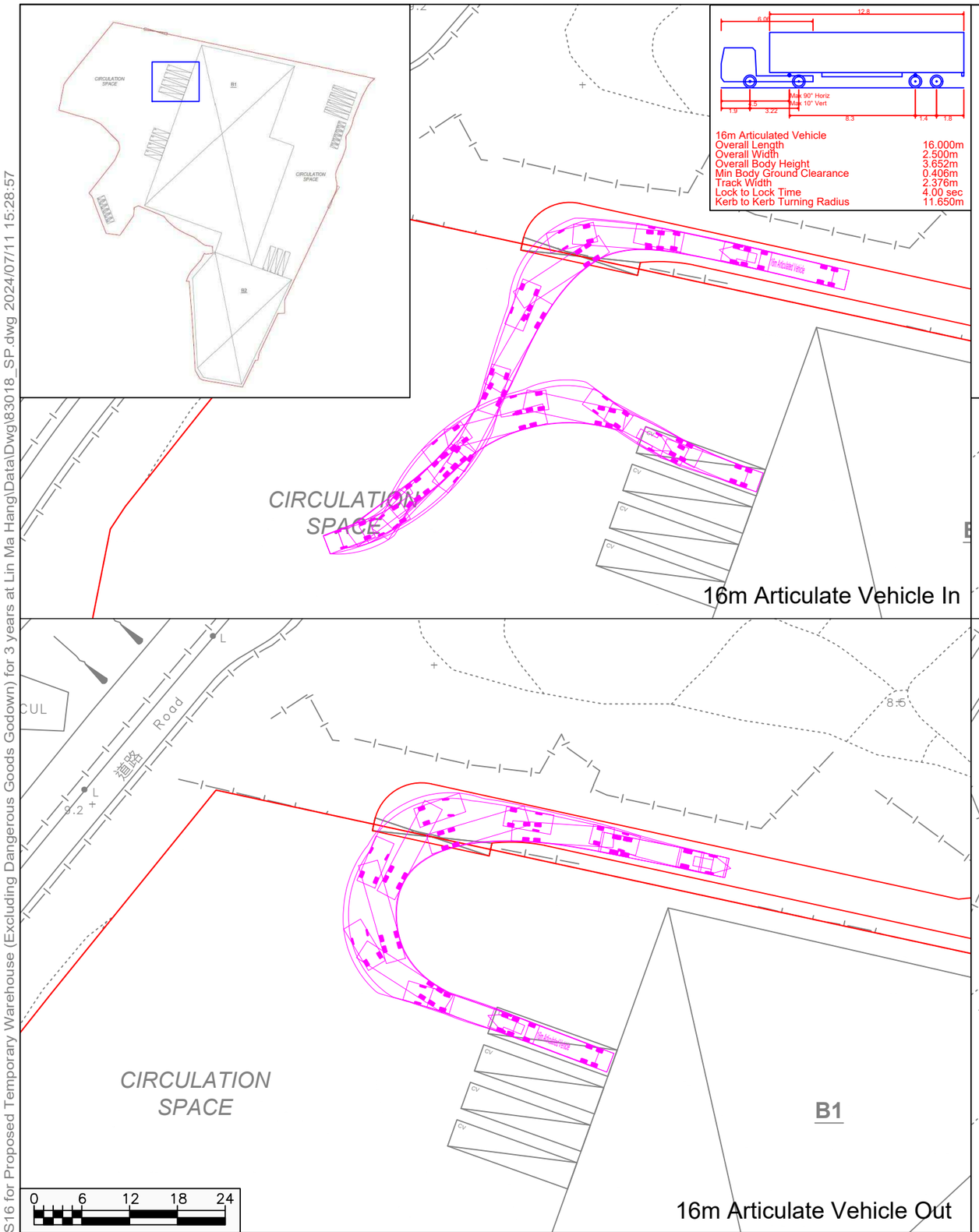

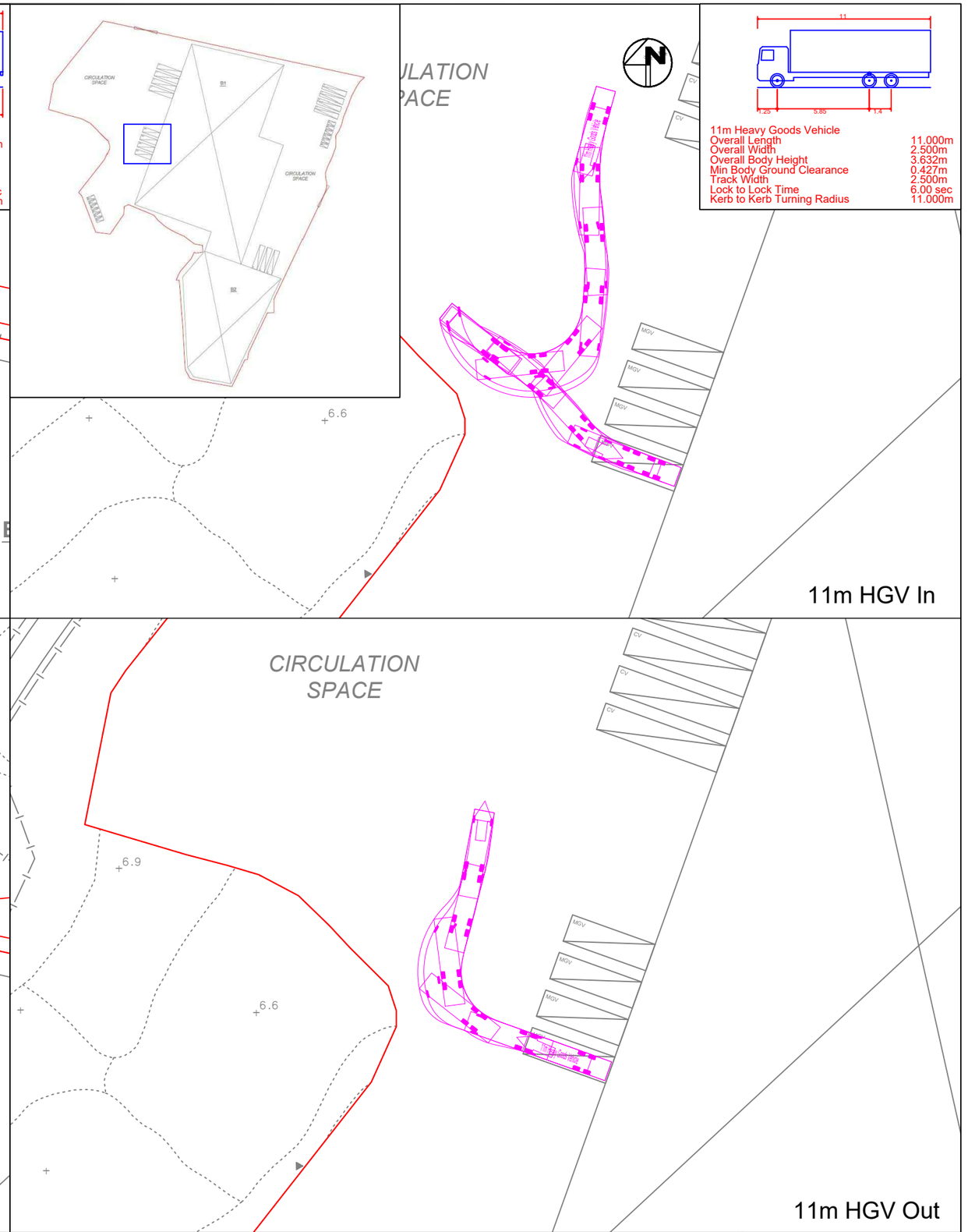

0 6 12 18 24

OZZO TECHNOLOGY

Date 11/07/2024 | Scale 1:600

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Swept Path Assessments 16m Articulate Vehicle and 11m Heavy Goods Vehicle

Project No. 83018 | Rev. -

Dwg No. Figure C

X:\Ozzo\83018_S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang\Data\Dwg\83018_SP.dwg 2024/07/11 15:28:57

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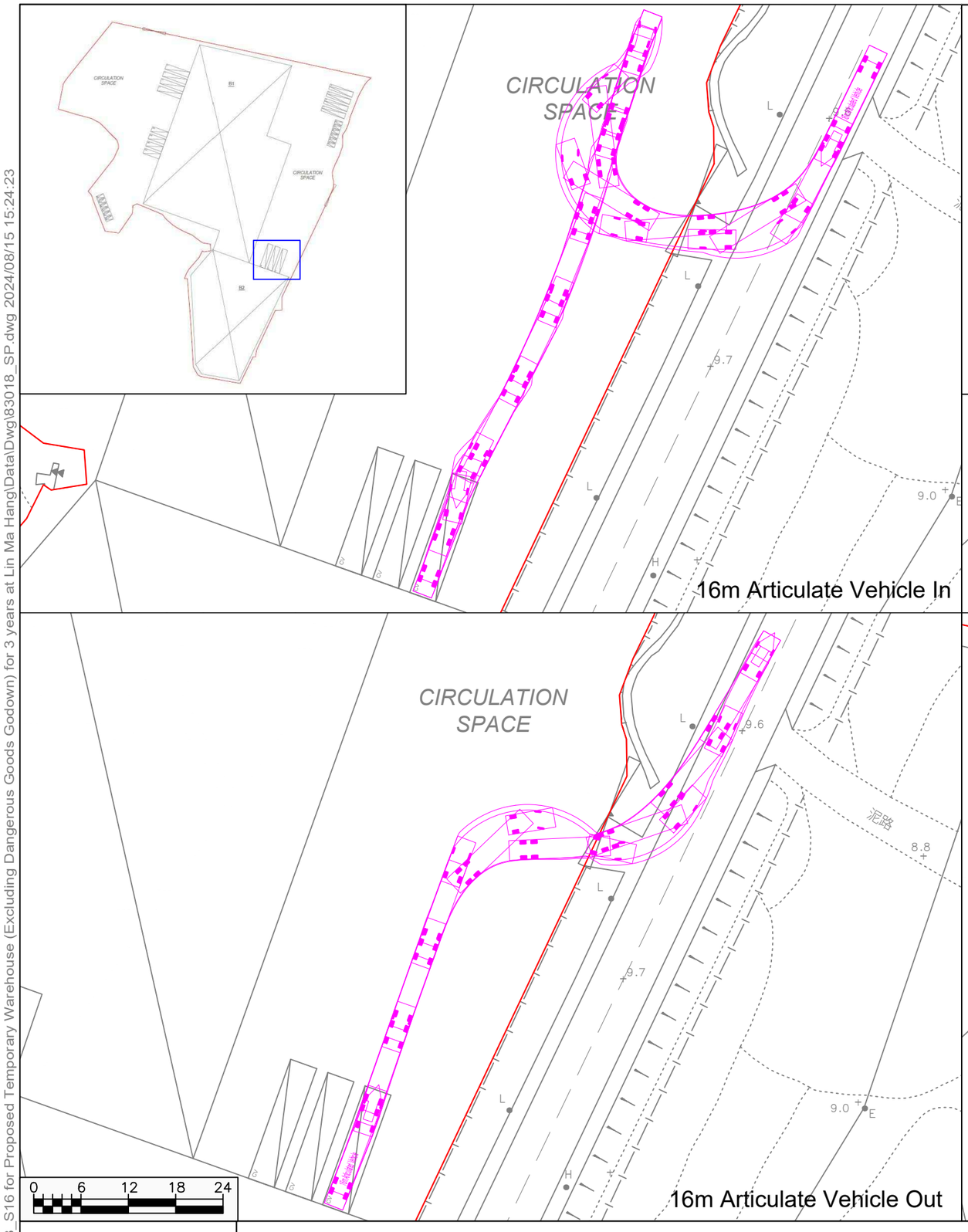
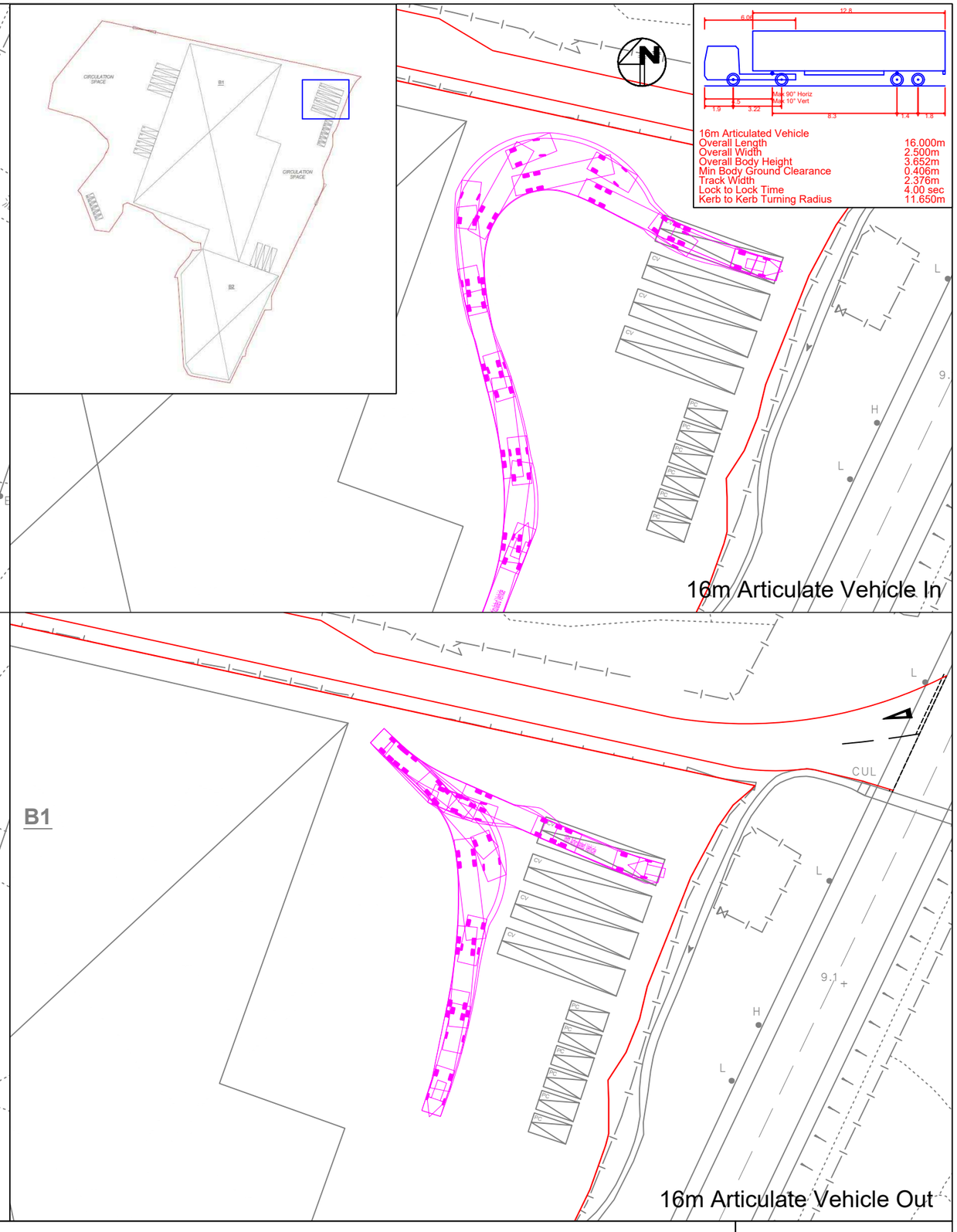




0 6 12 18 24

OZZO TECHNOLOGY

Date 11/07/2024 | Scale 1:600

S16 for Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) for 3 years at Lin Ma Hang

Swept Path Assessments 16m Articulate Vehicle

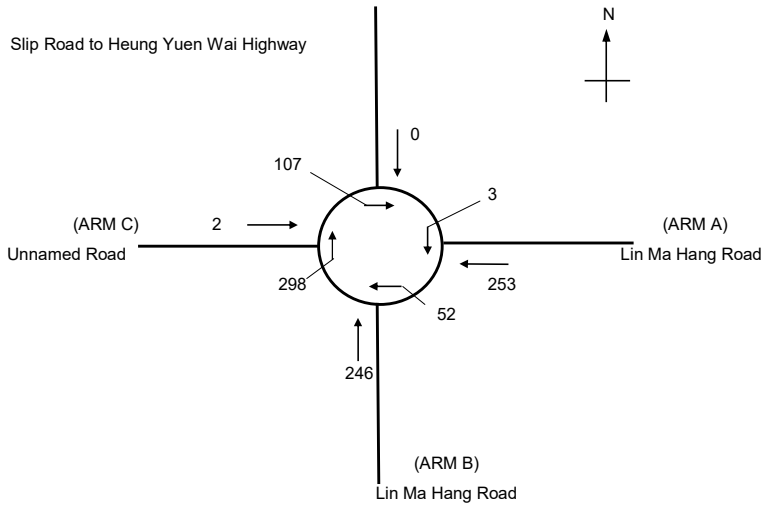
Project No. 83018 | Rev. -

Dwg No. Figure D

Appendix B

2024 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2024_AM**	FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

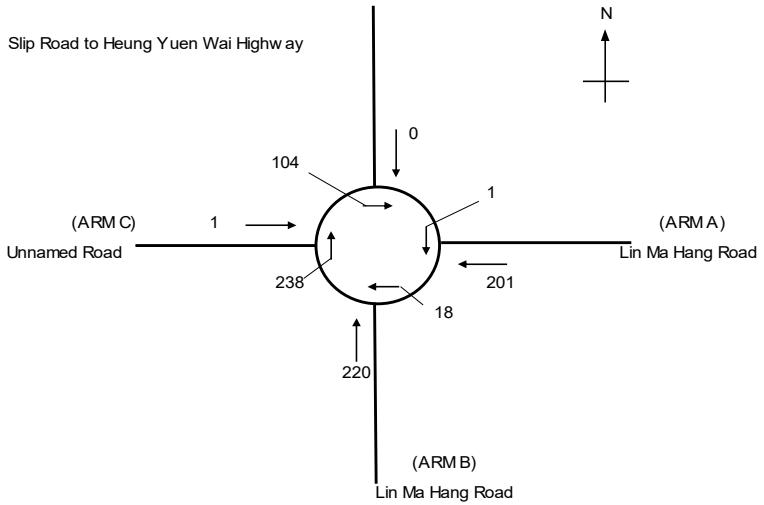


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	253	246	2
Qc	=	Circulating flow across entry (pcu/h)	3	52	298
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1262	1202	995
DFC	=	Design flow/Capacity = Q/Qe	0.20	0.20	0.00

Total In Sum = 501 PCU

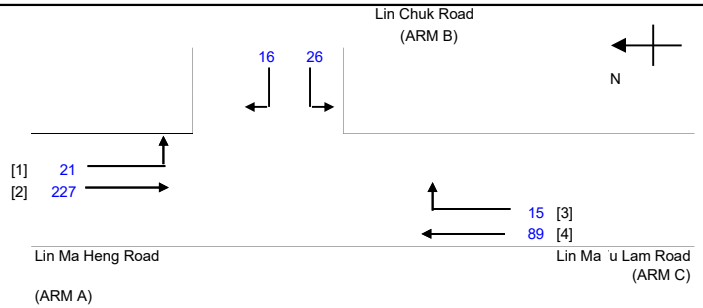
DFC of Critical Approach = **0.20**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2024_PM**	FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24



ARM			A	B	C		
INPUT PARAMETERS:							
V	=	Approach half width (m)	3.6	3.8	3.6		
E	=	Entry width (m)	4.1	3.9	3.9		
L	=	Effective length of flare (m)	4.3	2.6	4.0		
R	=	Entry radius (m)	46.0	100.0	20.0		
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0		
A	=	Entry angle (degree)	23.0	28.0	31.0		
Q	=	Entry flow (pcu/h)	201	220	1		
Qc	=	Circulating flow across entry (pcu/h)	1	18	238		
OUTPUT PARAMETERS:							
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12		
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00		
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84		
M	=	EXP((D-60)/10)	0.01	0.01	0.01		
F	=	303*X2	1201	1178	1164		
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49		
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56		
Qe	=	K(F-Fc*Qc)	1263	1222	1028	Total In Sum =	422 PCU
DFC	=	Design flow/Capacity = Q/Qe	0.16	0.18	0.00	DFC of Critical Approach =	**0.18**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2024 AM**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	21	(pcu/hr)
q a-c	=	227	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	89	(pcu/hr)
q c-b	=	15	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	16	(pcu/hr)
q b-c	=	26	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.6190476

THE CAPACITY OF MOVEMENT :

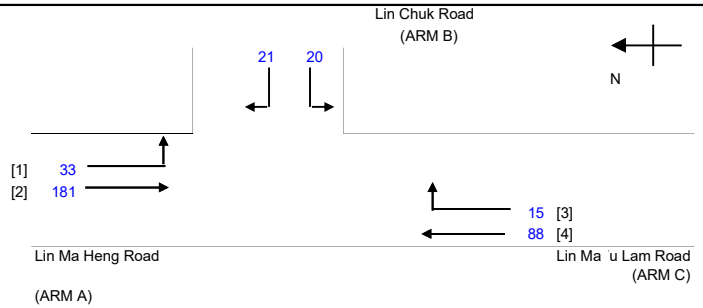
Q b-a	=	542		
Q b-c	=	702	Q b-c (O) =	696.8
Q c-b	=	679		
Q b-ac	=	631		
TOTAL FLOW	=	394	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0295
DFC b-c	=	0.0370
DFC c-b	=	0.0221
DFC b-ac	=	0.0666

CRITICAL DFC = 0.07

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2024 PM**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2024 Observed PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	33	(pcu/hr)
q a-c	=	181	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	88	(pcu/hr)
q c-b	=	15	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	21	(pcu/hr)
q b-c	=	20	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4878049

THE CAPACITY OF MOVEMENT :

Q b-a	=	554		
Q b-c	=	714	Q b-c (O) =	707.2
Q c-b	=	689		
Q b-ac	=	622		
TOTAL FLOW	=	358	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

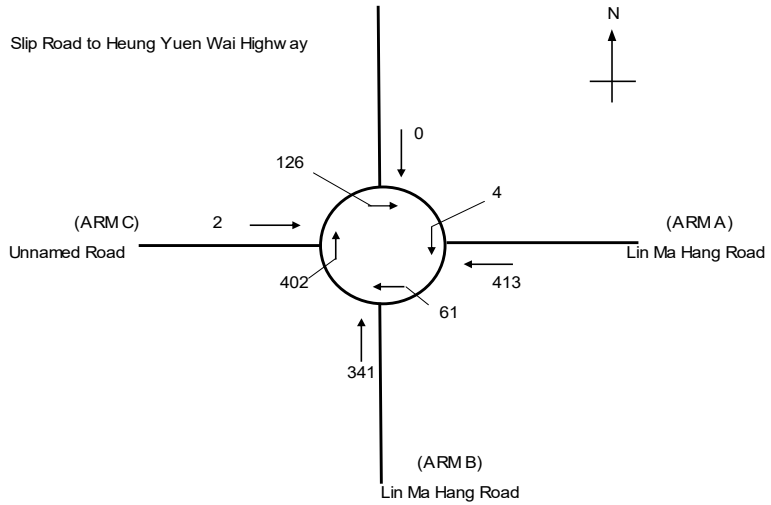
DFC b-a	=	0.0379
DFC b-c	=	0.0280
DFC c-b	=	0.0218
DFC b-ac	=	0.0659

CRITICAL DFC = 0.07

Appendix C

2029 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_AM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Reference AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

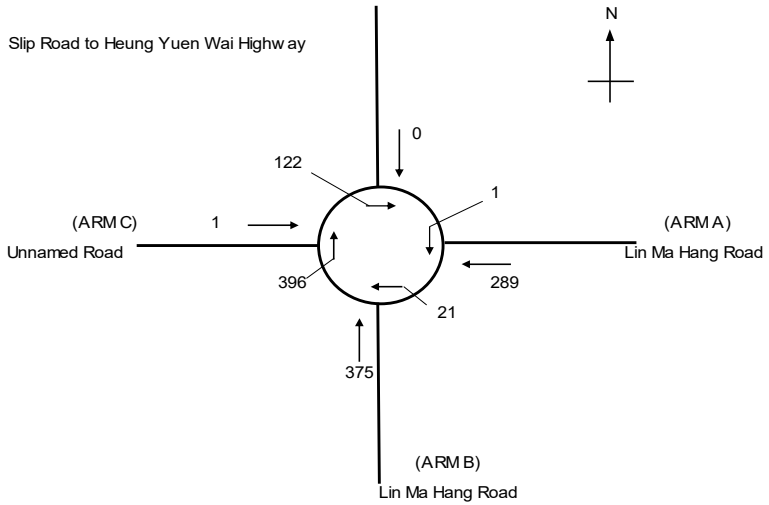


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	413	341	2
Qc	=	Circulating flow across entry (pcu/h)	4	61	402
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1261	1197	938
DFC	=	Design flow/Capacity = Q/Qe	0.33	0.28	0.00

Total In Sum = 756 PCU

DFC of Critical Approach = **0.33**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_PM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Reference PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

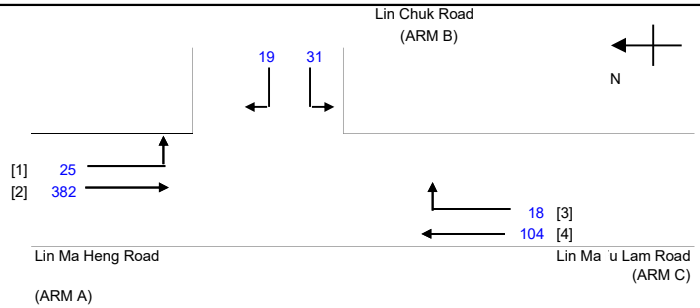


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	289	375	1
Qc	=	Circulating flow across entry (pcu/h)	1	21	396
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1220	941
DFC	=	Design flow/Capacity = Q/Qe	0.23	0.31	0.00

Total In Sum = 665 PCU

DFC of Critical Approach = **0.31**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 AM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Reference AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	25	(pcu/hr)
q a-c	=	382	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	104	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	19	(pcu/hr)
q b-c	=	31	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.62

THE CAPACITY OF MOVEMENT :

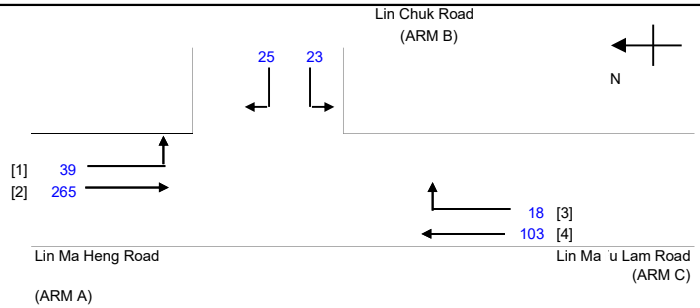
Q b-a	=	496		
Q b-c	=	659	Q b-c (O) =	652.7
Q c-b	=	636		
Q b-ac	=	585.8		
TOTAL FLOW	=	579	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0383
DFC b-c	=	0.0470
DFC c-b	=	0.0283
DFC b-ac	=	0.0853

CRITICAL DFC = 0.09

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 PM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Referenced PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	39	(pcu/hr)
q a-c	=	265	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	103	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	25	(pcu/hr)
q b-c	=	23	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4791667

THE CAPACITY OF MOVEMENT :

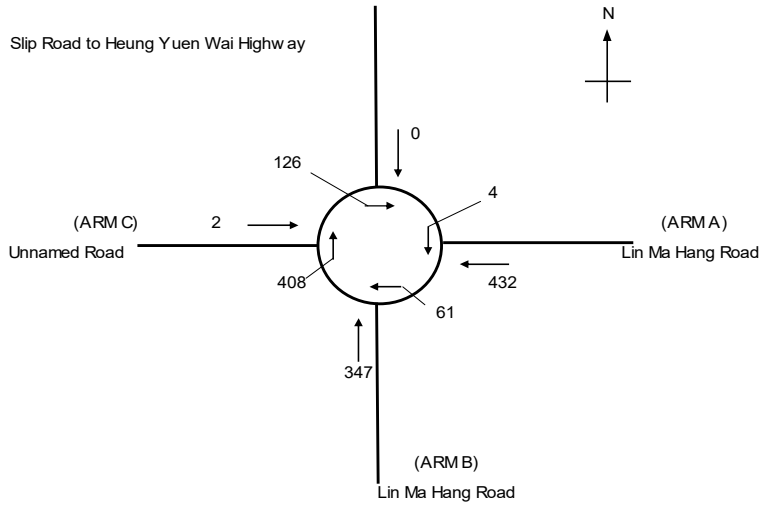
Q b-a	=	527		
Q b-c	=	690	Q b-c (O) =	681.8
Q c-b	=	664		
Q b-ac	=	594.3		
TOTAL FLOW	=	473	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0474
DFC b-c	=	0.0333
DFC c-b	=	0.0271
DFC b-ac	=	0.0808

CRITICAL DFC = 0.08

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_AM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

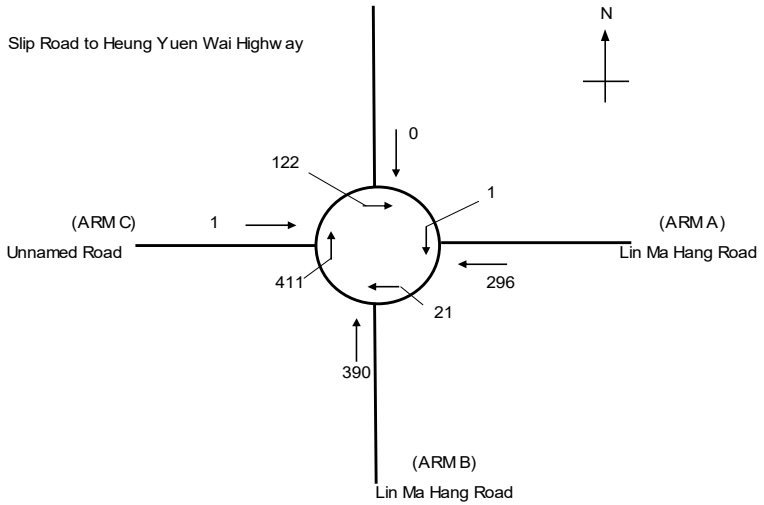


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	432	347	2
Qc	=	Circulating flow across entry (pcu/h)	4	61	408
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1261	1197	934
DFC	=	Design flow/Capacity = Q/Qe	0.34	0.29	0.00

Total In Sum = 781 PCU

DFC of Critical Approach = **0.34**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2029_PM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

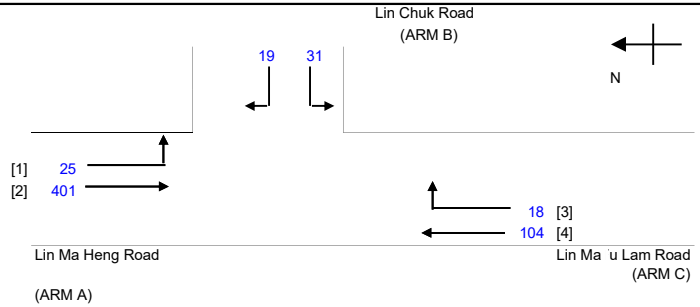


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	296	390	1
Qc	=	Circulating flow across entry (pcu/h)	1	21	411
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1220	933
DFC	=	Design flow/Capacity = Q/Qe	0.23	0.32	0.00

Total In Sum = 687 PCU

DFC of Critical Approach = **0.32**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 AM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	25	(pcu/hr)
q a-c	=	401	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	104	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	19	(pcu/hr)
q b-c	=	31	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.62

THE CAPACITY OF MOVEMENT :

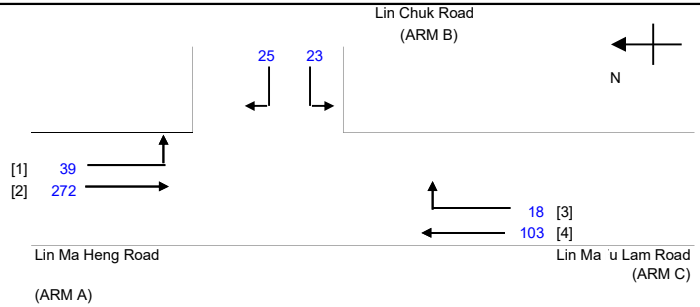
Q b-a	=	491		
Q b-c	=	653	Q b-c (O) =	646.7
Q c-b	=	631		
Q b-ac	=	580.3		
TOTAL FLOW	=	598	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0387
DFC b-c	=	0.0475
DFC c-b	=	0.0285
DFC b-ac	=	0.0862

CRITICAL DFC = 0.09

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2029 PM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2029 Design PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	39	(pcu/hr)
q a-c	=	272	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	103	(pcu/hr)
q c-b	=	18	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	25	(pcu/hr)
q b-c	=	23	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4791667

THE CAPACITY OF MOVEMENT :

Q b-a	=	525		
Q b-c	=	688	Q b-c (O) =	679.8
Q c-b	=	662		
Q b-ac	=	592.2		
TOTAL FLOW	=	480	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

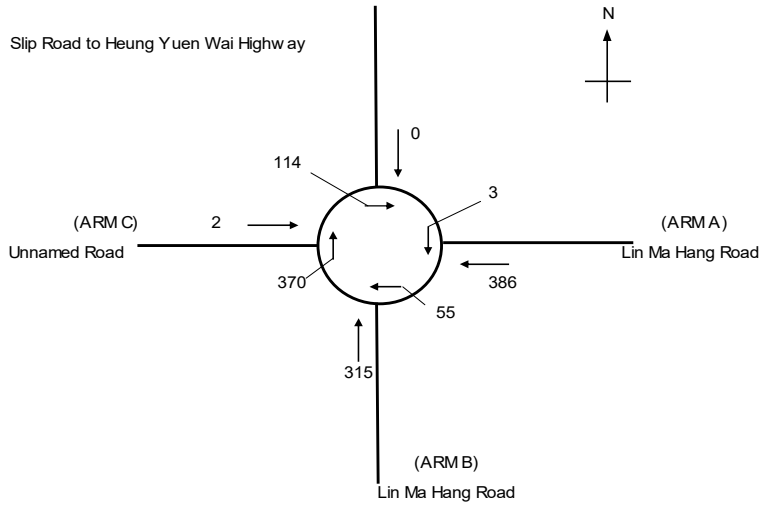
DFC b-a	=	0.0476
DFC b-c	=	0.0334
DFC c-b	=	0.0272
DFC b-ac	=	0.0810

CRITICAL DFC = 0.08

Appendix D

2026 Junction Calculations

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_AM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Reference AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

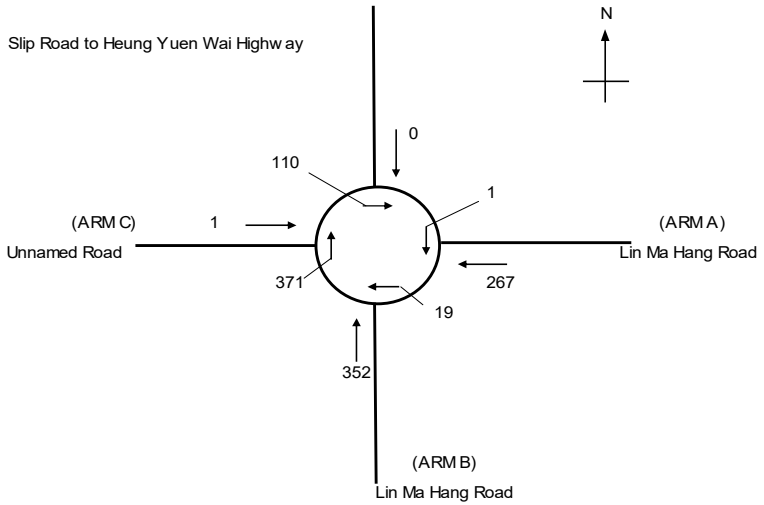


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	386	315	2
Qc	=	Circulating flow across entry (pcu/h)	3	55	370
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1262	1201	955
DFC	=	Design flow/Capacity = Q/Qe	0.31	0.26	0.00

Total In Sum = 703 PCU

DFC of Critical Approach = **0.31**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_PM_Ref**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Reference PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

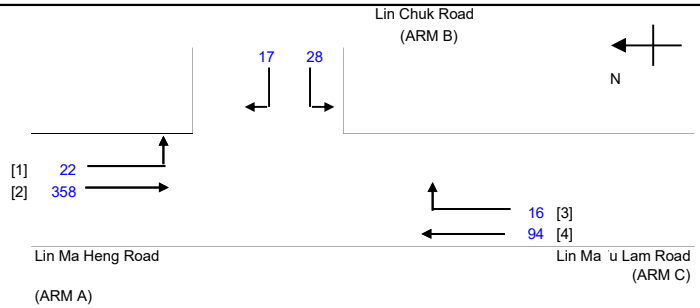


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	267	352	1
Qc	=	Circulating flow across entry (pcu/h)	1	19	371
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1222	955
DFC	=	Design flow/Capacity = Q/Qe	0.21	0.29	0.00

Total In Sum = 620 PCU

DFC of Critical Approach = **0.29**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 AM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Reference AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	22	(pcu/hr)
q a-c	=	358	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	94	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	17	(pcu/hr)
q b-c	=	28	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.6222222

THE CAPACITY OF MOVEMENT :

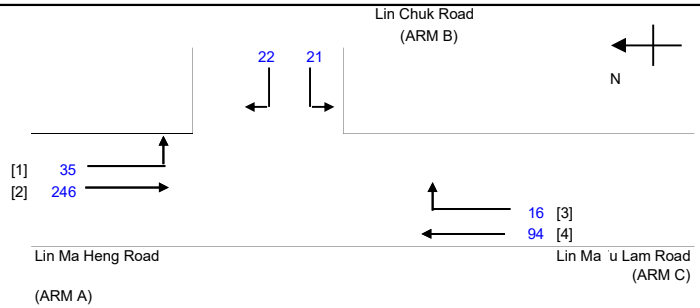
Q b-a	=	505		
Q b-c	=	666	Q b-c (O) =	660.4
Q c-b	=	643		
Q b-ac	=	594.4		
TOTAL FLOW	=	535	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0337
DFC b-c	=	0.0420
DFC c-b	=	0.0249
DFC b-ac	=	0.0757

CRITICAL DFC = 0.08

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 PM_Ref**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Referenced PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	35	(pcu/hr)
q a-c	=	246	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	94	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	22	(pcu/hr)
q b-c	=	21	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4883721

THE CAPACITY OF MOVEMENT :

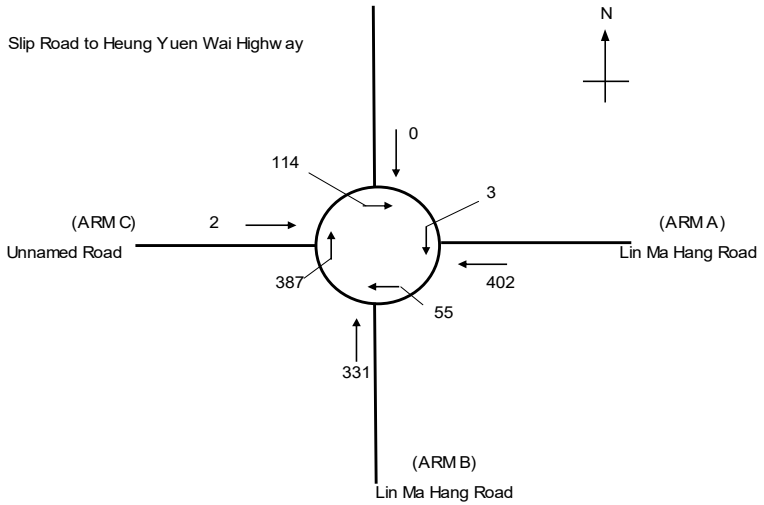
Q b-a	=	534		
Q b-c	=	696	Q b-c (O) =	688.8
Q c-b	=	670		
Q b-ac	=	602.5		
TOTAL FLOW	=	434	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0412
DFC b-c	=	0.0302
DFC c-b	=	0.0239
DFC b-ac	=	0.0714

CRITICAL DFC = 0.07

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_AM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design AM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

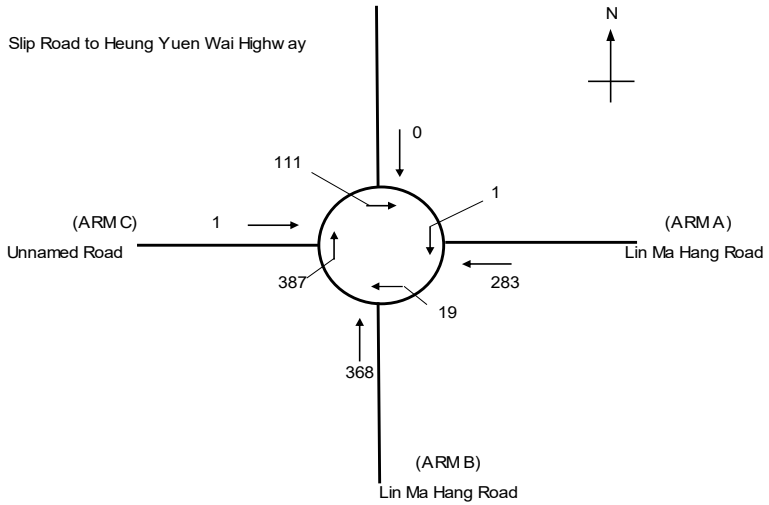


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	402	331	2
Qc	=	Circulating flow across entry (pcu/h)	3	55	387
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1262	1201	946
DFC	=	Design flow/Capacity = Q/Qe	0.32	0.28	0.00

Total In Sum = 735 PCU

DFC of Critical Approach = **0.32**

OZZO TECHNOLOGY (HK) LIMITED	TRAFFIC SIGNAL CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG		PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J1 Lin Ma Hang Road/Slip road of Heung Yuen Wai Highway	**2026_PM_Des**	FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design PM Peak Hour Traffic Flows		ad of Heung Yuen Wai Highway_R_R1.xls	REVIEWED BY:	SC	Jul-24

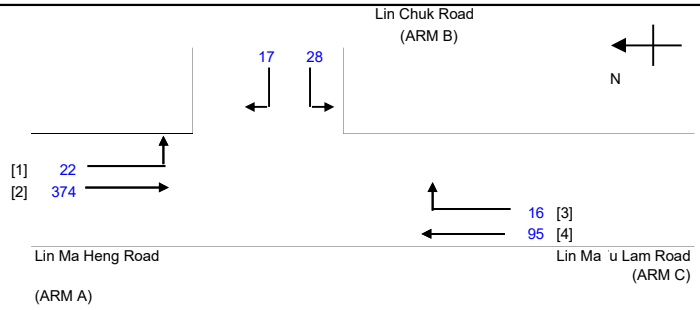


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	3.6	3.8	3.6
E	=	Entry width (m)	4.1	3.9	3.9
L	=	Effective length of flare (m)	4.3	2.6	4.0
R	=	Entry radius (m)	46.0	100.0	20.0
D	=	Inscribed circle diameter (m)	15.0	15.0	15.0
A	=	Entry angle (degree)	23.0	28.0	31.0
Q	=	Entry flow (pcu/h)	283	368	1
Qc	=	Circulating flow across entry (pcu/h)	1	19	387
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.19	0.06	0.12
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.05	1.05	1.00
X2	=	V + ((E-V)/(1+2S))	3.96	3.89	3.84
M	=	EXP((D-60)/10)	0.01	0.01	0.01
F	=	303*X2	1201	1178	1164
Td	=	1+(0.5/(1+M))	1.49	1.49	1.49
Fc	=	0.21*Td(1+0.2*X2)	0.56	0.56	0.56
Qe	=	K(F-Fc*Qc)	1263	1222	946
DFC	=	Design flow/Capacity = Q/Qe	0.22	0.30	0.00

Total In Sum = 652 PCU

DFC of Critical Approach = **0.30**

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 AM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design AM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	22	(pcu/hr)
q a-c	=	374	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	95	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	17	(pcu/hr)
q b-c	=	28	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.6222222

THE CAPACITY OF MOVEMENT :

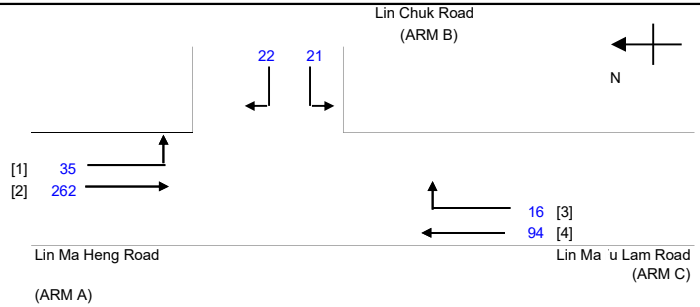
Q b-a	=	501			
Q b-c	=	661	Q b-c (O) =	655.4	
Q c-b	=	639			
Q b-ac	=	589.8			
TOTAL FLOW	=	552	(PCU/HR)		

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0339
DFC b-c	=	0.0424
DFC c-b	=	0.0250
DFC b-ac	=	0.0763

CRITICAL DFC = 0.08

OZZO TECHNOLOGY (HK) LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) In LIN MA HANG	**2026 PM_Des**	PROJECT NO.: 83018	PREPARED BY:	TC	Jul-24
J2 Lin Ma Hang Road/Lin Chuk Road		FILENAME :	CHECKED BY:	DP	Jul-24
2026 Design PM Peak Hour Traffic Flows		J2_Lin Ma Hang Road_Lin Chuk Road.xls	REVIEWED BY:	SC	Jul-24



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	7.40	(metres)
W cr	=	0	(metres)
q a-b	=	35	(pcu/hr)
q a-c	=	262	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	3.90	(metres)
Vr c-b	=	97	(metres)
q c-a	=	94	(pcu/hr)
q c-b	=	16	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	3.60	(metres)
W b-c	=	3.60	(metres)
Vl b-a	=	100	(metres)
Vr b-a	=	160	(metres)
Vr b-c	=	160	(metres)
q b-a	=	22	(pcu/hr)
q b-c	=	21	(pcu/hr)

GEOMETRIC FACTORS :

D	=	1.0001969
E	=	1.0311308
F	=	1.0023136
Y	=	0.7447
F for (Qb-ac)	=	0.4883721

THE CAPACITY OF MOVEMENT :

Q b-a	=	530		
Q b-c	=	691	Q b-c (O) =	683.8
Q c-b	=	666		
Q b-ac	=	598.1		
TOTAL FLOW	=	450	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0415
DFC b-c	=	0.0304
DFC c-b	=	0.0240
DFC b-ac	=	0.0719

CRITICAL DFC = 0.07

Annex 4a

Tree Survey Report

永豪園綠化工程有限公司
WING HO YUEN LANDSCAPING CO., LTD.

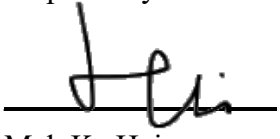
Tree Survey Report

Date of Survey: 22nd August 2024

Location:

Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories

Prepared by:



Mak Ka Hei

Registered Arborist

Date: 23rd August 2024

Table of contents

Disclaimer:

The tree survey conducted indicates the condition of the surveyed trees at the time of inspection only. The assessments of amenity value, form, health and structural condition of the trees surveyed are based on visual inspection from the ground only. No aerial inspection, root digging or mapping, or diagnostic testing has been conducted as part of this survey. Wing Ho Yuen Landscaping Company Limited cannot accept responsibility for future failure or defects detected after the time of inspection of the trees surveyed in this report.

1. Introduction

The survey conducted is to record all the existing trees in the tree survey boundary. The survey include tree species identification, tree tagging with durable labels, the measurements of overall tree height, Diameter at Breast Height (DBH), average crown spread, the evaluation on amenity value, form, health and structural conditions.

The tree survey was conducted on 22nd August 2024. Plants with DBH less than 95mm were not recorded in the survey.

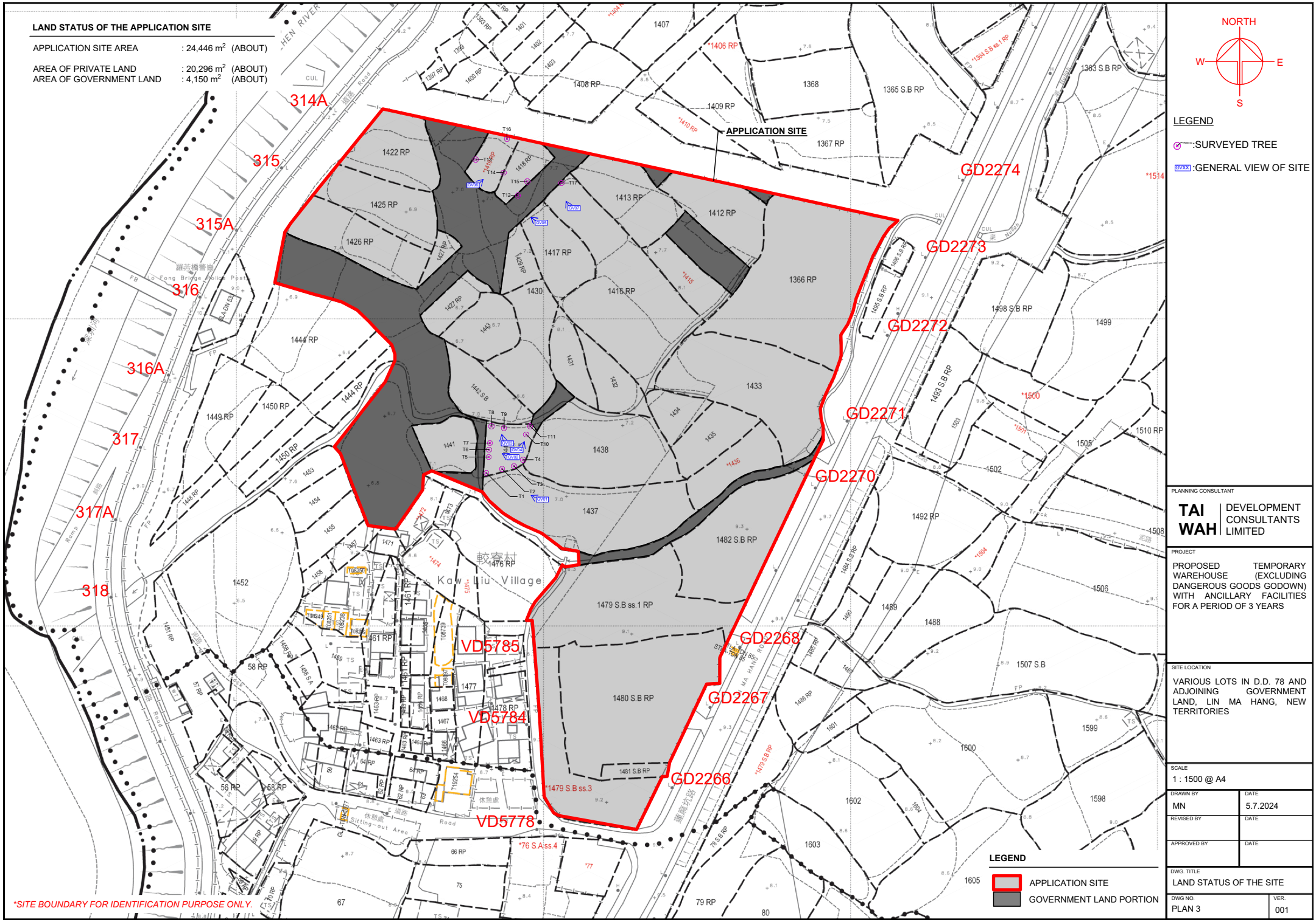
2. Summary of Existing Trees

The surveyed site is located at Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories.

At the time of inspection on 22nd August 2024, **17 nos.** tree were found within the Site. **1 no.** of dead tree (T15) was recorded in the surveyed area. Location of individual tree refers to Appendix I.

Details of tree conditions and photo records for individual tree are recorded in the Appendix II and Appendix III respectively.

Appendix I – Tree Survey Plan


LAND STATUS OF THE APPLICATION SITE
APPLICATION SITE AREA : 24,446 m² (ABOUT)
AREA OF PRIVATE LAND : 20,296 m² (ABOUT)
AREA OF GOVERNMENT LAND : 4,150 m² (ABOUT)
APPLICATION SITE
GD2274
GD2273
GD2272
GD2271
GD2270
GD2268
GD2267
GD2266
VD5785
VD5784
VD5778
314A
315
315A
316
316A
317
317A
318
Kau Liu Village
較寮村
NORTH
W
E
S
LEGEND
:SURVEYED TREE
:GENERAL VIEW OF SITE
PLANNING CONSULTANT
TAI WAH DEVELOPMENT CONSULTANTS LIMITED
PROJECT
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS
SITE LOCATION
VARIOUS LOTS IN D.D. 78 AND ADJOINING GOVERNMENT LAND, LIN MA HANG, NEW TERRITORIES
SCALE
1 : 1500 @ A4
DRAWN BY
MN
DATE
5.7.2024
REVISED BY
DATE
APPROVED BY
DATE
DWG. TITLE
LAND STATUS OF THE SITE
DWG NO.
PLAN 3
VER.
001
LEGEND
APPLICATION SITE
GOVERNMENT LAND PORTION
*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

Appendix II –Tree Survey Schedule

Tree Survey Schedule

Location: Various Lots in D.D. 78 and Adjoining Government Land, Lin Ma Hang, New Territories
Tree surveyor(s): Mak Ka Hei
Field Survey was conducted on: 22 August 2024

永豪園綠化工程有限公司
WING HO YUEN LANDSCAPING CO., LTD.

Tree No.	Tree Species		Tree Size Measurements			Amenity Value	Form	Health Condition	Structural Condition	Suitability for Transplanting	Remarks
	Botanical Name	Chinese Name	Overall Height (m)	DBH (mm)	Average Crown Spread (m)	High /Med /Low	Good /Fair /Poor	Good /Fair /Poor /Dead	Good /Fair /Poor	High /Med /Low	
T1	*Celtis sinensis*	朴樹	9.0	550	10.0	Low	Poor	Poor	Fair	Low	decay at trunk, broken trunk, wound on trunk
T2	*Mangifera indica*	芒果	9.0	173	8.0	Med	Fair	Poor	Fair	Low	wound on trunk, co-dominant trunks
T3	*Mangifera indica*	芒果	8.0	187	7.0	Med	Fair	Fair	Fair	Low	co-dominant trunks
T4	*Celtis sinensis*	朴樹	7.0	164	7.0	Low	Poor	Poor	Poor	Low	dead trunk, multi-trunks, climber
T5	*Dimocarpus longan*	龍眼	6.0	135	5.0	Low	Fair	Fair	Fair	Low	wound on trunk
T6	*Dimocarpus longan*	龍眼	6.0	140	5.0	Med	Fair	Fair	Fair	Low	-
T7	*Mangifera indica*	芒果	6.5	148	5.0	Med	Poor	Poor	Fair	Low	wound on trunk, co-dominant trunks
T8	*Morus alba*	桑	9.0	205	8.0	Med	Fair	Fair	Fair	Low	co-dominant trunks
T9	*Dimocarpus longan*	龍眼	6.0	130	6.0	Med	Fair	Fair	Poor	Low	leaning
T10	*Mangifera indica*	芒果	8.0	153	7.0	Med	Fair	Fair	Poor	Low	co-dominant trunks, included bark
T11	*Psidium guajava*	番石榴	6.0	135	4.0	Med	Fair	Fair	Fair	Low	crooked trunk
T12	*Macaranga tanarius var. tomentosa*	血桐	8.0	195	5.0	Low	Poor	Fair	Fair	Low	climber
T13	*Celtis sinensis*	朴樹	12.0	800	11.0	Low	Fair	Fair	Fair	Low	-
T14	*Ficus hispida*	對葉榕(牛乳樹)	6.0	161	7.0	Med	Fair	Fair	Fair	Low	co-dominant trunks, hanger
T15	Dead Tree	死樹	5.0	300	2.0	-	-	Dead	-	-	dead
T16	*Leucaena leucocephala*	銀合歡	9.0	135	5.0	Low	Fair	Fair	Poor	Low	leaning
T17	*Mangifera indica*	芒果	5.0	110	4.0	Med	Fair	Fair	Fair	Low	-

Notes: Amenity Value, Form, Health Condition and Structural Condition of trees were obtained by Visual Assessment Only.

Appendix III – Photo Records

General View

General view 01

General view 02

General View

General view 03

General view 04

General View

General view 05

General view 06

General View

General view 07

Photo Records

T1 (Overview)

T1 Decay at trunk (Broken trunk)

T1 Wound on trunk

T2 (Overview)

Photo Records

T2 Wound on trunk (Co-dominant trunks)

T2 Wound on trunk_1

T3 (Overview)

T3 Co-dominant trunks

Photo Records

T4 (Overview)

T4 Dead trunk

T4 Multi-trunks (Climber)

T5 (Overview)

Photo Records

T6 (Overview)

T7 (Overview)

T7 Wound on trunk

T8 (Overview)

Photo Records

T8 Co-dominant trunks

T9 (Overview) (Leaning)

T10 (Overview)

T10 Co-dominant trunks (Included bark)

Photo Records

T11 (Overview) (Crooked trunk)

T12 (Overview) (Climber)

T13 (Overview)

T14 (Overview)

Photo Records

T14 Co-dominant trunks

T14 Hanger

T15 (Overview) (Broken trunk, Climber)

T16 (Overview) (Leaning)

Photo Records

T17 (Overview)

Annex 4b

Tree Photos of T15

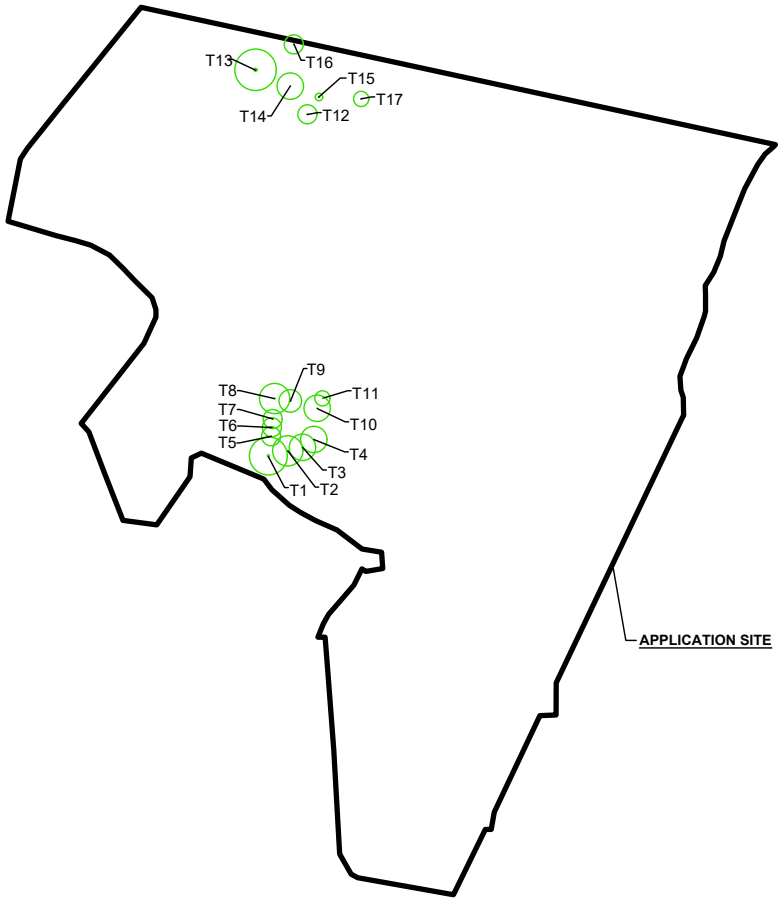
Annex 4b – Tree Photos of T15

Annex 5

Landscape Plan

LANDSCAPE PROPOSAL

APPLICATION SITE AREA	: 24,446 m^2 (ABOUT)	
NO. OF EXISTING TREES	: 17 (T1 TO T17)	
SPECIES OF TREE	: T1, T4, T13	- *Celtis sinensis*
	T2, T3, T7, T10, T17	- *Mangifera indica*
	T5, T6, T9	- *Dimocarpus longan*
	T8	- *Morus alba*
	T11	- *Psidium guajava*
	T12	- *Macaranga tanarius var. tomentosa*
	T14	- *Ficus hispida*
	T16	- *Leucaena leucocephala*
	T15	- DEAD TREE (BROKEN TRUNK)
NO. OF TREES TO BE FELLED	: 17 (T1 TO T17)	



*SITE BOUNDARY FOR IDENTIFICATION PURPOSE ONLY.

LEGEND

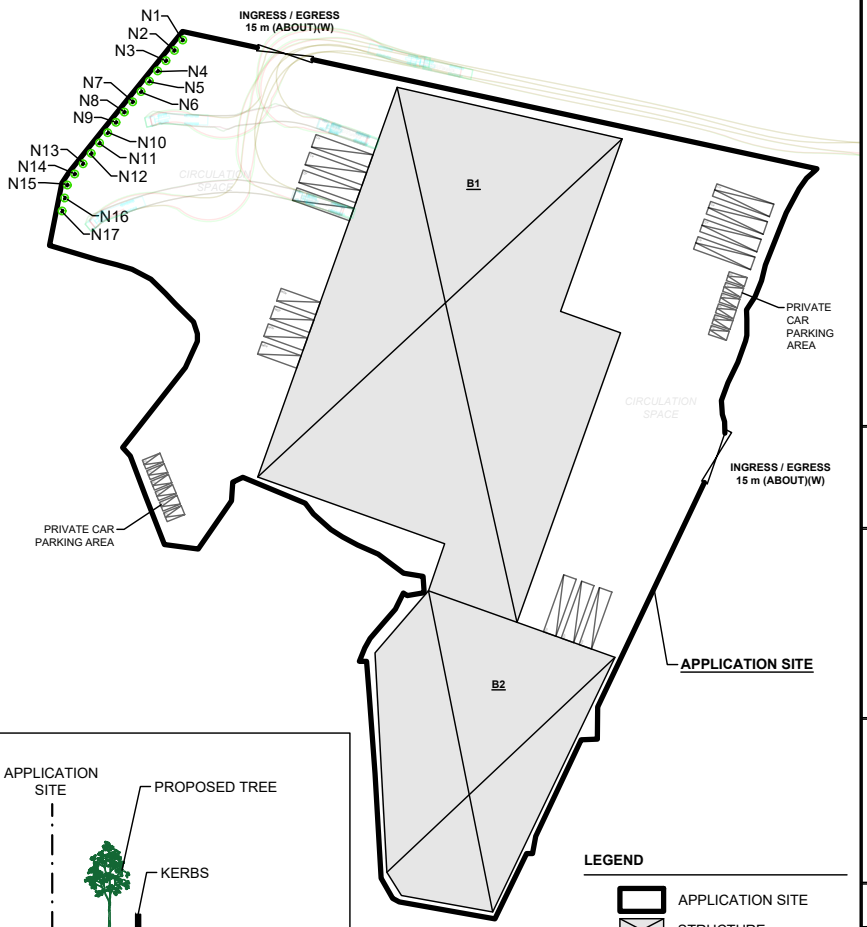
- APPLICATION SITE
- EXISTING TREE

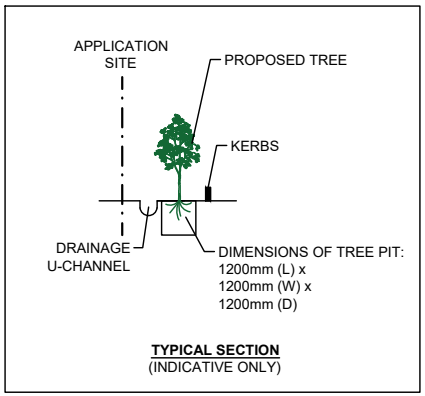
LANDSCAPE PROPOSAL

APPLICATION SITE AREA	: 24,446 m^2	(ABOUT)
NO. OF TREES TO BE PLANTED	: 17	(N1 TO N17)
SPECIES OF NEW TREES	: *SENNA SURATTENSIS*	
HEIGHT OF NEW TREES	: NOT LESS THAN 2.75 m	
SPACING OF NEW TREES	: NOT LESS THAN 4 m	
DIMENSION OF TREE PITS	: 1.2 m (W) X 1.2 m (L) X 1.2 m (D)	

NOTES:

1) THE APPLICANT WILL MAINTAIN TREES IN GOOD CONDITION DURING THE PLANNING APPROVAL PERIOD.
2) THE APPLICANT WILL REPLACE TREES WHICH ARE DYING OR DEAD DURING THE PLANNING APPROVAL PERIOD.
3) THE APPLICANT WILL PROVIDE ADEQUATE IRRIGATION FOR TREES.

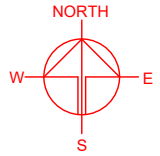




TYPICAL SECTION
(INDICATIVE ONLY)

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- PARKING SPACE (CV)
- L/UL SPACE (MGV)
- L/UL SPACE (CV)
- INGRESS / EGRESS
- PROPOSED TREE



PLANNING CONSULTANT

TAI WAH | DEVELOPMENT CONSULTANTS LIMITED

PROJECT

PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS

SITE LOCATION

VARIOUS LOTS IN D.D. 78 AND ADJOINING GOVERNMENT LAND, LIN MA HANG, NEW TERRITORIES

SCALE	1 : 2000 @ A4
DRAWN BY	MN
DATE	29.8.2024
CHECKED BY	
DATE	
APPROVED BY	
DATE	
DWG. TITLE	LANDSCAPE PROPOSAL
DWG NO.	ANNEX 5
VER.	002

Similar S.16 Application for Temporary Warehouse within/partly within the "REC" in the vicinity of the application site in the Ta Kwu Ling North Area

Approved Application

Application No.	Uses/Developments	Date of Consideration
A/NE-TKLN/77	Proposed Temporary Logistic Centre, Warehouse (Excluding Dangerous Goods Godown) and Container Vehicle Park with Ancillary Facilities for a Period of 3 Years	15.3.2024

Government Departments' General Comments

1. Traffic

Comments of the Commissioner for Transport (C for T):

- having reviewed the further information (FI), she has no further comments on the application;
- the proposed vehicular access road between Lin Ma Hang Road and the application site (the Site) is not managed by Transport Department (TD) and the applicant should seek comments/approvals from the responsible parties (particularly Lands Department on the land matters) to validate the feasibility to form the proposed vehicular access road; and
- should the application be approved, the following approval conditions are suggested:
  - the submission of traffic improvement and management measures within 6 months from the date of planning approval to her satisfaction; and
  - in relation to the above, the implementation of the traffic improvement and management measures before the commencement of any operation to her satisfaction.

Comments of Chief Highway Engineer/New Territories East, Highways Department (CHE/NTE, HyD)

- the area between the Site and the footway of Lin Ma Hang Road is not and will not be maintained by HyD;
- the applicant should maintain the existing run-in/out in accordance with prevailing HyD Standard Drawings to the satisfaction of TD and HyD;
- the access arrangement of the Site should be commented and approved by TD;
- adequate drainage measures should be provided to prevent surface water running from the Site to the nearby public roads and drains.

2. Fire Safety

Comments of the Director of Fire Services (D of FS):

- no objection in principle to the proposal subject to fire service installations and water supplies for firefighting being provided to his satisfaction; and
- his detailed comments are at **Appendix IV**.

3. Drainage

Comments of Chief Engineer/Mainland North, Drainage Services Department (CE/MN, DSD):

- having reviewed the FI, he has no objection in principle to the application;
- should the application be approved, the following approval conditions should be imposed:
  - the submission of a drainage impact assessment before the commencement of any construction works or operations including site formation works to the satisfaction of the Director of Drainage Services;
  - in relation to the above, the provision of drainage facilities before the commencement of any operation to the satisfaction of the Director of Drainage Services; and
  - the implemented drainage facilities should be maintained at all times during the planning approval period; and
- his detailed comments are at **Appendix IV**.

4. Project Interface

Comments of Project Manager (North), Civil Engineering and Development Department (PM(N), CEDD):

- it is noted that the proposed temporary warehouse (excluding dangerous goods godown) with ancillary facilities on a three-year basis (the proposed use) is located within the proposed New Territories North (NTN) New Town under the Planning and Engineering (P&E) Study for NTN New Town and Man Kam To. The P&E Study already commenced on 29.10.2021. While the implementation programme of NTN New Town is being formulated under the P&E Study, the site formation works will likely commence soon after the completion of detailed design in the next stage. Subject to the land use planning in the P&E Study, the proposed use, if approved, may need to be vacated for the site formation works.

5. Building Matters

Comments of Chief Building Surveyor/New Territories West, Buildings Department (CBS/NTW, BD)

- no objection to the application;
- two structures are proposed in the application. Before any new building works (including containers/open sheds as temporary buildings, demolition and land filling, etc.) are to be carried out on the Site, prior approval and consent of the Building Authority should be obtained, otherwise they are unauthorized building works under the Buildings Ordinance (BO). An Authorized Person should be appointed as the co-ordinator for the proposed building works in accordance with the BO; and

- his advisory clauses are at **Appendix IV**.

6. Other Departments

The following government departments have no objection to/no comments on the application:

(a) Chief Engineer/Construction, Water Supplies Department (CE/C, WSD);

(b) Director of Agriculture, Fisheries and Conservation (DAFC);

(c) Head of the Geotechnical Engineering Office, CEDD (H(GEO), CEDD);

(d) District Officer (North), Home Affairs Department (DO(N), HAD); and

(e) Commissioner of Police (C of P).

Recommended Advisory Clauses

(a) to note the comments of District Lands Office/North, Lands Department (DLO/N, LandsD) that:

(i) the application site (the Site) comprises Old Schedule Agricultural Lots held under the Block Government Lease which contains the restriction that no structures are allowed to be erected without the prior approval of the Government. No right of access via Government Land (GL) is granted to the Site;

(ii) no consent is given for inclusion of GL (about 4,150 m^2 mentioned in the application form) in the Site. The applicant should be reminded that any occupation of GL without Government's prior approval is an offence. For direct grant of short term tenancy (STT) of the adjoining GL to the applicant for temporary uses, prior policy support from the relevant bureau has to be obtained. The application does not provide any details on the policy support. The applicant should seek comments from relevant bureau(x), especially as the application highlights that the existing business operation is affected by the development of the NOL Main Line;

(iii) the following irregularities have been detected by her office:

Unauthorised structures within the said private lots covered by the planning application

there are unauthorised structures on the private lots. The lot owners should immediately rectify the lease breaches and her office reserves the rights to take necessary lease enforcement action against the breaches without further notice;

Unlawful occupation of GL covered by the planning application

the GL within the Site (about 4,150 m^2 as mentioned in the application form) has been fenced off without any permission. Any occupation of GL without Government's prior approval is an offence under Cap.28. The lot owners should immediately cease the illegal occupation of GL and remove the unauthorised structures as demanded by LandsD. Her office reserves the rights to take necessary land control action against the illegal occupation of GL without further notice;

(iv) the lot owners/applicant shall cease the illegal occupation of GL. The approach of first erection of unauthorised structures and illegal occupation of the GL then regularisation should not be encouraged. Subject to the availability of policy support as mentioned in paragraph (ii) above, the lot owners should apply to her office for short term waiver (STW) and STT to permit the structures erected and occupation of GL. The applications for STW and STT will be considered by the Government in its capacity as a landlord and there is no guarantee that they will be approved. Application for STWs have to be submitted by all lot owners (approximately. 31 lots). The STW will be considered on a whole lot basis and unauthorised structures have to be demolished. The STW and STT, if approved, will be subject to such terms and conditions including the payment of waiver fee/rent and administrative fee as considered appropriate to be imposed by LandsD. In addition, LandsD reserves the right to take enforcement action against the lot owners/applicant for any breach of the lease conditions, including the breaches already in existence or to be detected at any point of time in future and land control action for any unlawful occupation of GL. Besides, given the proposed use is temporary in nature, only erection of temporary structures will be considered; and

(v) Lot No. 1480 S.B RP in D.D. 78 is covered by Letter of Approval (LoA) Nos. 6145 and 6155 for purpose of erection of temporary structures. Her office reserves the rights to take enforcement action for irregularities and cancel the LoA as appropriate.

(b) to note the comments of the Commissioner for Transport (C for T) that the proposed vehicular access road between Lin Ma Hang Road and the Site is not managed by Transport Department (TD) and the applicant should seek comments/approvals from the responsible parties (particularly LandsD on the land matters) to validate the feasibility to form the proposed vehicular access road.

(c) to note the comments of Chief Highway Engineer/New Territories East, Highways Department (CHE/NTE, HyD) that:

(i) the area between the Site and the footway of Lin Ma Hang Road is not and will not be maintained by HyD;

(ii) the applicant should maintain the existing run-in/out in accordance with prevailing HyD Standard Drawings to the satisfaction of TD and HyD;

(iii) the access arrangement of the Site should be commented and approved by TD; and

(iv) adequate drainage measures should be provided to prevent surface water running from the Site to the nearby public roads and drains.

(d) to note the comments of Chief Town Planner/Urban Design & Landscape Section, Planning Department (CTP/UD&L, PlanD) that:

(i) vigorous leaves are observed in the photos and the photos provided for T15 in the tree survey report are too dark to demonstrate the tree is dead;

(ii) continuous soil trench instead of individual tree pit should be considered for healthy root development; 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 authority prior the commencement of the works.

(e) to note the comments of Chief Engineer/Mainland North, Drainage Services Department (CE/MN, DSD) that:

(i) in relation to the approval conditions on submission and implementation of drainage impact assessment, it is reminded to provide 1.75 m U-channel in the northern site and other drainage facilities as proposed by the applicant;

(ii) the applicant is suggested to refer to "Technical Note to prepare a Drainage Submission" in preparing drainage submission in future. The key general requirements are extracted below for reference:

- the cover levels of proposed channels should be flush with the existing adjoining ground level;

- the formation levels and fall direction of the Site and the areas in the vicinity should be clearly shown on the plan for reference;

- the applicant should check and ensure that the existing drainage channel downstream to which the proposed connection will be made have adequate capacity and satisfactory condition to cater for the additional discharge from the captioned lot. The applicant should also ensure that the flow from the Site will not overload the existing drainage system;

- the applicant is reminded that where walls are erected or kerbs are laid along the boundary of the same, peripheral channels should be provided on both sides of the walls or kerbs with details to be agreed by DSD;

- the applicant is reminded that all existing flow paths as well as the run-off falling onto and passing through the Site should be intercepted and disposed of via proper discharge points. The applicant shall also ensure that no works, including any site formation works, shall be carried out as may adversely interfere with the free flow condition of the existing drain, channels and watercourses on or in the vicinity of the Site any time during or after the works;

- the proposed drainage works, whether within or outside the lot boundary, should be constructed and maintained by the lot owner at their own expense;

- for works to be undertaken outside the lot boundary, the applicant should obtain prior consent and agreement from District Land Office/North and/or relevant private lot owners;

- the applicant should make good all the adjacent affected areas upon the completion of the drainage works;

- the applicant should construct and maintain the proposed drainage works properly and rectify the system if it is found to be inadequate or ineffective during operation;

- the applicant is required to provide the sectional views of the Site in two different directions showing clearly any walls would be erected or kerbs would be laid along the boundary of the house, the proposed and existing drainage facilities, flow direction, the existing ground level of the adjacent lands and the formation level of the Site for his reference; and

- as usual, the Government should be empowered to inspect conditions of the private drainage system (including the petrol interceptor) and to enforce its cleansing by the owners, if necessity arises (e.g. upon receipt of complaints).

(f) to note the comments of the Director of Environmental Protection (DEP) that:

(i) the latest "Code of Practice on Handling the Environmental Aspects of Temporary Uses and Open Storage Sites" issued by Environmental Protection Department (EPD) should be followed to minimize potential environmental nuisance to the surrounding area;

(ii) adequate supporting infrastructure/facilities for proper collection, treatment and disposal of waste/wastewater generated from the proposed use should be provided. If septic tank and soakaway system will be used in case of unavailability of public sewer, its design and construction shall follow the requirements of EPD's Practice Note for Professional Person (ProPECC) PN 1/23 "Drainage Plans subject to Comment by the Environmental Protection Department" including percolation test; and

(iii) it is the obligation of the applicant to meet the statutory requirements under relevant pollution control ordinances.

(g) to note the comments of the Director of Fire Services (D of FS) that:

(i) in consideration of the design/nature of the proposal, fire service installations (FSIs) are anticipated to be required. The applicant is advised to submit relevant layout plans incorporated with the proposed FSIs to his department for approval. In addition, the applicant should also be advised on the following points:

- the layout plans should be drawn to scale and depicted with dimensions and nature of occupancy; and

- the location of where the proposed FSI to be installed should be clearly marked on the layout plans; and

(ii) the applicant is reminded that if the proposed structures are required to comply with the Buildings Ordinance (BO) (Cap. 123), detailed fire service requirements will be formulated upon receipt of formal submission of general building plans.

(h) to note the comment of Project Manager (North), Civil Engineering and Development Department (PM(N), CEDD) that the proposed temporary warehouse (excluding dangerous goods godown) with ancillary facilities on a three-year basis (the proposed use) is located within the proposed New Territories North (NTN) New Town under the Planning and Engineering (P&E) Study for NTN New Town and Man Kam To. The P&E Study already commenced on 29.10.2021. While the implementation programme of NTN New Town will be formulated under the P&E Study, the site formation works will likely commence after the completion of detailed design in the next stage. Subject to the land use planning in the P&E Study, the proposed use may need to be vacated for the site formation works.

(i) to note the comments of Chief Building Surveyor/New Territories West, Buildings Department (CBS/NTW, BD):

(i) it is noted that two structures are proposed in the application. Before any new building works (including containers/open sheds as temporary buildings, demolition and land filling, etc.) are to be carried out on the Site, prior approval and consent of the Building Authority should be obtained, otherwise they are unauthorised building works (UBW) under the BO. An Authorized Person should be appointed as the co-ordinator for the proposed building works in accordance with the 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 (B(P)R) respectively;

(iii) the Site does not abut on a specified street of not less than 4.5 m wide and its permitted development intensity shall be determined under Regulation 19(3) of the B(P)R at building plan submission stage;

(iv) for UBW erected on leased land, enforcement action may be taken by the BD to effect their removal in accordance with the prevailing enforcement policy against UBW as and when necessary. The granting of any planning approval should not be construed as an acceptance of any existing building works or UBW on the Site under the BO;

(v) any temporary shelters or converted containers for storage or office, canteen or other uses are considered as temporary buildings are subject to the control of Part VII of the B(P)R;

(vi) in general, there is no requirement under the BO in respect of provision of car parking spaces for a proposed development. However, the applicant’s attention is drawn to the

provision of accessible car parking spaces designated for the use of persons with a disability as per the requirements under Regulation 72 of the B(P)R and Division 3 of the Design Manual: Barrier Free Access 2008;

(vii) the applicant's attention is drawn to the provision under Regulations 40 and 41 of the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations in respect of disposal of foul water and surface water respectively;

(viii) the applicant's attention is also drawn to the headroom of the storey not be excessive, otherwise gross floor area of the storey will be considered double counting under Regulation 23(3)(a) of the B(P)R subject to justification; and

(ix) detailed checking under the BO will be carried out at building plan submission stage.

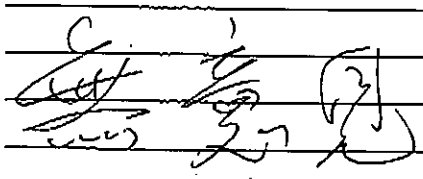
/

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

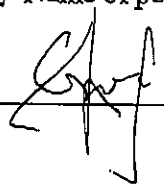
To : Secretary, Town Planning Board
By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
By Fax : 2877 0245 or 2522 8426
By e-mail : tpbpd@pland.gov.hk

有關的規劃申請編號 The application no. to which the comment relates
A/NE-TKLN/86

意見詳情 (如有需要，請另頁說明)
Details of the Comment (use separate sheet if necessary)



「提意見人」姓名/名稱 Name of person/company making this comment 倫志強

簽署 Signature  日期 Date 2024.7.25

☐Urgent ☐Return receipt ☐Expand Group ☐Restricted ☐Prevent Copy 2

From:
Sent: 2024-08-11 星期日 02:55:16
To: tpbpd/PLAND <tpbpd@pland.gov.hk>
Subject: A/NE-TKLN/86 DD 78 Kaw Liu Village, Lin Ma Hang

A/NE-TKLN/86

Various Lots in D.D. 78 and Adjoining Government Land, Kaw Liu Village, Lin Ma Hang

Site area: About 24,446sq.m Includes Government Land of about 4,150sq.m

Zoning: "Recreation"

Applied use: Warehouse / 27 Vehicle Parking

Dear TPB Members,

Strongest Objections.

It is absolutely shocking how in the few years since this area was opened up that it has been allowed to degenerate into a facsimile of Kam Sheung Road, rows of soon to be rusting lean to ramshackle operations.

This is a prime setting facing Shenzhen and situated along the river bank.

Anywhere else in the developed world when areas like are incorporated into the community, plans are drawn up in advance to ensure that they are developed to the highest standards.

But this is Hong Kong and we can only expect failure to plan in advance, exploitation and a development focus that would have been considered outdated decades ago. If Lin Ma Hang Road is destined to become another Brownfield Row, then it should have been zoned Open Storage.

The lots have been stripped of vegetation and excavated. As one fifth of the site is government land one has to question how this was allowed to happen? We are bombarded on a daily basis with pronouncements about rule of law, zero tolerance for abuses, blah, blah, blah, but misdeeds like this conducted in plain sight are not addressed.

Even when applications are rejected, the brownfield operations go ahead regardless.

There is also the issue that Kaw Liu Village would be effectively surrounded by warehouse activities that generate environmental and safety issues with regard to the movement of heavy duty vehicles.

The development of the Norther Metropolis we were told would modernize and improve the landscape but instead it is now clear that it is nothing more than an exercise in extending brownfield operations into districts that were previously no used for this purpose.

☐Urgent ☐Return receipt ☐Expand Group ☐Restricted ☐Prevent Copy

Application must be rejected and long overdue enforcement implemented.

Mary Mulvihill