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Section 16 Planning Application

Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D.83 and Adjoining Government Land, Sha Tau Kok Road - Lung Yeuk Tau, Fanling, N.T.

Planning Statement

Applicant
Wealth Generation International Limited (新世代國際有限公司)

Prepared by
Lawson David & Sung Surveyors Limited

August 2025

Executive Summary

This planning statement is prepared in support of a planning application for proposed temporary electric vehicle charging station, vehicle repair workshop, shop and services (motor vehicle showroom), eating place with ancillary site office ("the proposed development") for a period of 5 years at Taxlord Lot 464 S.A RP (Part) in D.D.83 and adjoining Government land, Sha Tau Kok Road - Lung Yeuk Tau, Fanling, N.T. (the "Application Site").

The Application Site, covering an area of about 4,180 sq.m. (including Government Land of about 680 sq.m.), falls within an area zoned "Open Storage" ("OS") on the Approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP) No. S/NE-TKL/14 gazetted on 12.3.2010. According to the Notes of the OZP, the proposed EV charging station is a 'Petrol Filling Station / Green Fuel Station', which is a 'Column 2' use of the "OS" zone, along with the proposed 'Shop and Services' and 'Eating Place'. Meanwhile, 'Vehicle Repair Workshop' is a Column 1 use, which is always permitted.

The Application Site is currently occupied by a cluster of vehicle repair workshops, warehouses and temporary structures. In consideration of the growing popularity of the electric vehicles (EVs) in Hong Kong and introduction of 3,000 electric taxis expected in 2026, the Applicant, in cooperation with one of the selected taxi fleet operators, intends to convert the Application Site into an one-stop EV service depot that includes charging station to provide EV charging facilities for electric taxis with supplementary services.

The proposed development will provide a total of 54 parking spaces (2.5m x 5m), with 33 for electric taxis, 15 for motor vehicle showroom and office use and 6 for staff/visitors. Among the proposed parking spaces for electric taxis, 18 of them will be fee-paying parking spaces and equipped with EV charging device, with all being direct current (DC) quick chargers with an output power of 120kW. The remaining 15 parking spaces will be designated as parking / waiting spaces for the charging facilities and free of charge.

Three 1-storey (height: about 3m) containers for EV chargers, each with a floor area of about 29 sq.m., will be situated at the northern boundary of the Application Site. Each container will provide 6 EV charging devices for electric taxis. A 1-storey (height: about 3.5m) transformer room / switch room with a floor area of about 53 sq.m. will be placed in between the containers to provide sufficient electricity to all charging devices. Meanwhile, a 2-storeys (height: about 7m) temporary structure (G/F: vehicle repair workshop; 1/F: eating place with ancillary office) with a total floor area of about 2,012 sq.m. will be erected at the western portion of the Application Site. A 1-storey (height: about 5m) motor vehicle showroom with a floor area of about 225 sq.m. will also be proposed next to the 2-storey structure.

The existing ingress/egress point of about 8m wide will be maintained at the southern boundary of the Application Site, connecting to Sha Tau Kok Road – Lung Yeuk Tau. The proposed hours of operation of the EV charging station at the Application Site are 24 hours daily from Mondays to Sundays (including public holidays), while other supporting facilities will be operated from 7am to 8pm daily.

The justifications of this application are:

1. The proposed development is in line with Government policy to promote EVs usage;
2. The proposed development meets the demand for quick EV charging facilities and supplementary services for EVs;
3. The proposed development does not contravene the planning intention of "OS" zone;
4. The proposed development is considered not incompatible with surrounding land uses;
5. The proposed development will promote optimization of valuable land resources;
6. The proposed development will not hinder future development of New Territories North New Town; and
7. The proposed development will not generate adverse traffic, drainage and environmental impacts on the surrounding areas.

In view of the justifications as presented in this planning statement, it is hoped that members of the Board and relevant Government departments will approve this application for a period of 5 years.

行政摘要

此規劃報告書旨在支持在新界粉嶺沙頭角公路 - 龍躍頭段丈量約份第 83 約補租地段第 464 號 A 分段餘段(部分)及毗連政府土地 (“申請地點”)，作為期五年的擬議臨時電動車充電站(電動的士)、汽車修理工場、商店及服務行業(汽車陳列室)及食肆連附屬辦公室用途(“擬議發展”)的規劃申請。

申請地點的面積約 4,180 平方米 (包括政府土地約 680 平方米)，座落於在 2010 年 3 月 12 日刊憲的坪輋及打鼓嶺分區計劃大綱核准圖（圖則編號：S/NE-TKL/14）上的「露天貯物」地帶。根據該大綱圖的註釋，擬議電動車充電站為「加油站 / 潔淨能源站」，跟擬議「商店及服務行業」及「食肆」均屬「露天貯物」地帶內的第二欄用途，需先向城市規劃委員會(“城規會”)提出申請。同時，擬議「汽車修理工場」屬「露天貯物」地帶內的第一欄用途，為經常准許的用途。

申請地點現時用作多個汽車修理工場、貨倉及臨時構築物。考慮到本地電動車日趨普及以及政府將於 2026 年引入 3,000 輛電動的士，申請人將與一支被政府選中的的士車隊合作，擬將申請地點改成一站式電動車服務充電站，為電動的士提供充電設施以及附屬服務。

擬議電動車充電站將提供 54 個的停車位(2.5 米 x 5 米)，其中 33 個供電動的士停泊，15 個供汽車陳列室及辦公室使用，以及 6 個供職員及訪客使用。在擬議的電動的士停車位中，18 個停車位將會是配備電動車充電設備的收費停車位，所有充電裝置均是輸出功率為 120kW 的直流快充裝置。剩餘的 15 個停車位將用作電動的士的停車 / 等候區，並免費使用。

申請地點北面將設置三個一層高(高度約 3 米，樓面面積各約 29 平方米)的改裝貨櫃，以容納電動車充電裝置，每個貨櫃可提供 6 個電動的士充電器。貨櫃之間將提供一個一層高(高度約 3.5 米，樓面面積約 53 平方米)的電力變壓器房 / 掣房，為所有充電設備提供足夠的電力。同時，申請地點西面將提供一座兩層高(高度約 7 米，總樓面面積約 2,012 平方米)的臨時構築物(地下為汽車維修工場；一樓為食肆及附屬辦公室)。在擬議兩層高的構築物旁亦會提供一座一層高(高度約 5 米，樓面面積約 225 平方米)的汽車陳列室。

申請地點將沿用現時設於南面(約 8 米闊)的出入口，連接到沙頭角公路 - 龍躍頭段。擬議電動車充電站的營運時間為星期一至日(包括公眾假期) 24 小時運作，至於其他附屬設施的運作時間為星期一至日上午 7 時至晚上 8 時。

本規劃申請的理據為：

1. 擬議發展支持政府推動電動車普及化的政策；
2. 擬議發展能滿足對電動車快速充電設施以及附屬服務的需求；
3. 擬議發展不會違背「露天貯物」地帶的規劃意向；
4. 擬議發展與周邊土地用途兼容；
5. 擬議發展可有效利用寶貴的土地資源；
6. 擬議發展不會阻礙未來新界北新市鎮的發展；及
7. 擬議發展不會對附近的交通、排水及環境構成不良的影響。

基於本規劃報告書所述的理據，敬希　各城規會委員及有關政府部門能批准此項申請，作為期五年的臨時用途。

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1. Introduction

1.1 Purpose

Pursuant to Section 16 of the Town Planning Ordinance, this Planning Statement Report is submitted to the Town Planning Board ("the Board") in support of a planning application for proposed temporary electric vehicle charging station (for electric taxi), vehicle repair workshop, shop and services (motor vehicle showroom), eating place with ancillary site office ("the proposed development") for a period of 5 years at Taxlord Lot 464 S.A RP (Part) in D.D.83 and Adjoining Government land, Sha Tau Kok Road - Lung Yeuk Tau, Fanling, N.T. (hereafter referred to as "the Application Site"). **Figure 1** shows the location of the Application Site and the Lot Index Plan indicating the concerned lot is shown per **Figure 2**.

The Application Site, covering an area of about 4,180 sq.m. (including Government land of about 680 sq.m.), falls within an area zoned "Open Storage" ("OS") on the Approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP) No. S/NE-TKL/14 gazetted on 12.3.2010. According to the Notes of the OZP, the proposed EV charging station is a 'Petrol Filling Station / Green Fuel Station', which is a 'Column 2' use of the "OS" zone, along with the proposed 'Shop and Services' and 'Eating Place'. Meanwhile, 'Vehicle Repair Workshop' is a Column 1 use, which is always permitted.

The Application Site is currently occupied by a cluster of vehicle repair workshops, warehouses and temporary structures. In view of the growing demand for electric vehicles (EVs), the Applicant intends to convert the Application Site into an EV service depot, which includes an EV charging station to provide EV charging spaces for electric taxi, as well as supplementary uses for EV such as a vehicle repair workshop, a motor vehicle showroom, an eating place with ancillary office. The Application Site is considered a preferred location for the proposed development.

1.2 Background of the Application

In response of combating global climate change, electrification of transportation system has become a global trend. EVs are considered a preferable choice to conventional vehicles with no tailpipe emissions of air pollutants, which can help improve air quality and reduce greenhouse gas emissions.

To drive Hong Kong towards the vision of "Zero Carbon Emissions ● Clean Air ● Smart City", the Government has announced the "Hong Kong Roadmap on Popularisation of EV" on 17 March 2021, which outlines the long-term objectives to achieve zero vehicular emissions before 2050 and promote wider or eventual full adoption of EVs in Hong Kong. The roadmap includes measures such as phasing out conventional fuel-propelled vehicles by 2035, expanding EV charging network in both private and public sectors, enhancing education and training programs for maintenance services and introducing trials of electric commercial vehicles for public transportations.

On 10 December 2024, the Government has also announced the "Green Transformation Roadmap of Public Buses and Taxis" to expand the adoption of EVs in public transportation with introduction of 3,000 electric taxis by mid-2026. The Government has also highlighted a multi-pronged approach in promoting the expansion of EV charging facilities, so as to gradually develop a territory-wide network for ensuring sufficient and convenient charging support for suiting the needs of various EVs.

As at February 2025, the number of EVs account for about 12.6% of the total number of vehicles in Hong Kong, and is expected to increase with the ongoing promotion and campaigns by the Government. In the Chief Executive's 2024 Policy Address, the Government has also reiterated their efforts to expand the charging network for EVs with new scheme to encourage private sector to install quick-charging facilities. It is targeted to have a total of 3,000 quick chargers installed by 2030.

Additionally, the Government has announced 5 selected taxi fleet operators to enhance taxi service quality and reform the taxi trade on 3 March 2025, in which all selected operators will provide electric

taxis to promote green transport in Hong Kong.

In support of the Government's initiatives, the Applicant, in partnership with one of the selected taxi fleet operators (see endorsement letter from the Transport Department at **Appendix 1**), intends to convert the Application Site into an EV service depot that would include an EV charging station to provide charging spaces for electric taxi with other supplementary uses for EV. All chargers will be direct current (DC) chargers with output power of 120kW to increase the charging efficiency.

1.3 Organization of the Planning Statement

This planning statement is divided into 6 chapters. Chapter 1 is an introduction outlining the above background of the planning application. Chapter 2 will then illustrate the site context and land status followed by Chapter 3 which describes the planning context in details. Chapter 4 gives the particulars of the proposed development. Detailed accounts of planning justifications of the proposed development are presented in Chapter 5. The planning statement finally concludes with a summary in Chapter 6.

2. Site Context

2.1 The Application Site and Its Existing Condition

The Application Site, with an area of about 4,180 sq.m. (including Government land of about 680 sq.m.), is located next to Sha Tau Kok Road – Lung Yeuk Tau, Fanling, N.T. The Application Site is a piece of flat land, hard-paved and currently occupied by a cluster of vehicle repair workshops, warehouses and temporary structures. The Application Site is fenced off by chain-link fence and metal sheets of about 2.5m high (see **Site Photos**). All the existing temporary structures will be demolished.

2.2 Surrounding Land Uses

The surrounding areas are predominantly rural in character and comprise of warehouses, logistics centre, open storage/storage yards, vehicle repair workshops, parking of vehicles and village houses. To the immediate west is a temporary logistics centre (Application No. A/NE-TKL/708) within the same "OS" zone approved by the Board on 17.3.2023. To the further north and northwest are clusters of warehouses, open storage/storage yards and industrial premises within the "OS" zone. To the south across Sha Tau Kok Road – Lung Yeuk Tau are a series of vehicle repair workshops and industrial premises, and the village settlements of Kwan Tei. To the east are Grade 2 historic buildings, Sam Tung Uk.

2.3 Accessibility

The Application Site is directly accessible via Sha Tak Kok Road – Lung Yeuk Tau. The existing vehicular access will be maintained by the Applicant. A plan showing the vehicular access to the Application Site is provided at **Figure 3**.

2.4 Land Status

According to the records of the Land Registry, the subject lot is held under Block Government Lease and is demised as agricultural use with lease term for 75 years, from 1.7.1898 and is renewable for a further term of 24 years.

The subject lot is an old schedule agricultural lot. The Applicant will apply for a Short Term Waiver (STW) for the proposed structures and a Short Term Tenancy (STT) to regularize the use of the Government land to the Lands Department upon obtaining planning approval for this application.

3. Planning Context

3.1 Outline Zoning Plan

The Application Site currently falls within an area zoned "Open Storage" ("OS") on the Approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP) No. S/NE-TKL/14 gazetted on 12.3.2010 (see **Figure 1**).

The planning intention of "OS" zone is "primarily for the provision of land for appropriate open storage uses and to regularize the already haphazard proliferation of open storage uses. It provides for the orderly development of land for open storage uses that cannot be accommodated in conventional godown premises"

According to the Notes of the OZP, the proposed EV charging station is a 'Petrol Filling Station / Green Fuel Station', which is a 'Column 2' use of the "OS" zone, along with the proposed 'Shop and Services' and 'Eating Place', and requires planning permission from the Board. Meanwhile, 'Vehicle Repair Workshop' is a Column 1 use, which is always permitted.

3.2 Previous Application

The Application Site is not subject to any previous planning application.

3.3 Similar Application

There is no similar application within the same "OS" zone under the Ta Kwu Ling and Ping Che OZP.

4. Development Proposal

4.1 Site Configuration and Layout

The Applicant proposes to use the Application Site for a temporary EV service depot (including EV charging station, vehicle repair workshop, motor vehicle showroom, eating place and ancillary office) for a period of 5 years. The proposed development intends to provide charging space for electric taxis of a taxi fleet and supplementary services for EV as an one-stop service depot.

The Application Site has an area of about 4,180 sq.m. The proposed development will provide a total of 54 parking spaces (2.5m x 5m), with 33 for electric taxis. Among the electric taxi parking space, 18 of them will be fee-paying parking spaces and equipped with EV charging device, with all being direct current (DC) ultra-fast chargers with output power of 120kW. The remaining 15 parking spaces will be designated as parking / waiting spaces for the charging facilities and will be free of charge (see Layout Plan at **Figure 4**).

Three 1-storey (height: about 3m) containers for placements of EV chargers, each with a floor area of about 29 sq.m., will be situated at the northern boundary of the Application Site. Each container will provide 6 EV chargers for electric taxis (see **Figure 5**). A 1-storey (height: about 3.5m) transformer room / switch room with a floor area of about 53 sq.m. will be placed in between the containers to provide sufficient electricity to all charging devices.

The proposed development will also provide supplementary services for EV. A 2-storeys (height: about 7m) temporary structure with a total floor area of about 2,012 sq.m. will be erected at the western portion of the Application Site. The ground floor of the proposed structure will be used as a vehicle repair workshop for EV while the first floor will be used as an eating place for taxi drivers with an ancillary office for staff. Meanwhile, a 1-storey (height: about 5m) motor vehicle showroom with a floor area of about 225 sq.m. will be proposed next to the 2-storey structure. Additional 21 parking

spaces (2.5m x 5m) for motor vehicle showroom and office use and staff/visitors, and 1 loading/unloading space (3.5m x 11m) for medium goods vehicle will also be provided for the aforementioned uses.

The Application Site will be fenced off by 2.5m high metal sheets on all sides. Only electric taxis and private vehicles with valid licenses issued under the Road Traffic (Registration and Licensing of Vehicles) Regulations are allowed to be parked on the Application Site.

The key development parameters of the application are shown below:-

Applied Use	Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Service (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years
Site Area	About 4,180 sq.m. (including 680 sq.m. of Government land)
Total Floor Area (Non-domestic)	About 2,377 sq.m.
No. of Structure	6 - 1 proposed 1-storey motor vehicle showroom - 1 proposed 2-storey vehicle repair workshop, eating place with ancillary office - 1 proposed transformer room / switch room - 3 proposed containers for EV chargers
Height of Structure	About 3 – 7m (1-2 storeys)
No. of Parking Spaces	54 Nos. (2.5m x 5m) - 18 EV charging spaces for electric taxis - 15 parking / waiting spaces for electric taxis - 15 parking spaces for motor vehicle showroom and office use - 6 parking spaces for staff/visitors
No. of Loading/Unloading Spaces	1 no. for medium goods vehicle (3.5m x 11m)

4.2 Site Operations

The proposed development will only provide parking and EV charging facilities for electric taxis, and supplementary services for EVs. All EV chargers onsite will be quick chargers that will provide electric taxis 600km of mileage when charged for about 30 minutes.

The Applicant will collaborate with Sino Development (International) Company Limited, one of the 5 selected taxi fleet operators by the Government, to provide various quick EV charging facilities in various locations in Hong Kong (see **Appendix 1**). The fee arrangement will be similar to other EV charging station in the market, in which users will be charged at time basis as they go. A mobile application catered for electric taxi drivers will be adopted, which will include the payment platform for EV charging and provide real-time availability of EV charging spaces at the EV charging stations managed by the Applicant.

The proposed hours of operation of the EV charging station at the Application Site are 24 hours daily from Mondays to Sundays (including public holidays). Meanwhile, shorter operating hours (Mondays to Sundays 7am to 8pm) will be proposed for the supplementary services (i.e. vehicle repair workshop, motor vehicle showroom, eating place and ancillary site office). To minimize any potential noise and environmental impacts to the surrounding area, all workshop activities will be contained within the proposed enclosed structure. No land filling work will be conducted at the Application Site.

4.3 Traffic Arrangement and Traffic Impact Assessment

The Application Site can be accessed via Sha Tau Kok Road – Lung Yeuk Tau (see **Figure 3**). The existing ingress/egress point at the southern boundary of about 8m wide will be maintained by the Applicant. A Traffic Impact Assessment (TIA) report (see **Appendix 2**) is submitted to assess the potential traffic impact on the existing and future road network.

To analyze the existing traffic conditions, a traffic count survey was conducted on 22 May 2025 at the nearby critical links and junctions. The peak hour was identified to be between 1630 - 1730. Based on the existing traffic flows, all concerned junctions were performing satisfactorily and all concerned road sections were operating with spare capacity during the peak hour.

A swept path analysis is also included in the TIA to demonstrate that satisfactory manoeuvring of vehicles entering to and existing from the Application Site and manoeuvring within the Application Site. There will be no difficulties in internal traffic circulation sense as sufficient spaces for vehicle manoeuvring have been reserved within the Application Site such that no vehicle has to queue back to or reverse onto/from Sha Tau Kok Road – Lung Yeuk Tau.

As identified in the TIA report, the peak traffic generation of the proposed development will be either between 1500 – 1700 or after midnight, before the shift changes of the electric taxi drivers. The proposed development is expected to generate a two-way traffic of 87 pcu/hour during the peak hour. By analyzing the Year 2030 Design Flows, which were derived from applying a nominal growth to the existing traffic flow plus the additional traffic generated and attracted by the proposed development, both the junction and link capacity assessments show that the concerned junction and road links would perform satisfactorily during the peak hour. Based on the assessment result, it can be concluded that the proposed development will not induce additional adverse traffic impact on the surrounding road network and is considered acceptable from traffic engineering point of view.

The mobile application adopted by the Applicant will provide real-time availability of EV charging space and facilitate electric taxi drivers to locate the available EV chargers. The drivers will be directed to the nearest alternative sites if all the EV chargers in the proposed EV charging station are in use. In addition, since quick chargers will be used in the Application Site, the charging time will be much shorter than standard chargers, which allow high turnover rate and cut down waiting time. 15 parking / waiting spaces have been reserved in the Application Site to allow drivers to wait for EV charging space. Therefore, no electric taxi will be queuing outside the Application Site along Sha Tau Kok Road – Lung Yeuk Tau.

4.4 Drainage Proposal

Drainage facilities including 525mm peripheral U-channels and catchpits with trap are proposed to collect the surface runoff and divert them to the existing surface channels at Ng Tung River to the north of the Application Site. A 100mm high gap will also be proposed at the bottom of the security hoarding/fence wall along the southern boundary to ensure no surface runoff from the surroundings flowing onto the Application Site to be obstructed. A drainage proposal (see **Appendix 3**) is submitted to show the proposed drainage design. The Applicant will provide the drainage facilities to the satisfaction of Drainage Services Department.

4.5 Landscape

Majority of the Application Site is occupied by the existing vehicle repairing workshops, warehouses and temporary structures while wild overgrown and some trees are found at the vacant land. No old and valuable trees are found within the site. Meanwhile, existing trees of various species are found immediate outside the eastern boundary. These existing trees outside the site boundary will not be disturbed by the Applicant and would act as the natural hedges bounding the edge of the development.

The Application Site is located within an area of rural character intermixed with warehouses, logistics centre, open storage/storage yards, vehicle repair workshops, parking of vehicles and village houses. Since the proposed development intends to provide an EV service depot for EVs with EV charging facilities for electric taxis only, it is considered not incompatible with the landscape character of the surrounding areas.

4.6 Fire Service Installations Proposal

To minimize the fire hazard, the Applicant will provide fire service installations (FSIs) with Firemen's Emergency Switch to the satisfaction of the Fire Services Department.

4.7 Sewage Treatment

The Applicant will provide septic tank and soakaway pits according to Professional Persons Environmental Consultative Committee Practice Notes ("ProPECC PN") No.1/23 for sewage treatment and dispose at the Application Site. All waste water collected from the kitchen, including that from basins, sinks and floor drains, will be discharged via a grease trap in accordance with this ProPECC PN No.1/23 to prevent any water pollution.

4.8 Environmental Consideration

The nature of the proposed use will merely involve provision of EV charging facilities with supplementary services for EV. To minimize the possible environmental nuisance, the Applicant will follow the 'Code of Practice on Handling the Environmental Aspects of Temporary Uses and Open Storage Sites' and undertake the following mitigation measures:-

(a) No more than 33 electric taxis and 21 private vehicles will be allowed at the Application Site at the same time;
(b) All vehicle repairing and workshop activities will be conducted within the proposed enclosed structure at the Application Site;
(c) The operating hours for the supplementary services of the proposed development will be restricted from 7am to 8pm on Mondays to Sundays;
(d) No land filling works will be conducted at the Application Site; and
(e) The Application Site will be fenced off by 2.5m high metal sheets on along the site boundary.

5. Planning Justifications

5.1 In Line with Government Policy to Promote EVs Usage

The proposed development would provide quick EV charging facilities for electric taxis. It aligns with the Government's initiative to expand the charging network for EVs in Hong Kong, especially in meeting the target of installing 3,000 quick chargers by 2030. With the introduction of 3,000 electric taxis expected in mid-2026, the proposed development can also meet the increasing demand for EV charging spaces catered for electric taxis in Hong Kong. Additionally, the Applicant has received support from the Transport Department to collaborate with one of the selected taxi fleet operators to provide EV charging facilities in Hong Kong (see **Appendix 1**). Therefore, the proposed development is considered in line with Government policy to promote the wider use of EVs and support the operations of electric commercial vehicles and achieve the aforesaid target.

5.2 Meeting the Demand for Quick EV Charging Facilities and Supplementary Services for EVs

In view of the emerging popularity of commercial EVs with the Government's initiative, the demand for EV charging space for commercial EVs will increase as well. At present, the nearest EV charging facilities in the locality is located within Queens Hill Estate, which only provide standard chargers for

private vehicles and are considered too slow for electric taxis. Since the proposed development will provide EV charging spaces with quick chargers, it can meet the demand of electric taxis for quick charging EV facilities.

Additionally, the proposed development will also provide supplementary services (i.e. vehicle repair workshop and motor vehicle showroom) for EVs. With the rising popularity of EVs, it can also satisfy the demand of supplementary services for EVs in the market.

5.3 Not Contravene with the Planning Intention of "OS" Zone

The Application Site falls within an area zoned "OS" on the Ping Che and Ta Kwu Ling OZP No. S/NE-TKL/14. The proposed development will provide EV charging station for electric taxi with supplementary uses, which will provide a more orderly development at the Application Site. On top of provision of EV charging facilities for electric taxis, the proposed development will also provide repair and maintenance services for EVs, which is a 'Column 1' use of the "OS" zone. Therefore, the proposed development will not contravene with the planning intention of the subject "OS" zone. Due to the temporary nature of the Application, the proposed development will also not jeopardize the long-term planning intention of the "OS" zone.

5.4 Not Incompatible with Surrounding Land Uses

The proposed development is considered not incompatible with the surrounding land uses. The surrounding areas comprise of warehouses, logistics centre, open storage/storage yards, vehicle repair workshops, parking of vehicles and village houses. Since the proposed development is intended to serve electric taxis, the proposed development could co-exist well with the existing surrounding land uses without inflicting any environmental impacts. As the proposed development is considered not incompatible with other developments/facilities in the adjacent areas in terms of nature and scale of use, approval of the application would therefore not result in any interface problems with the surrounding areas.

5.5 Optimization of Valuable Land Resources

The Application Site is considered a suitable and preferred venue for the proposed development. The Application Site is a piece of flat land with majority of the land being paved, in which the conversion into the proposed development will be smooth. The Applicant will demolish all the existing structures and convert the Application Site into an orderly managed development. The proposed development will also improve the currently under-utilized adjoining Government land, in which the Applicant will manage the site and therefore improve the existing condition.

In addition, the Application Site is directly accessible to Sha Tau Kok Road – Lung Yeuk Tau, which is connected to strategic road networks to different parts of New Territories, electric taxis could easily access and leave the site after charging. Meanwhile, the Application Site is situated close to densely populated areas such as Sheung Shui and Fanling and future new towns such as Kwu Tung and Ping Che. The provision of EV charging spaces for electric taxis and supplementary services for EVs, at the Application Site will be able to meet the growing demand for EV charging facilities and EV maintenance services in these areas. The proposed development is therefore considered fully commensurate with its local geographical settings and ideal to attain utmost land use maximization.

5.6 Will not Hinder Future Development of New Territories North New Town

The Application Site falls within the project boundary of New Territories North New Town. The Applicant understands that the proposed development will only be temporary and agrees to move out when the Application Site is resumed by the government for development of the New Town in the future. Due to the temporary nature of the Application, the proposed development will not hinder the future New Town development at the Application Site.

5.7 No Adverse Impacts on the Surrounding Areas

Owing to the nature and size of the proposed development, no adverse impacts are anticipated on the surrounding areas, as discussed below:

Traffic

The design of the proposed development has taken into account of vehicular circulation and manoeuvring. The Applicant will undertake traffic management measures to ensure pedestrian safety. Waiting spaces have been reserved within the Application Site to prevent any electric taxis from queuing outside the Application Site. Based on the submitted TIA (see **Appendix 2**), it is concluded that the proposed development will not induce significant traffic impact on the surrounding areas and is considered acceptable from traffic engineering point of view.

Drainage

The Applicant will provide drainage facilities within the Application Site for this application, in which surface runoff will be effectively collected from and discharged out of the Application Site. The Applicant has accordingly submitted a drainage proposal (see **Appendix 3**) to elaborate. Therefore, no adverse drainage impact on the surrounding areas is anticipated.

Environment

As the proposed development will only be used for EV charging station with provision of supplementary services for EVs, it would not generate adverse noise, air pollution or visual intrusion. In addition, all vehicle repairing and workshop activities will be contained within the proposed enclosed structure. The Applicant will also undertake relevant mitigation measures to minimize the possible environmental nuisance. Therefore, no adverse environmental impact on the surrounding areas is anticipated.

6. Conclusion

The Application Site falls within “OS” zone on the Ping Che and Ta Kwu Ling OZP No. S/NE-TKL/14. The Application Site is currently occupied by a cluster of vehicle repair workshops, warehouses and temporary structures and the Applicant intends to convert the Application Site into an EV service depot with EV charging facilities for electric taxis. In view of the site location, the existing site conditions and surrounding land uses, the proposed development is considered not incompatible with surrounding land uses and will not contravene with the planning intention of “OS” zone.

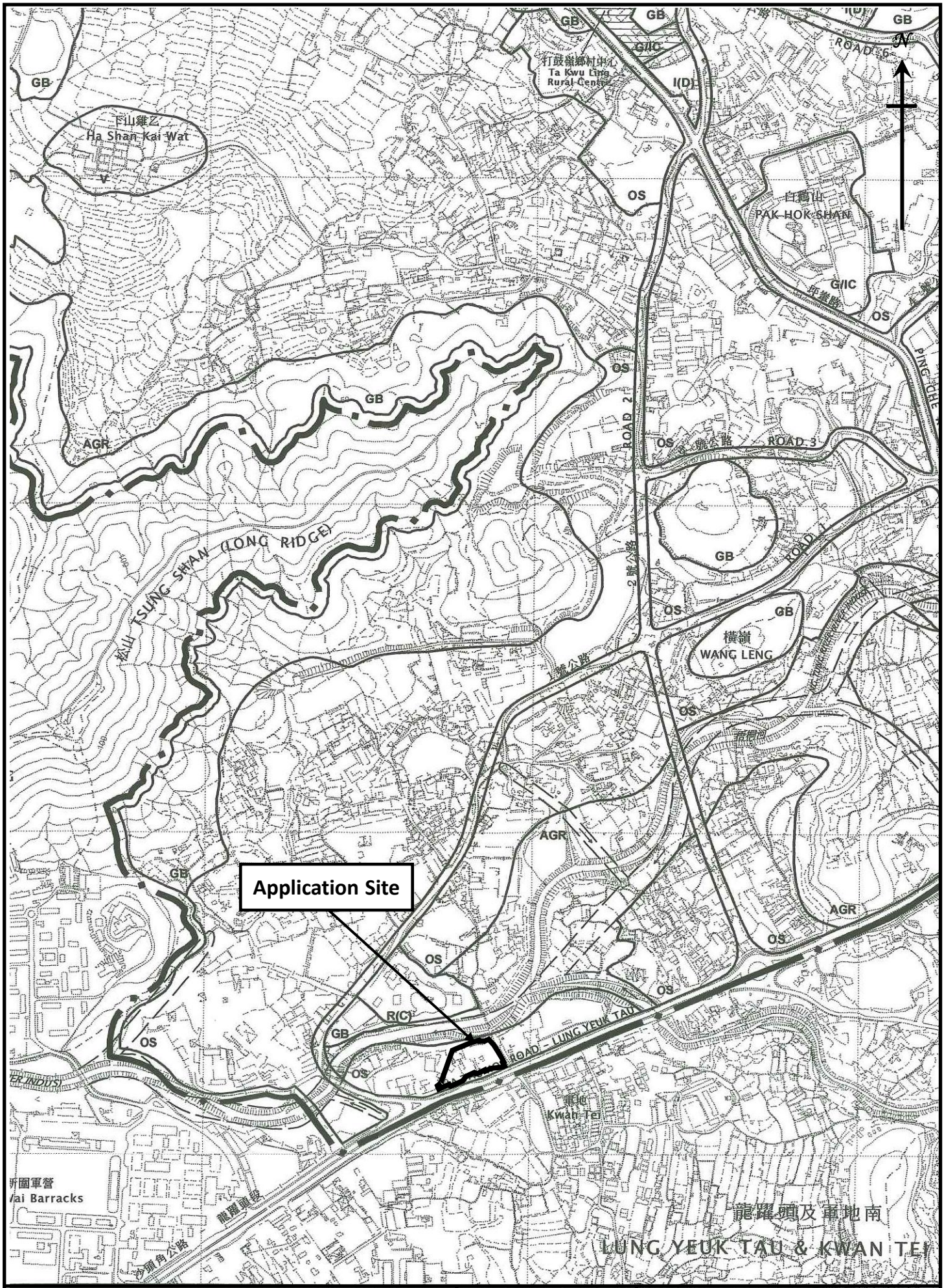
The Application Site is considered a suitable venue for the proposed development with its geographical settings and ideal to attain utmost land use maximization. Additionally, the proposed development will meet the demand for EV charging spaces and supplementary services for EVs, especially with provision of quick chargers for electric taxis. It therefore aligns with Government policy to expand EV charging networks and promote wider EVs usage in Hong Kong.

Meanwhile, the temporary nature of the proposed development will not hinder future development of New Territories North New Town. It is anticipated that the proposed development will not generate adverse impacts to the surrounding environment, and the technical concerns of relevant government departments could be addressed through the implementation of approval conditions.

In view of the justifications as presented in this planning statement, it is hoped that members of the Board and relevant Government departments will approve this application for a period of 5 years.

Lawson David & Sung Surveyors Limited
August 2025

Figures

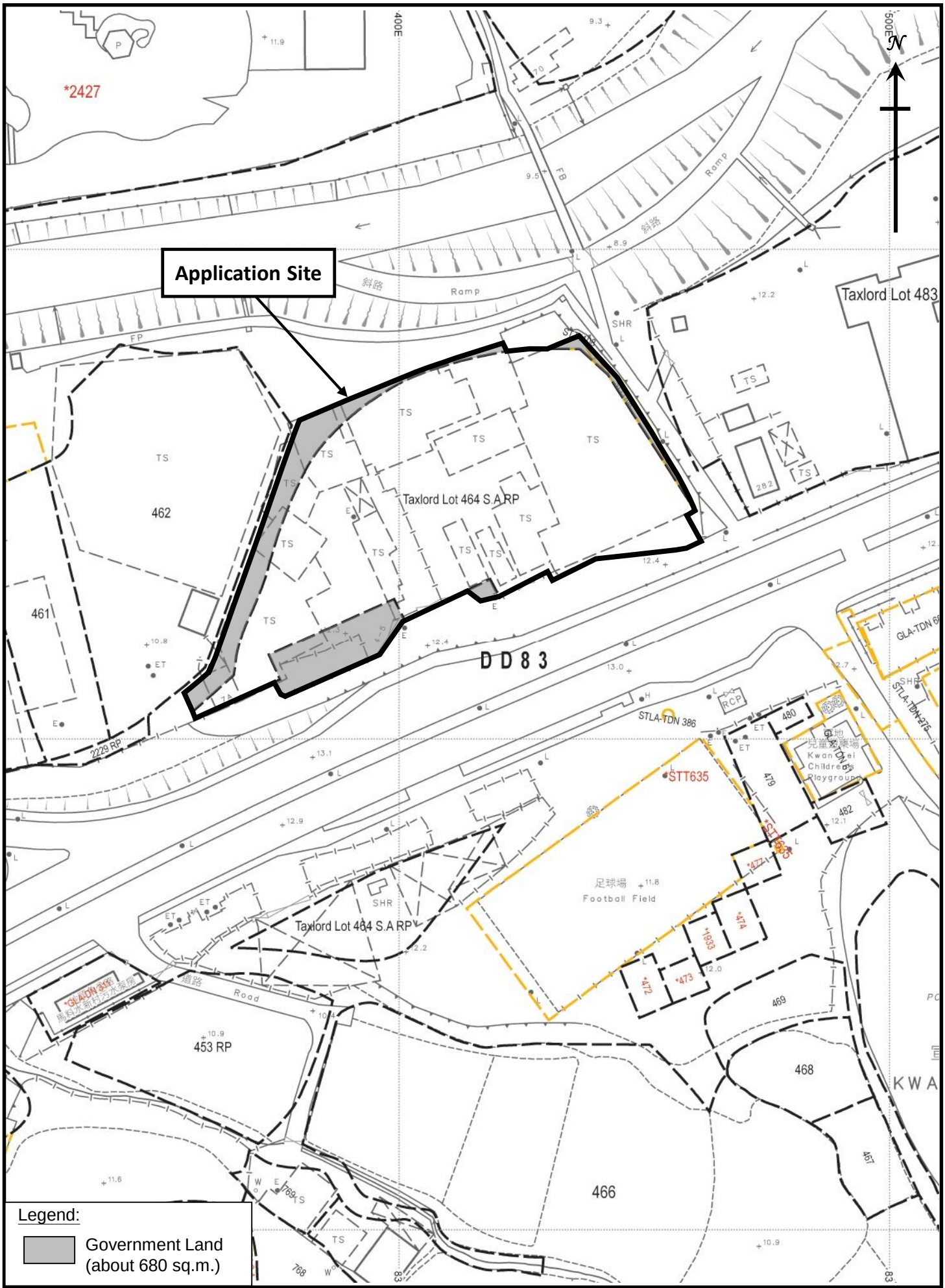


Location Plan
(Extract from Approved Ping Che and Ta Kwu Ling Outline Zoning Plan No. S/NE-TKL/14)

Figure 1

1 : 7500

羅迅測計師行
Lawson David & Sung
SURVEYORS LIMITED
Property Consultants • Planning • Valuers • Auctioneers
Estate Agency Licence No. C-006328

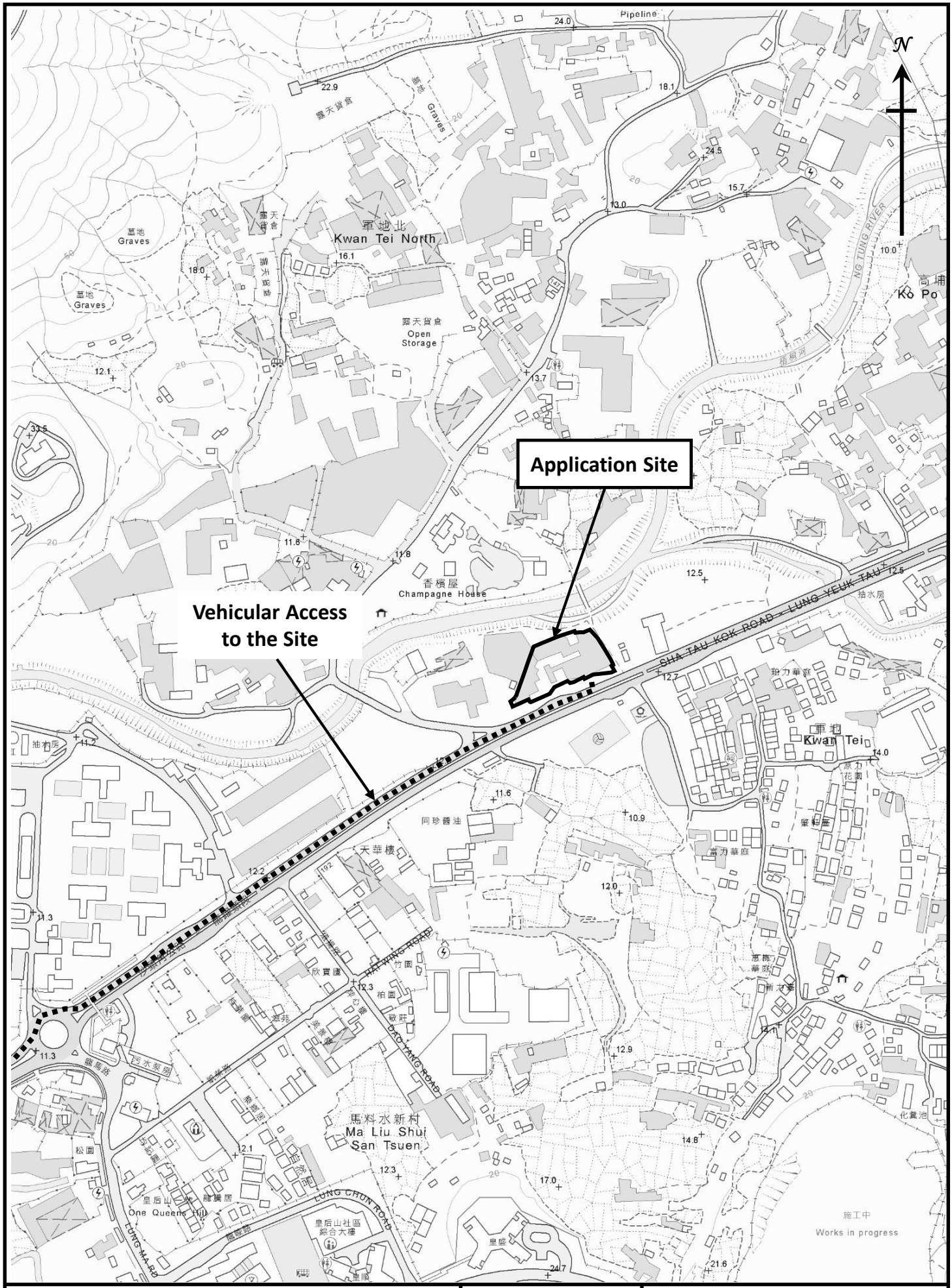


Lot Index Plan

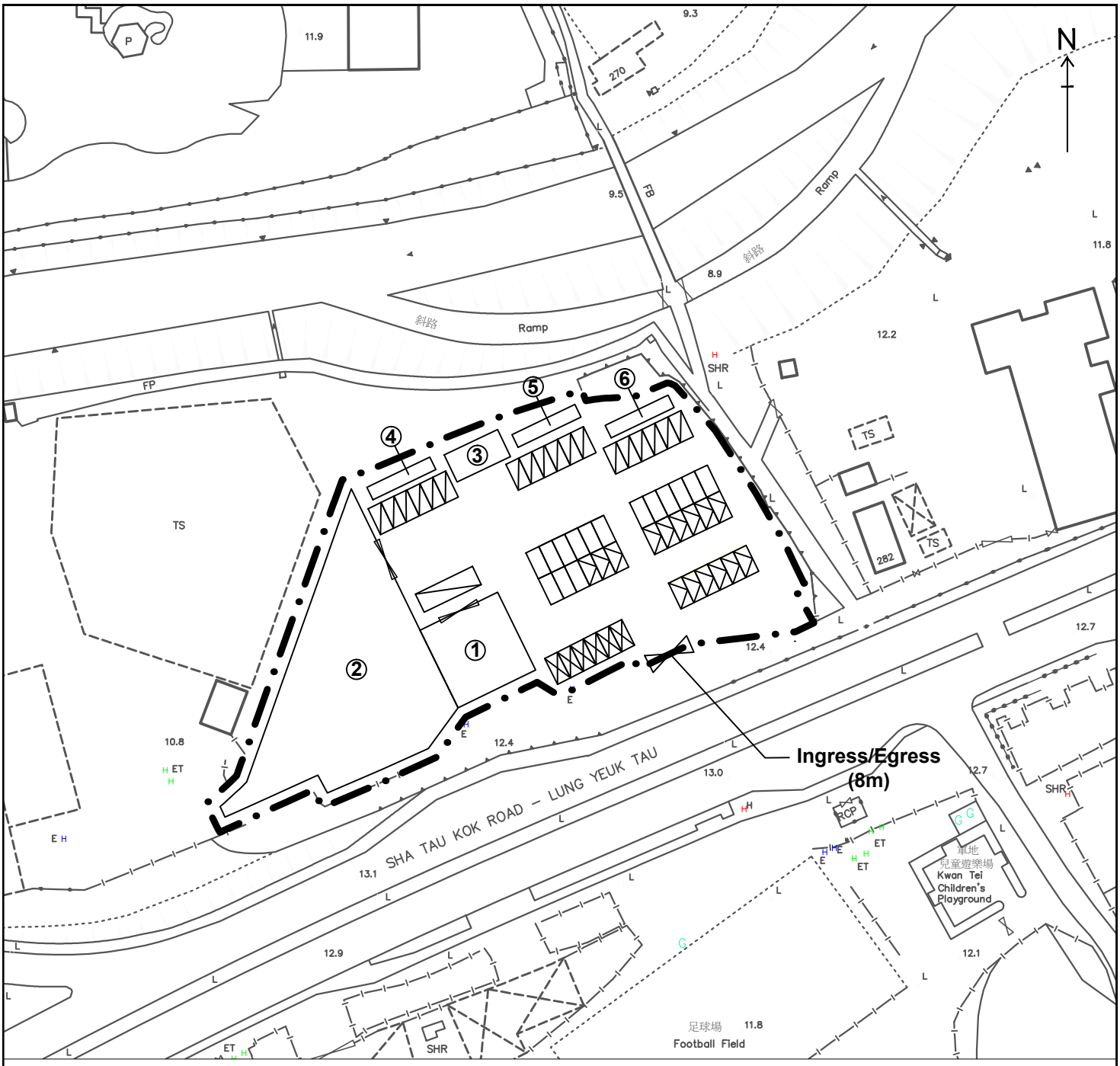
Figure 2

1 : 1000

羅迅測計師行
Lawson David & Sung
SURVEYORS LIMITED
Property Consultants • Planning • Valuers • Auctioneers
Estate Agency Licence No. C-006328



Vehicular Access to the Application Site	Figure 3 1 : 5000	羅迅測計師行 Lawson David & Sung SURVEYORS LIMITED Property Consultants • Planning • Valuers • Auctioneers Estate Agency Licence No. C-006328



Structure No.	Uses	No. of Storey	Floor Area (m²)	Height (m)
1	Motor Vehicle Showroom	1	225	5.0
2	G/F: Vehicle Repair Workshop	2	1,006	7.0
	1/F: Eating Place, Ancillary Office		806 + 200	
3	Transformer Room and Switch Room	1	53	3.5
4	Container for EV Chargers	1	29	3.0
5	Container for EV Chargers	1	29	3.0
6	Container for EV Chargers	1	29	3.0

Legend:

- Application Site (Area: about 4,180m²)
- EV Charing Spaces for Electric Taxi (18 nos.)
- Parking Spaces/Waiting Spaces for Electric Taxi (15 nos.)
- Parking Spaces for Private Vehicles (for Motor Vehicle Showroom and Office Use) (15 nos.)
- Parking Spaces for Staff/Visitors (6 nos.)
- Loading/Unloading Space for Medium Goods Vehicle (3.5m x 11m) (1 no.)

Layout Plan

Figure 4

Scale 1:1000

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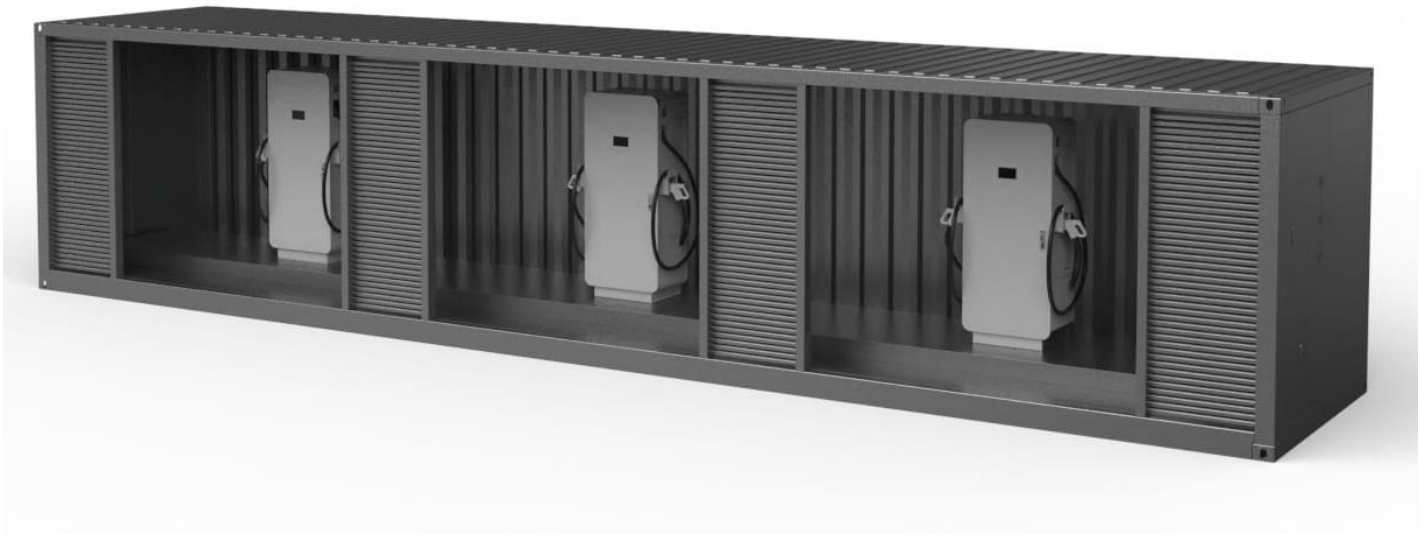
Container for EV Chargers

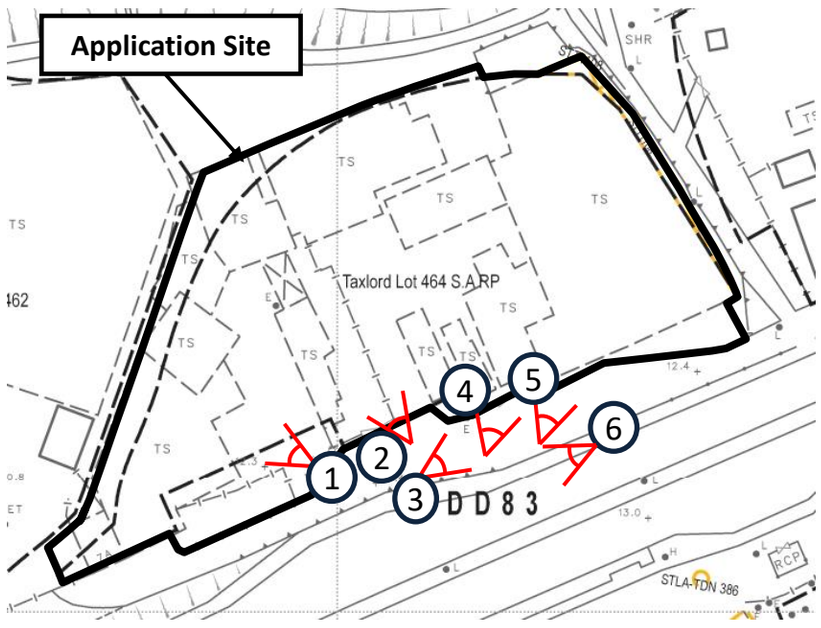


EV Charging Device for Electric Taxis

For Reference Only

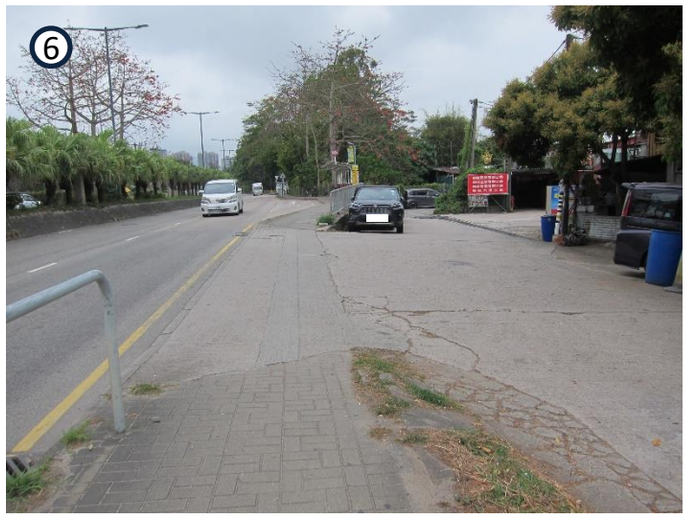
Photos of Electric Charging Device	Figure 5	羅迅測計師行 Lawson David & Sung SURVEYORS LIMITED Property Consultants • Planning • Valuers • Auctioneers Estate Agency Licence No. C-006328
	Not to Scale	

Site Photos



Legend:

- Viewpoint of the Photo
- (1) Photo No.



Existing Condition of the Application Site

Site Photos

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Estate Agency Licence No. C-006328

Appendix 1

Endorsement Letter from Transport Department

運輸署
Transport Department

本署檔號: 064-101-000-FP-006-005
電　話：
圖文傳真:

新世代國際有限公司

執事先生：

有關新科發展（國際）有限公司的電動車充電設施

香港政府早前推出一系列措施以提升個人化點對點交通服務的整體質素，當中包括引入的士車隊制度。政府希望藉着引入的士車隊制度，讓提供優質服務的的士車隊在行業中起示範和帶頭作用，透過市場演化逐漸改變行業生態，同時促進不同車隊，以及車隊和非車隊的士之間的良性競爭，鼓勵業界精益求精，提升服務水平和行業形象。

當中，新科發展（國際）有限公司（下稱「新科」）為其中一個獲選的的士車隊，並會分階段以1,000輛吉利幸福號電動車來營運。由於其車隊具一定規模，在投入服務後將對充電的配套有龐大的需求。本署支持新科與　貴公司合作，在全港不同位置發展電動車充電設施和配套，好讓其的士車隊能盡快投入服務。

如對上述事宜有任何查詢，請致電　　與我聯絡。

運輸署署長

（李朝傑　代行）

2025 年 4 月 22 日

九龍油麻地海庭道十一號西九龍政府合署南座十樓
10th floor South Tower West Kowloon Government Offices 11 Hoi Ting Road Yau Ma Tei Kowloon
電話 Tel (852) 2804 2600 傳真 Fax (852) 2824 0433
網址 Web Site: http://www.td.gov.hk

Appendix 2

Traffic Impact Assessment

Document Status Control Record

Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling, N.T.

Traffic Impact Assessment Report

Originating Organisation: LLA Consultancy Limited Unit 610, 6/F Island Place Tower 510 King's Road North Point, Hong Kong	Prepared by: SKL	SKL	Date: 8 July 2025
	Approved by: SLN		Date: 8 July 2025
	Revision No.: -		Date of Issue: 8 July 2025

1 INTRODUCTION

1.1 Background

1.1.1 The Applicant proposes to use a piece of land for temporary electric vehicle charging station (for electric taxi), vehicle repair workshop, shop and services (motor vehicle showroom), eating place with ancillary site office for a period of 5 Years. The piece of land (hereinafter referred to "the Site") is located at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road–Lung Yeuk Tau, Fanling, N.T..

1.1.2 The Site is zoned as "Open Storage" use under the Approved Ping Che and Ta Kwu Ling Outline Zoning Plan (OZP) No. S/NE-TKL/14. A planning application is required for the proposed temporary use.

1.1.3 LLA Consultancy Limited was commissioned to undertake the TIA to support the planning application. This TIA report presents the findings of the study.

1.2 Objectives

1.2.1 The objectives of the study are as follows:

- to review the existing traffic conditions in the vicinity of the Site;
- to estimate the traffic generation and attraction of the proposed temporary use;
- to project the future traffic situations in the surrounding road network;
- to appraise the potential traffic impact of the proposed temporary use; and
- to recommend the internal transport facilities for the proposed temporary use.

2 THE PROPOSED DEVELOPMENT

2.1 The Site

2.1.1 As shown in **Figure 2.1**, the Site is located at Sha Tau Kok Road – Lung Yeuk Tau area. It has a total site area of about 4,180 m^2.

2.2 The Proposed Use and Internal Transport Facilities Provisions

2.2.1 The main function of the Site is to provide charging facilities for electric taxis with supporting facilities, including vehicle repair workshop, eating place and ancillary office. The key development parameters are listed out in **Table 2.1**.

Table 2.1 Key Development Parameters

Use	Quantity
Site Area	4,180 m^2
EV Charging Facilities for Electric Taxi only (2.5m x 5.0m)	18 nos.
Parking Spaces / Waiting Spaces for Electric Taxi only (2.5m x 5.0m)	15 spaces
Motor Vehicle Showroom, Vehicle Repair Workshop, Eating Place, Ancillary Office (Retail and Office Use)	2,237 m^2
Parking Space for Retail/Office Use @ 1 space per 150 m^2 (2.5m x 5.0m)	15 spaces
Parking Space for Staff/Visitors (2.5m x 5.0m)	6 spaces
Loading/unloading Space for Medium Goods Vehicle (3.5m x 11.0m)	1 space

2.3 Swept Path Analysis

2.3.1 The Site is directly abutted to Sha Tau Kok Road – Lung Yeuk Tau, the development traffic is anticipated to enter and leave the Site with a left-in/left out movement onto Sha Tau Kok Road north-eastbound. In order to ensure the safety of pedestrians walking along the public footpath, a standard run-in/out in accordance with Highways Department's standards will be formed and flashing warning lights will be installed at both sides of the run-in/out as shown in **Figure 2.2**.

2.3.2 To ensure smooth manoeuvring of the parking area, swept path analysis was conducted to demonstrate that adequate space is provided for the vehicle's manoeuvring as shown in **Figure SP-01 – SP-02.**

3 EXISTING TRAFFIC SITUATION

3.1 Existing Road Network

3.1.1 The Site has a frontage along Sha Tau Kok Road – Lung Yeuk Tau and an existing run-in/out is provided for the current use of the Site.

3.1.2 Sha Tau Kok Road – Lung Yeuk Tau is a dual two lanes distributor road connecting Fanling and Sha Tau Kok. In 2023, it recorded an AADT of 22,810 vehicles.

3.2 Traffic Count Surveys

3.2.1 In order to appraise the existing traffic conditions, a traffic count survey was carried out on 22 May 2025 (Thursday) for the time periods of 14:30 – 17:30, the peak traffic generation period of the vehicle charging station. More details will be discussed in **Section 4.2**.

3.2.2 The locations of the surveyed junctions are shown in **Figure 3.1**.

J1 – J/O Sha Tau Kok Road – Lung Yeuk Tau / Lung Ma Road

J2 – J/O Sha Tau Kok Road – Lung Yeuk Tau / Lau Shui Heung Road

3.2.3 The peak hour identified are 16:30 – 17:30. The observed 2025 traffic flows are presented in **Figure 3.2**.

3.3 Existing Junction Capacity Assessment

3.3.1 Based on the observed traffic flows, the performance of the junctions is assessed. It is calculated that all junctions are operating satisfactorily. The results are presented in **Table 3.1** and the detailed calculation sheets are attached in **Appendix A**.

Table 3.1 Existing Junction Capacity Assessment

Ref.	Junction Location	Type/Index(1)	Peak Hour of the Vehicle Charing Station
J1	Sha Tau Kok Road – Lung Yeuk Tau / Lung Ma Road	Roundabout /DFC	0.45
J2	Sha Tau Kok Road – Lung Yeuk Tau / Lau Shui Heung Road	Roundabout /DFC	0.43

Note: (1) DFC = Design Flow to Capacity

3.4 Existing Link Capacity Assessment

3.4.1 The Volume to Capacity (V/C) Ratios of Sha Tau Kok Road – Lung Yeuk Tau is assessed and the results are presented in **Table 3.2**.

Table 3.2 Link Capacity Assessments

Road	Capacity[(1)] (pcu/hr)	Peak Hour Traffic Volume (pcu/hr)	Peak Hour V/C Ratio
Sha Tau Kok Road E/B (between Lung Ma Road and Lau Shui Heung Road)	3,120	980	0.96
Sha Tau Kok Road W/B (between Lau Shui Heung Road and Lung Ma Road)	3,120	294	0.29

Note: (1) Capacity refers to TPDM Vol.2 Ch. 2.4. A factor of 1.2 (based on the traffic count survey result) is adopted to convert the capacity from veh/hr to pcu/hr.

3.4.2 As shown in **Table 3.2**, the concerned road sections are operating with spare capacity during the peak hour.

4 FUTURE TRAFFIC SITUATION

4.1 Design Year

4.1.1 The proposed use, if approved by the Town planning Board, will be valid for 5 years until 2030. Hence, Year 2030 is adopted as the design assessment year.

4.2 Traffic Generation of the Proposed Development

Traffic Generation for Electric Vehicle Charging Station

4.2.1 For the charging facilities, all EV chargers are direct current (DC) quick chargers with output power of 120kW which can provide 600km of mileage when an electric taxi charged for about 30 minutes.

4.2.2 From the taxi trade, the drivers are usually working on two shifts, i.e., the day shift and the night shift. In general, the day shift is 05:00 to 17:00 while the night shift is 17:00 to 05:00. The peak hour usage of charging facilities is expected to be the time periods before the shift such that a fully charged taxi can be passed to the driver in the next shift. As a result, the peak traffic generation of the proposed charging station will be either between 15:00 to 17:00 or after midnight. It is anticipated that minimal drivers will charge their taxis during the normal highway peak hours because these time periods will be the busiest hour in their business.

4.2.3 According to the Hong Kong Planning Standard and Guidelines, Section 3.9.4 of Chapter 12, a minimum of two waiting spaces should be provided in each EV charging station to avoid the awaiting vehicles to queue on public roads. In view of the size of the Site, 15 waiting spaces can be provided. In addition, to minimize the waiting time of the taxi drivers and hence maximize the available operation hours, a mobile application catered for the taxi drivers will be introduced which will include the payment platform for EV charging and provide real-time availability of EV charging stations at different locations managed by the Applicant.

4.2.4 The estimated traffic generation and attraction for Electric Vehicle Charging Station during the peak operation hour will be a two-way traffic of 36 taxis (36 Nos. of vehicles = 18 EV charging stations x 2 because of 30 minutes charging/servicing time for each taxi).

Traffic Generation for Motor Vehicle Showroom, Vehicle Repair Workshop, Eating Place, Ancillary Office (Retail and Office Use)

4.2.5 For conservative assessment purpose, traffic generated/ attracted by these components of the proposed development would be estimated based on the PM trip rates for retail documented in TPDM Volume 1 Chapter 3 – Transport Considerations of Town Plans.

4.2.6 Based on the above, the traffic generation of the proposed development has been estimated and presented in **Table 4.1**.

Table 4.1 Development Traffic Generation

Proposed Use	Unit /Content	AM Peak Hour		
		Generation	Attraction	Total
Adopted Trip rates				
Retail (1)	pcu/hr/100m^2	0.3100	0.3563	-
Estimated Traffic Generation/Attraction				
EV Charging Station	18 stations	36 (2)	36 (2)	72 (2)
Ancillary Office and Retail Use	2,235 m^2	7	8	15
Total		**43**	**44**	**87**

Notes: (1) TPDM mean trip rates for retail use are adopted.
(2) Traffic generation and attraction in Table 4.1 are adopted.

4.2.7 As shown in **Table 4.2**, the Site will generate a two-way traffic flows of 87 pcu/hour in the peak hour. The distribution of the development traffic is shown in **Figure 4.1**.

4.3 Traffic Growth

Annual Traffic Census (ATC) Data

4.3.1 Reference was made to the 2019 to 2023 Annual Traffic Census Reports, published by the Transport Department, to determine the natural traffic growth. The traffic data recorded at counting station in the vicinity of the Site is shown in **Table 4.2**.

Table 4.2 Annual Traffic Census Data

Stn. No.	Road Section			AADT (vehicle/day)(1)					Average Annual Growth (%)
	Road	From	To	2019	2020	2021	2022	2023	
5660	Sha Tau Kok Rd	On Kui St	Ping Che Rd	33,630	23,740 (-29.4%)	22,980 (-3.2%)	22,280 (-3%)	22,810 (2.4%)	-1.3% (Between 2020 and 2023)

Note: (1) Figures in bracket indicated the % increase between two successive years.

4.3.2 From **Table 4.2**, the recorded traffic flows in 2020 dropped significantly by almost 30% and was due to the opening of Lung Shan Tunnel in 2019. From 2020 to 2023, the recorded traffic flows have been quite steady with only -1.3% decrease annually.

Territorial Population and Employment Data Matrix (TPEDM)

4.3.3 Reference was also made to the 2021–based TPEDM published by Planning Department. The population and employment data of year 2026 and 2031 in Northeast New Territories are summarized in **Table 4.3**.

Table 4.3 Population and Employment Data in Northeast New Territories

Year	Population	Employment	Total
2026	1,361,150	421,350	1,782,500
2031	1,416,800	448,600	1,865,400
		Average Annual Growth Rate	+0.9%

4.3.4 As shown in **Table 4.3**, the projected average annual growth rate of the population and employment total number under the TPEDM in Northeast New Territories is +0.9% between the years 2026 to 2031, which is larger than the annual growth rate derived from ATC. To be conservative, the larger growth rate of +0.9% is adopted for the subsequent assessments.

4.4 Reference and Design Flows

4.4.1 The 2030 Reference Flows, i.e. the future traffic flows in the local road network WITHOUT the development traffic, were estimated based on the following equation:

2030 Reference Flows = 2025 Existing Flows x $(1 + 0.9\%)^5$

4.4.2 The 2030 Design Flows, i.e. the future traffic flows in the local road network WITH the development traffic, are estimated based on the following equations.

2030 Design Flows = 2030 Reference Flows + Traffic generated and attracted by the proposed development

4.4.3 The forecast traffic flows for the two scenarios are shown in **Figures 4.2 and 4.3** respectively.

4.5 Junction Capacity Assessment

4.5.1 Junction capacity analysis is carried out for the assessment year 2030. The assessment results are shown in **Table 4.4** and the detailed calculation sheets are attached in **Appendix B**.

Table 4.4 2030 Junction Capacity Assessment

Ref.	Junction Location	Type/ Index(1)	2030 Reference Peak Hour	2030 Design Peak Hour
J1	Sha Tau Kok Road – Lung Yeuk Tau / Lung Ma Road	Roundabout /DFC	0.47	0.49
J2	Sha Tau Kok Road – Lung Yeuk Tau / Lau Shui Heung Road	Roundabout /DFC	0.45	0.46

Note: (1) DFC = Design Flow to Capacity.

4.5.2 The results in **Table 4.4** show that the assessed junctions will operate satisfactorily in both reference and design scenarios. Therefore, it is anticipated that the proposed temporary EV charging station will not induce significant traffic impact to the surrounding road network.

4.6 Link Capacity Assessment

4.6.1 The V/C Ratios of Sha Tau Kok Road were assessed and the results are presented in **Table 4.5**.

Table 4.5 2030 Link Capacity Assessments

Road	Capacity[1] (pcu/hr)	2030 Traffic Volume		2030 V/C Ratio	
		Reference Scenario	Design Scenario	Reference Scenario	Design Scenario
Sha Tau Kok Road E/B (between Lung Ma Road and Lau Shui Heung Road)	3,120	1025	0.33	1025	0.33
Sha Tau Kok Road W/B (between Lau Shui Heung Road and Lung Ma Road)	3,120	307	0.10	307	0.10

Note: (1) Capacity refers to TPDM Vol.2 Ch. 2.4. A factor of 1.2 (based on the traffic count survey result) is adopted to convert the capacity from veh/hr to pcu/hr.

4.6.2 As shown in **Table 4.5**, all the concerned road sections will operate with capacity during AM and PM peak hours in all scenarios. Hence, it can be concluded that the traffic induced by the proposed temporary EV charging station will not induce significant traffic impact to the road network.

5 SUMMARY AND CONCLUSION

5.1 Summary

5.1.1 The Applicant proposes to use a piece of land for temporary electric vehicle charging station (for electric taxi), vehicle repair workshop, shop and services (motor vehicle showroom), eating place with ancillary site office for a period of 5 Years. The piece of land (hereinafter referred to "the Site") is located at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road–Lung Yeuk Tau, Fanling, N.T. The main function of the Site is to provide charging facilities for electric taxis with supporting facilities, including vehicle repair workshop, motor vehicle showroom, eating place and ancillary office.

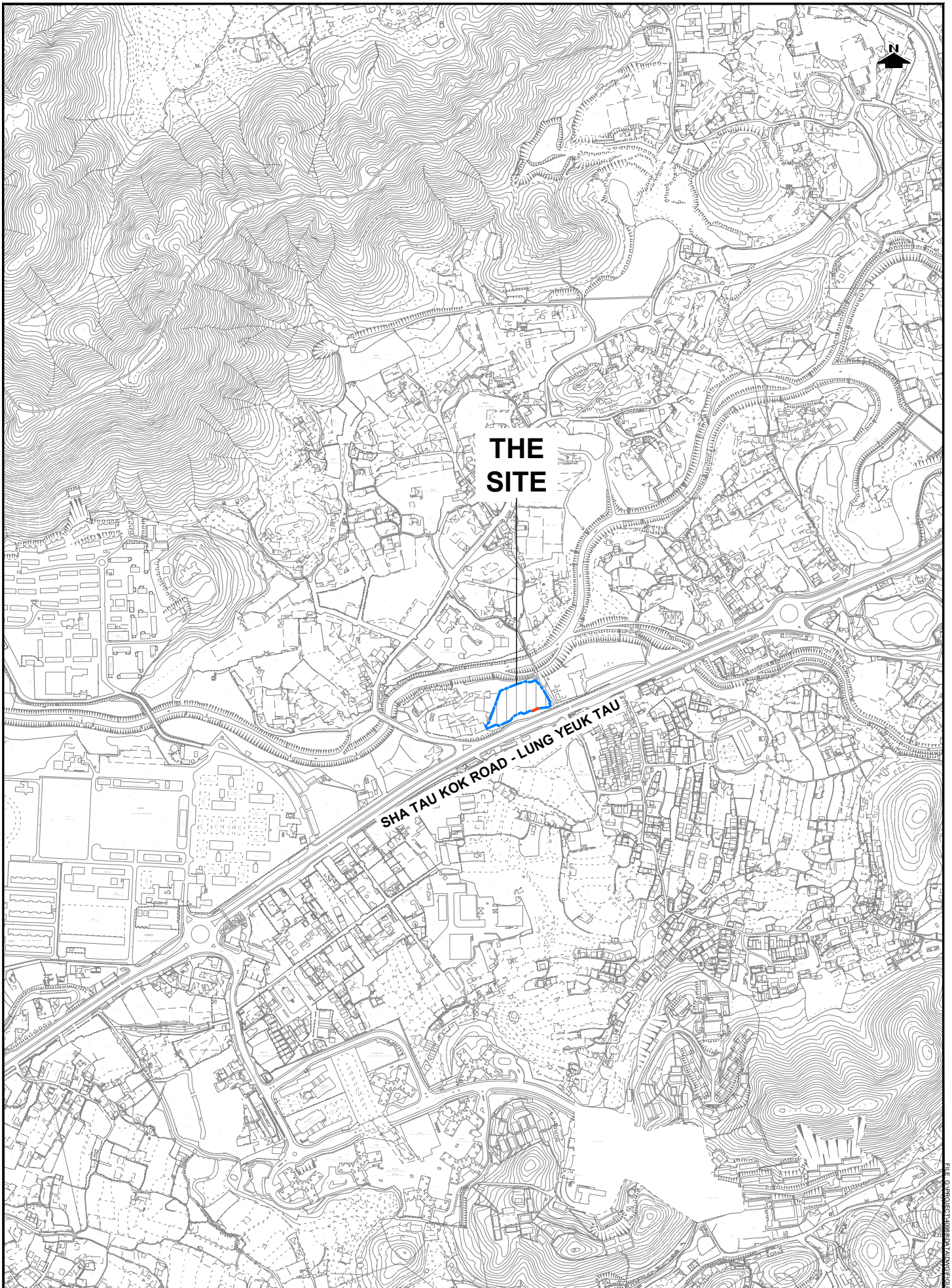
5.1.2 Traffic count survey was carried out on 22 May 2025 (Thursday) for the time periods of 14:30 – 17:30 which the time period will be the peak traffic generation period of the proposed development. Based on the existing traffic flows, the junction and link capacity assessments show that they are operating satisfactorily.

5.1.3 The proposed development is estimated to generate a two-way traffic of 87 pcu/hour in the operation peak hours. Junction and link capacity assessment was carried out for the reference and design scenarios in 2030 and the results revealed that the concerned junctions and road links would perform satisfactorily with spare capacity in 2030. Therefore, it is anticipated that the proposed development will not induce significant traffic impact to the surrounding road network.

5.1.4 For the 18 nos. of EV charging stations, 15 nos. of waiting spaces can be provided (minimum two spaces in each EV charging station) to avoid the awaiting vehicles to queue on public roads. In addition, to minimize the waiting time of the taxi drivers and hence maximize the available operation hours, a mobile application catered for the taxi drivers will be introduced which will include the payment platform for EV charging and provide real-time availability of EV charging stations at different locations managed by the Applicant.

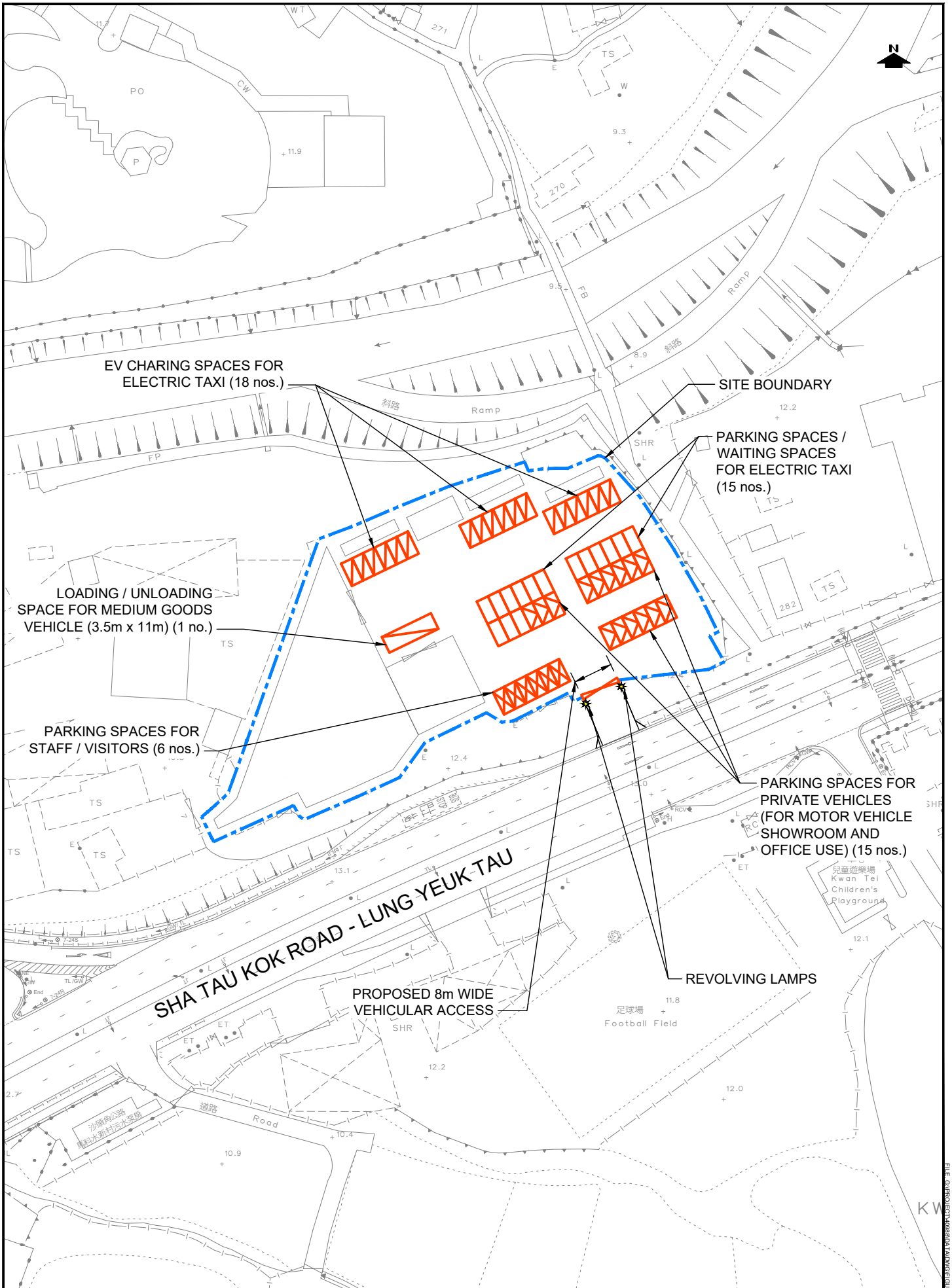
5.2 Conclusion

5.2.1 This planning application is to allow a temporary vehicle charging station with supporting facilities, including vehicle repair workshop, motor vehicle showroom, eating place and ancillary office for a period of 5 years. Based on the assessment result, it can be concluded that the proposed use will not induce additional adverse traffic impact on the surrounding road network and it is considered acceptable from traffic engineering point of view.



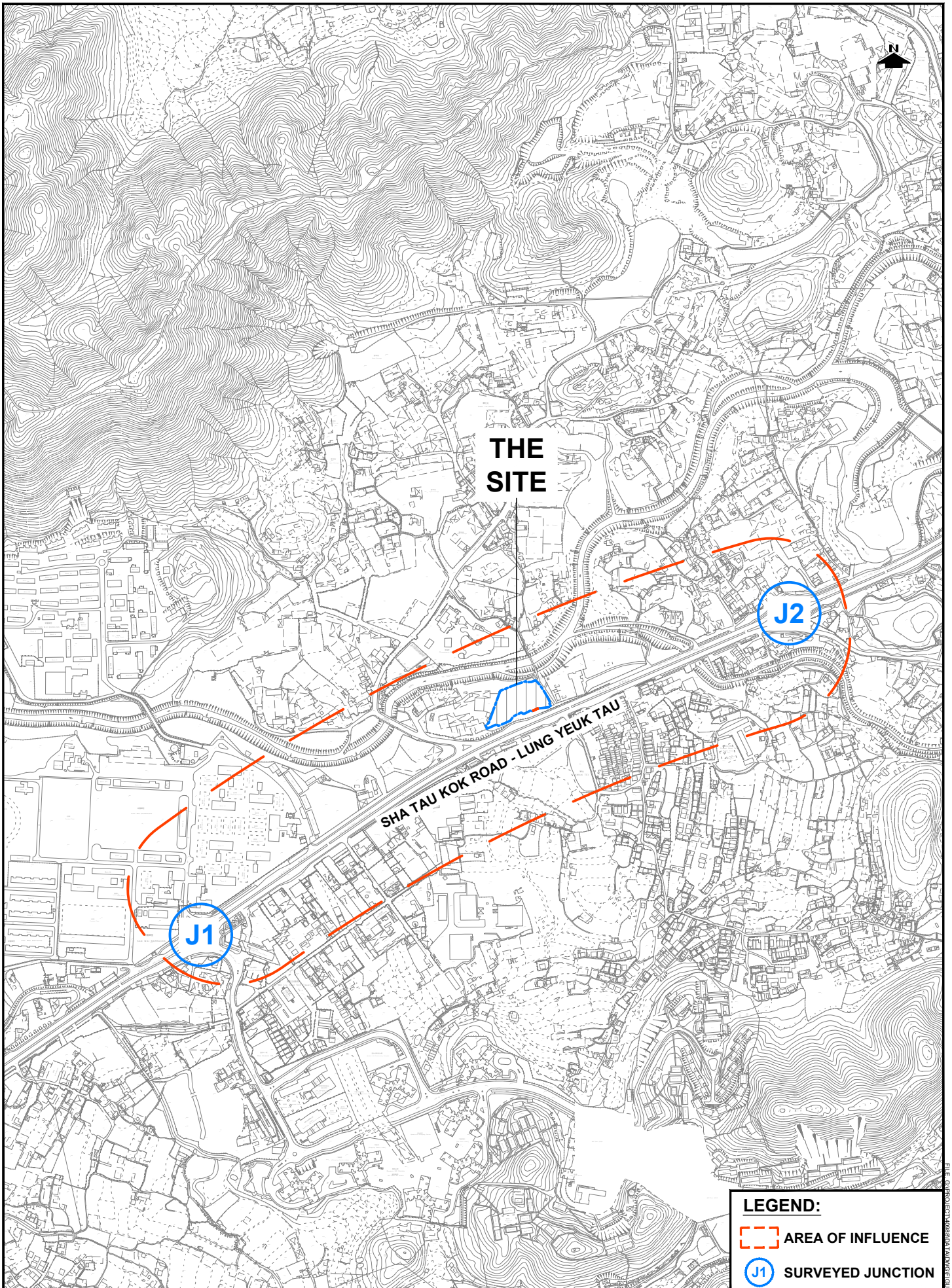
PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. FIGURE 2.1	REV. .
DESIGNED SLN / DATE MAY 2025	DRAWING TITLE: LOCATION PLAN	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE 1:5000			
CHECKED SLN			

FILE: G:\PROJECT\40988\DATA\DWG\FIGURE2.1.DWG PLOT SCALE : 1 = 1



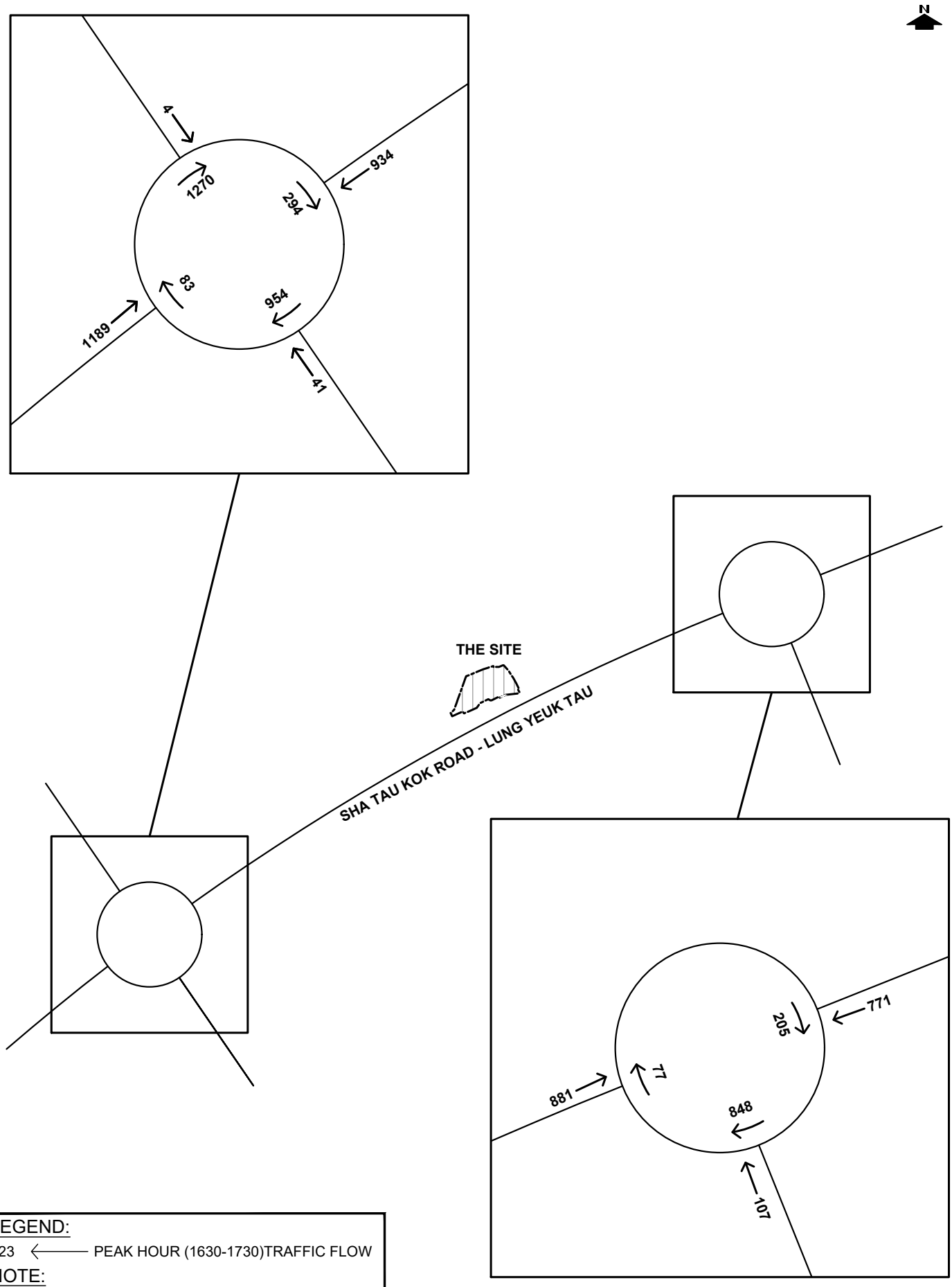
PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. FIGURE 2.2	REV. .
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE: **PROPOSED LAYOUT PLAN**		
DRAWN CLL / SCALE 1:1000			
CHECKED SLN		LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40988\DATA\DWG\FIGURE2.2.DWG PLOT SCALE: 1 = 1



PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. FIGURE 3.1	REV. .
DESIGNED SLN / DATE MAY 2025 DRAWN CLL / SCALE 1:5000 CHECKED SLN	DRAWING TITLE: AREA OF INFLUENCE	LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40988\DATA\DWG\FIGURE3.1.DWG PLOT SCALE : 1 = 1



LEGEND:

123 ⟵ PEAK HOUR (1630-1730)TRAFFIC FLOW

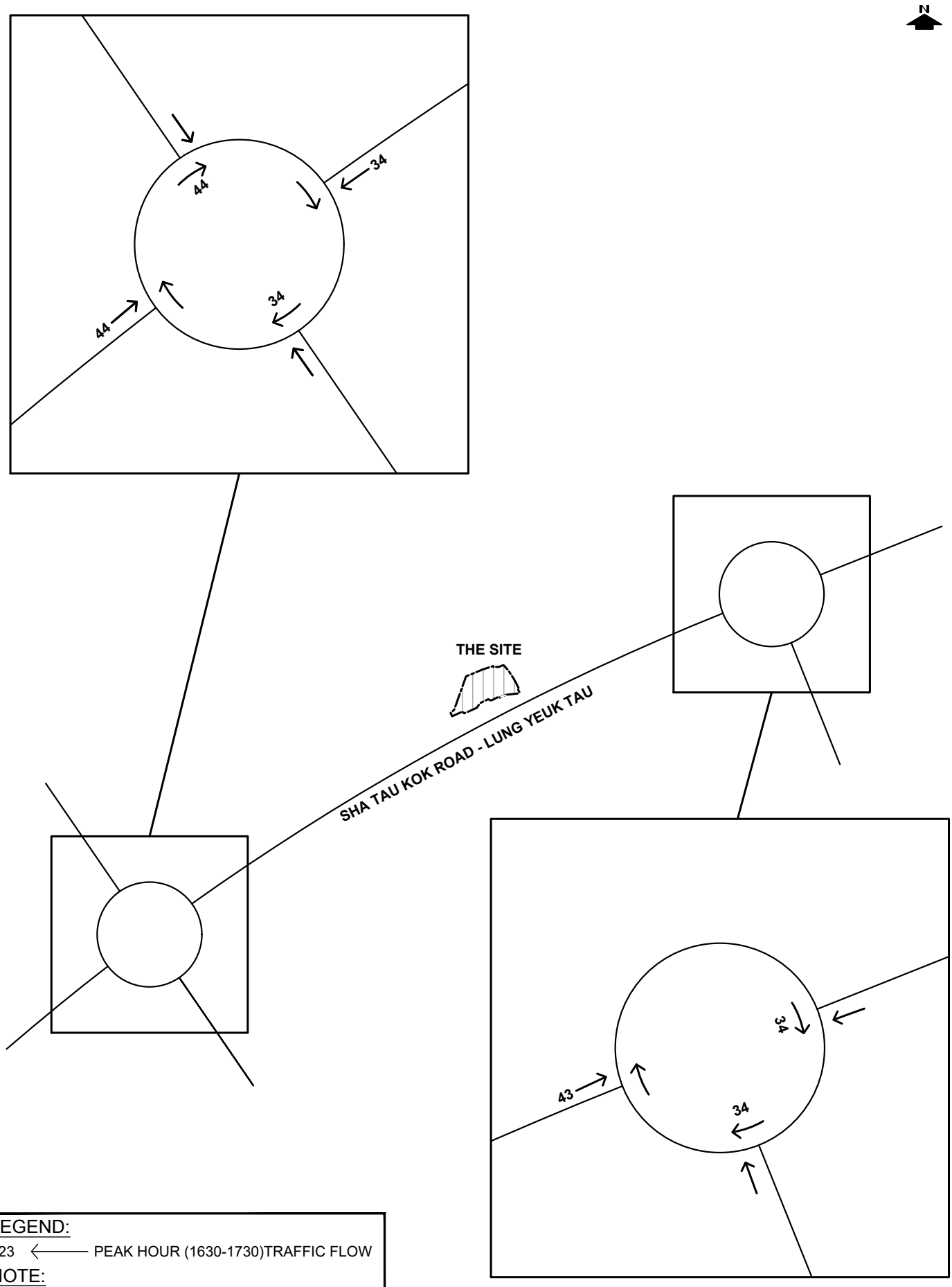
NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.		DRAWING NO. FIGURE 3.2	REV. .
DESIGNED SLN / DATE JUN 2025	DRAWING TITLE: 2025 OBSERVED TRAFFIC FLOWS			
DRAWN CLL / SCALE N.T.S.				
CHECKED SLN				

LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40988\DATA\DWG\FIGURE3.2.DWG PLOT SCALE : 1 = 1



LEGEND:

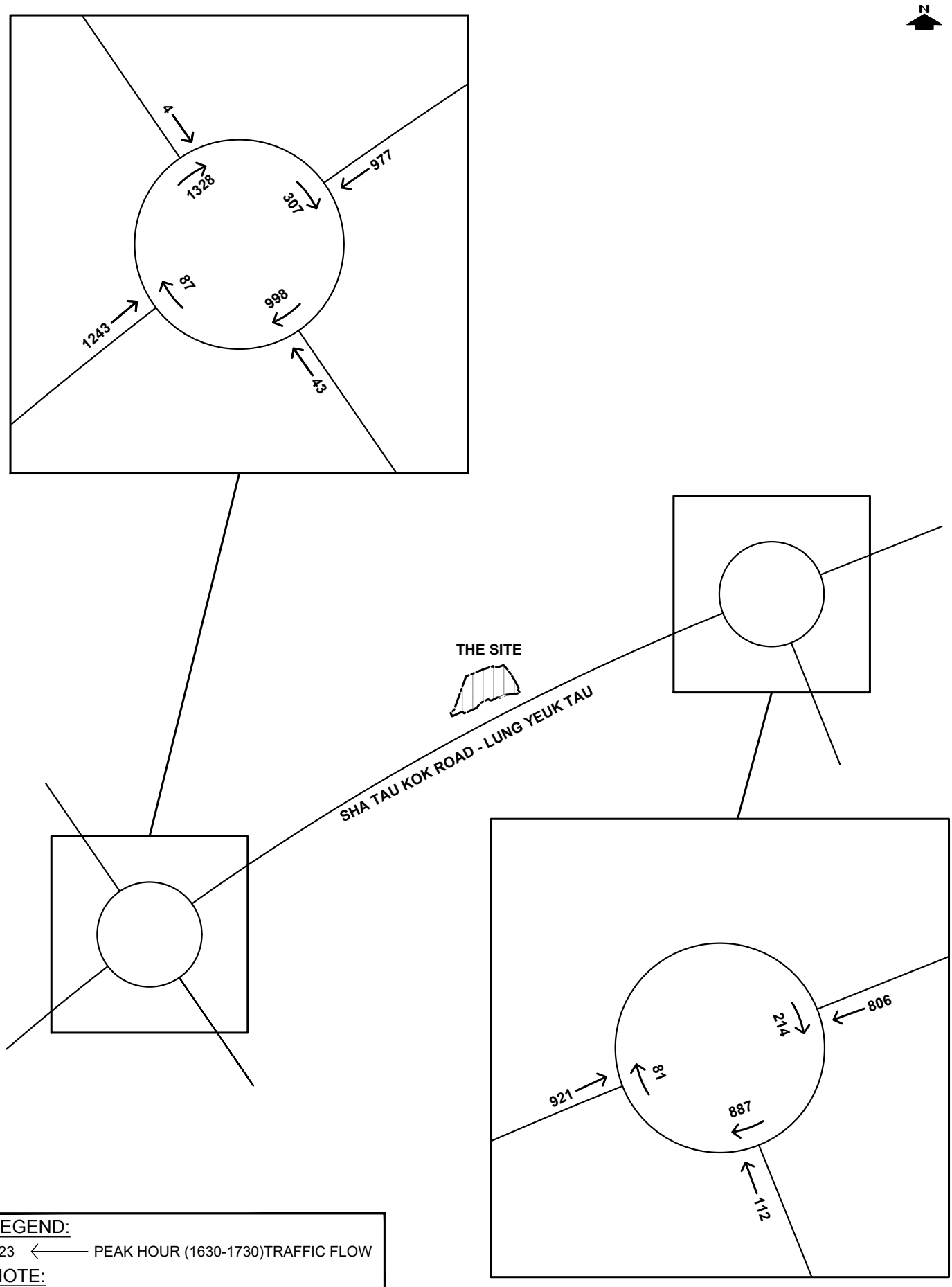
123 ⟵ PEAK HOUR (1630-1730)TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. FIGURE 4.1	REV. .
DESIGNED SLN / DATE JUN 2025	DRAWING TITLE: DEVELOPMENT TRAFFIC FLOWS		
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN		LLA 顧問有限公司 Consultancy Limited	

FILE. G:\PROJECT\40988\DATA\DWG\FIGURE4.1.DWG PLOT SCALE : 1 = 1



LEGEND:

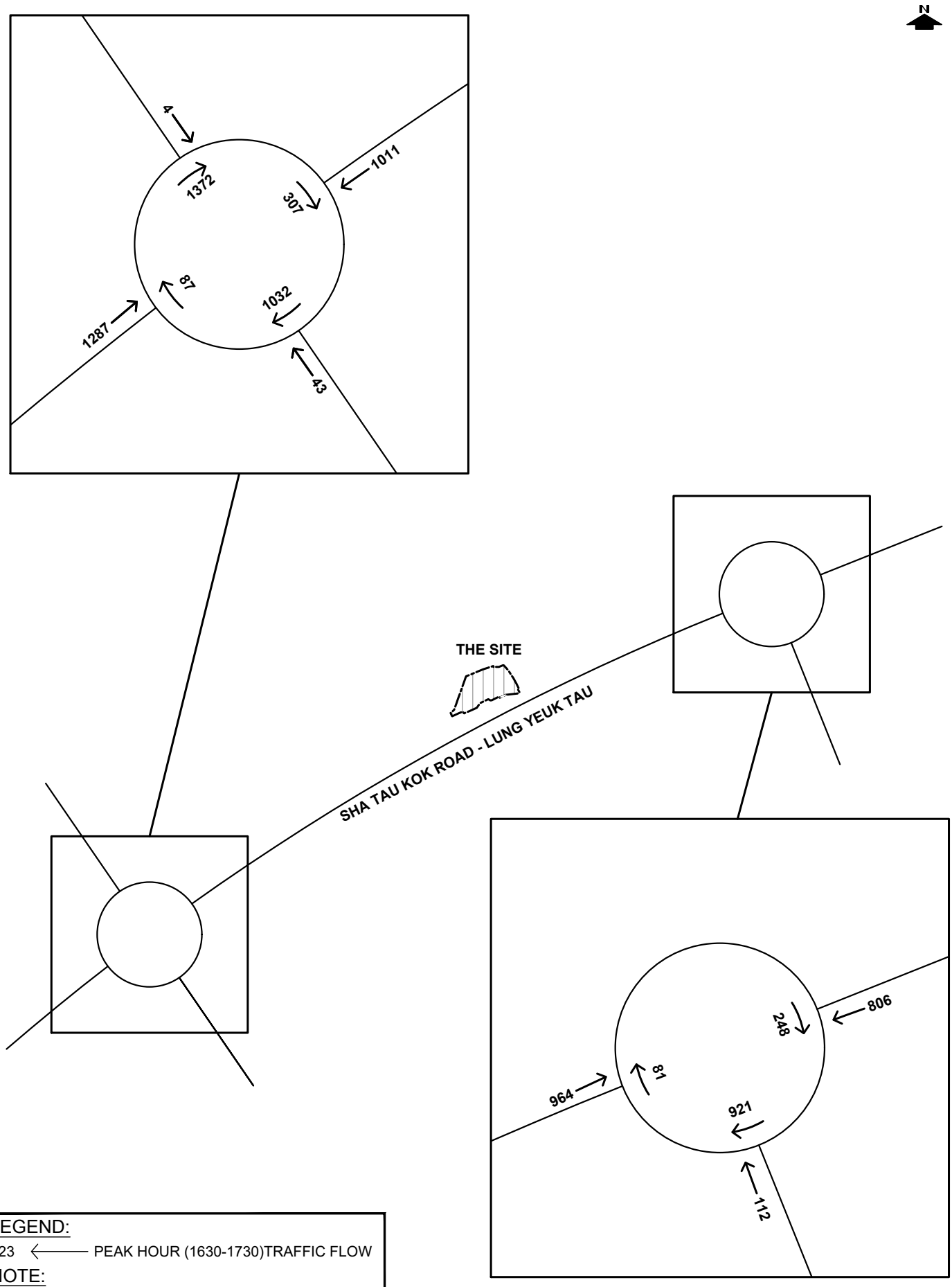
123 ⟵ PEAK HOUR (1630-1730)TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. FIGURE 4.2	REV. .
DESIGNED SLN / DATE JUN 2025	DRAWING TITLE: 2030 REFERENCE TRAFFIC FLOWS		
DRAWN CLL / SCALE N.T.S.		LLA 顧問有限公司 Consultancy Limited	
CHECKED SLN			

FILE. G:\PROJECT\40988\DATA\DWG\FIGURE4.2.DWG PLOT SCALE : 1 = 1



LEGEND:

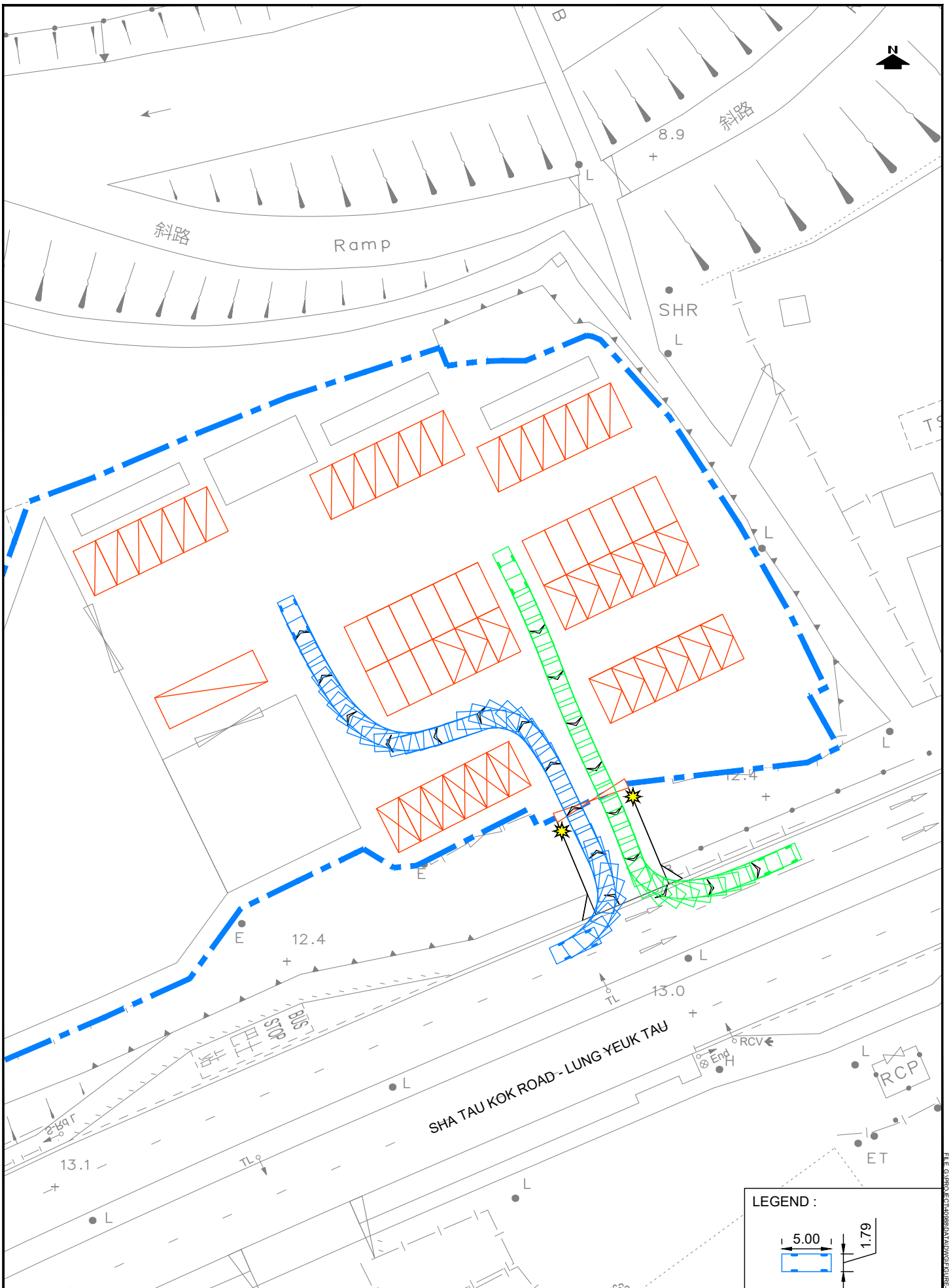
123 ⟵ PEAK HOUR (1630-1730)TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

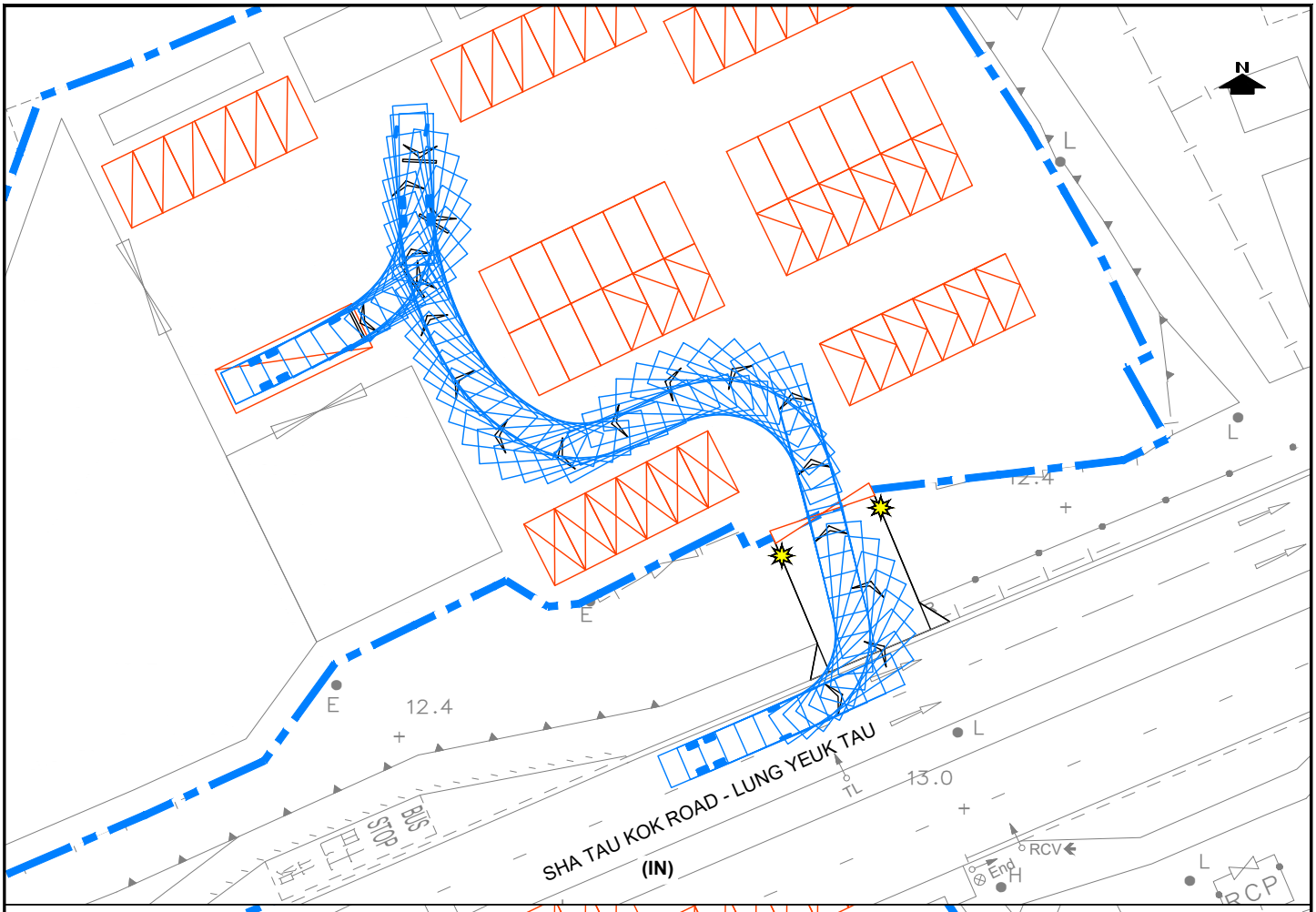
PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. FIGURE 4.3	REV. .
DESIGNED SLN / DATE JUN 2025	DRAWING TITLE: 2030 DESIGN TRAFFIC FLOWS		
DRAWN CLL / SCALE N.T.S.		LLA 顧問有限公司 Consultancy Limited	
CHECKED SLN			

FILE. G:\PROJECT\40988\DATA\DWG\FIGURE4.3.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. SP-01	REV. .
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE: **SWEPT PATH ANALYSIS - PC**		
DRAWN CLL / SCALE 1:500			
CHECKED SLN		LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40988\DATA\DWG\FIGURE-SP-01.DWG PLOT SCALE : 1 = 1



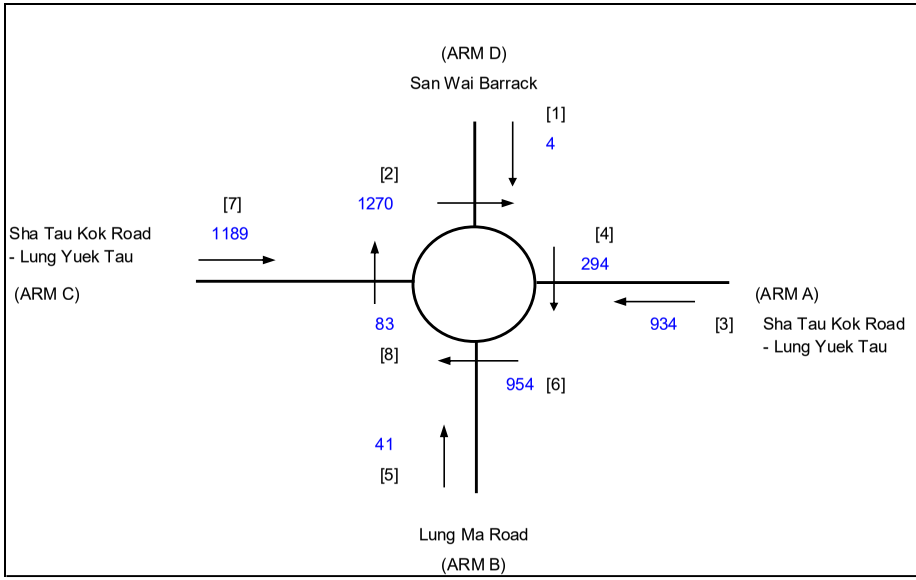
PROJECT NO. 40988	PROJECT TITLE: PROPOSED TEMPORARY ELECTRIC VEHICLE CHARGING STATION (FOR ELECTRIC TAXI), VEHICLE REPAIR WORKSHOP, SHOP AND SERVICES (MOTOR VEHICLE SHOWROOM), EATING PLACE WITH ANCILLARY SITE OFFICE FOR A PERIOD OF 5 YEARS AT TAXLORD LOT 464 S.A RP (PART) IN D.D. 83 AND ADJOINING GOVERNMENT LAND, SHA TAU KOK ROAD – LUNG YEUK TAU, FANLING, N.T.	DRAWING NO. SP-02	REV. .
DESIGNED SLN / DATE JUL 2025	DRAWING TITLE: SWEPT PATH ANALYSIS - MGV		
DRAWN CLL / SCALE 1:500			
CHECKED SLN		LLA 顧問有限公司 Consultancy Limited	

FILE: G:\PROJECT\40988\DATA\DWG\FIGURE-SP-02.DWG PLOT SCALE : 1 = 1

Appendix A

Junction Capacity Assessments
- Existing Scenario

LLA CONSULTANCY LIMITED	ROUNDABOUT CALCULATION			INITIALS	DATE
Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling, N.T.	**2025 Existing 1630-1730**	PROJECT NO.: 40988	PREPARED BY:	SKL	Jun-25
		FILENAME : J1_STKR_LMR.xl	CHECKED BY:	SLN	Jun-25
J1 Sha Tau Kok Road - Lung Yuek Tau / Lung Ma Road		REFERENCE NO.:	REVIEWED BY:	SLN	Jun-25

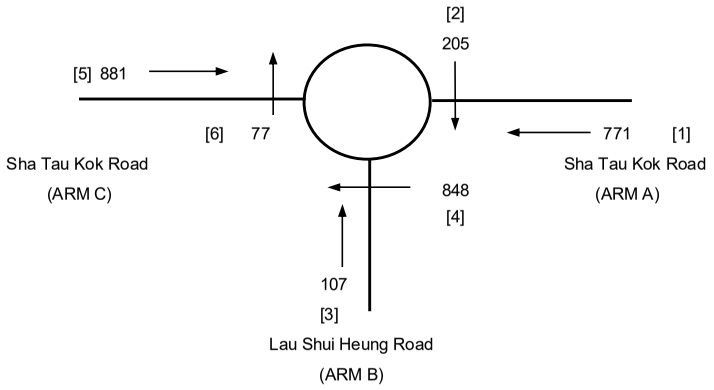


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	7.10	3.50	7.10	4.20
E	=	Entry width (m)	7.30	5.20	9.50	4.70
L	=	Effective length of flare (m)	1.00	12.00	19.00	9.00
R	=	Entry radius (m)	58.00	69.00	31.00	42.00
D	=	Inscribed circle diameter (m)	53.00	53.00	53.00	53.00
A	=	Entry angle (degree)	21.00	10.00	32.00	18.00
Q	=	Entry flow (pcu/h)	934	41	1189	4
Qc	=	Circulating flow across entry (pcu/h)	294	954	83	1270
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.32	0.23	0.20	0.09
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.06	1.10	1.01	1.07
X2	=	V + ((E-V)/(1+2S))	7.22	4.67	8.81	4.62
M	=	EXP((D-60)/10)	0.50	0.50	0.50	0.50
F	=	303*X2	2188	1415	2669	1401
Td	=	1+(0.5/(1+M))	1.33	1.33	1.33	1.33
Fc	=	0.21*Td(1+0.2*X2)	0.68	0.54	0.77	0.54
Qe	=	K(F-Fc*Qc)	2113	992	2632	765
DFC	=	Design flow/Capacity = Q/Qe	0.44	0.04	0.45	0.01

Total In Sum = 2168 PCU

DFC of Critical Approach = 0.45

LLA CONSULTANCY LIMITED	ROUNDABOUT CALCULATION			INITIALS	DATE
Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling,	**2025 Existing 1630-1730**	PROJECT NO.: 40988	PREPARED BY:	SKL	Jun-25
		FILENAME : J2_STKR_LSHR.x	CHECKED BY:	SLN	Jun-25
J2 Sha Tau Kok Road - Ma Mei Ha / Lau Shui Heung Road		REFERENCE NO.:	REVIEWED BY:	SLN	Jun-25



ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	6.80	3.40	6.40
E	=	Entry width (m)	6.90	5.20	6.50
L	=	Effective length of flare (m)	1.00	11.90	1.00
R	=	Entry radius (m)	10.00	60.00	22.00
D	=	Inscribed circle diameter (m)	52.00	52.00	52.00
A	=	Entry angle (degree)	39.00	60.00	4.00
Q	=	Entry flow (pcu/h)	771	107	881
Qc	=	Circulating flow across entry (pcu/h)	205	848	77
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.16	0.24	0.16
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	0.92	0.93	1.09
X2	=	V + ((E-V)/(1+2S))	6.88	4.61	6.48
M	=	EXP((D-60)/10)	0.45	0.45	0.45
F	=	303*X2	2083	1398	1962
Td	=	1+(0.5/(1+M))	1.34	1.34	1.34
Fc	=	0.21*Td(1+0.2*X2)	0.67	0.54	0.65
Qe	=	K(F-Fc*Qc)	1790	870	2093
DFC	=	Design flow/Capacity = Q/Qe	0.43	0.12	0.42

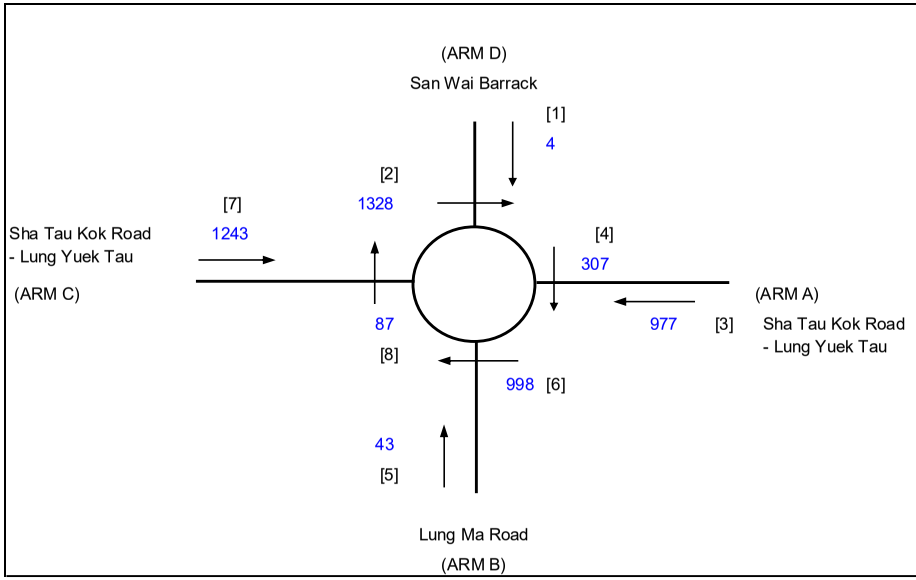
Total In Sum = 1759 PCU

DFC of Critical Approach = 0.43

Appendix B

Junction Capacity Assessments
- Reference & Design Scenarios

LLA CONSULTANCY LIMITED	ROUNDABOUT CALCULATION			INITIALS	DATE
Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling, N.T.	**2030 Reference 1630-1730**	PROJECT NO.: 40988	PREPARED BY:	SKL	Jun-25
		FILENAME : J1_STKR_LMR.xl	CHECKED BY:	SLN	Jun-25
J1 Sha Tau Kok Road - Lung Yuek Tau / Lung Ma Road		REFERENCE NO.:	REVIEWED BY:	SLN	Jun-25

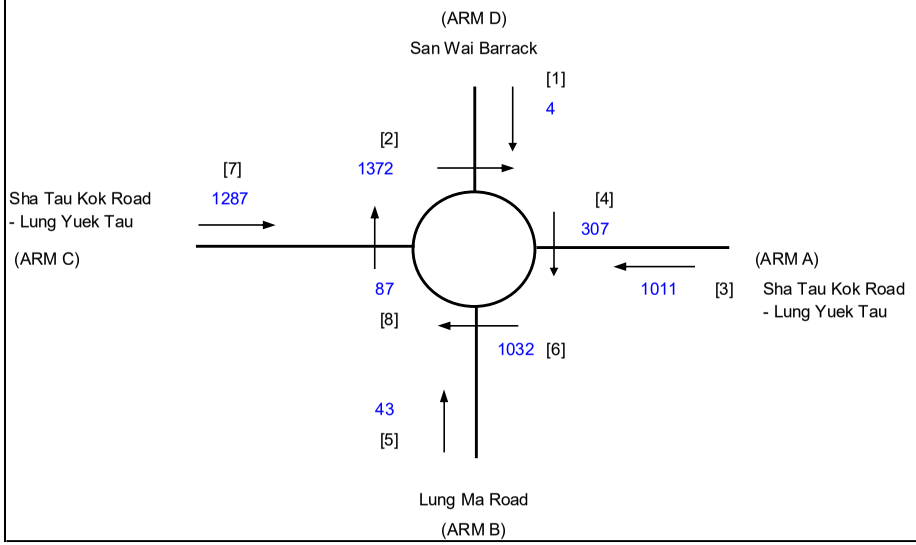


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	7.10	3.50	7.10	4.20
E	=	Entry width (m)	7.30	5.20	9.50	4.70
L	=	Effective length of flare (m)	1.00	12.00	19.00	9.00
R	=	Entry radius (m)	58.00	69.00	31.00	42.00
D	=	Inscribed circle diameter (m)	53.00	53.00	53.00	53.00
A	=	Entry angle (degree)	21.00	10.00	32.00	18.00
Q	=	Entry flow (pcu/h)	977	43	1243	4
Qc	=	Circulating flow across entry (pcu/h)	307	998	87	1328
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.32	0.23	0.20	0.09
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.06	1.10	1.01	1.07
X2	=	V + ((E-V)/(1+2S))	7.22	4.67	8.81	4.62
M	=	EXP((D-60)/10)	0.50	0.50	0.50	0.50
F	=	303*X2	2188	1415	2669	1401
Td	=	1+(0.5/(1+M))	1.33	1.33	1.33	1.33
Fc	=	0.21*Td(1+0.2*X2)	0.68	0.54	0.77	0.54
Qe	=	K(F-Fc*Qc)	2103	965	2629	731
DFC	=	Design flow/Capacity = Q/Qe	0.46	0.04	0.47	0.01

Total In Sum = 2267 PCU

DFC of Critical Approach = 0.47

LLA CONSULTANCY LIMITED	ROUNDABOUT CALCULATION			INITIALS	DATE
Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling, N.T.	**2030 Design 1630-1730**	PROJECT NO.: 40988	PREPARED BY:	SKL	Jun-25
		FILENAME : J1_STKR_LMR.xl	CHECKED BY:	SLN	Jun-25
J1 Sha Tau Kok Road - Lung Yuek Tau / Lung Ma Road		REFERENCE NO.:	REVIEWED BY:	SLN	Jun-25

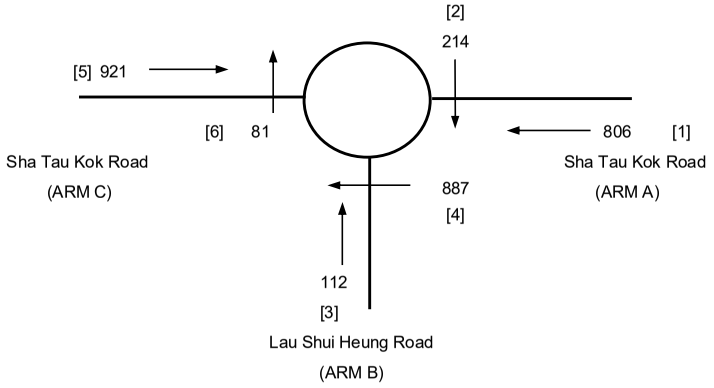


ARM			A	B	C	D
INPUT PARAMETERS:						
V	=	Approach half width (m)	7.10	3.50	7.10	4.20
E	=	Entry width (m)	7.30	5.20	9.50	4.70
L	=	Effective length of flare (m)	1.00	12.00	19.00	9.00
R	=	Entry radius (m)	58.00	69.00	31.00	42.00
D	=	Inscribed circle diameter (m)	53.00	53.00	53.00	53.00
A	=	Entry angle (degree)	21.00	10.00	32.00	18.00
Q	=	Entry flow (pcu/h)	1011	43	1287	4
Qc	=	Circulating flow across entry (pcu/h)	307	1032	87	1372
OUTPUT PARAMETERS:						
S	=	Sharpness of flare = 1.6(E-V)/L	0.32	0.23	0.20	0.09
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	1.06	1.10	1.01	1.07
X2	=	V + ((E-V)/(1+2S))	7.22	4.67	8.81	4.62
M	=	EXP((D-60)/10)	0.50	0.50	0.50	0.50
F	=	303*X2	2188	1415	2669	1401
Td	=	1+(0.5/(1+M))	1.33	1.33	1.33	1.33
Fc	=	0.21*Td(1+0.2*X2)	0.68	0.54	0.77	0.54
Qe	=	K(F-Fc*Qc)	2103	945	2629	706
DFC	=	Design flow/Capacity = Q/Qe	0.48	0.05	0.49	0.01

Total In Sum = 2345 PCU

DFC of Critical Approach = 0.49

LLA CONSULTANCY LIMITED	ROUNDABOUT CALCULATION				INITIALS	DATE
Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling,	**2030 Reference 1630-1730**	PROJECT NO.:	40988	PREPARED BY:	SKL	Jun-25
		FILENAME :	J2_STKR_LSHR.x	CHECKED BY:	SLN	Jun-25
J2 Sha Tau Kok Road - Ma Mei Ha / Lau Shui Heung Road		REFERENCE NO.:		REVIEWED BY:	SLN	Jun-25

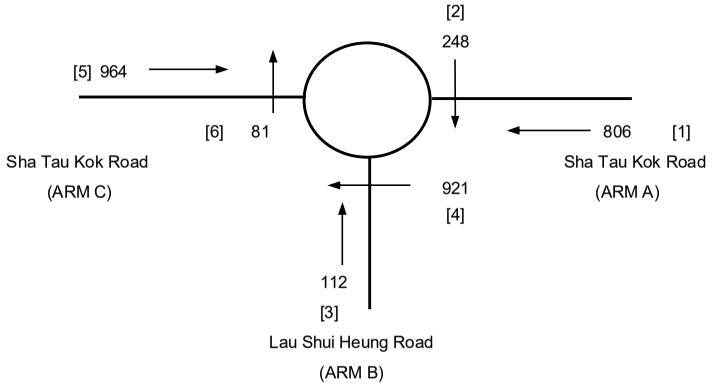


ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	6.80	3.40	6.40
E	=	Entry width (m)	6.90	5.20	6.50
L	=	Effective length of flare (m)	1.00	11.90	1.00
R	=	Entry radius (m)	10.00	60.00	22.00
D	=	Inscribed circle diameter (m)	52.00	52.00	52.00
A	=	Entry angle (degree)	39.00	60.00	4.00
Q	=	Entry flow (pcu/h)	806	112	921
Qc	=	Circulating flow across entry (pcu/h)	214	887	81
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.16	0.24	0.16
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	0.92	0.93	1.09
X2	=	V + ((E-V)/(1+2S))	6.88	4.61	6.48
M	=	EXP((D-60)/10)	0.45	0.45	0.45
F	=	303*X2	2083	1398	1962
Td	=	1+(0.5/(1+M))	1.34	1.34	1.34
Fc	=	0.21*Td(1+0.2*X2)	0.67	0.54	0.65
Qe	=	K(F-Fc*Qc)	1784	851	2090
DFC	=	Design flow/Capacity = Q/Qe	0.45	0.13	0.44

Total In Sum = 1839 PCU

DFC of Critical Approach = 0.45

LLA CONSULTANCY LIMITED	ROUNDABOUT CALCULATION			INITIALS	DATE
Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling,	**2030 Design 1630-1730**	PROJECT NO.: 40988	PREPARED BY:	SKL	Jun-25
		FILENAME : J2_STKR_LSHR.x	CHECKED BY:	SLN	Jun-25
J2 Sha Tau Kok Road - Ma Mei Ha / Lau Shui Heung Road		REFERENCE NO.:	REVIEWED BY:	SLN	Jun-25



ARM			A	B	C
INPUT PARAMETERS:					
V	=	Approach half width (m)	6.80	3.40	6.40
E	=	Entry width (m)	6.90	5.20	6.50
L	=	Effective length of flare (m)	1.00	11.90	1.00
R	=	Entry radius (m)	10.00	60.00	22.00
D	=	Inscribed circle diameter (m)	52.00	52.00	52.00
A	=	Entry angle (degree)	39.00	60.00	4.00
Q	=	Entry flow (pcu/h)	806	112	964
Qc	=	Circulating flow across entry (pcu/h)	248	921	81
OUTPUT PARAMETERS:					
S	=	Sharpness of flare = 1.6(E-V)/L	0.16	0.24	0.16
K	=	1-0.00347(A-30)-0.978(1/R-0.05)	0.92	0.93	1.09
X2	=	V + ((E-V)/(1+2S))	6.88	4.61	6.48
M	=	EXP((D-60)/10)	0.45	0.45	0.45
F	=	303*X2	2083	1398	1962
Td	=	1+(0.5/(1+M))	1.34	1.34	1.34
Fc	=	0.21*Td(1+0.2*X2)	0.67	0.54	0.65
Qe	=	K(F-Fc*Qc)	1763	833	2090
DFC	=	Design flow/Capacity = Q/Qe	0.46	0.13	0.46

Total In Sum = 1882 PCU

DFC of Critical Approach = 0.46

Appendix 3

Drainage Proposal

Drainage Submission in support of

S16 Planning Application for

Proposed Temporary Electric Vehicle Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years in "Open Storage" zone

at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling, New Territories

(HT25039)

July 2025

Drainage Consultant:

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED
香港九龍官塘鴻圖道26號威登中心12樓1201-3室

Prepared & approved by	LEE Kwok Cheung *RPE(Civil)*	

1. Background

1.1 With respect to a S16 Planning Application for Proposed Temporary Electric Vehicle (EV) Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office for a Period of 5 Years at Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land, Sha Tau Kok Road – Lung Yeuk Tau, Fanling, New Territories, Messrs. Ho Tin & Associates Consulting Engineers Limited was appointed to prepare a drainage submission.

2. Approach to Prepare this Proposal

2.1 This Drainage Submission is prepared in line with the "Technical Note to prepare a Drainage Submission (Relating to applications for temporary change of land use such as temporary storage areas, car parks, workshops, small factories … etc. under S.16 of the Town Planning Ordinance)" issued by Drainage Services Department in December 2024.

3. The Subject Site and Proposed Development

3.1 The subject site with a total site area of about 4,190m^2 comprises of Taxlord Lot 464 S.A RP (Part) in D.D. 83 and Adjoining Government Land (about 680m^2), Sha Tau Kok Road – Lung Yeuk Tau, Fanling, New Territories. The subject site is to the south of Ng Tung River and on the north side of Sha Tau Kok Road – Lung Yeuk Tau opposite to Kwan Tei Children's Playground. A Site Location Plan is shown in **Figure D1**.

3.2 The subject development consists of one single-storey motor vehicle showroom structure (5m high, total floor area = 225m^2), one two-storey vehicle repair workshop cum eating place and ancillary office structure (7m high, total floor area = 2,012m^2), one single-storey transformer room and switch room structure (3.5m high, total floor area = 53m^2), and 3 numbers of container for EV chargers (3m high, total floor area = 29m^2 each) accompanying with 18 numbers of EV charging spaces for electric taxi, 30 numbers of parking spaces/waiting spaces for electric taxi, 6 numbers of parking spaces for staff/visitors, and 1 number of loading/unloading space for medium goods vehicle. A plan showing the proposed site layout is at **Figure D2**.

4. Existing Drainage Conditions of the Site

4.1 At present, the subject site is hard paved, partitioned into sub-units and partly used for storage use and car repairing workshop and partly vacant (refer to **Plate 1** to **4**).

4.2 The subject site is bounded by a footpath on the east and north sides (refer to **Plate 8** to **12**). There is existing 300mm U-channel running between the subject site and the afore-mentioned footpaths collecting surface runoff of the subject site and the adjacent areas. The existing 300mm U-channel discharges its collected flows via an existing 450 wide trapezoidal channel into Ng Tung River to the further north.

4.3 Outside the southern subject site boundary is currently used as access of the subject site and its nearby areas beside Sha Tau Kok Road – Lung Yeuk Tau. There is existing 450mm U-channel serving the access (refer to **Plate 5** to **7**).

4.4 To the west of the subject site is another development of which the surface runoff would be discharged via an existing 600 wide trapezoidal channel into Ng Tung River.

4.5 Current conditions of the subject site and its existing drainage conditions are shown in the following photos (photo taking locations are shown on **Figure D3**):

	
Plate 1 – Photo of the southern side of the subject site taken from Sha Tau Kok Road – Lung Yeuk Tau (1 of 4)	Plate 2 – Photo of the southern side of the subject site taken from Sha Tau Kok Road – Lung Yeuk Tau (2 of 4)

	
Plate 3 – Photo of the southern side of the subject site taken from Sha Tau Kok Road – Lung Yeuk Tau (3 of 4)	Plate 4 – Photo of the southern side of the subject site taken from Sha Tau Kok Road – Lung Yeuk Tau (4 of 4)
	
Plate 5 – Existing 450mm U-channel running westward along the existing access in front of the southern subject site boundary (1 of 2)	Plate 6 – Existing 450mm U-channel running westward along the existing access in front of the southern subject site boundary (2 of 2)
	
Plate 7 – Existing 450mm U-channel running eastward along the existing access in front of the southern subject site boundary	Plate 8 – Existing 300mm U-channel running between the eastern subject site boundary and an existing external footpath (1 of 3)

Plate 9 – Existing 300mm U-channel running between the eastern subject site boundary and an existing external footpath (2 of 3)

Plate 10 – Existing 300mm U-channel running between the eastern subject site boundary and an existing external footpath (3 of 3)

Plate 11 – Existing 300mm U-channel (currently covered up by overgrown with weeds) running between the northern subject site boundary and an existing external footpath (1 of 2)

Plate 12 – Existing 300mm U-channel (currently covered up by overgrown with weeds) running between the northern subject site boundary and an existing external footpath (2 of 2)

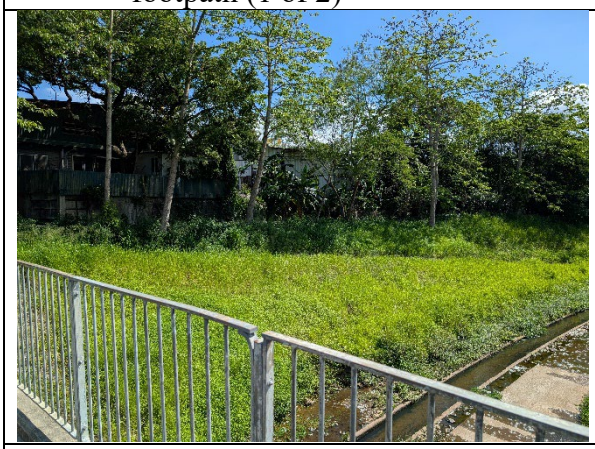
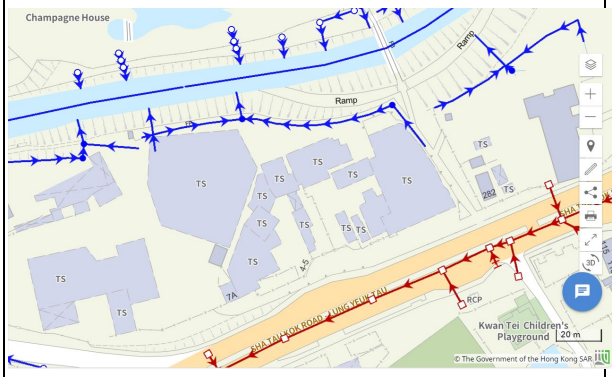


Plate 13 – The section of Ng Tung River outside the northern subject site boundary



Extract of the Drainage Records from LandsD's GeoInfo Map in May 2025

5. Drainage Assessment and Proposal

5.1 The subject site is a simple small site with a total site area of about 4,190m^2 (less than 1 ha in size). The existing subject site levels are generally same as those of the area close to Sha Tau Kok Road – Lung Yeuk Tau and relatively higher than the surroundings at the remaining three sides. There are existing surface channels intercepting surface runoff on the area between the subject site and Sha Tau Kok Road – Lung Yeuk Tau. In general, surface runoff flowing toward the subject site would be collected and conveyed away the subject site by the existing surrounding channels.

5.2 The existing site levels would be maintained and no site formation/leveling works would be carried out such that the subject proposed development would be maintained at levels relatively higher than its adjacent developments/areas to its east, west and north, and would be at similar levels of the existing access running along its southern boundary. In principle, surface runoff of the surrounding areas would be collected and conveyed away by the existing channels in the adjacent areas of the subject site, hence, any new solid fence wall of the subject site would not obstruct any existing overland flows (in addition, it should be noted that the existing levels (similar to the proposed finished levels) of the subject site are already relatively higher than those to the east, west and north). Nevertheless, for conservative, in order to ensure no surface runoff from the southern side (at levels close to the proposed finished levels of the subject development), due to any unexpected reasons, flowing onto the subject site to be obstructed, 100mm high gap will be formed at the bottom of the security hoarding/fence wall along the southern subject site boundary. Cross sections of the proposed subject development and typical details of the gap at the bottom of proposed security hoarding/fence are shown in **Figure D5**.

5.3 With respect to the "Technical Note to prepare a Drainage Submission" (the "TN") published by Drainage Services Department, for the subject site area = 4,190m^2 ≤ 5,000m^2, peripheral 525mm U channel at 1 in 200 gradient would be appropriate.
It is therefore proposed to construct new peripheral 525mm U channel at 1 in 200 gradient for the subject development. A new catchpit with trap will be constructed at the end of the proposed 525 U channels near the northwest corner of the subject site before discharging into the existing 450 wide trapezoidal channel at Ng Tung River. A Proposed Stormwater Drainage Layout Plan is shown in **Figure D4**.

5.4 Besides, the Applicant is committed to obtain consents from owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the subject site and to maintain regularly to avoid blockage of the drainage system to the satisfaction of relevant Government departments.

5.5 Details of proposed drainage provisions shall follow relevant details shown in Government departments' Standard Drawings as follows:

Proposed Drainage Provisions	*Standard Drawings*	*Drawing No. & Title*
Catchpit	CEDD Standard Drawings	C 2405/1 to /5 – Standard Catchpit Details
Catchpit with trap		C 2406/1 to /2A – Catchpit with Trap
Catchpit precast concrete cover		C 2407B – Precast Concrete Covers for Catchpit and Sand Trap
U-channel		C 2409J – Details of Half-round and U-channels
Channel cover		C 2412E – Cover Slab and Cast Iron Grating for Channels

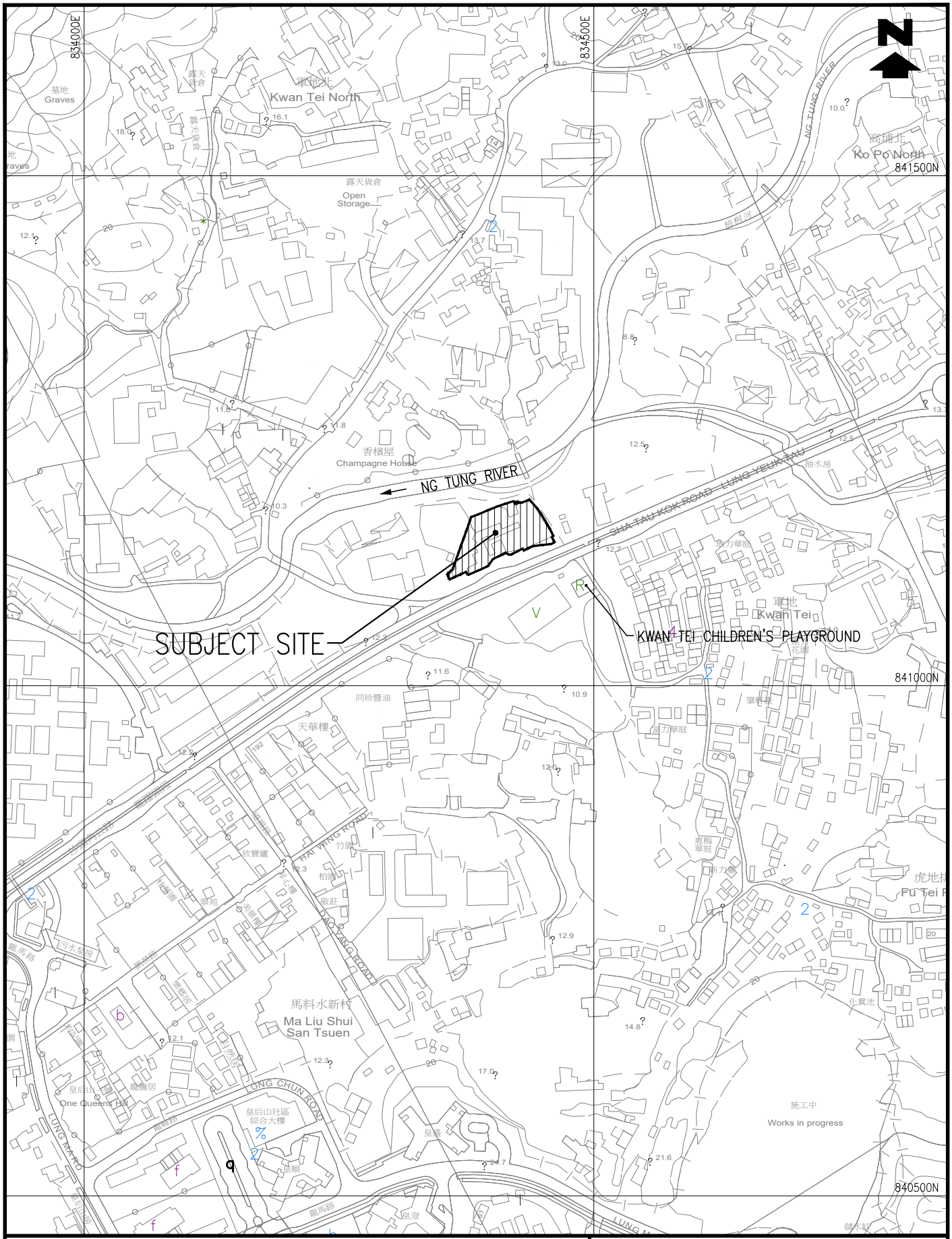
6. Conclusion and Recommendations

6.1 The subject development as Temporary Electric Vehicle (EV) Charging Station (for Electric Taxi), Vehicle Repair Workshop, Shop and Services (Motor Vehicle Showroom), Eating Place with Ancillary Site Office will be for temporary use for a period of 5 years. The subject site area has been hard paved for a very long period without complaints on drainage conditions. The existing site levels would be maintained and no site formation/leveling works would be carried out.

6.2 The subject site is at present served by surrounding surface channels and its levels are relatively higher than those to its east, west and north. In principle, no surface runoff would flow onto the subject site from its surroundings. 525mm U channel at 1 in 200 gradient will be constructed at the peripheral of the subject site to intercept all crossing surface runoff. For conservative, 100mm high gap will be formed at the bottom of the security hoarding/fence along the southern subject site boundary to ensure no surface runoff from the adjacent, due to any unexpected incidents, to be obstructed. A new catchpit with trap will be constructed at the ends of the 525mm U channel before discharging into the existing 450 wide trapezoidal channel at Ng Tung River.

6.3 The Applicant is committed to obtain consents from owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the subject site and to maintain regularly to avoid blockage of the system to the satisfaction of relevant Government departments.

6.4 The subject development would not alter the existing drainage conditions and pattern of the area and the proposed drainage system would be maintained with appropriate drainage clearance and repair works, i.e. debris clearance and damage repair. Therefore, in conclusion, the subject development would not cause any adverse drainage impact onto the area.



TITLE

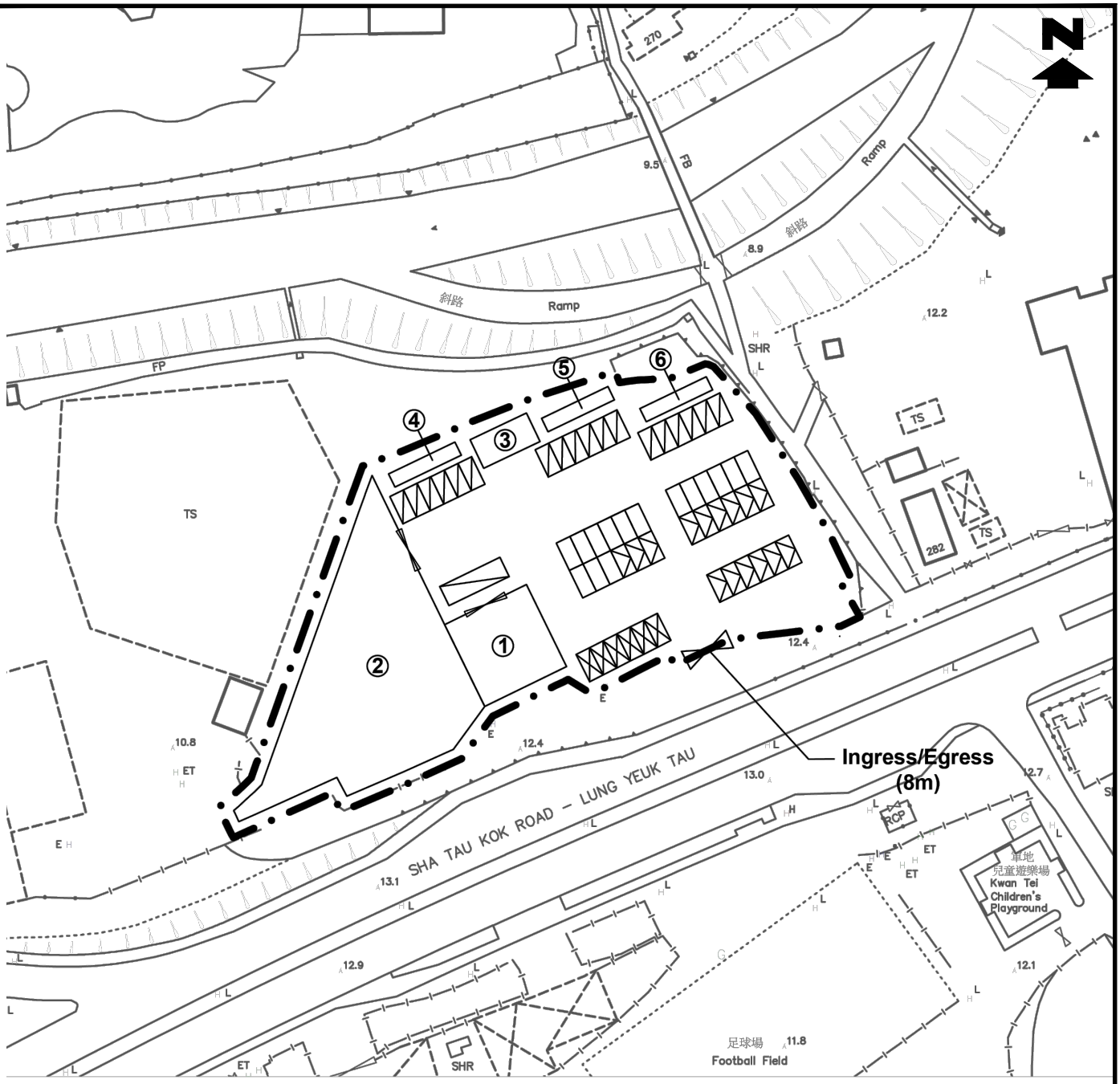
SITE LOCATION PLAN

何田顧問工程師有限公司
HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED

SCALE
1 : 5000 – A4

DRAWING No.
FIGURE D1

H:\25039_LungYeukTau_Site1\DRAWING\25039_FIGD1_00.dwg, 21/5/2025 16:04:30



Structure No.	Uses	No. of Storey	Floor Area (m²)	Height (m)
1	Motor Vehicle Showroom	1	225	5.0
2	G/F: Vehicle Repair Workshop 1/F: Eating Place, Ancillary Office	2	2,012	7.0
3	Transformer Room and Switch Room	1	53	3.5
4	Container for EV Chargers	1	29	3.0
5	Container for EV Chargers	1	29	3.0
6	Container for EV Chargers	1	29	3.0

Legend:

- Application Site (Area: about 4,180m²)
- EV Charing Spaces for Electric Taxi (18 nos.)
- Parking Spaces/Waiting Spaces for Electric Taxi (15 nos.)
- Parking Spaces for Private Vehicles (for Motor Vehicle Showroom and Office Use) (15 nos.)
- Parking Spaces for Staff/Visitors (6 nos.)
- Loading/Unloading Space for Medium Goods Vehicle (3.5m x 11m) (1 no.)

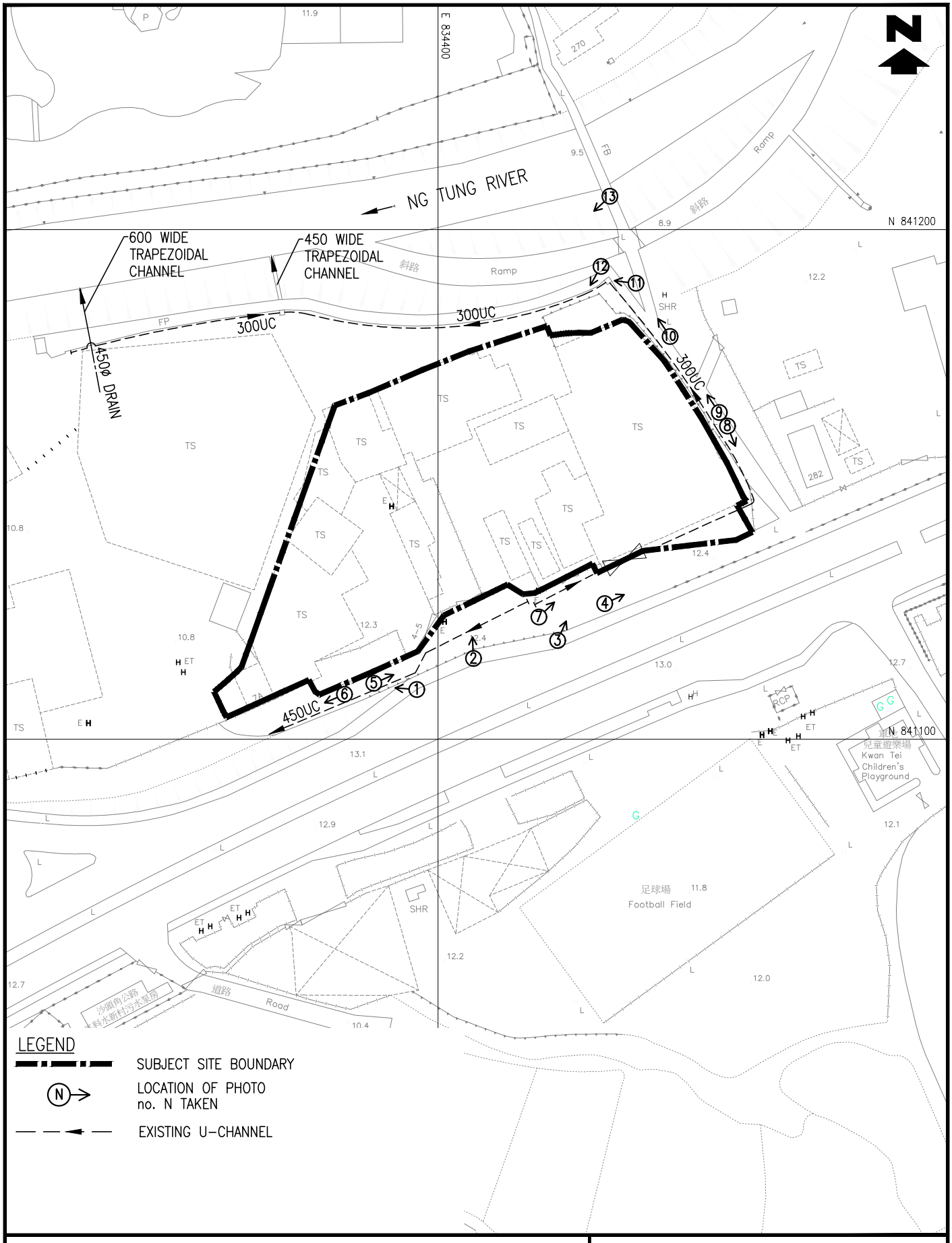
TITLE

LAYOUT PLAN

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

SCALE
1 : 1000 – A4

DRAWING No.
FIGURE D2



TITLE

EXISTING DRAINAGE AND LOCATIONS OF PHOTO TAKEN

何田顧問工程師有限公司
HO TIN & ASSOCIATES CONSULTING ENGINEERS LIMITED

SCALE
1 : 1000 – A4

DRAWING No.
FIGURE D3

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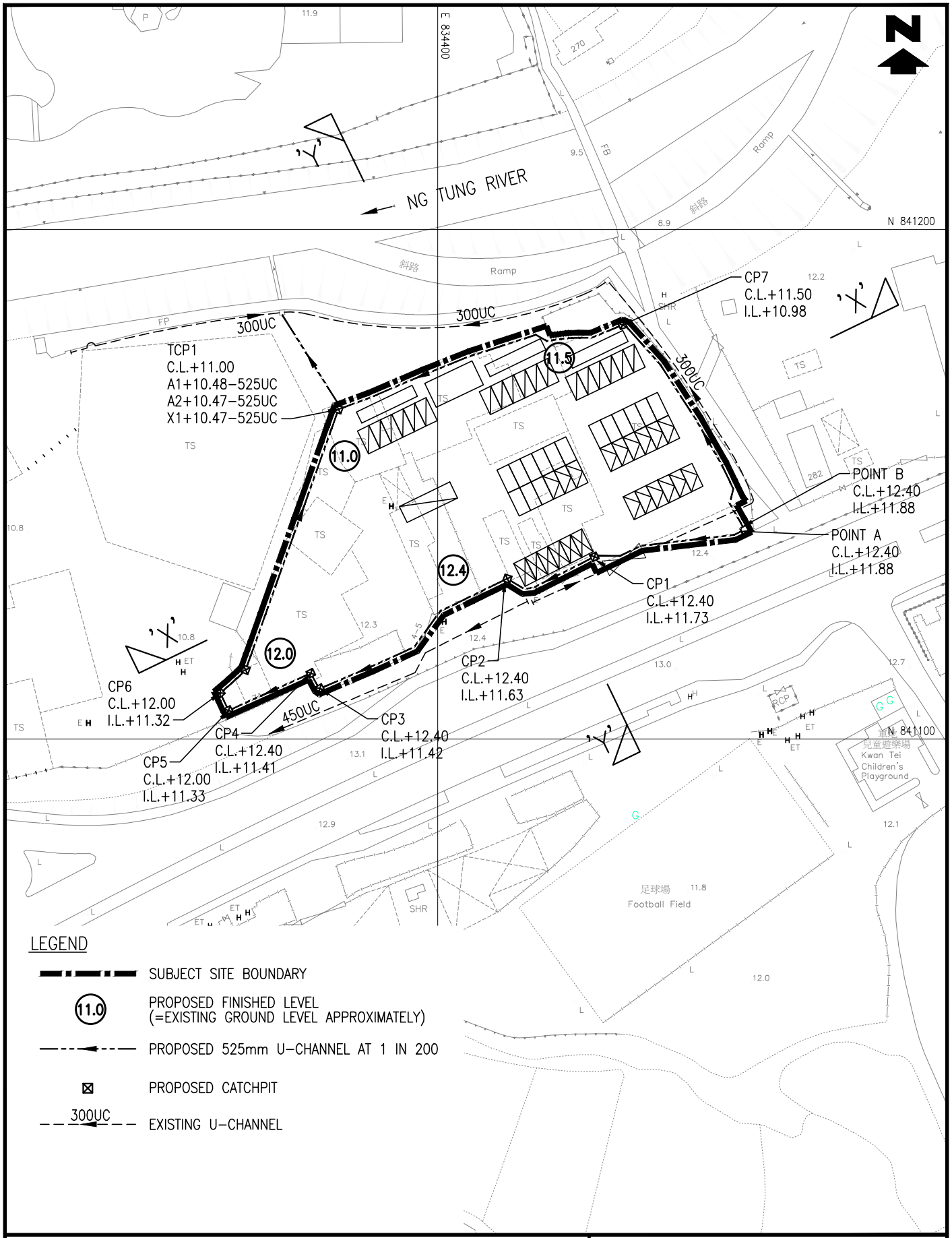

TITLE

PROPOSED STORMWATER DRAINAGE LAYOUT PLAN

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SCALE
1 : 1000 – A4

DRAWING No.
FIGURE D4

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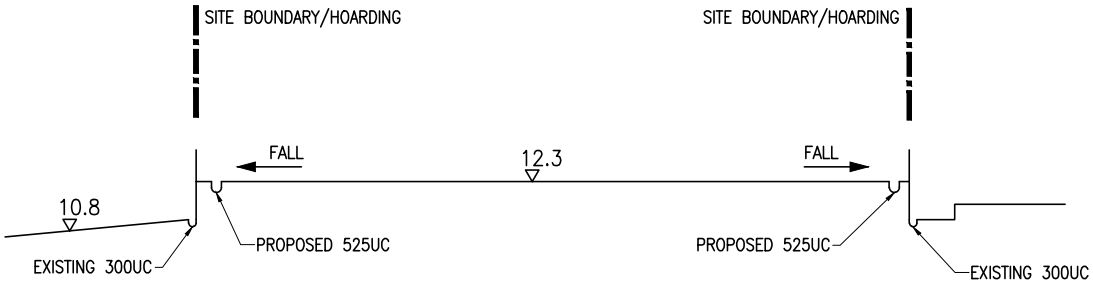
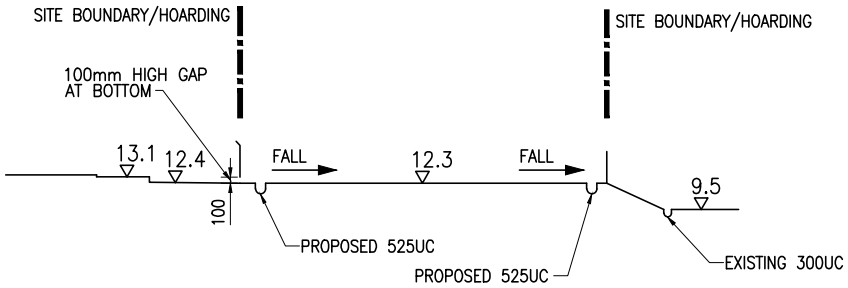


SECTION 'X'–'X'



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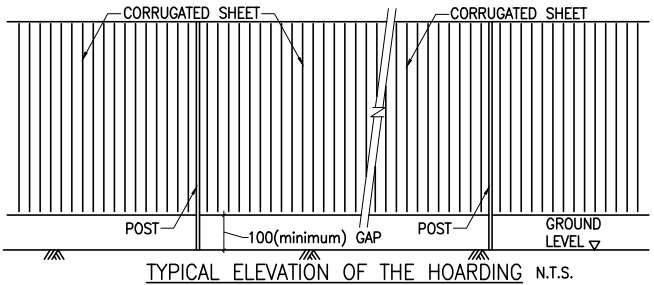

TYPICAL ELEVATION OF THE HOARDING WITH 100mm HIGH GAP AT BOTTOM N.T.S.

TITLE

SITE CROSS SECTIONS

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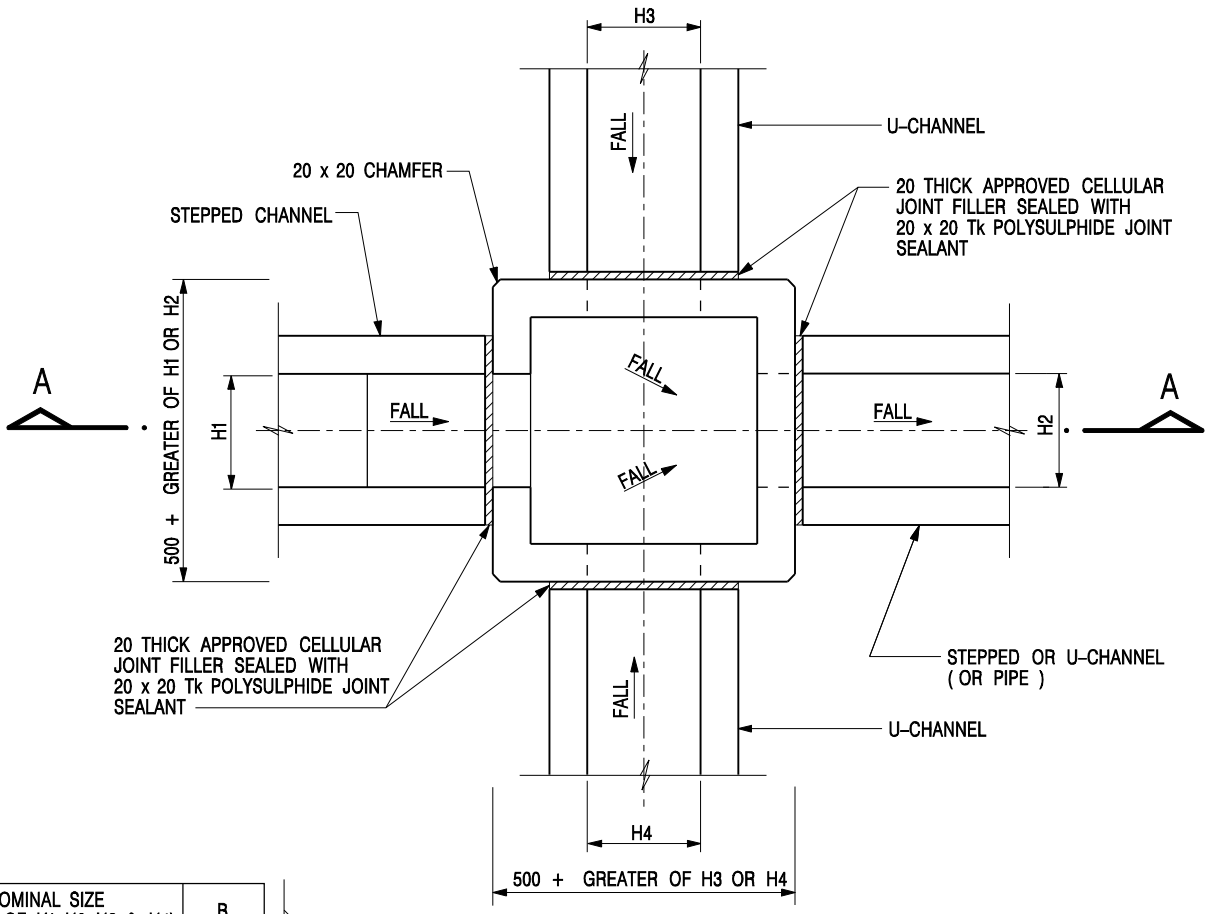
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED

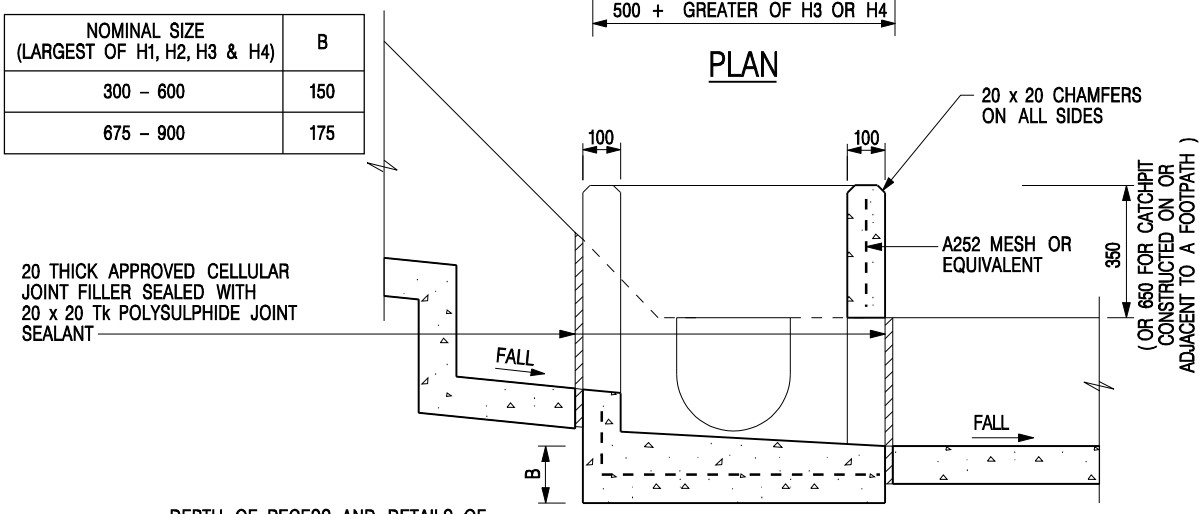
SCALE
1 : 500 – A4

DRAWING No.
FIGURE D5

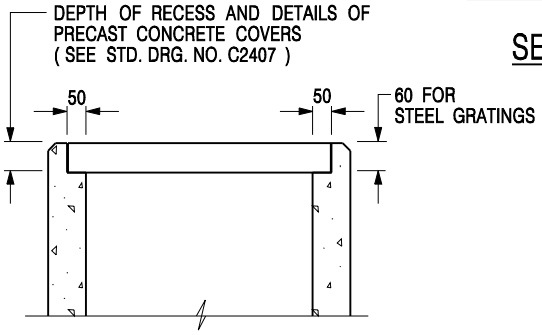


PLAN

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 5 FOR OTHER NOTES.

ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

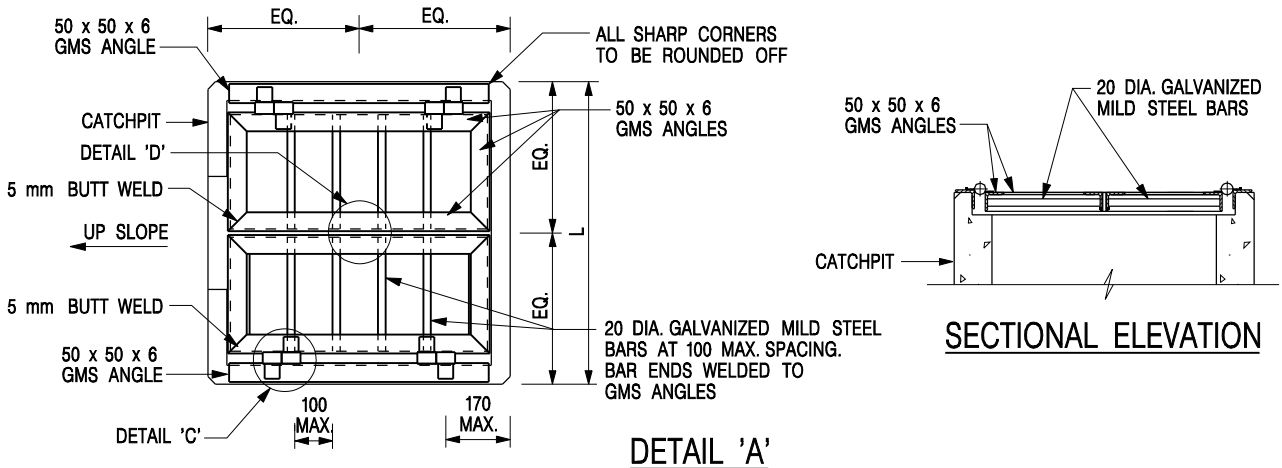
(SHEET 1 OF 5)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE	1 : 20	DRAWING NO.
DATE	JAN 1991	C2405 /1

卓越工程 建設香港

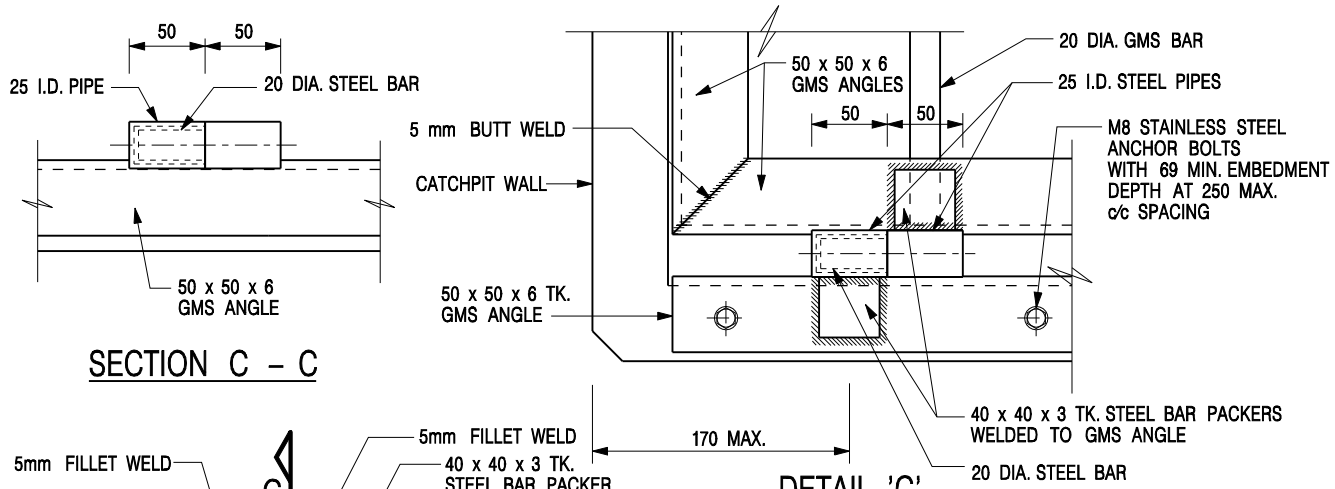
We Engineer Hong Kong's Development



DETAIL 'A'

(DETAILS OF DOUBLE SIDE OPENING STEEL GRATING FOR L>900mm)

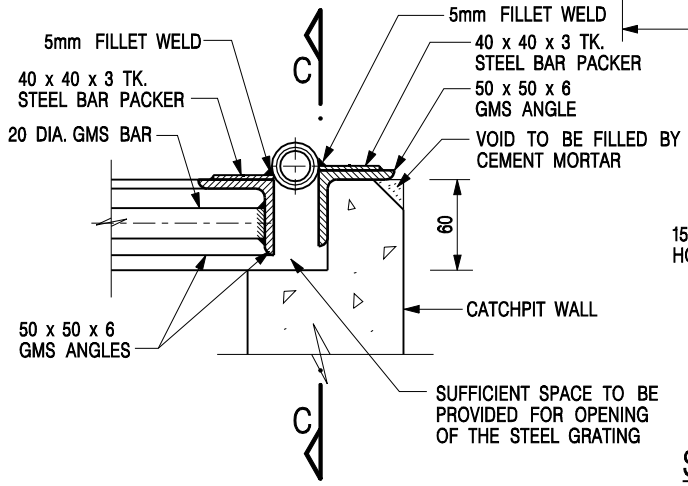
SCALE 1 : 20



DETAIL 'C'

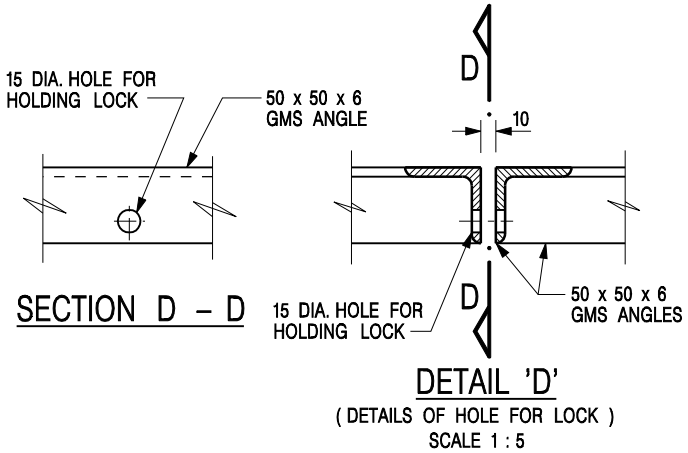
(DETAILS OF HINGE)

SCALE 1 : 5



SECTIONAL ELEVATION

(DETAIL 'C')



DETAIL 'D'

(DETAILS OF HOLE FOR LOCK)

SCALE 1 : 5

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 5 FOR OTHER NOTES.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

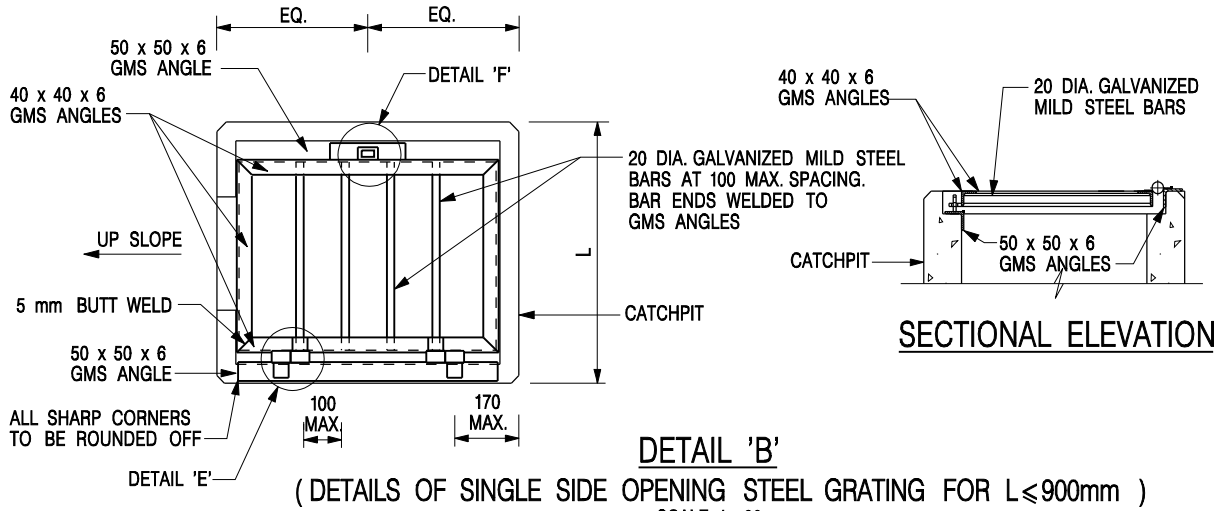
(SHEET 2 OF 5)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE AS SHOWN

DATE JAN 1991

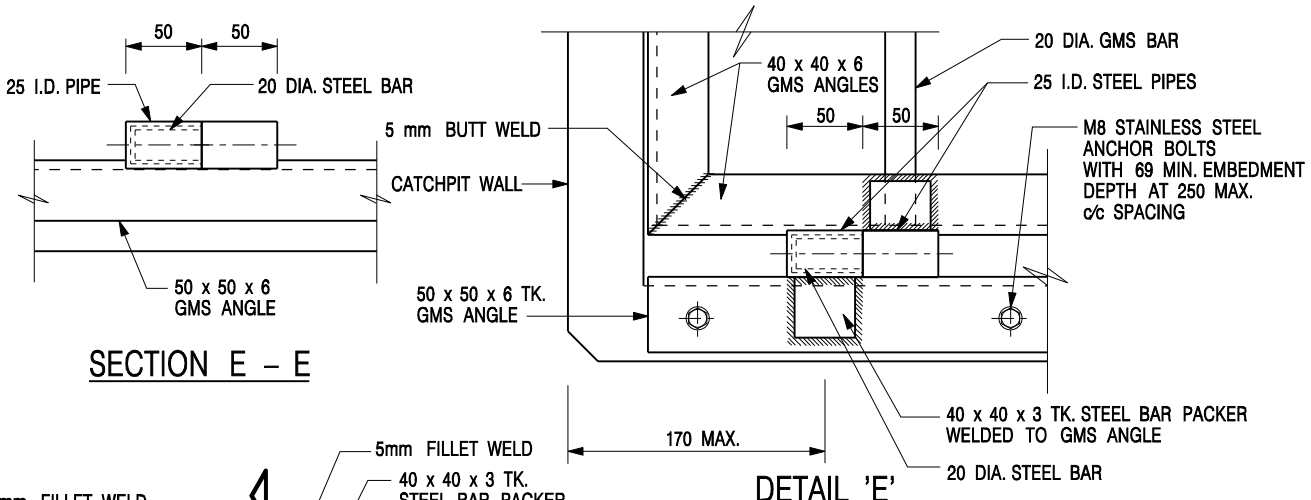
DRAWING NO. C2405 /2



DETAIL 'B'

(DETAILS OF SINGLE SIDE OPENING STEEL GRATING FOR L≤900mm)

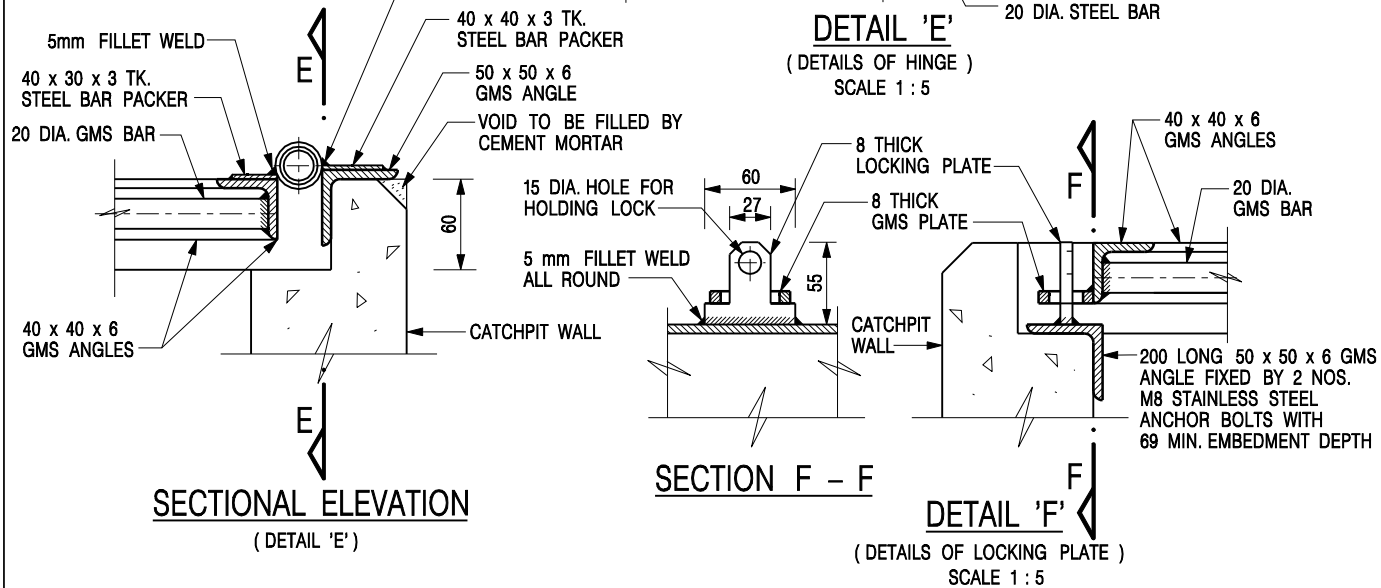
SCALE 1 : 20



DETAIL 'E'

(DETAILS OF HINGE)

SCALE 1 : 5



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 5 FOR OTHER NOTES.

REF.	REVISION	SIGNATURE	DATE
-	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

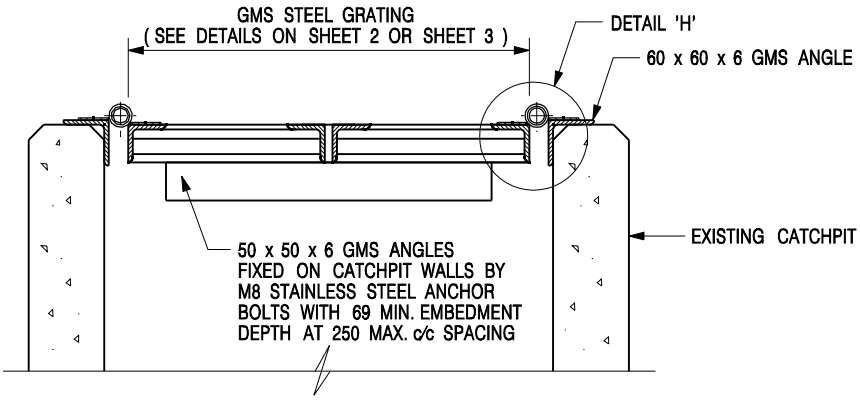
(SHEET 3 OF 5)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE AS SHOWN

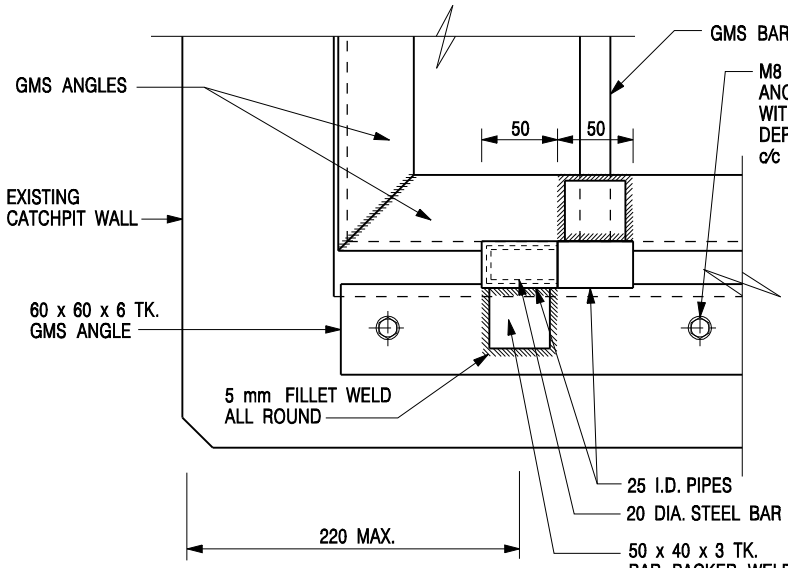
DATE JAN 1991

DRAWING NO. C2405 /3



DETAIL 'G' – DETAILS OF STEEL GRATING CONSTRUCTED ON EXISTING CATCHPIT

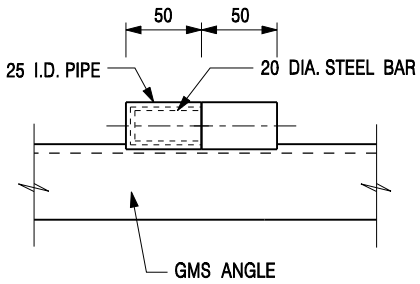
SCALE 1 : 10



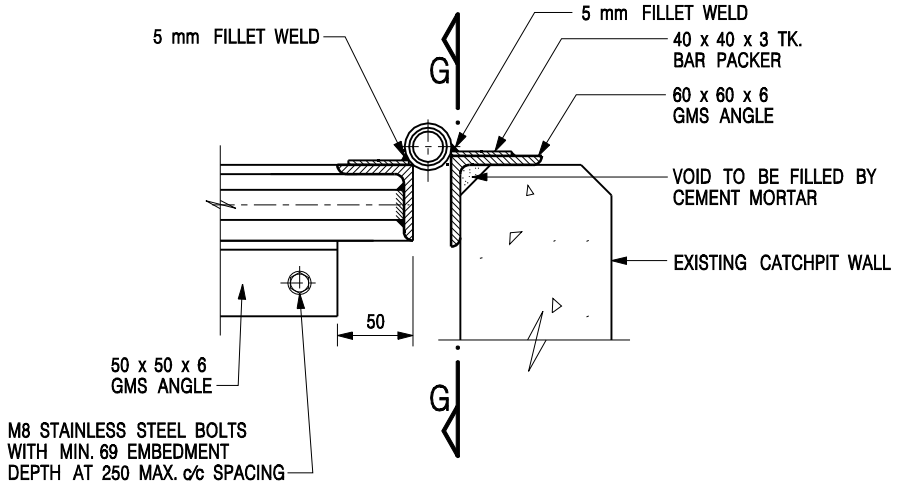
DETAIL 'H'

(DETAILS OF HINGE)

SCALE 1 : 5



SECTION G – G



SECTIONAL ELEVATION

(DETAIL 'H')

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 5 FOR OTHER NOTES.

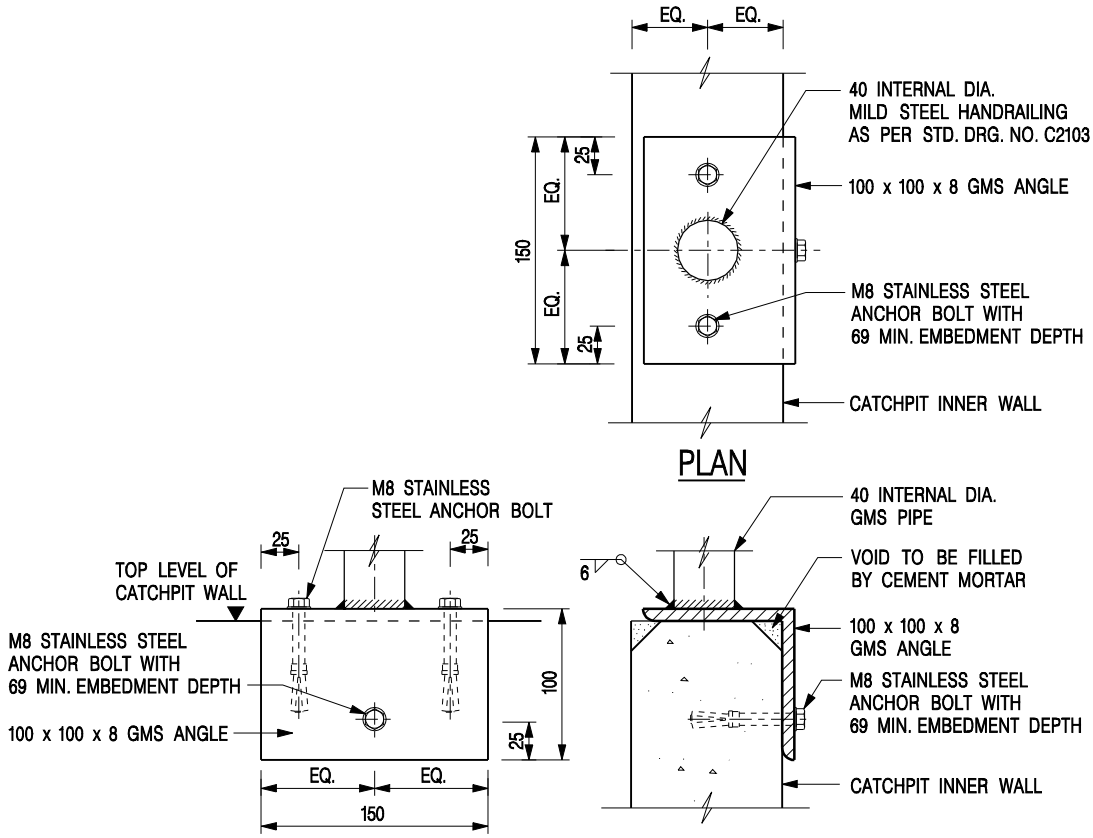
REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

(SHEET 4 OF 5)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE	AS SHOWN	DRAWING NO.
DATE	JAN 1991	C2405 /4



DETAIL 'J' – FIXING DETAILS FOR HANDRAILING ON TOP OF CATCHPIT WALL

SCALE 1 : 5

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. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAILS ON SHEET 2 OR SHEET 3) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
7. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON SHEET 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.
8. 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 mm c/c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
9. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON SHEET 4.
10. ALL STEEL ANGLES SHALL COMPLY WITH BS EN 10025 AND BS EN 10056.
11. UNLESS OTHERWISE SPECIFIED, ALL WELDS SHALL BE 5 mm CONTINUOUS FILLET WELDS.
12. ALL WELDS SHALL BE CHIPPED, GROUND SMOOTH, BRUSHED TO REMOVE SLAG PRIOR TO HOT-DIP GALVANIZATION.
13. ALL STEELWORK SHALL BE HOT-DIP GALVANIZED TO BS EN ISO 1461. ALL EXPOSED STEELWORK SURFACES SHALL BE TREATED AND PAINTED IN ACCORDANCE WITH THE GENERAL SPECIFICATION.
14. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2405J.	Original Signed	03.2015

STANDARD CATCHPIT DETAILS

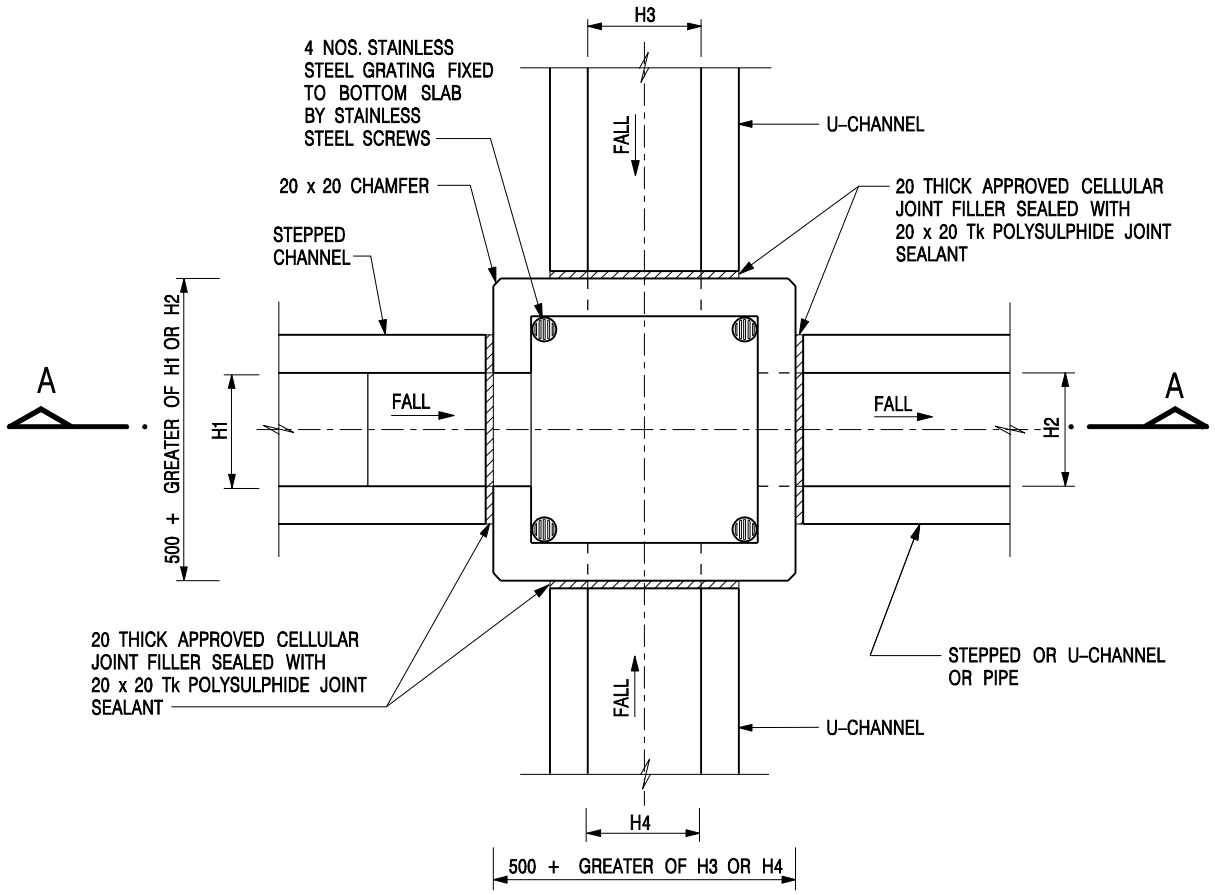
(SHEET 5 OF 5)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE AS SHOWN

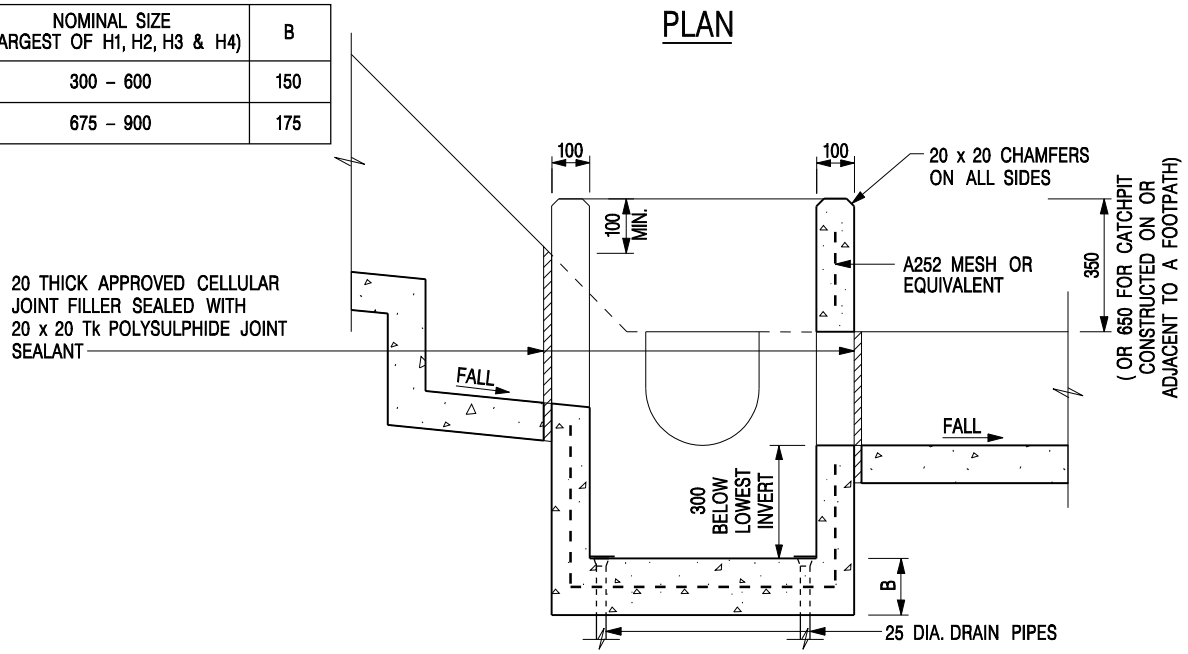
DATE JAN 1991

DRAWING NO. C2405 /5



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

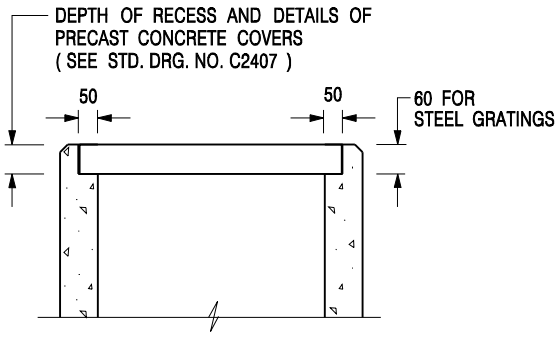
(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1



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

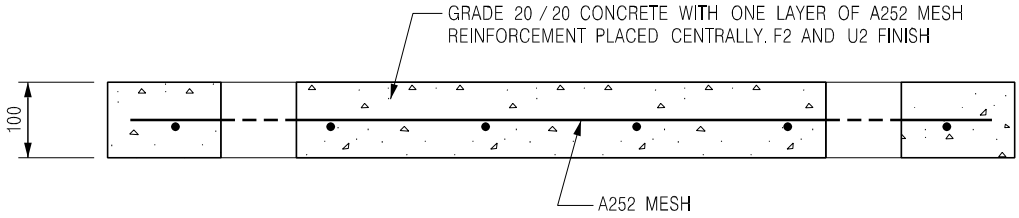
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

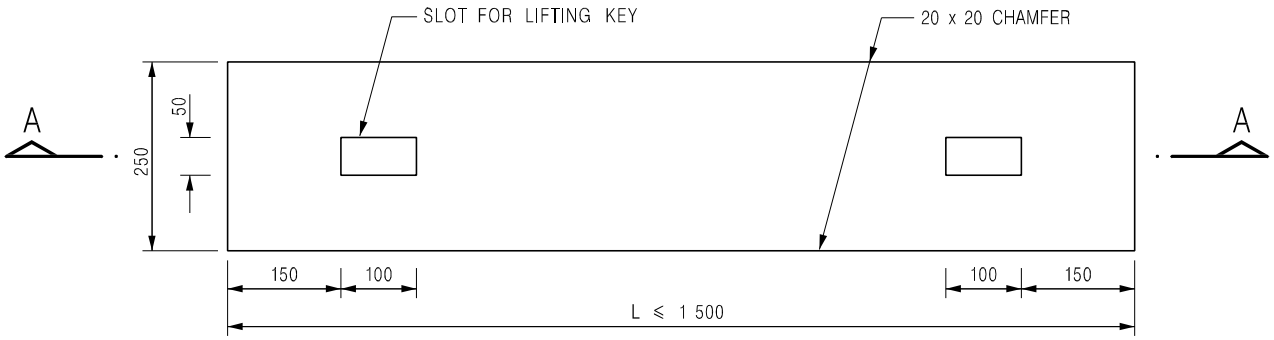
SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /2A

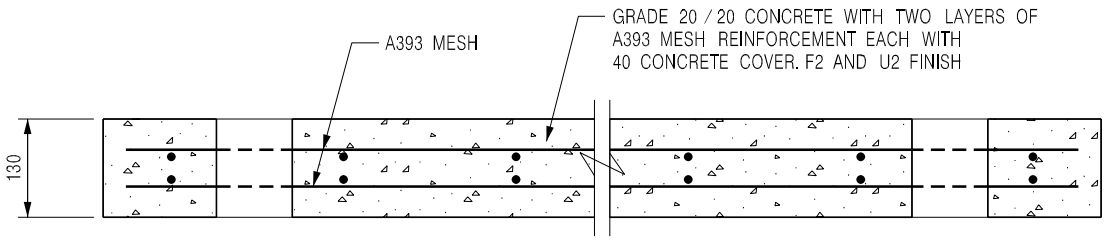


SECTION A – A

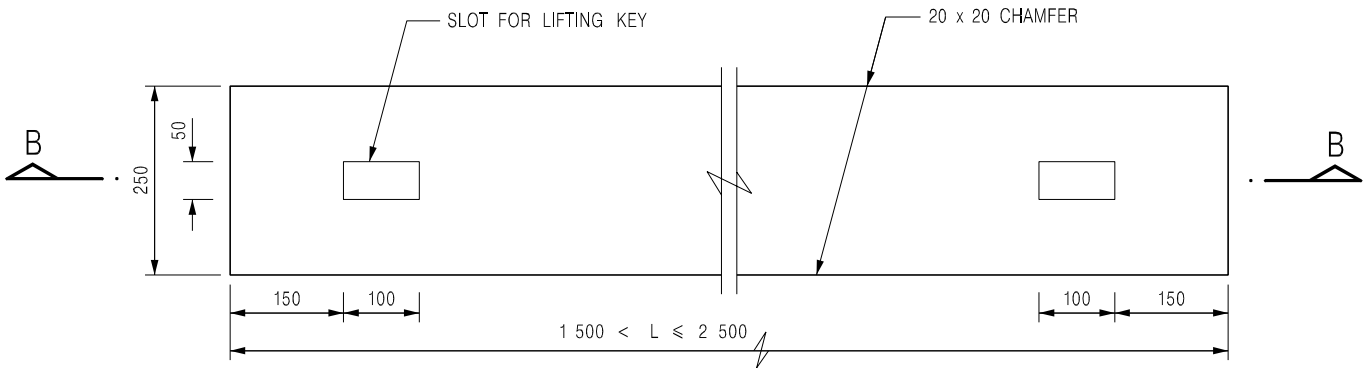


PLAN

TYPE 1 – FOR SPAN UP TO 1.5 m



SECTION B – B



PLAN

TYPE 2 – FOR SPANS 1.5 m TO 2.5 m

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL EXTERNAL EDGES OF THE COVERS SHALL BE 20mm CHAMFERED.

REF.	REVISION	SIGNATURE	DATE
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	GENERAL REVISION	Original Signed	12.2002

PRECAST CONCRETE COVERS FOR CATCHPIT AND SAND TRAP

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 10

DATE JAN 1991

DRAWING NO. C2407B

興土木 利民生 齊拓展 創明天

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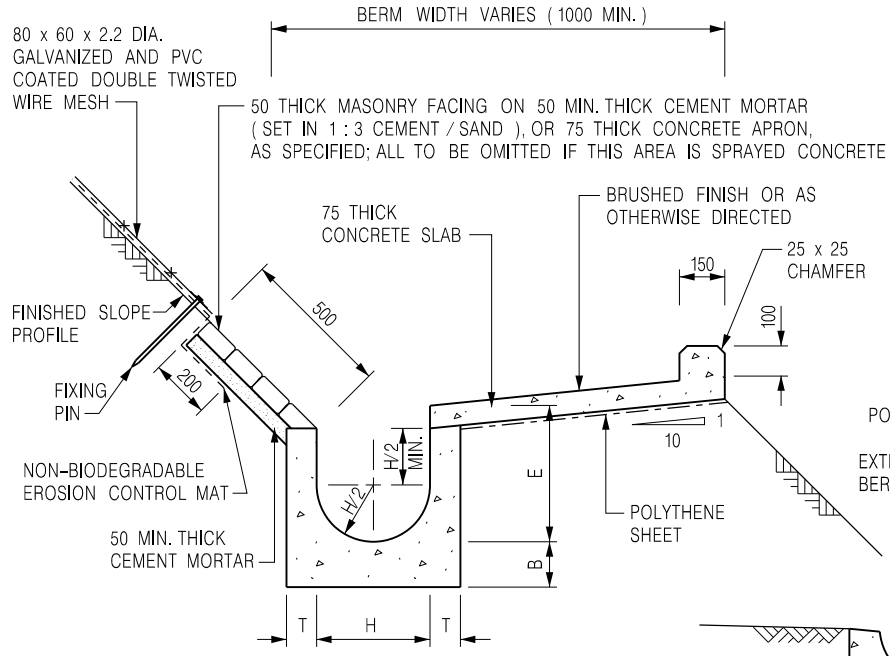
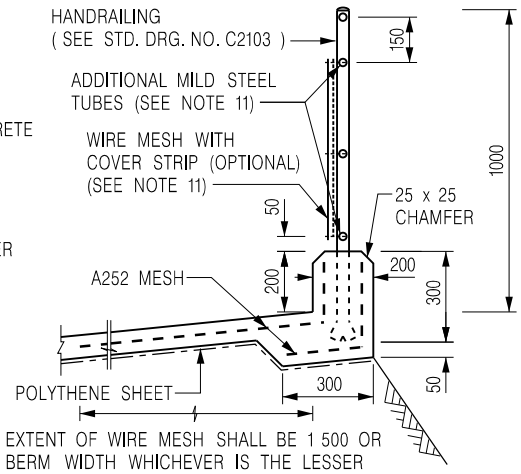
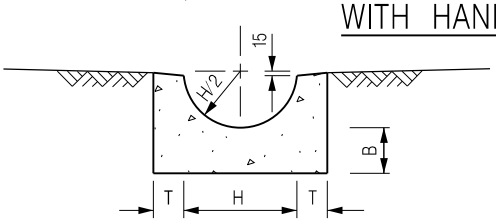


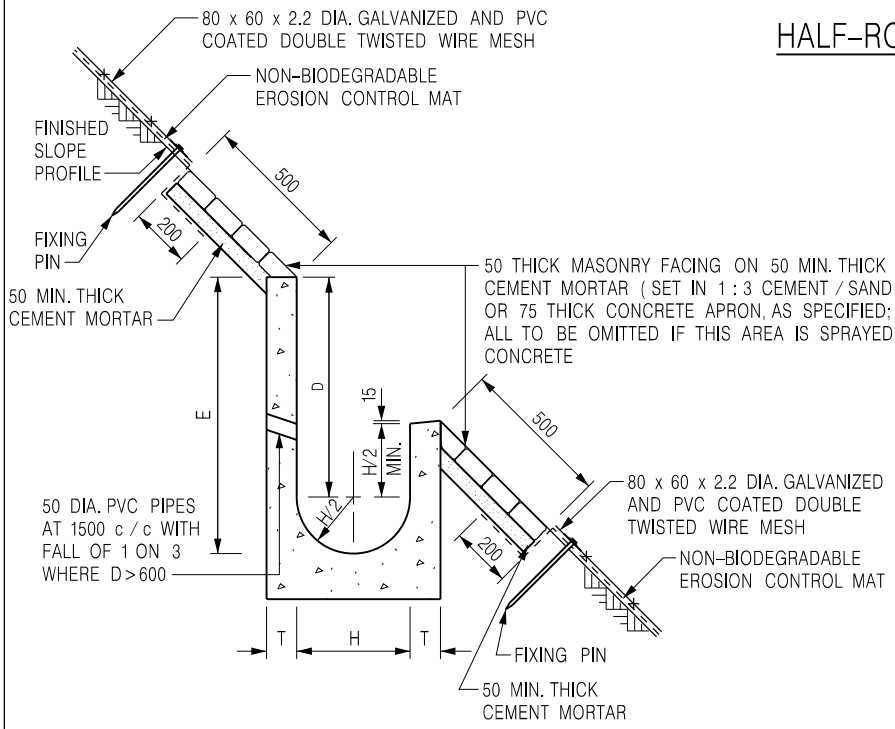
U-CHANNELS CONSTRUCTED ON BERM



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)
11. THE WIRE MESH ON HANDRAILING IS OPTIONAL. THE COVER STRIP AND ADDITIONAL MILD STEEL TUBES ARE NEEDED ONLY IF WIRE MESH IS PROVIDED. (SEE STD. DRG. NO. C2103)

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
J	DETAILS OF HANDRAILING AMENDED.	Original Signed	08.2024
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

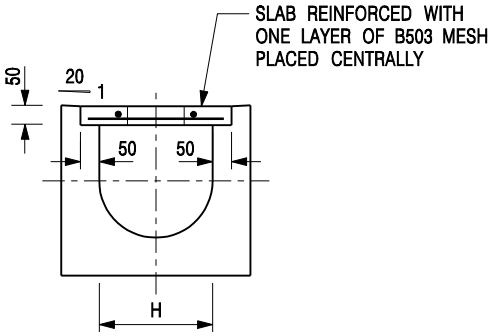
DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A – WITH MASONRY APRON)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

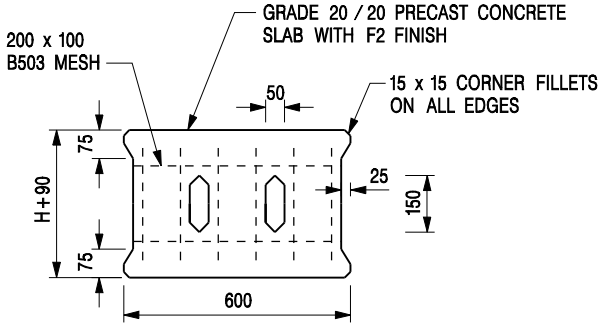
SCALE 1 : 25

DATE JAN 1991

DRAWING NO. C2409J



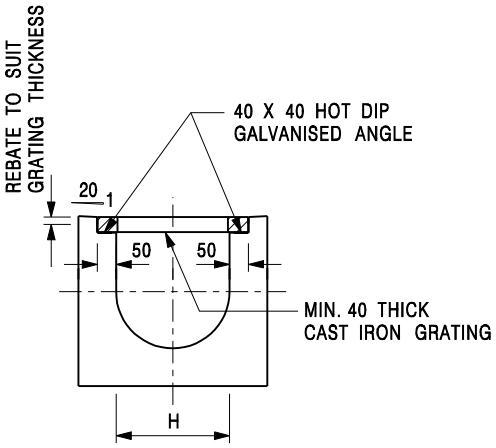
TYPICAL SECTION



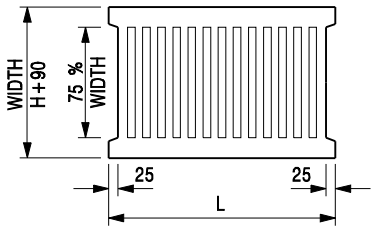
PLAN OF SLAB

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