MPC Paper No. A/KC/476A
For Consideration by the
Metro Planning Committee
on 27.8.2021

APPLICATION FOR PERMISSION
UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE

APPLICATION NO. A/KC/476

Applicant	:	Gain Champion Investment Limited represented by KTA Planning Limited
Site	:	94-100 Ta Chuen Ping Street, Kwai Chung
Site Area	:	About 1,486m^2
Lease	:	Lot No. 290 in D.D. 444 (a) held under New Grant No. 3839 dated 12.9.1960 (b) restricted for industrial purposes excluding offensive trades (c) no restriction on gross floor area (GFA), site coverage (SC) or building height (BH) nor building setback requirement
Plan	:	Draft Kwai Chung Outline Zoning Plan (OZP) No. S/KC/29
Zoning	:	"Other Specified Uses" annotated "Business" ("OU(B)") (a) maximum plot ratio (PR) of 9.5 (b) maximum BH of 130 metres above Principal Datum (mPD) (c) minimum 3.5m non-building area from the lot boundary abutting Ta Chuen Ping Street
Application	:	Proposed Minor Relaxation of PR Restriction for Permitted Non-Polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)

1. The Proposal

1.1 The applicant seeks planning permission for minor relaxation of PR restriction from 9.5 to 11.4 (+20%) for a proposed development at 94-100 Ta Chuen Ping Street (the Site), which falls within an area zoned "OU(B)" on the draft Kwai Chung Outline Zoning Plan (OZP) No. S/KC/29 (**Plan A-1**). The Site was previously occupied by a 7-storey industrial building (IB) constructed before 1987 (pre-1987 IB)[1] which had been demolished. The Site is currently used as a temporary loading and unloading bay area. The proposal is to develop a 23-storey IB (including one basement level) for permitted 'Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)'. According to Schedule II for industrial or industrial-office (I-O) building of the Notes for "OU(B)" zone of the OZP, 'Non-polluting Industrial Use (excluding

[1] The Occupation Permit (OP) for the subject demolished IB on the Site was issued on 4.1.1963.

industrial undertakings involving the use/storage of Dangerous Goods)' is a Column 1 use, which is always permitted. Minor relaxation of the PR restriction may be considered by the Town Planning Board (the Board) under section 16 of the Town Planning Ordinance (the Ordinance).

1.2 The Site abuts Ta Chuen Ping Street to the north (**Plan A-2**). The proposed development has incorporated a 3.5m wide full-height non-building area (NBA) along Ta Chuen Ping Street as required under the OZP, which is intended for the long-term road widening proposal and improvement of air ventilation for the "OU(B)" zone (**Plan A-2, Drawings A-2** and **A-10**). The NBA will form the greenery area and the footpath accessible to the public. The entrance and vehicular access are proposed at Ta Chuen Ping Street (**Drawing A-12**). Carparking and loading/unloading spaces are located at B1/F and G/F respectively.

1.3 Landscape treatments in the form of planters, vertical greening, edge greenery and planter strip with shrubs/groundcover are provided at G/F, 1/F, 2/F and the roof (**Drawings A-10** to **A-15**). Tree planting is proposed within the NBA along Ta Chuen Ping Street (**Drawings A-11** and **A-12**). According to the applicant, recycled water will be adopted for irrigation of vertical greening (**Drawing A-16**). The feasibility of such irrigation system will be further explored at detailed design stage.

1.4 Floor plans, schematic section and landscape plans submitted by the applicant are shown at **Drawings A-1** to **A-15**. Major development parameters of the proposed development are summarised as follows:

Major Development Parameters	**Proposed Development**
Site Area[1]	About 1,486m^2
PR[2]	11.4
Non-domestic GFA	About 16,945.37m^2
SC ● Up to 15m ● Above 15m	 Not more than 90% Not more than 61.54%
No. of Storeys	23 (including one basement level)
BH (at main roof level)	Not more than 130mPD
Proposed Use	Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
Parking Spaces	
● Private car ● Motorcycle ● Light Goods Vehicle ● Medium Goods Vehicle	30 3 4 2

Loading/Unloading Bays	
• Light Goods Vehicle • Heavy Goods Vehicle	4 3
NBA required under OZP	
• Ta Chuen Ping Street	Minimum 3.5m full-height from the lot boundary
Greenery	About 20.3%
Anticipated Completion	End 2025

Note :

1. The Site includes the area designated for NBA along Ta Chuen Ping Street as required under the OZP.
2. On top of the PR/GFA set out as above, the applicant intends to claim a bonus PR of 0.483 (i.e. GFA of about 717.98m^2) under the Building (Planning) Regulations (B(P)R) 22 for the surrender of the site area for the proposed 3.5m NBA from the lot boundary abutting Ta Chuen Ping Street.

1.5 In support of the application, the applicant has submitted the following documents:

(a)	Application form and clarification letter from the agent received on 21.5.2021	(**Appendix I**)
(b)	Supporting Planning Statement (SPS) with Architectural Drawings, Tree Survey and Landscape Proposal, Traffic Impact Assessment (TIA) and Sewerage Impact Assessment (SIA)	(**Appendix Ia**)
(c)	Further Information (FI) dated 30.6.2021 providing responses to departmental comments[*]	(**Appendix Ib**)
(d)	FI dated 9.7.2021 providing responses to departmental comments including revised Tree Survey and Landscape Proposal and updated drawings[#]	(**Appendix Ic**)
(e)	FI dated 12.8.2021 and 19.8.2021 providing responses to departmental comments[*]	(**Appendix Id**)

Remarks:

[#] *Further information accepted but not exempted from publication and recounting requirement*

[*] *Further information accepted and exempted from publication and recounting requirement*

1.6 On 9.7.2021, the Metro Planning Committee (the Committee) agreed to defer a decision as requested by the applicant. After the deferral, the applicant submitted FIs on 9.7.2021, 12.8.2021 and 19.8.2021 and the application is now scheduled for consideration by the Committee at this meeting.

2. Justifications from the Applicant

The justifications put forth by the applicant in support of the application as set out in the **Appendix Ia**, **Ib**, **Ic** and **Id** are summarised as follows:

In Line with the Government's Policies and Studies

(a) The proposed development is in line with the intention of the Government policy to provide more industrial floorspace to make better utilisation of the existing industrial stock and valuable land resources. The application complies with all

the eligible criteria under the policy initiative as stated in the Legislative Council Paper.

(b) The Site is currently served as a temporary loading and unloading bay area, which is considered as an underutilised land lot. Hence, it is also in line with the '2030+ Study' with the objective to providing additional industrial floorspace to cater the demand in short term.

Meeting the Planning Intention of "OU(B)" Zone and Fulfilling Requirement for Minor Relaxation of PR Restriction

(c) The intended use is always permitted under the "OU(B)" zone and completely in line with the planning intention for encouraging the provision of new non-polluting industrial floor spaces that meet present-day building and fire safety standards. It is also intended to support the ongoing land use restructuring of non-polluting industrial use within the "OU(B)" zone and Castle Peak Road/Wo Yi Hop Road Business Area.

(d) The proposed development aims to minimise the building bulk and is in harmony with the context of surrounding developments. The relaxation of PR sought for is considered minor in nature and deemed acceptable.

Planning and Design Merits

(e) The proposed development will provide a 3.5m wide full-height NBA along Ta Chuen Ping Street, within which about 1m wide forms part of the footpath with featured paving patterns for pedestrian circulation and about 2.5m wide set aside as planter for pedestrian comfort. The existing pavement and the proposed NBA will have a total width of about 7m, which helps enhance the natural ventilation and increase permeability of the street.

(f) Tree and shrub planting will be provided on ground level, offering shadings for pedestrians on Ta Chuen Ping Street, with complimentary at-grade greenery. Considering that a continuous canopy along the street frontage will be in conflict with the proposed street tree planting, no continuous canopy along Ta Chuen Ping Street is proposed. Landscape treatments will be provided, including vertical greenery at street level up to 2/F, edge greening up to 15m, planter strip with shrubs/groundcover on flat roof at 2/F and landscape areas with seating at 1/F, 2/F and R/F which will serve future tenants and visitors of the proposed development. These measures would introduce more green elements into the neighbourhood, create a more pleasant streetscape, help soften the architectural form and break up the visual mass of the architectural facade.

(g) Decorative fins/grilles in front of the smoke vents/metal louvers at the lower zone will be proposed to blend the architecture with street level environment.

Compliance with Sustainable Building Design Guidelines (SBDG) and Green Building Design

(h) The proposed development has complied with SBDG which includes (i) the proposed building facade length of less than 60m does not require building separation under SBDG; (ii) achieving a 7.5m distance from the centreline of the street; and (iii) meeting the minimum 20% overall greenery requirement under SBDG. Besides, it has adopted green building design and will target for the Building Environmental Assessment Method Plus (BEAM plus) Certification.

No Insurmountable Impacts to the Surroundings from Various Technical Aspects

(i) Technical assessments including TIA, SIA, etc. have been conducted to demonstrate the feasibility of the proposed development and would have no adverse traffic, sewerage, etc. impacts to the vicinity of the Site.

3. Compliance with the "Owner's Consent/Notification" Requirements

The applicant is the sole "current land owner" of the Site. Detailed information would be deposited at the meeting for Members' inspection.

4. Background

Policy Initiatives of Revitalisation of IBs

4.1 As set out in Policy Address 2018, to provide more floor area to meeting Hong Kong's changing social and economic needs, and make better use of the valuable land resources, a new scheme to incentivise redevelopment of IBs is announced. To encourage owners to redevelop pre-1987 IBs[2], there is a policy direction to allow relaxation of the maximum permissible non-domestic PR as specified in an OZP by up to 20% for redevelopment of pre-1987 IBs located outside "Residential" zones in Main Urban Areas and New Towns into industrial/commercial uses. The relaxation of PR is subject to approval by the Board on a case-by-case basis and the maximum non-domestic PR permissible under the Building (Planning) Regulation (B(P)R)[3]. The Board may approve such application subject to technical assessments confirming the feasibility of allowing such in terms of infrastructure capacity, technical constraints, as well as relevant planning principles and considerations.

4.2 The time limit for owners to submit applications is three years, with effect from 10.10.2018. Should the application be approved, the modified lease should be

[2] Pre-1987 IBs refer to those eligible IBs which were wholly or partly constructed on or before 1.3.1987, or those constructed with their building plans first submitted to the Building Authority (BA) for approval on or before the same date.

[3] Under the new policy, any bonus floor area claimed under section 22(1) or (2) of the B(P)R is not to be counted towards the proposed increase of non-domestic PR by 20% for redevelopment projects.

executed (with full land premium charged) within three years after the planning permission is granted.

5. Previous Application

The Site was the subject of a previous application (No. A/KC/146) for minor relaxation of the PR control from 9.5 to 10.006 to allow a bonus PR of 0.506 [4] to be incorporated for the redevelopment of the Site due to the surrender of land for road widening purpose, which was approved by the Committee with conditions on 19.11.1993. It was approved on the consideration that concerned Government departments had no objection to the application. Given that the building plans for the proposed development were approved on 11.5.1994, the development is considered to have commenced but not subsequently implemented.

6. Similar Applications

Since March 2019, the Committee has considered a total of 26 applications for minor relaxation of PR and/or BH in Yau Tsim Mong, Cheung Sha Wan, Kwai Chung and Tsuen Wan areas relating to the Policy, including eight applications (No. A/KC/460, A/KC/463, A/KC/464, A/KC/466, A/KC/469, A/KC/471, A/KC/473 and A/KC/474) in Kwai Chung (**Plan A-1**). All the 26 similar applications were approved with conditions (**Appendix II**). In consideration of these applications, the Committee generally indicated support for the Policy to relax the PR up to 20% as it provides incentives to encourage redevelopment of pre-1987 IBs taking account that relevant technical assessments were submitted to support the technical feasibility and there was no adverse comment from relevant government departments.

7. The Site and Its Surrounding Areas (**Plans A-1** and **A-2**; photos on **Plans A-3** and **A-4**)

7.1 The Site:

(a) is currently used as a temporary loading and unloading bay area. It abuts Ta Chuen Ping Street to the north and bounded by other IBs to its east, south and west **(Plan A-2**);

(b) is located in area zoned "OU(B)" between Ta Chuen Ping Street and Wo Yi Hop Road, which is predominantly surrounded by a mix of industrial and I-O developments in the area;

(c) is accessible from Ta Chuen Ping Street; and

[4] The clause in the Remarks for exempting the bonus PR claimed under B(P)R 22 due to surrender/dedication of land from PR calculation was not incorporated in the Notes of the then OZP.

(d) is located at about 1.5km to the northeast of MTR Kwai Hing station. It is served by various modes of public transport including buses and public light buses on Wo Yi Hop Road (**Plan A-5**).

7.2 The surrounding areas have the following characteristics (**Plans A-1** to **A-4**):

(a) the Site is located in the midst of the Castle Peak Road/Wo Yi Hop Road industrial/business area, which is characterised by a mix of industrial and I-O developments, including three IBs to the immediate south and west (**Plan A-2**);

(b) to the north across Ta Chuen Ping Street and further west are mainly IBs within the same industrial/business cluster, including three approved applications for proposed data centre, permitted I-O development and hotel related to the Policy (**Plan A-1**); and

(c) to the further northeast, east and south across Wo Yi Hop Road are mainly clusters of residential buildings.

8. Planning Intention

8.1 The planning intention of the "OU(B)" zone is primarily for general business uses. A mix of information technology and telecommunications industries, non-polluting industrial, office and other commercial uses are always permitted in new "business" buildings. Less fire hazard-prone office use that would not involve direct provision of customer services or goods to the general public is always permitted in existing industrial or I-O buildings.

8.2 As stated in the Explanatory Statement of the OZP, in order to cater for the long-term road widening proposal and to improve air ventilation of the "OU(B)" zone bounded by Castle Peak Road and Wo Yi Hop Road, a minimum 3.5m-wide NBA from the lot boundary abutting Ta Chuen Ping Street shall be provided (**Plan A-2**).

9. Comments from Relevant Government Departments

9.1 The following Government bureaux/departments have been consulted and their views on the application are summarised as follows:

Policy Perspective

9.1.1 Comments of the Secretary for Development (SDEV):

(a) it is Government's policy to incentivise owners to redevelop old IBs to optimise utilisation of existing industrial stock and make better use of our valuable land resources, while addressing more effectively the issues of fire safety and non-compliant uses. To this end, relaxation of the maximum permissible non-domestic PR by up to 20% may be permitted, on a case-by-case basis, under the current revitalisation

scheme for redevelopment of pre-1987 IBs located outside "Residential" zones in Main Urban Areas and New Towns. In this light, the landowner of a site which was occupied by a pre-1987 IB immediately before its present vacancy should be eligible for applying for the increase in PR, as long as a relevant planning application is submitted to the Board within three years starting from 10.10.2018; and

(b) he is willing to support the application in principle, on the understanding that the development proposal, if materialised, would help address the increasing long-run shortfall of industrial floor space in Hong Kong under the current projection.

9.1.2 Comments of the Director-General of Trade and Industry (DG of TI):

according to the 2014 Area Assessments of Industrial Land in the Territory, the total industrial stock in Hong Kong would not be able to meet the future demand for industrial uses. As such, he has no objection to the application given it would put the Site into optimal use to produce more industrial space to support industrial development.

Land Administration

9.1.3 Comments of the District Lands Officer/Tsuen Wan & Kwai Tsing (DLO/TW&KT) and the Chief Estate Surveyor/Development Control (CES/DC), Lands Department (LandsD):

(a) the Site falls within Lot No. 290 in D.D. 444 ("the Lot"), which is held under the New Grant No. 3839 dated 12.9.1960 ("the Lease") with a registered site area of 16,000ft^2. The Lot is restricted for industrial purposes excluding offensive trades and spaces shall be provided for the parking, loading and unloading of not less than 4 motor vehicles. There is no restriction on GFA, SC or BH nor building setback requirement under the Lease; and

(b) other detailed comments are at **Appendix IV**.

Traffic

9.1.4 Comments of the Commissioner for Transport (C for T):

(a) the TIA illustrated that the traffic impact arising from the subject redevelopment to the adjacent road network within the Area of Influence would be minimal;

(b) the applicant demonstrated that the redevelopment proposal would accommodate the high-end provision of parking and loading/unloading facilities within the captioned redevelopment;

(c) based on the above, C for T has no in-principle objection to the proposed development from traffic engineering perspective; and

(d) should the application be approved, it is recommended to impose the following approval condition:

the design and provision of parking facilities, loading/unloading spaces and vehicular access for the proposed development to the satisfaction of the Commissioner for Transport or of the Town Planning Board.

9.1.5 Comments of the Chief Highway Engineer/New Territories West, Highways Department (CHE/NTW, HyD):

the applicant should at his own expenses and to the satisfaction of HyD make good for any damage done to the adjoining public roads, footpaths, street furniture and highways structures due to his works and paving proposal and footpath finishes need compatible with adjacent environment and existing footpath.

Environment

9.1.6 Comments of the Director of Environmental Protection (DEP):

(a) based on the information provided, the SIA concluded that the sewerage impact arising from the proposed development is considered acceptable with the proper implementation of the proposed sewerage upgrading works. She has no objection to the application from environmental planning perspective. The applicant has committed to address the potential land contamination issue at the approval condition stage, should the application be approved by the Board;

(b) it is recommended to impose the following approval conditions:

(i) the submission of an updated Sewerage Impact Assessment for the proposed development to the satisfaction of the Director of Environmental Protection or of the Town Planning Board;

(ii) the implementation of the local sewerage upgrading/sewerage connection works identified in the updated Sewerage Impact Assessment in (i) above to the satisfaction of the Director of Drainage Services or of the Town Planning Board; and

(iii) the submission of land contamination assessments in accordance with the prevailing guidelines and the implementation of the remediation measures identified therein prior to development of the Site to the satisfaction of the Director of Environmental Protection or of the Town Planning Board; and

(c) as the proposed development would involve excavation works, the applicant is advised to minimise the generation of Construction and Demolition (C&D) materials; reuse and recycle the C&D materials on-site as far as possible; and observe and comply with the legislative requirements and prevailing guidelines on proper waste management for the proposed development.

Urban Design, Visual and Landscape

9.1.7 Comments of the Chief Town Planner/Urban Design and Landscape (CTP/UD&L), Planning Department (PlanD):

Urban Design and Visual Impact

(a) the Site abuts Ta Chuen Ping Street, and forms part of a large cluster of IBs/sites zoned "OU(B)" with intended BH of 130mPD. The proposed development does not involve additional BH beyond what is permitted in the OZP. Given the context, it is unlikely that the proposed development will induce any significant adverse effects on the visual character of the surrounding townscape;

(b) the proposed development has incorporated a minimum 3.5m wide full-height NBA along Ta Chuen Ping Street as per the OZP requirement. Trees have been proposed within the NBA. Landscape treatments in the form of planters and vertical greening are provided at G/F, 1/F, 2/F and the roof. Further greenery at 2/F along the building edge facing Ta Chuen Ping Street is also incorporated. The above design measures may promote visual interest and pedestrian comfort;

Landscape

(c) the Site is located in an area of industrial urban landscape character, dominated by IBs. The Site is currently used as a temporary loading and unloading bay area and existing trees are observed at the northern and eastern boundary of the Site. The proposed development is considered not incompatible with the surrounding environment. In view of that significant adverse impact arising from the development is not anticipated, she has no objection to the application from landscape planning perspective;

(d) the applicant is reminded of the long-term commitment in providing proper maintenance to the vertical green wall for healthy and sustainable plant growth; and

(e) the applicant is reminded that approval of section 16 application under the Ordinance does not imply approval of the SC of greenery requirements under Practice Notes for Authorised Persons (PNAP) APP-152 and/or under the lease. The SC of greenery calculation should be submitted separately to BD for approval. Similarly for any proposed tree preservation/removal scheme and compensatory

planting proposal, the applicant should approach relevant authority direct to obtain necessary approval as appropriate.

9.1.8 Comments of the Chief Architect/Central Management Division 2, Architectural Services Department (CA/CMD2, ArchSD):

(a) no comment from architectural and visual point of view;

(b) the proposed non-polluting industrial development mainly consists of a tower with PR 11.4 (including 20% increase of PR) and BH of 130mPD, which may not be incompatible with adjacent "OU(B)" developments with BH restriction of 130mPD permitted in the OZP; and

(c) for toilets at 1/F, 2/F and 4/F to 19/F, natural lighting and ventilation complying relevant B(P)R shall be considered.

Building Matters

9.1.9 Comments of the Chief Building Surveyor/New Territories West, Buildings Department (CBS/NTW, BD):

(a) he has no objection to the application;

(b) detailed comments will be given during the building plan submission stage; and

(c) other detailed comments are at **Appendix IV**.

9.2 The following Government departments have no objection to/no comment on the application:

(a) Chief Engineer/Construction, Water Supplies Department;
(b) Chief Engineer/Mainland South, Drainage Services Department;
(c) Commission of Police;
(d) Director of Fire Services;
(e) District Officer (Kwai Tsing), Home Affairs Department; and
(f) Project Manager (West), Civil Engineering and Development Department.

10. Public Comments Received During Statutory Publication Period

During the statutory public inspection periods, 30 public comments were received (**Appendix III**), among which 17 individuals supported the application on the grounds that the proposed development has demonstrated merits on economic, environmental, planning and design aspects, particularly on the optimisation of valuable land resources. A local concern group, namely North Kwai Chung Transport Concern Group, objected to the application on the grounds of adverse traffic impacts and congestion, insufficient provision of public transportation service, lack of infrastructural provision, etc. The remaining 12 individuals mainly raised concerns and suggestions on environmental, pedestrian comfort and greenery issues.

11. Planning Considerations and Assessments

11.1 The application is for minor relaxation of PR restriction from 9.5 to 11.4 (i.e. +20%) for a proposed 23-storey IB development at the Site zoned "OU(B)" for permitted non-polluting industrial use. The proposed development is generally in line with the planning intention of the "OU(B)" zone, which is primarily for general business uses and permits non-polluting industrial uses. The proposed BH of not more than 130mPD complies with the BH restriction under the OZP.

Policy Aspect

11.2 The Site was previously occupied by an IB with OP issued on 4.1.1963, which can be regarded as an eligible pre-1987 IB under the Government's new policy on revitalising IBs. SDEV gives policy support to the current application for the minor relaxation of PR restriction by 20% with the initiative to incentivise redevelopment of old IBs to optimise utilisation of the existing industrial stock and make better use of the valuable land resources, while addressing more effectively the issues of fire safety and non-compliant uses.

11.3 According to the 2014 Area Assessments of Industrial Land in the Territory, the total industrial stock in Hong Kong would not be able to meet the future demand for industrial uses. DG of TI has no objection to the application given it would put the Site into optimal use to produce more industrial space to support industrial development.

Technical Aspects

11.4 The proposed minor relaxation of PR restriction generally follows the policy on revitalisation of pre-1987 IBs, and consideration of such application is subject to technical assessments confirming the feasibility of the proposed development. In support of the application, the applicant has submitted TIA and SIA, which demonstrate that the proposed development would not cause adverse traffic and sewerage impacts to the surrounding areas. C for T has no in-principle objection to the application subject to the incorporation of approval condition set out in paragraph 12.2(a) below. DEP has no objection to the application from environmental perspective subject to the imposition of approval conditions set out in paragraphs 12.2(b), (c) and (d) below. Other relevant Government departments, including FSD and DSD, have no objection to/ adverse comments on the application.

Planning and Design Merits

11.5 The proposed development has incorporated a 3.5m wide full-height NBA along Ta Chuen Ping Street according to the OZP requirement, which is intended for the long-term road widening proposal and improvement of air ventilation for the "OU(B)" zone. Tree planting is proposed within the NBA and landscape treatments in the form of planters, vertical greening, edge greenery and planter strip

with shrubs/groundcover at G/F, 1/F, 2/F and the roof are proposed (**Drawings A-10** to **A-15**). CTP/UD&L, PlanD considers that the proposed development would unlikely induce any significant adverse effects on the visual character of the surrounding townscape and the proposed design measures may promote visual interest and pedestrian comfort.

11.6 On the sustainability building design aspect, the applicant has indicated that the proposed development has taken into account the relevant requirements as set out in the SBDG in terms of building setback and greenery.

Public Comments

11.7 Regarding the concerns raised in the public comments, the planning assessment above and departmental comments in paragraph 9 are relevant. As to the comments relating to traffic and environmental issues, suitable approval conditions have been suggested as listed in paragraph 12.2 below.

12. Planning Department's Views

12.1 Based on the assessments made in paragraph 11 above, the Planning Department has no objection to the application.

12.2 Should the Committee decide to approve the application on the terms of the application as submitted to the Board, it is suggested that the permission shall be valid until 27.8.2025, and after the said date, the permission shall cease to have effect unless before the said date, the development permitted is commenced or the permission is renewed. The following conditions of approval and advisory clauses are suggested for Members' reference:

Approval conditions

(a) the design and provision of parking facilities, loading/unloading spaces and vehicular access for the proposed development to the satisfaction of the Commissioner for Transport or of the Town Planning Board;

(b) the submission of an updated Sewerage Impact Assessment for the proposed development to the satisfaction of the Director of Environmental Protection or of the Town Planning Board;

(c) the implementation of the local sewerage upgrading/sewerage connection works identified in the updated Sewerage Impact Assessment in (b) above to the satisfaction of the Director of Drainage Services or of the Town Planning Board; and

(d) the submission of land contamination assessments in accordance with the prevailing guidelines and the implementation of the remediation measures

identified therein prior to development of the Site to the satisfaction of the Director of Environmental Protection or of the Town Planning Board.

Advisory clauses

The recommended advisory clauses are attached at **Appendix V**.

12.3 Alternatively, should the Committee decide to reject the application, the following reason for rejection is suggested for Members' reference:

The applicant fails to demonstrate that there are sufficient planning and design merits to justify the proposed minor relaxation of PR restriction.

13. Decision Sought

13.1 The Committee is invited to consider the application and decide whether to grant or to refuse to grant permission.

13.2 Should the Committee decide to approve the application, Members are invited to consider the approval condition(s) and advisory clause(s), if any, to be attached to the permission, and the date when the validity of the permission should expire.

13.3 Alternatively, should the Committee decide to reject the application, Members are invited to advise what reason(s) for rejection should be given to the applicant.

14. Attachments

Appendix I	Application Form and clarification letter from the agent received on 21.5.2021
Appendix Ia	Supporting Planning Statement
Appendix Ib	FI dated 30.6.2021
Appendix Ic	FI dated 9.7.2021
Appendix Id	FI dated 12.8.2021 and 19.8.2021
Appendix II	Similar Applications
Appendix III	Public Comments
Appendix IV	Detailed Government Comments
Appendix V	Recommended Advisory Clauses
Drawings A-1 to **A-8**	Floor Plans
Drawing A-9	Schematic Section
Drawings A-10 to **A-11**	Illustrative Diagrams of Planning and Design Merits
Drawings A-12 to **A-14**	Landscape Master Plans
Drawing A-15	Greenery Calculation
Drawing A-16	Vertical Green Wall
Plan A-1	Location Plan

Plan A-2	Site Plan
Plans A-3 to **A-4**	Site Photos
Plan A-5	Pedestrian Access Network in Kwai Chung

PLANNING DEPARTMENT
AUGUST 2021

Form No. S16-I
表格第 S16-I 號

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

根據《城市規劃條例》(第131章)第16條遞交的許可申請

2021年 5月 21日
此文件在 收到，城市規劃委員會只會在收到所有必要的資料及文件後才正式確認收到申請的日期。
This document is received on 21 MAY 2021 The Town Planning Board will formally acknowledge the date of receipt of the application only upon receipt of all the required information and documents.

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

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

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

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

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

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

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

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

& Please attach documentary proof 請夾附證明文件

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

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

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

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

For Official Use Only 請勿填寫此欄	Application No. 申請編號	A/KC/476
	Date Received 收到日期	21 MAY 2021

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

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

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

1. Name of Applicant 申請人姓名/名稱

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

Gain Champion Investment Limited

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

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

KTA Planning Limited

3. Application Site 申請地點

(a)	Full address / location / demarcation district and lot number (if applicable) 詳細地址／地點／丈量約份及地段號碼（如適用）	Nos. 94-100 Ta Chuen Ping Street, Kwai Chung, NT (Lot No. 290 in D.D. 444)
(b)	Site area and/or gross floor area involved 涉及的地盤面積及／或總樓面面積	☑Site area 地盤面積 1,486.436 sq.m 平方米 ☑About 約 ☑Gross floor area 總樓面面積 16,945.370 sq.m 平方米 ☑About 約 (Total: 17,663.350 (16,945.370 sqm due to 20% relaxati of the permissible plot ratio +717.980 sqm due to dedication of Non-building areas, subject to approval by BD))
(c)	Area of Government land included (if any) 所包括的政府土地面積（倘有）	..... sq.m 平方米 ☐About 約

(d)	Name and number of the related statutory plan(s) 有關法定圖則的名稱及編號	Draft Kwai Chung OZP No. S/KC/29
(e)	Land use zone(s) involved 涉及的土地用途地帶	"Other Specified Uses" annotated "Business'
(f)	Current use(s) 現時用途	Temporary Loading and Unloading Bay Area (If there are any Government, institution or community facilities, please illustrate on plan and specify the use and gross floor area) (如有任何政府、機構或社區設施，請在圖則上顯示，並註明用途及總樓面面積)

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

The applicant 申請人 –

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

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

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

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

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

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

(b) The applicant 申請人 –

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

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

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

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

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

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

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

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

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

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

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

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

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

Others 其他

☐ others (please specify)
其他（請指明）

_____

_____

_____

_____

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

6. Type(s) of Application 申請類別

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

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

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

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

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

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

(i) For Type (i) application 供第(i)類申請

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

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

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

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

Name/type of installation 裝置名稱／種類	Number of provision 數量	Dimension of each installation /building/structure (m) (LxWxH) 每個裝置／建築物／構築物的尺寸 (米) (長 x 闊 x 高)

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

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

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

☑	Plot ratio restriction 地積比率限制	From 由 9.5 to 至 11.4 (Total: 11.883 (11.4 due to 20% relaxation of the permissible plot ratio, plus 0.483 due to dedication of NBA for public passage, subject to approval by BD))
☐	Gross floor area restriction 總樓面面積限制	From 由 .....sq. m 平方米 to 至 .....
☐	Site coverage restriction 上蓋面積限制	From 由 .....% to 至 ..... %
☐	Building height restriction 建築物高度限制	From 由 .....m 米 to 至 ..... m 米 From 由 ..... mPD 米 (主水平基準上) to 至 .....mPD 米 (主水平基準上) From 由 ..... storeys 層 to 至 ..... storeys 層
☐	Non-building area restriction 非建築用地限制	From 由 .....m to 至 ..... m
☐	Others (please specify) 其他（請註明）	.....

(v) For Type (v) application 供第(v)類申請

(a) Proposed use(s)/development 擬議用途/發展	Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung (Please illustrate the details of the proposal on a layout plan 請用平面圖說明建議詳情)

(b) Development Schedule 發展細節表

Proposed gross floor area (GFA) 擬議總樓面面積	16,945.370 [Note 1] sq.m 平方米	☑ About 約
Proposed plot ratio 擬議地積比率	11.4 [Note 2]	☑ About 約
Proposed site coverage 擬議上蓋面積	not more than 90% (0-15m high), not more than 61.537% (above 15m high) [Note 3]	☐ About 約
Proposed no. of blocks 擬議座數	1	
Proposed no. of storeys of each block 每座建築物的擬議層數	23 storeys 層	
	☑ include 包括 1 storeys of basements 層地庫	
	☐ exclude 不包括 ..... storeys of basements 層地庫	
Proposed building height of each block 每座建築物的擬議高度	Not more than 130 mPD 米(主水平基準上)	☐ About 約
	N/A ..... m 米	☐ About 約

[Note 1]
Total proposed GFA of 17,663.350 sqm includes 16,945.370 sqm due to 20% relaxation of the permissible plot ratio, plus 717.980 sqm due to dedication of proposed non-building area (NBA), subject to approval by BD.
[Note 2]
Total proposed Plot Ratio of 11.883 includes 11.4 due to 20% relaxation of the permissible plot ratio, plus 0.483 due to dedication of proposed NBA, subject to approval by BD.
[Note 3]
Proposed site coverage of not more than 61.537% (above 15m high) includes 60% plus 1.537% due to dedication of proposed NBA, subject to approval by BD.

Part 6 (Cont'd) 第 6 部分 (續)

☐ Domestic part 住用部分

GFA 總樓面面積	..... sq. m 平方米	☐About 約
number of Units 單位數目	.....	
average unit size 單位平均面積	.....sq. m 平方米	☐About 約
estimated number of residents 估計住客數目	.....	

☑ Non-domestic part 非住用部分

GFA 總樓面面積

☐ eating place 食肆	..... sq. m 平方米	☐About 約
☐ hotel 酒店	..... sq. m 平方米	☐About 約
	(please specify the number of rooms 請註明房間數目)	
☐ office 辦公室	..... sq. m 平方米	☐About 約
☐ shop and services 商店及服務行業	..... sq. m 平方米	☐About 約

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

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

.....

.....

.....

☑ other(s) 其他

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

About 16,945.370 sqm

(Total: 17,663.350 incl. 16,945.370 sqm due to 20% relaxation of the permissible plot ratio, plus 717.980 sqm due to dedication of proposed NBA) for Non-polluting Industrial Use (excluding industrial undertakings involving the use/ storage of Dangerous Goods)

☐ Open space 休憩用地

(please specify land area(s) 請註明地面面積)

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

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

[Block number] [座數]	[Floor(s)] [層數]	[Proposed use(s)] [擬議用途]
1	B1/F	Car Park
	G/F	Lift Lobby, Loading and Unloading and Car Park
	1/F	Workshop (Non-polluting Industrial Use) and Transformer Room
	2/F	Workshop (Non-polluting Industrial Use) and Upper Part Transformer Room
	3/F	Electrical and Mechanical Plant Rooms
	4/F-21/F	Workshop (Non-polluting Industrial Use)
	R/F	Roof

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

Non-Building Area, Landscape Areas, Planters; Flat Roof

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

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

December 2025

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

Any vehicular access to the site/subject building? 是否有車路通往地盤／有關建築物？	Yes 是	☑ There is an existing access. (please indicate the street name, where appropriate) 有一條現有車路。(請註明車路名稱(如適用)) Ta Chuen Ping Street ☐ There is a proposed access. (please illustrate on plan and specify the width) 有一條擬議車路。（請在圖則顯示，並註明車路的闊度）
	No 否	☐
Any provision of parking space for the proposed use(s)? 是否有為擬議用途提供停車位？	Yes 是	☑ (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示) Private Car Parking Spaces 私家車車位: 30 Motorcycle Parking Spaces 電單車車位: 3 Light Goods Vehicle Parking Spaces 輕型貨車泊車位: 4 Medium Goods Vehicle Parking Spaces 中型貨車泊車位: Heavy Goods Vehicle Parking Spaces 重型貨車泊車位: 2 Others (Please Specify) 其他 (請列明):
	No 否	☐
Any provision of loading/unloading space for the proposed use(s)? 是否有為擬議用途提供上落客貨車位？	Yes 是	☑ (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示) Taxi Spaces 的士車位: Coach Spaces 旅遊巴車位: Light Goods Vehicle Spaces 輕型貨車車位: 4 Medium Goods Vehicle Spaces 中型貨車車位: Heavy Goods Vehicle Spaces 重型貨車車位: 3 Others (Please Specify) 其他 (請列明):
	No 否	☐

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

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

Does the development proposal involve alteration of existing building? 擬議發展計劃是否包括現有建築物的改動?	Yes 是	☐ Please provide details 請提供詳情 ....
	No 否	☑
Does the development proposal involve the operation on the right? 擬議發展是否涉及右列的工程? (Note: where Type (ii) application is the subject of application, please skip this section. 註：如申請涉及第(ii)類申請，請跳至下一條問題。)	Yes 是	☑ (Please indicate on site plan the boundary of concerned land/pond(s), and particulars of stream diversion, the extent of filling of land/pond(s) and/or excavation of land) (請用地盤平面圖顯示有關土地／池塘界線，以及河道改道、填塘、填土及／或挖土的細節及/或範圍) ☐ Diversion of stream 河道改道 ☐ Filling of pond 填塘 Area of filling 填塘面積 ..... sq.m 平方米 ☐About 約 Depth of filling 填塘深度 ..... m 米 ☐About 約 ☐ Filling of land 填土 Area of filling 填土面積 ..... sq.m 平方米 ☐About 約 Depth of filling 填土厚度 ..... m 米 ☐About 約 ☑ Excavation of land 挖土 Area of excavation 挖土面積 1,339,864 sq.m 平方米 ☑About 約 Depth of excavation 挖土深度 7.45 m 米 ☑About 約
	No 否	☐
Would the development proposal cause any adverse impacts? 擬議發展計劃會否造成不良影響？	On environment 對環境	Yes 會 ☐ No 不會 ☑
	On traffic 對交通	Yes 會 ☐ No 不會 ☑
	On water supply 對供水	Yes 會 ☐ No 不會 ☑
	On drainage 對排水	Yes 會 ☐ No 不會 ☑
	On slopes 對斜坡	Yes 會 ☐ No 不會 ☑
	Affected by slopes 受斜坡影響	Yes 會 ☐ No 不會 ☑
	Landscape Impact 構成景觀影響	Yes 會 ☐ No 不會 ☑
	Tree Felling 砍伐樹木	Yes 會 ☐ No 不會 ☑
	Visual Impact 構成視覺影響	Yes 會 ☐ No 不會 ☑
	Others (Please Specify) 其他 (請列明) Sewerage Impact	Yes 會 ☐ No 不會 ☑
	Please state measure(s) to minimise the impact(s). For tree felling, please state the number, diameter at breast height and species of the affected trees (if possible) 請註明盡量減少影響的措施。如涉及砍伐樹木，請說明受影響樹木的數目、及胸高度的樹幹直徑及品種(倘可)	

10. Justifications 理由

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

Please refer to the attached Supporting Planning Statement

11. Declaration 聲明

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

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

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

DAVID FOK ..... DIRECTOR .....

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

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

on behalf of 代表 KTA Planning Limited .....

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

Date 日期 30/4/2021 ..... (DD/MM/YYYY 日/月/年)

Remark 備註

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

Warning 警告

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

Statement on Personal Data 個人資料的聲明

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

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

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

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

Ash interment capacity 骨灰安放容量@

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

Total number of niches 龕位總數 _____

Total number of single niches
單人龕位總數 _____

Number of single niches (sold and occupied)
單人龕位數目 (已售並佔用) _____
Number of single niches (sold but unoccupied)
單人龕位數目 (已售但未佔用) _____
Number of single niches (residual for sale)
單人龕位數目 (待售) _____

Total number of double niches
雙人龕位總數 _____

Number of double niches (sold and fully occupied)
雙人龕位數目 (已售並全部佔用) _____
Number of double niches (sold and partially occupied)
雙人龕位數目 (已售並部分佔用) _____
Number of double niches (sold but unoccupied)
雙人龕位數目 (已售但未佔用) _____
Number of double niches (residual for sale)
雙人龕位數目 (待售) _____

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

Number. of niches (sold and fully occupied)
龕位數目 (已售並全部佔用) _____
Number of niches (sold and partially occupied)
龕位數目 (已售並部分佔用) _____
Number of niches (sold but unoccupied)
龕位數目 (已售但未佔用) _____
Number of niches (residual for sale)
龕位數目 (待售) _____

Proposed operating hours 擬議營運時間 _____
_____

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

Gist of Application 申請摘要

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

Application No. 申請編號	(For Official Use Only) (請勿填寫此欄)
Location/address 位置／地址	Nos. 94-100 Ta Chuen Ping Street, Kwai Chung, NT (Lot No. 290 in D.D. 444)
Site area 地盤面積	1,486.436 sq. m 平方米 ☐ About 約 (includes Government land of 包括政府土地 N/A sq. m 平方米 ☐ About 約)
Plan 圖則	Draft Kwai Chung OZP No. S/KC/29
Zoning 地帶	"Other Specified Uses" annotated "Business"
Applied use/ development 申請用途/發展	Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

		sq.m 平方米	Plot Ratio 地積比率
(i) Gross floor area and/or plot ratio 總樓面面積及／或地積比率	Domestic 住用	N/A ☐ About 約 ☐ Not more than 不多於	N/A ☐About 約 ☐Not more than 不多於
	Non-domestic 非住用	16,945.370 sqm [Note 1] ☑ About 約 ☐ Not more than 不多於	11.4 [Note 2] ☑About 約 ☐Not more than 不多於
(ii) No. of block 幢數	Domestic 住用	N/A	
	Non-domestic 非住用	1	
	Composite 綜合用途	N/A	

[Note 1]
Total proposed GFA of 17,663.350 sqm includes 16,945.370 sqm due to 20% relaxation of the permissible plot ratio, plus 717.980 sqm due to dedication of proposed non-building area (NBA), subject to approval by BD.
[Note 2]
Total proposed Plot Ratio of 11.883 includes 11.4 due to 20% relaxation of the permissible plot ratio, plus 0.483 due to dedication of proposed NBA, subject to approval by BD.

(iii) Building height/No. of storeys 建築物高度／層數	Domestic 住用	N/A	m 米 ☐ (Not more than 不多於)
		N/A	mPD 米(主水平基準上) ☐ (Not more than 不多於)
		N/A	Storeys(s) 層 ☐ (Not more than 不多於) (☐*Include 包括*/☐ *Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
	Non-domestic 非住用	N/A	m 米 ☐ (Not more than 不多於)
		130	mPD 米(主水平基準上) ☑ (Not more than 不多於)
		23	Storeys(s) 層 ☐ (Not more than 不多於) (☑*Include 包括*/☐ *Exclude 不包括* ☐ *Carport 停車間* ☑ *Basement 地庫* ☐ *Refuge Floor 防火層* ☑ *Podium 平台)*
	Composite 綜合用途	N/A	m 米 ☐ (Not more than 不多於)
		N/A	mPD 米(主水平基準上) ☐ (Not more than 不多於)
		N/A	Storeys(s) 層 ☐ (Not more than 不多於) (☐*Include 包括*/☐ *Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
(iv) Site coverage 上蓋面積	Not more than 90% (0-15m high) Not more than 61.537% (above 15m high) [Note 3]		☐ About 約
(v) No. of units 單位數目	N/A		
(vi) Open space 休憩用地	Private 私人	N/A	sq.m 平方米 ☐ Not less than 不少於
	Public 公眾	N/A	sq.m 平方米 ☐ Not less than 不少於

[Note 3]
Proposed site coverage of not more than 61.537% (above 15m high) includes 60% plus 1.537% due to dedication of proposed NBA, subject to approval by BD.

(vii) No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle parking spaces 停車位總數	39
	Private Car Parking Spaces 私家車車位	30
	Motorcycle Parking Spaces 電單車車位	3
	Light Goods Vehicle Parking Spaces 輕型貨車泊車位	4
	Medium Goods Vehicle Parking Spaces 中型貨車泊車位	2
	Heavy Goods Vehicle Parking Spaces 重型貨車泊車位	
	Others (Please Specify) 其他 (請列明)	
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	7
	Taxi Spaces 的士車位	
	Coach Spaces 旅遊巴車位	
	Light Goods Vehicle Spaces 輕型貨車車位	4
	Medium Goods Vehicle Spaces 中型貨車位	
	Heavy Goods Vehicle Spaces 重型貨車車位	3
	Others (Please Specify) 其他 (請列明)	

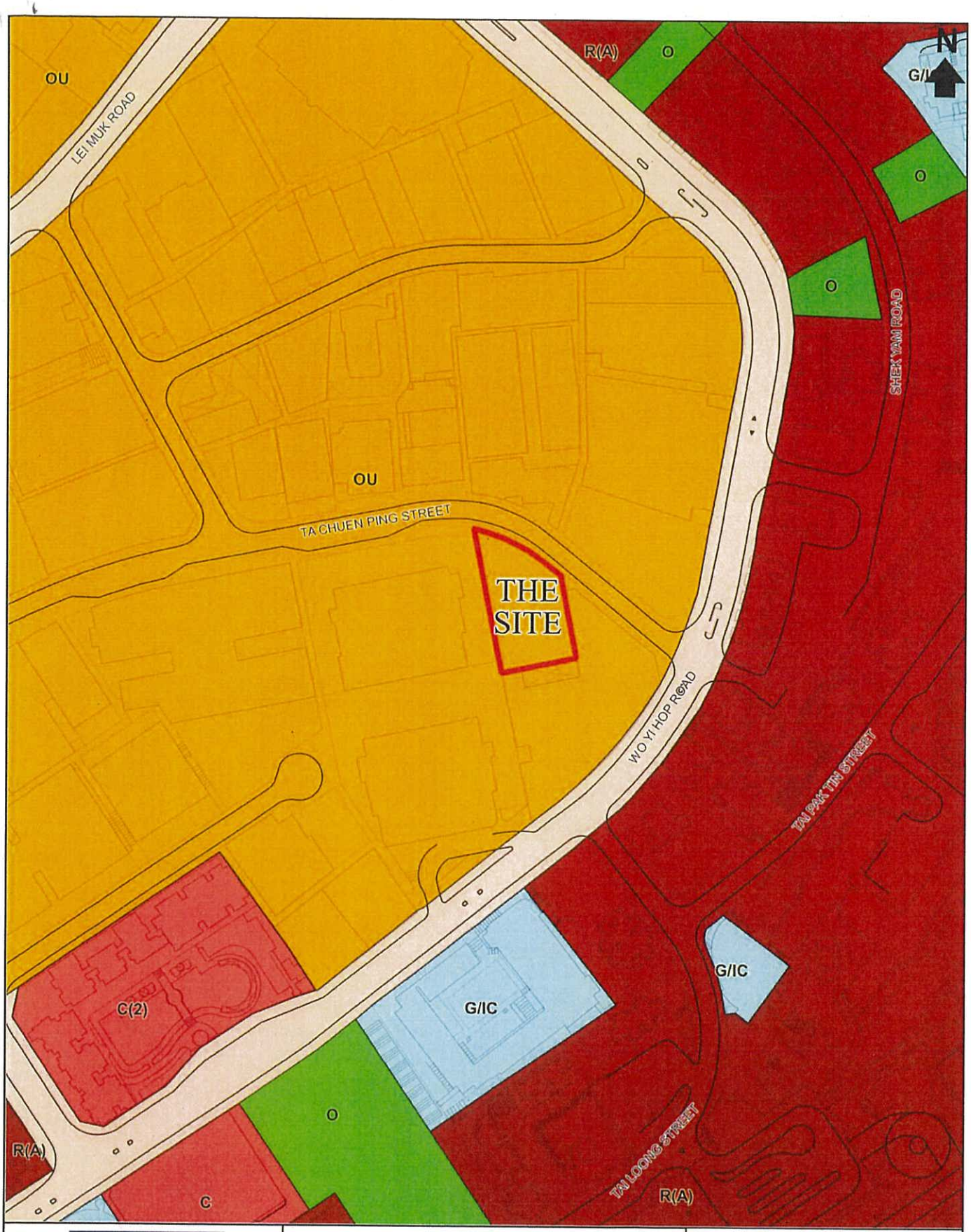
Submitted Plans, Drawings and Documents 提交的圖則、繪圖及文件

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

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

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

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



KTA PLANNING LIMITED
規劃顧問有限公司

LOCATION PLAN

0 25 50 m

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-Polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Date: 16 April 2021

Clarification Letter Received from KTA on 21.5.2021

PLANNING LIMITED
規劃顧問有限公司

UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/002Lg

17 May 2021

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

2021年 5月 21日
此文件在_____收到。城市規劃委員會只會在收到所有必要的資料及文件後才正式確認收到申請的日期。
This document is received on 21 MAY 2021. The Town Planning Board will formally acknowledge the date of receipt of the application only upon receipt of all the required information and documents.

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application -

We refer to the tele-conversation between your office and Mr. Elden Chan of our office regarding the captioned Application on 10th May, 2021.

To clarify, the title of the captioned Application throughout the Supporting Planning Statement named "*Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-polluting Industrial Building in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung*", should be revised to "***Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos.94-100 Ta Chuen Ping Street, Kwai Chung***".

Meanwhile, we would like to clarify that the subject of this S16 Planning Application is for proposed minor relaxation of Plot Ratio restriction from 9.5 to 11.4. Based on the relaxed PR of **11.4**, the GFA will be **16,945.370m²**. Subject to the approval from BD, the bonus GFA to be claimed for the Non-Building Area about 717.980m², the total GFA of the Proposed Development may be increased to about 17,663.350 m² (equivalent to the PR 11.883). The submitted architectural drawings and technical assessments are prepared based on the maximum development intensity (i.e. with bonus GFA to be granted by BD) for illustrative purpose. The clarification applies to descriptions in pages 15-16 and 21 of the Supporting Planning Statement.

With the above clarifications, our office would like to furnish your office with the revised title page, location plan, schedule of uses on "Other Specified Uses" annotated "Business" zone-Schedule I: for open-air development or for building other than industrial or industrial-office building, executive summary and authorisation letter.

KTA PLANNING LIMITED
規劃顧問有限公司

Should you have any queries in relation to the attached, please do not hesitate to contact the undersigned or Ms. Camille Lam at 3426 8841.

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

David Fok

Encl.

cc. the Applicant & Team

KT/DF/CL/EC/vy

OTHER SPECIFIED USES (Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board

For "Business" Only

Schedule I: for open-air development or
for building other than industrial or industrial-office building@

Ambulance Depot
Commercial Bathhouse/Massage Establishment
Eating Place
Educational Institution
Exhibition or Convention Hall
Government Use (Police Reporting Centre, Post Office only)
Information Technology and Telecommunications Industries
Institutional Use (not elsewhere specified)
Library
Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods $^{\Delta}$)
Off-course Betting Centre
Office
Place of Entertainment
Place of Recreation, Sports or Culture
Private Club
Public Clinic
Public Convenience
Public Transport Terminus or Station
Public Utility Installation
Public Vehicle Park (excluding container vehicle)
Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation
Recyclable Collection Centre
Religious Institution
Research, Design and Development Centre
School (excluding free-standing purpose-designed building and kindergarten)
Shop and Services
Training Centre
Utility Installation for Private Project
Broadcasting, Television and/or Film Studio
Cargo Handling and Forwarding Facility
Government Refuse Collection Point
Government Use (not elsewhere specified)
Hotel
Mass Transit Railway Vent Shaft and/or Other Structure above ground level other than Entrances
Non-polluting Industrial Use (not elsewhere specified)
Petrol Filling Station
School (not elsewhere specified)
Social Welfare Facility (excluding those involving residential care)
Warehouse (excluding Dangerous Goods Godown)
Wholesale Trade

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

For "Business" Only (Cont'd)

In addition, the following uses are always permitted in the purpose-designed non-industrial portion on the lower floors (except basements and floors containing wholly or mainly car parking, loading/unloading bays and/or plant room) of an existing building, provided that the uses are separated from the industrial uses located above by a buffer floor or floors and no industrial uses are located within the non-industrial portion :	In addition, the following use may be permitted with or without conditions on application to the Town Planning Board in the purpose-designed non-industrial portion on the lower floors (except basements and floors containing wholly or mainly car parking, loading/unloading bays and/or plant room) of an existing building provided that the use is separated from the industrial uses located above by a buffer floor or floors and no industrial uses are located within the non-industrial portion :
Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Institutional Use (not elsewhere specified) Library Off-course Betting Centre Office Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Religious Institution School (excluding kindergarten) Shop and Services Training Centre	Social Welfare Facility (excluding those involving residential care)

@ An industrial or industrial-office building means a building which is constructed for or intended to be occupied by industrial or industrial-office purpose respectively as approved by the Building Authority.

Δ Dangerous Goods refer to substances classified as Dangerous Goods and requiring a licence for their use/storage under the Dangerous Goods Ordinance (Cap.295).

Ancillary Showroom requiring planning permission refers to showroom use of greater than 20% of the total usable floor area of an industrial firm in the same premises or building.

Planning Intention

This zone is intended primarily for general business uses. A mix of information technology and telecommunications industries, non-polluting industrial, office and other commercial uses are always permitted in new "business" buildings. Less fire hazard-prone office use that would not involve direct provision of customer services or goods to the general public is always permitted in existing industrial or industrial-office buildings.

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

For "Business" Only (Cont'd)

Remarks

(1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total plot ratio of 9.5, or the plot ratio of the existing building, whichever is the greater.

(2) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building heights in terms of metres above Principal Datum (mPD) as stipulated on the Plan, or the height of the existing building, whichever is the greater.

(3) On land demarcated for a 15m-wide building gap from Castle Peak Road to the east-west aligned section of Tai Lin Pai Road as shown on the Plan, no new development (except minor addition, alteration and/or modification not affecting the building height of the existing building) or redevelopment of an existing building shall exceed the maximum building height restriction of 25mPD.

(4) A minimum 4m-wide non-building area from the lot boundary abutting Lam Tin Street and a minimum 3.5m-wide non-building area from the lot boundary abutting Chun Pin Street (except 1 Chun Pin Street) and Ta Chuen Ping Street (except 26-38, 68, 70, 85-89 and 93 Ta Chuen Ping Street) shall be provided.

(5) In determining the maximum plot ratio for the purpose of paragraph (1) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.

(6) Where the permitted plot ratio as defined in Building (Planning) Regulations is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio for the building on land to which paragraph (1) applies may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio specified in paragraph (1) above may thereby be exceeded.

(7) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/building height/building gap restrictions stated in paragraphs (1) to (3) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(8) Under exceptional circumstances, for a development or redevelopment proposal, minor relaxation of the non-building area restrictions as shown on the Plan or stated in paragraph (4) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(Please see next page)

Executive Summary

The Applicant, Gain Champion Investment Limited (盈冠投資有限公司), seeks approval from the Town Planning Board ("TPB") under Section 16 of the Town Planning Ordinance for a Proposed Industrial Building with Minor Relaxation of Plot Ratio ("PR") Restriction of 20% at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung ("the Site"). This Planning Application is in-line with the 2018 Policy Address, which encourages owners to redevelop industrial buildings ("IBs") constructed before 1987.

In her 2018 policy address, the Chief Executive announced to reactivate the Revitalisation Scheme for Industrial Buildings:

"*...to extend the application of the present planning policy about suitably increasing the maximum permissible domestic plot ratio within certain "Residential" (R) zones, so as to allow relaxation of the maximum permissible non-domestic plot ratio by up to 20% for redevelopment projects of these pre-1987 industrial building located outside "R" zones in Main Urban Areas and New Towns*"

The Proposed Development falls within an area zoned "Other Specified Uses" annotated "Business" ("OU(B)") under the Draft Kwai Chung OZP No. S/KC/29. According to the Notes of the OZP, "Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)" is a Column 1 uses and it is always permitted within the "OU(B)" zone. With 20% relaxation of the permissible plot ratio to 11.4, the GFA of the proposed development will be 16,945.370 m^2. Taking into account the bonus GFA to be claimed for the Non-Building Area about 717.980 m^2, the total GFA of the Proposed Development will be about 17,663.350 m^2. The Proposed Development involves 1 block of 23-storey building (including G/F, 1 level of Mechanical Floor and 1 level of Basement Car Park) with a conforming maximum building height at 130mPD.

The Proposed Development with Minor Relaxation of PR Restriction is fully justified based on the following:

- The Proposed Development of an IB is in-line with Government's Policy on Revitalising Industrial Buildings;
- The Proposed Development optimises the use of currently "underutilised" industrial land in meeting the projected shortfall in floor space for industries in "The 2030+ Study";
- The Proposed Development will unleash the provision of "new" floor space for non-polluting industrial use in addressing the decreasing vacancy rate of industrial land and could expedite the transformation of Castle Peak Road/ Wo Yi Hop Business Area;
- The Proposed Development will continue to meet the prevailing planning intention of "OU(B)" zone and it is compatible with surrounding land uses;
- The relaxation of PR restriction for 20% is considered minor in nature and deemed acceptable;
- Planning and design merits of the proposed development include:

  - Providing a 3.5m-wide non-building area ("NBA") with Full Height set back following the requirement stipulated on the Draft OZP along Ta Chuen Ping Street to widen the existing footpath, thereby enhance a pleasant walking environment;
  - Incorporating substantial greening visible from Ta Chuen Ping Street with Tree planting at grade as well as the edge planting at low levels to improve the visual quality of the surrounding environment and streetscape;
- Adopting green building design;
- Compliance with Sustainable Building Design Guidelines on building separation, building setback and site coverage of greenery under PNAP APP152 - Sustainable Building Design Guidelines; and
- The Proposed Development will not result in adverse traffic and sewerage impacts.

In light of justifications given throughout the planning statement, we sincerely request the TPB to give favourable consideration to this Application.

行政摘要
（內文如有差異，應以英文版本為準）

申請人盈冠投資有限公司（Gain Champion Investment Limited）擬就城市規劃條例第 16 條向城市規劃委員會（城規會）提出規劃申請，擬議於葵涌打磚坪街 94-100 號（下稱「申請地點」）經常准許的非污染工業發展，提出略為放寬 20%地積比率限制。此規劃申請符合《施政報告 2018》中推動業主重建一九八七年前所落成的工業大廈的政策。

行政長官在《施政報告 2018》中宣布重啟工廈活化計劃：

> 「延伸現時在部分「住宅」地帶內適度提高最高住用地積比率的規劃政策，在位於 主要市區及新市鎮的非「住宅」地帶內，容許相關工廈重建項目可放寬最高核准非住用地積比率，上限為 20%...」

申請地點於葵涌分區計劃大綱草圖編號 S/KC/29（下稱「草圖」）上被劃為「其他指定用途」 註明「商貿」地帶。根據該地帶的註釋，「非污染工業用途(不包括涉及使用/貯存危險品的工業經營)」為有關地帶土地用途表的第一欄用途，屬經常准許使用的土地用途。因放寬最高非住用地積比率 20%至 11.4， 擬議發展計劃的樓面面積約 16,945.370 平方米。如擬議發展計劃因非建築用地限制而獲得的額外樓面面積約 717.980 平方米， 擬議發展計劃的總樓面面積為 17,663.350 平方米。擬議發展計劃涉及一幢 23 層高的建築物(包括地下、1 層機電層和 1 層地庫停車場)，最高建築物高度為主水平基準以上 130 米。

擬議略為放寬地積比率限制的發展計劃主要理據如下：

- 擬議工業大廈發展計劃符合政府活化工廈的政策；
- 對應《2030+》研究所推算的工業樓面面積短缺情況，擬議發展計劃善用現時尚未盡用的工業土地；
- 擬議發展將會釋放「新」樓面面積作非污染工業用途並解決工廈空置率下降，可加快青山公路／和宜合道商貿區的轉型；
- 擬議發展仍然符合現時「其他指定用途」註明「商貿」地帶的規劃意向及兼容周圍土地用途；
- 擬議放寬最高非住用地積比率 20%，性質上應視為輕微及可接受的；
- 擬議發展方案的規劃及設計優點包括：
  - 按照相關發展大綱草圖的要求，沿著打磚坪街劃設一條 3.5 米寬的「非建築用地」地帶並全高度退入，以擴寬現有行人路，從而改善行人環境的暢達度及舒適度；
  - 在面向打磚坪街進行大量綠化包括樹木種植及邊緣種植，以改善周圍環境及街道景觀；
- 採用綠色建築設計；
- 遵守「可持續建築設計指引」中有關樓宇分隔、樓宇後移及綠化覆蓋率的準則；及
- 不會帶來負面交通及排污影響。

基於以上各項規劃理據，申請人懇請城規會支持這規劃申請。

3. THE PROPOSED DEVELOPMENT SCHEME

3.1 Proposed Development Scheme

3.1.1 It is proposed to develop the land lot for permitted "Non-polluting Industrial Use" with Minor Relaxation of Plot Ratio ("PR") of 20%. Based on a site area of about 1,486.436 m^2 and proposed 20% relaxation of the permissible plot ratio, i.e. increased from 9.5 to 11.4, the total GFA of the development at the Site would be about 16,945.370 m^2.

3.1.2 The Proposed Development incorporates the 3.5m Non-Building Area (NBA) required under the OZP and the Applicant is prepared to dedicate it as a public passage at street level. Subject to the approval from Buildings Department, a bonus GFA[4] of about 717.980 m^2 and a bonus site coverage of 1.537% may be claimed for the NBA. The total GFA of the Proposed Development may be increased about 17,663.350 m^2 (equivalent to the PR 11.883).

3.1.3 The Proposed Development includes 1 block of 23-storey building (including G/F, 1 storey of mechanical floor and 1 storey of basement) with building height of not more than +130mPD (main roof).

3.1.4 To ensure the environmental quality of the Proposed Development, the Proposed Development will not rely on openable window for ventilation. A min. 5m buffer distance[5] from the kerbside of Ta Chuen Ping Street will be provided.

3.1.5 It is anticipated that the Proposed Development will be completed in 2025. Major development parameters and proposed floor uses of the Proposed Development are summarised in **Table 3.1** and **Table 3.2** respectively. The floor plans and schematic section plans are presented at **Appendix 1**.

[4] Five times of the dedication area, i.e. about 143.596 m^2 x 5 = 717.980 m^2

[5] Ta Chuen Ping Street is recognised as a local distributor road. With reference made to the Hong Kong Planning Standards and Guidelines ("the HKPSG"), a min. of 5m air quality buffer shall be provided.

	PARAMETERS
Total Site Area	About 1,486.436 m^2
Plot Ratio[6]	11.4
Total GFA[7]	About 16,945.370m^2
Site Coverage • **0-15m** • **Above 15m**	 Not more than 90% Not more than 61.537% (include bonus site coverage of 1.537%)
Class of Site	Class A
Nos. of Blocks	1
Maximum Building Height	Not more than +130mPD
Nos. of Storeys	23 (including G/F, 1 level of mechanical floor and 1 level of basement)

Table 3.1: Major Development Parameters

FLOOR	PROPOSED USES
R/F	Flat Roof, Electrical and Mechanical Plant Rooms
4/F-21/F	Workshop (Non-polluting Industrial Use)
3/F	Electrical and Mechanical Plant Rooms
2/F	Workshop (Non-polluting Industrial Use) and Upper Part Transformer Room
1/F	Workshop (Non-polluting Industrial Use) and Transformer Room
G/F	Lift Lobby, Loading and Unloading and Car Park
B1/F	Car Park

Table 3.2: Proposed Floor Uses

3.2 Flexible Internal Layout

3.2.1 To provide sustainable competitive advantage in the face of ever-changing industry trends and to serve the diversified industrial uses at the proposed IB, the internal layout will be flexible to meet the different niches ranging from start-up to small / medium-sized industrial enterprises. The internal layout of the proposed IB enclosed in **Appendix 1** is indicative only. The Applicant aims to provide largest flexibility to the future occupiers to determine the appropriate internal layout of each floor/premises.

[6] According to the remarks (6) for OU(B) zone of the prevailing OZP No. S/KC/29, where the permitted plot ratio as defined in Building (Planning) Regulation is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio for the building on land may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio may thereby be exceeded. The total plot ratio of the Proposed Development with 20% relaxation is 11.4. The plot ratio will be increased to 11.883 taken into account the bonus plot ratio related to the dedication of the proposed NBA, subject to the approval by Buildings Department.

[7] The GFA will be 17,663.350 m^2 after taking into account of the bonus GFA (i.e. 717.980 m^2) related to the dedication of the proposed NBA and 20% relaxation of the permissible plot ratio (i.e. 16,945.370 m^2), subject to the approval by Buildings Department.

3.4 Access and Provision of Internal Transport Facilities

3.4.1 A vehicular access for the proposed IB will be provided at Ta Chuen Ping Street. Carparking spaces and Loading and Unloading area will be located at B1/F and G/F respectively.

3.4.2 The internal transport facilities for Proposed Development meets the high-end recommendations under the Hong Kong Planning Standards and Guidelines ("HKPSG"). The proposed internal transport facilities are summarised and presented in **Table 3.3**[8]. Please also refer to **Appendix 3: TIA**.

TYPE OF FACILITIES	HKPSG REQUIREMENT	REQUIRED PROVISION	PROPOSED PROVISION
Private Car Parking Space	1 per 600- 750 m^2	24-30	30
Motorcycle Parking Space	5-10% of private car parking space	1-3	3
Goods Vehicle Parking Space/ Loading & Unloading Bay:	1 goods vehicle bay per 1,000 – 1,200m^2 of 50% of the GFA; 1 per 2,000 – 3,000m2 of the remaining 50% of the GFA; 50% of which should be parking of goods vehicles; and Goods vehicle provision is divided into 65 % LGV and 35 % HGV	10-13	13 (LGV: 8; HGV: 5)

Table 3.3: Internal Transport Facilities Provision

[8] The provision of Internal Transport facilities is calculated based on a total of 17,663.350 m^2 after taking into account of the bonus GFA related to the dedication of the proposed NBA, subject to the approval by Buildings Department.

S. 16 PLANNING APPLICATION
DRAFT KWAI CHUNG OZP NO. S/KC/29

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung

SUPPORTING PLANNING STATEMENT

April 2021

Applicant:
Gain Champion Investment Limited

Consultancy Team:
KTA Planning Limited
Andrew Lee King Fun & Associates Architects Ltd.
CKM Asia Limited
Cundall Hong Kong Limited

Executive Summary

The Applicant, Gain Champion Investment Limited (盈冠投資有限公司), seeks approval from the Town Planning Board ("TPB") under Section 16 of the Town Planning Ordinance for a Proposed Industrial Building with Minor Relaxation of Plot Ratio ("PR") Restriction of 20% at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung ("the Site"). This Planning Application is in-line with the 2018 Policy Address, which encourages owners to redevelop industrial buildings ("IBs") constructed before 1987.

In her 2018 policy address, the Chief Executive announced to reactivate the Revitalisation Scheme for Industrial Buildings:

"…*to extend the application of the present planning policy about suitably increasing the maximum permissible domestic plot ratio within certain "Residential" (R) zones, so as to allow relaxation of the maximum permissible non-domestic plot ratio by up to 20% for redevelopment projects of these pre-1987 industrial building located outside "R" zones in Main Urban Areas and New Towns*"

The Proposed Development falls within an area zoned "Other Specified Uses" annotated "Business" ("OU(B)") under the Draft Kwai Chung OZP No. S/KC/29. According to the Notes of the OZP, "Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)" is a Column 1 uses and it is always permitted within the "OU(B)" zone. With 20% relaxation of the permissible plot ratio to 11.4, the GFA of the proposed development will be 16,945.370 m^2. Taking into account the bonus GFA to be claimed for the Non-Building Area about 717.980 m^2, the total GFA of the Proposed Development will be about 17,663.350 m^2. The Proposed Development involves 1 block of 23-storey building (including G/F, 1 level of Mechanical Floor and 1 level of Basement Car Park) with a conforming maximum building height at 130mPD.

The Proposed Development with Minor Relaxation of PR Restriction is fully justified based on the following:

- The Proposed Development of an IB is in-line with Government's Policy on Revitalising Industrial Buildings;
- The Proposed Development optimises the use of currently "underutilised" industrial land in meeting the projected shortfall in floor space for industries in "The 2030+ Study";
- The Proposed Development will unleash the provision of "new" floor space for non-polluting industrial use in addressing the decreasing vacancy rate of industrial land and could expedite the transformation of Castle Peak Road/ Wo Yi Hop Business Area;
- The Proposed Development will continue to meet the prevailing planning intention of "OU(B)" zone and it is compatible with surrounding land uses;
- The relaxation of PR restriction for 20% is considered minor in nature and deemed acceptable;
- Planning and design merits of the proposed development include:

  - Providing a 3.5m-wide non-building area ("NBA") with Full Height set back following the requirement stipulated on the Draft OZP along Ta Chuen Ping Street to widen the existing footpath, thereby enhance a pleasant walking environment;
  - Incorporating substantial greening visible from Ta Chuen Ping Street with Tree planting at grade as well as the edge planting at low levels to improve the visual quality of the surrounding environment and streetscape;
- Adopting green building design;
- Compliance with Sustainable Building Design Guidelines on building separation, building setback and site coverage of greenery under PNAP APP152 - Sustainable Building Design Guidelines; and
- The Proposed Development will not result in adverse traffic and sewerage impacts.

In light of justifications given throughout the planning statement, we sincerely request the TPB to give favourable consideration to this Application.

行政摘要
（內文如有差異，應以英文版本為準）

申請人盈冠投資有限公司（Gain Champion Investment Limited）擬就城市規劃條例第 16 條向城市規劃委員會（城規會）提出規劃申請，擬議於葵涌打磚坪街 94-100 號（下稱「申請地點」）經常准許的非污染工業發展，提出略為放寬 20%地積比率限制。此規劃申請符合《施政報告 2018》中推動業主重建一九八七年前所落成的工業大廈的政策。

行政長官在《施政報告 2018》中宣布重啟工廈活化計劃：

> 「延伸現時在部分「住宅」地帶內適度提高最高住用地積比率的規劃政策，在位於 主要市區及新市鎮的非「住宅」地帶內，容許相關工廈重建項目可放寬最高核准非住用地積比率，上限為 20%...」

申請地點於葵涌分區計劃大綱草圖編號 S/KC/29（下稱「草圖」）上被劃為「其他指定用途」 註明「商貿」地帶。根據該地帶的註釋，「非污染工業用途(不包括涉及使用/貯存危險品的工業經營)」為有關地帶土地用途表的第一欄用途，屬經常准許使用的土地用途。 因放寬最高非住用地積比率 20%至 11.4, 擬議發展計劃的樓面面積約 16,945.370 平方米。如擬議發展計劃因非建築用地限制而獲得的額外樓面面積約 717.980 平方米, 擬議發展計劃的總樓面面積為 17,663.350 平方米。 擬議發展計劃涉及一幢 23 層高的建築物(包括地下、1 層機電層和 1 層地庫停車場)，最高建築物高度為主水平基準以上 130 米。

擬議略為放寬地積比率限制的發展計劃主要理據如下:

- 擬議工業大廈發展計劃符合政府活化工廈的政策；
- 對應《2030+》研究所推算的工業樓面面積短缺情況，擬議發展計劃善用現時尚未盡用的工業土地；
- 擬議發展將會釋放「新」樓面面積作非污染工業用途並解決工廈空置率下降，可加快青山公路／和宜合道商貿區的轉型；
- 擬議發展仍然符合現時「其他指定用途」註明「商貿」地帶的規劃意向及兼容周圍土地用途；
- 擬議放寬最高非住用地積比率 20%，性質上應視為輕微及可接受的；
- 擬議發展方案的規劃及設計優點包括:
    - 按照相關發展大綱草圖的要求，沿著打磚坪街劃設一條 3.5 米寬的「非建築用地」地帶並全高度退入，以擴寬現有行人路，從而改善行人環境的暢達度及舒適度；
    - 在面向打磚坪街進行大量綠化包括樹木種植及邊緣種植，以改善周圍環境及街道景觀；
- 採用綠色建築設計；
- 遵守「可持續建築設計指引」中有關樓宇分隔、樓宇後移及綠化覆蓋率的準則；及
- 不會帶來負面交通及排污影響。

基於以上各項規劃理據，申請人懇請城規會支持這規劃申請。

Table of Contents

List of Figures

List of Tables

List of Photos

List of Appendices

S.16 Planning Application
Draft Kwai Chung OZP No. S/KC/29

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" Zone At Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Supporting Planning Statement

1. INTRODUCTION

1.1 Purpose

1.1.1 This application is prepared and submitted on behalf of Gain Champion Investment Limited ("the Applicant") to seek approval from the Town Planning Board ("TPB") under Section 16 of the Town Planning Ordinance for the Proposed Industrial Building with Minor Relaxation of Plot Ratio Restriction at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong ("the Site" or "the Application Site"). The Site falls within an area zoned "Other Specified Uses" annotated "Business" ("OU(B)") under the Draft Kwai Chung Outline Zoning Plan ("the Draft OZP") No. S/KC/29. This Supporting Planning Statement is to provide TPB with necessary information to facilitate consideration of this application.

1.2 Report Structure

1.2.1 Following this introductory section, the site and planning context will be briefly set out in Section 2. The proposed development scheme is described in Section 3 followed by planning merits and justifications for the application in Section 4. Section 5 concludes and summarizes this Supporting Planning Statement.

2. SITE AND PLANNING CONTEXT

2.1 Site Location and Existing Use

2.1.1 The Site is situated at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong (Lot 290 in Demarcation District (D.D.) 444) (**Figure 2.1** refers). It is bounded by Ta Chuen Ping Street to the north, Kong Sheng Factory Building to the southeast, and Regent Centre Block A and B to the west.

2.1.2 The previous industrial building named as Kam Yu Building ("Subject Building") was completed in 1963 (i.e. the Occupation Permit for the Subject Building was issued on 4th January 1963). It was a 7-storey building, designed for Industrial use. The Subject Building was already demolished and the Site is currently used as a temporary loading and unloading area. The Site is considered to be an underutilised land lot (**Photo 1 and 2** refer).

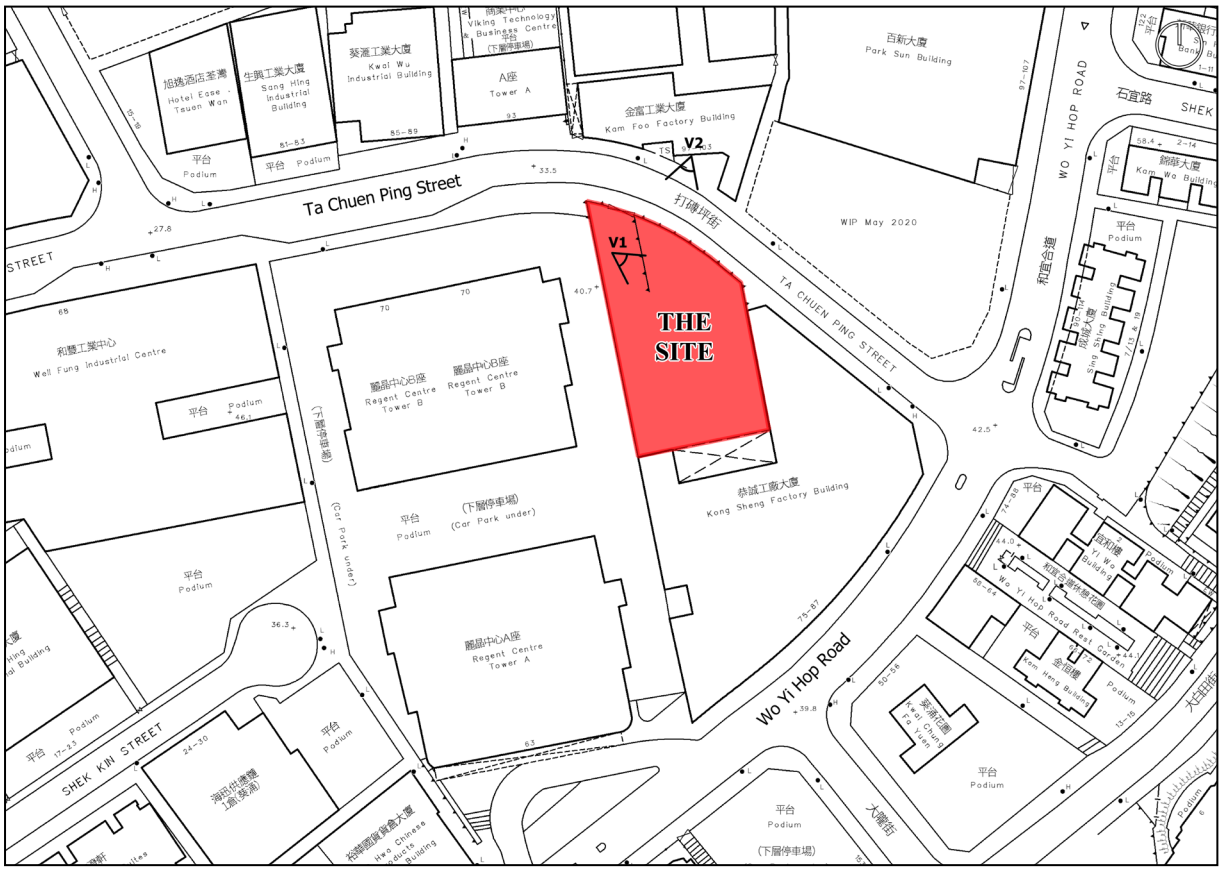


Figure 2.1: Site Location Plan

Photo 1: Site Photo- Within the Site (V1)

Photo 2: Site Photo- Outside of the Site (V2)

2.2 Surrounding Land Use Pattern

2.2.1 As shown in **Figure 2.2** and the relevant **Site Photos** (**Photo 1 and 2** refer), the Site is located at the eastern edge of the Castle Peak Road/ Wo Yi Hop Road Business Area ("Business Area") in Kwai Chung, which is generally bounded by Kwai Chung Road, Castle Peak Road- Kwai Chung and Wo Yi Hop Road. The area is under a gradual transformation to Business Area.

2.2.2 Although the Business Area is predominated with industrial buildings, there are some new buildings, which are commercial or non-polluting industrial buildings. These include Silka Tsuen Wan Hotel, Hotel Ease Tsuen Wan, iTech Tower 2 and Asia Trade Centre. To the east and south of Wo Yi Hop Road, the area is dominated with mainly residential developments. To the southwest across the Castle Peak Road- Kwai Chung, there is another business area namely the Kwai Chung Road Business Area (**Figure 2.2** refers).

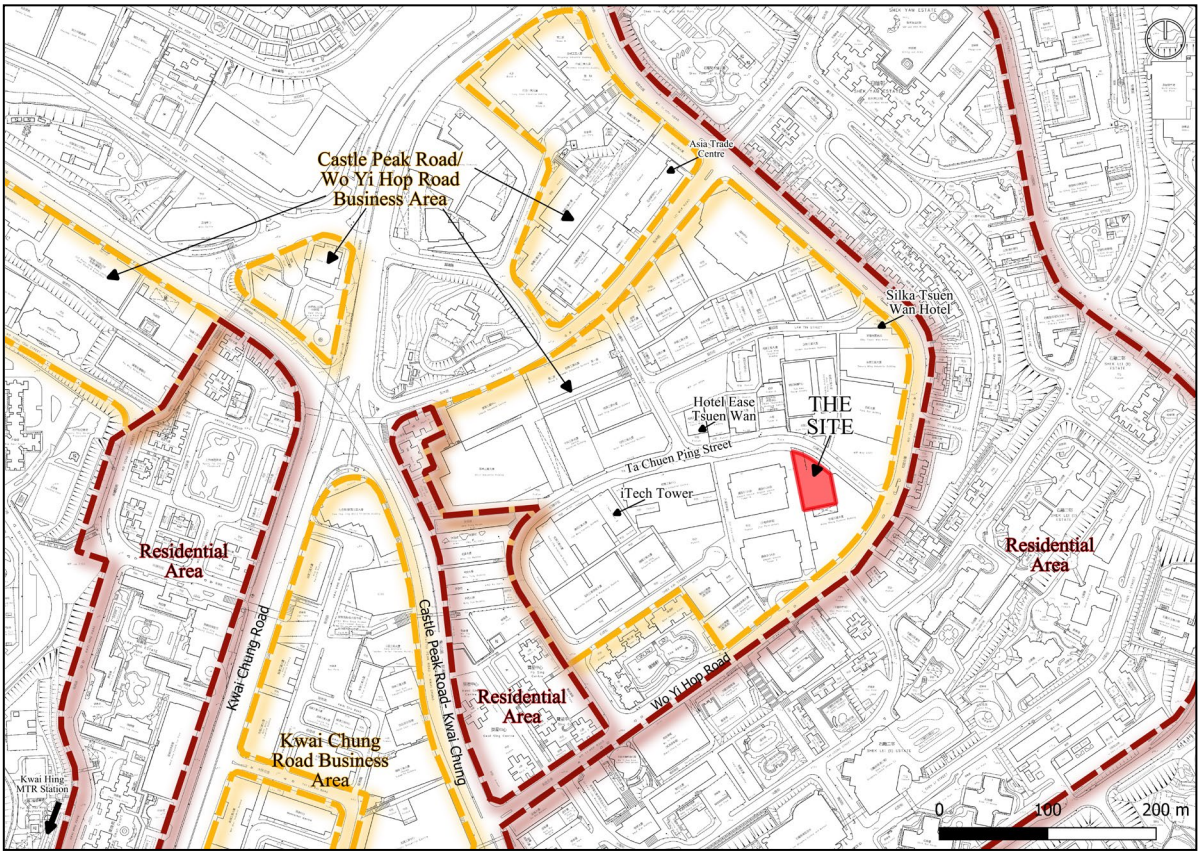


Figure 2.2: Surrounding Context

2.3 Accessibility of the Site

2.3.1 The run in/ out point of the site faces Ta Chuen Ping Street. Vehicles to and from the Site could reach other major arterial roads such as Wo Yi Hop Road and Castle Peak Road- Kwai Chung via Ta Chuen Ping Street. The Kwai Hing MTR Station is approximately 1,500m (20-minute) walking distance to the northwest of the Site. Several bus and minibus stop can also be found near the Site along Wo Yi Hop Road and Castle Peak Road- Kwai Chung within walking distance. Please refer to **Figure 2.3**.

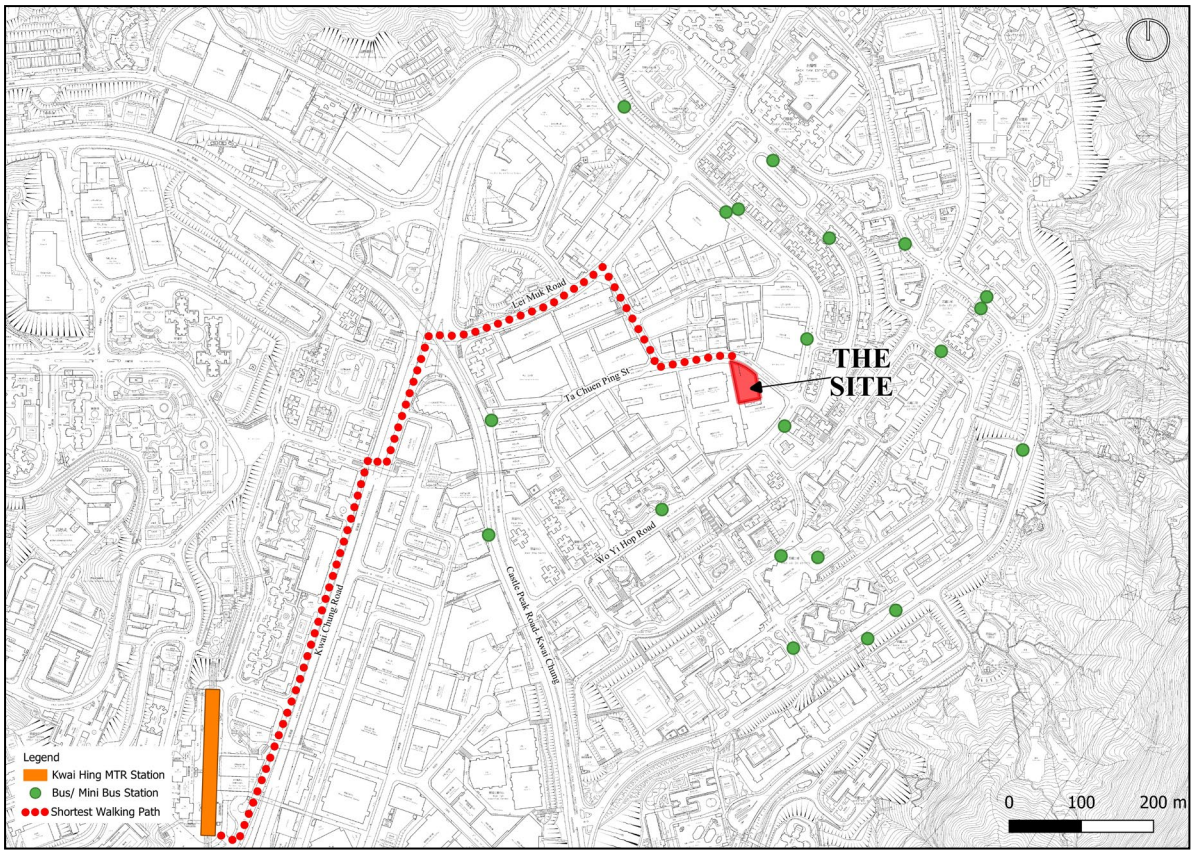


Figure 2.3: Accessibility of the Site

2.4 Land Status and Lease Condition

2.4.1 The Proposed Industrial Building to be built on land is registered as D.D. 444 Lot 290 in the Land Registry. It is solely owned by the Applicant: Gain Champion Investment Limited, who is also the current Applicant of the Application. According to the prevailing lease, the Site has a registered area of about 1,486.436 m^2 (16,000 sq. ft.) and there is no specific restriction on the development intensity such as plot ratio, gross floor area, building height and etc.. However, the Site shall only be used for industrial purposes excluding offensive trades.

2.5 Statutory Planning and Non- Statutory Planning Context

2.5.1 Statutory Planning Context

2.5.1.1 The Site falls within an area zoned "Other Specified Uses" annotated "Business" ("OU(B)") under the Draft Kwai Chung Outline Zoning Plan ("the Draft OZP") No. S/KC/29 (**Figure 2.4** refers). According to the Statutory Notes of the Draft OZP, the planning intention of "OU(B)" zone is as follows:

"*This zone is primarily for general business uses. A mix of information technology and telecommunications industries, non-polluting industrial, office and other commercial uses are always permitted in new "business" buildings. Less fire hazard-prone office use that*

would not involve direct provision of customer services or goods to the general public is always permitted in existing industrial or industrial-office buildings".

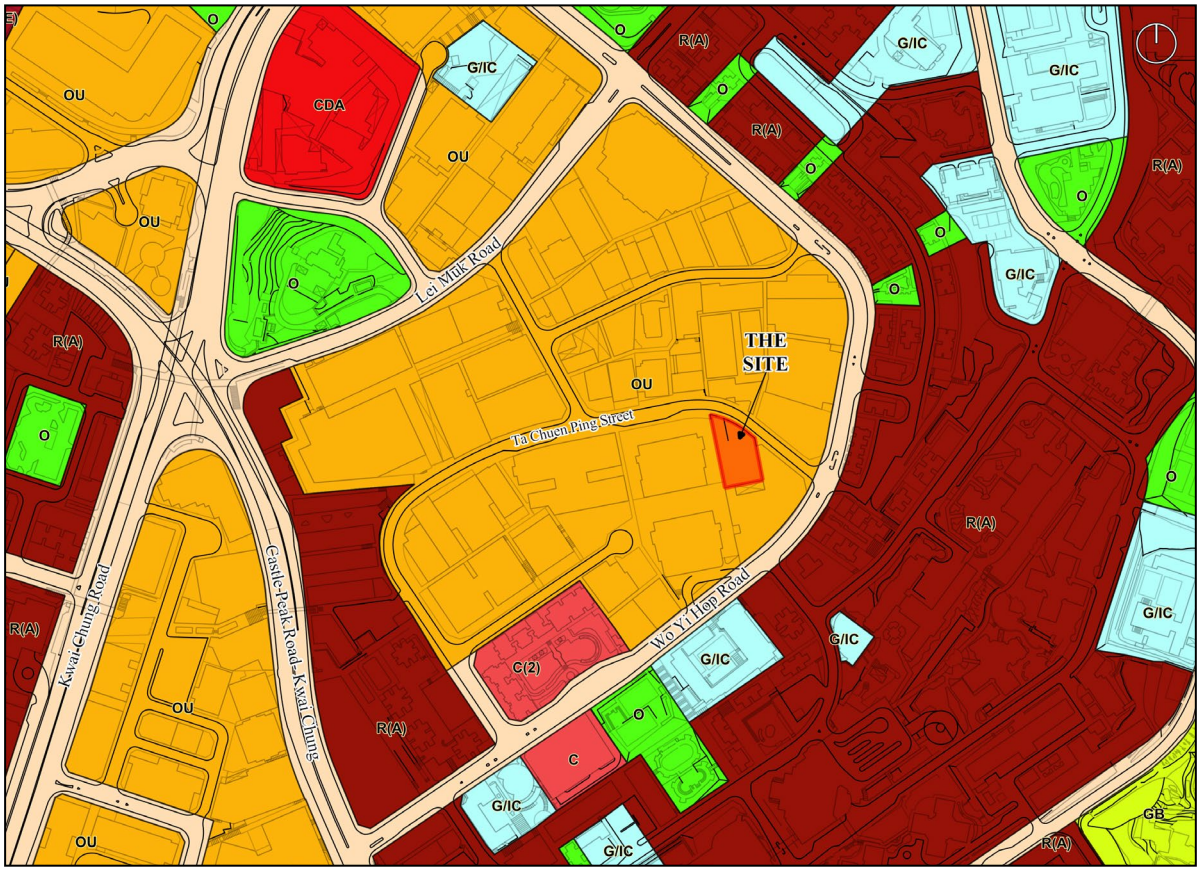


Figure 2.4: Zoning Context Plan: Draft Kwai Chung OZP No. S/KC/29

2.5.1.2 Under Column 1 Uses always permitted, "Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)" is always permitted within the "OU(B)" zone. Any Proposed Development is subjected to a maximum building height of 130mPD and a maximum total plot ratio of 9.5, or plot ratio of the existing building, whichever is the greater.

2.5.1.3 Based on the individual merits of the development or redevelopment proposal, minor relaxation of the plot ratio/ building height/ building gap restrictions may be considered by the TPB on application under Section 16 of the Town Planning Ordinance.

2.5.1.4 As stipulated within the Draft OZP, a minimum 3.5m-wide non-building area from the lot boundary abutting Ta Chuen Ping Street shall be provided for this Site (**Figure 2.5** refers).

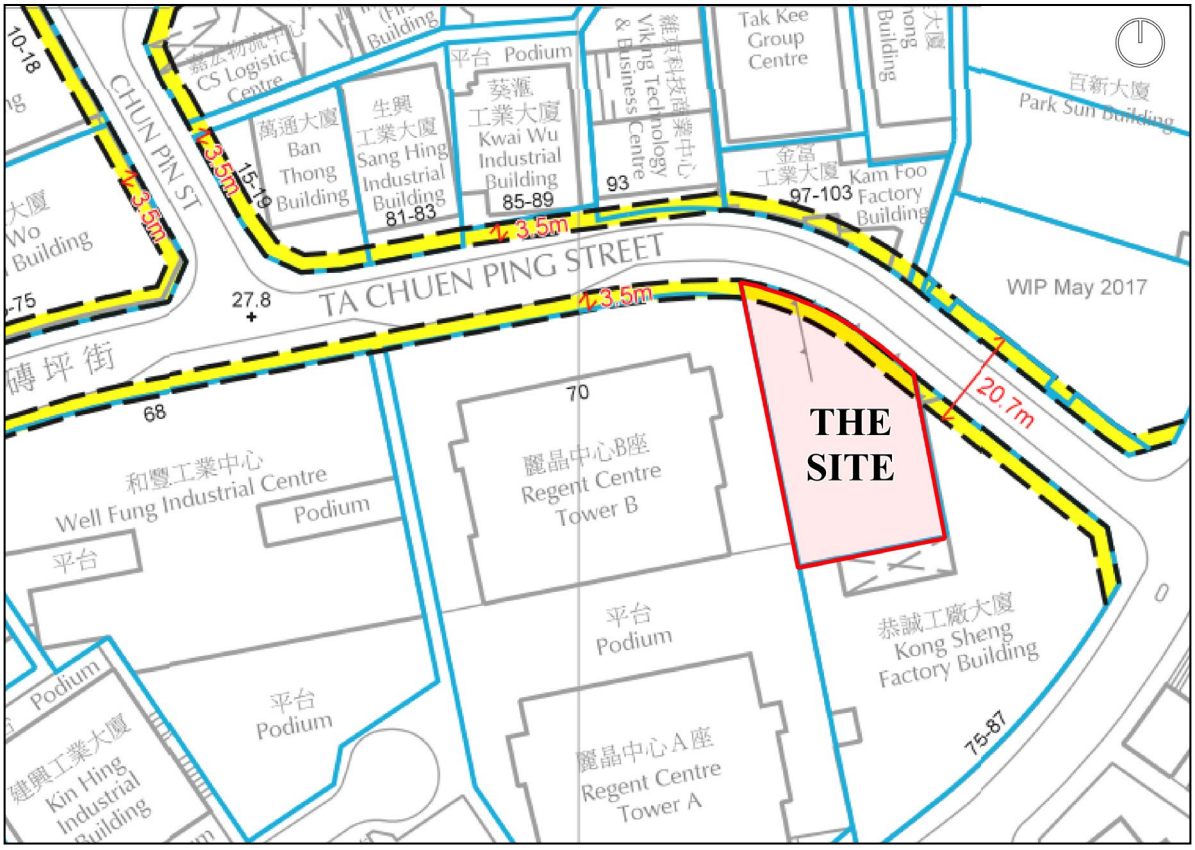


Figure 2.5: Locations of Non-Building Area stipulated in the Draft OZP No. S/KC/29 (Extract from the Draft OZP)

2.5.2 Kwai Chung Outline Development Plan

2.5.2.1 According to the Kwai Chung Outline Development Plan (ODP) No. D/KC/D approved on 2nd April 2004, there are no specific restrictions on the planning parameters for the Site (**Figure 2.6** refers). Nevertheless, the ODP reflects the non-building area requirement stipulated under the Draft OZP. While the 3.5m NBA of the Application Site falls within the area shown as "Road", the remaining portion of the Applicant Site is zoned "Business" under the ODP.

Figure 2.6: Approved Kwai Chung Outline Development Plan (ODP) No. D/KC/D (Extract from the Kwai Chung ODP)

2.5.3 Definition of "Non-polluting Industrial Use" in TPB PG No. 22D

2.5.3.1 The TPB PG No. 22D clearly sets out the Development within the "OU(B)" zone and the definition of terms for "Non-polluting Industrial Use". "Non-polluting Industrial Use" defines in the TPB PG No. 22D as follows

"*This means any industrial use which does not involve activities that are detriment to the occupants of the building and amenity of the area by reason of noise, waste water discharge, vibration, smell, fume, smoke, soot, ash, dust or grit*."

2.5.3.2 The TPB PG No. 22D also indicates the uses involving "prototyping, production, design, research and development, alteration, testing, quality control, adaption, repair, assembly, packaging, storage and distribution of goods and materials" for the "Non-polluting Industrial Use". It also involves with the information technology support and training for the aforementioned processes. Such uses however shall not involve offensive trades and generate environmental pollution and nuisance to the neighbours.

2.5.3.3 Given that, this Application is to propose with workshop units for "Non-polluting Industrial Use" only. The uses of the Development Proposal will therefore not involve any offensive trades nor generate adverse impact to the neighbours and surroundings.

2.6 Gradual Transformation from Former Industrial Area into Business Area

2.6.1 Findings of the "Report on 2014 Area Assessments of Industrial Land in the Territory"

2.6.1.1 The Planning Department undertook and reviewed area assessments of industrial land in the territory periodically in 2000, 2005, 2009 and 2014. According to the latest assessment, the "Report on 2014 Area Assessments of Industrial Land in the Territory" ("the Area Assessments 2014") released in April 2015, majority of the floor space in the Castle Peak Road/ Wo Yi Hop Road Business Area (Site B11) are for warehouse/ storage (56.4%), followed by other uses such as office (18.5%) and manufacturing/ workshop (6.6%) uses. The overall vacancy rate as recorded decreased from 7.4% in 2009 to 5.7% in 2014, lower than the average 6.5% for the "OU(B)" zone in Kwai Tsing/ Tsuen Wan, as well as the territorial figure of 6.0%.

2.6.1.2 Given the decreasing vacancy rate of industrial floor spaces and the continuous land use restructuring, the Area Assessments 2014 recommended to retain the area as "OU(B)" zone.

2.6.2 Past Redevelopment/ Wholesale Conversion Applications within Castle Peak Road/ Wo Yi Hop Road Business Area

2.6.2.1 There has been ongoing land use restructuring in the prevailing Castle Peak Road/ Wo Yi Hop Road Business Area since the area was zoned as "OU(B)". Since 2005, planning application for eight sites within the "OU(B)" zone have been

approved for hotel or minor relaxation of plot ratio for Industrial- Office redevelopment and Information Technology and Telecommunications redevelopment (**Table 2.1 and Figure 2.7** refer)

	APPLICATION NO.	DETAILS	ADDRESS	APPROVED DATE
1	A/KC/373	S.16 Application for Proposed Hotel in OU(B) zone	No. 26-38 Ta Chuen Ping St., Kwai Chung (Lot 303 RP in DD 444)	15/6/2012
2	A/KC/290	S.16 Application for Proposed Hotel in OU(B) zone	No. 54-56 Ta Chuen Ping St., Kwai Chung (Lot 326 RP in DD 444)	21/01/2005
	A/KC/290-1			21/01/2009
3	A/KC/381	S.16 Application for Proposed Hotel and Public Vehicle Park	75- 87 Wo Yi Hop Road, Kwai Chung (Lot 291 in DD 444)	15/06/2012
	A/KC/397	S.16 Application for Proposed Hotel		19/04/2013
4	A/KC/390	S.16 Application for Proposed Hotel	No. 119 Wo Yi Hop Road, Kwai Chung (KCTL 167)	20/07/2012
5	A/KC/466	S.16 for Proposed Minor Relaxation of PR and BH Restrictions for Permitted Information Technology And Telecommunications Industries (Proposed Data Centre Development)	Nos. 2-16 Lam Tin Street, Kwai Chung	29/5/2020
6	A/KC/374	S.16 Application for Proposed Hotel	Nos. 15-19 Chun Pin Street, Kwai Chung, New Territories (Lot 295 SA in DD 444)	02/12/2011
	A/KC/374-1	S.16 Application for Proposed Hotel (CLASS B AMENDMENT)		25/06/2015
7	A/KC/371	S.16 Application for Proposed Hotel	No. 57-61 Ta Chuen Ping Street, Kwai Chung (Lot 227 Se RP in DD 444)	10/02/2012
	A/KC/460	S.16 Application for Proposed Minor Relaxation of PR Restriction for Permitted Industrial-Office Redevelopment		05/07/2019
	A/KC/469	S.16 Application for Proposed Hotel Use and Proposed Minor Relaxation of PR Restriction		06/11/2020
8	A/KC/428	S.16 Application for Proposed Hotel	Edwick Industrial Centre, Nos. 4-30 Lei Muk Road, Kwai Chung (KCTL 302RP)	13/03/2015
	A/KC/428-1	S.16 Application for Proposed Hotel (Class B Amendment)		31/01/2019

Table 2.1 Approved TPB Applications in the Castle Peak Road/ Wo Yi Hop Road within "OU(B)" Zone (since 2005)

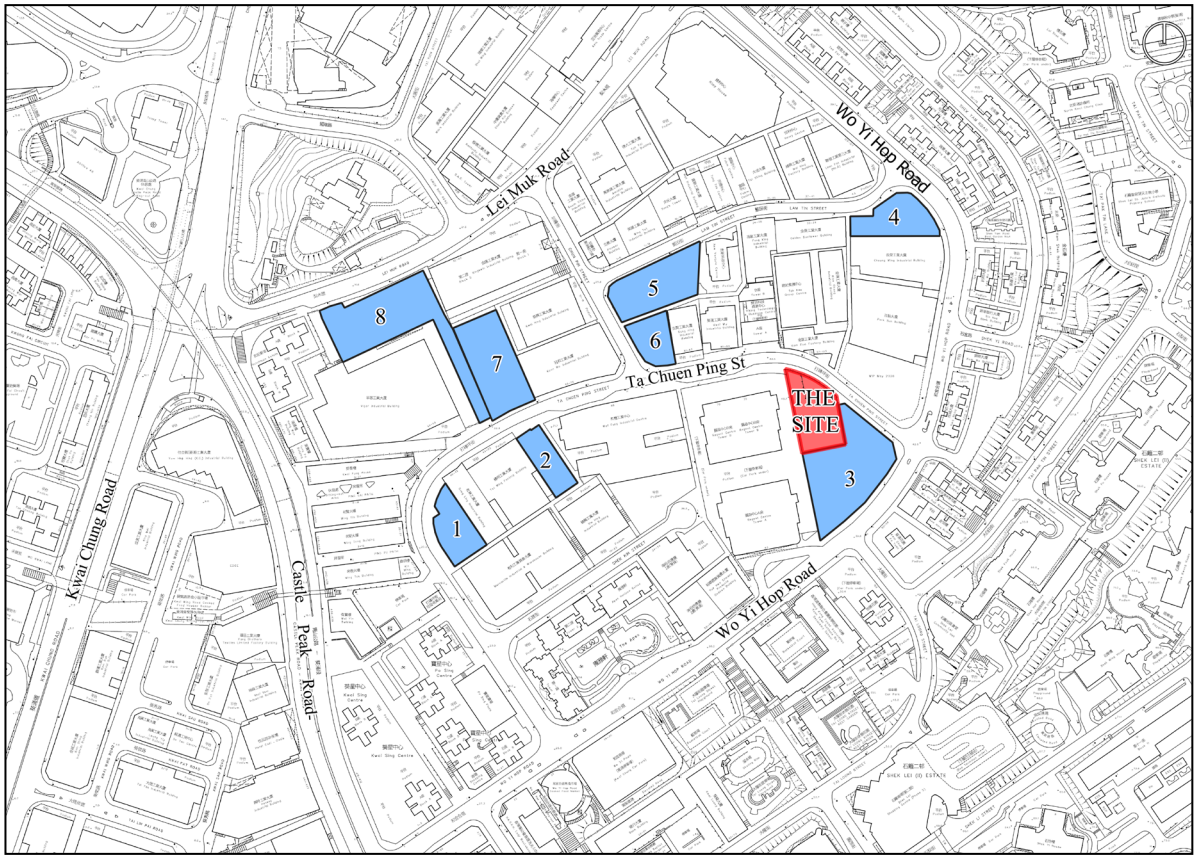


Figure 2.7: Locations of the Relevant Cases listed out in Table 2.1

2.7 Long Term Demand for Industrial Land Use

2.7.1 Findings of "Review of Land Requirement for Grade A offices, Business and Industrial Uses" for Hong Kong 2030+

2.7.1.1 The Planning Department commissioned the "Review of Land Requirements for Grade A Offices, Business and Industrial Uses" for 2030+ ("2030+ Study") in 2014 and released in 2017 to support the review of the territorial development strategy. The 2030+ Study forecasted that the demand for industrial floorspace will continue to increase in short, medium and long term, from 17.5 million m^2 in 2023 to 20 million m^2 by 2041. Meanwhile, it is forecasted to have a decreasing supply of industrial floorspace from 16.7 million m^2 in 2023 to 14.9 million m^2 by 2041, in particular within the Kwai Chung/ Tsuen Wan area.

2.7.1.2 Given the decreasing supply and increasing demand for industrial floorspace, the 2030+ Study concluded the industrial floorspace will experience shortfalls over the whole projection period between 2023 to 2041.

2.8 Policy Initiative to Revitalise Industrial Buildings

2.8.1 Since April 2010, the Government has implemented a series of measures to revitalise aged industrial buildings ("IBs") through redevelopment and wholesale conversion. This is to provide more floorspace for suitable industrial uses, in order to meet Hong Kong's changing social and economic needs. The Administration conducted a mid-term review on the Revitalisation Scheme in September 2011, following which the Chief Executive announced to extend the scheme for three years until 31 March 2016. By the close of the six-year scheme in March 2016, a total of 124 applications for wholesale conversion and redevelopment of aged industrial buildings are approved by the Administration.[1]

2.8.2 As announced in the Chief Executive's 2018 Policy Address in October 2018, the Administration has decided to reactivate the scheme to make a better utilisation on the existing industrial stock and valuable land resources by introducing new measures for the redevelopment of IBs. To incentivise the redevelopment of IB constructed before 1987 without modern fire service installations, the new scheme intended "*… to extend the application of the present planning policy about suitably increasing the maximum permissible domestic plot ratio within certain "Residential" (R) zones, so as to allow relaxation of the maximum permissible non-domestic plot ratio by up to 20% for redevelopment projects of these pre-1987 industrial building located outside "R" zones in Main Urban Areas and New Towns*".[2]

2.8.3 Relaxation of the maximum permissible non-domestic plot ratio by up to 20 percent for individual sites will be subjected to TPB's approval on case-by-case basis within three years starting from October 10, 2018. The modified lease shall also be executed with full land premium charged under the prevailing mechanism within three years after the planning approval. As at January 2021, of the 42 applications approved by the TPB for redevelopment of aged industrial buildings, 7 applications approved by the TPB within Kwai Chung Area. Please refer to **Table 2.2** and **Figure 2.8**.[3]

1 Referring to the Extract of Paragraph 71 of the Chief Executive's 2018 Policy Address
2 Referring to the Extract of Paragraph 72(b) of the Chief Executive's 2018 Policy Address
3 Referring to Appendix II of MPC Paper No. A/H20/193C

	TPB REFERENCE	DETAILS OF THE PROPOSAL	APPROVAL DATE
1	A/KC/460	Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Industrial-Office Redevelopment in "OU(B)" Zone	5/7/2019
2	A/KC/464	Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Development (Excluding Industrial Undertakings Involving the Use/ Storage of Dangerous Goods) in "OU(B)" Zone	29/11/2019
3	A/KC/463	Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Development (Excluding Industrial Undertakings Involving the Use/ Storage of Dangerous Goods) in "OU(B)" Zone	17/3/2020
4	A/KC/465	Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Industrial Development in "Industrial" Zone	12/6/2020
5	A/KC/466	Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Permitted Information Technology in "OU(B)"	29/5/2020
6	A/KC/467	Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Use in "OU(B)"	10/7/2020
7	A/KC/469	Proposed Hotel Use and Proposed Minor Relaxation of Plot Ratio Restriction in "OU(B)"	6/11/2020

Table 2.2: Approved Planning Applications for Minor Relaxation of Plot Ratio under the New Revitalisation Scheme for Industrial Buildings within Kwai Chung Area (as January 2021)

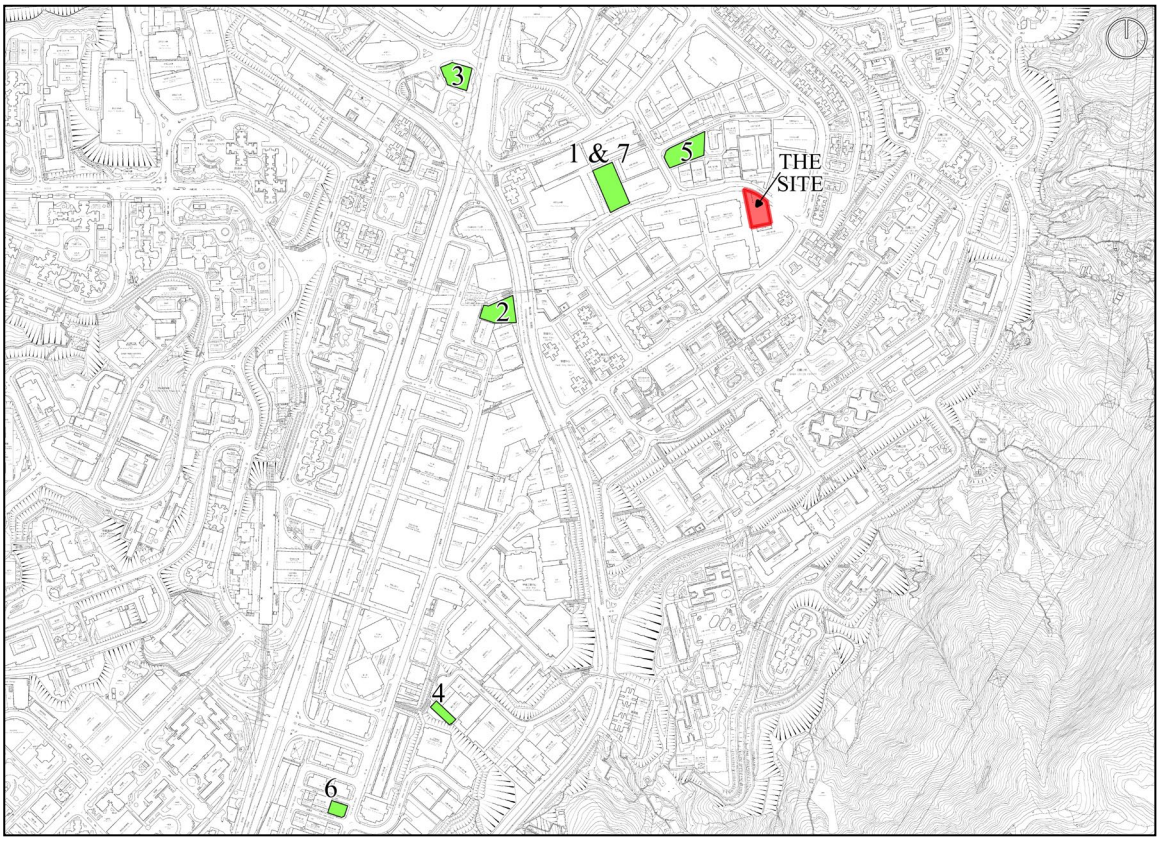


Figure 2.8: Locations of the Relevant Cases listed out in Table 2.2

2.8.4 Despite that the existing IB at the Site has already been demolished, it was an industrial building completed in 1963, i.e. a pre-1987 IB), the Application Site is therefore entitled to apply for minor relaxation of plot ratio for industrial building under this policy initiative to support non-polluting industrial uses and non-offensive trade industrial operations within the Castle Peak Road/ Wo Yi Hop Road Business Area.

3. THE PROPOSED DEVELOPMENT SCHEME

3.1 Proposed Development Scheme

3.1.1 It is proposed to develop the land lot for permitted "Non-polluting Industrial Use" with Minor Relaxation of Plot Ratio ("PR") of 20%. Based on a site area of about 1,486.436 m^2 and proposed 20% relaxation of the permissible plot ratio, i.e. increased from 9.5 to 11.4, the total GFA of the development at the Site would be about 16,945.370 m^2.

3.1.2 The Proposed Development incorporates the 3.5m NBA required under the OZP and the Applicant is prepared to dedicate it as a public passage. Subject to the approval of Buildings Department, bonus plot ratio and bonus site coverage under Building (Planning) Regulation ("B(P)R") may be permitted due to the dedication of non-building area at street level for public passage under the General Building Plans Submission. Based on preliminary calculation, a bonus GFA[4] of about 717.980 m^2 and bonus site coverage of 1.537% could be claimed. Taking into account the 20% increase of plot ratio and the bonus GFA to be claimed from the dedication of non-building area, the total GFA of the Proposed Development attains 17,663.350 m^2 (equivalent to a plot ratio of 11.883).

3.1.3 The Proposed Development includes 1 block of 23-storey building (including G/F, 1 storey of mechanical floor and 1 storey of basement) with building height of not more than +130mPD (main roof).

3.1.4 To ensure the environmental quality of the Proposed Development, the Proposed Development will not rely on openable window for ventilation. A min. 5m buffer distance[5] from the kerbside of Ta Chuen Ping Street will be provided.

3.1.5 It is anticipated that the Proposed Development will be completed in 2025. Major development parameters and proposed floor uses of the Proposed Development are summarised in **Table 3.1** and **Table 3.2** respectively. The floor plans and schematic section plans are presented at **Appendix 1**.

[4] Five times of the dedication area, i.e. about 143.596 m^2 x 5 = 717.980 m^2

[5] Ta Chuen Ping Street is recognised as a local distributor road. With reference made to the Hong Kong Planning Standards and Guidelines ("the HKPSG"), a min. of 5m air quality buffer shall be provided.

	PARAMETERS
Total Site Area	About 1,486.436 m^2
Plot Ratio[6]	11.883 (including 0.483 bonus PR)
Total GFA[7]	About 17,663.350m^2 (including 717.980 m^2 bonus GFA)
Site Coverage ● **0-15m** ● **Above 15m**	 Not more than 90% Not more than 61.537% (include bonus site coverage of 1.537%)
Class of Site	Class A
Nos. of Blocks	1
Maximum Building Height	Not more than +130mPD
Nos. of Storeys	23 (including G/F, 1 level of mechanical floor and 1 level of basement)

Table 3.1: Major Development Parameters

FLOOR	PROPOSED USES
R/F	Flat Roof, Electrical and Mechanical Plant Rooms
4/F-21/F	Workshop (Non-polluting Industrial Use)
3/F	Electrical and Mechanical Plant Rooms
2/F	Workshop (Non-polluting Industrial Use)
1/F	Workshop (Non-polluting Industrial Use) and Transformer Room
G/F	Lift Lobby, Loading and Unloading and Car Park
B1/F	Car Park

Table 3.2: Proposed Floor Uses

3.2 Flexible Internal Layout

3.2.1 To provide sustainable competitive advantage in the face of ever-changing industry trends and to serve the diversified industrial uses at the proposed IB, the internal layout will be flexible to meet the different niches ranging from start-up to small / medium-sized industrial enterprises. The internal layout of the proposed IB enclosed in **Appendix 1** is indicative only. The Applicant aims to provide largest flexibility to the future occupiers to determine the appropriate internal layout of each floor/premises.

[6] According to the remarks (6) for OU(B) zone of the prevailing OZP No. S/KC/29, where the permitted plot ratio as defined in Building (Planning) Regulation is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio for the building on land may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio may thereby be exceeded. The total plot ratio of the Proposed Development with 20% relaxation is 11.4. The plot ratio will be increased to 11.883 taken into account the bonus plot ratio related to the dedication of the proposed NBA, subject to the approval by Buildings Department.

[7] The GFA will be 17,663.350 m^2 after taking into account of the bonus GFA (i.e. 717.980 m^2) related to the dedication of the proposed NBA and 20% relaxation of the permissible plot ratio (i.e. 16,945.370 m^2), subject to the approval by Buildings Department.

3.3 Design Merits

A) Street Enhancement

3.3.1 To enhance the amenity of the Proposed Development and create a pleasant walking environment along its main frontage on Ta Chuen Ping Street, a Full-Height building set-back of 3.5m from the lot boundary facing Ta Chuen Ping Street will be designated as Non-building Area ("NBA") with featured paving patterns (**Figures 3.1 to 3.3** refer). The proposed NBA area will be managed and maintained by the Applicant. This will not only enhance the natural ventilation, but also increase the permeability to the surroundings areas. Please refer to **Appendix 1 for Architectural Drawings**.

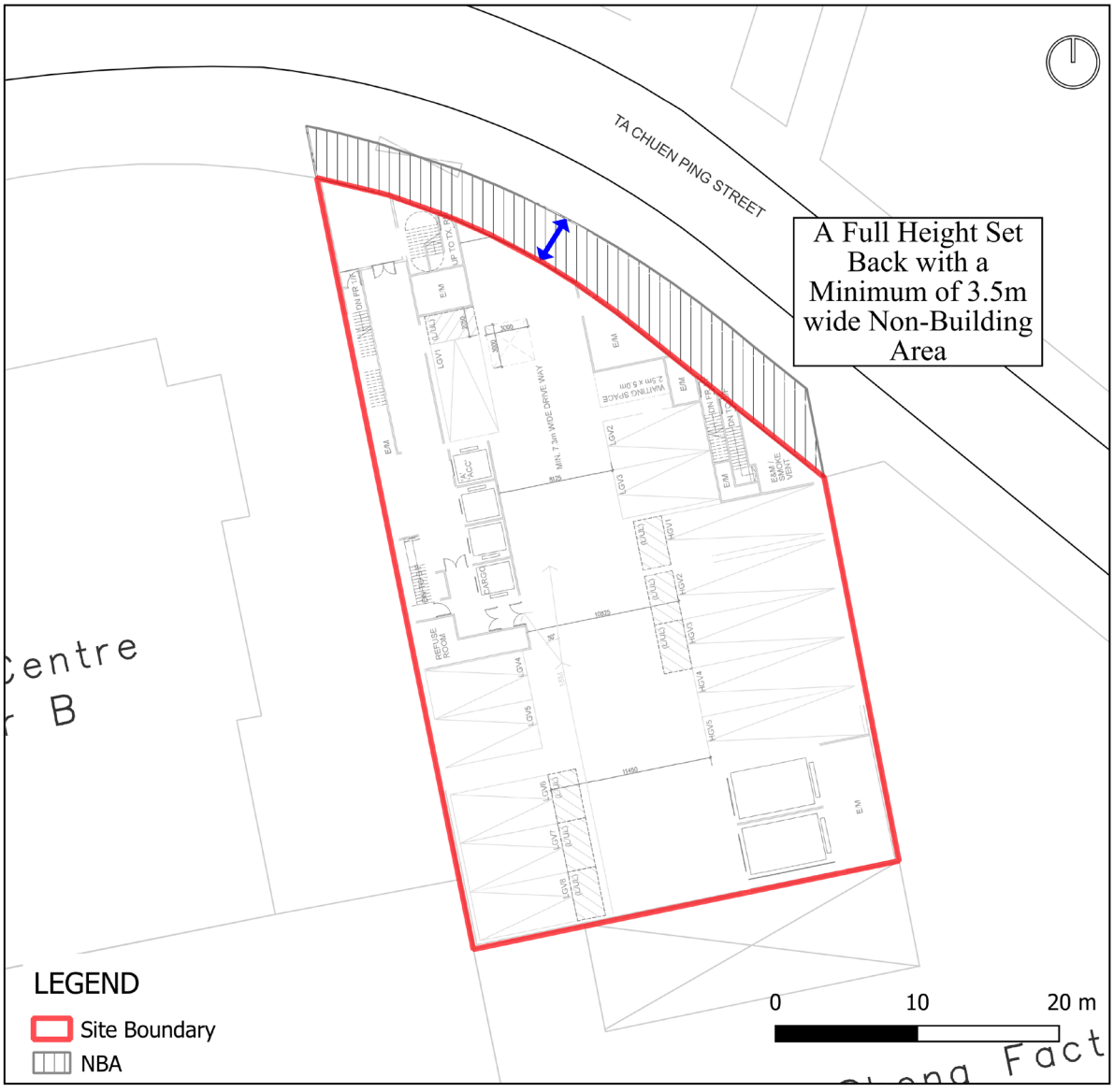


Figure 3.1: Provision of Non- Building Area (NBA)

Figure 3.2: Artist Impression of Enhanced Streetscape (1)

Figure 3.3: Artist Impression of Enhanced Streetscape (2)

B) Landscape and Greenery Considerations

3.3.2 To enhance the general visual quality of the surrounding environment, the Applicant has also taken the opportunity to provide tree planting on ground level along Ta Chuen Ping Street, noting that the existing pavement and the proposed NBA will have a total width of about 7m. The Applicant proposes to have a 2.5m wide at grade planter for trees and shrubs planting and 4.5m wide for pedestrian circulation. The proposed trees planting and shrubs between the development and repaving of the pavement at the public pedestrian path facing Ta Chuen Ping Street will soften and enhance the edge of the development, as well as providing a more welcoming environment to the surrounding.

3.3.3 The Proposed Development also includes vertical greenery at the street level. This will further enhance the overall greening effect to at-grade levels and maximise the greening opportunities.

3.3.4 Inaccessible and accessible landscape areas will be proposed on the first floor, second floor and roof floor of development. In terms of accessible landscape areas, the accessible landscape areas with seating at the 2/F and R/F of the building block will be provided for communal uses of the future users of the building. In terms of inaccessible area, planters are designed along the edge adjacent to Regent Centre, as well as an edge corner of the side facing Ta Chuen Ping Street on 2/F to create a green buffer and to reduce visual prominence. Landscaping areas on the 1/F and edge corner of 2/F are to provide with planting to further enhance the overall greening effect of the Development. In particular, the edge corner of planting would soften the form of the building.

3.3.5 With the proposed landscape strategies, this will not only introduce more green elements into the neighbourhood, but also help soften the architectural form and break up the visual mass of the architectural façade. Thereby, both landscape treatments create a more pleasant streetscape along Ta Chuen Ping Street. Please refer to the Diagram of Design Merits in **Appendix 1 for Architectural Drawings** and **Appendix 2 for Tree Survey and Landscape Proposal**.

3.3.6 Together with the tree planting on ground level of the Proposed Development, a greening ratio of about 20% of total site area will be achieved within the Site.

C) Decorative Fins/ Grilles

3.3.7 The Proposed Development will also be installed with decorative fins/ grilles in front of the smoke vents/ metal louvers at the lower zone. This blends the architecture with the street level environment. Please refer to **Appendix 1 for Architectural Drawings**.

3.4 Access and Provision of Internal Transport Facilities

3.4.1 A vehicular access for the proposed IB will be provided at Ta Chuen Ping Street. Carparking spaces and Loading and Unloading area will be located at B1/F and G/F respectively.

3.4.2 The internal transport facilities for Proposed Development meets the high-end recommendations under the Hong Kong Planning Standards and Guidelines ("HKPSG"). The proposed internal transport facilities are summarised and presented in **Table 3.3**[8]. Please also refer to **Appendix 3: TIA**.

TYPE OF FACILITIES	HKPSG REQUIREMENT	REQUIRED PROVISION	PROPOSED PROVISION
Private Car Parking Space	1 per 600- 750 m^2	24-30	30
Motorcycle Parking Space	5-10% of private car parking space	1-3	3
Goods Vehicle Parking Space/ Loading & Unloading Bay:	1 goods vehicle bay per 1,000 – 1,200m^2 of 50% of the GFA; 1 per 2,000 – 3,000m2 of the remaining 50% of the GFA; 50% of which should be parking of goods vehicles; and Goods vehicle provision is divided into 65 % LGV and 35 % HGV	10-13	13 (LGV: 8; HGV: 5)

Table 3.3: Internal Transport Facilities Provision

[8] The provision of Internal Transport facilities is calculated based on a total of 17,663.350 m^2 after taking into account of the bonus GFA related to the dedication of the proposed NBA, subject to the approval by Buildings Department.

4. PLANNING MERITS AND JUSTIFICATIONS

4.1 The Proposed Development is In Line with the Government's policies and studies

4.1.1 In Line with Government's policies for Revitalising Industrial Buildings

4.1.1.1 It is the Government's initiative to optimise the use of vacant or underutilised IBs by providing more industrial floorspace through the introduction of "Industrial Buildings Revitalisation Policy". With the aim to encourage landowners to redevelop IBs, relaxation of the maximum permissible non-domestic plot ratio by up to 20 percent is the latest policy direction to make better utilisation on the existing industrial stock and valuable land resources, according to 2018 Policy Address. The existing IB at the Site was developed in 1963, despite the existing IB was already demolished. Given the above conditions, the site meets the criteria and requirements under the Revitalisation Policy. The site can also be regarded as an eligible pre-1987 IB under Government's new policy, and the proposed IB development with minor relaxation of PR restriction is also in echo of the 2018 Policy Address by the Chief Executive.

4.1.2 In Line with the Trend of Transformation of the Castle Peak Road/ Wo Yi Hop Road

4.1.2.1 As discussed in **Section 2.6**, there has been ongoing land use restructuring in the prevailing Castle Peak Road/ Wo Yi Hop Road Business Area since the area was zoned as "OU(B)". Since 2005, there were 8 approved planning application for hotel development or Minor Relaxation of Plot Ratio for Industrial used redevelopment. The Area Assessment 2014 also indicates the decreasing vacancy rate of industrial land of 5.7% in 2014. Given that, this Proposed Development is to continue to support the ongoing land use restructuring of non-polluting industrial use within the "OU(B)" zone and Castle Peak Road/ Wo Yi Hop Road Business Area. The Proposed Development is also to safeguard industrial land and uses of industrial spaces for industrial industry, as one of the economic pillars in Hong Kong.

4.1.3 Meeting the Long-Term Demand for Industrial Land Use

4.1.3.1 As highlighted in **Section 2.7**, it is projected within the 2030+ Study conducted by Planning Department in 2014 that the demand for industrial floorspace will continue to increase in short, medium and long term respectively. Whilst, it should be recognised that a decreasing supply of industrial floorspace is also forecasted. Given that, the Site is currently served as a temporary loading and unloading bay area. It shall be considered as underutilised and vacant land lot. The Proposed Development of a new IB for "non-polluting industrial use" with minor relaxation of PR by 20% is in line with the projection in the 2030+ Study by providing additional industrial floorspace to cater the demand in short term.

4.2 Continuing to Meet the Prevailing Planning Intention

4.2.1 The "OU(B)" zone was introduced to allow maximum flexibility in the use of existing industrial and I-O buildings as well as in the development of new buildings for both commercial and non-polluting industrial uses. Hence, the Proposed Development for permitted Non-polluting Industrial use of factories/ workshop is completely in-line with the planning intention of the "OU(B)" zone, is considered to correspond to the planning intention set out within the Draft OZP.

4.2.2 The proposed minor relaxation of PR restriction for the Proposed Development could facilitate the provision of additional industrial floor space while continuing to meet the planning intention. Besides, the provision of new non-polluting industrial floor space with up-to-standard fire safety installations could promptly respond to the latest trend of the development of non-polluting industries as well as expediting and synergising the transformation of Castle Peak Road/ Wo Yi Hop Road Business Area. The industrial characteristics of the existing ambience in the precinct remain unchanged.

4.3 Compatible with Surrounding Land Uses

4.3.1 As highlighted in **Sections 2.2 and 2.6**, the prevailing Castle Peak Road/ Wo Yi Hop Road Business Area is predominated with industrial buildings. It is noted that the Business Area is undergoing a land use restructuring with some new buildings, which are commercial or non-polluting industrial buildings. These include hotel developments such as Silka Tsuen Wan Hotel and non-polluting developments such as iTech Tower 2 and Asia Trade Centre. There are also recent successful cases on Proposed Minor Relation of Plot Ratio Restriction for Permitted I-O Redevelopment or Non-polluting Industrial Development within Kwai Chung area, as highlighted in Table 2.2. Given that, the Development Proposal is a non-polluting industrial building. It is deemed to be compatible with the surrounding land uses, especially within the Business Area.

4.4 Relaxation Sought is Minor and Acceptable

4.4.1 The Applicant seeks a minor relaxation of PR restriction for 20%. To optimise the utilisation of precious land resources. Proposed Development scheme is formulated in accordance with the maximum building height stipulated under the Approved OZP of not more than +130mPD. Aiming to minimise the building bulk, a basement car park will be provided for accommodating the required car parking spaces. With a conforming building height, the Proposed Development will be in harmony with the surrounding development context. The relaxation of PR being sought is considered minor in nature and deemed acceptable.

4.5 Planning and Design Merits, Taking into Account the Site-Specific Characteristics and Local Context

A) Non- Building Areas to Widen Footpath and Enhance Pedestrian Connectivity and Comfort

4.5.1 The Proposed Development will provide a 3.5m-wide NBA at a full height set back along Ta Chuen Ping Street. Within the NBA, about 1m wide will form part of the footpath for enhancing pedestrian circulation and about 2.5m wide will be set aside as planter for enhancing pedestrian comfort (**Figures 3.1** and **3.2** refer). A bonus PR and Site Coverage under the Building (Planning) Regulations for the proposed NBA will be reclaimed.

4.5.2 The Applicant has also taken the opportunity to implement tree and shrub planting on ground level, as well as the corner planting on 2/F facing Ta Chuen Ping Street. The proposed tree planting at grade will not only enhance pedestrian comfort along the Ta Chuen Ping Street, but also provide shading for pedestrians walking along the development boundary.

B) Adopting Green Building Design

4.5.3 Asides from full-height set back to enhance the general visual quality of the surrounding environment, the Proposed Development would adopt green building design and obtain BEAM Plus certification.

4.6 Compliance with Sustainable Building Design Guidelines

A) Building Separation

4.6.1 The continuous projected façade length (*Lp*) of the Proposed Development is less than 60m. As such, the proposed development will meet the building separation requirement of PNAP APP-152 – Sustainable Building Design Guidelines ("APP-152 SBDG") to reduce undesirable screening effect of long buildings and to improve air ventilation.

B) Building Setback

4.6.2 For maintaining a ventilation corridor, the Proposed Development up to a level of 15m above the street level abuts Ta Chuen Ping Street is also at least 7.5m away from the centreline of the street.

C) Site Coverage of Greenery

4.6.3 With reference to the greenery provision requirement under APP-152 SBDG, the Applicant proposed landscape and greenery elements with not less than 20% greenery coverage of the site area. As illustrated in **Figure 3.4 and 3.5**, greenery is proposed at different levels of the Proposed Development visible from Ta Chuen Ping Street and can be accessible to the general tenant from street level.

4.7 No Adverse Traffic Impact

4.7.1 A Traffic Impact Assessment ("TIA") has been conducted to evaluate the potential traffic and transportation impact of the proposed IB within 20% increase in Plot Ratio (**Appendix 3** refers). The TIA concludes that the Proposed IB is acceptable from traffic engineering viewpoint based on the Junction analyses conducted for existing situation and future traffic forecast up to 2028.

4.8 No Adverse Sewerage Impact

4.8.1 A Sewerage Impact Assessment ("SIA") has been conducted to evaluate the potential sewerage impact of the proposed IB with minor relaxation of PR (**Appendix 4** refers). The SIA concludes that the existing sewage capacity is sufficient to cater the cumulative peak discharge arising from the Proposed Development and Development in the vicinity along Ta Chuen Ping Street. The SIA also finds that the sewage generation from the Site for the Proposed Development is considered insignificant and notes that the peak discharge from the Proposed Development contributes to less than 2.5% of the peak flow to the sewer underneath Ta Chuen Ping Street.

5. CONCLUSION AND SUMMARY

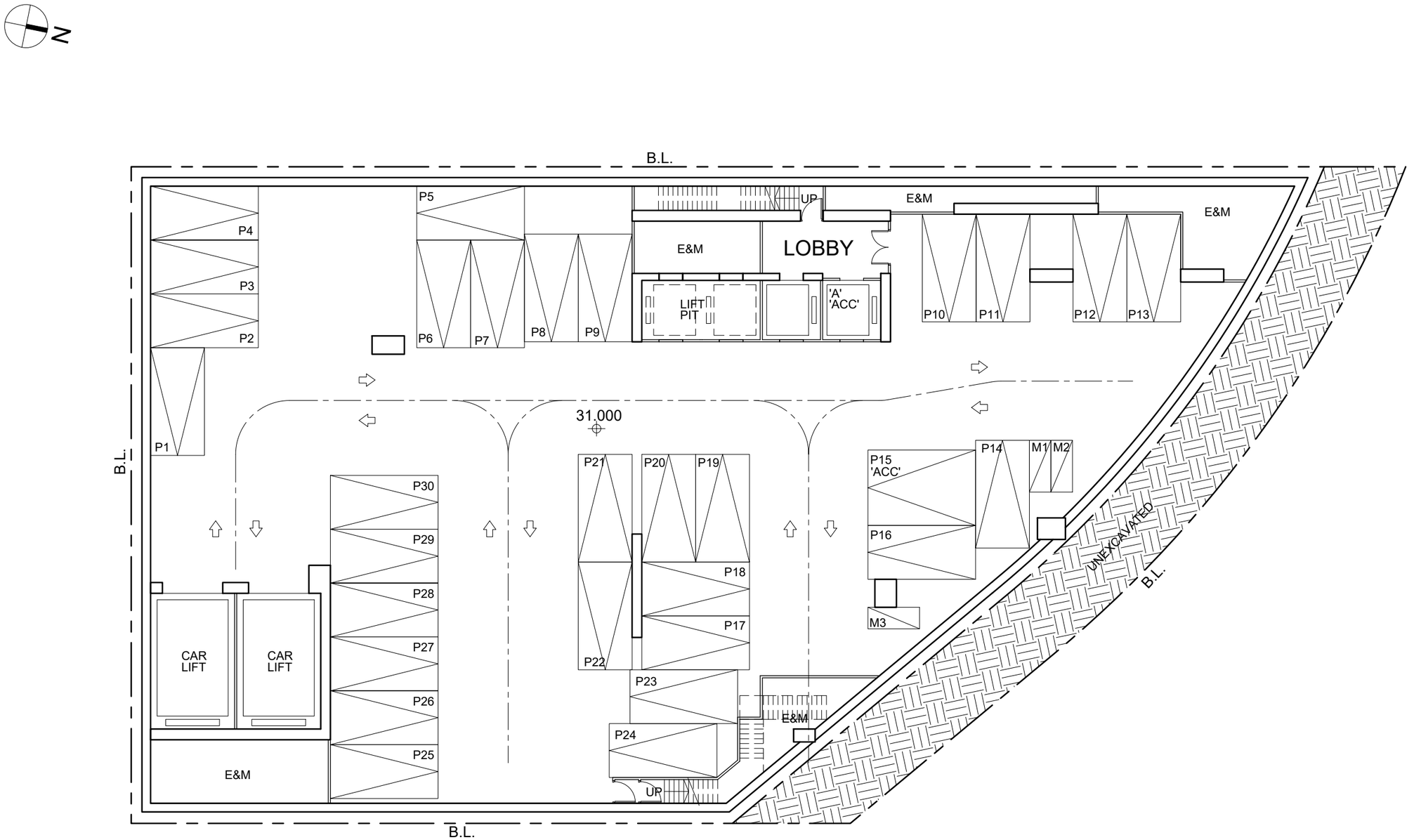
5.1 In light of all the above, it is submitted that the Proposed Minor Relaxation of Plot Ratio Restriction of 20% for a Permitted Non-Polluting Industrial Building at the Application Site should be favourably considered by the TPB from a planning point of view.

5.2 The Planning Department and Members of the TPB are respectfully requested to give favourable consideration to support the Proposed Development based on the following points:

- The Proposed Development of an IB is in-line with Government's Policy on Revitalising Industrial Buildings;
- The Proposed Development optimises the use of currently "underutilised" industrial land in meeting the projected shortfall in floor space for industries in "The 2030+ Study";
- The Proposed Development will unleash the provision of "new" floor space for non-polluting industrial use in addressing the decreasing vacancy rate of industrial land and could expedite the transformation of Castle Peak Road/ Wo Yi Hop Business Area;
- The Proposed Development will continue to meet the prevailing planning intention of "OU(B)" zone and it is compatible with surrounding land uses;
- The relaxation of PR restriction for 20% is considered minor in nature and deemed acceptable;
- Planning and design merits of the proposed development include:
    - Providing a 3.5m-wide non-building area ("NBA") with Full Height set back following the requirement stipulated on the Draft OZP along Ta Chuen Ping Street to widen the existing footpath, thereby enhance a pleasant walking environment;
    - Incorporating substantial greening visible from Ta Chuen Ping Street with Tree planting at grade as well as the edge planting at low levels to improve the visual quality of the surrounding environment and streetscape;
- Adopting green building design;
- Compliance with Sustainable Building Design Guidelines on building separation, building setback and site coverage of greenery under PNAP APP152 - Sustainable Building Design Guidelines; and
- The Proposed Development will not result in adverse traffic and sewerage impacts.

Appendix 1

Architectural Drawings



BASEMENT 1 FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

BASEMENT 1 FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO.	REVISION
-	-

N

ADJOINING BUILDING

A

B.L.

ADJOINING SITE

DEDICATION AREA
= 143.596 S.M.

B

GREENERY AREA

35.500

VERTICAL GREEN WALL

3500

REFUSE

DN TO B/F

E&M

DN FR 1/F

MAIN LOBBY

CARGO

'A' 'ACC'

LGV8 LGV7 LGV6 LGV5 LGV4

(L/UL) (L/UL) (L/UL)

LGV1

(L/UL)

E&M ROOM

UP TO TX. RM

GREENERY AREA

RUN IN & OUT

35.500

35.500

TA CHUEN PING STREET

B.L.

ADJOINING BUILDING

LGV3 LGV2

(L/UL) (L/UL) (L/UL)

WAITING SPACE
2.5m x 5.0m

E&M

GREENERY AREA

NON-BUILDING AREA LINE

HGV5 HGV4 HGV3 HGV2 HGV1

E&M

DN FR 1/F

37.000

C

3500

DN TO B/F

E&M

GREENERY AREA

NON-BUILDING AREA LINE

36.500

E/M

B.L.

E

ADJOINING BUILDING

D

37.500

GROUND FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

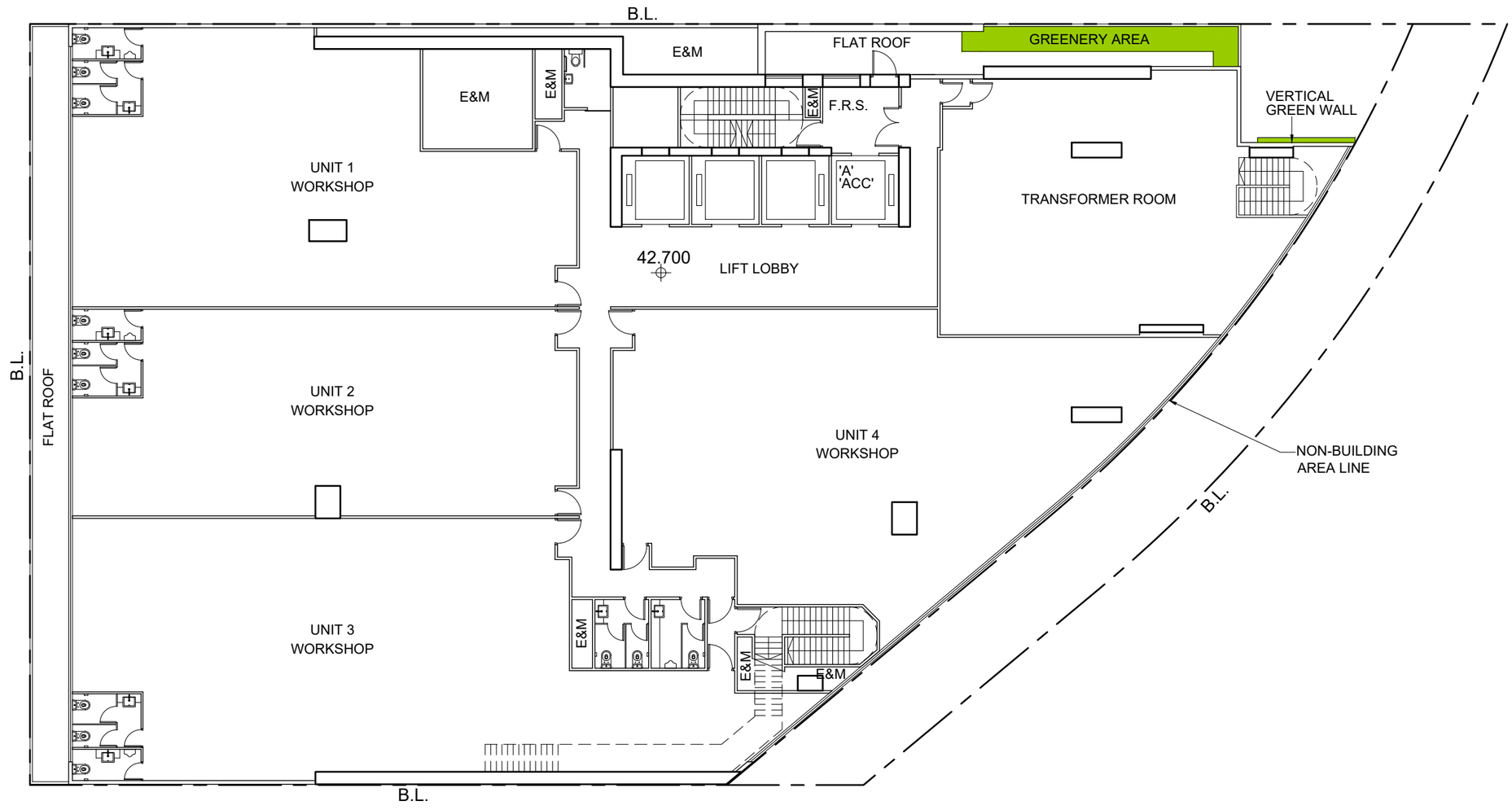
DRAWING TITLE

GROUND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



FIRST FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

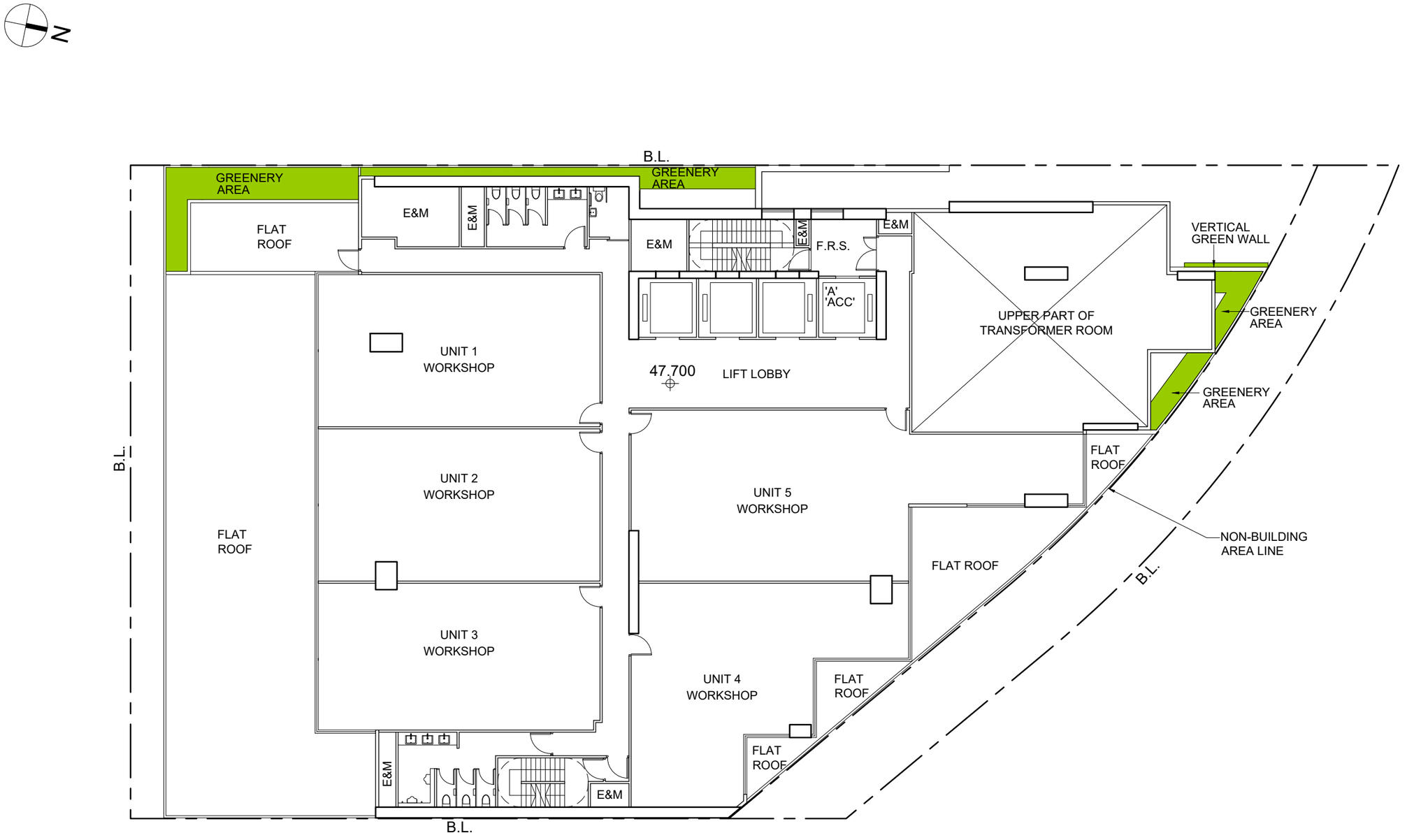
DRAWING TITLE

FIRST FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



SECOND FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

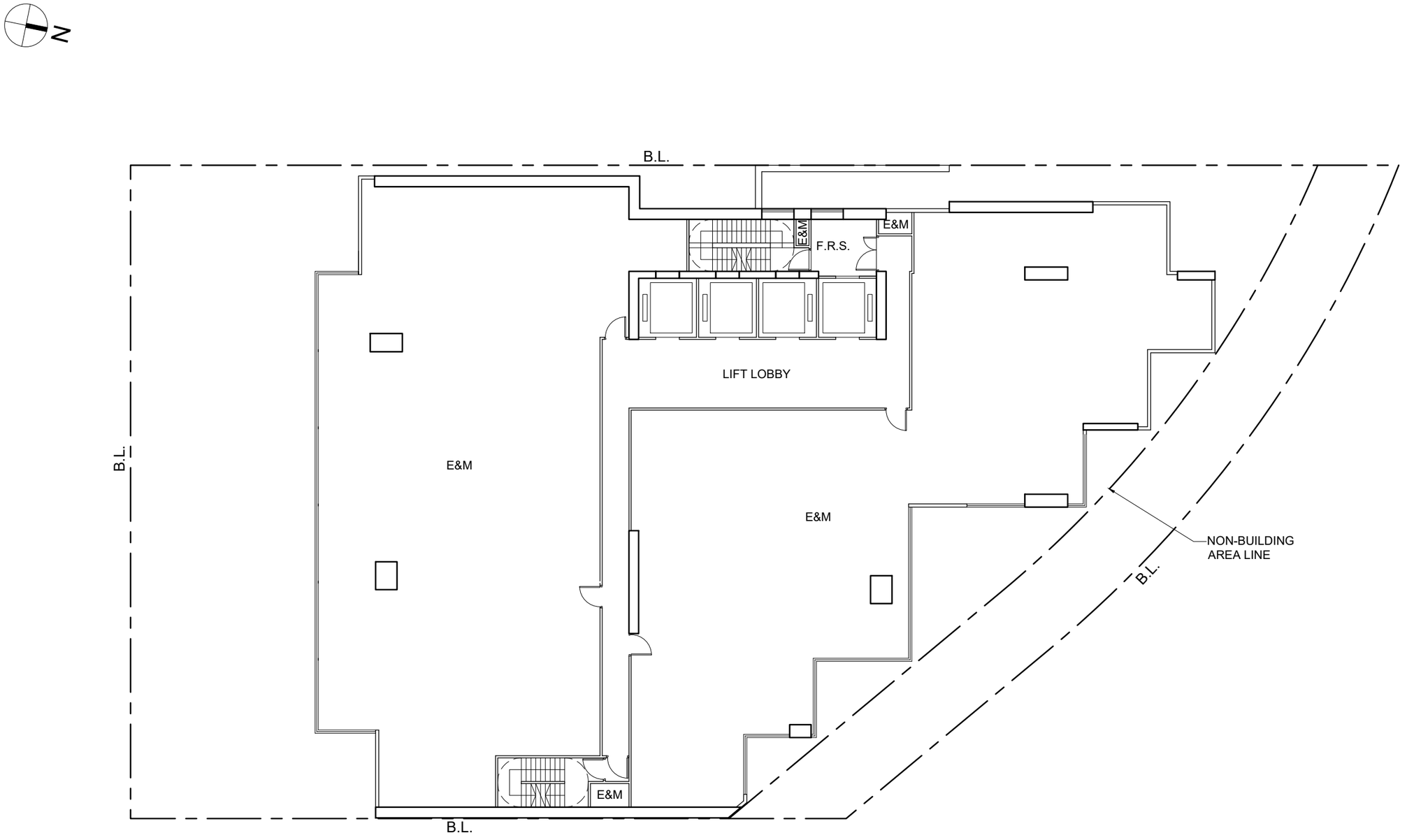
DRAWING TITLE

SECOND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



THIRD FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

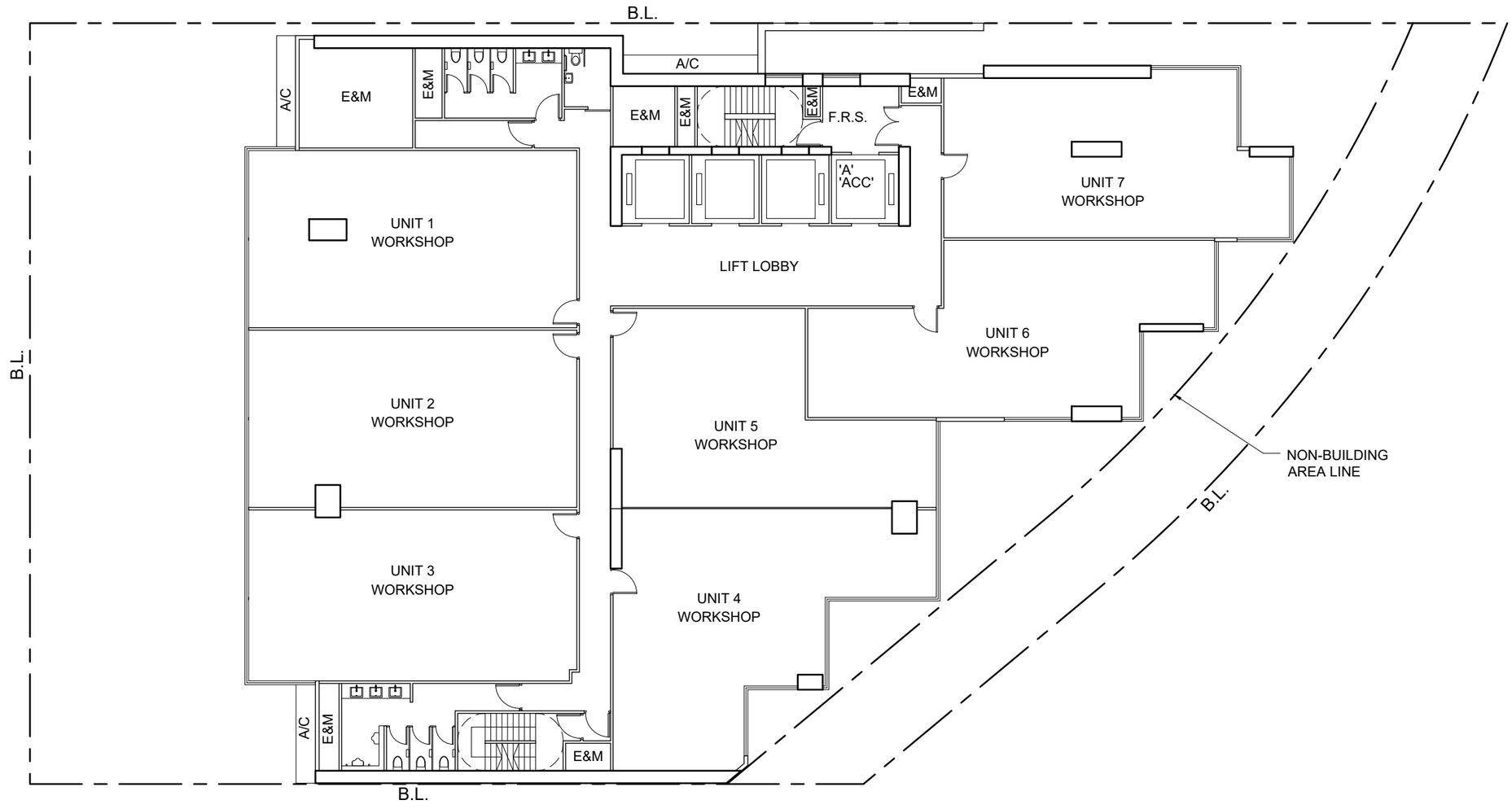
DRAWING TITLE

THIRD FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



4TH - 19TH FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

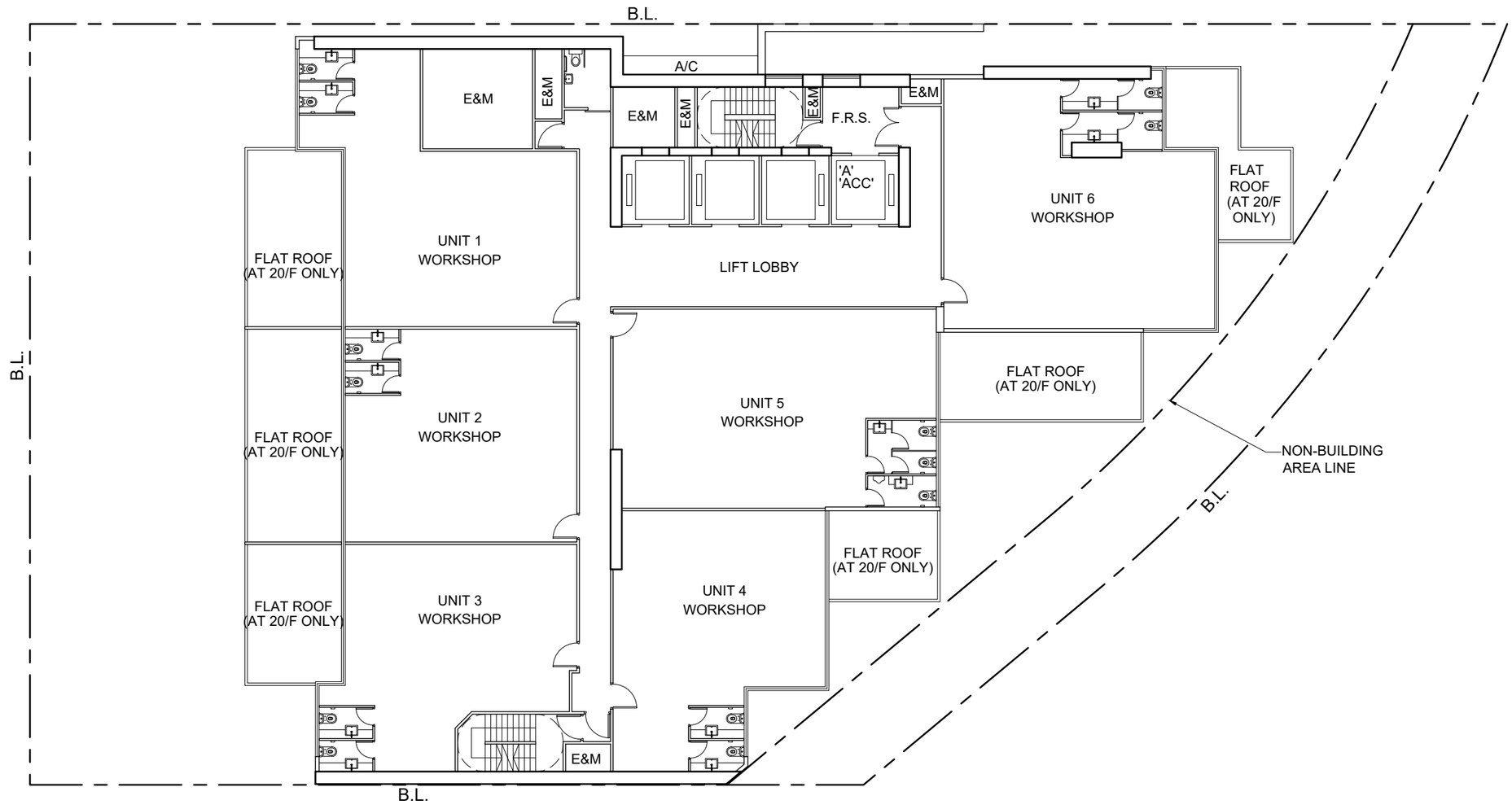
DRAWING TITLE

4TH - 19TH FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



20TH - 21ST FLOOR PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

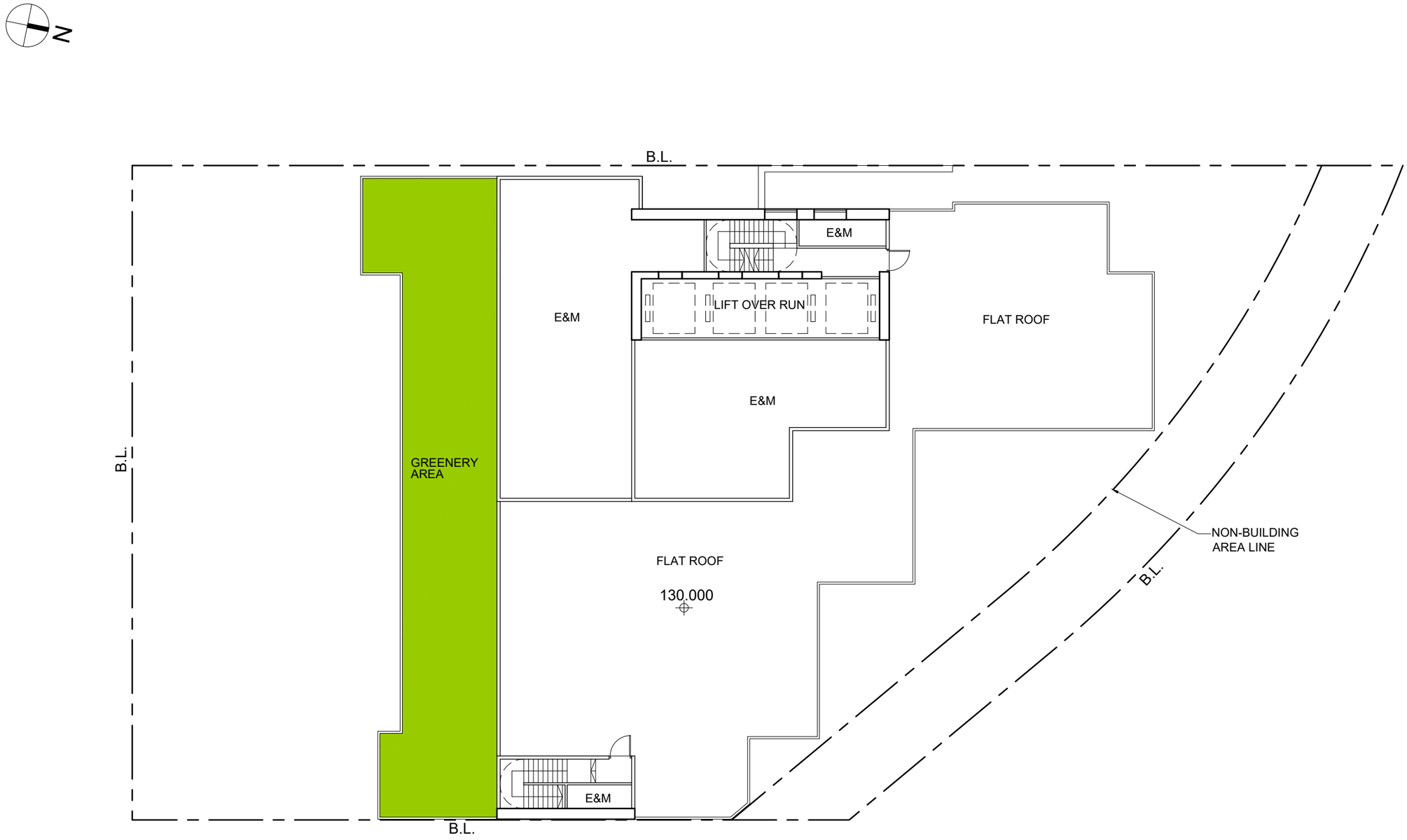
DRAWING TITLE

20TH - 21ST FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



ROOF PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

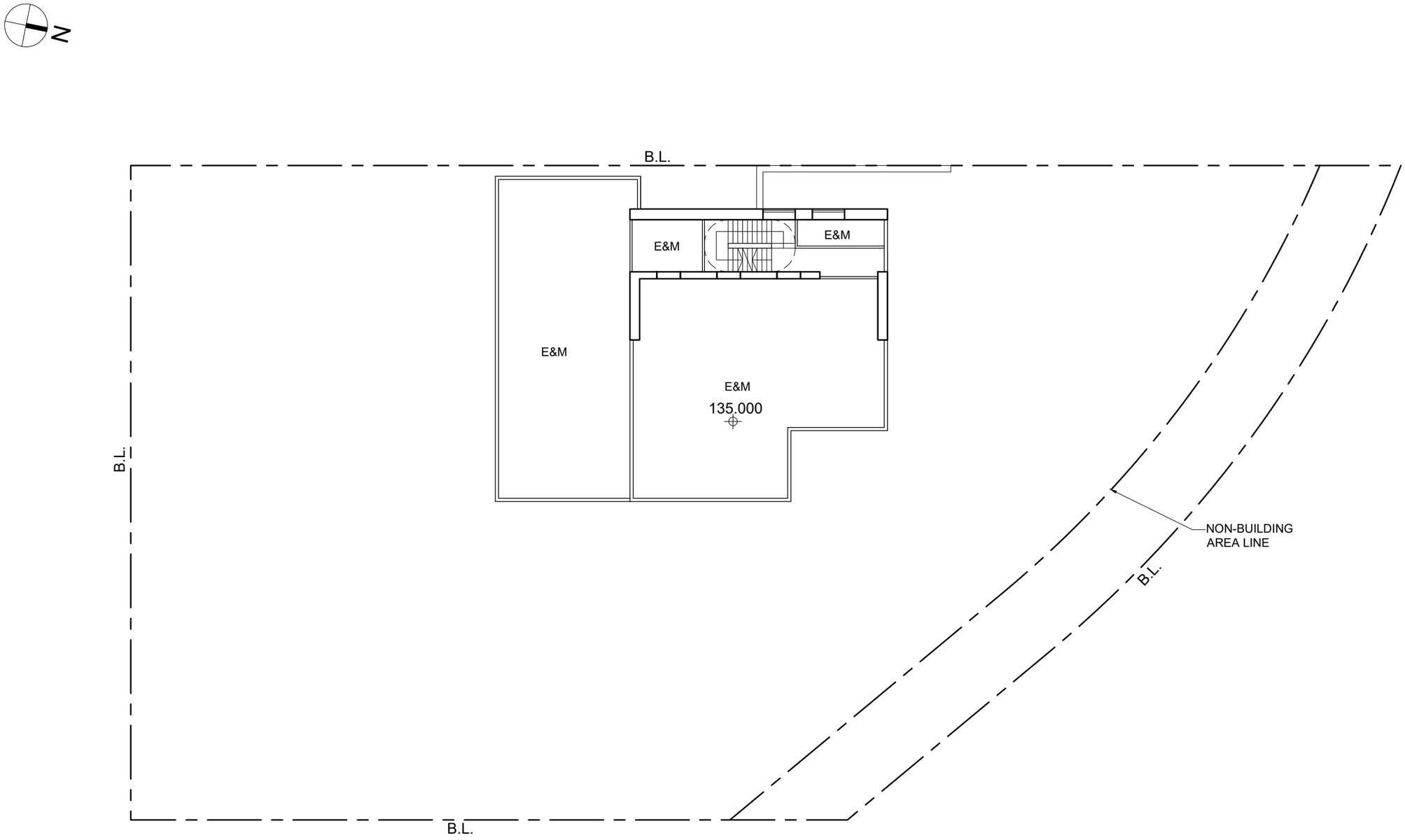
DRAWING TITLE

ROOF PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



PLAN AT LEVEL + 135.000 m. P. D.

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

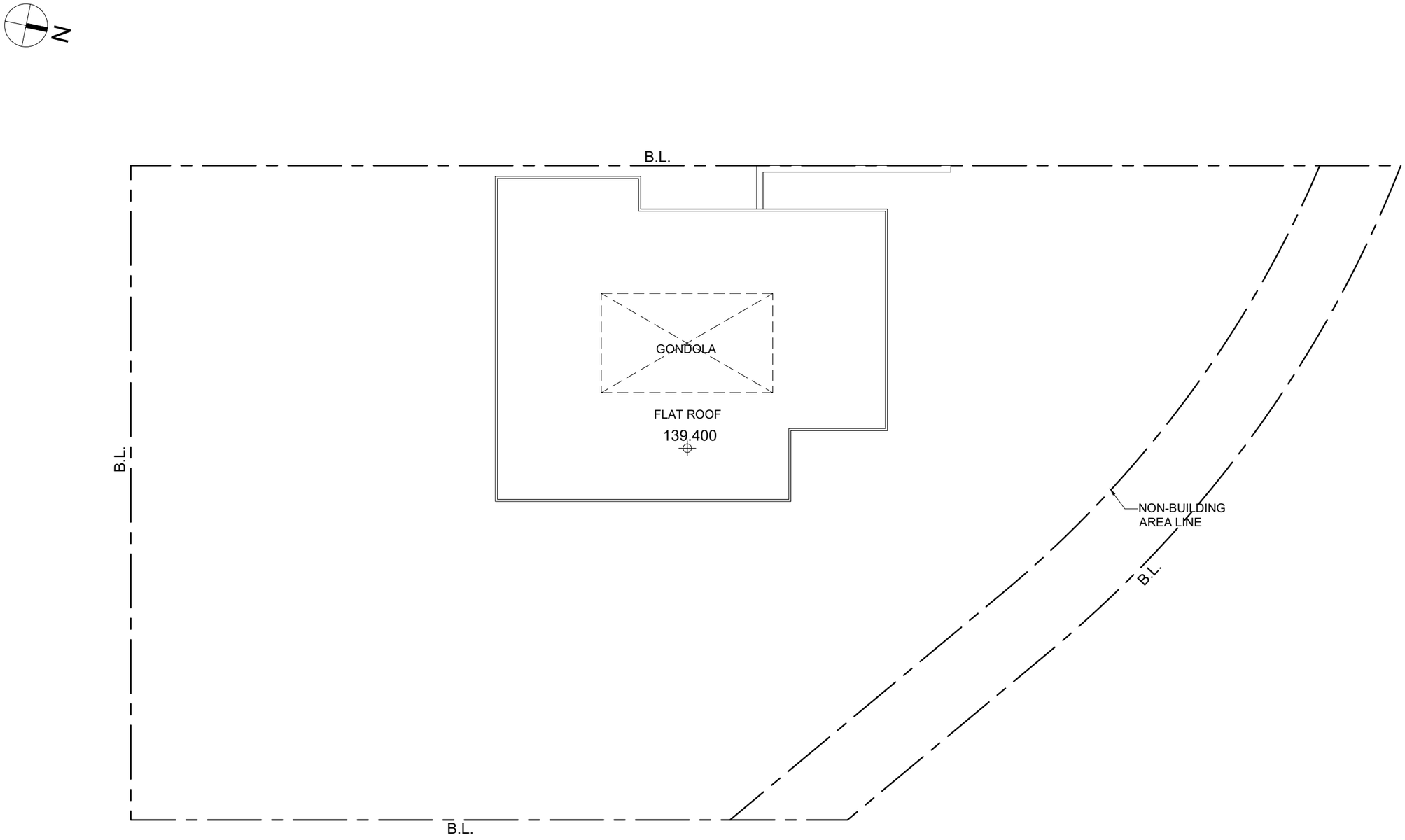
DRAWING TITLE

PLAN AT LEVEL +135.000 m.P.D.

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



UPPER ROOF PLAN

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

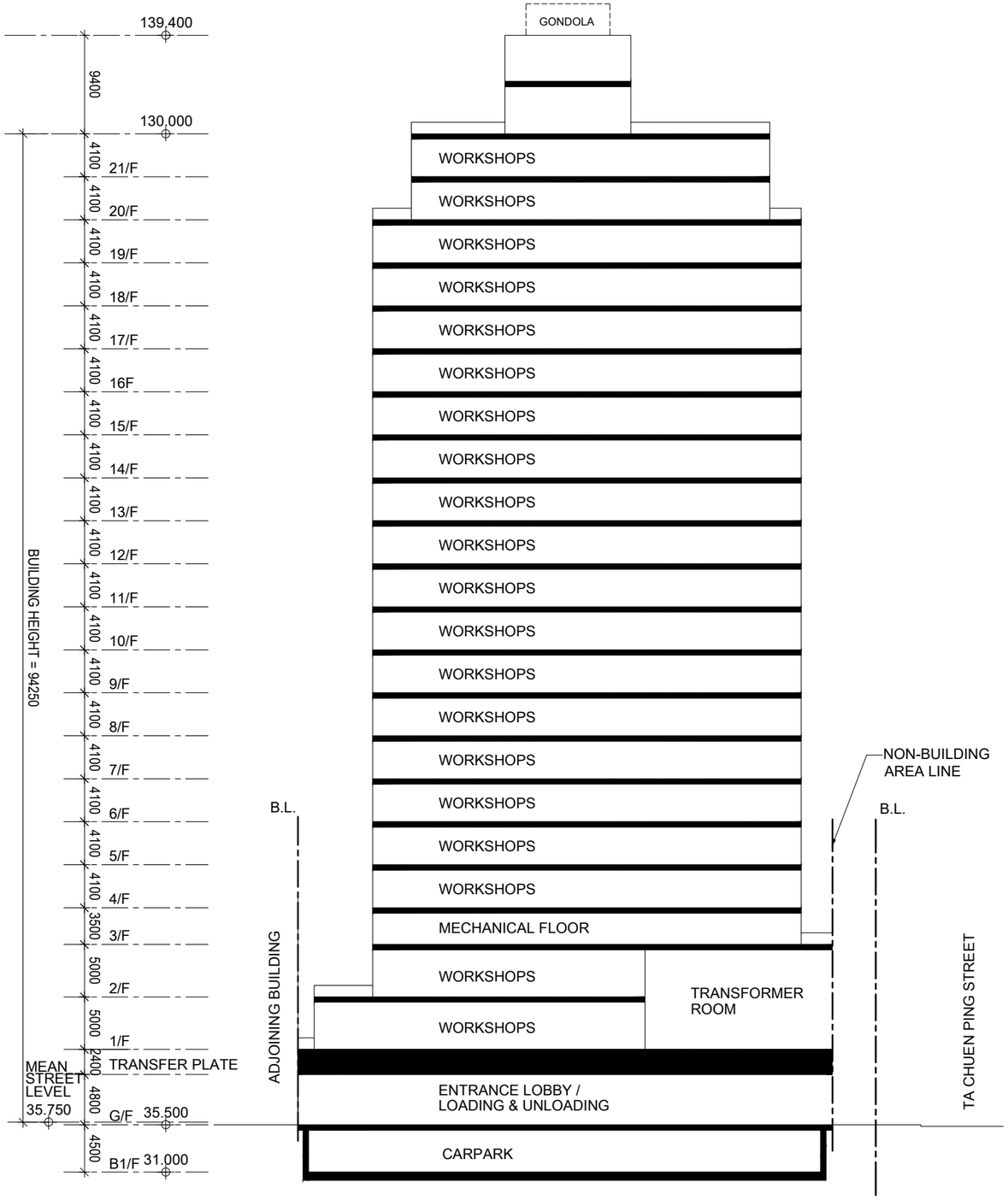
DRAWING TITLE

UPPER ROOF PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



SCHEMATIC SECTION

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

SCHEMATIC SECTION

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-

SCALE 1 : 500 @ A3

DRAWING NO. -

REVISION -

PROPOSED NON-POLLUTING INDUSTRIAL BUILDING
NO. 94-100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DESIGN DIAGRAM - DESIGN MERITS

1. NON-BUILDING AREA
The set back at Ta Chuen Ping Street could enhance natural ventilation, increase permeability to surrounding areas. Greenery is to be provided in the area to improve the urban environment.

2. AT GRADE GREENERY
The extensive planting including trees planting along with complimenting at grade greenery along Ta Chuen Ping Street enhances the pedestrian experience, provides natural shades, and enhances the streetscape. It also enriches the building envelop and reduces the building bulk.

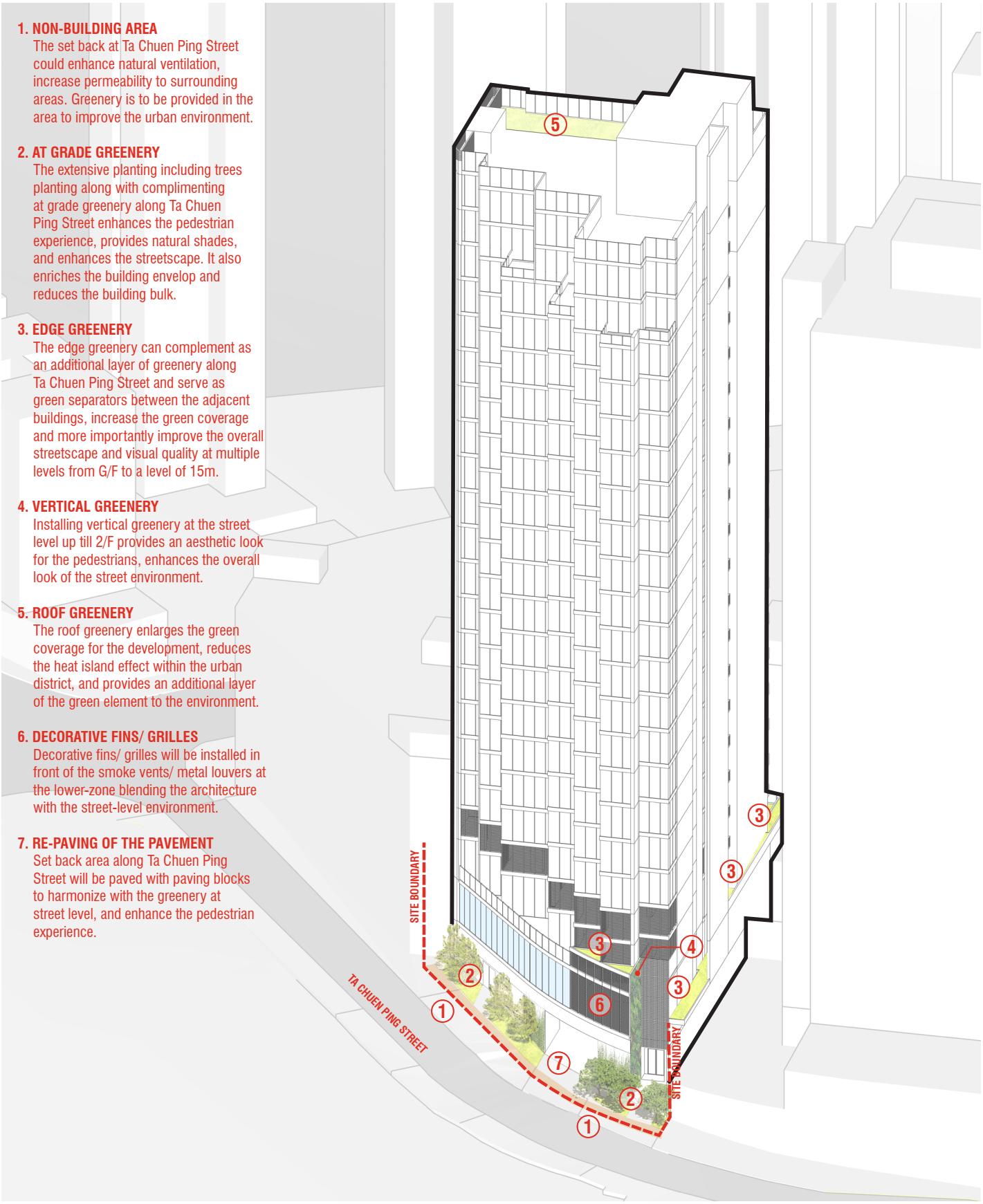
3. EDGE GREENERY
The edge greenery can complement as an additional layer of greenery along Ta Chuen Ping Street and serve as green separators between the adjacent buildings, increase the green coverage and more importantly improve the overall streetscape and visual quality at multiple levels from G/F to a level of 15m.

4. VERTICAL GREENERY
Installing vertical greenery at the street level up till 2/F provides an aesthetic look for the pedestrians, enhances the overall look of the street environment.

5. ROOF GREENERY
The roof greenery enlarges the green coverage for the development, reduces the heat island effect within the urban district, and provides an additional layer of the green element to the environment.

6. DECORATIVE FINS/ GRILLES
Decorative fins/ grilles will be installed in front of the smoke vents/ metal louvers at the lower-zone blending the architecture with the street-level environment.

7. RE-PAVING OF THE PAVEMENT
Set back area along Ta Chuen Ping Street will be paved with paving blocks to harmonize with the greenery at street level, and enhance the pedestrian experience.



Appendix 2

Tree Survey and Landscape Proposal

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 - 100 Ta Chuen Ping Street, Kwai Chung

TREE SURVEY AND LANDSCAPE PROPOSAL

(1st Submission- Rev.0)

Submission Date: April 2021

Client: Gain Champion Investment Limited
Landscape Architect : Gain Champion Investment Limited

LIST OF CONTENTS

APPENDICES

Drawing No.:	Drawing Title:	Rev.
TCPS/TS01	Tree Survey Plan	0
TCPS/TR01	Tree Recommendation Plan	0
TCPS/SEC01	Landscape section 01	0
TCPS/VG01	Typical Vertical Green Wall Detail	0
TCPS/LMP01	Landscape Master Plan - Ground Floor	0
TCPS/LMP02	Landscape Master Plan - First Floor	0
TCPS/LMP03	Landscape Master Plan - Second Floor	0
TCPS/LMP04	Landscape Master Plan - Roof Floor	0
TCPS/GA01	Greenery Area Provision - Ground Floor	0
TCPS/GA02	Greenery Area Provision - First Floor	0
TCPS/GA03	Greenery Area Provision - Second Floor	0
TCPS/GA04	Greenery Area Provision - Roof Floor	0

1. INTRODUCTION

1.1 Background

1.1.1 The proposed revitalisation Industrial building site is located at D.D. 444 Lot No. 290, No.94-100 Ta Chuen Ping Street, Kwai Chung, Kowloon. The development comprises of twenty-three storey factories/ workshops, a mechanical floor and one basement car park.

1.1.2 This Submission presents the Landscape Proposal (LP) which includes the Tree Survey. Given the site has no landscaping nor tree preservation clause, it serves as information and supporting document for Section16 purpose only.

1.2 Landscape Proposal for the Lot

1.2.1 This Landscape Proposal (LP) follows the requirements of Joint Practice Note no.3 (JPN3).

1.3 Tree Survey Report

1.3.1 The Tree Survey Report Is presented in **Section 4** of this Report.

1.4 Relevant Legislation and Guidelines

1.4.1 In preparation of this Report, reference has been made to the following technical circulars, practice notes and publications:

- Buildings Department / Lands Department / Planning Department Joint Practice Note No. 3 Re-engineering of Approval Process for Land and Building Developments. (August 2003);
- Forests and Countryside Ordinance (Cap.96);
- Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Country Parks Ordinance (Cap. 208);
- Development Bureau Technical Circular (Works) No. 5/2020 – Registration of Old and Valuable Trees, and Guidelines for their Preservation;
- Development Bureau Technical Circular (Works) No. 6/2015 -- Maintenance of Vegetation and Hard Landscape Features;
- Standing Interdepartmental Landscape Technical Group (SILTECH) publication - 'Tree Planting and maintenance in Hong Kong' (1991);
- Agriculture, Fisheries and Conservation Department Publication - 'Check List of Hong Kong Plants 2012' (2012);
- Agriculture, Fisheries and Conservation Department Publication - 'Rare and Precious Plants of Hong Kong' (2003).
- GEO Publication No. 1/2011 – 'Technical Guidelines on Landscape Treatment for Slopes';
- Works Branch Technical Circular (WBTC) No. 25/93 – Control of Visual Impact of Slopes;
- Works Bureau Technical Circular No. 17/2000 – Improvement to the Appearance of Slopes;
- Works Bureau Technical Circular No. 7/2002 – Tree Planting in Public Works;
- Highways Department – Landscape Unit – Requirements for Handover of Vegetation to Highways Department (2012);
- Highways Department Technical Circular No. 3/2008 on Independent Vetting of Tree Works under the Maintenance of Highways Department;
- BS 3888:2010 – Tree Work – Recommendations;
- BS 5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations.
- Guidelines promulgated by the Development Bureau at: http://www.greening.gov.hk/en/management; and

2. TREE SURVEY METHODOLOGY

2.1 Definition

2.1.1 In accordance with Lands Department's Practice Note Issue No. 2/2020, all existing trees of its trunk diameter measures 95mm or more at a height of 1.3m above ground level were identified.

2.2 Individual Tree Survey

2.2.1 Every tree surveyed individually shall be recorded with the following information and detailed in **Appendix 2**:

- Tree number
- Species
- Height
- Crown Spread
- Trunk Diameter
- Tree Form
- Amenity Value
- Health Condition
- Anticipated Survival Rate after Transplanting

2.3 Tree Assessment Schedule

2.3.1 A Tree Assessment Schedule recording the detailed information of existing trees together with photographic records of existing trees are enclosed in **Appendix 2** and **Appendix 3** respectively. All surveyed trees shall be identified to confirm whether the trees are:

- Included in the Register of Old and Valuable Trees promulgated under Environment, Development Bureau Technical Circular (Works) No. 5/2020,
- Potentially registrable in accordance with the criteria as set out in Environment, Development Bureau Technical Circular (Works) No. 5/ 2020,
- Tree species included in the latest edition of the publication: Rare and Precious Plants of Hong Kong, issued by Agriculture Fisheries and Conservation Department, and /or
- Potentially hazardous.

2.3.2 Terms Used in the Tree Assessment Schedule

(a) Tree No.:

Surveyed tree reference number recorded

(b) Species

Botanical names and Chinese names of the surveyed tree recorded

(c) Height

Full height measured from ground level to the top branch in meters

(d) Spread

Diameter of tree canopy in meter

(e) Trunk diameter

Diameter at breast height (DBH) of the main trunk measured at a height of 1300mm above ground level

(f) Health Condition

Estimated according to the Foliage, Exposed Roots, Branches and Trunk

(G) = Good Without any visible disease or defect, sound and healthy tree

(F) = Fair With few visible defects or health problem

(P) = Poor With many visible defects or health problem such as rot, cavities in the main trunk, insect or fungi attack, lack of vigour and crown die back, etc.

(g) Tree Form

Estimated according to the canopy, branch and trunk

(G) = Good Well-balanced canopy and straight strong trunk(s) without any broken branch

(F) = Fair Slightly unbalanced canopy and non-straight trunk(s)

(P) = Poor Heavily leaning, unbalanced canopy misshapen, awkwardly-forked trunk or with any broken branch or trunk

(h) Amenity Value

Estimated according to the species, age, size, health condition and tree form

(H) = High

Specimen of rare trees to be retained if at all possible

(M) = Medium

Trees which individually or collectively make a useful but not vital contribution to the local environment

(L) = Low

Dead, dangerous and unhealthy trees and trees of generally poor form and shape

(i) Anticipated survival rate after transplanting

The survival rate after transplanting for individual tree is assessed and categorized as follows:

(H) = High

(M) = Medium

(L) = Low

The following criteria are taken into account:

- Condition of the Tree - trees with balanced form, in good health and with high amenity value are considered for transplanting
- Size and Maturity - small and younger trees have a better chance of surviving transplantation while larger, mature trees are difficult to transplant both logistically and in terms of survival rate
- Species - different tree species have better chances of survival or are better suited to transplanting than others
- Access - large machinery is required to lift the trees, steep slopes and rocky terrain therefore make it difficult to access trees
- Trees Located on Sloping Ground - for those trees located on sloping ground, they may not survive after transplanting even if they are accessible. It is difficult for their inclined root systems to adapt to the normally more gentle ground at the receptor site.

(j) Remarks

Supplementary special features identified on site and having status / characteristics / condition as stated in the bullet points of Section 3.2.3 Tree Assessment Schedule.

3. EXISTING SITE CONDITIONS

3.1 Description of Existing Site and Landscape Context

3.1.1 The Development Site is within an area of about 1486.436 sqm., falls within the industrial area in Kwai Chung. The site is bounded by Regent Centre and Kong Sheng Factory Building along Ta Chuen Ping Street.

3.1.2 Photographs showing the existing site conditions are enclosed in **Appendix 1** The ground levels along Ta Chuen Ping Street are around +36mPD. The lowest point of the ramp is approximately +36mPD and slowly ramping up to the flat area around +39mPD.

3.1.3 The site is relatively flat with concrete paved and an approximate 3m ramp up to the main site which is currently uses for vehicles manoeuvring by the owners of DD444 Lot 291.

3.1.4 There are iron sheet fences of around 2m height to the West of the site and the North, South and West of the site is immediately abutting the adjacent Kong Sheng Factory building and Regent Centre.

3.1.5 There are no SIMAR slopes found in the vicinity of the site.

3.2 Existing Trees

3.2.1 There are total 7 no. existing trees found within the site. All of them grow along the boundary edge with average tree condition except one located adjacent to the ramp on the flat area.

3.2.2 There are no trees within or adjacent to the site that are included in the Register of Old and Valuable Trees promulgated under ETWB TC(W) 5/2020 and since only trees on unleased Government land within built-up areas or tourist attraction spots in village areas are eligible for inclusion in the Register, there are no surveyed trees that are potentially registrable in accordance with the criteria as set out in ETWB TC(W) No. 5/2020.

3.2.3 The Tree Survey Report is presented in **Section 4** of this Report

4. TREE SURVEY REPORT

4.1 Background

4.1.1 The Tree Survey is based on the Topographic Survey undertaken by Chynchen Associates Limited in March 2021.

4.1.2 The assessment and survey of the existing trees within the site were carried out and recommendations were made regarding the treatment of existing trees in response to the design proposals.

4.1.3 The tree survey report outlines the approach and findings of the tree survey; describes the type, extent and condition of existing trees that will be affected by the proposed development, makes recommendations for the treatment to these existing trees within the site.

4.2 Tree Survey Finding

4.2.1 There are a total of 7 nos. existing trees surveyed. Locations of trees are indicated in the Tree Survey Plan enclosed in **Appendix 4** and Photographic Record of Existing Trees in **Appendix 3.**

4.2.2 The tree species recorded are mostly common species in Hong Kong. There are 4 species identified, the height ranges from 4m to 10m, crown spread from 4m to 8m, and DBH from 125mm to 620mm, no weed species *(Leucaena leucocephala)* are found.

4.2.3 The species of surveyed trees and number of each tree species are summarized in **Table 4.2** below.

Table 4.2 Summary of surveyed Trees

Scientific name	Chinese Name	Origin	Quantity (no.)
Ficus microcarpa	細葉榕	Native	2
Ficus rumphii	心葉榕	Exotic	1
Ficus variegate	青果榕	Native	1
Macaranga tanarius var. tomentosa	血桐	Native	3
Total no. of Tree Surveyed			7

4.3 Assessment of Impacts on Existing Trees

4.3.1 The number and species of trees to be retained, transplanted or fell shall depend on various factors, e.g. cost of planting and transplanting, health, amenity value, size, survival rate, location and details of the proposed works.

The following definitions with regard to the recommendations for treatment for each tree in the Tree Assessment Schedule are used:

(1) Retain

Trees in unaffected areas are recommended to be retained and will be protected during construction by temporary fencing when in proximity to construction works.

(2) Transplant

Tree species that are rare or endangered are recommended to be transplanted. Trees approved to be transplanted will be relocated to a suitable location with consent of the Government.

(3) Fell

Trees in direct conflict with the proposed works and are unsuitable for transplanting will be felled. This shall be the last resort if retain and transplant are both not feasible.

4.4 Criteria for Recommendation

4.4.1 The main criteria for judging 'Tree Treatment' for each tree are as follows:

(1) **Retain**

- The feasibility of retaining a tree has been considered with regards to the following:
- Potential damage to the trees as a result of the work.
- Changes to ground levels on a macro-scale that affects the ground water table and may cause severe stress.
- Special construction to maintain the existing ground.
- Conflict between tree roots and slope stabilization method.

(2) **Transplant**

- In situation where a tree is impossible to retain, then transplanting will be considered. The criteria upon which the assessment of transplanting tree are based on the following:
- Potential damage to the trees as a result of the work.
- Rarity of species - rare or endangered Hong Kong species.
- Distinctiveness - trees with high amenity value and high local importance.
- Condition of tree - trees with balanced form, good health and high amenity value, which will affect the success of the proposed transplanting
- Maturity - younger trees have higher survival rate while mature trees do not.
- Species character - different tree species have different rates of survival.
- Rootball feasibility - tree growing on loosen rocky sub-base / slope or adjacent to important utility will not be considered.
- Availability and suitability of a permanent receptor site, both within and outside the site.
- Adequate time for preparation of transplanting operation.
- Identification of a long term maintenance works for the transplanted tree(s).
- Access to the existing location and transportation to the receptor site (including availability of access to accommodate the tree, topography of the proposed route, engineering limitations, etc).
- Cost-effectiveness

(3) **Fell**

The guidelines for the proposed felling of trees are:

- No irreplaceable rare tree species involved.
- Felling of trees would not cause a serious environmental impact.
- A genuine development or traffic need for tree felling exists, which cannot be reasonably overcome.
- The tree is not unusually large or is not a fine specimen of its type.
- The tree is low amenity value and/or poor health, structure or form (e.g. imbalanced form, leaning, with major cavity/ cracks/ splits),
- The tree with low survival rate after transplanting.
- The tree with irrecoverable form after transplanting, which substantial crown and root pruning are necessary to facilitate the transplanting.
- The tree with very large size, which is not considered financially reasonable and technically feasible during feasible stage.
- Undesirable species (e.g. *Leucaena leucocephala*, which is an invasive, self-weeded exotic tree).
- The tree is dead, hazardous or diseased

4.5 Recommendation on Tree Treatment

4.5.1 Among the 7 nos. surveyed trees, all of them would be affected by the excavation works for site formation of the proposed development. All trees affected are in fair to poor form, fair health condition, poor structural condition, with medium to low amenity value and low anticipated survival rate after transplanting.

4.5.2 All of the surveyed trees are not feasible to transplant as the root balls of the trees are either growing within the adjacent concrete wall or immediately abutting the adjacent structure or growing in a narrow planter, which makes the formation of root ball to transplant very difficult and impractical. Therefore, recommend to be felled.

4.5.3 Recommendations for works on the affected trees are shown in the Tree Assessment Schedules in **Appendix 2** and by colour coding the Tree Survey Plan **TCPS/TS01** in **Appendix 4.**

4.5.4 The following is proposed for the 7 surveyed trees:

- All 7nos. of trees are proposed to be felled.
- 0 trees are proposed to be retained
- 0 trees are proposed to be transplanted

4.5.5 **T1** *Ficus microcarpa* and **T7** *Ficus rumphii* both with fair form and fair health condition are proposed to be felled. Even though they are located on the proposed planting area, due to direct conflict to the proposed basement development. While the proposed development has a full height set back of minimum 3.5m wide non- building area the proposed works will not be able to further set back as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement. Therefore site formation works will unavoidability be in direct conflict with the existing trees.

4.5.6 With the existing location and condition of these trees, transplantation is impossible as T1 is growing very closely to the existing hoarding, making it very difficult to form the rootballs for onsite/ offsite transplanting. T7's roots are growing within the adjacent concrete low wall, separating the root to the concrete structure is impossible and potential hazard of stability might occur after the separation of concrete structure as it is not a registered wall and stability of such wall is uncertain. It is occurs to be a potential tree failure in the future if we proposed to retained the concern trees.

4.5.7 **T2, T3** *Macaranga tanarius var. tomentosa* and **T4** *Ficus variegate* in poor form and health condition are also proposed to be felled as it is in direct conflict with the proposed building envelope and transplantation of these trees are impossible as their root collar are unable to be seen and their tree trunk are locate immediately adjacent to the building block.

4.5.8 **T5** *Ficus microcarpa* is leaning located within the proposed building envelope and a small narrow planter immediately adjacent to the building rendering the rootball preparation for transplantation very difficult, therefore it is proposed to fell given the consideration of the tree amenity value and cost imbalance.

4.5.9 **T6** *Macaranga tanarius var. tomentosa* is located in the middle of the proposed driveway and between the two level along the side of the ramp from the existing entrance. Considering the level difference from the future proposed level and the existing root collar level, it will be directly affected by the proposed construction works and will not be able to retain nor transplant. Transplantation is not recommended due to the tight growing planter space currently for the roots rendering it very difficult to prepare a rootball for transplant.

4.6 Summary of Tree Treatment

4.6.1 **Table 4.6** below provides consolidated findings and recommendations of the existing trees.

Table 4.2 Summary of Tree Treatment

Proposed Treatment	**Quantity (nos.)**
To be retained	0
To be transplanted	0
To be felled	7
Total no. of Tree Surveyed	**7**

5. THE LANDSCAPE PROPOSAL

5.1 Landscape Design Objectives

5.1.1 The landscape design is responsive to the surrounding environment and complement to the contemporary architectural design of the development. The design takes into consideration of the aesthetic, functional and sustainable aspect of the site and its surrounding. The landscape areas and facilities have been considered and arranged to allow ease of pedestrian circulation and adjacent to relevant indoor facilities. A balance of hard and soft landscape area/ elements have been sought wherever possible. The proposed plant species are both native and exotic species for blending with the local climate/ micro-climate.

5.1.2 The proposed landscape area is distributed at Ground Floor, 1st Floor, 2nd Floor and Roof. Ground Floor, 2nd Floor and roof are open and accessible to general tenants for enjoyment. The other landscape area on 1st Floor are inaccessible but visually accessible to create a greenery connection on site.

5.1.3 The landscape design proposal is illustrated on the plans **(TCPS/LMP01** to **TCPS/LMP04)** and section **(TCPS/SEC01)** enclosed in **Appendix 4** of this report

5.1.4 Description of each landscape area are further elaborated below.

<u>Ground Floor Landscape area and Streetscapes</u>

5.1.5 The streetscape design for the pedestrian pavements along Ta Chuen Ping Street will be upgraded with new trees and shrubs planting and additional 1m widening (set back line) on the existing pedestrian paving for a more generous and welcoming opening. These landscape measures will serve to tie together the surrounding space and the proposed building.

5.1.6 Trees and shrubs planting are designed to provide partial screening between the public and the development which also invite the surrounding, adjacent spaces into the development, creating seamless integration with the new development. In addition, tree canopies will create a comfortable shaded environment and enhance the edge treatment as well as improving the street environment.

5.1.7 Instead of providing only horizontal greening, our scheme has also included vertical greening, the provision enhances the overall greening effect to at-grade levels and maximise the greening opportunities.

5.1.8 Furthermore, the finishes and plant species provided within the development will be compatible with those selected for the surrounding public areas, details of the indicative proposed species are listed in **Section 5.3** below.

<u>Landscape areas located on 1st Floor, 2nd Floor and Roof</u>

5.1.9 Planters are designed along the edge adjacent to Regent Centre on as well as an edge corner of the side facing Ta Chuen Ping Street on 2nd Floor to create a green buffer and to reduce the visual prominence, soften the form of the proposed architectural scheme and create a greener perimeter where it interfaces with the spaces surrounding the site.

5.1.10 Accessible small pocket space with seating areas are proposed on the Western corner on 2nd Floor and roof of the building block for communal use.

5.1.11 The landscaping areas on 1st Floor and corner of 2nd Floor are not accessible by communal users, they are provided with weeping planting to further enhance the overall greening effect of the Development.

5.2 Hard Landscape Element

5.2.1 Paving used for vehicular traffic shall be of adequate thickness to withstand the required loading, and the colour and pattern shall match with the overall paving character. Feature paving shall be adopted at building entrances and landscape areas for accent.

5.2.2 For curbs, planters and walls, natural granite and ceramic tiles with different colours and textures are proposed and in line with the overall colour tone of the hard landscape.

5.2.3 All hard paved areas shall be paved with a mixture of ceramic tiles and natural granite with sizes and colours complementary with the proposed building finishes for the site.

5.2.4 Non-slip paving materials are designed and selected to suit the various active and passive recreational areas within the site and the proposed finishes and materials are summarized in the Hard Landscape Schedule below.

Ground Floor Landscape Area

Landscape Zone	**Brief Description of Hardworks Elements**
Entrance area	*Pavement – granite/ ceramic tiles/ paving blocks*
EVA/ loading & unloading area	*EVA road – granite/ ceramic tiles* *Loading and unloading area/ ceramic tiles*
Shop area	*Pavement/Staircase – granite / ceramic tiles/ paving blocks*
Edge planters along boundary fence/wall	*Planter wall – granite / ceramic tiles*

1st Floor, 2nd Floor and Roof Landscape Area

Landscape Zone	**Brief Description of Hardworks Elements**
Landscaped area	*Pavement - granite/ ceramic tiles* *Planter wall - granite/ ceramic tiles*

5.3 Soft Landscape

5.3.1 Plants enhance the visual quality and add seasonal interests to the landscape area. Also, it softens the hardscape and increase the landscape quality of the development. Both native and exotic plant species are used to provide ecological benefits as well as ornamental purpose.

5.3.2 Trees, shrubs and groundcovers will be planted throughout the site whenever appropriate. Species with shade tolerant plants, evergreen nature and different foliage colours are selected to ensure year round greening effect and visual interest. For feature planting at focal points, evergreen or deciduous species with different foliage colours will be selected to enhance visual and seasonal interest.

5.3.3 4 nos. of heavy standard *Terminalia mantaly* are proposed on the Ground Floor as a green edge buffer treatment along Ta Chuen Ping Street and 3nos of heavy standard *Osmanthus Fragrans* are proposed on the Ground Floor close to Regent Centre to reduce the wall effect and act as a screen planting.

5.3.4 Proprietary vertical green wall is also introduced to the site for additional greening and create a vibrant visual appreciation for the pedestrian and it's surrounding. Evergreen and easily maintained species will be proposed on the vertical green for immediate visual effect. Typical detail of the vertical green wall is show on Drawing No. **TCPS/VG01** enclosed in **Appendix 4**.

5.3.5 Self-clinging climbing species are also proposed on the walls behind the proposed trees facing Ta Chuen Ping Street for a more natural form of vertical greening in the future.

5.3.6 No planting area is under cover in the proposed layout plan. Section Drawing, drawing no. **TCPS/SEC01** showing the section of proposed planting area, are enclosed in **Appendix 4**.

5.3.7 The planting areas are shown on Drawing No**. TCPS/LMP01** to **TCPS/LMP04** enclosed in **Appendix 4** of this Report and the indicative planting schedule are summarised in **Table 5.3** below

Table 5.3 Indicative Planting Schedule

Planting Species	**Chinese name**	**Size (height x spread) (mm)**	**Min. Planting Spacing (mm) /c**	**Proposed Location**
Tree Planting (for Compensatory Planting)*				
Osmanthus Fragrans	桂花	Heavy Standard	3000	G/F (3 nos.)
Terminalia mantaly	小葉欖仁	Heavy Standard	5000	G/F (4 nos.)
Shrubs and Groundcovers				
Allamanda cathartica	軟枝黃蟬	1000x300	300	1/F, 2/F, RF
Bougainvillea glabra	勒杜鵑	1000x300	300	1/F, 2/F, RF
Cuphea hyssopifolia	台灣雪茄花	150x200	150	2/F, RF
Duranta repens 'Dwarf golden'	黃金假連翹	400x400	400	G/F, 2/F
Fatsia japonica	八角金盤	400x400	400	G/F, RF
Fagraea ceilanica	非洲茉莉	400x400	400	G/F, 1/F, 2/F
Ficus microcarpa cv. Golden Leaves	黃金榕	800x800	800	RF
Ixora chinensis	龍船花	400x400	400	G/F, 1/F, 2/F
Liriope spicata	蒲草	150x150	150	1/F, 2/F, RF
Nephrolepis hirsutula	毛葉腎蕨	200x200	200	2/F
Nandina domestica	南天竹	300x600	300	2/F
Parthenocissus tricuspidata	爬牆虎	400X400	400	G/F
Osmanthus fragrans	桂花	500x500	500	2/F
Rhododendron simsii	紅杜鵑	400x400	400	G/F, 2/F
Schefflera arboricola 'Dazzle'	鵝掌藤	500x500	500	G/F, 2/F
Syzygium hancei	韓氏蒲桃	500x500	500	G/F, 2/F
Climbers				
Ficus pumila	薜荔	500 x 300	300	GF
Parthenocissus dalzielii	爬牆虎	750 x 300	500	GF
Trachelospermum jasminoides	絡石	900 x 500	700	GF

5.4 Tree Planting Method

5.4.1 A minimum of 1200mm soil depth is proposed for all compensatory tree planting areas. A 500mm radius around the trunk of the trees shall remain clear of shrubs or ground covers in accordance with Guidelines promulgated by the Development Bureau, and a 50mm layer of mulch shall be applied.

5.5 Greenery provision

5.5.1 Upon full establishment of greening measures mentioned in the landscape design proposal, visible greening at different levels of the proposed development will not be less than 20% of the site area. Minimum greenery ratio required within the Lot is 20% of the total site area as per PNAP APP-152. Drawing No. **TCPS/GA01 to 04** enclosed in **Appendix 4** of this report shows details of the Green Coverage. Requirement of greenery, please refer to **Table 5.5** and **Table 5.6.**

Table 5.5 – Green Area Provision requirement

Greenery Area Requirement	
Development Site	1,486.436 m^2
Primary Zone (below 15m) – 10%	148.644 m^2
Overall Greenery Area – 20%	297.287 m^2

Table 5.6 – Green Area Provision Calculations

Greenery Area Provision		
Location		**Area (m^2)**
Primary Zone (below 15m)	Ground Floor (G/F)	60.4
	First Floor (1/F)	5.75
	Second Floor (2/F)	26.3
	Vertical Greening (VG)	58.5
	Total	**150.95 (>10%)**
	Roof Floor (R/F)	147.51
	Overall	**298.46 (>20%)**

5.5.2 As per the general sustainable building design guidelines, a minimum greenery ratio of 10% of the total 20% (148.636 $m^{2)}$ visible to pedestrians or accessible by any person or persons entering the Lot is required. A total greenery area of (150.95 m^2) at Primary Zone has been provided on G/F, 1/F and 2/F in the Development Site. Calculation of greenery area requirements is based on (PNAP) APP-152.

5.5.3 Due to the height limit imposed on the site, the site coverage of the proposed building is up to the maximum allowable limit of 61.537% in order to achieve the allowable GFA under lease. The remaining uncovered area is only 38.463% of the site area which had to cater for the planting area, vehicular access and pedestrian access. Further set back of the building along Ta Chuen Ping Street is not feasible as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement, maximum at grade planting area has been considered.

5.5.4 Rendering the tight space for the development with building blocks situated immediate to the three sides of our site, providing greenery along the street frontage/ primary zone is difficult. Therefore, a 15m (H) x 3.9m (W) proprietary vertical wall is provided facing Ta Chuen Ping street for immediate visual enjoyment to the adjacent building occupants and public pedestrians.

5.6 Landscape Lighting

5.6.1 Lighting for the landscaped areas will be designed to contribute to the quality of the development. All accessible points and open space areas will be provided with sufficient illumination to meet the required lighting standards. Lighting designed for all open space will be carefully designed to avoid glare. The lighting strategy includes four types of lighting as follows:

- Amenity lighting provides in-ground flood lighting for feature trees and planting on roof gardens;
- Up-lighting for landscape features (e.g. walls / sculpture / feature trees);
- Area lighting on roof gardens (e.g. wall recessed lights and low level lighting) is proposed for sitting out areas and courtyard gardens to minimize the potential visual intrusion; and
- Safety lighting with minimum lux level in accordance with acceptable standards and requirements for the perimeter areas and any areas used as means of escape.

5.7 Soil Requirement

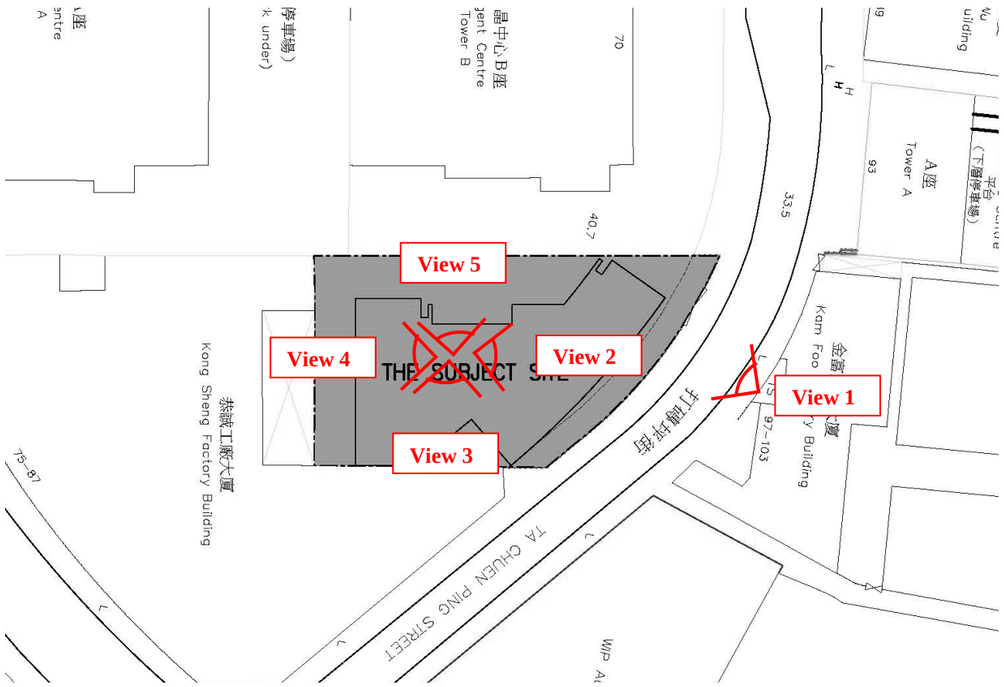
5.7.1 Provision of soil depth to all planted areas will be a minimum depth of 1200mm for trees, 600mm for shrubs and 300mm groundcover area, excluding drainage layer.

5.8 Irrigation and Drainage

5.8.1 Drainage for all planted area with the provision of adequate source of water supply will be provided

Appendix 1

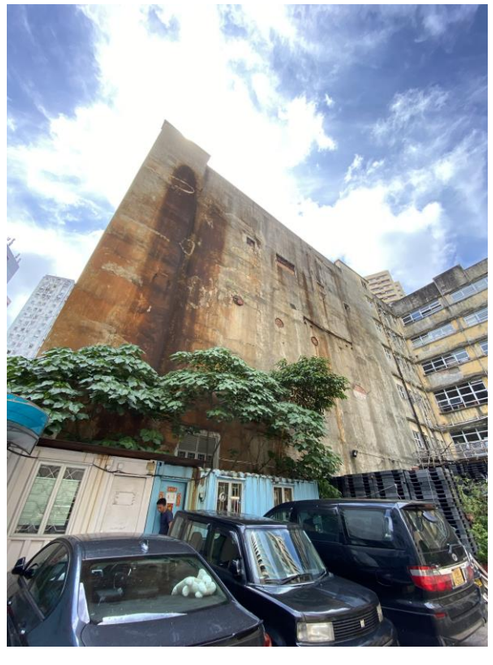
Site Plan and Existing Site Condition Photos



Site Plan

View 1

View 2



View 3

View 4

View 5

Appendix 2

Tree Assessment Schedule

Tree Assessment Schedule

Date of Tree Survey: 16-Mar-21

Tree No.	Species		Measurement			Form	Health Condition	Structural Condition	Amenity Value	Conservation status	Suitability for Transplanting		Recommendation (Retain/ Transplant/ Fell)
	Scientific Name	Chinese Name	DBH (mm)	Height (m)	Crown Spread (m)	Good / Fair / Poor			High / Medium / Low		High / Medium / Low	Remarks	
T1	Ficus microcarpa	榕樹 (細葉榕)	620	10	8	Fair	Fair	Poor	Medium	NIL	Low	Dead branch; close to existing hoarding; difficult to form rootball	Fell
T2	Macaranga tanarius	血桐	135	6	5	Poor	Fair	Poor	Low	NIL	Low	Slightly leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T3	Macaranga tanarius	血桐	125	7	6	Poor	Fair	Poor	Low	NIL	Low	Slightly leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T4	Ficus variegata (syn. Ficus variegata var. chlorocarpa)	青果榕	155	9	6	Fair	Fair	Poor	Medium	NIL	Low	Leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T5	Ficus microcarpa	榕樹 (細葉榕)	210	4	4	Fair	Fair	Poor	Medium	NIL	Low	Leaning; locate in small planter, unstable rootball for transplantation	Fell
T6	Macaranga tanarius var. tomentosa	血桐	270	5	5	Poor	Fair	Poor	Low	NIL	Low	Multi-trunks; Dead branch; Asymmetirc canopy; root cramped inside a small concrete planter, imposible to form rootball for transplantation	Fell
T7	Ficus rumphii	心葉榕 (假菩提樹)	350	10	8	Fair	Fair	Poor	Medium	NIL	Low	Dead branch; Asymmetirc canopy; root growing into adjacent concrte low wall; imposible to form rootball for transplantation	Fell

Summary of Tree surveyed

Recommendation	no.
Trees to be Retain	0
Trees to be Transplant	0
Trees to be Fell	7

Appendix 3

Tree Survey Photographs

Photo No. 1 | T1

Photo No. 2 | T1

Photo No. 3 | T1

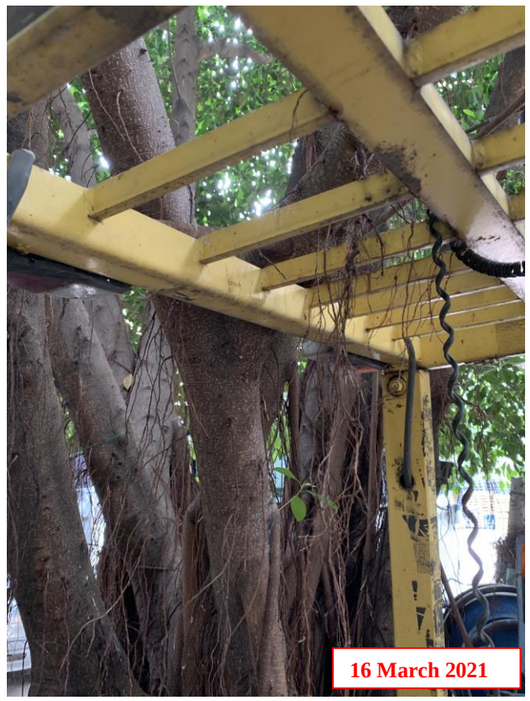


Photo No. 4 | T1

Photo No. 5 | T1

Photo No. 6 | T2

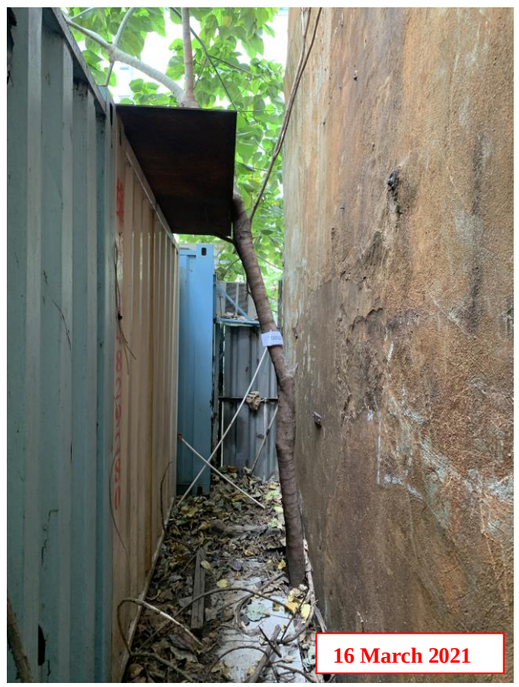


Photo No. 7 | T2

Photo No. 8 | T2

Photo No. 9 | T3

Photo No. 10 | T3

Photo No. 11 | T4

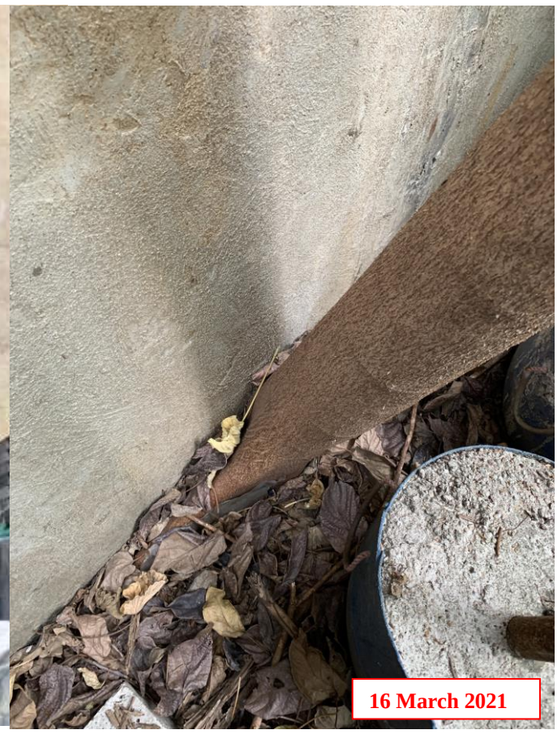


Photo No. 12 | T4

Photo No. 13 | T4

Photo No. 14 | T5

Photo No. 15 | T5

Photo No. 16 | T5

Photo No. 17 | T6

Photo No. 18 | T6

Photo No. 19 | T7

Photo No. 20 | T7

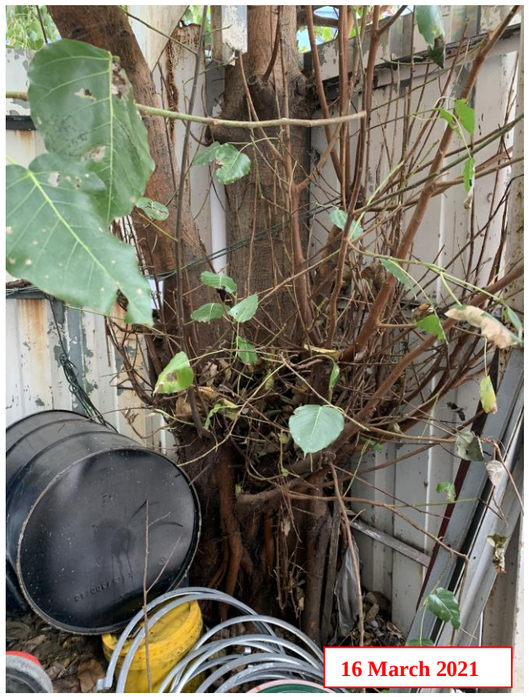


Photo No. 21 | T7

Photo No. 22 | T7

Photo No. 23 | T7

Photo No. 24 | T7

Appendix 4

Landscape Drawings

T5
(+39.67)

T6
(+39.11)

T7
(+36.62)

T1
(+39.30)

T4
(+39.29)

T3
(+39.43)

T2
(+39.25)

A

B

C

D

E

WALL

RAMP

PLF

TS

G.L.

SP

HD

TA CHUEN PING ROAD

LEGEND :

LOT BOUNDARY

TREE SURVEYED
WITHIN LOT BOUNDARY

T5
(+39.67)

TREE NUMBER AND
EXISTING GROUND LEVEL
AT TRUNK BASE (M)

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

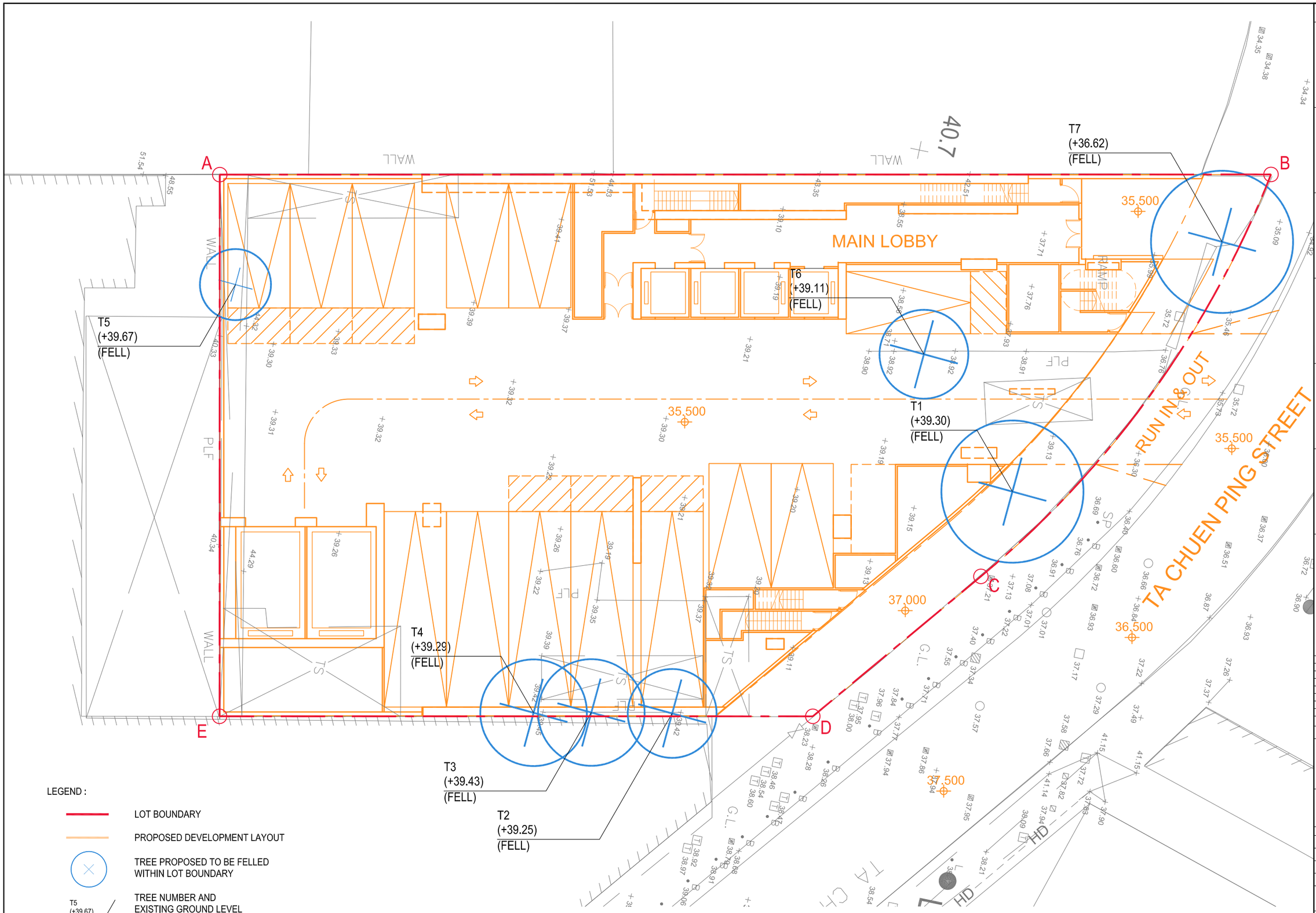
DRAWING TITLE

TREE SURVEY PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TS01

REVISION 0



LEGEND :

- LOT BOUNDARY
- PROPOSED DEVELOPMENT LAYOUT
- TREE PROPOSED TO BE FELLED WITHIN LOT BOUNDARY
- T5 (+39.67) — TREE NUMBER AND EXISTING GROUND LEVEL AT TRUNK BASE (M)

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

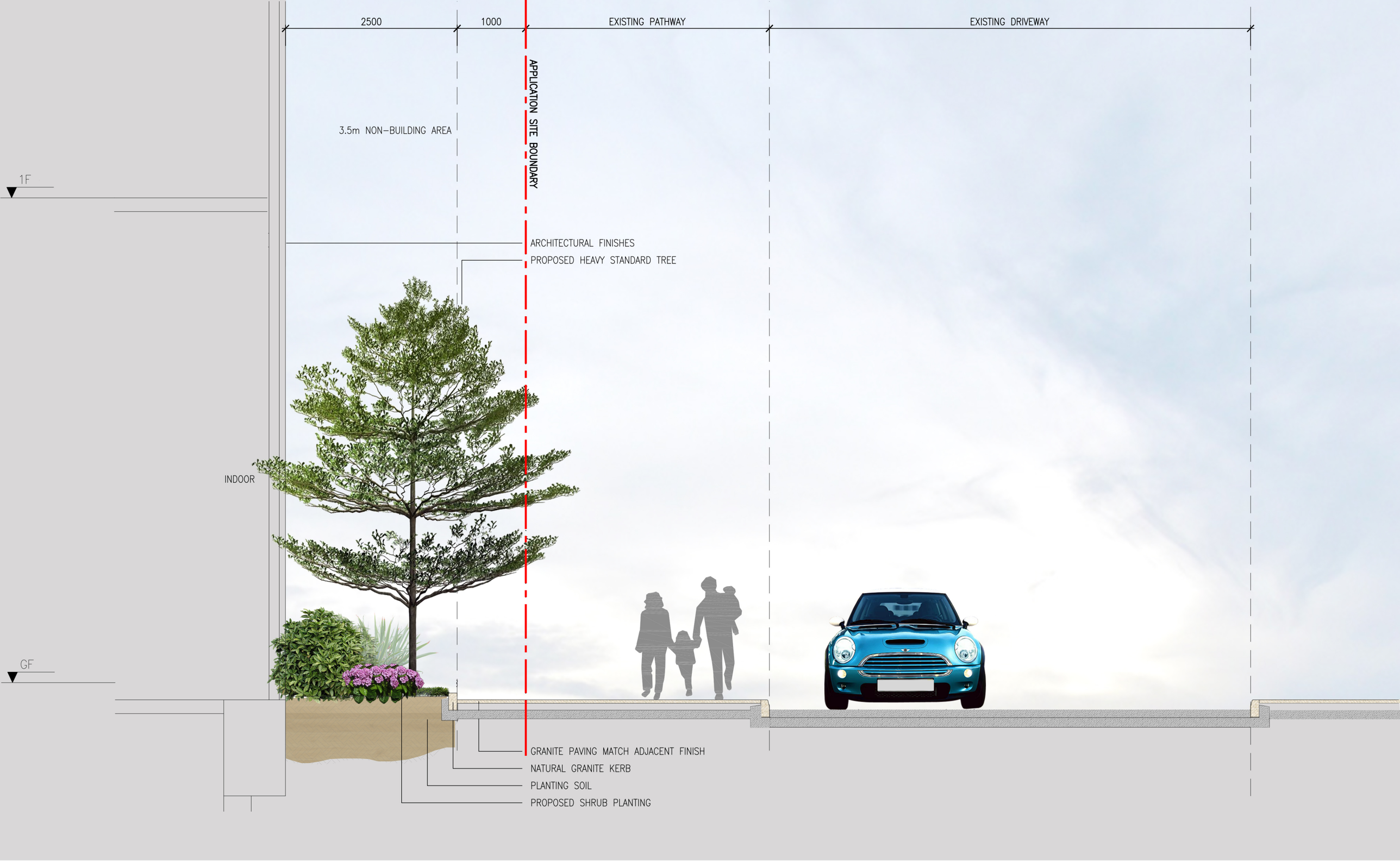
DRAWING TITLE

TREE RECOMMENDATION PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TR01

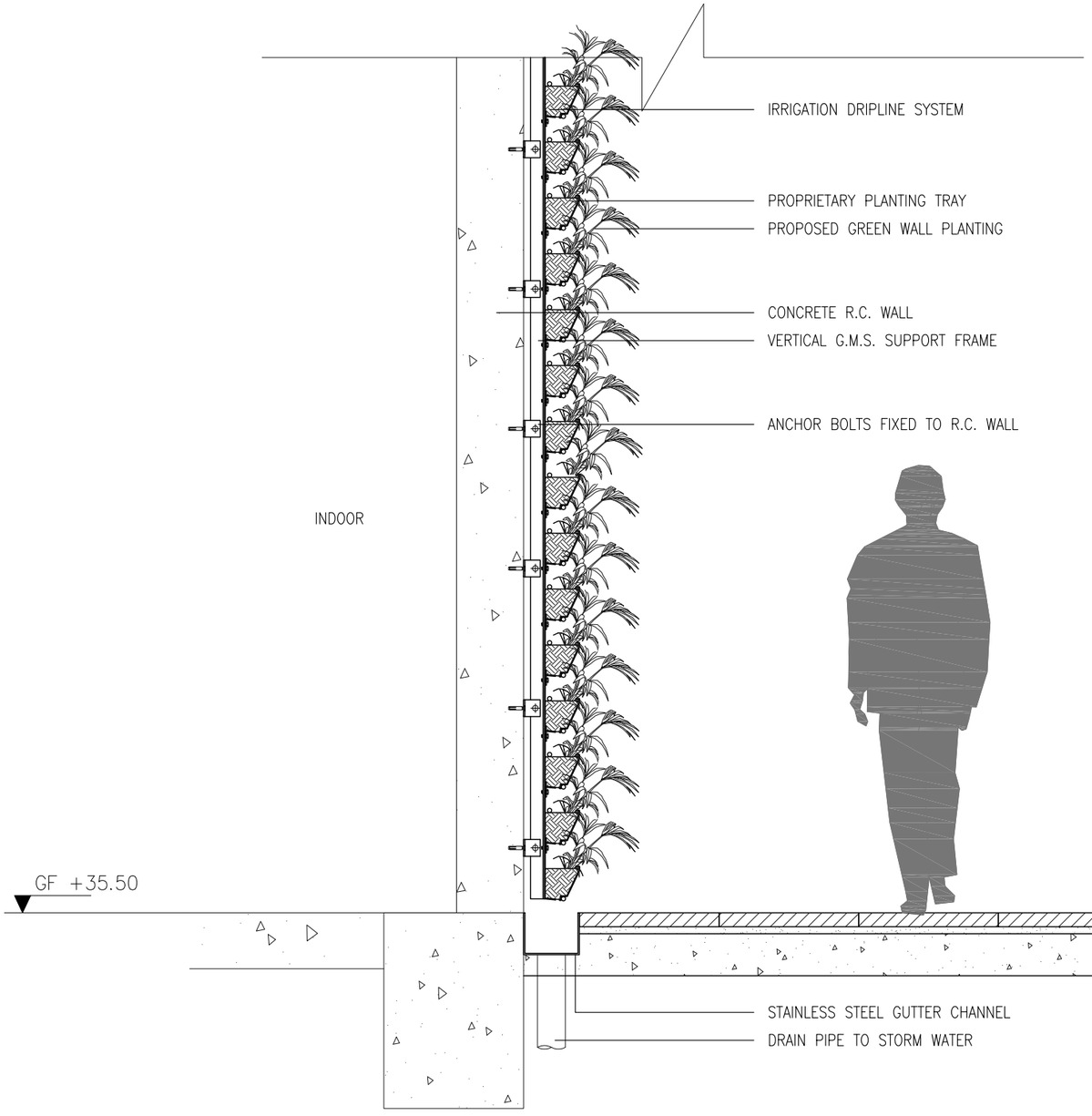
REVISION 0

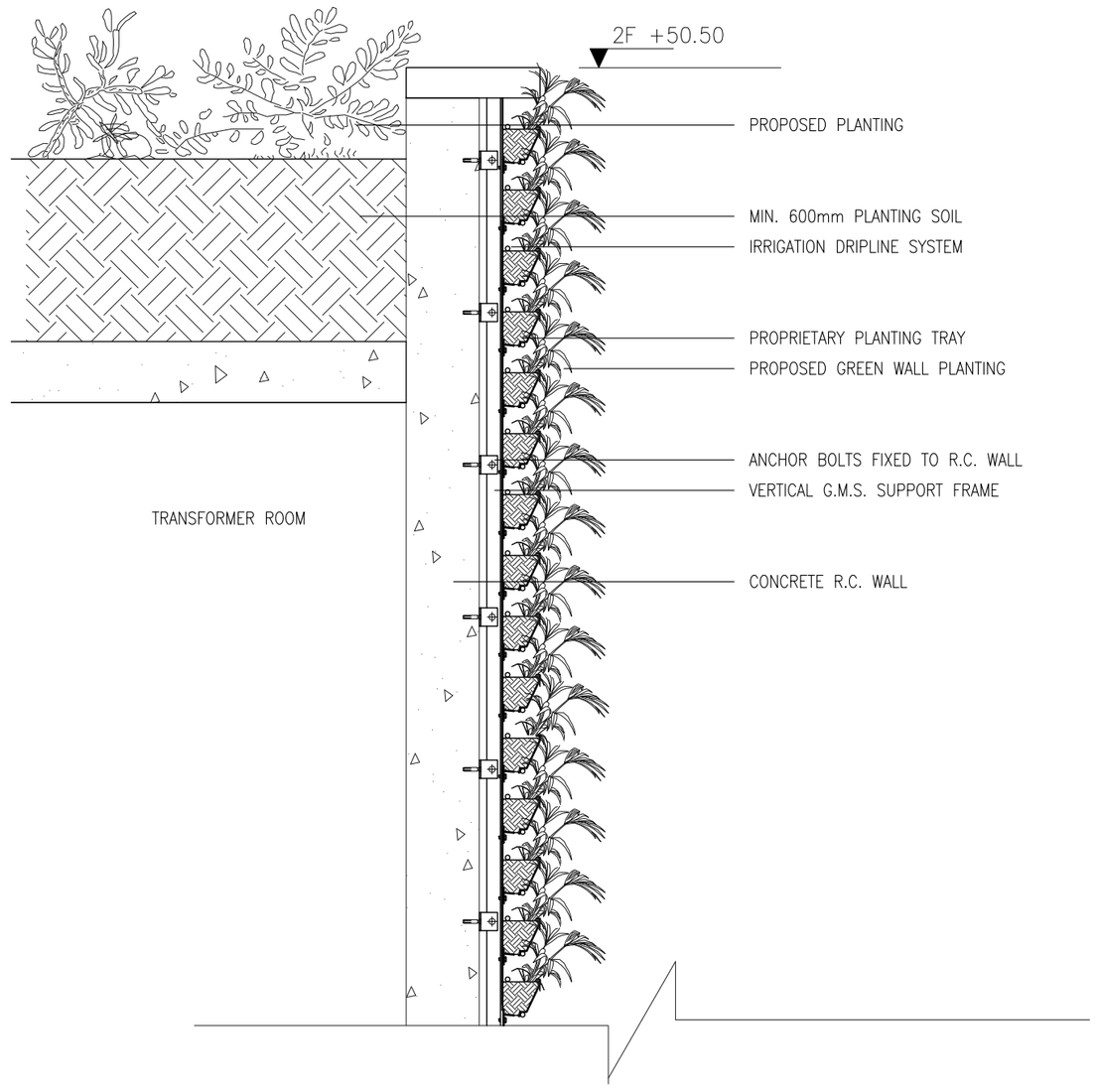


94-100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

LANDSCAPE SECTION 01- ALONG TA CHUEN PING STREET

TCPS/SEC01 1:50@A3





94–100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

TYPICAL VERTICAL GREEN WALL DETAIL

TCPS/VG01

1:20●A3

REGENT CENTRE TOWER A

REGENT CENTRE TOWER B

FL +35.50

FL +35.50

FL +35.50

+35.50

FL +37.00

TA CHUEN PING STREET

KONG SHENG FACTORY BUILDING

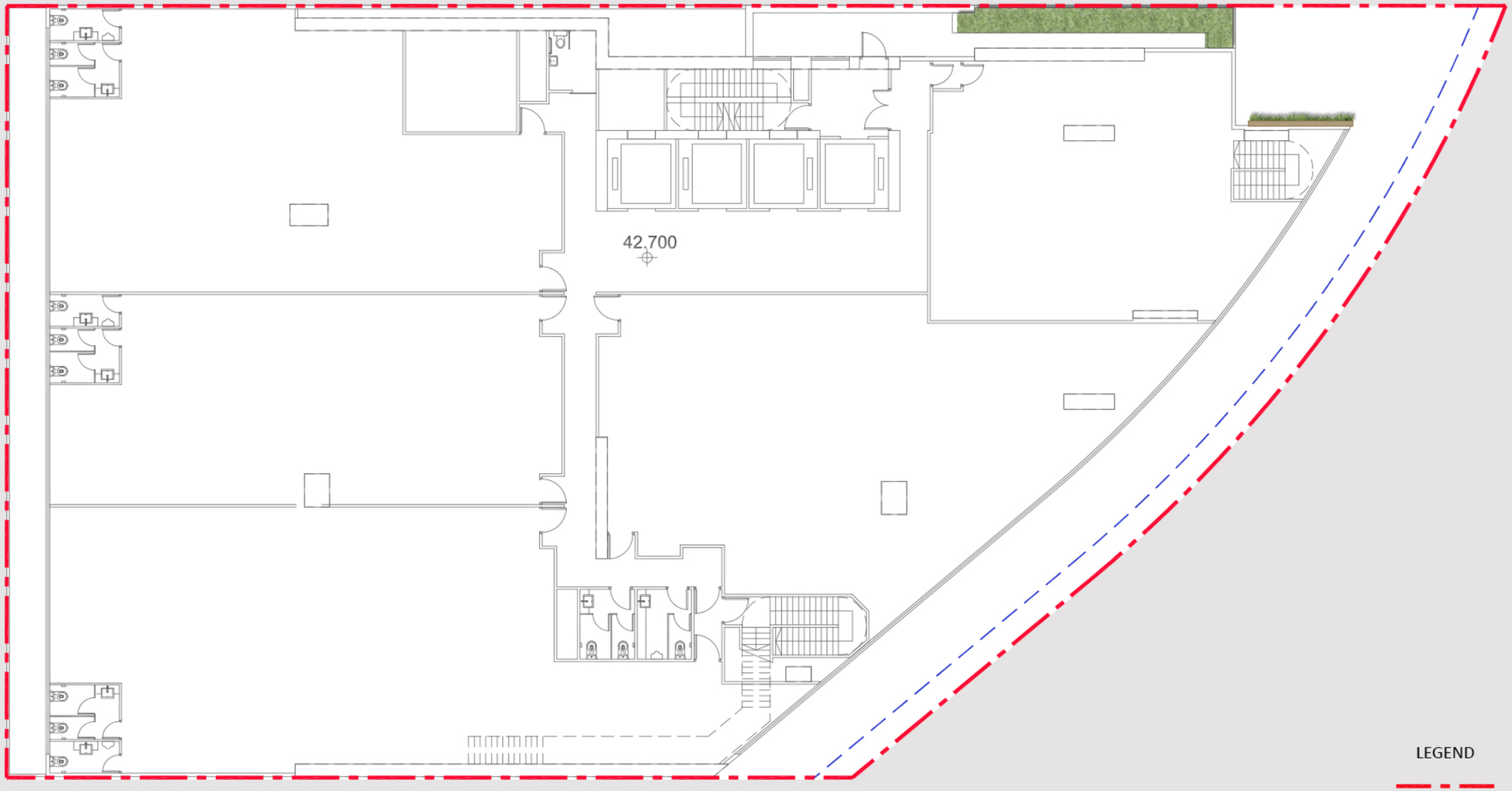
LEGEND

- Lot boundary
- Set back line
- +35.50 Existing level
- FL +35.50 Proposed finish floor level
- Pedestrian entrance
- Vehicle entrance
- Run in out
- Paving
- Planting Area with shrubs and groundcovers
- Proprietary green wall system
- Proposed tree- Osmanthus Fragrans
- Proposed tree- Terminalia mantaly

0 1 2 5 10m

LANDSCAPE MASTER PLAN - GROUND FLOOR

DRAWING NO. TCPS/LMP01



LEGEND

Lot boundary

Set back line

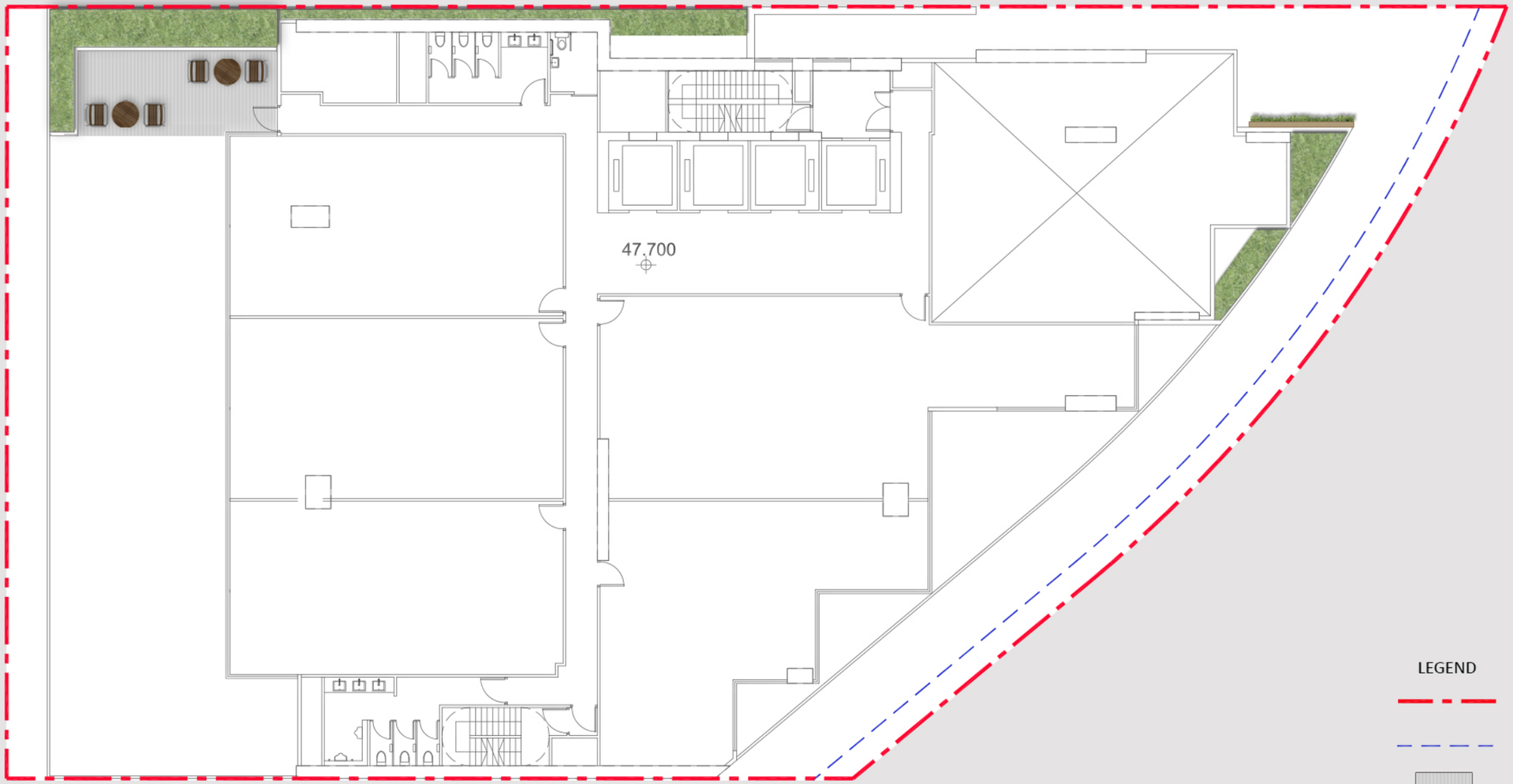
Planting Area with shrubs and groundcovers

Proprietary Green wall System

0 1 2 5 10m

LANDSCAPE MASTER PLAN - FIRST FLOOR

DRAWING NO. TCPS/LMP02



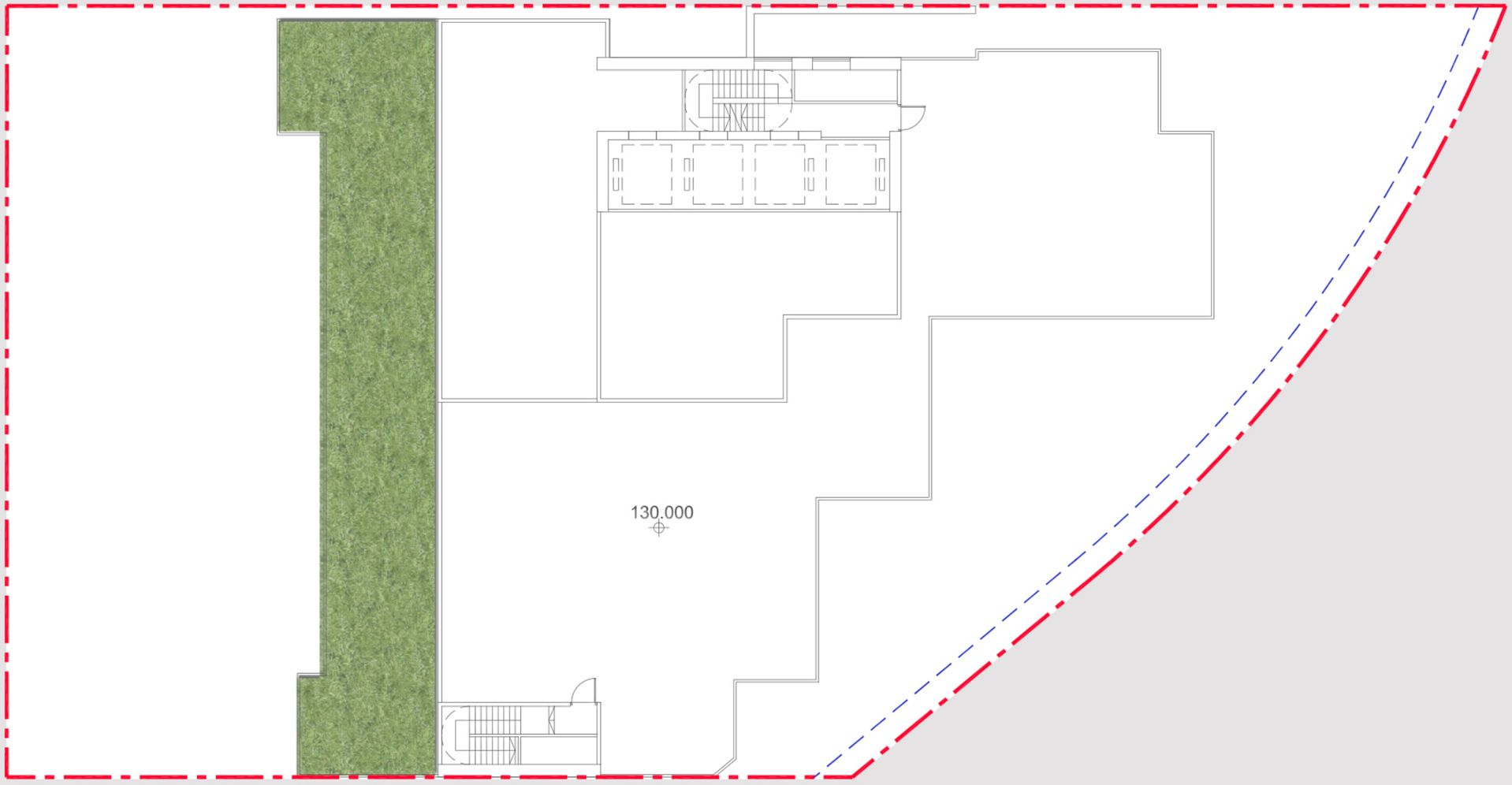
LEGEND

- Lot boundary
- Set back line
- Landscape paving
- Planting Area with shrubs and groundcovers
- Propreietary Green wall system
- Outdoor Furniture

0 1 2 5 10m

LANDSCAPE MASTER PLAN - SECOND FLOOR

DRAWING NO. TCPS/LMP03



LEGEND

Lot boundary

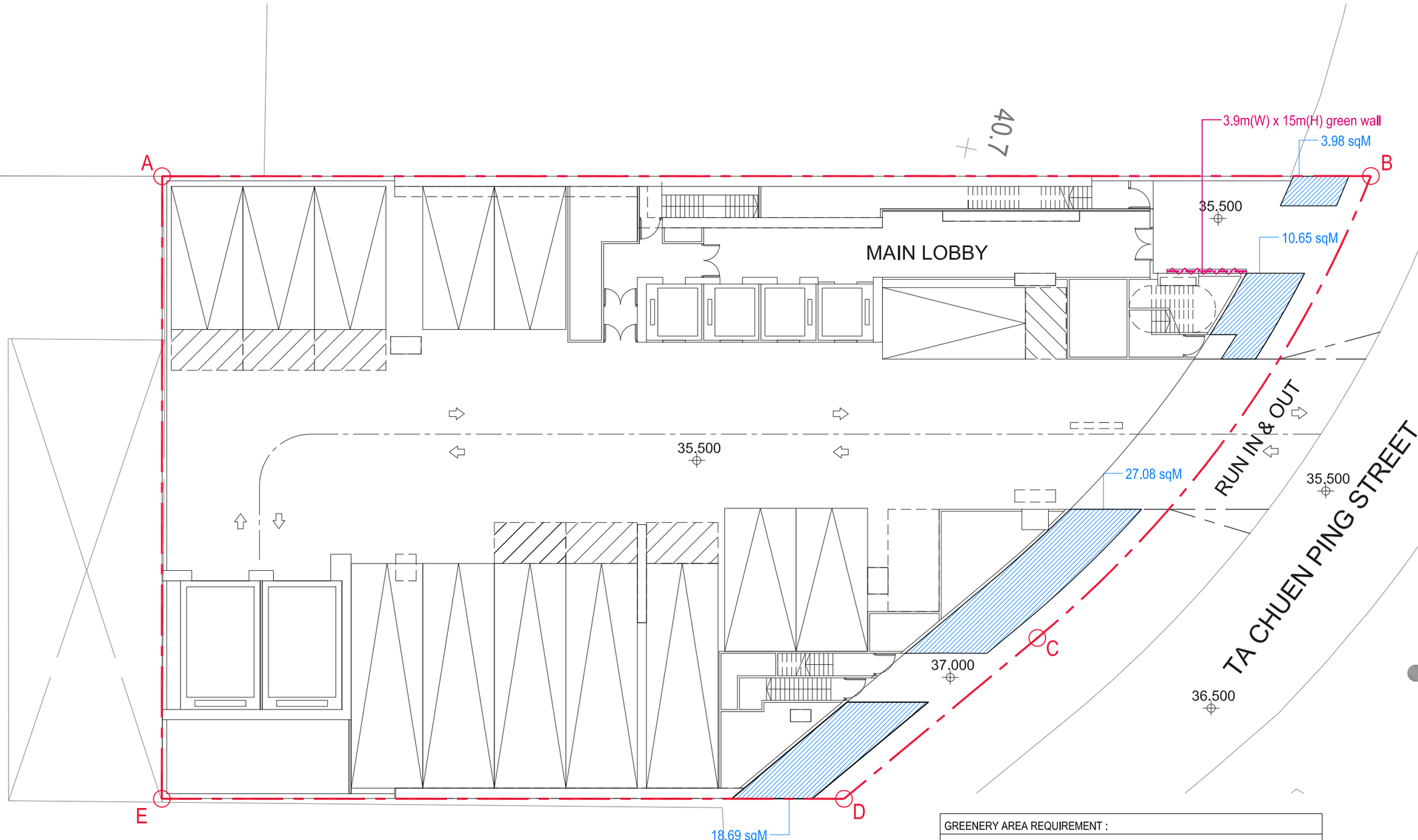
Set back line

Planting Area with shrubs and groundcovers

0 1 2 5 10m

LANDSCAPE MASTER PLAN - ROOF FLOOR

DRAWING NO. TCPS/LMP04



LEGEND :

- LOT BOUNDARY
- GREENERY AREA (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	26.3 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	150.95sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	298.46 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

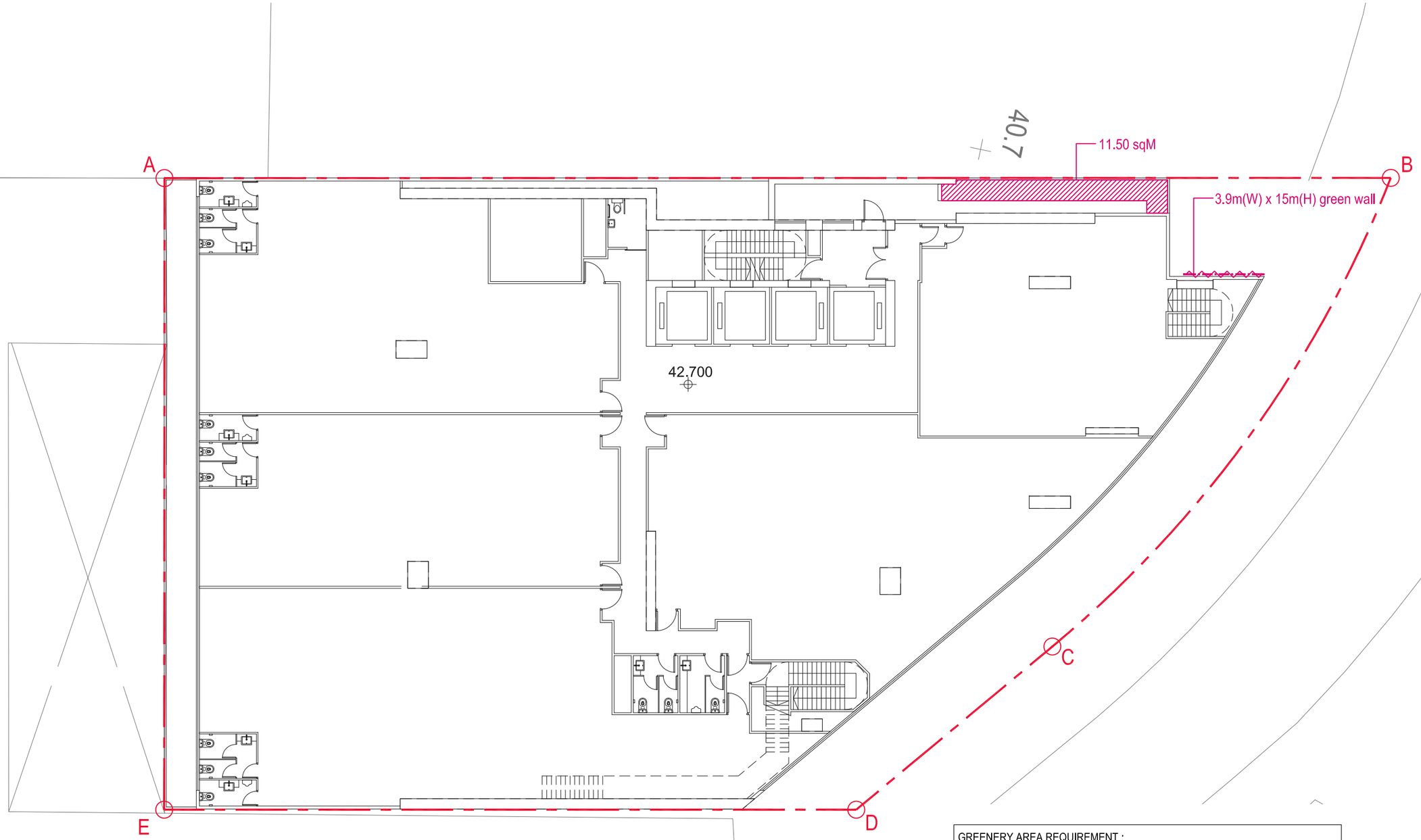
DRAWING TITLE

GREENERY AREA PROVISION - GROUND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA01

REVISION 0



LEGEND :

- LOT BOUNDARY
- INACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	26.3 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	150.95sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	298.46 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APPD.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

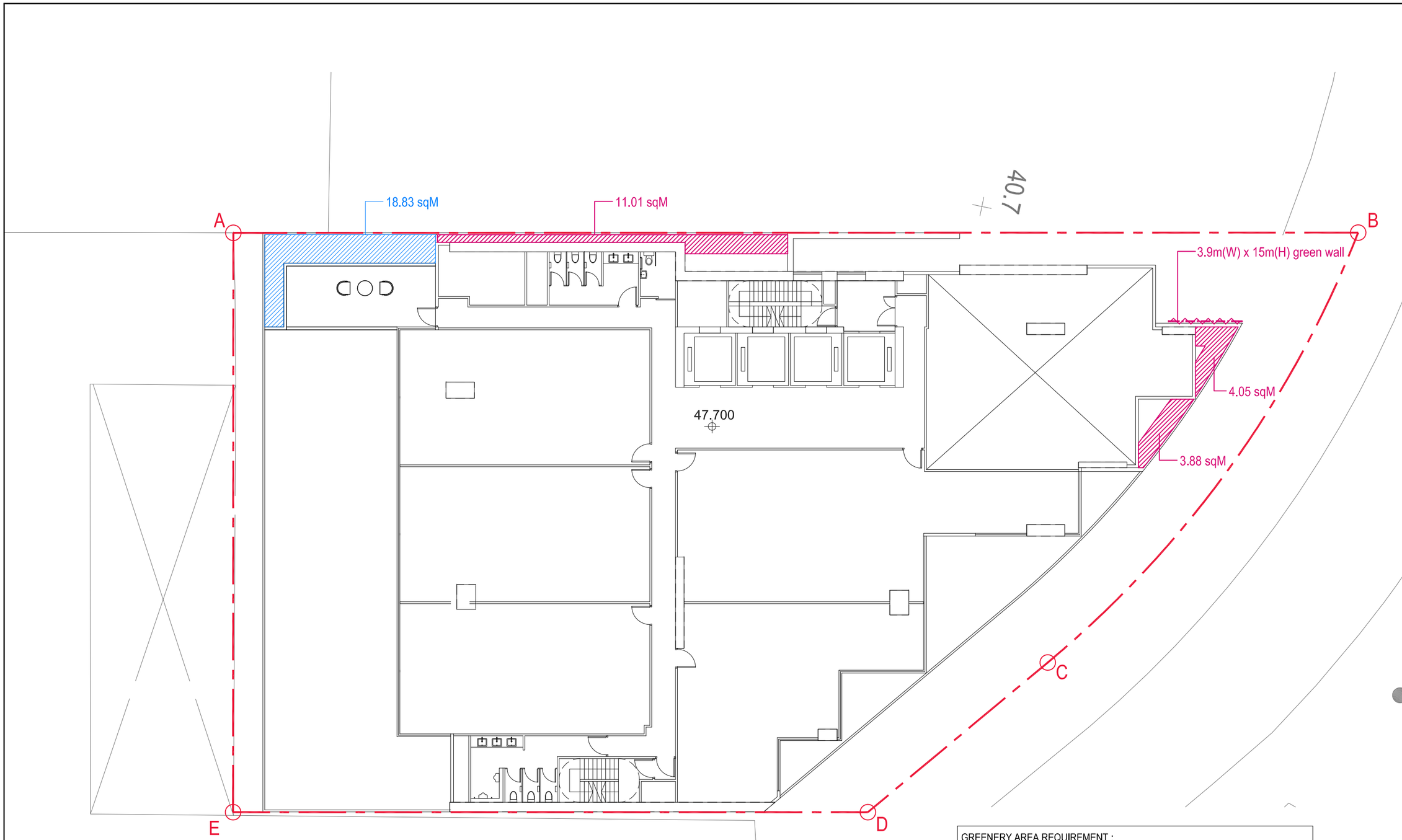
DRAWING TITLE

GREENERY AREA PROVISION - FIRST FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA02

REVISION 0



LEGEND :

- LOT BOUNDARY
- NON-ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	26.3 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	150.95sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	298.46 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

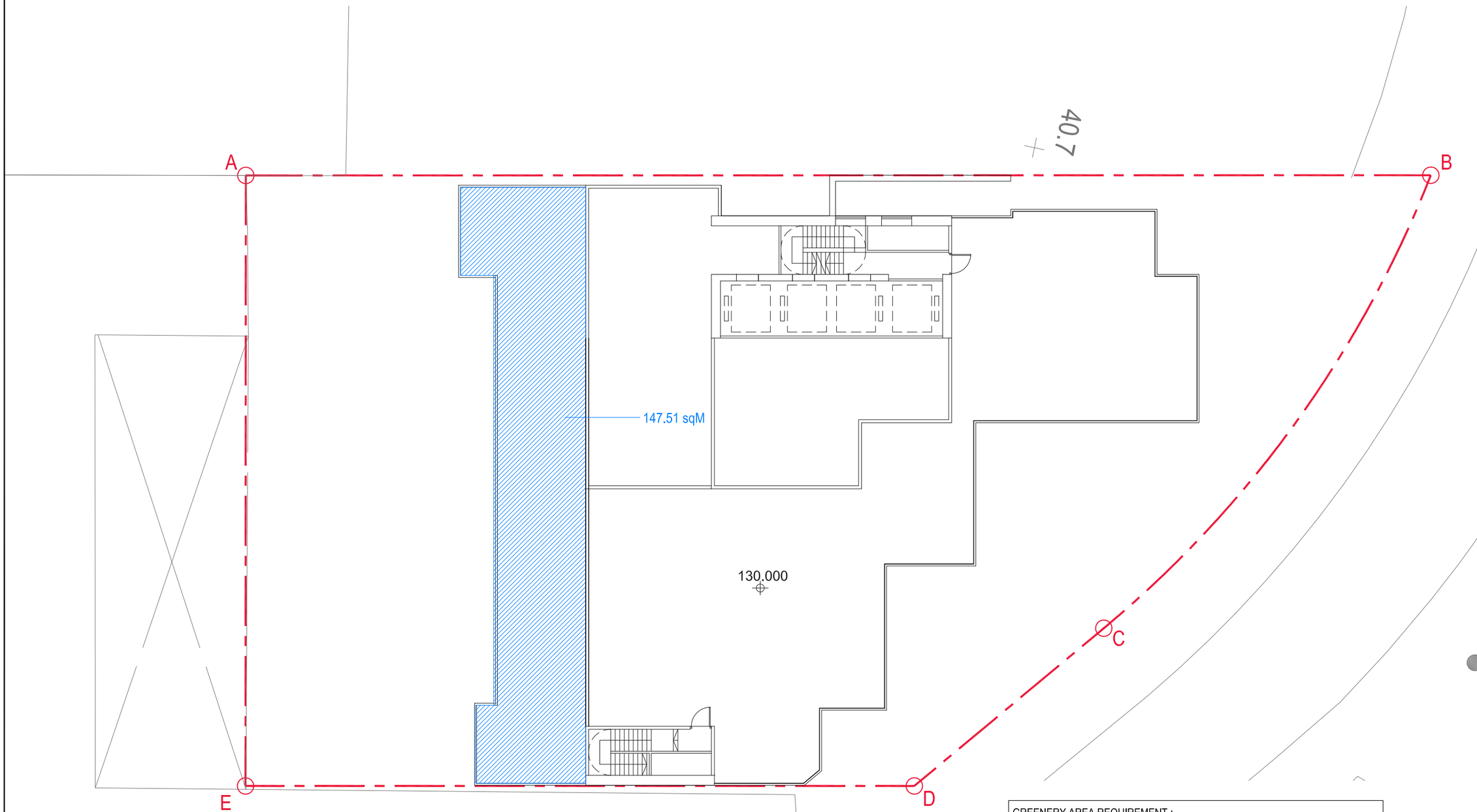
DRAWING TITLE

GREENERY AREA PROVISION - SECOND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA03

REVISION 0



LEGEND :

LOT BOUNDARY

ACCESSIBLE GREEN ROOF
(COUNTABLE GREENERY AREA)

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	26.3 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	150.95sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	298.46 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

DRAWING TITLE

GREENERY AREA PROVISION - ROOF FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA04

REVISION 0

Appendix 3

Traffic Impact Assessment (TIA)

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 – 100 Ta Chuen Ping Street, Kwai Chung

Traffic Impact Assessment
Final Report
April 2021

Prepared by: CKM Asia Limited

Prepared for: Gain Champion Investment Limited

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 – 100 Ta Chuen Ping Street, Kwai Chung

CONTENTS

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 – 100 Ta Chuen Ping Street, Kwai Chung

TABLES

NUMBER

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 – 100 Ta Chuen Ping Street, Kwai Chung

FIGURES

NUMBER

1.0 INTRODUCTION

Background

1.1 The Subject Site is located at 94 – 100 Ta Chuen Ping Street in Kwai Chung, i.e. Lot No. 290 in DD444. Figure 1.1 shows the location of the Subject Site.

1.2 The *"Revitalisation Scheme of Industrial Building"* under the Chief Executive's 2018 Policy Address *"[encourages] owners to redevelop industrial buildings constructed before 1987, and… extend the application of the present planning policy… to allow relaxation of the maximum permissible non-domestic plot ratio by up to 20% for redevelopment projects…"* Against this background, the Owner intends to redevelop the existing site into a new industrial building with total 17,663.350m^2 GFA including relaxation of maximum permissible non-domestic plot ratio by up to 20% under the *"Revitalisation Scheme of Industrial Building"* (hereinafter "the "Proposed Industrial Redevelopment") subject to planning permission approval from the Town Planning Board.

1.3 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Owner to conduct a traffic impact assessment in support of the Proposed Industrial Development with 20% increase in plot ratio. This report presents the findings of the Traffic Impact Assessment for the Proposed Industrial Development.

Structure of Report

1.4 The report is structured as follows:

Chapter One	-	Gives the background of the project;
Chapter Two	-	Describes the existing situation;
Chapter Three	-	Explains the Proposed Industrial Development and presents the justifications for the internal transport facilities provided;
Chapter Four	-	Describes the traffic impact analysis; and
Chapter Five	-	Gives the overall conclusion.

2.0 EXISTING SITUATION

The Subject Site

2.1 The Subject Site fronts onto Ta Chuen Ping Street to the north and is bounded by other industrial developments on all other sides. An existing run-in/out of the Subject Site is located at Ta Chuen Ping Street.

Public Transport Facilities

2.2 The Subject Site is well-served by public transport facilities, and access to these services from the Subject Site is convenient. Numerous franchised bus and public light bus routes operate within 500-metre from the Subject Site. Table 2.1 and Figure 2.1 show details of the road-based public transport services.

TABLE 2.1 ROAD-BASED PUBLIC TRANSPORT SERVICES OPERATING NEAR THE SUBJECT SITE

Route	Routing	Frequency (minutes)
KMB 30	Cheung Sha Wan - Allway Gardens	20 - 30
KMB 31	Tsuen Wan West Station Public Transport Interchange - Shek Lei (Circular)	12 - 20
KMB 31B	Olympic Station - Shek Lei (Tai Loong Street)	12 - 20
KMB 31M	Shek Lei (Lei Pui Street) - Kwai Fong Station	6 -13
KMB 31P(1)	Shek Lei (Wai Kek Street) - Kwai Fong Station	30
KMB 32	Olympic Station - Shek Wai Kok	20 - 25
KMB 32M	Kwai Fong Station - Cheung Shan (Circular)	15 - 17
KMB 33A	Mong Kok (Park Avenue) - Tsuen Wan (Nina Tower)	15 - 20
KMB 35A	Tsim Sha Tsui East - On Yam	5 - 20
KMB 35X(2)(A)	On Yam → Tsim Sha Tsui East	20 - 30
KMB 35X(2)(B)	Tsim Sha Tsui East → On Yam	20 - 30
KMB 36	Tsuen Wan West Station Public Transport Interchange - Lei Muk Shue Estate Public Transport Interchange(C	10 - 20
KMB 36A	Cheung Sha Wan (Sham Mong Road) - Lei Muk Shue Estate Public Transport Interchange	15 - 25
KMB 36B	Jordan (West Kowloon Station) - Lei Muk Shue	12 - 20
KMB 36M	Kwai Fong Station - Lei Muk Shue Estate Public Transport Interchange	5 - 10
KMB 36X(1)	Lei Muk Shue → Jordan (West Kowloon Station)	1 per AM
KMB 38	Kwai Shing (East) - Ping Tin	6 - 20
KMB 38A	Mei Foo - Riviera Gardens	20 - 30
KMB 38B(1)(A)	Shek Mun → Riviera Gardens	1 per AM
KMB 38B(1)(B)	Riviera Gardens → Shek Mun	1 per PM
KMB 38P(1)(A)	Kwai Chung Estate → Ping Tin	1 per AM
KMB 40	Laguna City - Tsuen Wan (Belvedere Garden)	12 - 20
KMB 40P(2)(A)	Shek Wai Kok → Shek Wai Kok	10 - 12
KMB 40P(2)(B)	Kwun Tong Ferry → Shek Wai Kok	15
KMB 40S	Nai Chung B/T - Kwai Fong Estate	6 - 15
KMB 40X	Hang Hong Street - Kwai Chung Estate	5 - 20
KMB 42C	Cheung Hang - Lam Tin Station	5 - 13

KMB – Kowloon Motor Bus LWB – Long Win Bus GMB – Green Minibus

Note: (1) Monday to Friday. No services on Sundays and Public Holidays
(2) Monday to Saturday. No services on Sundays and Public Holidays
(A) AM Peak Only (B) PM Peak Only
(C) AM and PM Peak Only (D) Overnight service.

TABLE 2.1 ROAD-BASED PUBLIC TRANSPORT SERVICES OPERATING NEAR THE SUBJECT SITE (CONT'D)

Route	Routing	Frequency (minutes)
KMB 43	Cheung Hong - Tsuen Wan West Station Public Transport Interchange	10 - 20
KMB 43A	Cheung Wang - Shek Lei (Tai Loong Street)	6 - 15
KMB 44M	Cheung On - Kwai Chung Estate	9 - 20
KMB 46P(2)(B)	Mei Tin - Kwai Fong Station (Circular)	12 - 20
KMB 46X	Mei Foo - Hin Keng	4 - 20
KMB 47A	Kwai Fong (South) - Shui Chuen O	20 - 30
KMB 47X	Kwai Shing (East) - Chun Shek	6 - 15
KMB 48X	Bayview Garden - Wo Che	5 - 20
KMB 57M	Lai King (North) - Shan King Estate	12 - 20
KMB 58M	Kwai Fong Station - Leung King Estate	4 - 10
KMB 58P(2)(B)	Kwai Fong Station - Tin King Estate (Tin Yue House)	15 - 20
KMB 59A	Kwai Fong (Kwai Tsui Estate) - Tuen Mun Pier Head	6 - 30
KMB 61M	Kwai Hing Station - Yau Oi (South)	8 - 15
KMB 67M	Kwai Fong Station - Siu Hong Court	6 - 15
KMB 69M	Kwai Fong Station - Tin Shui Wai Town Centre	6 - 30
KMB 69P(1)(A)	Tin Yiu - Kwai Fong Station	12 - 20
KMB 73X	Kwong Fuk Market - Tsuen Wan (Nina Tower)	7 - 15
KMB 235	On Yam - Tsuen Wan (Circular)	8 - 15
KMB 235M	Kwai Fong Station - On Yam	6 - 12
KMB 260C(1)(B)	Kwai Fong Station → Sam Shing	20
KMB 260C(1)(A)	Sam Shing → Kwai Fong Station	15
KMB 265M	Lai Yiu - Tin Heng Estate	5 - 30
KMB 269A(2)(A)	Tin Sau Road - Kwai Chung (Kwai Fong Estate)	15 - 20
KMB 269M	Cho Yiu - Tin Yan Estate	10 - 25
KMB 269P(1)(B)	Kwai Chung (Kwai Fong Estate) - Tin Heng Estate	20
KMB 273C(2)(A)	Kau Lung Hang → Tsuen Wan West Station	1 per day
KMB 273P(2)(A)	Tai Wo → Tsuen Wan West Station	15 - 20
KMB 278A(2)(A)	Fanling (Luen Wo Hui) → Tsuen Wan (Nina Tower)	2 per AM
KMB 278P(2)(A)	Tai Ping Bus Terminus → Tsuen Wan (Nina Tower)	2 per AM
KMB 278X	Sheung Shui - Tsuen Wan (Nina Tower)	6 - 20
KMB 290	Choi Ming - Tsuen Wan West Station	10 - 20
KMB 290A	Choi Ming - Tsuen Wan West Station	10 - 25
KMB 290B(1)(B)	Tseung Kwan O Industrial Estate → Tsuen Wan West Station	1 per PM
KMB 290X	Lohas Park Station - Tsuen Wan West Station	20 - 30
KMB 935(2)(A)	On Yam → Wan Chai	15
KMB 935(2)(B)	Wan Chai → On Yam	2 per PM
KMB 936(A)	Shek Wai Kok → Causeway Bay (Cotton Path)	20 - 30
KMB 936(B)	Causeway Bay (Cotton Path) → Shek Wai Kok	15 - 30
KMB 936A(1)(A)	Lei Muk Shue → Causeway Bay (Cotton Path)	2 - 3 per AM
KMB 936A(1)(B)	Causeway Bay (Cotton Path) → Lei Muk Shue	1 per AM
LWB A32	Airport (Ground Transportation Centre) - Kwai Chung Estate	20 - 30
LWB E32	Asiaworld-Expo - Kwai Fong (South) Bus Terminus	10 - 20
KMB N252(D)	Mei Foo - Sam Shing	2 per day
KMB N260(D)	Mei Foo - Tuen Mun Pier Head	15 - 25
KMB N269(D)	Mei Foo - Tin Tsz Estate	12 - 20
KMB N290(D)	Tsuen Wan West Station → Lohas Park Station	2 per day
LWB NA32(D)	Hzmb Hong Kong Port - Kwai Chung Estate	20 - 35

KMB – Kowloon Motor Bus LWB – Long Win Bus GMB – Green Minibus

Note: (1) Monday to Friday. No services on Sundays and Public Holidays
(2) Monday to Saturday. No services on Sundays and Public Holidays
(A) AM Peak Only (B) PM Peak Only
(C) AM and PM Peak Only (D) Overnight service.

TABLE 2.1 ROAD-BASED PUBLIC TRANSPORT SERVICES OPERATING NEAR THE SUBJECT SITE (CONT'D)

Route	Routing	Frequency (minutes)
KMB X42P[(1)(B)]	Cheung On → Lam Tin Station	10
GMB 83A	Tsuen Wan (Chuen Lung Street) - On Yam Estate (On Chit Street)(Circular)	8
GMB 86	Tsuen Wan (Hoi Kwai Road) - Shek Lei (Lei Pui Street)	10
GMB 86A	Tsuen Wan (Chuen Lung Street) - Shek Lei (Lei Pui Street)	7 - 15
GMB 86M	Tsuen Wan (Chuen Lung Street) - Shek Lei (Lei Pui Street)	5 - 6
GMB 89B	Clague Garden Estate - Kwai Shing North (Kwai Hau Street)	8 - 10
GMB 89P	Shek Tau Street - Kwai Fong (Circular)	10 - 15
GMB 94	Kwai Shing - Shek Wai Kok	7 - 10
GMB 94A	Kwai Shing - Lei Muk Shue Estate Public Transport Interchange	10
GMB 302	Hong Kong Garden - Kwai Fong (Circular)	5 - 8
GMB 313	Tsuen Wan (Tso Kung Street) - Princess Margaret Hospital	10 - 15
GMB 401	Tsing Yi Ferry Pier - Shek Yam	15 - 20
GMB 403	Shek Lei (Lei Pui Street) - Sha Tin Wai (Circular)	20
GMB 403A	On Yam (On Chuk Street) - Sha Tin (Tam Kon Po Street) (Circular)	20
GMB 403P	Shek Lei (Lei Pui Street) - Sha Tin (Tam Kon Po Street) (Circular)	6 - 20
GMB 403X	Shek Yam (Lei Muk Road) - Tai Wai Station Public Transport Interchange	12 - 15
GMB 406[(1)(C)]	Shek Lei - Kwai Shing (Circular)	15 - 45
GMB 410	Princess Margaret Hospital - Northeast Kwai Chung	15 - 20
GMB 412	Kwai Chung Estate - Northeast Kwai Chung (Circular)	12 - 15

KMB – Kowloon Motor Bus LWB – Long Win Bus GMB – Green Minibus

Note: (1) Monday to Friday. No services on Sundays and Public Holidays
(2) Monday to Saturday. No services on Sundays and Public Holidays
(A) AM Peak Only (B) PM Peak Only
(C) AM and PM Peak Only (D) Overnight service.

The Road Network

2.3 Castle Peak Road – Kwai Chung is a primary distributor with dual carriageway 2/3-lane standard. It connects with Tsing Sha Highway and Ching Cheung Road to the south, and Castle Peak Road – Tsuen Wan Section to the north. Public transport services including franchised buses and GMB operate along this road, and some grade-separated pedestrian facilities are provided.

2.4 Wo Yi Hop Road is a district distributor and predominantly is of single carriageway 2/3-lane standard. It connects Castle Peak Road – Kwai Chung to the south and Lei Muk Road to the north, and at-grade pedestrian crossings are provided along this road.

2.5 Lei Muk Road is a district distributor and is of single carriageway 2-lane standard. It connects Castle Peak Road – Kwai Chung to the west and Wo Yi Hop Road to the east. At-grade pedestrian crossings are provided along this road.

2.6 Ta Chuen Ping Street is a local distributor. It is a single carriageway 2-way road between its junction with Wo Yi Hop Road and Shek Kin Street. The portion of Ta Chuen Ping Street to the north of its junction with Shek Kin Street is 1-way.

2.7 Chun Pin Street is a single carriageway 2-way road between Lam Tin Street and Ta Chuen Ping Street, and is 1-way northbound from Lam Tin Street to Lei Muk Road.

Pedestrian Facilities

2.8 In the vicinity of the Subject Site, footpaths are provided alongside roads. Footbridges are provided across Castle Peak Road – Kwai Chung and Kwai Chung Road.

Existing Traffic Flows

2.9 To quantify the existing traffic flows in the vicinity of the Subject Site, manual classified counts were conducted on Tuesday on 26th January 2021 at the following junctions:

J01 - Junction of Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street;
J02 - Junction of Wo Yi Hop Road / Ta Chuen Ping Street;
J03 - Junction of Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road;
J04 - Junction of Ta Chuen Ping Street / Chun Pin Street;
J05 - Junction of Lei Muk Road / Chun Pin Street;
J06 - Junction of Lei Muk Road / Kwok Shui Road; and
J07 - Junction of Lei Muk Road / Wo Yi Hop Road.

2.10 The existing road network and the locations of these surveyed junctions are shown in Figure 2.2 and the junction layouts are shown in Figures 2.3 – 2.9.

2.11 The traffic counts are classified by vehicle type to enable traffic flows in passenger car units ("pcu") to be calculated. The AM and PM peak hours identified from the surveys are found to be between 0800 – 0900 hours and 1700 – 1800 hours respectively. Figure 2.10 presents the 2021 observed AM and PM peak hour traffic flows in pcu/hour.

Potential Influence on Traffic Flow due to COVID-19 Pandemic

2.12 In view of the COVID-19 pandemic, traffic flows are less than normal due to work-from-home arrangement by government and some offices, and suspension of face-to-face classes for schools. Hence, the results obtained from the traffic survey conducted in 2021 are referenced to traffic surveys carried out on Thursday, 26th September 2019, and Friday, 27th September 2019, at the same junctions which are shown in Figure 2.11.

2.13 It is found that the 2019 observed traffic flows are generally higher than the 2021 observed traffic flows, particularly Castle Peak Road – Kwai Chung and Wo Yi Hop Road, and the difference are compared and in Table 2.2.

TABLE 2.2 COMPARISON OF THE 2019 AND 2021 TRAFFIC FLOWS

Road Link	Observed 2-way Traffic Flow (pcu)					
	AM Peak Hour			PM Peak Hour		
	2019	2021	Difference	2019	2021	Difference
Castle Peak Road – Kwai Chung	2,137	1,920	-10%	2,116	1,887	-11%
Wo Yi Hop Road	889	782	-12%	907	799	-9%

2.14 Table 2.2 shows that the 2021 observed traffic flows on Castle Peak Road – Kwai Chung and Wo Yi Hop Road are some 9% to 12% lower than those of 2019; hence, to be conservative, the higher observed traffic flows obtained in 2019, which are presented in Figure 2.11, are adopted in this TIA as existing traffic flows.

Performance of the Surveyed Junctions

2.15 The existing performance of the surveyed junctions are calculated based on the methods outlined in Volume 2 of the Transport Planning and Design Manual ("TPDM"), which is published by the Transport Department. The results of the performance of junctions are summarized in Table 2.3, and detailed calculations of junction performance are found in Appendix A.

TABLE 2.3 EXISTING JUNCTION PERFORMANCE

Ref.	Junction	Type of Junction	Parameter	AM Peak Hour	PM Peak Hour
J01	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street	Signal	RC	99%	84%
J02	Wo Yi Hop Road / Ta Chuen Ping Street	Signal	RC	74%	45%
J03	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road	Signal	RC	107%	99%
J04	Ta Chuen Ping Street / Chun Pin Street	Priority	RFC	0.044	0.087
J05	Lei Muk Road / Chun Pin Street	Priority	RFC	0.422	0.477
J06	Lei Muk Road / Kwok Shui Road	Signal	RC	71%	53%
J07	Lei Muk Road / Wo Yi Hop Road	Signal	RC	48%	71%

Note: RFC – Ratio of Flow to Capacity RC – Reserve Capacity

2.16 The results in Tables 2.3 show that the junctions analyzed operate with capacity.

3.0 THE PROPOSED INDUSTRIAL DEVELOPMENT

The Proposed Industrial Development

3.1 The Proposed Industrial Development has a total GFA of 17,663.350 m^2 [Note 1]. A comparison of the internal transport facilities recommended by the HKPSG and the proposed provision is found in Table 3.1.

TABLE 3.1 COMPARISON ON THE PROVISION OF INTERNAL TRANSPORT FACILITIES

Proposed Industrial Development with industrial GFA = 17,663.350 m^2 Industrial Building in OU(B) zone		
Item	**HKPSG Recommendations**	**Proposed Provision**
Private Car Parking Spaces	1 space per 600 – 750m^2 GFA. Minimum: 17,663.350 / 750 = 23.5, say 24 nos. Maximum: 17,663.350 / 600 = 29.4, say 30 nos.	**30 nos.**, including 29 nos. @ 5.0m (L) x 2.5m (W) x Min. 2.4m (H) and 1 no. accessible @ 5.0m (L) x 3.5m (W) x Min. 2.4m (H) **= HKPSG Maximum, OK**
Goods Vehicle Loading / Unloading Bays	1 goods vehicle bay per 1,000 – 1,200m^2 of 50% of the GFA; and 1 per 2,000 – 3,000m^2 of the remaining 50% of the GFA. Minimum: 17,663.350 x 0.5 / 1,200 + 17,663.350 x 0.5 / 3,000 = 10.3, say 10 nos., 35% HGV = 10 x 35% = 3.5, says 4 nos. 65% LGV = 10 – 4 = 6 nos. Maximum: 17,663.350 x 0.5 / 1,000 + 17,663.350 x 0.5 / 2,000 = 13.2, say 13 nos., 35% HGV = 13 x 35% = 4.6, says 5 nos. 65% LGV = 13 – 5 = 8 nos.	**13 nos.**, including 5 nos. HGV @ 11.0m (L) x 3.5m (W) x Min. 4.7m (H) and 8 nos. LGV @ 7.0m (L) x 3.5m (W) x Min. 3.6m (H) **Overall: = HKPSG Maximum, OK** **LGV: = Maximum, OK** **HGV: = Maximum, OK**
Motorcycle Parking Space	At the rate of 5 to 10% of the total provision for private cars should be provided Minimum: 24 x 5% = 1.2, say 1 no. Maximum: 30 x 10% = 3.0, say 3 nos.	**3 nos.** @ 2.4m (L) x 1m (W) x Min. 2.4m (H) **= HKPSG Maximum, OK**

3.2 Table 3.1 shows the proposed internal transport facilities meet the HKPSG recommendation.

Note 1 – The GFA will be 17,663.350m^2 after taking into account of the bonus GFA related to the dedication of the proposed setback area along the site frontage at Ta Chuen Ping Street, which is subjected to the approval by Buildings Department, or otherwise, about 16,945.370 m^2 if the plot ratio is relaxed to 11.4.

Internal Transport Layout

3.3 The proposed internal transport layouts are presented in Figures 3.1 to 3.2.

3.4 CAD-based swept path analysis program was used to check vehicle manoeuvring, and the swept path drawings are found in Appendix B. Vehicles are found to have no manoeuvring problem.

Car lift Analysis

3.5 The car park at B1/F is accessed via 2 car lifts, and a car lift analysis is therefore conducted to check the operation of the car lift system, and found that the car lift system with 2 car lifts is acceptable and can serve the Proposed Industrial Development, i.e., the probability of 1 car arriving at the Proposed Industrial Development when the 2 lift being occupied is only 1.39%. The car lift analysis is found in Appendix C.

Traffic Generation of the Proposed Industrial Development

3.6 The trip rates for hotel found in the TPDM are used to the estimate the traffic generation of the Proposed Industrial Development, and the adopted trip rates and the calculated traffic generation are presented in Table 3.2.

TABLE 3.2 TRIP RATES ADOPTED FROM THE TPDM AND ESTIMATED TRAFFIC GENERATION OF THE PROPOSED INDUSTRIAL DEVELOPMENT

Item	AM Peak Hour		PM Peak Hour	
	Generation	Attraction	Generation	Attraction
Trip Rates for Industrial Building (pcu/hour/100m^2 GFA)	0.0926	0.1386	0.1350	0.1049
Traffic Generation for the Proposed Industrial Development with industrial GFA = 17,663.350m^2 (pcu/hr)	17	25	24	19

4.0 TRAFFIC IMPACT

Design Year

4.1 The Proposed Industrial Development is expected to be completed in 2025, and the assessment year adopted is 2028, i.e. 3 years after the completion. The 2 scenarios for year 2028 assessed are:

(i) Year 2028 AM and PM peak hours without the Proposed Industrial Development;

(ii) Year 2028 AM and PM peak hours with the Proposed Industrial Development

Traffic Forecast

4.2 Year 2028 traffic flows are produced: (i) with reference to the 2026 traffic flows from the Base District Traffic Model ("BDTM") which is produced by Transport Department and validated based on the existing traffic flow and included the latest planning assumption of committed highway infrastructure, (ii) the estimated traffic growths from 2026 to 2028, and (iii) the expected traffic generations of other committed developments and developments under consideration of Town Planning Board ("TPB") in the vicinity, which is presented in Table 4.1 and their locations are shown in Figure 4.1.

TABLE 4.1 EXPECTED TRAFFIC GENERATIONS OF THE OTHER DEVELOPMENTS

Site	Address	Use	Traffic Generation (pcu/hour)			
			AM Peak Hour		PM Peak Hour	
			Gen.	Att.	Gen.	Att.
1.	45 – 51 Kwok Shui Road	Industrial	12	19	18	14
2.	57 – 59 Kwok Shui Road	Office	19	27	17	13
3.	4 – 30 Lei Muk Road	Hotel	79	117	61	125
4.	1 – 7 Cheung Wing Road	Residential, Office, Retail	150	114	112	133
5.	15 – 19 Chun Ping Street	Hotel	26	28	26	31
6.	20 – 24 Kwai Wing Road	Industrial	17	25	24	19
7.	2 – 16 Lam Tin Street	Data Centre	9	7	7	12
8.	105 – 113 Ta Chuen Ping Street	Industrial	16	24	24	19
9.	57 – 61 Ta Chuen Ping Street	Hotel	174	159	185	154

Note: Gen. – Generation Att. – Attraction

Estimated Growth Rate from 2026 to 2028

4.3 Reference are made to the (i) "*2016-based Territorial Population and Employment Data Matrix*" ("TPEDM") by Planning Department; and (ii) Annual Average Daily Traffic Growth ("AADT") published by Transport Department, which are summarized in Tables 4.2 and 4.3 respectively.

TABLE 4.2 POPULATION AND EMPLOYMENT IN KWAI CHUNG DISTRICT FROM TPEDM

Kwai Chung District	Population	Employment	TOTAL
2016	327,000	202,700	529,700
2021	325,550	198,250	523,800
2026	319,950	192,850	512,800
Average Annual Growth	**-0.22%**	**-0.5%**	**-0.32%**

TABLE 4.3 AADT OF ATC STATIONS NEAR THE SUBJECT SITE

Station No.	**5205**	**5225**	**6023**	**6024**	**6046**	**6639**	**Overall**
Road	**Castle Peak Road - Kwai Chung**	**Wo Yi Hop Road**	**Wo Yi Hop Road**	**Lei Muk Road**	**Lei Muk Road**	**Chun Pin Street**	
From	Kwai Chung Road Roundabout	Tai Loong Street	Castle Peak Road - Kwai Chung	Castle Peak Road - Kwai Chung	Wo Yi Hop Road	Ta Chuen Ping Street	
To	Wo Yi Hop Road	Lei Muk Road	Tai Loong Street	Chun Pin Street	Tung Chi Street	Lei Muk Road	
2015	17,860*	14,970*	13,310*	3,890*	11,740*	5,560	67,330
2016	17,840*	15,380*	13,680*	4,000*	12,070*	5,330	68,300
2017	17,910*	15,660*	14,500	4,060	10,980	5,980	69,090
2018	23,020	14,090	12,480	4,010	10,980	6,460	71,040
2019	19,880	14,040	12,440*	4,000*	10,940*	6,330	67,630
Average Annual Growth	**2.7%**	**-1.6%**	**-1.7%**	**0.7%**	**-1.8%**	**3.3%**	**0.1%**

4.4 Table 4.2 show the population in Kwai Chung District is projected to have negative growth in the near future, and Table 4.3 shows that the historic growth AADT in the vicinity shows an overall growth rate of just 0.1% per annum in the latest 5 years.

4.5 Based on the findings of the above 2 tables, a conservative growth rate of 0.5% per annum was adopted to estimate the background traffic growth from 2026 to 2028.

2028 Traffic Flows

4.6 Year 2028 traffic flows for the junction capacity analysis are derived as follows:

2028 without the Proposed Industrial Development [A]	=	*Traffic flows derived with reference to 2026 NTE1 BDTM + Traffic Generation of Other Developments in the vicinity (Table 4.1) + Estimated traffic growths from 2026 to 2028*
2028 with the Proposed Industrial Development [B]	=	*[A] + the Traffic Generation of the Proposed Industrial Development*

4.7 Figures 4.2 and 4.3 show the 2028 peak hour traffic flows for the above two cases.

2028 Junction Capacity Analysis

4.8 The 2028 junction for the cases without and with the Proposed Industrial Development is presented in Table 4.6. The detailed calculations of junction performance analysis are found in the Appendix A.

TABLE 4.6 2028 JUNCTION PERFORMANCE

Ref.	Junction	Type of Junction	Parameter	Without the Proposed Industrial Development		With the Proposed Industrial Development	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
J01	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street	Signal	RC	35%	32%	34%	31%
J02	Wo Yi Hop Road / Ta Chuen Ping Street	Signal	RC	55%	31%	55%	31%
J03	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road	Signal	RC	61%	47%	58%	43%
J04	Ta Chuen Ping Street / Chun Pin Street	Priority	RFC	0.170	0.213	0.183	0.225
J05	Lei Muk Road / Chun Pin Street	Priority	RFC	0.711	0.745	0.711	0.745
J06	Lei Muk Road / Kwok Shui Road	Signal	RC	40%	27%	40%	27%
J07	Lei Muk Road / Wo Yi Hop Road	Signal	RC	21%	40%	20%	38%

Note: RFC – Ratio of Flow to Capacity RC – Reserve Capacity

4.9 Table 4.8 shows that the junctions analyzed have capacity to accommodate the expected traffic growth to 2028 and the traffic generated by the Proposed Industrial Development.

5.0 SUMMARY

5.1 The Subject Site is located at 94 – 100 Ta Chuen Ping Street, Kwai Chung, i.e. Lot No. 290 in DD444. The Owner intends to develop an industrial building with total of about 17,663.350m^2 GFA.

5.2 The Subject Site is conveniently located close to public transport services, and numerous franchised bus routes and public light buses operate within 500 metres from the Subject Site. In addition, pedestrian footpaths are provided alongside roads, and footbridges are provided across Castle Peak Road – Kwai Chung and Kwai Chung Road.

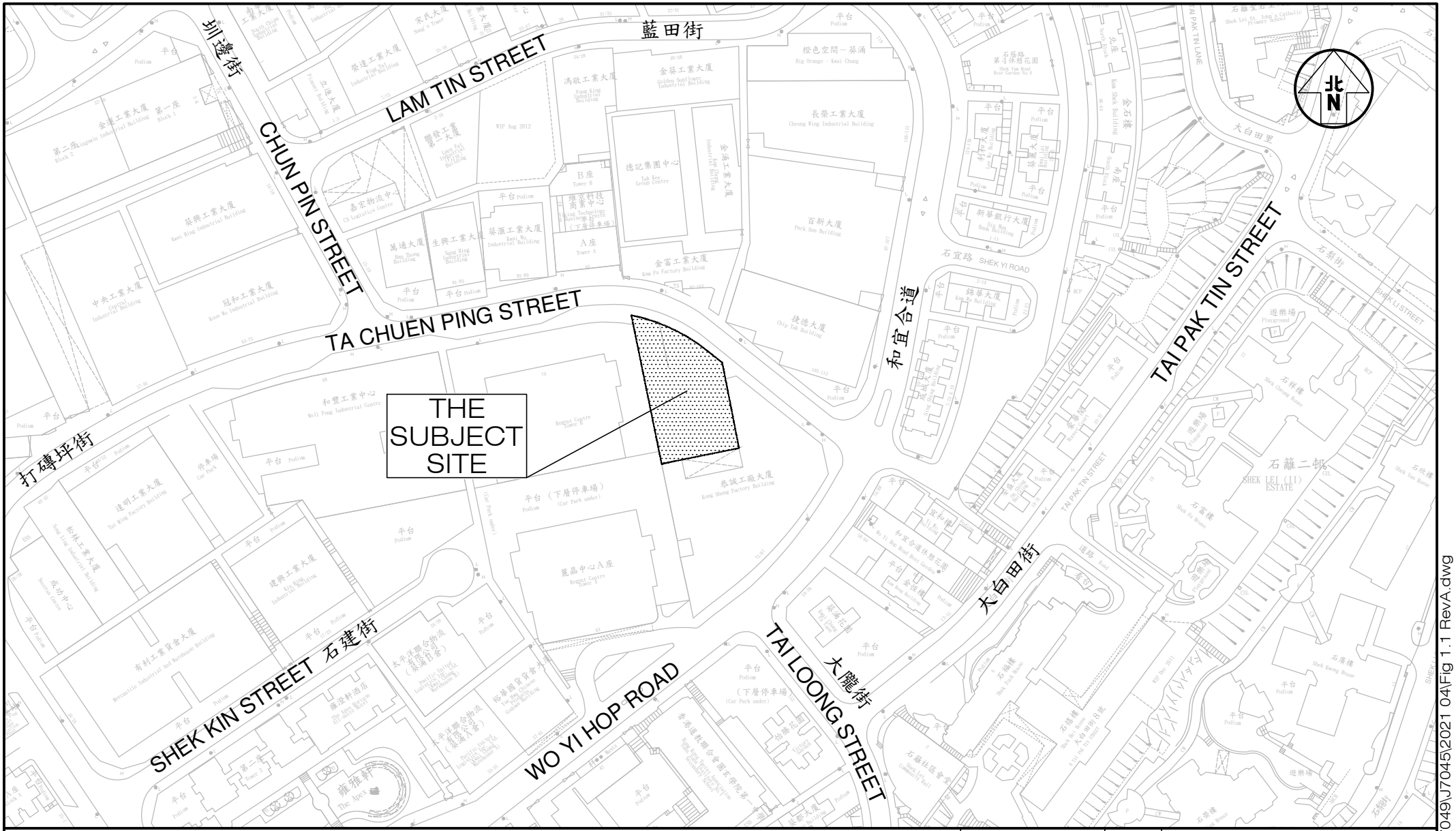
5.3 The Proposed Industrial Development provides internal transport facilities which meet the recommendation of the HKPSG, including:

- 30 nos. of car parking spaces, of which 1 no. is accessible type;
- 5 nos. of HGV loading / unloading bays and parking spaces;
- 8 nos. of LGV loading / unloading bays and parking spaces; and
- 3 nos. of motorcycle parking spaces.

5.4 Manual classified counts were conducted at junctions located in the vicinity in order to establish the existing traffic flows during the AM and PM peak hours. The 2021 observed traffic flow was compared with the 2019 observed traffic flow, and found to be lower, and hence the 2019 observed traffic flow was adopted, as the existing traffic flows. Subsequently, future traffic forecast were produced based on the validated BDTM, traffic generations of other developments, estimated traffic growths from 2026 to 2028, and the Proposed Industrial Development.

5.5 Junction analyses were conducted for the existing situation and 2028, and it was found that the analysed junctions operate with capacity. Hence, the Proposed Industrial Development is acceptable from traffic engineering viewpoint.

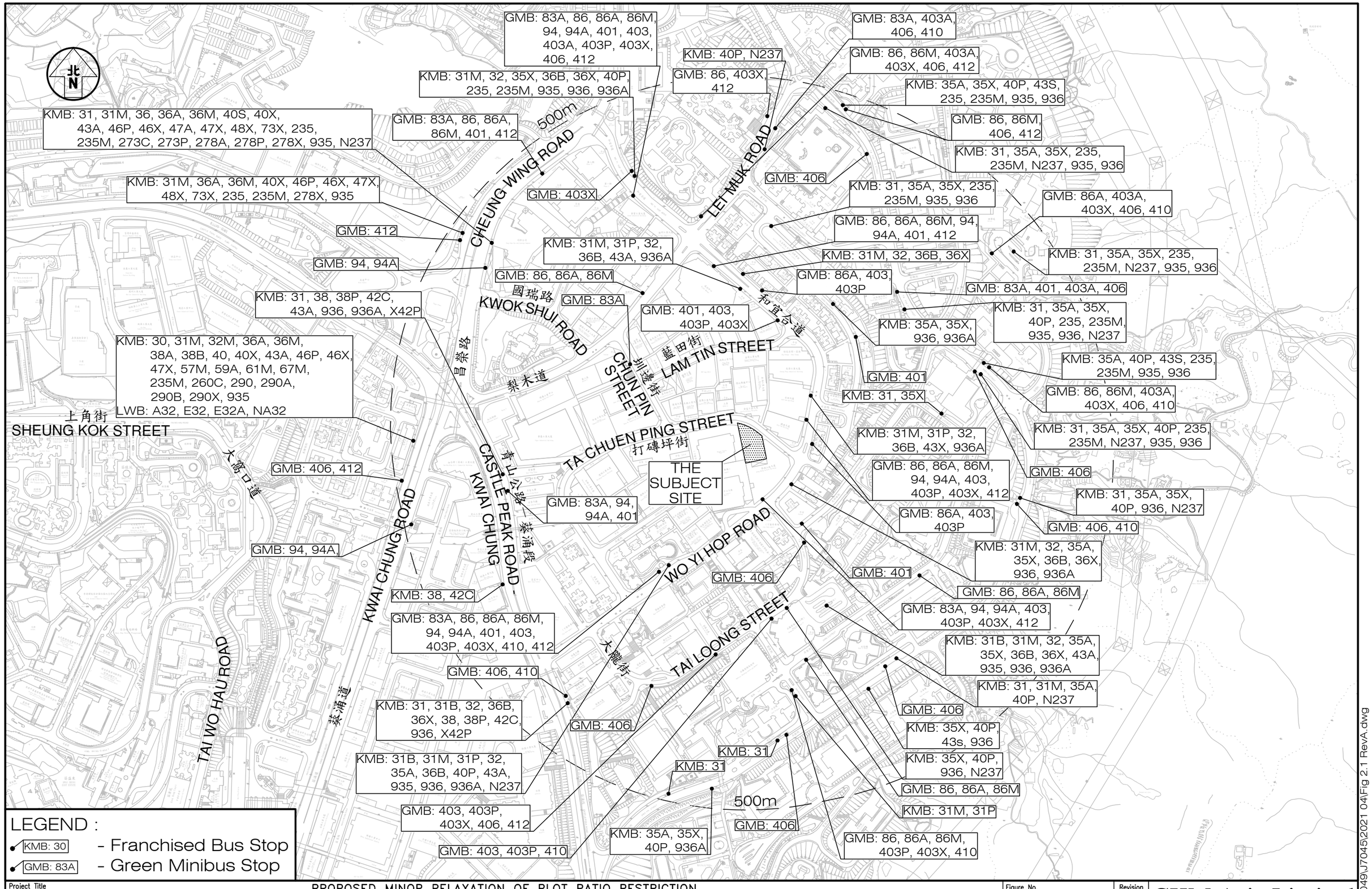
Figures



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045	Figure No. 1.1	Revision A
Figure Title	LOCATION OF THE SUBJECT SITE	Designed by L T F / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 2,000	Date 22 APR 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04\Fig 1.1 RevA.dwg



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG

J7045

Figure Title

PUBLIC TRANSPORT FACILITIES IN THE VICINITY OF THE SUBJECT SITE

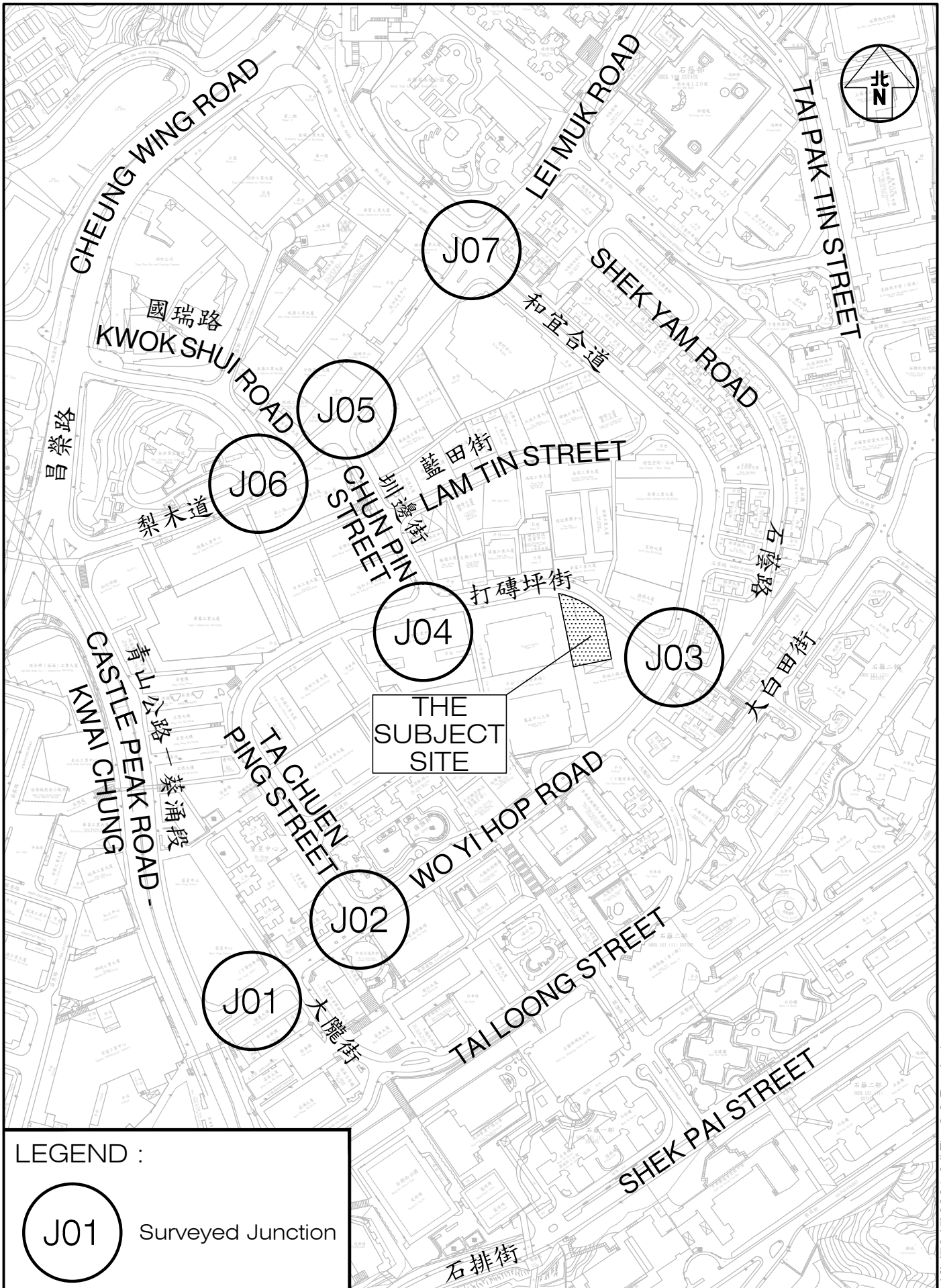
Figure No.	Revision
2.1	A

Designed by	Drawn by	Checked by
L T F	S C Y	W C H

Scale in A3	Date
1 : 5,000	22 APR 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.1 RevA.dwg



LEGEND :

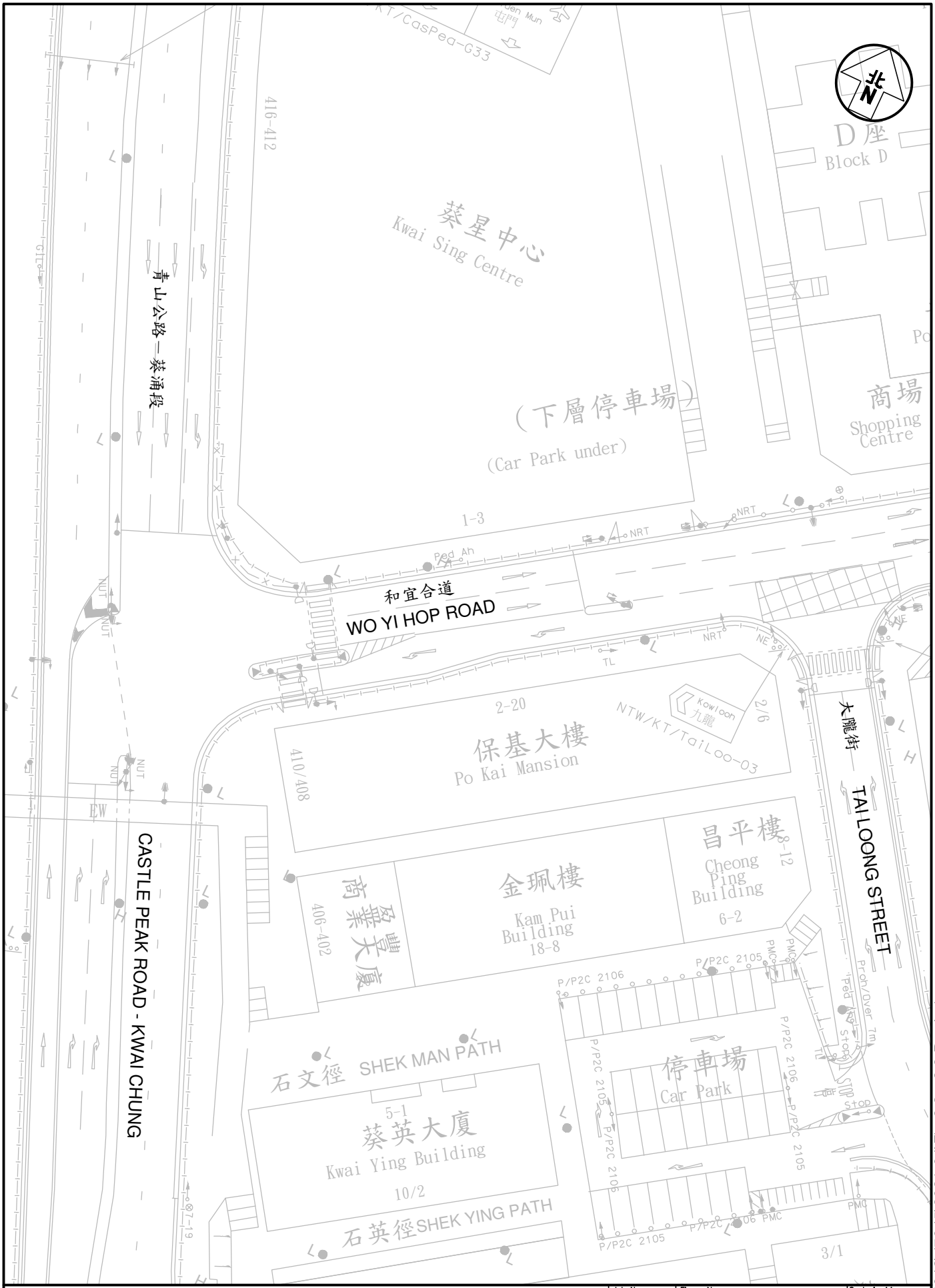
J01 Surveyed Junction

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG
Figure Title	LOCATION OF SURVEYED JUNCTIONS

Job No.	Figure No.			Scale in A4
J7045	2.2			1 : 4,000
Designed by	Drawn by	Checked by	Revision	Date
L T F	S C Y	K C	A	22 APR 2021

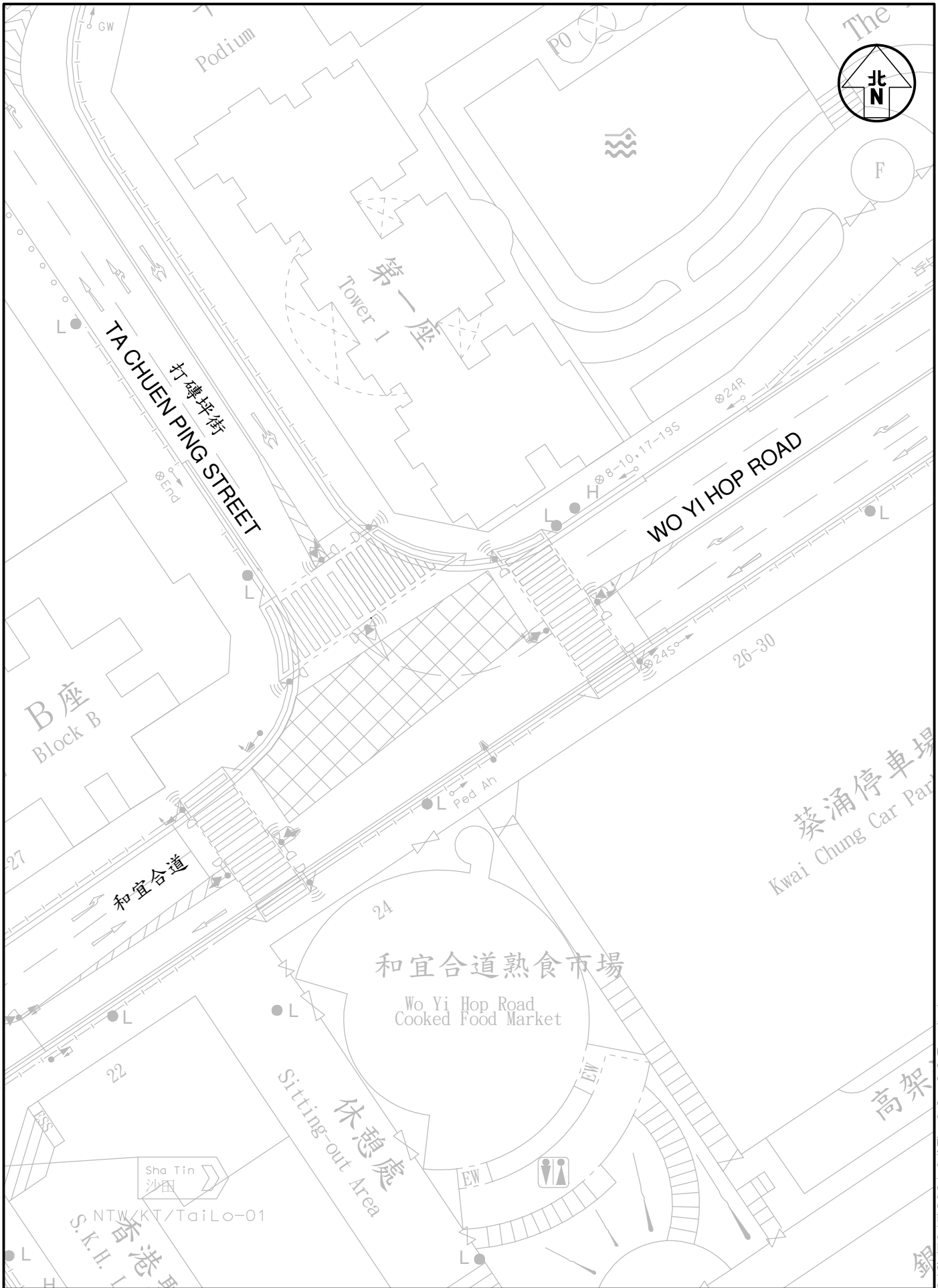
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.2 RevA.dwg



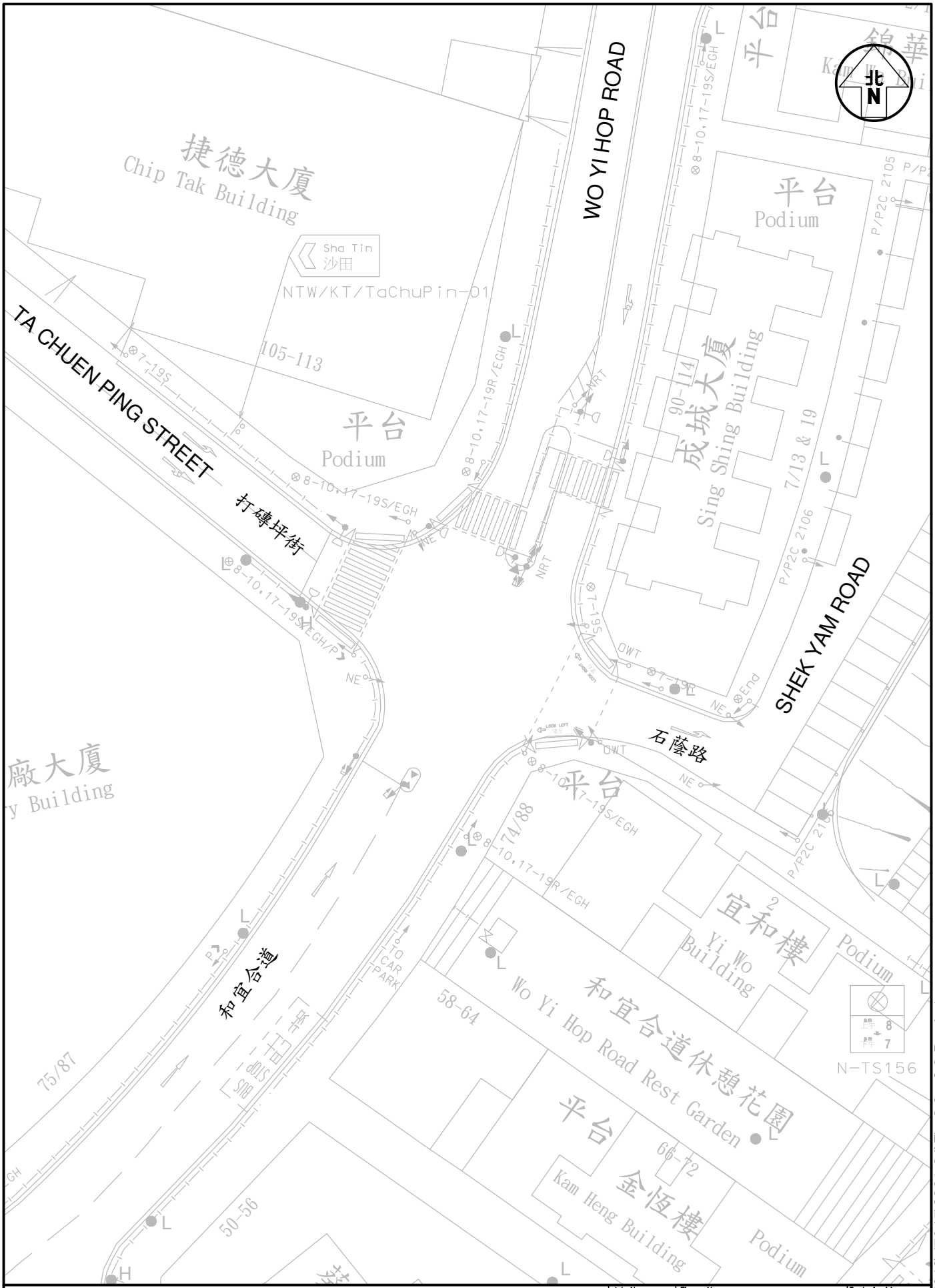
Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.3		Scale in A4 1 : 500
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title	EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD – KWAI CHUNG / WO YI HOP ROAD / TAI LOONG STREET	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.3 - 2.9 RevA.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.4		Scale in A4 1 : 500
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title	EXISTING JUNCTION LAYOUT OF WO YI HOP ROAD / TA CHUEN PING STREET	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOBS\J7000-J7049\J7045\2021 04\Fig 2.3 - 2.9 RevA.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG				
Figure Title	EXISTING JUNCTION LAYOUT OF WO YI HOP ROAD / TA CHUEN PING STREET / SHEK YAM ROAD	Job No. J7045	Figure No. 2.5		Scale in A4 1 : 500
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A / Date 22 APR 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.3 - 2.9 RevA.dwg

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.6		Scale in A4 1 : 500
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title	EXISTING JUNCTION LAYOUT OF TA CHUEN PING STREET / CHUN PIN STREET	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

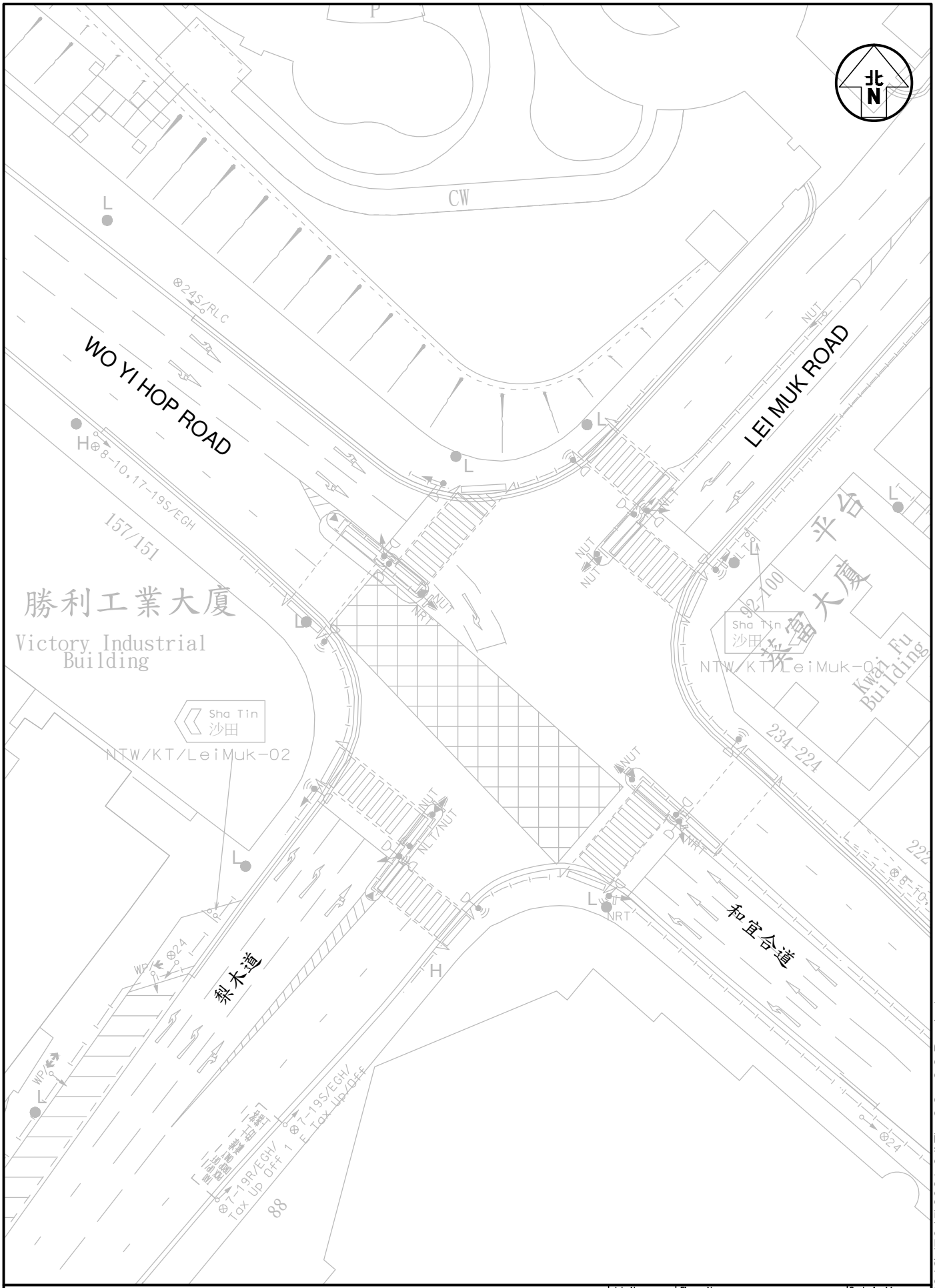
T:\JOB\J7000-J7049\J7045\TIA 2021 03\Fig 2.3 - 2.9 RevA.dwg

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.7			Scale in A4 1 : 500
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title: EXISTING JUNCTION LAYOUT OF LEI MUK ROAD / CHUN PIN STREET	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.3 - 2.9 RevA.dwg

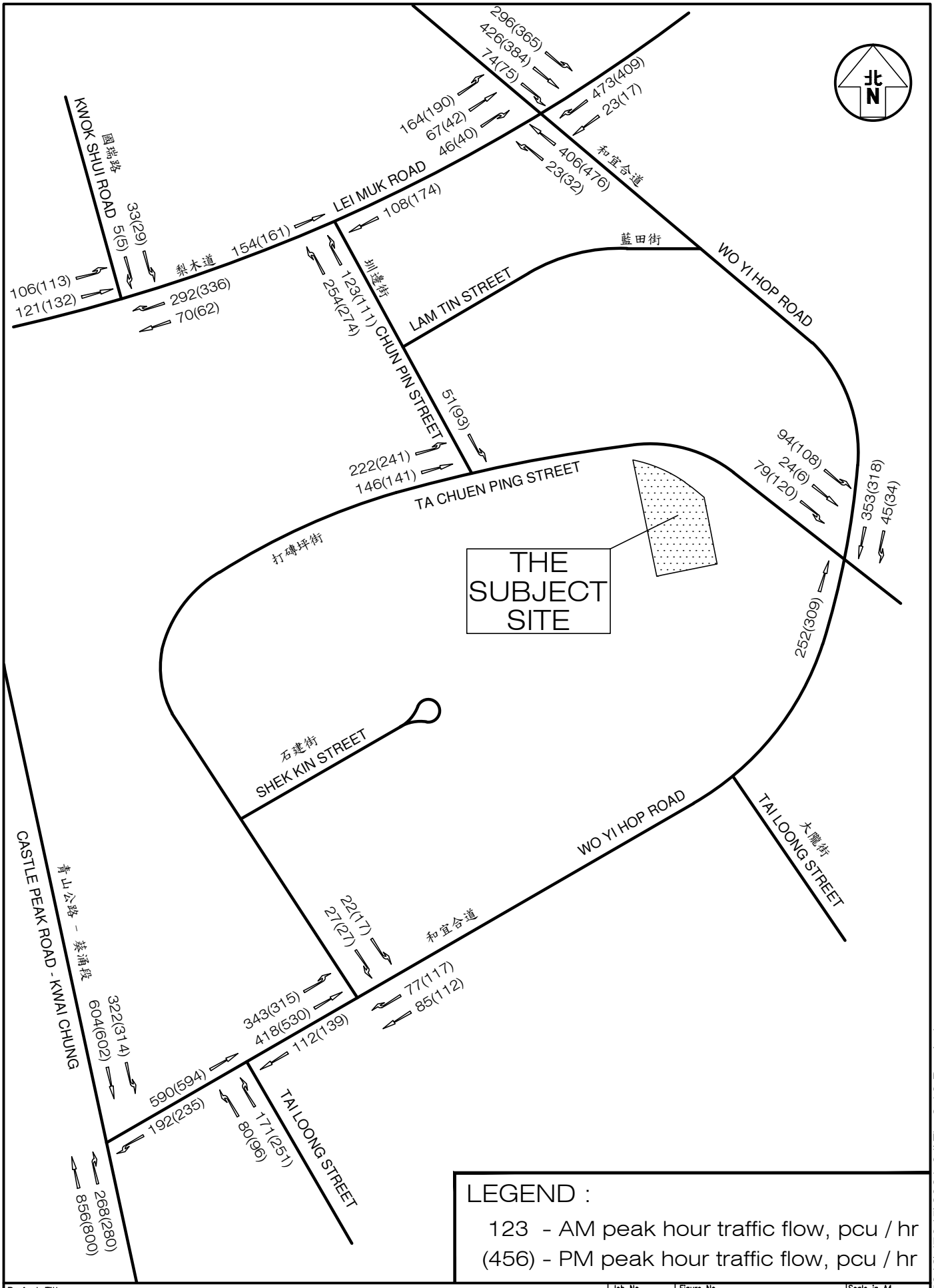
Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.8		Scale in A4 1 : 500
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A / Date 22 APR 2021
Figure Title	EXISTING JUNCTION LAYOUT OF LEI MUK ROAD / KWOK SHUI ROAD	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.3 - 2.9 RevA.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.9		Scale in A4 1 : 500
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title	EXISTING JUNCTION LAYOUT OF LEI MUK ROAD / WO YI HOP ROAD	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.3 - 2.9 RevA.dwg



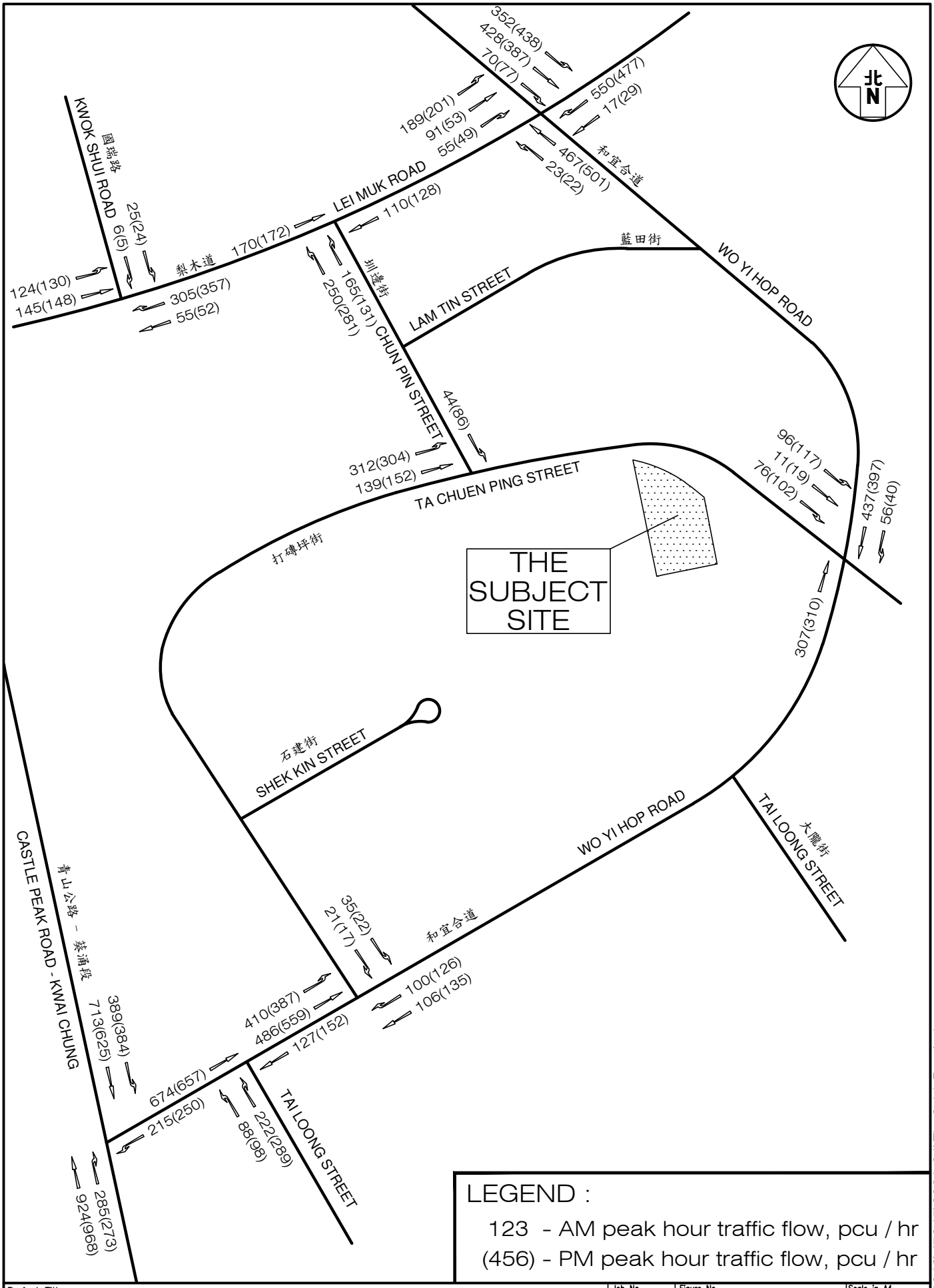
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.10			Scale in A4 N.T.S.
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title: YEAR 2021 OBSERVED PEAK HOUR TRAFFIC FLOWS	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.10 RevA.dwg



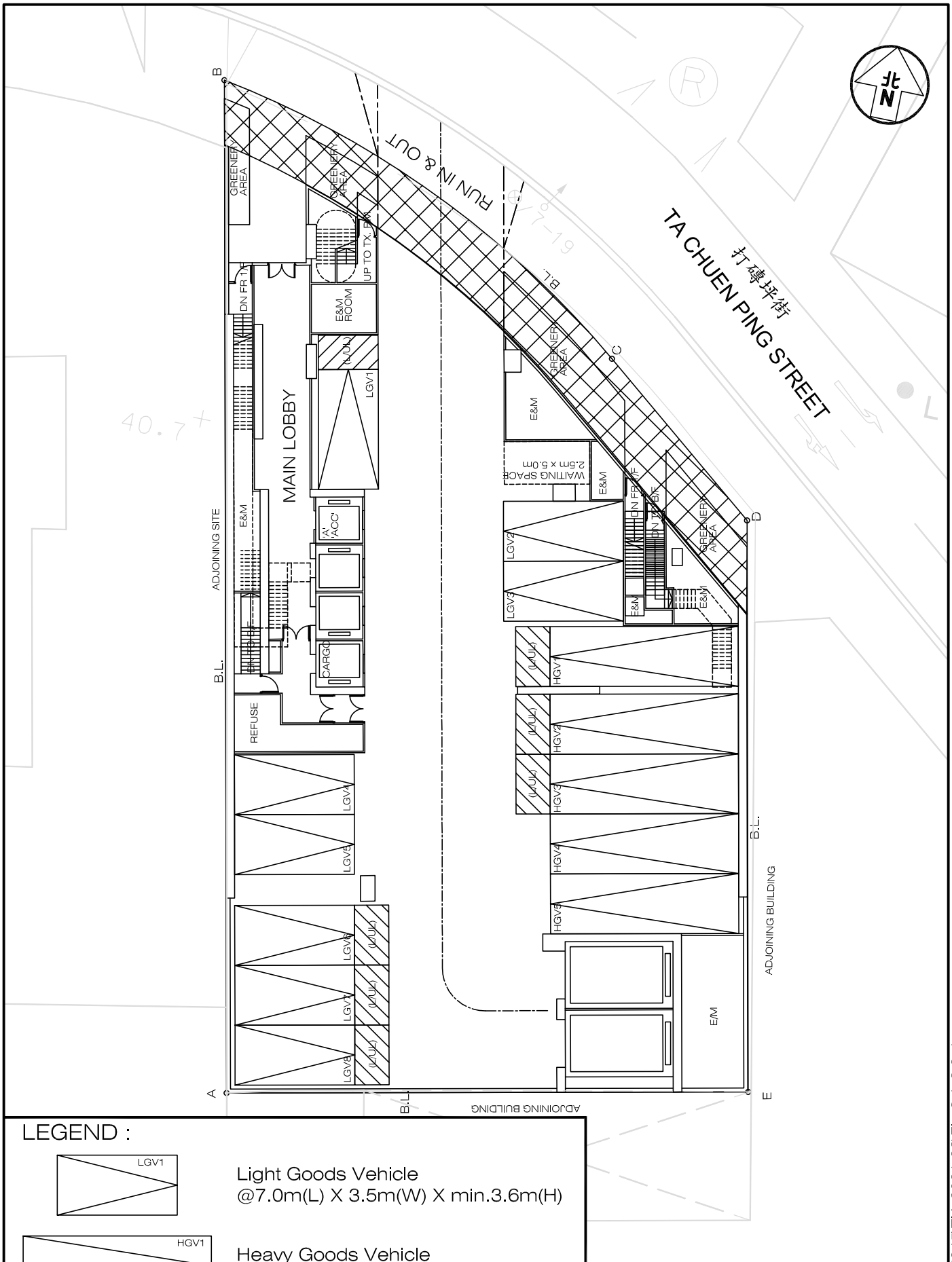
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.11			Scale in A4 N.T.S.
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title: YEAR 2019 EXISTING PEAK HOUR TRAFFIC FLOWS	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7000-J7049\J7045\2021 04\Fig 2.11 RevA.dwg



LEGEND :

LGV1

Light Goods Vehicle
@7.0m(L) X 3.5m(W) X min.3.6m(H)

HGV1

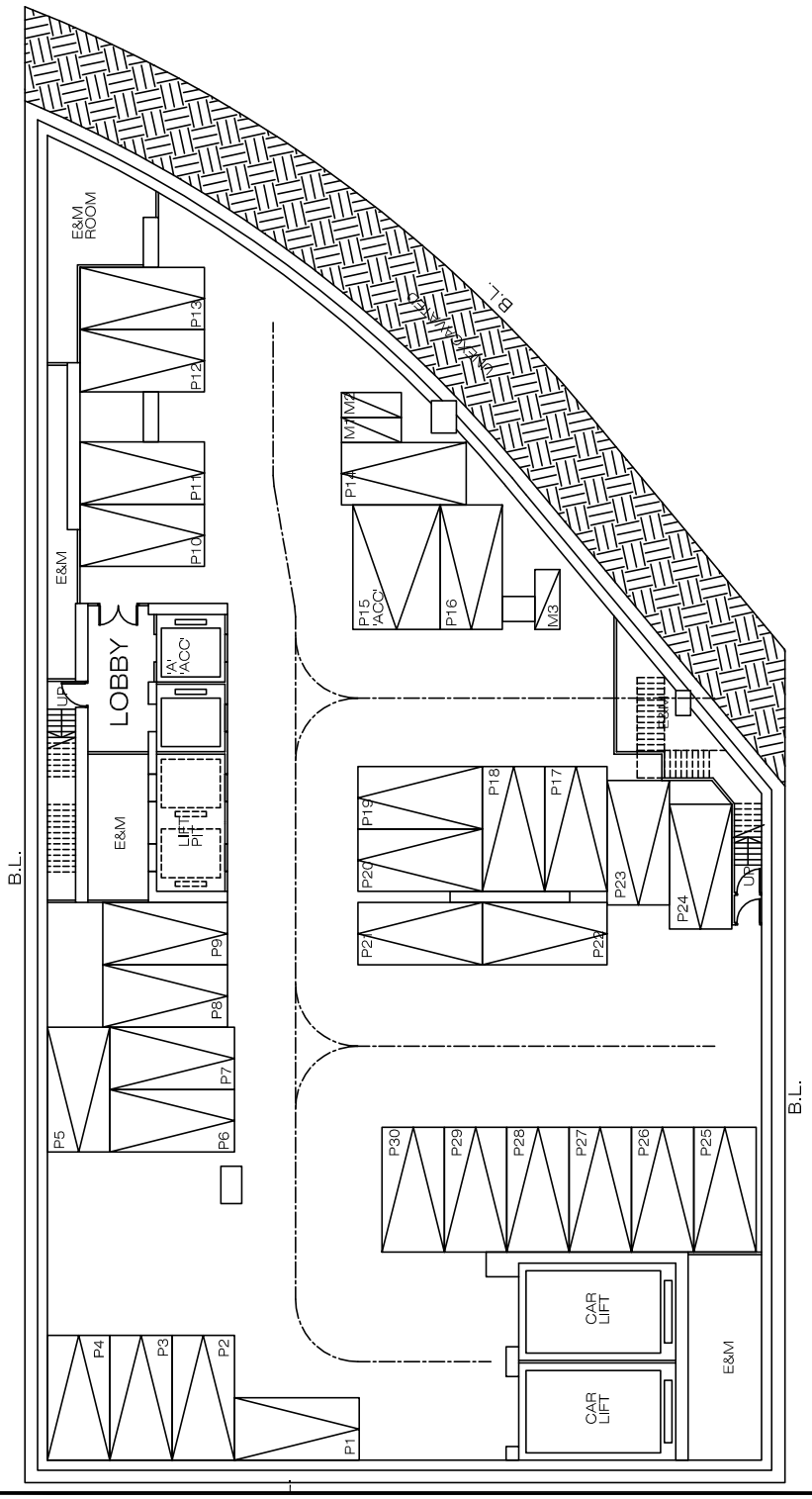
Heavy Goods Vehicle
@11.0m(L) X 3.5m(W) X min.4.7m(H)

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 3.1			Scale in A4 1 : 300
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021

Figure Title: PROPOSED GROUND FLOOR PLAN

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk

T:\JOBs\J7000-J7049\J7045\TIA 2021 03\Fig 3.1-3.2.dwg



LEGEND :

P5 — Car Parking Space
@5.0m(L) X 2.5m(W) X min.2.4m(H)

M1 — Motorcycle
@2.4m(L) X 1.0m(W) X min.2.4m(H)

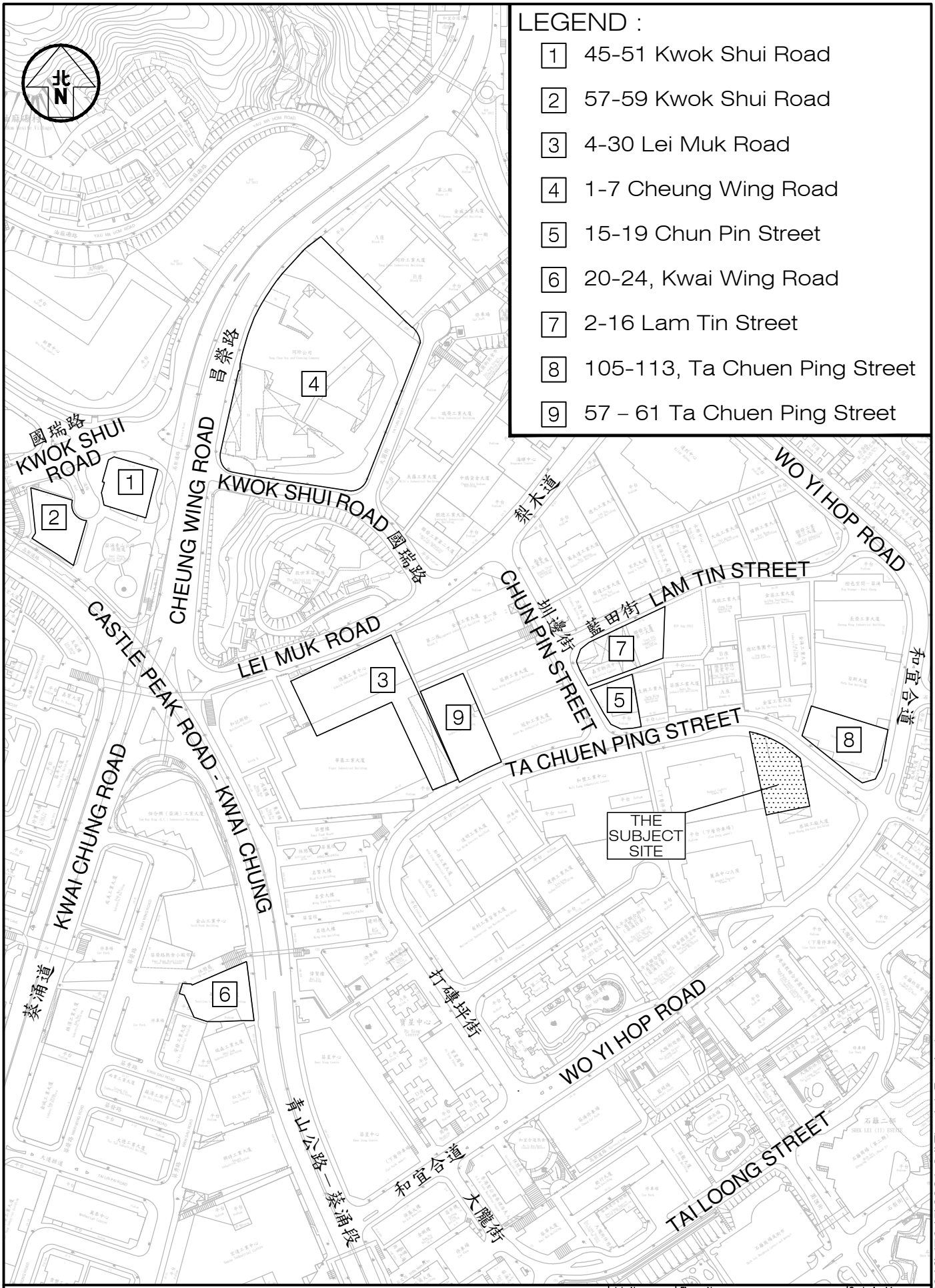
P7 ACC — Accessible Car Parking Space
@5.0m(L) X 3.5m(W) X min.2.4m(H)

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 3.2			Scale in A4 1 : 300
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021

Figure Title: PROPOSED BASEMENT FLOOR PLAN

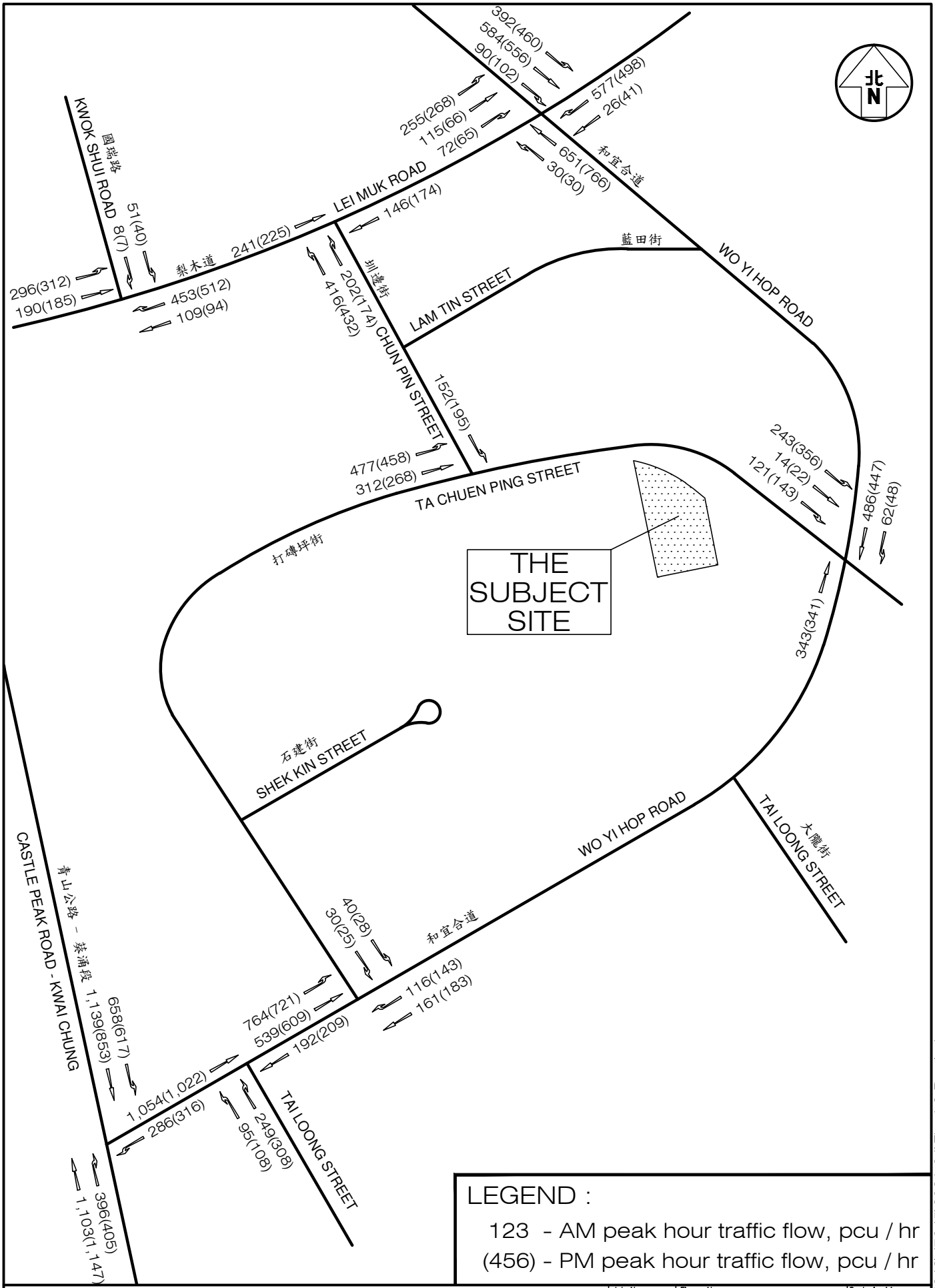
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\TIA 2021 03\Fig 3.1-3.2.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 4.1			Scale in A4 1 : 3,500
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title: LOCATIONS OF THE COMMITTED DEVELOPMENTS AND DEVELOPMENTS UNDER CONSIDERATION OF TOWN PLANNING BOARD IN THE VICINITY OF THE PROPOSED INDUSTRIAL DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

T:\JOB\J7000-J7049\J7045\2021 04\Fig 4.1 RevA.dwg



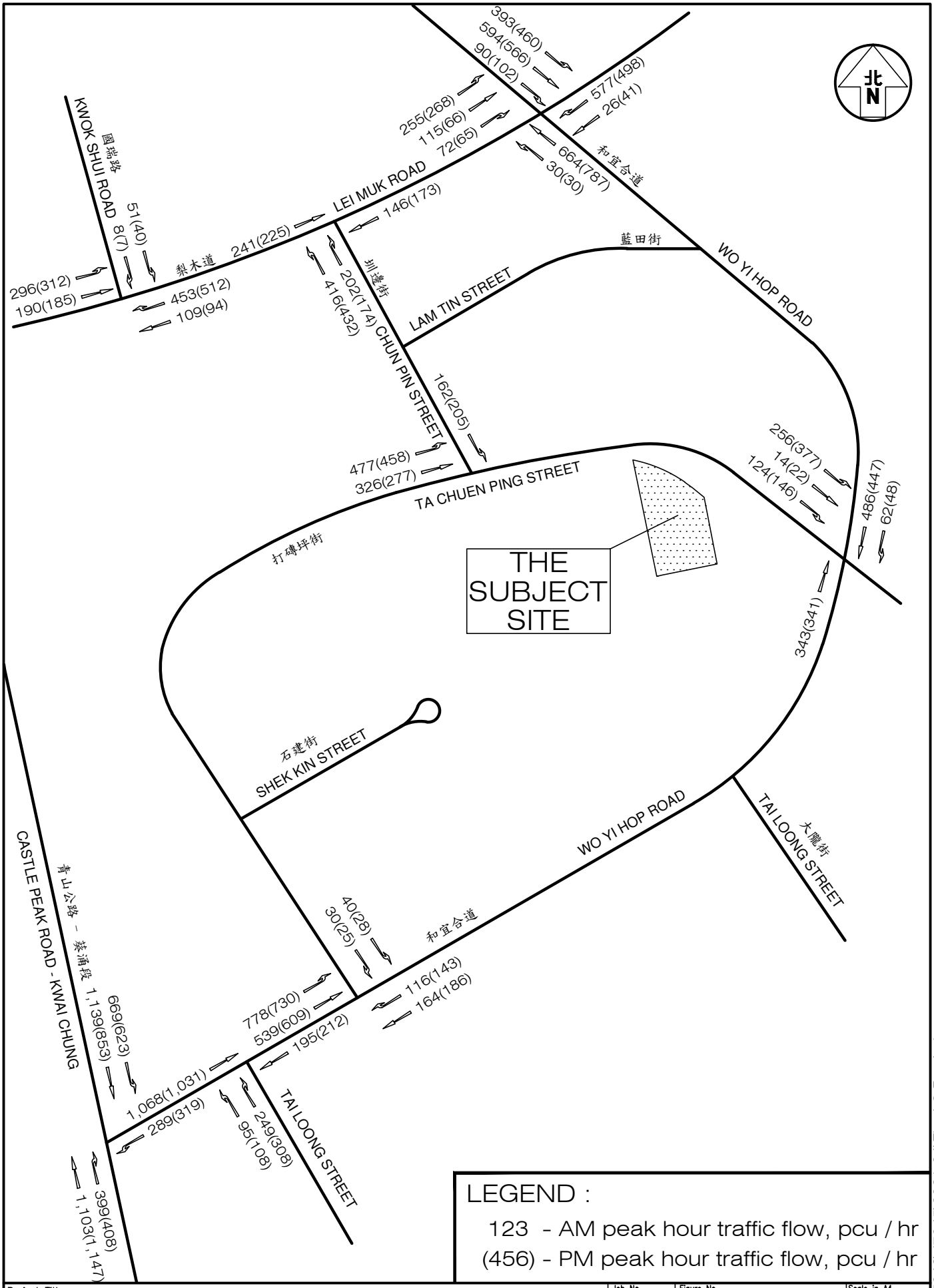
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 4.2		Scale in A4 N.T.S.
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title	YEAR 2028 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED INDUSTRIAL DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7000-J7049\J7045\2021 04\Fig 4.2 RevA.dwg



LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 4.3		Scale in A4 N.T.S.
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision A	Date 22 APR 2021
Figure Title	YEAR 2028 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED INDUSTRIAL DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7000-J7049\J7045\2021 04\Fig 4.3 RevA.dwg

Appendix A – Detail Calculation

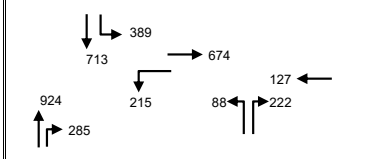
Signal Junction Analysis

Junction:	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	1
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	22 April 2021

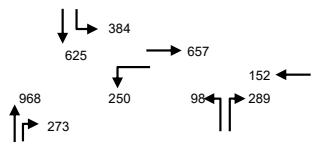
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Castle Peak Road – Kwai Chung SB	LT	A1	1	3.20	15.0		100	1886	389	0.206	0.206	100	1886	384	0.204	0.204
Castle Peak Road – Kwai Chung SB	SA	A2	1	3.50				2105	357	0.170			2105	313	0.149	
Castle Peak Road – Kwai Chung SB	SA	A3	1	3.40				2095	356	0.170			2095	312	0.149	
Castle Peak Road – Kwai Chung NB	SA	B1	1, 2, 3	3.00				2055	924	0.450			2055	968	0.471	
Castle Peak Road – Kwai Chung NB	RT	B2	2	3.40	18.0		100	1934	144	0.074	0.074	100	1934	138	0.071	0.071
Castle Peak Road – Kwai Chung NB	RT	B3	2	3.00	18.0		100	1897	141	0.074		100	1897	135	0.071	
Wo Yi Hop Road WB	LT	C1	2, 3	3.50	13.0		100	1887	215	0.114		100	1887	250	0.132	
Wo Yi Hop Road EB	SA	D1	1, 2	3.10				2065	334	0.162			2065	325	0.157	
Wo Yi Hop Road EB	SA	D2	1, 2	3.50				2105	340	0.162			2105	332	0.158	
Tai Loong Street NB	LT	E1	3	3.30	12.0		100	1853	88	0.047		100	1853	98	0.053	
Tai Loong Street NB	RT	E2	3	3.30	19.0		100	1932	222	0.115	0.115	100	1932	289	0.150	0.150
Wo Yi Hop Road WB	SA	F1	1, 2	3.30				2085	127	0.061			2085	152	0.073	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	6	sec FGM =	11	sec
	P2	3		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P3	1, 2		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S_M = S / (1 + 1.5\ f/r)$

$S = 2080 + 100\ (W-3.25)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

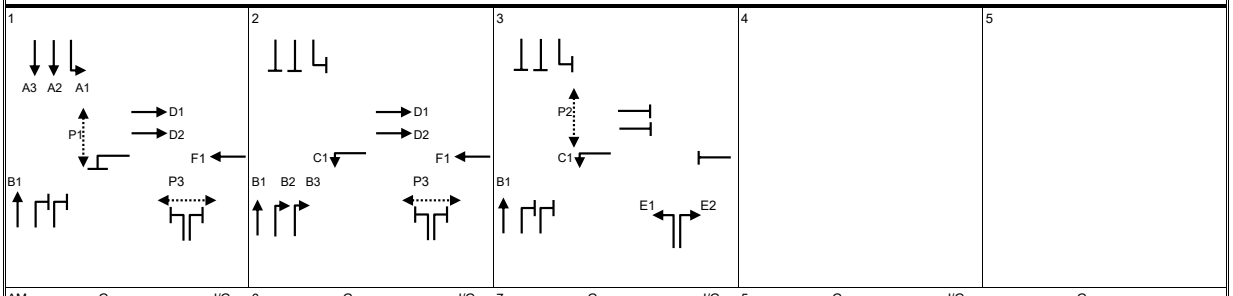
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check 3	Check 1	Check 2	Check 3
Sum y	0.396	0.450	0.320	0.425	0.471	0.336
L (s)	15	0	10	15	0	10
C (s)	120	120	120	114	114	114
Prac. y	0.788	0.900	0.825	0.782	0.900	0.821
R.C. (%)	99%	100%	158%	84%	91%	144%

NOTE:

Check 1: Phase A1 + B2 + E2

Check 2: Phase B1

Check 3: Phase A1 + C1



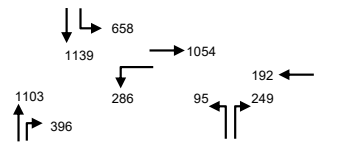
AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
	G =	I/G = 7	G =	I/G =	G =	I/G = 5	G =	I/G =	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
	G =	I/G = 7	G =	I/G =	G =	I/G = 5	G =	I/G =	G =	

Signal Junction Analysis

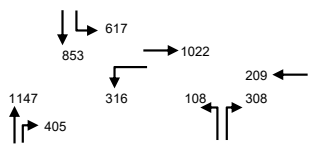
Junction:	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	2
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Castle Peak Road – Kwai Chung SB	LT	A1	1	3.20	15.0		100	1886	658	0.349	0.349	100	1886	617	0.327	0.327
Castle Peak Road – Kwai Chung SB	SA	A2	1	3.50				2105	571	0.271			2105	428	0.203	
Castle Peak Road – Kwai Chung SB	SA	A3	1	3.40				2095	568	0.271			2095	425	0.203	
Castle Peak Road – Kwai Chung NB	SA	B1	1, 2, 3	3.00				2055	1103	0.537			2055	1147	0.558	
Castle Peak Road – Kwai Chung NB	RT	B2	2	3.40	18.0		100	1934	200	0.103	0.103	100	1934	204	0.105	0.105
Castle Peak Road – Kwai Chung NB	RT	B3	2	3.00	18.0		100	1897	196	0.103		100	1897	201	0.106	
Wo Yi Hop Road WB	LT	C1	2, 3	3.50	13.0		100	1887	286	0.152		100	1887	316	0.167	
Wo Yi Hop Road EB	SA	D1	1, 2	3.10				2065	522	0.253			2065	506	0.245	
Wo Yi Hop Road EB	SA	D2	1, 2	3.50				2105	532	0.253			2105	516	0.245	
Tai Loong Street NB	LT	E1	3	3.30	12.0		100	1853	95	0.051		100	1853	108	0.058	
Tai Loong Street NB	RT	E2	3	3.30	19.0		100	1932	249	0.129	0.129	100	1932	308	0.159	0.159
Wo Yi Hop Road WB	SA	F1	1, 2	3.30				2085	192	0.092			2085	209	0.100	
Pedestrian Phase		P1	1		Min Crossing Time =		5	sec GM +		6	sec FGM =		11	sec		
		P2	3		Min Crossing Time =		5	sec GM +		7	sec FGM =		12	sec		
		P3	1, 2		Min Crossing Time =		5	sec GM +		8	sec FGM =		13	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

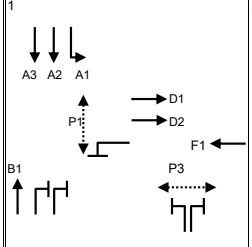
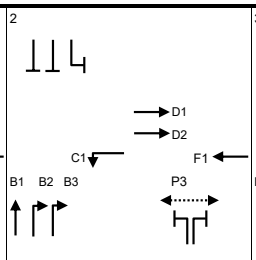
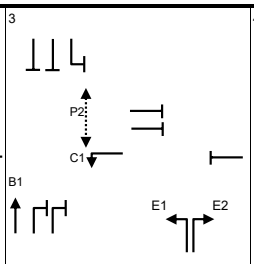
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check 3	Check 1	Check 2	Check 3
Sum y	0.581	0.537	0.500	0.592	0.558	0.495
L (s)	15	0	10	15	0	10
C (s)	120	120	120	114	114	114
Prac. y	0.788	0.900	0.825	0.782	0.900	0.821
R.C. (%)	35%	68%	65%	32%	61%	66%

NOTE:

Check 1: Phase A1 + B2 + E2

Check 2: Phase B1

Check 3: Phase A1 + C1

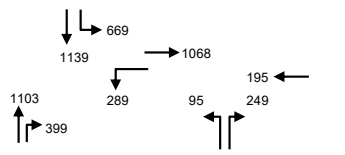
1	2	3	4	5
				
AM G = I/G = 6	AM G = I/G = 7	AM G = I/G = 5	AM G = I/G =	AM G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G =
G = I/G = 7	G = I/G =	G = I/G = 5	G = I/G =	G =
PM G = I/G = 6	PM G = I/G = 7	PM G = I/G = 5	PM G = I/G =	PM G =
G = I/G =	G = I/G =	G = I/G =	G = I/G =	G =
G = I/G = 7	G = I/G =	G = I/G = 5	G = I/G =	G =

Signal Junction Analysis

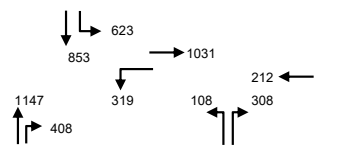
Junction:	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	3
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Castle Peak Road – Kwai Chung SB	LT	A1	1	3.20	15.0		100	1886	669	0.355	0.355	100	1886	623	0.330	0.330
Castle Peak Road – Kwai Chung SB	SA	A2	1	3.50				2105	571	0.271			2105	428	0.203	
Castle Peak Road – Kwai Chung SB	SA	A3	1	3.40				2095	568	0.271			2095	425	0.203	
Castle Peak Road – Kwai Chung NB	SA	B1	1, 2, 3	3.00				2055	1103	0.537			2055	1147	0.558	
Castle Peak Road – Kwai Chung NB	RT	B2	2	3.40	18.0		100	1934	201	0.104	0.104	100	1934	206	0.107	0.107
Castle Peak Road – Kwai Chung NB	RT	B3	2	3.00	18.0		100	1897	198	0.104		100	1897	202	0.106	
Wo Yi Hop Road WB	LT	C1	2, 3	3.50	13.0		100	1887	289	0.153		100	1887	319	0.169	
Wo Yi Hop Road EB	SA	D1	1, 2	3.10				2065	529	0.256			2065	511	0.247	
Wo Yi Hop Road EB	SA	D2	1, 2	3.50				2105	539	0.256			2105	520	0.247	
Tai Loong Street NB	LT	E1	3	3.30	12.0		100	1853	95	0.051		100	1853	108	0.058	
Tai Loong Street NB	RT	E2	3	3.30	19.0		100	1932	249	0.129	0.129	100	1932	308	0.159	0.159
Wo Yi Hop Road WB	SA	F1	1, 2	3.30				2085	195	0.094			2085	212	0.102	
Pedestrian Phase		P1	1		Min Crossing Time =		5	sec GM +		6	sec FGM =		11	sec		
		P2	3		Min Crossing Time =		5	sec GM +		7	sec FGM =		12	sec		
		P3	1, 2		Min Crossing Time =		5	sec GM +		8	sec FGM =		13	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S_M = S / (1 + 1.5\ f/r)$

$S = 2080 + 100\ (W-3.25)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

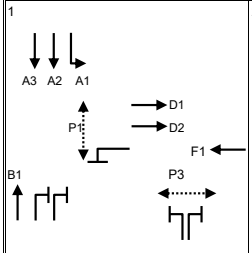
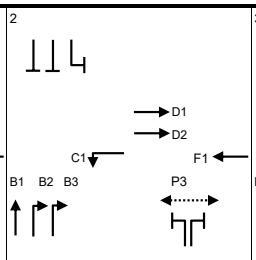
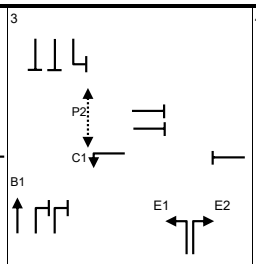
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check 3	Check 1	Check 2	Check 3
Sum y	0.588	0.537	0.508	0.596	0.558	0.499
L (s)	15	0	10	15	0	10
C (s)	120	120	120	114	114	114
Prac. y	0.788	0.900	0.825	0.782	0.900	0.821
R.C. (%)	34%	68%	62%	31%	61%	64%

NOTE:

Check 1: Phase A1 + B2 + E2

Check 2: Phase B1

Check 3: Phase A1 + C1

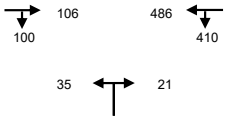
	1	2	3	4	5
					
AM	G =	G =	G =	G =	G =
	I/G = 6	I/G = 7	I/G = 5	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G =	I/G =	I/G =	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G = 7	I/G =	I/G = 5	I/G =	I/G =
PM	G =	G =	G =	G =	G =
	I/G = 6	I/G = 7	I/G = 5	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G =	I/G =	I/G =	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G = 7	I/G =	I/G = 5	I/G =	I/G =

Signal Junction Analysis

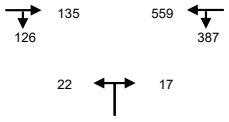
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	4
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	1	3.50	16.5		100	1801	56	0.031		100	1801	39	0.022	
Wo Yi Hop Road EB	LT	B1	1, 2	2.65	17.5		100	1861	410	0.220		100	1861	387	0.208	
Wo Yi Hop Road EB	SA	B2	2	3.20				2075	486	0.234	0.234		2075	559	0.269	0.269
Wo Yi Hop Road WB	SA	C1	2, 3	2.40				1995	106	0.053			1995	135	0.068	
Wo Yi Hop Road WB	RT	C2	3	3.20	26.0		100	1962	100	0.051	0.051	100	1962	126	0.064	0.064
Pedestrian Phase		P1	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		
		P2	4		Min Crossing Time =		8	sec GM +		8	sec FGM =		16	sec		
		P3	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

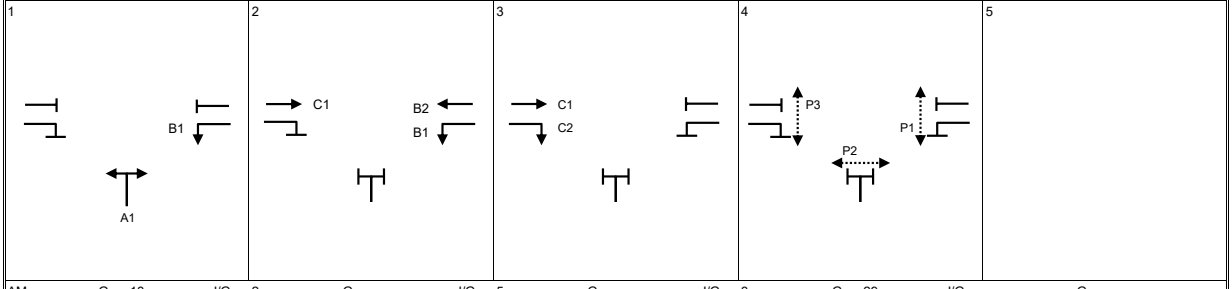
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.285	0.316		0.333	0.355	
L (s)	54	41		53	41	
C (s)	120	120		114	114	
Prac. y	0.495	0.593		0.482	0.576	
R.C. (%)	74%	87%		45%	62%	

NOTE:

Check 1: Phase A1 + B2 + C2 + P2 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B2 + C2 + P2



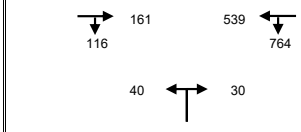
AM	G = 18	I/G = 2	G =	I/G = 5	G =	I/G = 3	G = 29	I/G =	G =							
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 29	I/G = 2	G =							
PM	G = 17	I/G = 2	G =	I/G = 5	G =	I/G = 3	G = 29	I/G =	G =							
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 29	I/G = 2	G =							

Signal Junction Analysis

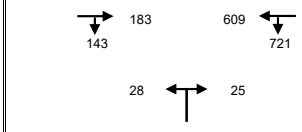
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	5
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	1	3.50	16.5		100	1801	70	0.039		100	1801	53	0.029	
Wo Yi Hop Road EB	LT	B1	1, 2	2.65	17.5		100	1861	764	0.411		100	1861	721	0.387	
Wo Yi Hop Road EB	SA	B2	2	3.20				2075	539	0.260	0.260		2075	609	0.293	0.293
Wo Yi Hop Road WB	SA	C1	2, 3	2.40				1995	161	0.081			1995	183	0.092	
Wo Yi Hop Road WB	RT	C2	3	3.20	26.0		100	1962	116	0.059	0.059	100	1962	143	0.073	0.073
Pedestrian Phase		P1	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		
		P2	4		Min Crossing Time =		8	sec GM +		8	sec FGM =		16	sec		
		P3	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

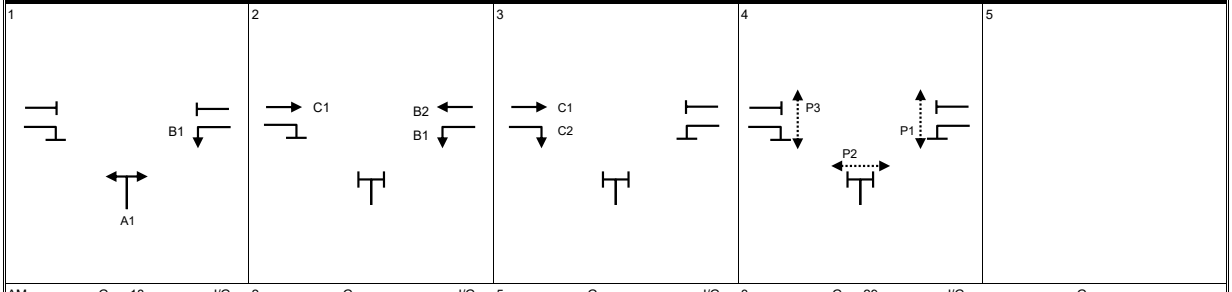
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.319	0.358		0.366	0.396	
L (s)	54	41		53	41	
C (s)	120	120		114	114	
Prac. y	0.495	0.593		0.482	0.576	
R.C. (%)	55%	66%		31%	46%	

NOTE:

Check 1: Phase A1 + B2 + C2 + P2 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B2 + C2 + P2



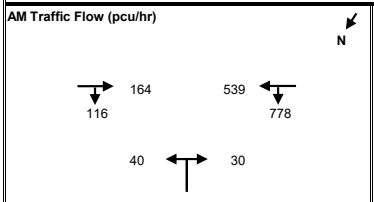
	1		2		3		4		5	
AM	G = 18	I/G = 2	G =	I/G = 5	G =	I/G = 3	G = 29	I/G =	G =	
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 29	I/G = 2	G =	
PM	G = 17	I/G = 2	G =	I/G = 5	G =	I/G = 3	G = 29	I/G =	G =	
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 29	I/G = 2	G =	

Signal Junction Analysis

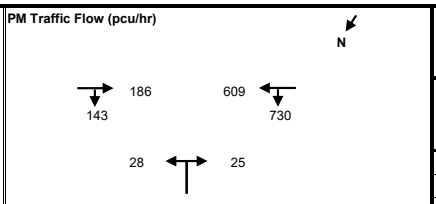
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	6
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	1	3.50	16.5		100	1801	70	0.039		100	1801	53	0.029	
Wo Yi Hop Road EB	LT	B1	1, 2	2.65	17.5		100	1861	778	0.418		100	1861	730	0.392	
Wo Yi Hop Road EB	SA	B2	2	3.20				2075	539	0.260	0.260		2075	609	0.293	0.293
Wo Yi Hop Road WB	SA	C1	2, 3	2.40				1995	164	0.082			1995	186	0.093	
Wo Yi Hop Road WB	RT	C2	3	3.20	26.0		100	1962	116	0.059	0.059	100	1962	143	0.073	0.073
Pedestrian Phase		P1	4		Min Crossing Time =			6	sec GM +		6	sec FGM =		12	sec	
		P2	4		Min Crossing Time =			8	sec GM +		8	sec FGM =		16	sec	
		P3	4		Min Crossing Time =			6	sec GM +		6	sec FGM =		12	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

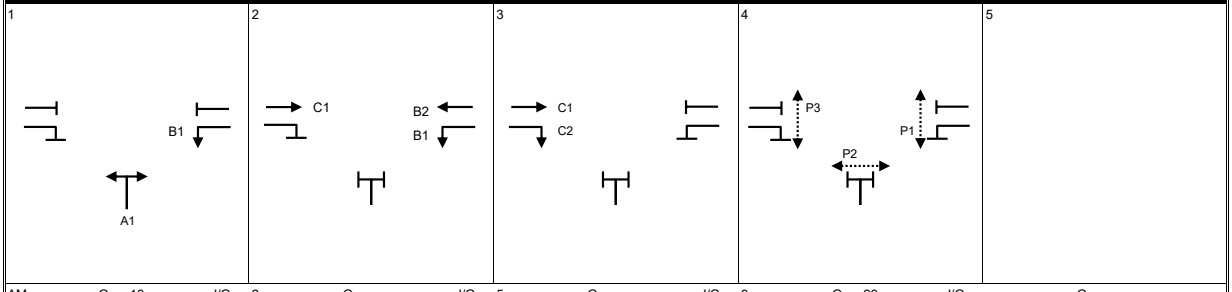
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.319	0.358		0.366	0.396	
L (s)	54	41		53	41	
C (s)	120	120		114	114	
Prac. y	0.495	0.593		0.482	0.576	
R.C. (%)	55%	66%		31%	46%	

NOTE:

Check 1: Phase A1 + B2 + C2 + P2 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B2 + C2 + P2



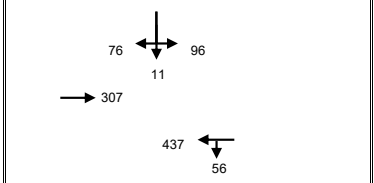
AM	G = 18	I/G = 2	G =	I/G = 5	G =	I/G = 3	G = 29	I/G =	G =							
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 29	I/G = 2	G =							
PM	G = 17	I/G = 2	G =	I/G = 5	G =	I/G = 3	G = 29	I/G =	G =							
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 29	I/G = 2	G =							

Signal Junction Analysis

Junction:	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	7
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	2	3.00	12.0		100	1827	96	0.053		100	1827	117	0.064	
Ta Chung Ping Street SB	SA+RT	A2	2	3.50	20.0		87	1976	87	0.044		84	1980	121	0.061	
Wo Yi Hop Road EB	SA	B1	1	4.50				2205	307	0.139			2205	310	0.141	
Wo Yi Hop Road WB	LT+SA	C1	1, 4	3.90	12.3		11	2117	493	0.233	0.233	9	2122	437	0.206	0.206
Pedestrian Phase		P1	1, 3, 4		Min Crossing Time =			6	sec GM +		10	sec FGM =		16	sec	
		P2	3, 4		Min Crossing Time =			5	sec GM +		7	sec FGM =		12	sec	
		P3	2, 3		Min Crossing Time =			5	sec GM +		6	sec FGM =		11	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

$S = 1940 + 100\ (W-3.25)$ $\quad S_M = S / (1 + 1.5\ f/r)$

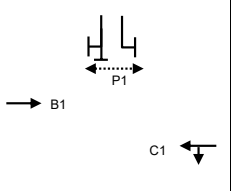
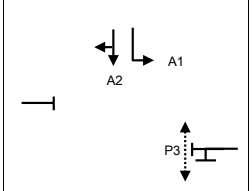
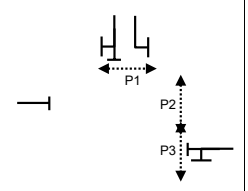
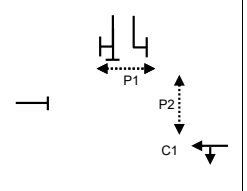
$S = 2080 + 100\ (W-3.25)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.233	0.285		0.206	0.270	
L (s)	51	33		60	33	
C (s)	110	110		110	110	
Prac. y	0.483	0.630		0.409	0.630	
R.C. (%)	107%	121%		99%	133%	

NOTE: According to Traffic Control Division, Stage 4 is skipped from 00:00 to 23:59.

Check 1: Phase C1 + P3

Check 2: Phase A1 + C1 (by considering whole Stage 3 as loss time)

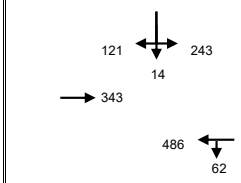
	1	2	3	4	5
				 Stage 4 is skipped from 00:00 to 23:59	
AM	G =	G = 22	G = 24	G =	G =
	I/G = 4	I/G =	I/G = 2	I/G =	I/G =
	G =	G =	G = 24	G =	G =
	I/G = 6	I/G = 3	I/G = 2	I/G =	I/G =
PM	G =	G = 31	G = 24	G =	G =
	I/G = 4	I/G =	I/G = 2	I/G =	I/G =
	G =	G =	G = 24	G =	G =
	I/G = 6	I/G = 3	I/G = 2	I/G =	I/G =

Signal Junction Analysis

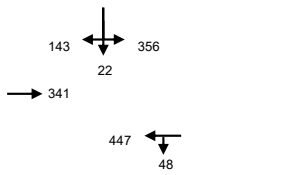
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	8
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	2	3.00	12.0		100	1827	243	0.133	0.133	100	1827	356	0.195	0.195
Ta Chung Ping Street SB	SA+RT	A2	2	3.50	20.0		90	1972	135	0.068		87	1976	165	0.084	
Wo Yi Hop Road EB	SA	B1	1	4.50				2205	343	0.156			2205	341	0.155	
Wo Yi Hop Road WB	LT+SA	C1	1, 4	3.90	12.3		11	2117	548	0.259	0.259	10	2119	495	0.234	0.234
Pedestrian Phase		P1	1, 3, 4		Min Crossing Time =			6	sec GM +		10	sec FGM =		16	sec	
		P2	3, 4		Min Crossing Time =			5	sec GM +		7	sec FGM =		12	sec	
		P3	2, 3		Min Crossing Time =			5	sec GM +		6	sec FGM =		11	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S_M = S / (1 + 1.5\ f/r)$

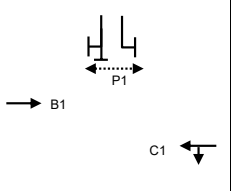
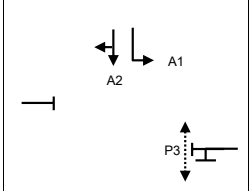
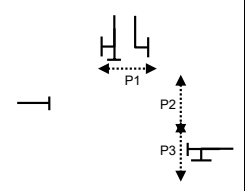
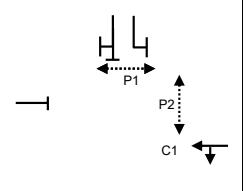
$S = 2080 + 100\ (W-3.25)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.392	0.259		0.428	0.234	
L (s)	33	51		33	60	
C (s)	110	110		110	110	
Prac. y	0.630	0.483		0.630	0.409	
R.C. (%)	61%	86%		47%	75%	

NOTE: According to Traffic Control Division, Stage 4 is skipped from 00:00 to 23:59.

Check 1: Phase A1 + C1 (by considering whole Stage 3 as loss time)

Check 2: Phase C1 + P3

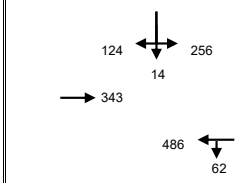
	1	2	3	4	5
				 Stage 4 is skipped from 00:00 to 23:59	
AM	G =	I/G = 6	G =	I/G = 3	G = 24	I/G = 2	G =	I/G =	G =
	G =	I/G = 4	G = 22	I/G =	G = 24	I/G = 2	G =	I/G =	G =
PM	G =	I/G = 6	G =	I/G = 3	G = 24	I/G = 2	G =	I/G =	G =
	G =	I/G = 4	G = 31	I/G =	G = 24	I/G = 2	G =	I/G =	G =

Signal Junction Analysis

Junction:	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	9
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	2	3.00	12.0		100	1827	256	0.140	0.140	100	1827	377	0.206	0.206
Ta Chung Ping Street SB	SA+RT	A2	2	3.50	20.0		90	1972	138	0.070		87	1976	168	0.085	
Wo Yi Hop Road EB	SA	B1	1	4.50				2205	343	0.156			2205	341	0.155	
Wo Yi Hop Road WB	LT+SA	C1	1, 4	3.90	12.3		11	2117	548	0.259	0.259	10	2119	495	0.234	0.234
Pedestrian Phase		P1	1, 3, 4		Min Crossing Time =			6	sec GM +		10	sec FGM =		16	sec	
		P2	3, 4		Min Crossing Time =			5	sec GM +		7	sec FGM =		12	sec	
		P3	2, 3		Min Crossing Time =			5	sec GM +		6	sec FGM =		11	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

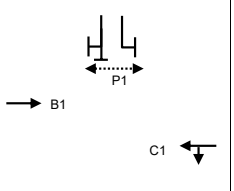
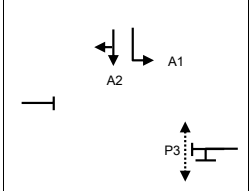
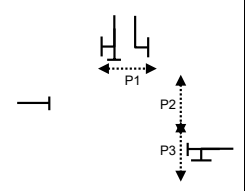
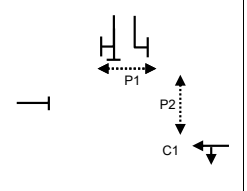
$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.399	0.259		0.440	0.234	
L (s)	33	51		33	60	
C (s)	110	110		110	110	
Prac. y	0.630	0.483		0.630	0.409	
R.C. (%)	58%	86%		43%	75%	

NOTE: According to Traffic Control Division, Stage 4 is skipped from 00:00 to 23:59.

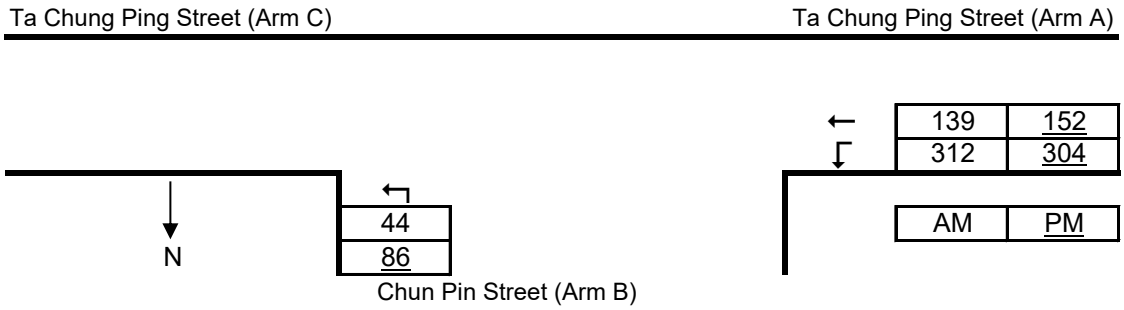
Check 1: Phase A1 + C1 (by considering whole Stage 3 as loss time)

Check 2: Phase C1 + P3

	1	2	3	4	5
					
	P1 B1 C1	A1 A2 P3	P1 P2 P3	P1 P2 C1	
				Stage 4 is skipped from 00:00 to 23:59	
AM	G =	G =	G =	G =	G =
	I/G = 6	I/G = 3	I/G = 24	I/G = 2	I/G =
	G =	G =	G =	G =	G =
	I/G = 4	I/G =	I/G = 24	I/G = 2	I/G =
PM	G =	G =	G =	G =	G =
	I/G = 6	I/G = 3	I/G = 24	I/G = 2	I/G =
	G =	G =	G =	G =	G =
	I/G = 4	I/G =	I/G = 24	I/G = 2	I/G =

Priority Junction Analysis

Junction:	Ta Chung Ping Street / Chun Pin Street				
Design Year:	2019	Job Number:	J7045	Date:	22 April 2021
Scenario:	2019 Existing Condition				Page 10



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	6.72	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	10.00	E	1.4747
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7682

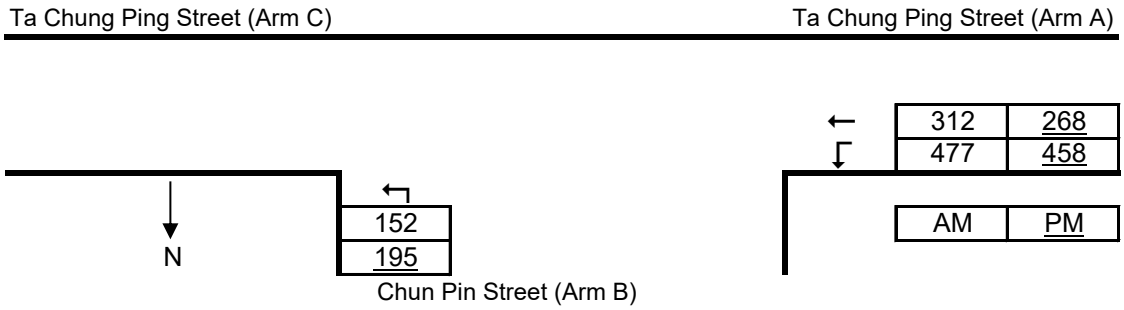
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	295	294
q-CB	0	0	Q-BC	990	986
q-AB	312	304	Q-CB	363	362
q-AC	139	152	Q-BAC	990	986
q-BA	0	0			
q-BC	44	86			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.044	0.087
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Ta Chung Ping Street / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	22 April 2021
Scenario:	2028 Without Proposed Industrial Development				Page 11



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	6.72	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	10.00	E	1.4747
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7682

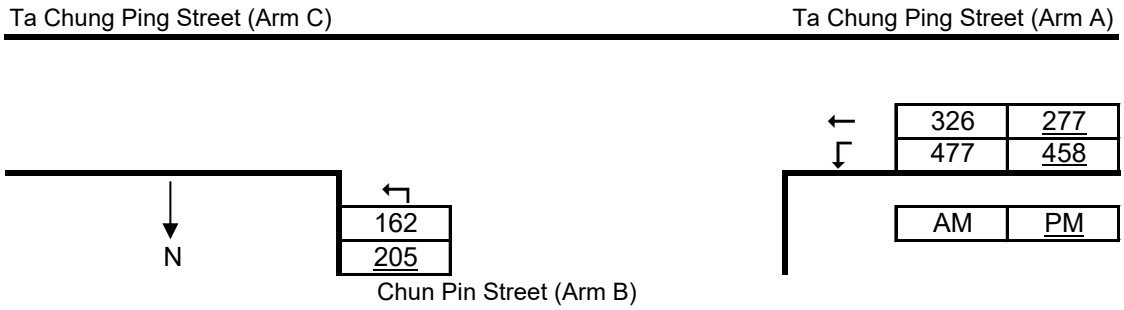
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	260	267
q-CB	0	0	Q-BC	892	913
q-AB	477	458	Q-CB	307	318
q-AC	312	268	Q-BAC	892	913
q-BA	0	0			
q-BC	152	195			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.170	0.213
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Ta Chung Ping Street / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	22 April 2021
Scenario:	2028 With Proposed Industrial Development				Page 12



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	6.72	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	10.00	E	1.4747
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7682

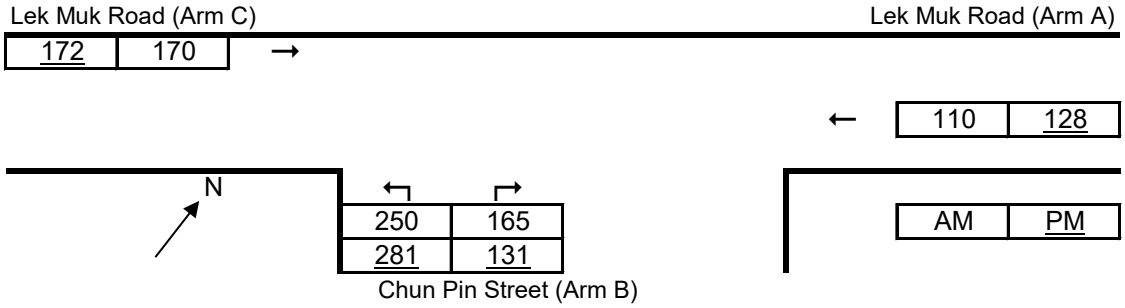
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	258	266
q-CB	0	0	Q-BC	886	910
q-AB	477	458	Q-CB	305	316
q-AC	326	277	Q-BAC	886	910
q-BA	0	0			
q-BC	162	205			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.183	0.225
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Lek Muk Road / Chun Pin Street				
Design Year:	2019	Job Number:	J7045	Date:	22 April 2021
Scenario:	2019 Existing Condition				Page 13



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	64	w-BA	2.10	D	0.7538
	W-CR	0.00	V-lBA	32	w-BC	2.10	E	0.8235
			V-rBC	80	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6447

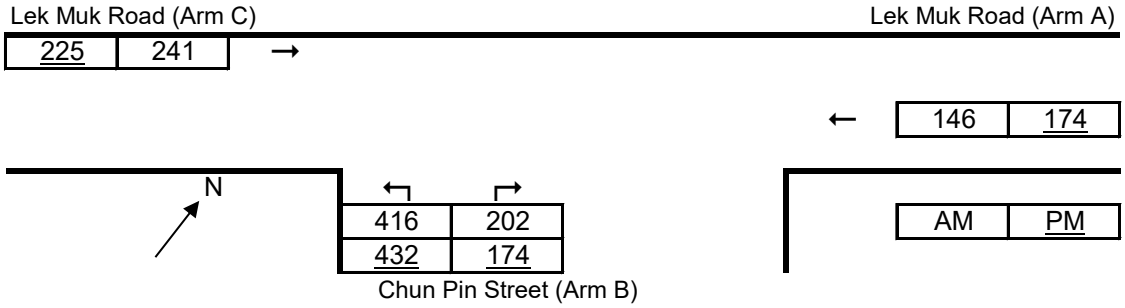
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	170	172	Q-BA	434	431
q-CB	0	0	Q-BC	592	589
q-AB	0	0	Q-CB	421	419
q-AC	110	128	Q-BAC	517	527
q-BA	165	131			
q-BC	250	281			
f	0.602	0.682			

Ratio-of-flow to Capacity	AM	PM
B-A	0.380	0.304
B-C	0.422	0.477
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Lek Muk Road / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	22 April 2021
Scenario:	2028 Without Proposed Industrial Development				Page 14



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	64	w-BA	2.10	D	0.7538
	W-CR	0.00	V-lBA	32	w-BC	2.10	E	0.8235
			V-rBC	80	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6447

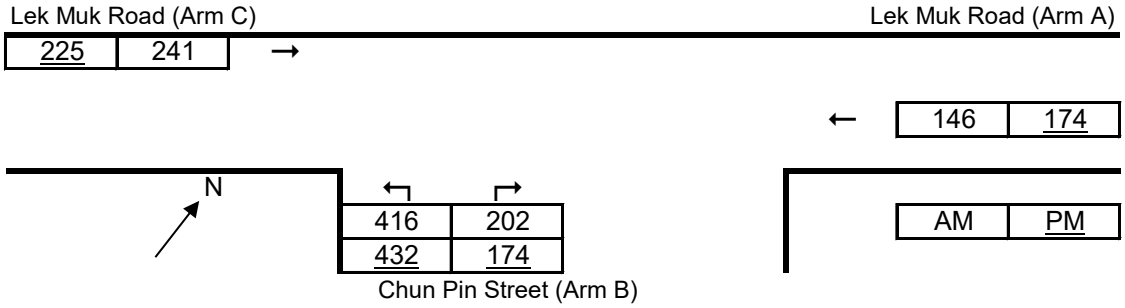
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	241	225	Q-BA	420	417
q-CB	0	0	Q-BC	585	580
q-AB	0	0	Q-CB	416	413
q-AC	146	174	Q-BAC	519	521
q-BA	202	174			
q-BC	416	432			
f	0.673	0.713			

Ratio-of-flow to Capacity	AM	PM
B-A	0.481	0.417
B-C	0.711	0.745
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Lek Muk Road / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	22 April 2021
Scenario:	2028 With Proposed Industrial Development			Page	15



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	64	w-BA	2.10	D	0.7538
	W-CR	0.00	V-lBA	32	w-BC	2.10	E	0.8235
			V-rBC	80	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6447

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	241	225	Q-BA	420	417
q-CB	0	0	Q-BC	585	580
q-AB	0	0	Q-CB	416	413
q-AC	146	174	Q-BAC	519	521
q-BA	202	174			
q-BC	416	432			
f	0.673	0.713			

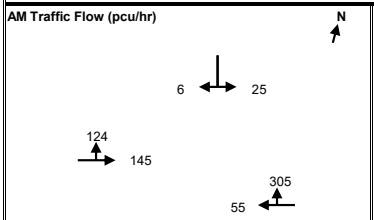
Ratio-of-flow to Capacity	AM	PM
B-A	0.481	0.417
B-C	0.711	0.745
C-B	0.000	0.000

Signal Junction Analysis

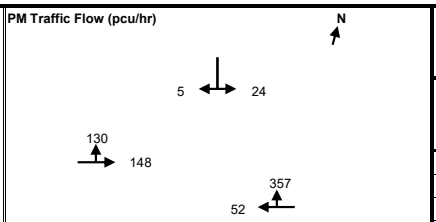
Junction:	Lei Muk Road / Kwok Shui Road	Job Number:	J7045
Scenario:	2019 Existing Condition	Page	16
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	22 April 2021

Approach	Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwok Shui Road SB LT+RT	A1	2	4.00	12.5		100	1799	31	0.017		100	1799	29	0.016	
Lei Muk Road EB LT+SA	B1	1	3.50	12.5		100	1754	124	0.071	0.071	100	1754	130	0.074	0.074
Lei Muk Road EB SA	B2	1	3.50				2105	145	0.069			2105	148	0.070	
Lei Muk Road WB SA+RT	C1	3	3.30	17.5		85	1813	360	0.199	0.199	87	1810	409	0.226	0.226
Pedestrian Phase	P1	4		Min Crossing Time =		5	sec GM +		9	sec FGM =		14	sec		
	P2	4		Min Crossing Time =		5	sec GM +		9	sec FGM =		14	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

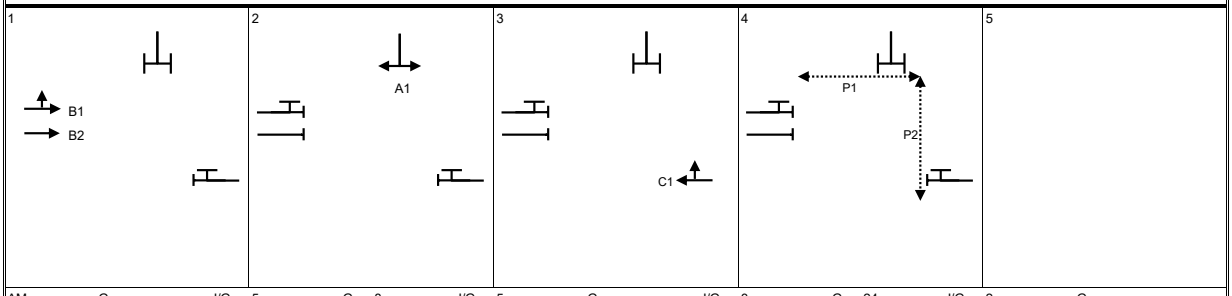
$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR Check 1	AM PEAK HOUR Check 2	AM PEAK HOUR Check	PM PEAK HOUR Check 1	PM PEAK HOUR Check 2	PM PEAK HOUR Check
Sum y	0.269	0.286		0.300	0.316	
L (s)	44	36		44	36	
C (s)	90	90		90	90	
Prac. y	0.460	0.540		0.460	0.540	
R.C. (%)	71%	88%		53%	71%	

NOTE:

Check 1: Phase A1 + B1 + C1 + P1 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B1 + C1 + P1



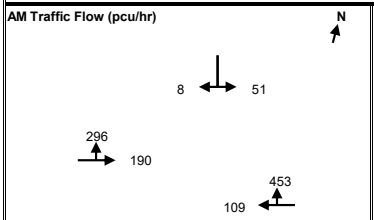
AM	G =	I/G = 5	G = 8	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =
PM	G =	I/G = 5	G = 8	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =

Signal Junction Analysis

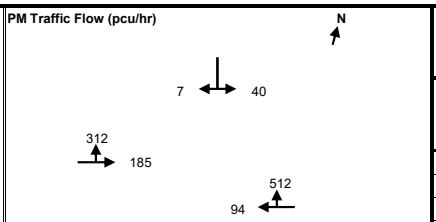
Junction:	Lei Muk Road / Kwok Shui Road	Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development	Page	17
Design Year:	2028 Designed By: LTF	Checked By: WCH	Date: 22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwok Shui Road SB	LT+RT	A1	2	4.00	12.5		100	1799	59	0.033		100	1799	47	0.026	
Lei Muk Road EB	LT+SA	B1	1	3.50	12.5		100	1754	296	0.169	0.169	100	1754	312	0.178	0.178
Lei Muk Road EB	SA	B2	1	3.50				2105	190	0.090			2105	185	0.088	
Lei Muk Road WB	SA	C1	3	3.30				1945	109	0.056			1945	94	0.048	
Lei Muk Road WB	RT	C2	3	3.30	15.0		100	1895	453	0.239	0.239	100	1895	512	0.270	0.270
Pedestrian Phase		P1	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	
		P2	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

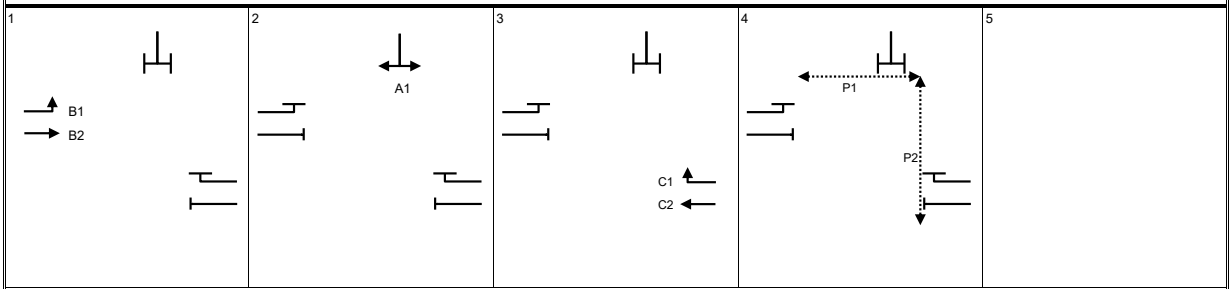
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.408	0.441		0.448	0.474	
L (s)	44	36		44	36	
C (s)	120	120		120	120	
Prac. y	0.570	0.630		0.570	0.630	
R.C. (%)	40%	43%		27%	33%	

NOTE: Improvement scheme proposed by the approved development A/KC/444

Check 1: Phase A1 + B1 + C1 + P1 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B1 + C1 + P1



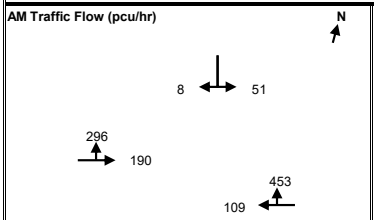
AM	G =	I/G = 5	G = 8	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =							
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =							
PM	G =	I/G = 5	G = 8	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =							
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =							

Signal Junction Analysis

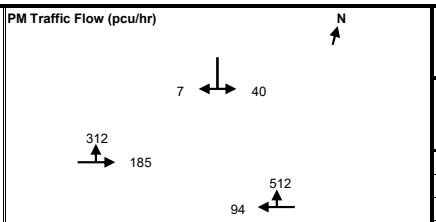
Junction:	Lei Muk Road / Kwok Shui Road			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	18
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwok Shui Road SB	LT+RT	A1	2	4.00	12.5		100	1799	59	0.033		100	1799	47	0.026	
Lei Muk Road EB	LT+SA	B1	1	3.50	12.5		100	1754	296	0.169	0.169	100	1754	312	0.178	0.178
Lei Muk Road EB	SA	B2	1	3.50				2105	190	0.090			2105	185	0.088	
Lei Muk Road WB	SA	C1	3	3.30				1945	109	0.056			1945	94	0.048	
Lei Muk Road WB	RT	C2	3	3.30	15.0		100	1895	453	0.239	0.239	100	1895	512	0.270	0.270
Pedestrian Phase		P1	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	
		P2	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

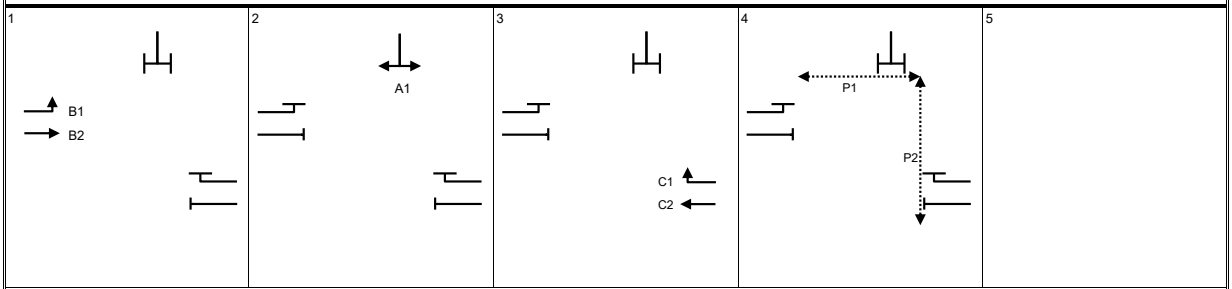
$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.408	0.441		0.448	0.474	
L (s)	44	36		44	36	
C (s)	120	120		120	120	
Prac. y	0.570	0.630		0.570	0.630	
R.C. (%)	40%	43%		27%	33%	

NOTE: Improvement scheme proposed by the approved development A/KC/444

Check 1: Phase A1 + B1 + C1 + P1 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B1 + C1 + P1



AM	G =	I/G = 5	G = 8	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =
PM	G =	I/G = 5	G = 8	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =
	G =	I/G = 5	G =	I/G = 5	G =	I/G = 3	G = 24	I/G = 2	G =

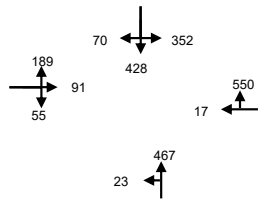
Signal Junction Analysis

Junction:	Lei Muk Road / Wo Yi Hop Road			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	19
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	22 April 2021

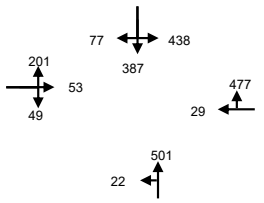
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wo Yi Hop Road SB	LT+SA	A1	3, 4	3.60	22.0		87	1864	403	0.216	0.216	100	1849	438	0.237	0.237
Wo Yi Hop Road SB	SA+RT	A2	3, 4	3.40	19.0		16	2069	447	0.216		17	2067	464	0.224	
Lei Muk Road EB	LT	B1	1	2.20	17.5		100	1690	89	0.053		100	1690	95	0.056	0.056
Lei Muk Road EB	LT	B2	1	3.10	17.5		100	1902	100	0.053		100	1902	106	0.056	
Lei Muk Road EB	SA+RT	B3	1	3.10	19.5		38	2006	146	0.073	0.073	48	1991	102	0.051	
Wo Yi Hop Road NB	LT	C1	3	2.20	15.0		100	1795	23	0.013		100	1795	22	0.012	
Wo Yi Hop Road NB	SA	C2	3	2.80				2035	232	0.114			2035	249	0.122	
Wo Yi Hop Road NB	SA	C3	3	3.00				2055	235	0.114			2055	252	0.123	
Lei Muk Road WB	SA+RT	D1	2	3.40	22.0		94	1969	283	0.144	0.144	89	1975	253	0.128	0.128
Lei Muk Road WB	RT	D2	2	3.50	22.0		100	1971	284	0.144		100	1971	253	0.128	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec		
	P2	2		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec		
	P3	4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec		
	P4	1, 2		Min Crossing Time =	6	sec GM +	11	sec FGM =	17	sec		
	P5	1, 3, 4		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec		
	P6	2, 3, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec		
	P7	1, 2, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

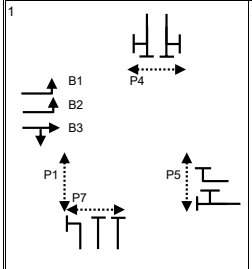
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

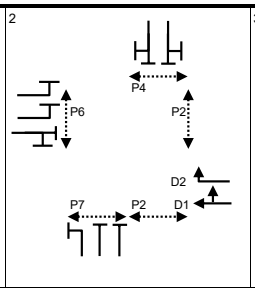
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.433	0.331		0.421	0.307	
L (s)	22	51		22	42	
C (s)	112	112		110	110	
Prac. y	0.723	0.490		0.720	0.556	
R.C. (%)	67%	48%		71%	81%	

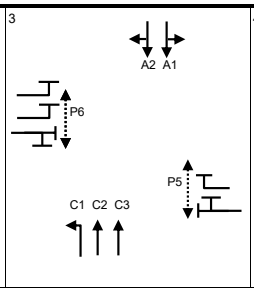
NOTE:

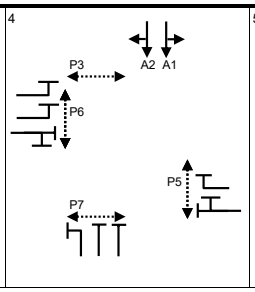
Check 1: Phase A1 + B1/B3 + D1

Check 2: Phase B1/B3 + C3 + D1 + P3









5

AM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 34	I/G = 2	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 25	I/G = 2	G =	

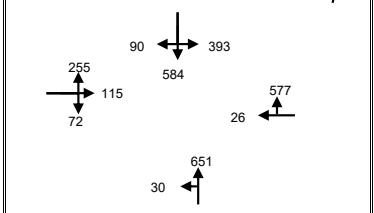
Signal Junction Analysis

Junction:	Lei Muk Road / Wo Yi Hop Road			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	20
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

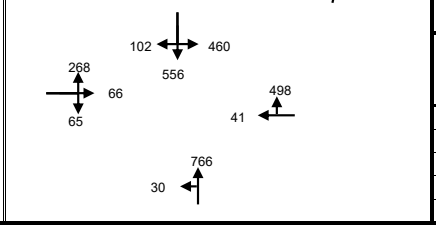
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wo Yi Hop Road SB	LT+SA	A1	3, 4	3.60	22.0		78	1875	507	0.270		87	1864	530	0.284	
Wo Yi Hop Road SB	SA+RT	A2	3, 4	3.40	19.0		16	2069	560	0.271		17	2067	588	0.284	
Lei Muk Road EB	LT	B1	1	2.20	17.5		100	1690	120	0.071		100	1690	126	0.075	0.075
Lei Muk Road EB	LT	B2	1	3.10	17.5		100	1902	135	0.071		100	1902	142	0.075	
Lei Muk Road EB	SA+RT	B3	1	3.10	19.5		39	2005	187	0.093	0.093	50	1989	131	0.066	
Wo Yi Hop Road NB	LT	C1	3	2.20	15.0		100	1795	30	0.017		100	1795	30	0.017	
Wo Yi Hop Road NB	SA	C2	3	2.80				2035	324	0.159			2035	381	0.187	
Wo Yi Hop Road NB	SA	C3	3	3.00				2055	327	0.159	0.159		2055	385	0.187	0.187
Lei Muk Road WB	SA+RT	D1	2	3.40	22.0		91	1973	302	0.153	0.153	85	1980	270	0.136	0.136
Lei Muk Road WB	RT	D2	2	3.50	22.0		100	1971	301	0.153		100	1971	269	0.136	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P2	2		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P3	4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P4	1, 2		Min Crossing Time =	6	sec GM +	11	sec FGM =	17	sec
	P5	1, 3, 4		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec
	P6	2, 3, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P7	1, 2, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

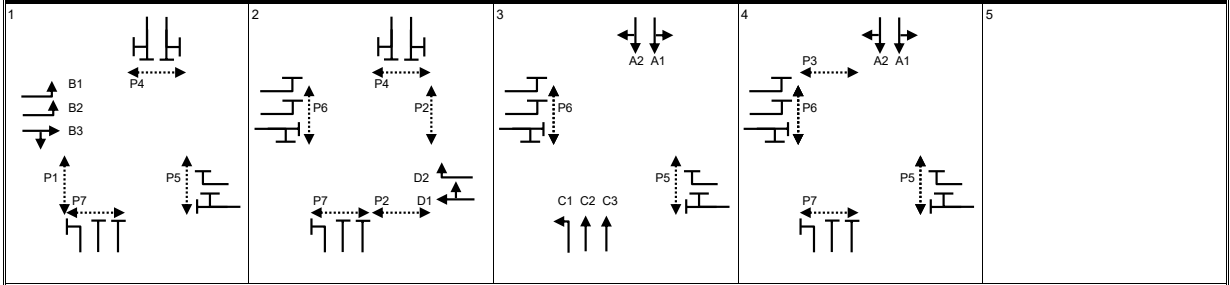
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.405	0.517		0.398	0.495	
L (s)	51	22		42	22	
C (s)	112	112		110	110	
Prac. y	0.490	0.723		0.556	0.720	
R.C. (%)	21%	40%		40%	45%	

NOTE:

Check 1: Phase B1/B3 + C3 + D1 + P3

Check 2: Phase A1 + B1/B3 + D1



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 34	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 25	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	

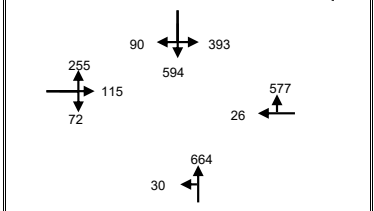
Signal Junction Analysis

Junction:	Lei Muk Road / Wo Yi Hop Road			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	21
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	22 April 2021

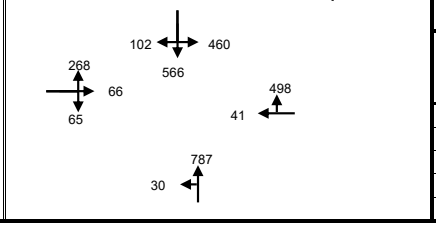
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wo Yi Hop Road SB	LT+SA	A1	3, 4	3.60	22.0		77	1876	512	0.273		86	1866	535	0.287	
Wo Yi Hop Road SB	SA+RT	A2	3, 4	3.40	19.0		16	2069	565	0.273		17	2067	593	0.287	
Lei Muk Road EB	LT	B1	1	2.20	17.5		100	1690	120	0.071		100	1690	126	0.075	0.075
Lei Muk Road EB	LT	B2	1	3.10	17.5		100	1902	135	0.071		100	1902	142	0.075	
Lei Muk Road EB	SA+RT	B3	1	3.10	19.5		39	2005	187	0.093	0.093	50	1989	131	0.066	
Wo Yi Hop Road NB	LT	C1	3	2.20	15.0		100	1795	30	0.017		100	1795	30	0.017	
Wo Yi Hop Road NB	SA	C2	3	2.80				2035	330	0.162			2035	392	0.193	
Wo Yi Hop Road NB	SA	C3	3	3.00				2055	334	0.163	0.163		2055	395	0.192	0.192
Lei Muk Road WB	SA+RT	D1	2	3.40	22.0		91	1973	302	0.153	0.153	85	1980	270	0.136	0.136
Lei Muk Road WB	RT	D2	2	3.50	22.0		100	1971	301	0.153		100	1971	269	0.136	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P2	2		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P3	4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P4	1, 2		Min Crossing Time =	6	sec GM +	11	sec FGM =	17	sec
	P5	1, 3, 4		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec
	P6	2, 3, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P7	1, 2, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

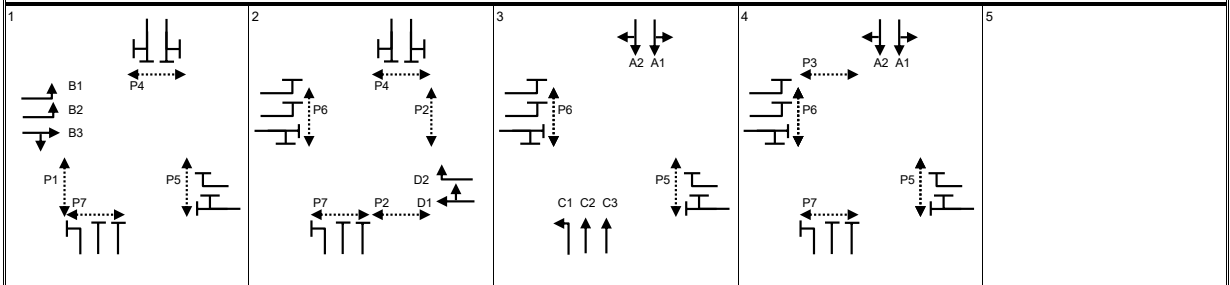
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.409	0.519		0.403	0.498	
L (s)	51	22		42	22	
C (s)	112	112		110	110	
Prac. y	0.490	0.723		0.556	0.720	
R.C. (%)	20%	39%		38%	45%	

NOTE:

Check 1: Phase B1/B3 + C3 + D1 + P3

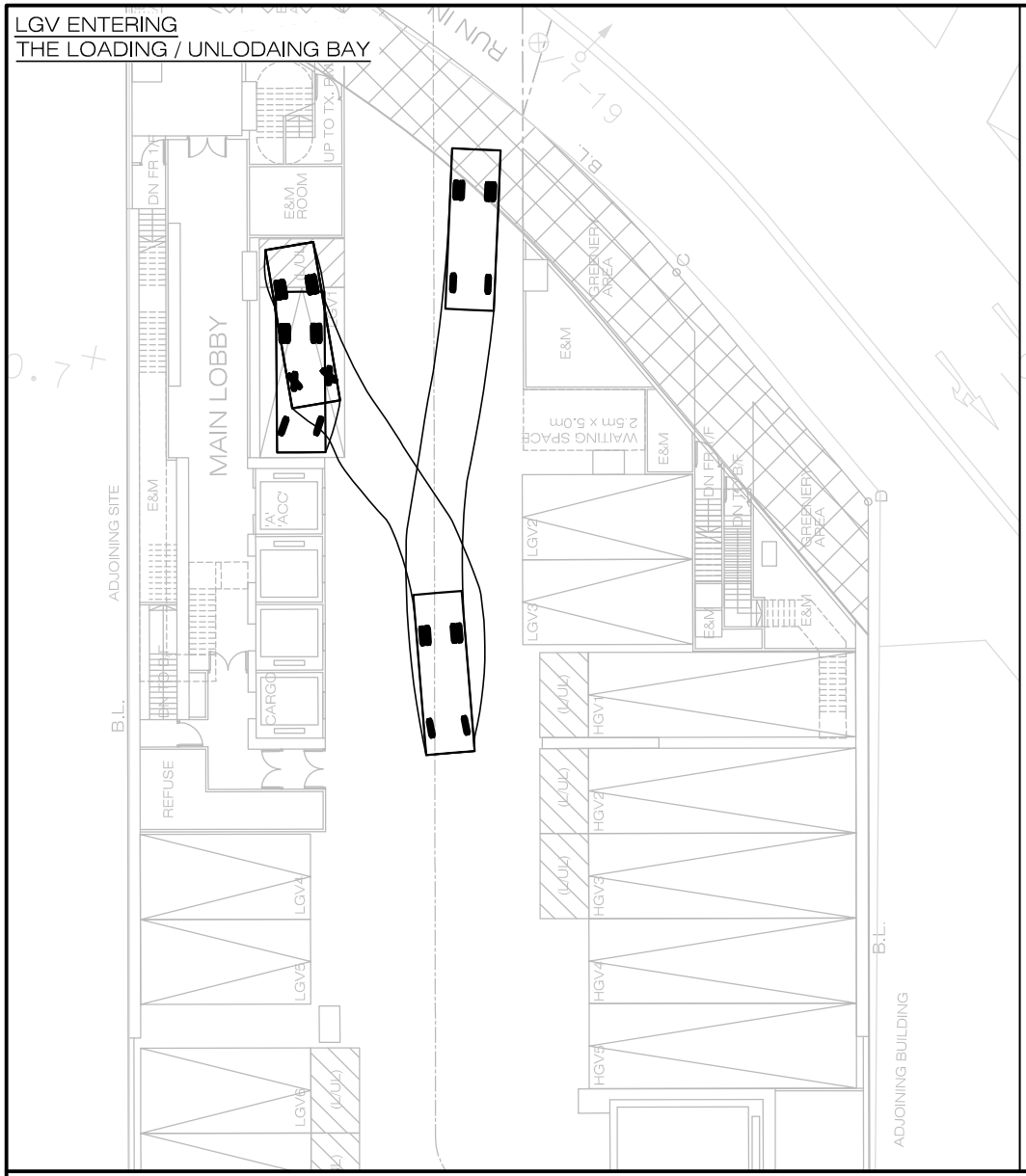
Check 2: Phase A1 + B1/B3 + D1



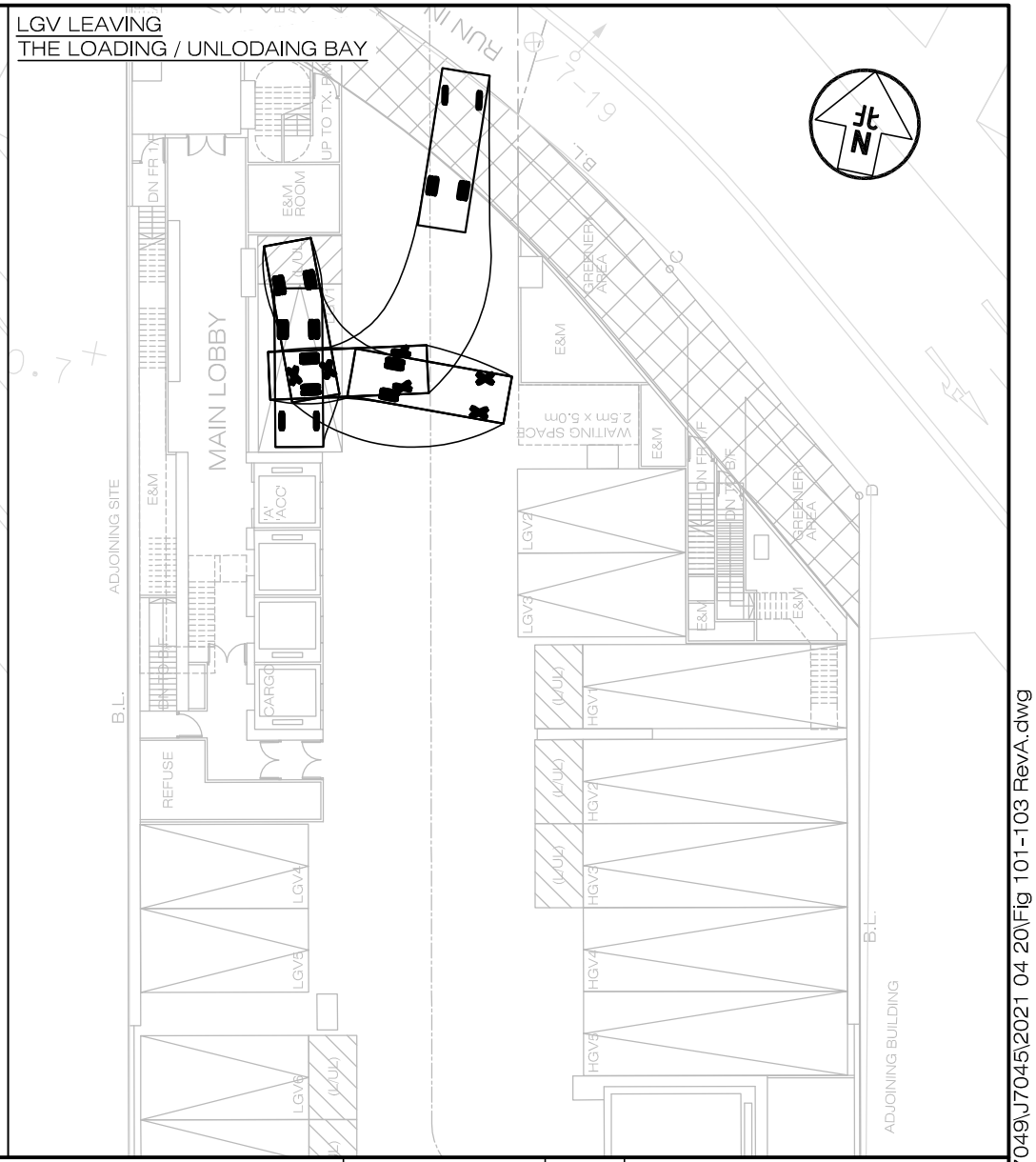
AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 34	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 25	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	

Appendix B –
Swept Path Analyses

LGV ENTERING
THE LOADING / UNLODAING BAY



LGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 101	A

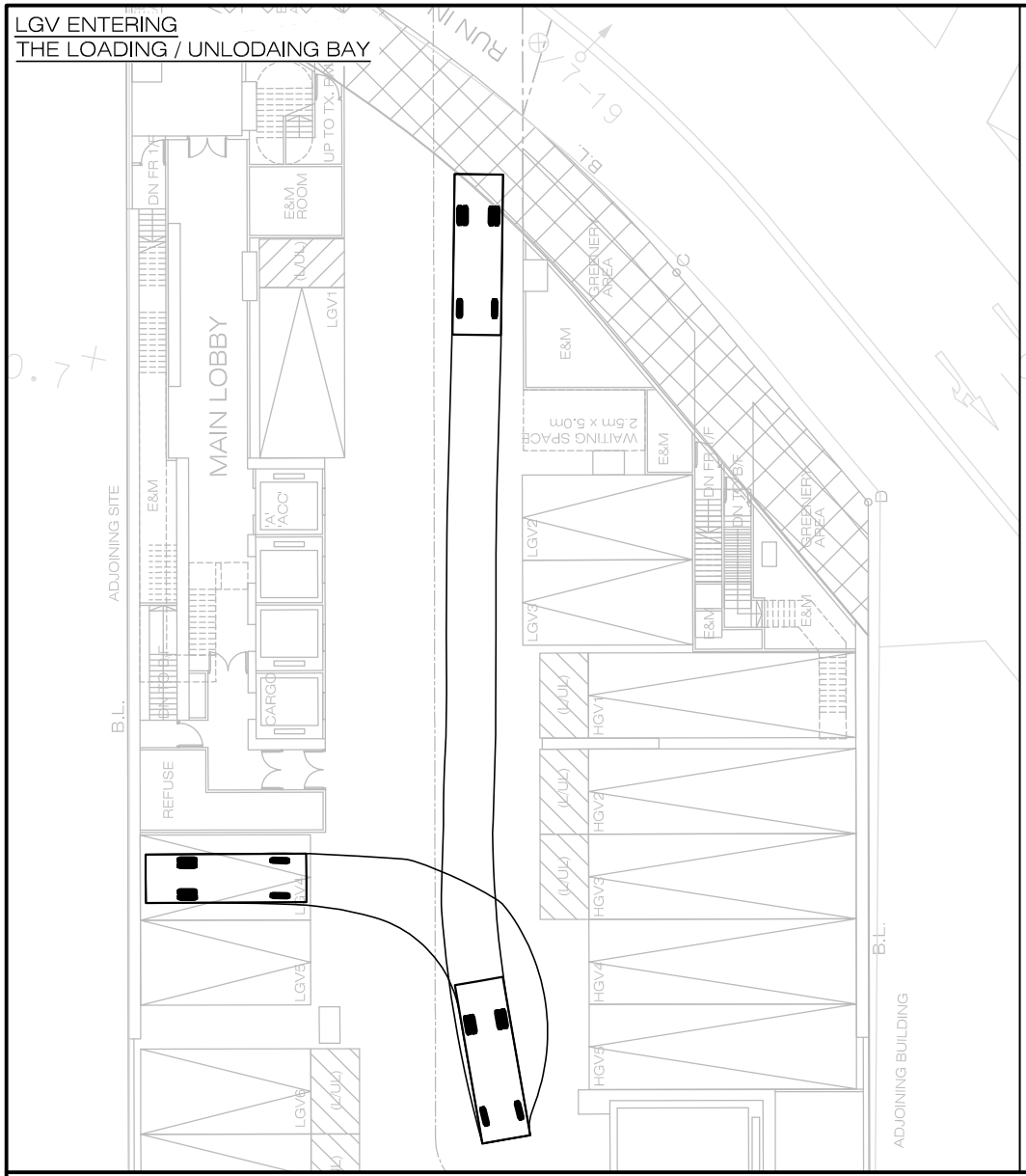
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

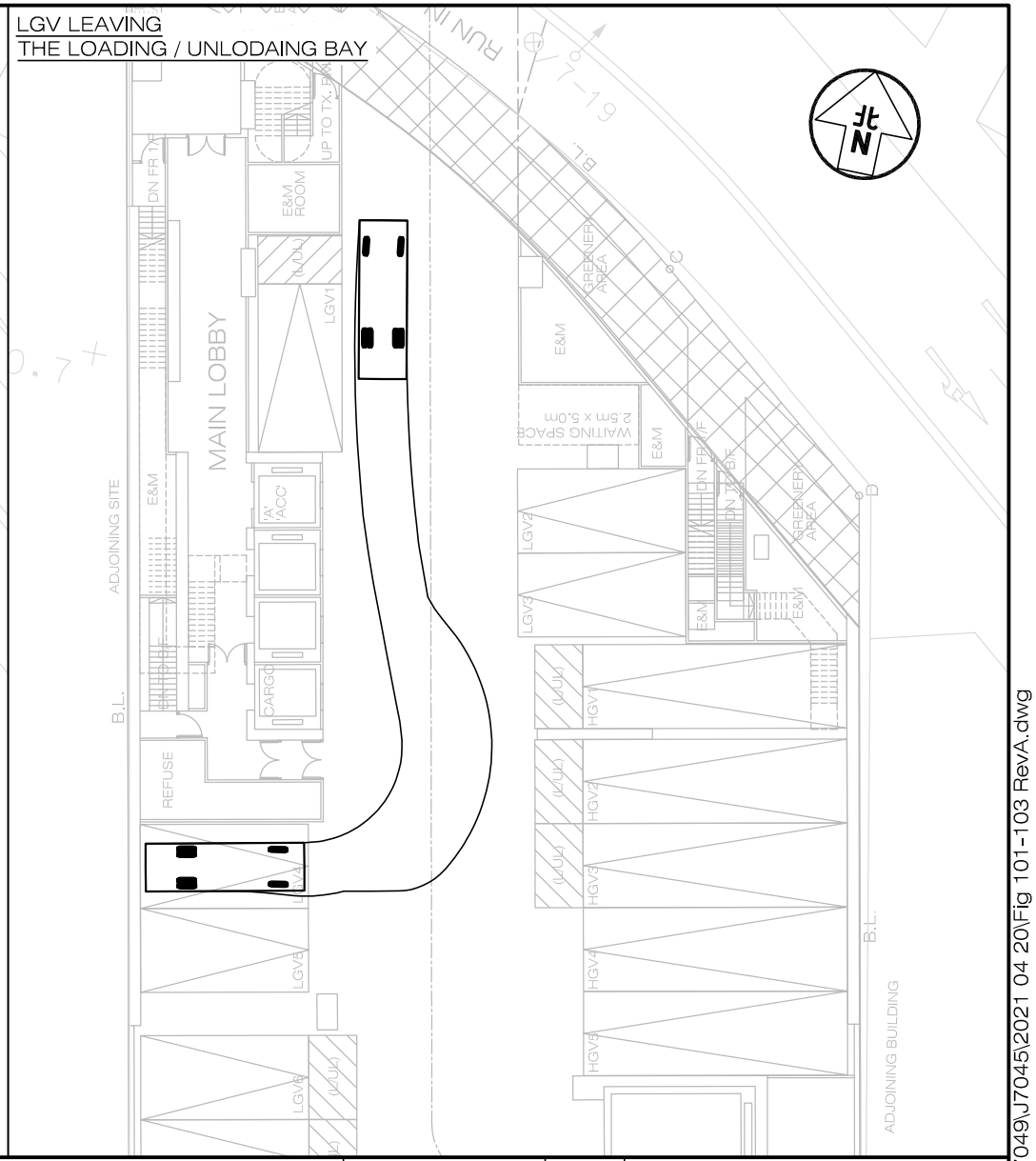
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 101-103 RevA.dwg

LGV ENTERING
THE LOADING / UNLODAING BAY



LGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 102	A

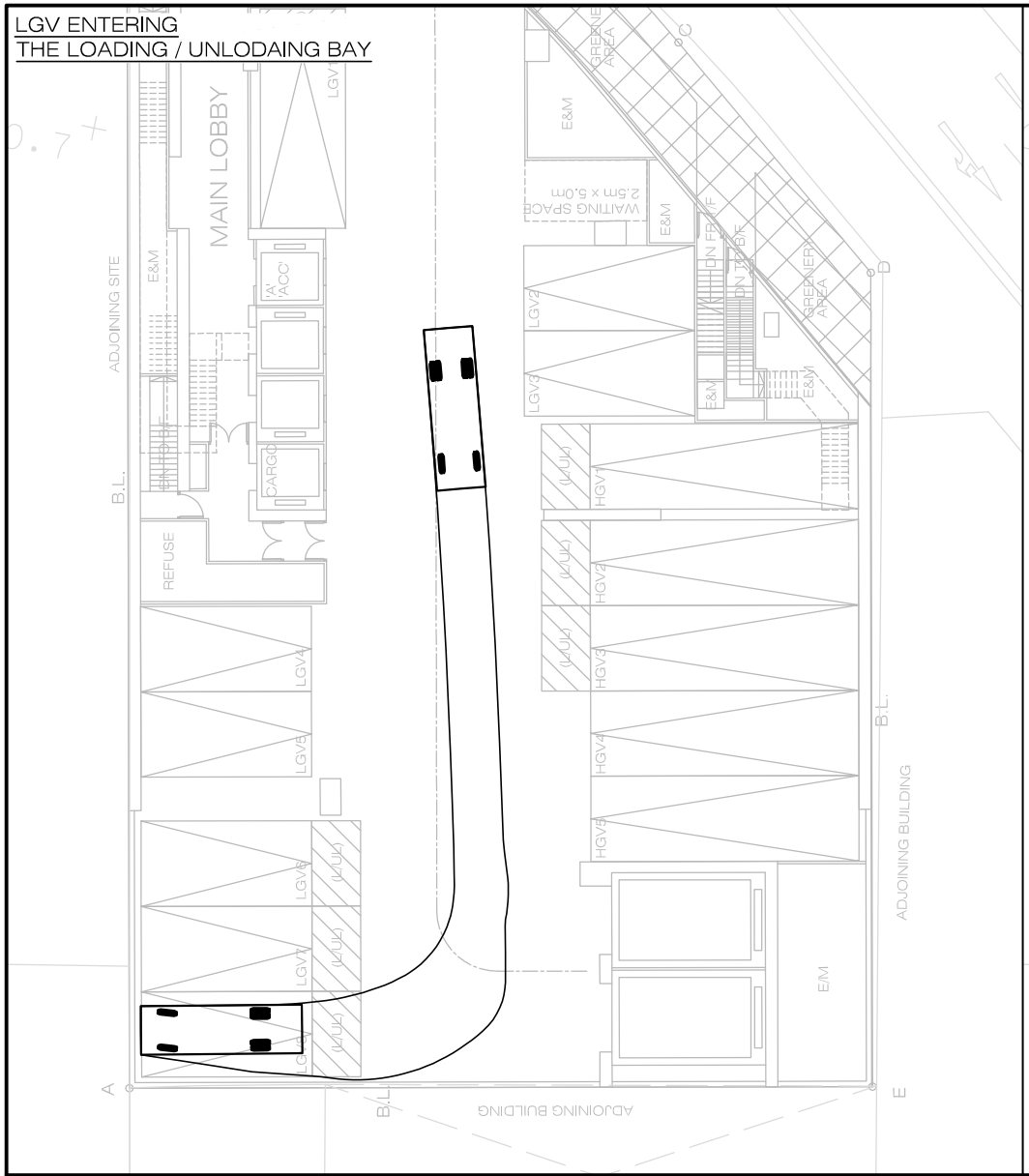
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

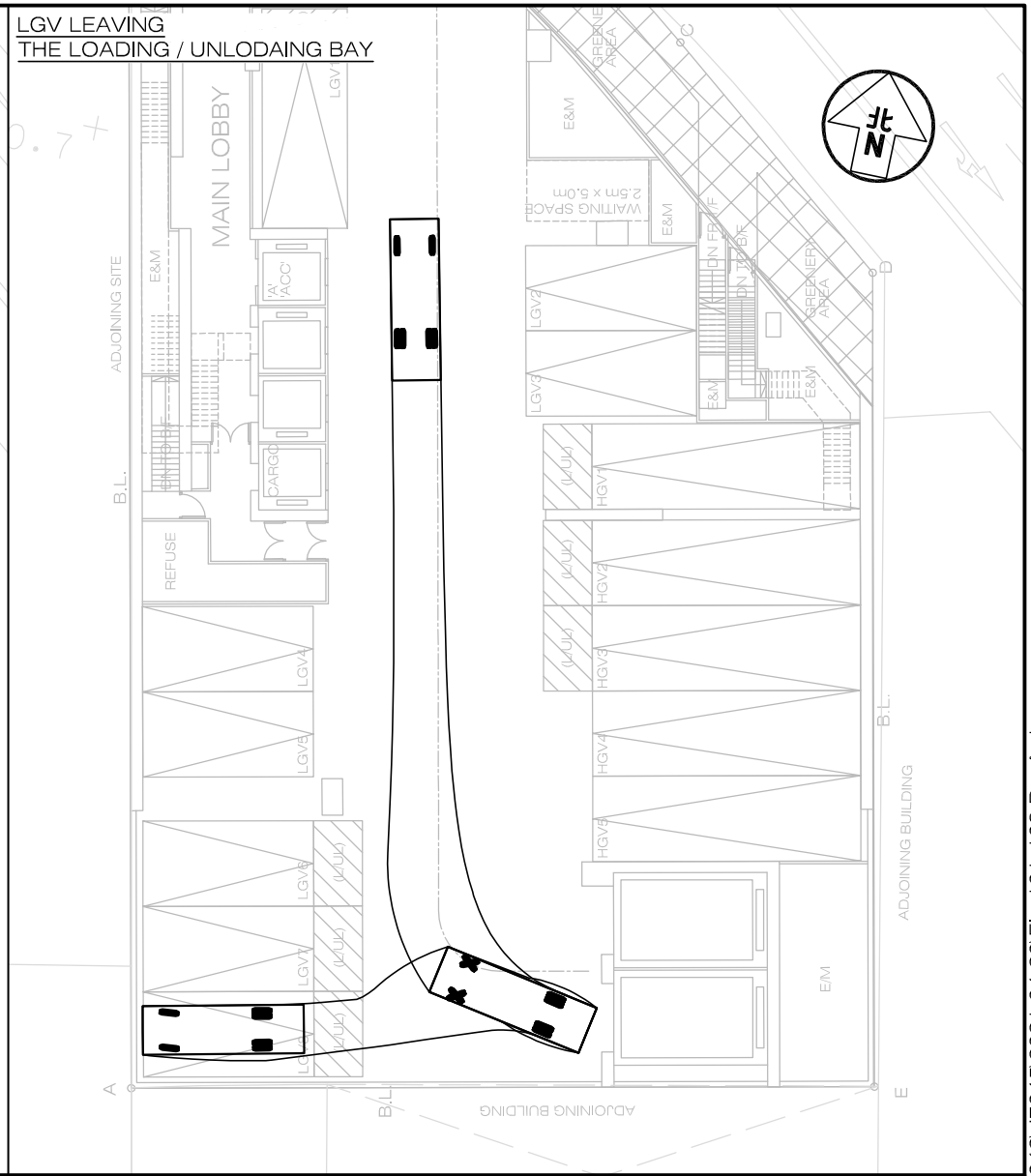
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 101-103 RevA.dwg

LGV ENTERING
THE LOADING / UNLODAING BAY



LGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

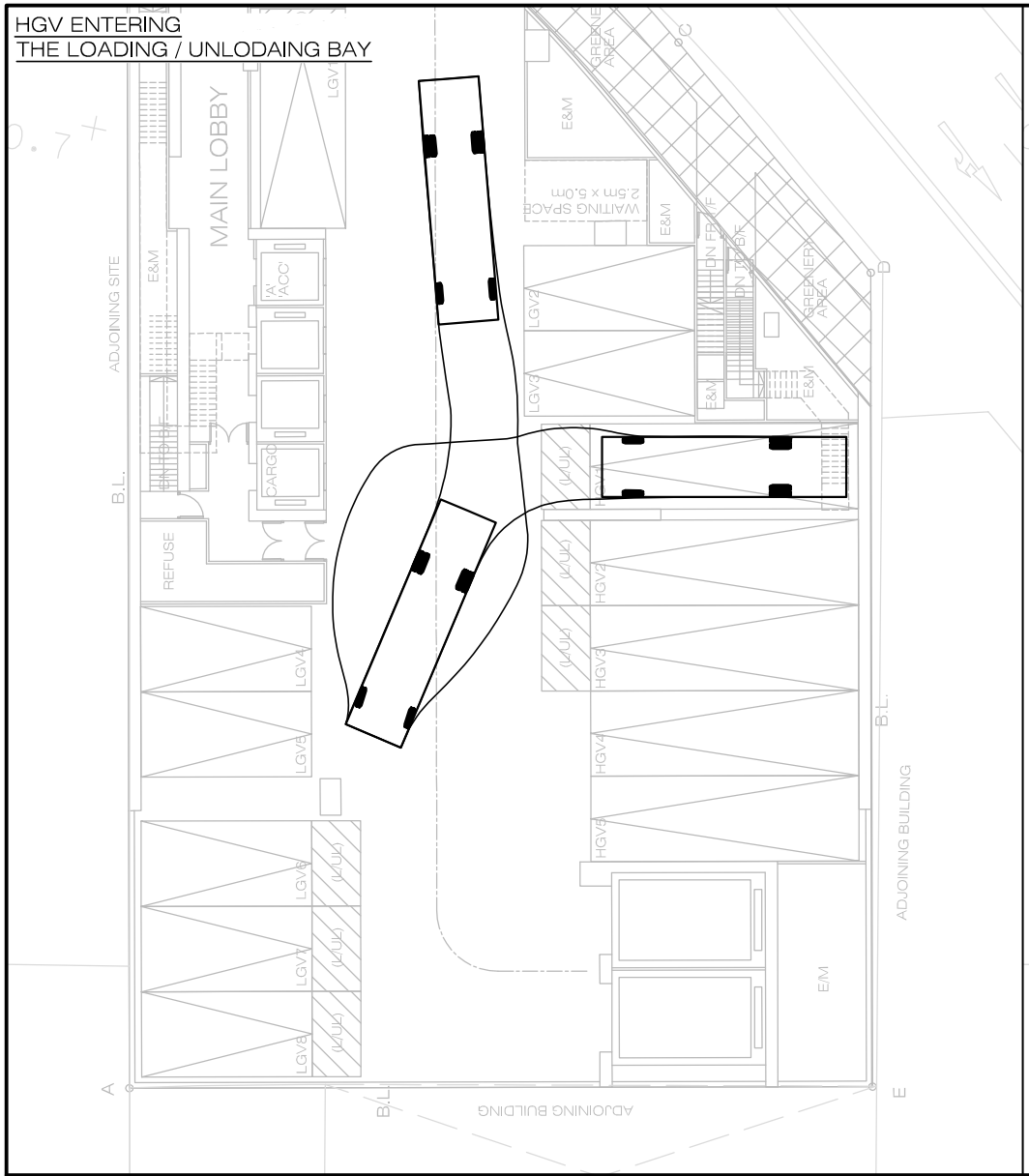
Figure No.	Revision
SP 103	A

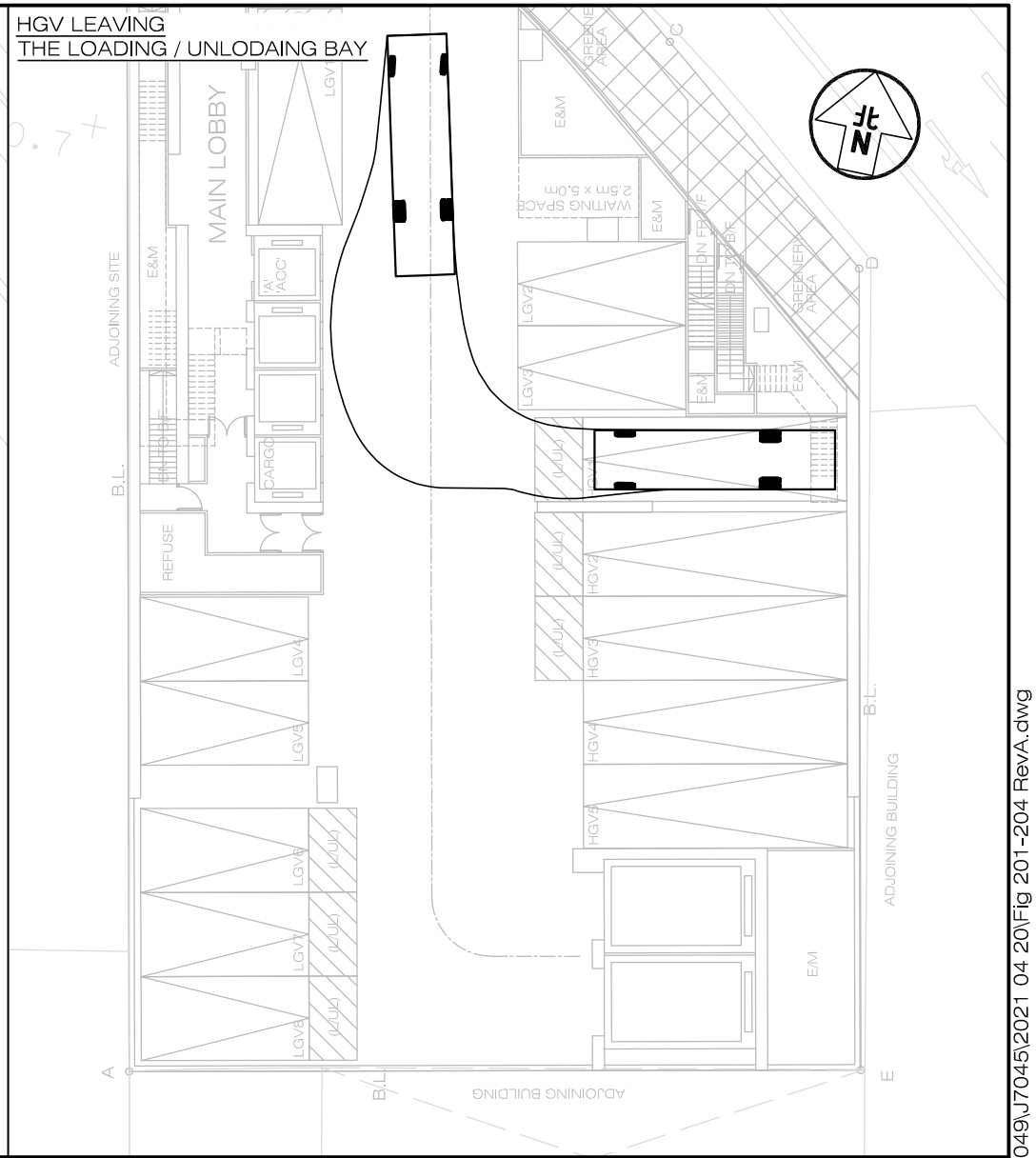
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 101-103 RevA.dwg





Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 201	A

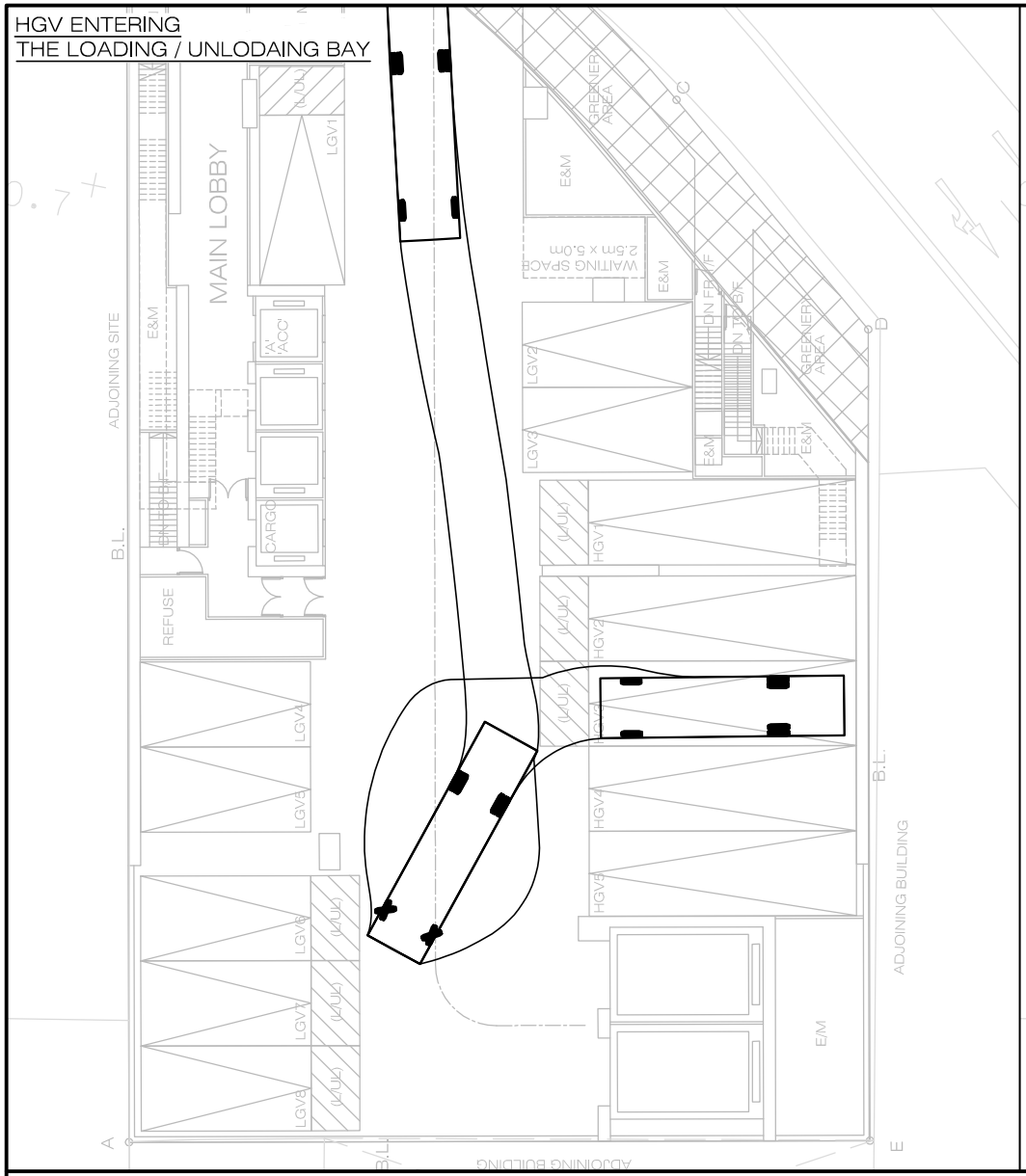
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

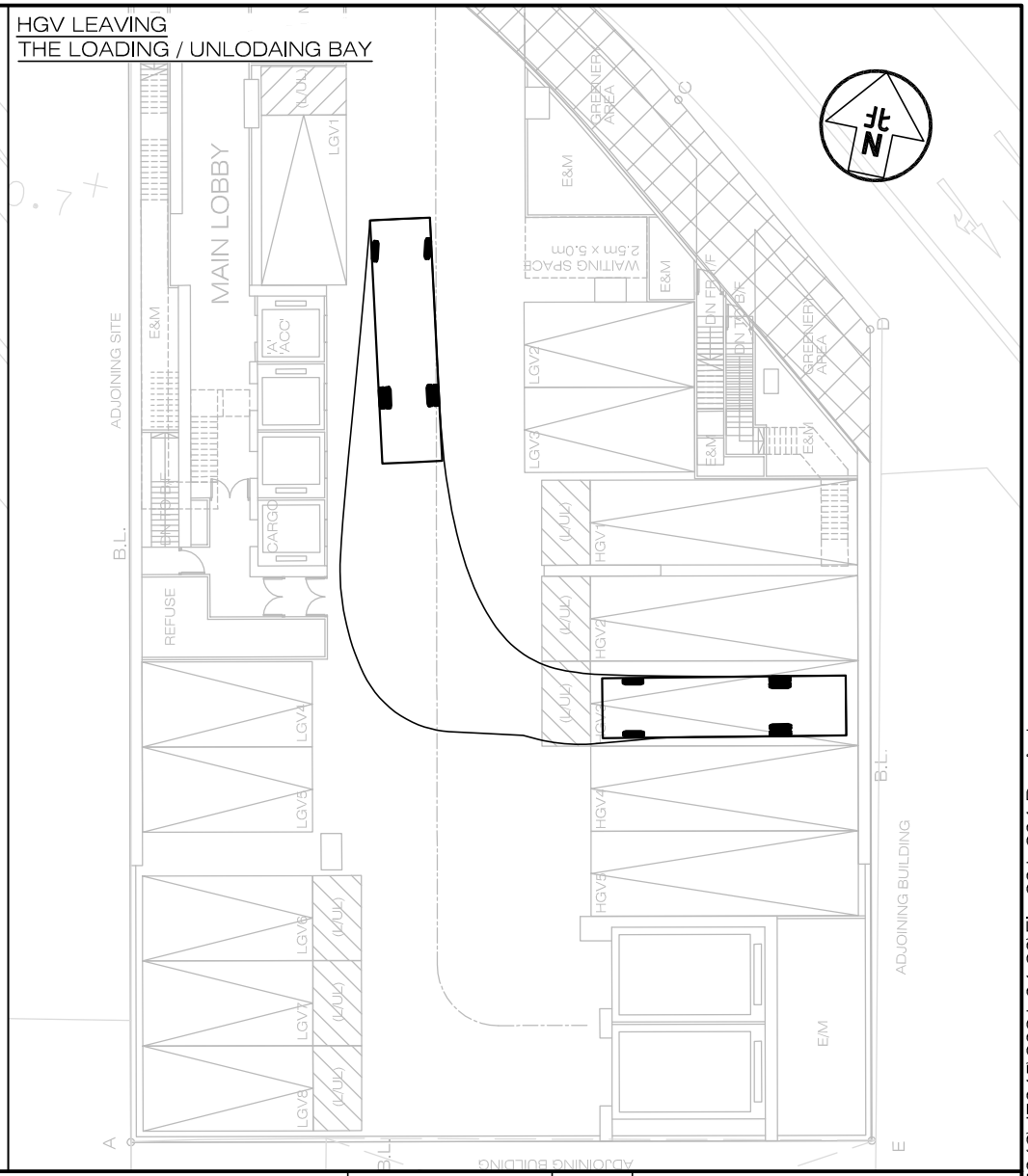
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 201-204 RevA.dwg

HGV ENTERING
THE LOADING / UNLODAING BAY



HGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

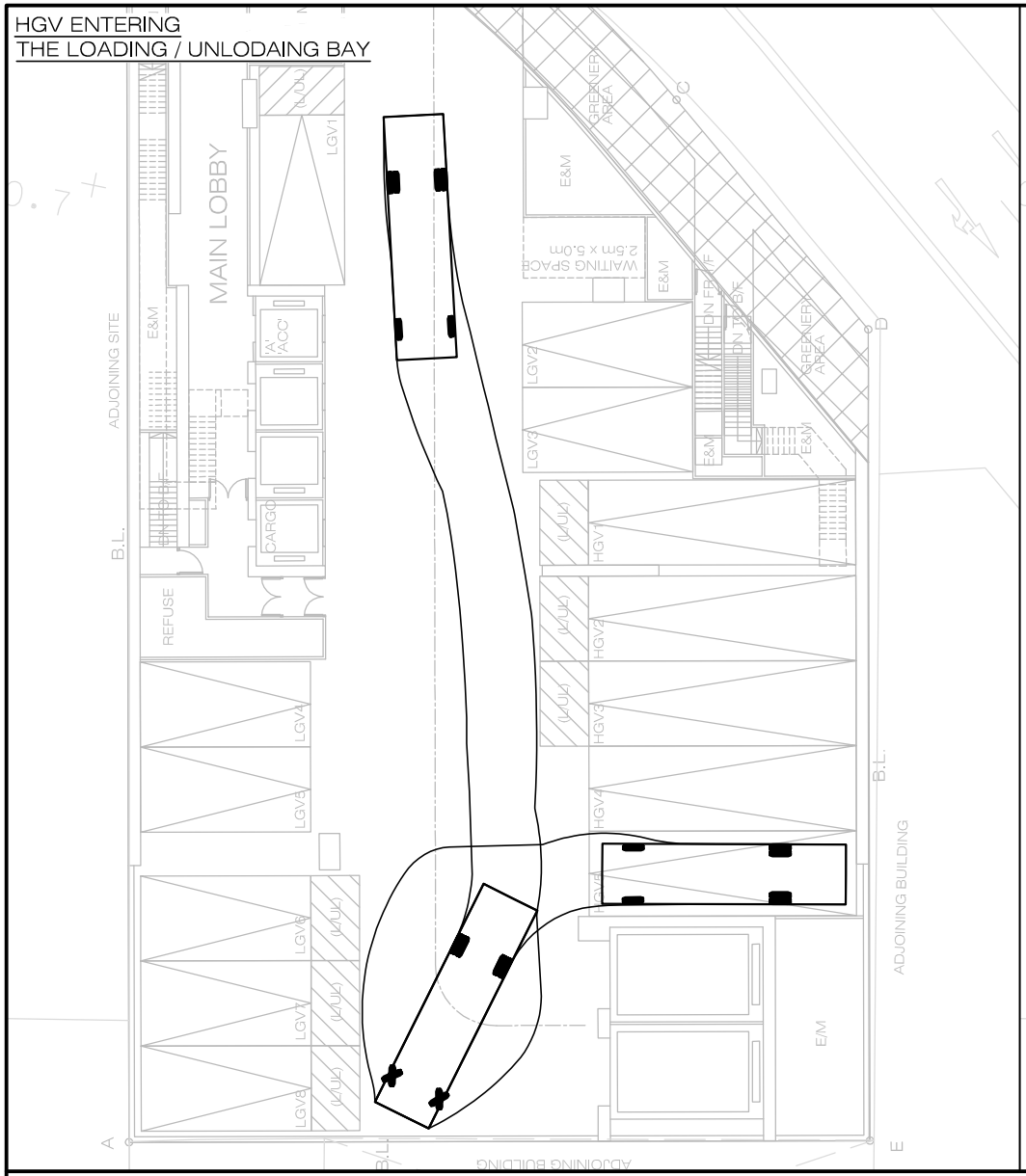
Figure No.	Revision
SP 202	A

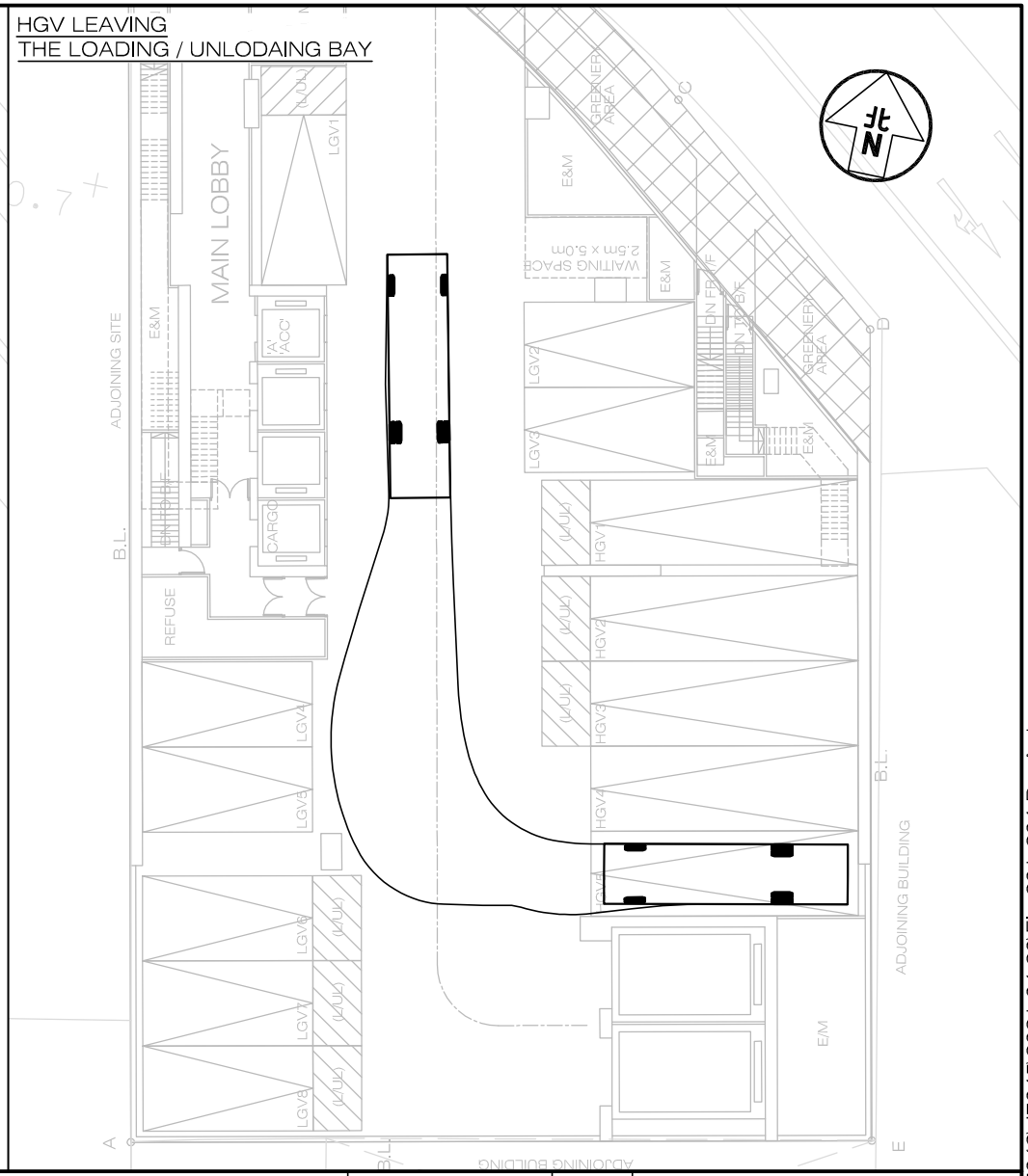
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 201-204 RevA.dwg





Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 203	A

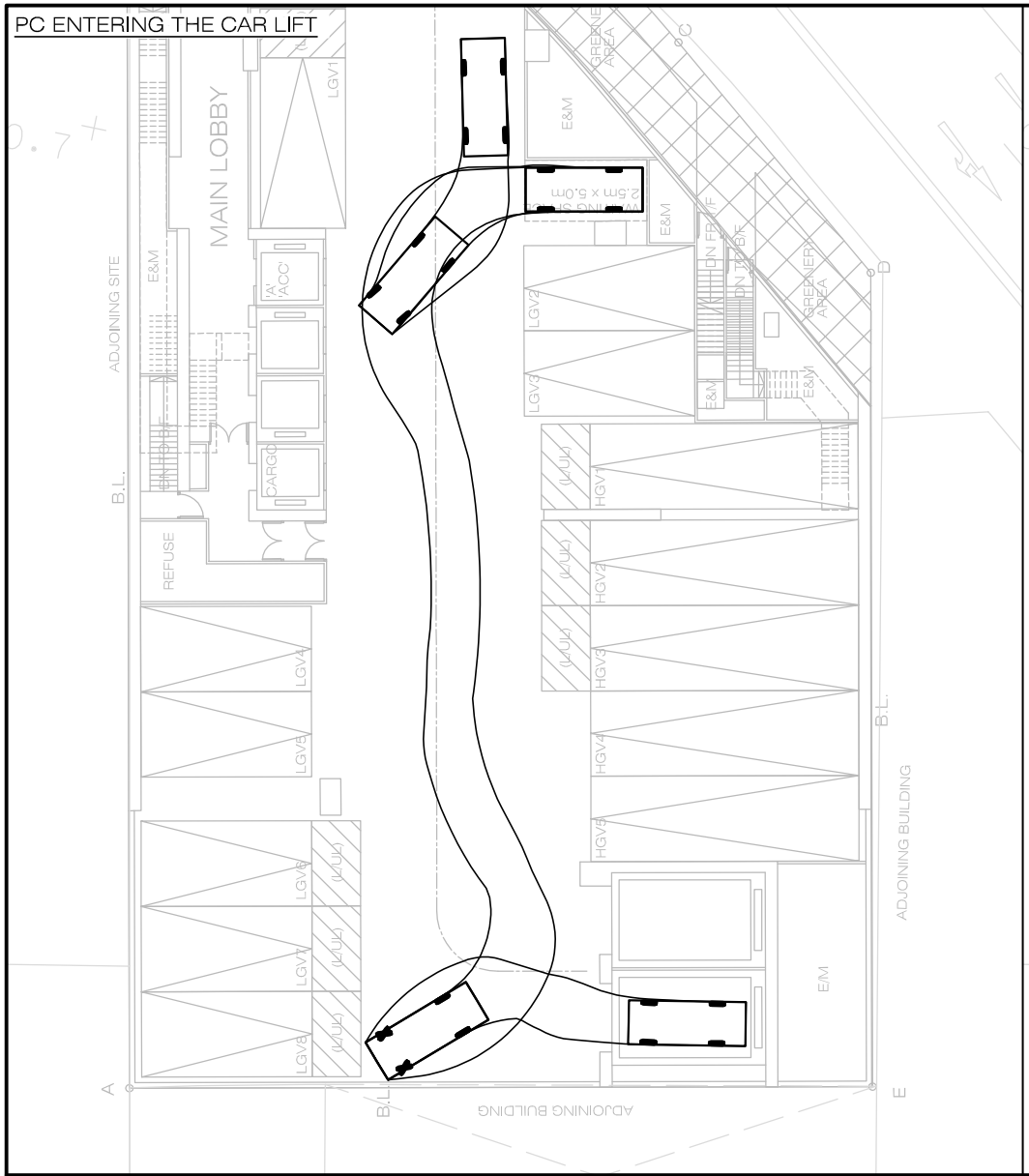
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

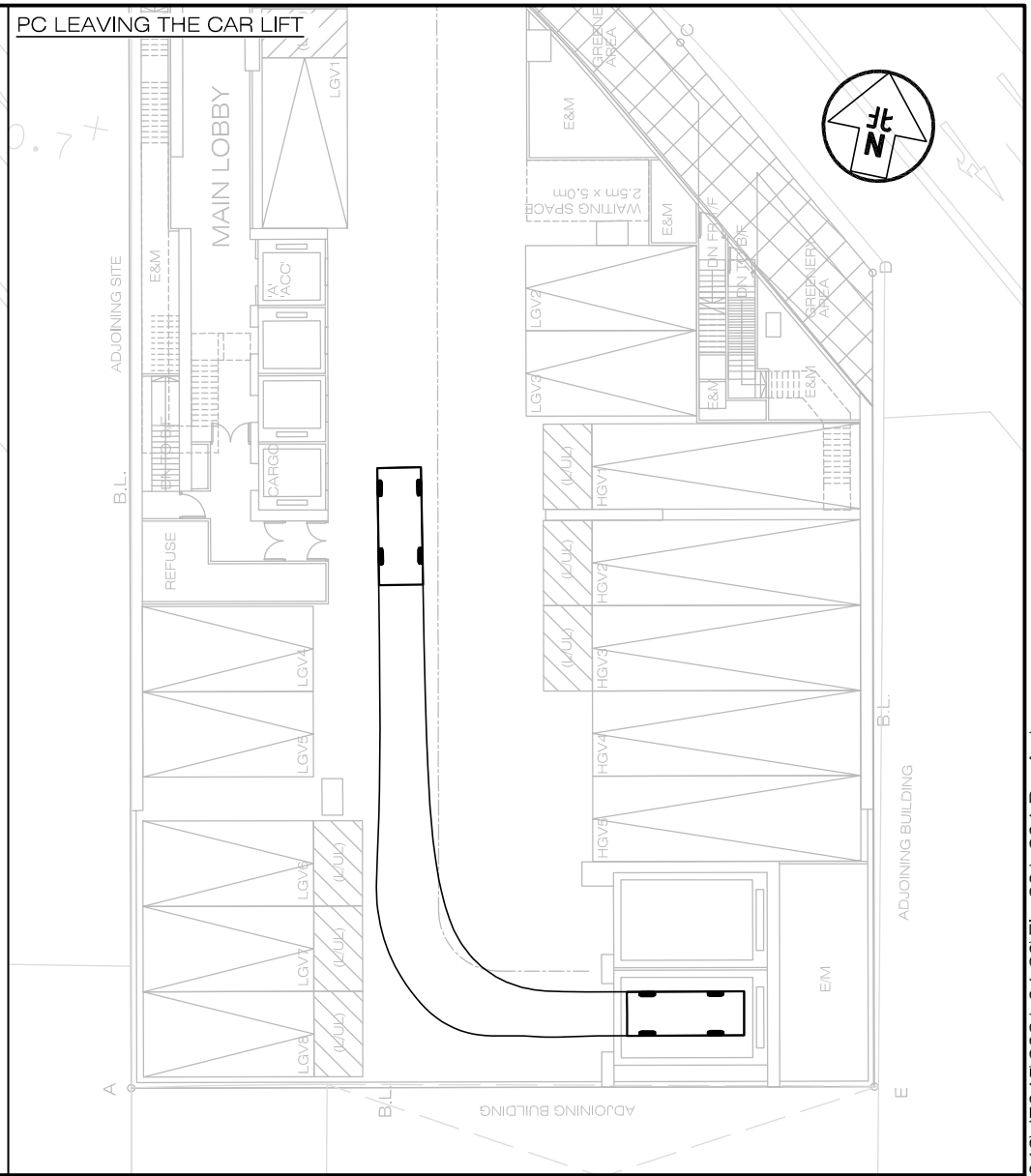
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 201-204 RevA.dwg

PC ENTERING THE CAR LIFT



PC LEAVING THE CAR LIFT



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR LIFT

Figure No.	Revision
SP 204	A

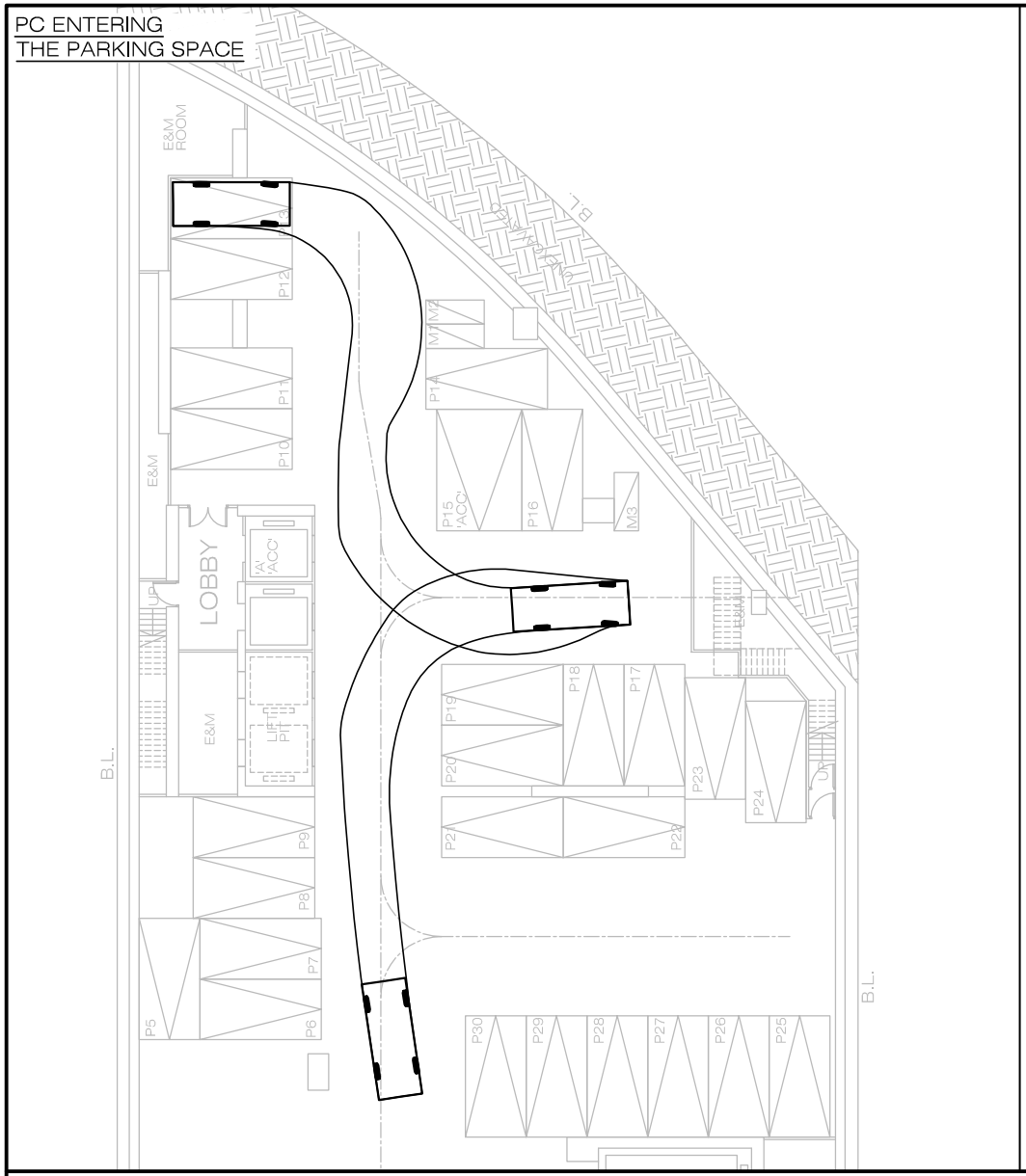
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

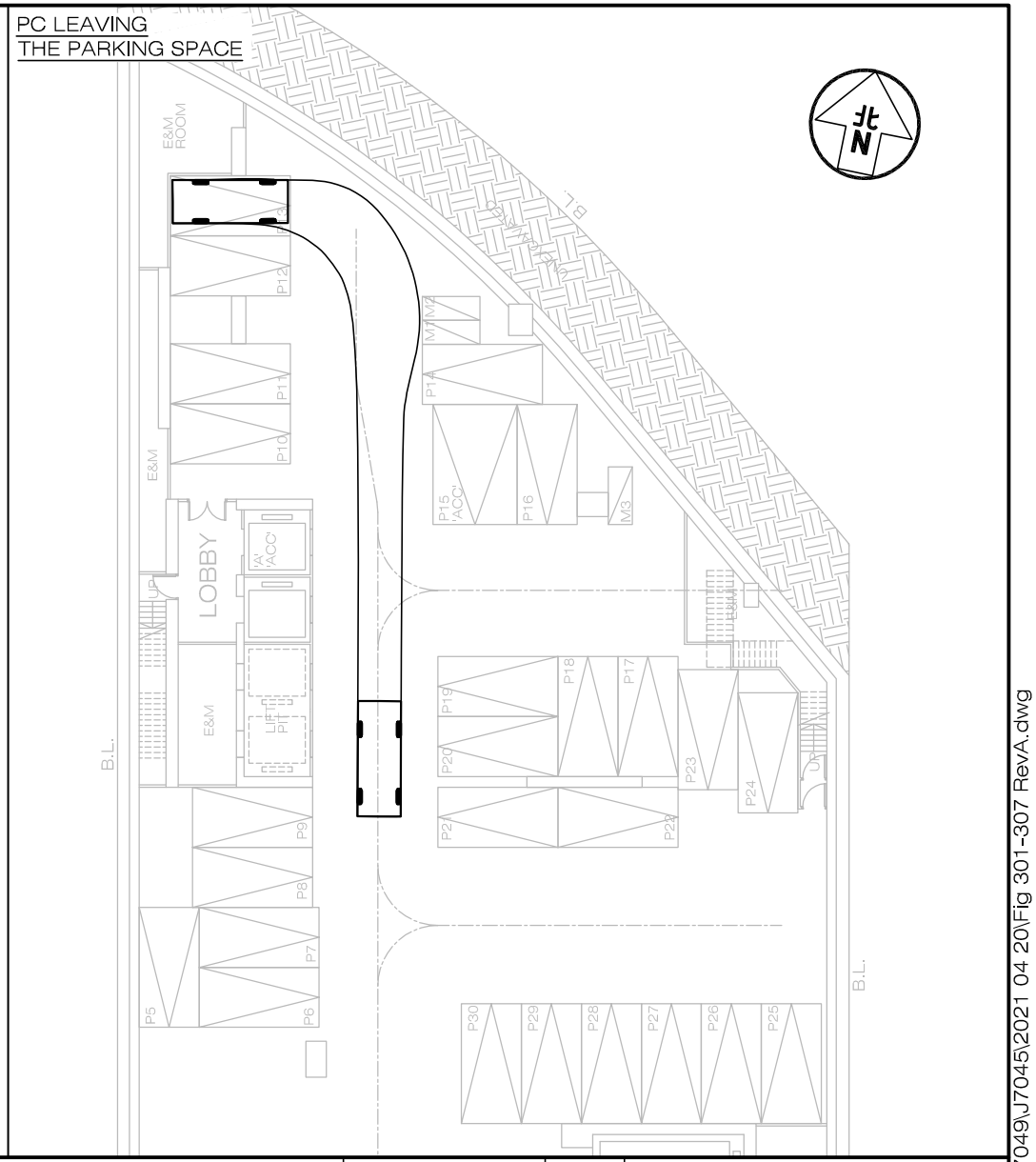
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 201-204 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 301	A

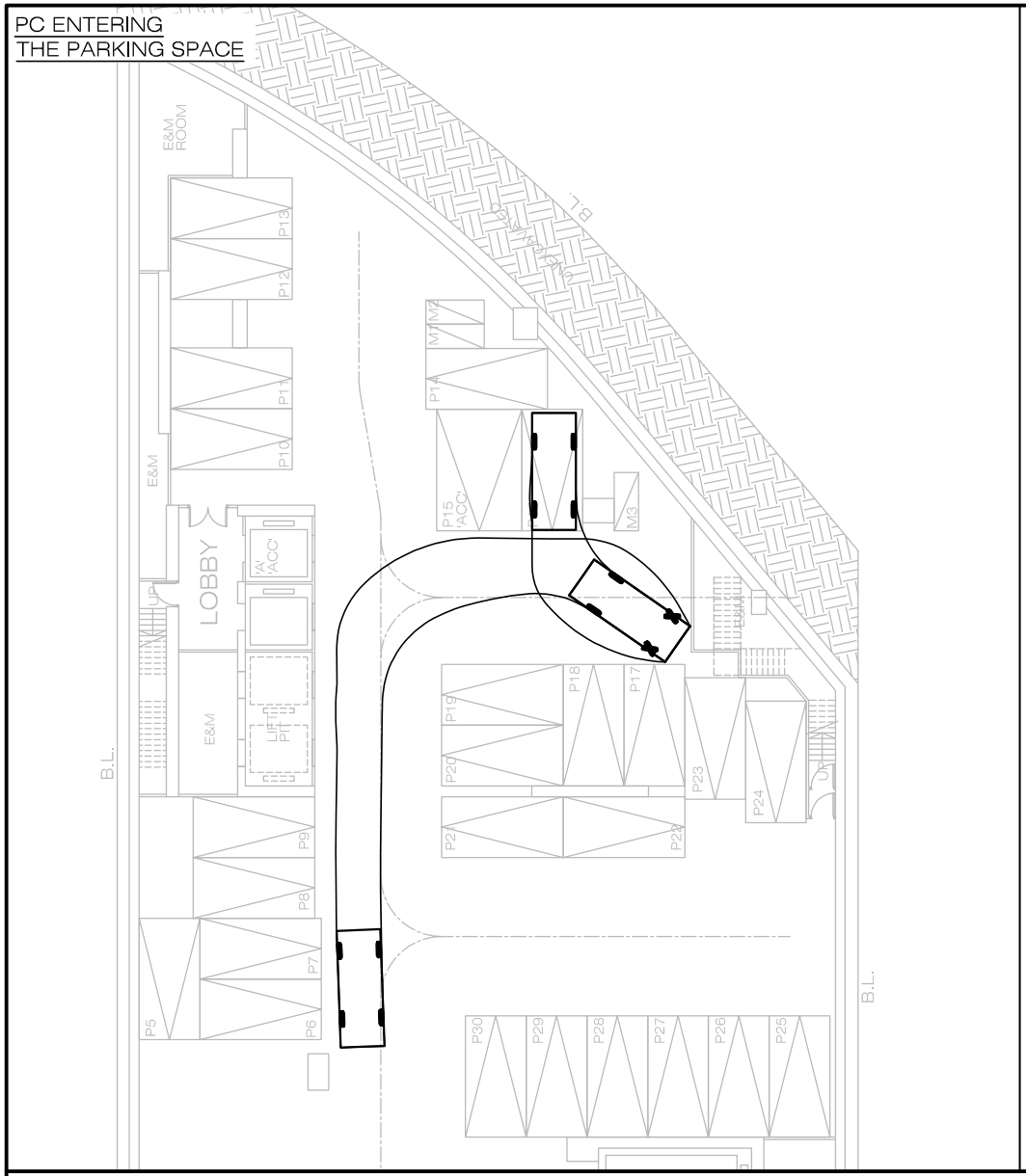
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

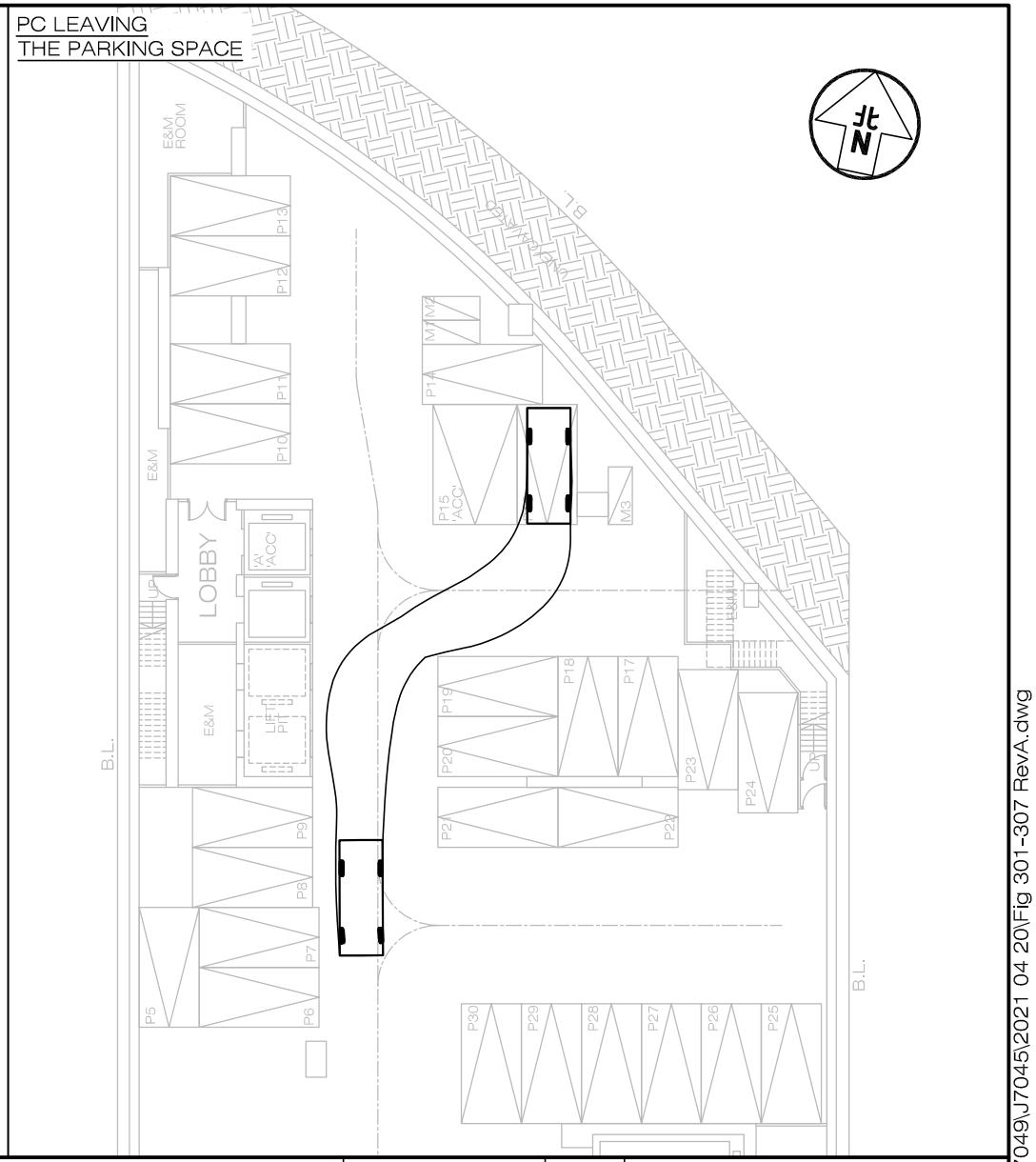
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 302	A

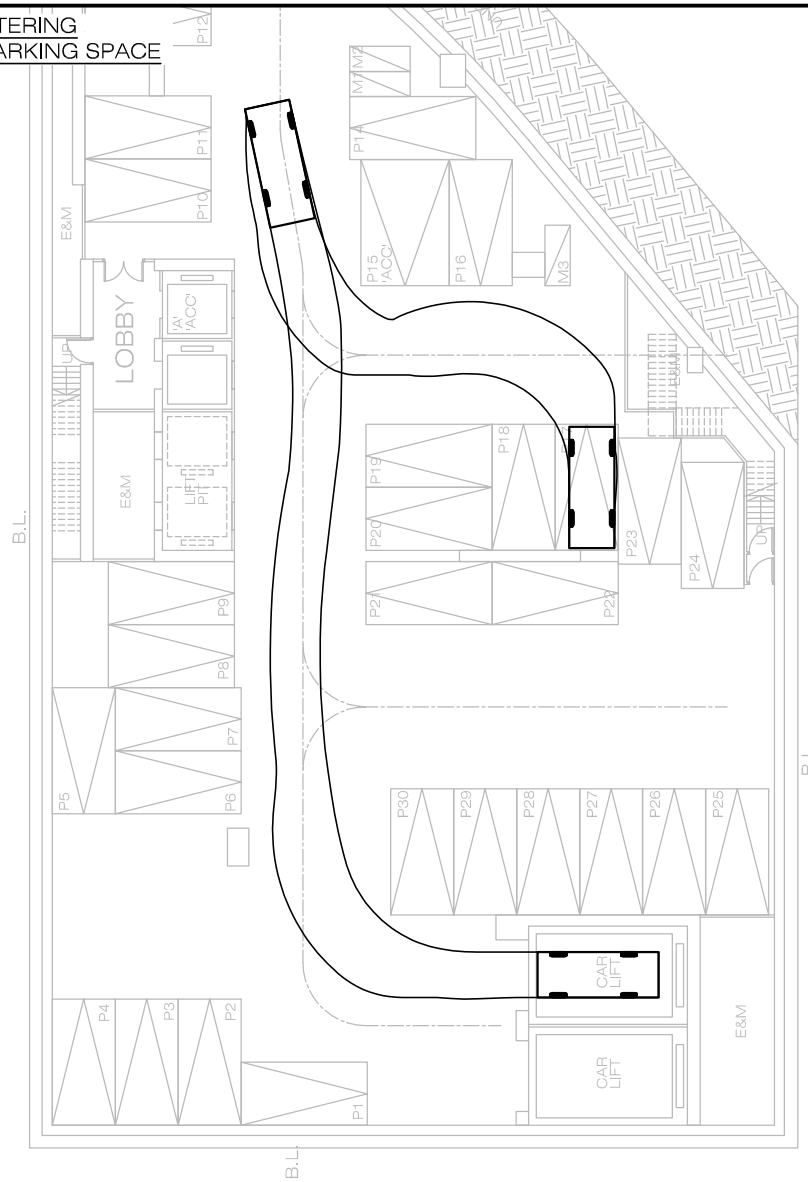
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

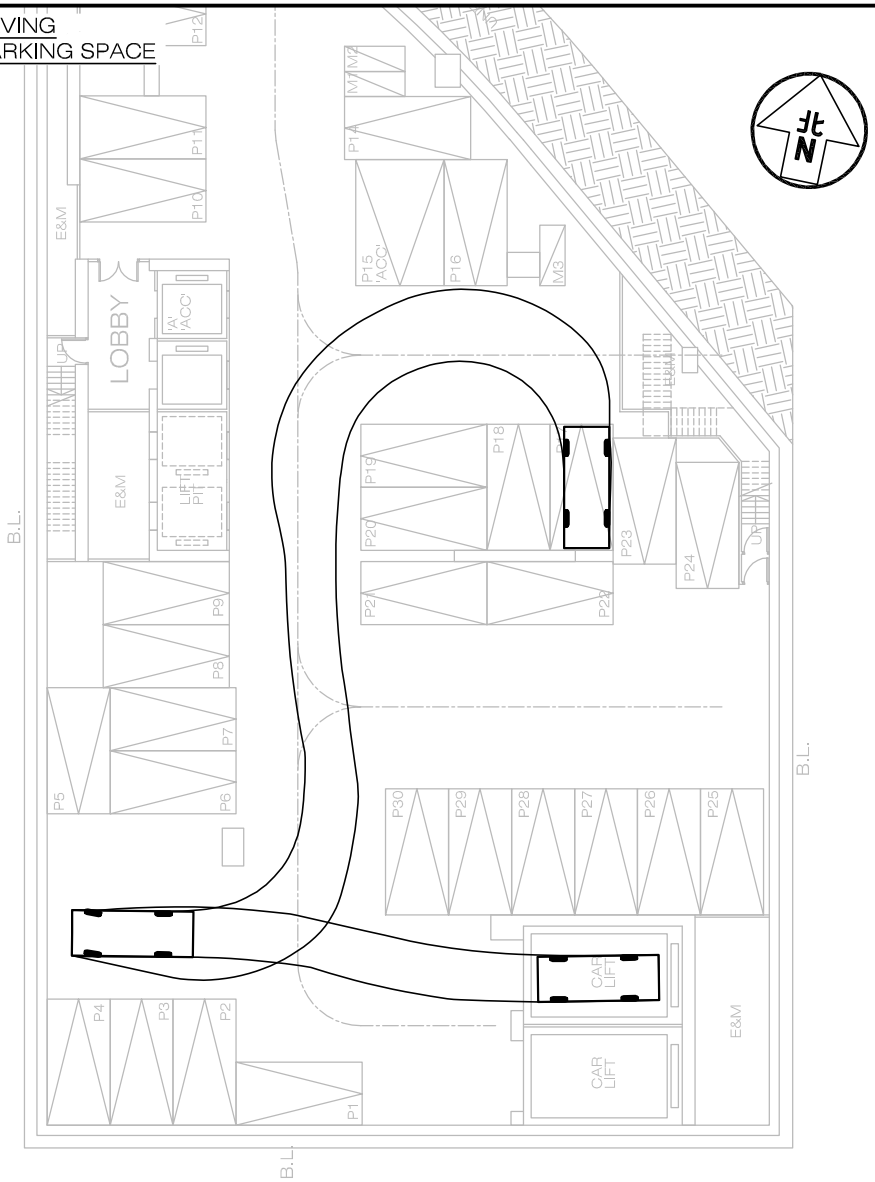
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 303	A

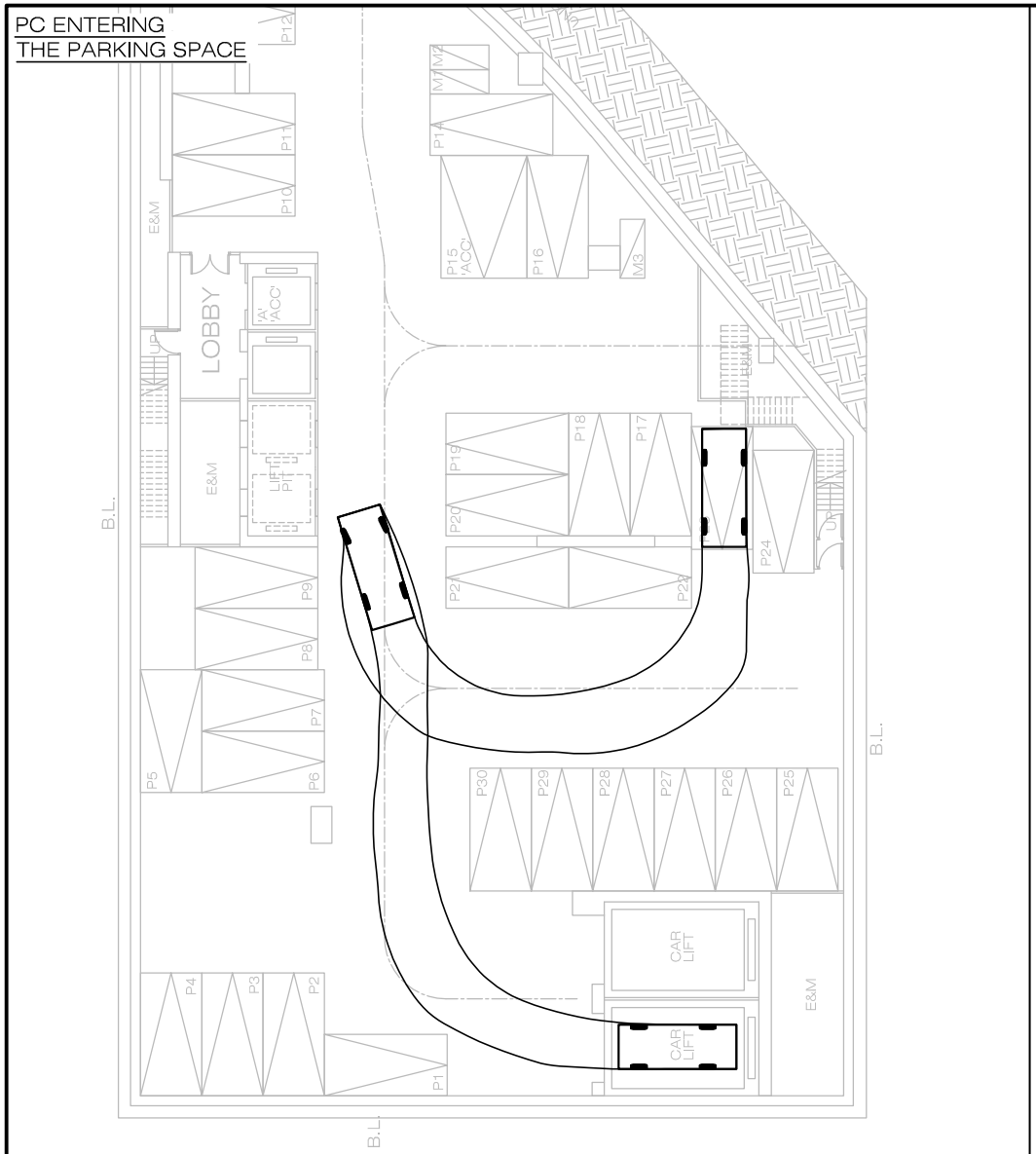
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

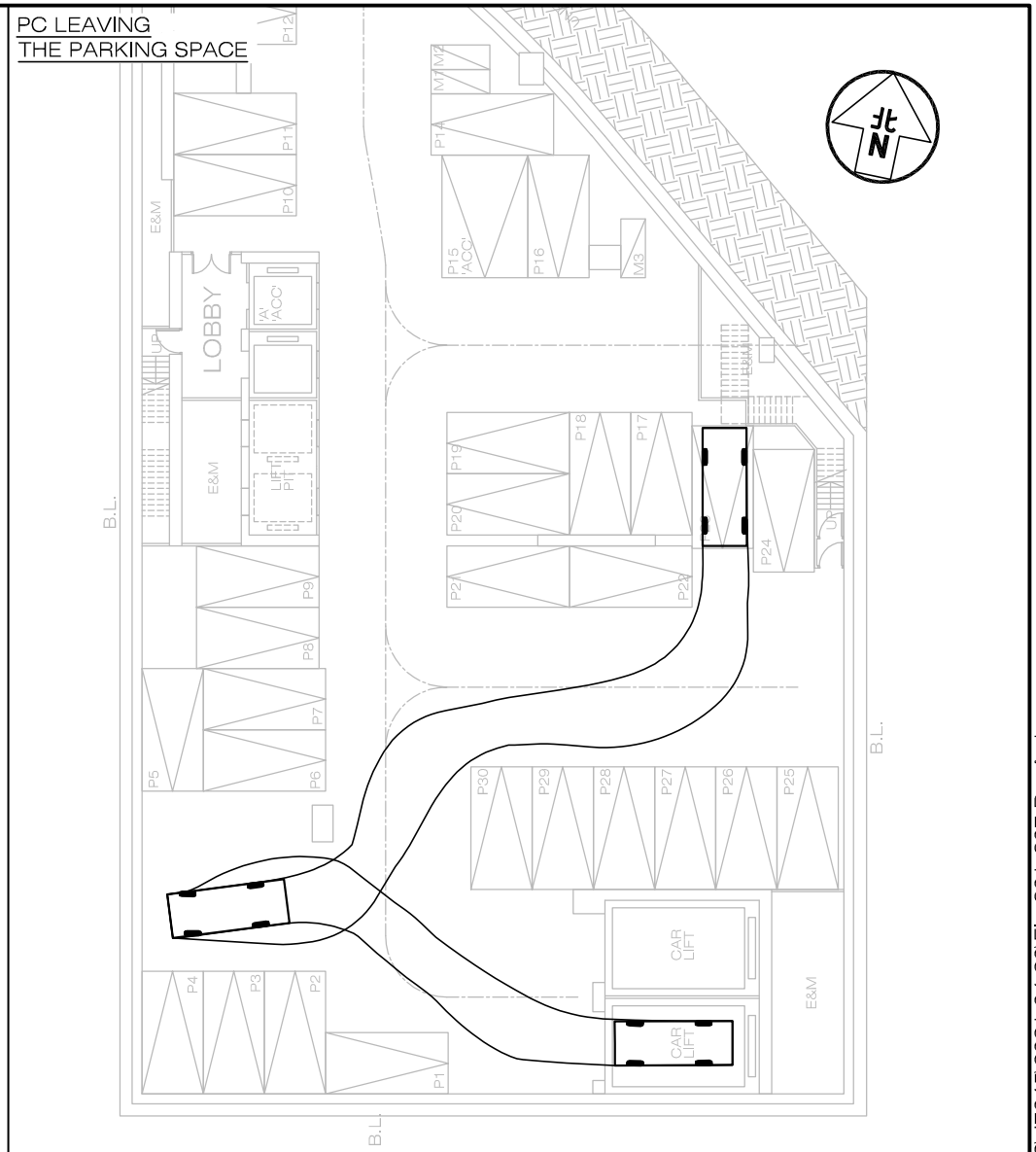
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 304	A

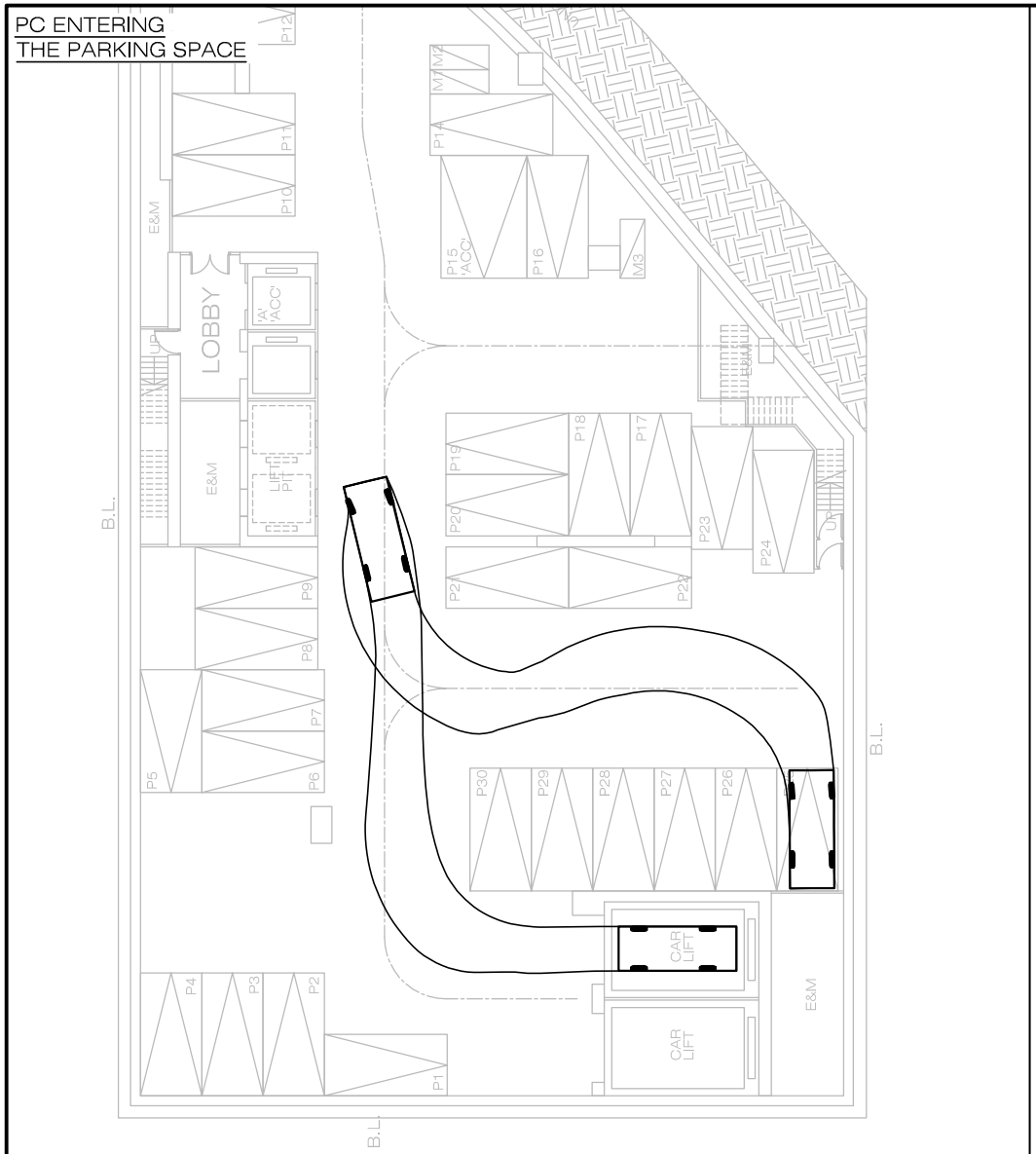
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

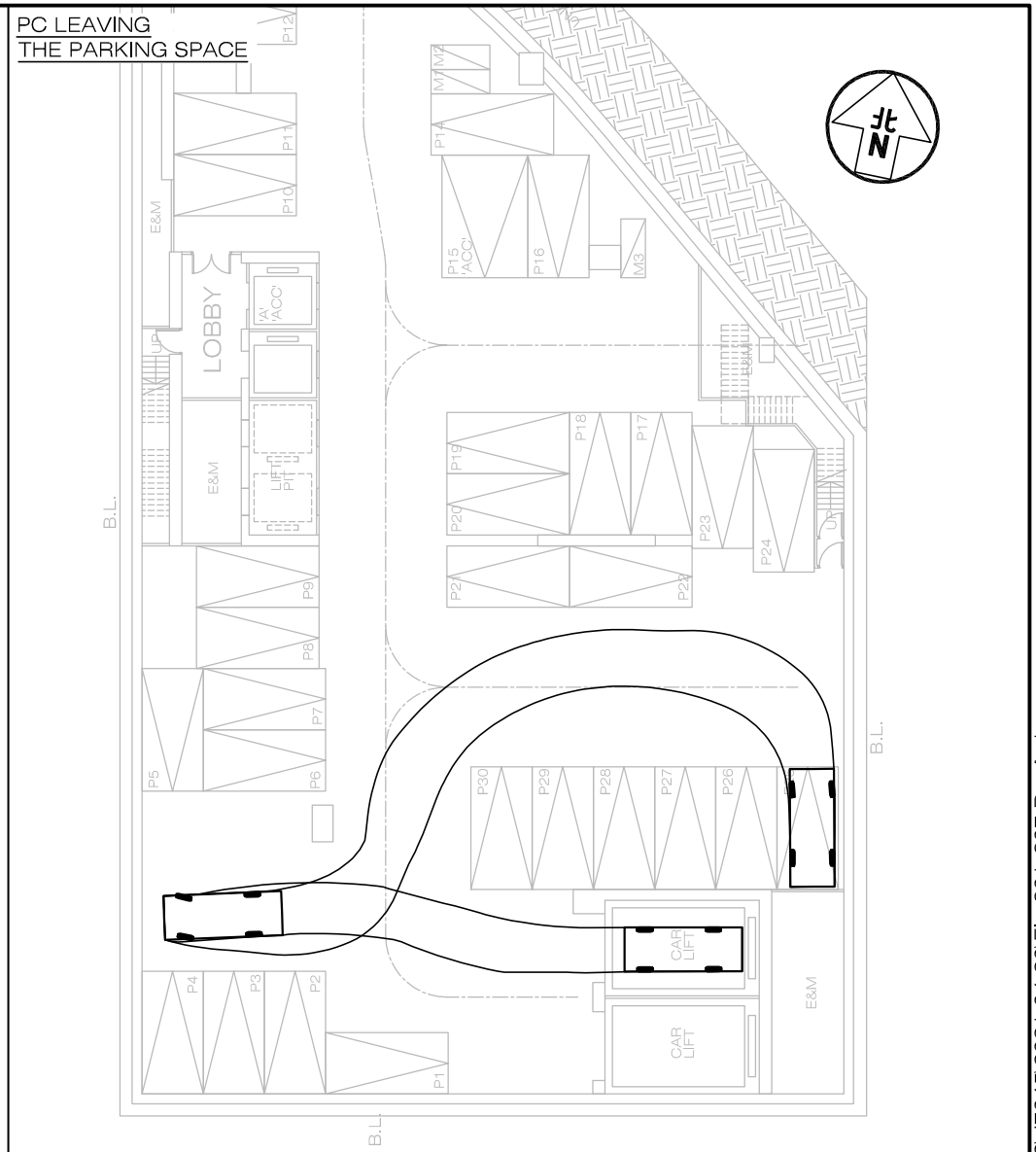
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 305	A

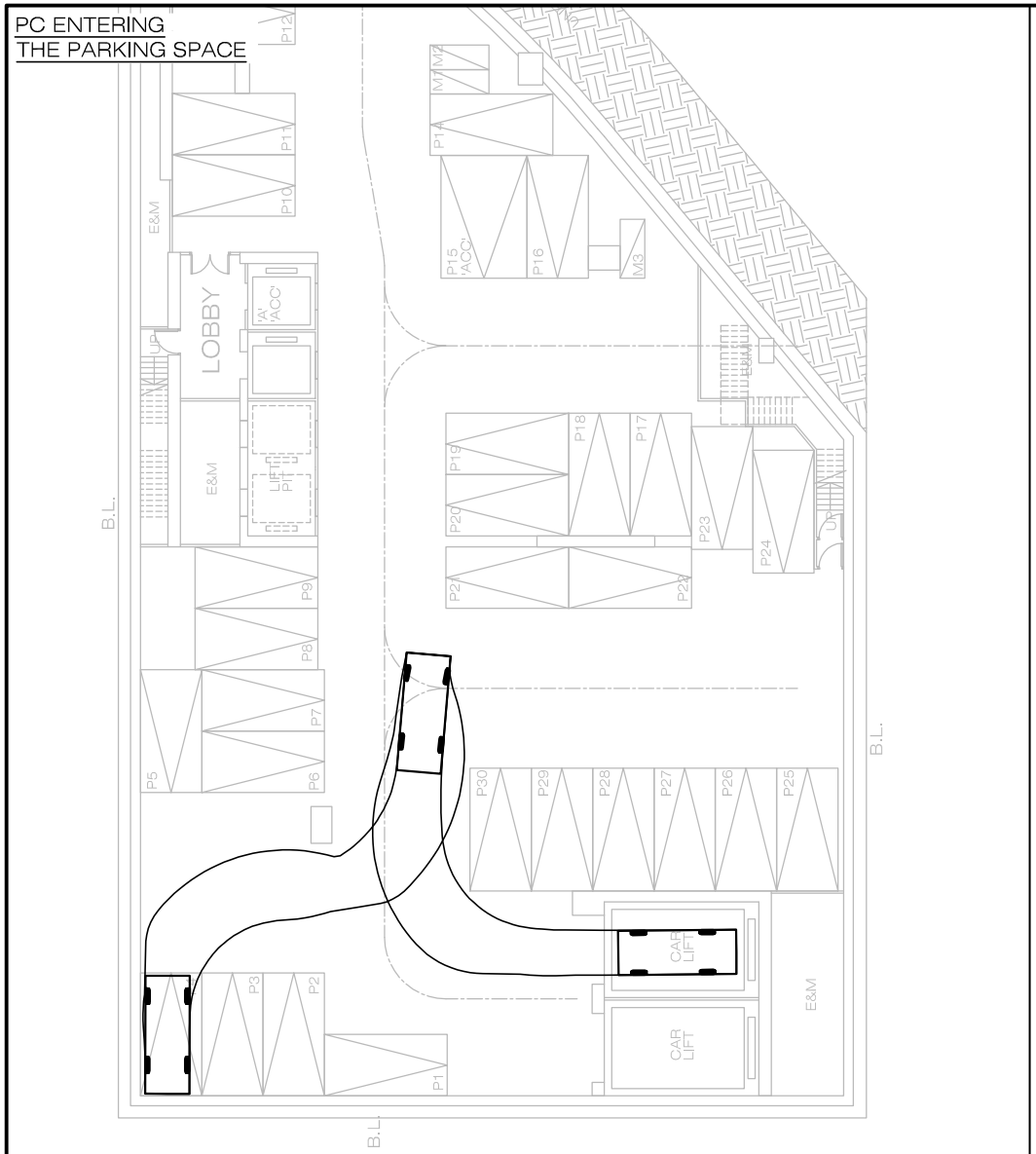
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

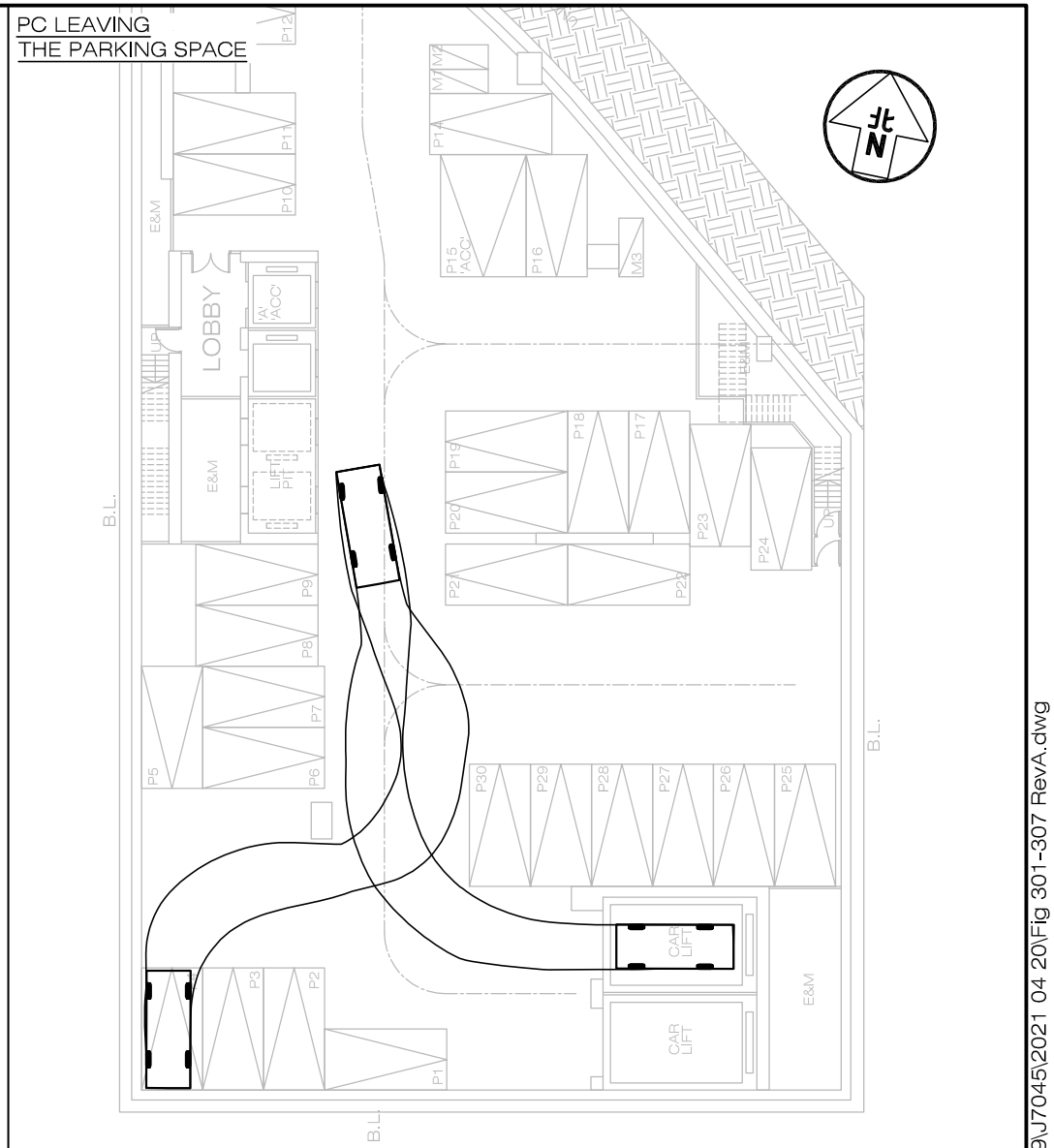
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 306	A

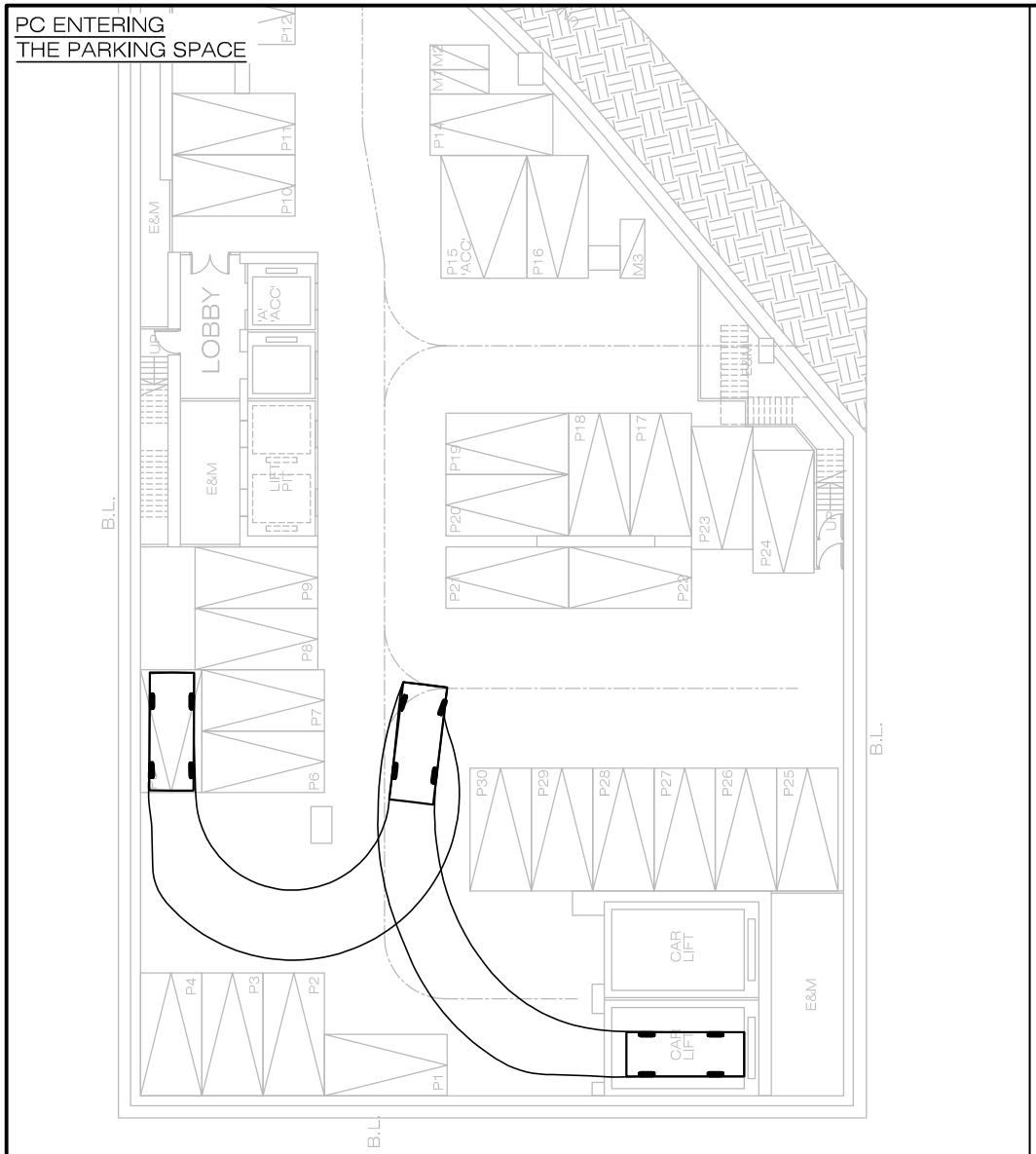
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

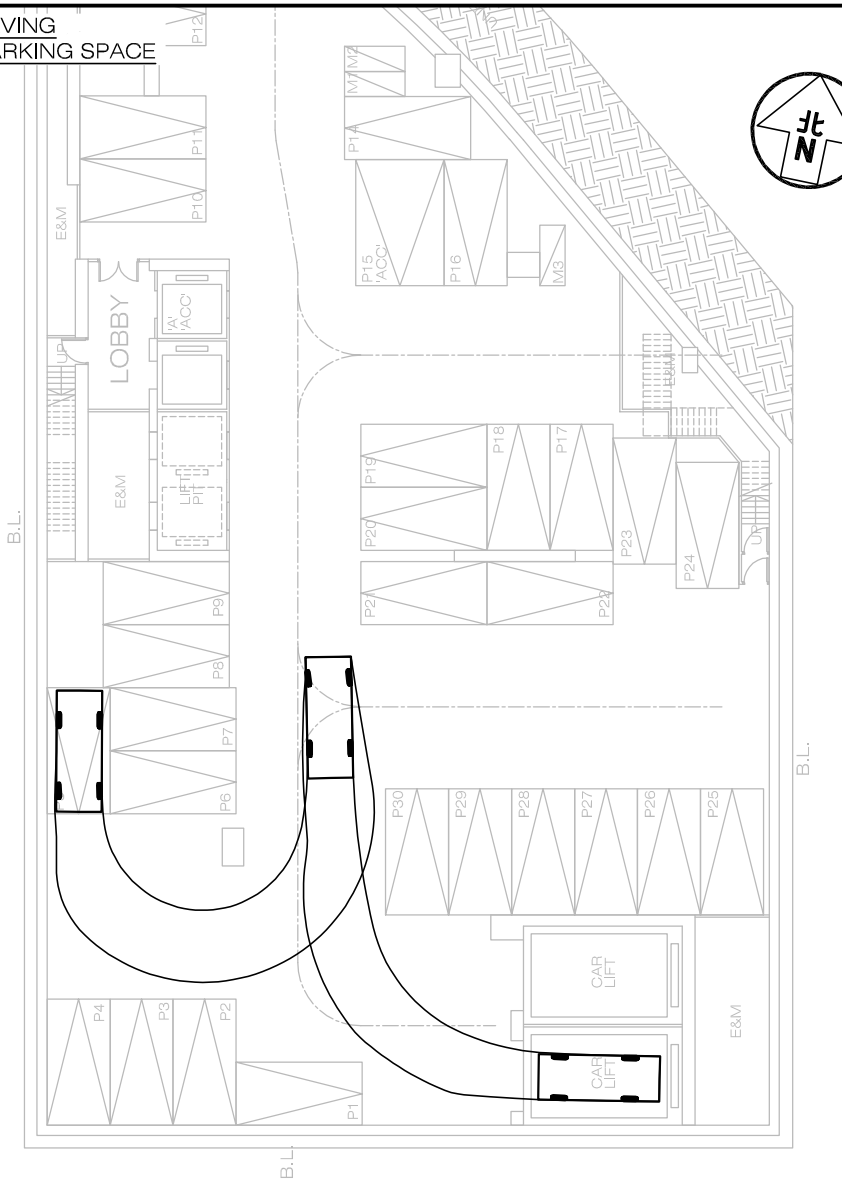
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

PC ENTERING
THE PARKING SPACE



PC LEAVING
THE PARKING SPACE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE

Figure No.	Revision
SP 307	A

Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	22 APR 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 04 20\Fig 301-307 RevA.dwg

Appendix C –
Car Lift Analyses

Car Lift Analysis

Job Title Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 - 100 Ta Chuen Ping Street, Kwai Chung

Ground floor to typical car park floor (m)	3.2
Speed (m/s)	0.5
Travel time (s)	6.5

Activity	**Time (s)**
Car lift travels from ground floor to typical car park floor	6
Lift door opens	5
Car exits lift in foward gear on typical car park floor	10
Car enters lift in reverse gear on typical car park floor	10
Door closes	5
Car lift travels from typical car park floor to ground floor	6
Lift door opens	5
Car exits lift in forward gear on ground floor	10
Car enters lift in reverse gear on ground floor	10
Door closes	5
Total	73

Number of lift servers, k	2
Number of vehicle parking spaces	46
Number of waiting space(s)	1
Cycle time ω (s)	73
Arrival rate λ (vehicles / 15 minutes)	7.6
Service rate μ of one lift server (vehicles / 15 minutes)	12.3

Number of Cars N	**Probability of Exact N Cars in the Lift System**	**Probability of N Cars or Less in the Lift System**	**Probability of More Than N Cars in the Lift System**
0	52.80%	52.80%	47.20%
1	32.62%	85.42%	14.58%
2	10.07%	95.50%	4.50%
3	**3.11%**	**98.61%**	**1.39%**
4	0.96%	99.57%	0.43%
5	0.30%	99.87%	0.13%
6	0.09%	99.96%	0.04%
7	0.03%	99.99%	0.01%

Conclusion

The probability of 1 vehicle arriving when 2 car lifts and 1 waiting space being occupied is 1.39%. The provision of 1 waiting space is sufficient.

Formulae:

Floor	Level (m)	Distance from G/F	No. of parking spaces	Column C * Column D
8/F		0		0
7/F		0		0
6/F		0		0
5/F		0		0
4/F		0		0
3/F		0		0
2/F		0		0
1/F		0		0
G/F	0	0	13	0
B1	-4.5	4.5	33	148.5
B2		0		0
B3		0		0
B4		0		0
B5		0		0
B6		0		0
B7		0		0
B8		0		0
			total parking spaces	typical floor distance
			46	3.2

Note:
k is the number of lift servers.
λ is the arrival rate in vehicles per 15 minutes.
μ is the service rate of a lift server in vehicles per 15 minutes.

N	1/N!*(λ/μ)^	summation from N=0 to N=k-1
0	1.0	1.0
1	0.6	1.6
2	0.0	1.6
3	0.0	1.6
4	0.0	1.6
5	0.0	1.6
6	0.0	1.6
7	0.0	1.6
8	0.0	1.6
9	0.0	1.6
10	0.0	1.6

The assessment is based on the multi-server queuing (M/M/N) theory, and the equations applied are listed below:

Probability of having exactly zero cars in the lift system:

$$P(0) = \frac{1}{\left[\sum_{N=0}^{k-1} \frac{1}{N!}\left(\frac{\lambda}{\mu}\right)^N\right] + \frac{1}{k!}\left(\frac{\lambda}{\mu}\right)^k \frac{k\mu}{k\mu - \lambda}}$$

Probability of having exactly N cars in the lift system:

For N < k:

$$P(N) = \frac{1}{N!}\left(\frac{\lambda}{\mu}\right)^N P(0)$$

For N ≥ k:

$$P(N) = \frac{1}{k!\,k^{N-k}}\left(\frac{\lambda}{\mu}\right)^N P(0)$$

k - -number of lift servers
λ - -arrival rate
μ - -service rate

Appendix 4

Sewerage Impact Assessment (SIA)

Proposed Redevelopment Works at 94-100 Ta Chuen Ping Street, Kwai Chung, Lot No. 290 in D.D. 444

Sewage Impact Assessment

For: Gain Champion Investment Limited

Job No:	1029998
Doc Ref:	1019000\1029998 – Ta Chuen Ping St SIA\Cundall Docs\Reports\SIA
Latest Revision:	-
Date:	April 2021

Cundall Hong Kong Limited 7/F The Hennessy, 256 Hennessy Road, Wanchai, Hong Kong Tel: +852 2566 6260 www.cundall.com

Project Name:	Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
Client:	Gain Champion Investment Limited
Report Title:	Sewage Impact Assessment
Job Number:	1029998

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
-	19/04/2021	Initial Issue

Document Validation (latest issue)

Revision	Issue Date	Purpose of issue / description of revision / version			
-	19/04/2021	--			
			Prepared by	Checked by	Verified by
		Initials	Carol Chan	Jonathan Yau	Joe Tang
		Signature			

Executive Summary

A sewerage impact assessment (SIA) has been conducted to evaluate the possible impacts on the local sewerage network as a result of the Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung (the “proposed development”). The assessment has based on the latest proposed floor uses and site surveys and shall serve to:

- assess the potential sewerage impacts arising from the proposed development
- recommend measures to mitigate unacceptable sewerage impacts, if any.

In conclusion, the results of the sewerage impact reveal that the existing sewage capacity is sufficient to cater the cumulative peak discharge arising from the proposed development and development in the vicinity.

Contents

1. Introduction

1.1 Site Description

The project involves a proposed industrial redevelopment which is located at 94-100 Ta Chuen Ping Street, Kwai Chung (hereinafter refer to as the "project site"), as shown in Plate 1 below.

Figure 1 Site Location Plan

The proposed development will comprise a 23-storey industrial development (including G/F and mechanical floor) and 1 level of basement carpark, with a maximum permitted GFA of 17,663.350 m^2 [1]. There will be workshop areas located on 1/F to 21/F, with a mechanical floor at 3/F. The proposed development is expected to commence its operation by 2025 and start to have sewage flow discharged to the sewerage network.

[1] The GFA will be 17,663.350 m^2 after taking into account of the bonus GFA related to the dedication of the proposed NBA, subject to the approval by Buildings Department, or otherwise, about 16,945.370 m^2 if the plot ratio is relaxed to 11.4

1.2 Existing Sewerage Network

The relevant drainage record plans “T7-SW-17C-4” and “T7-SW-17D-3” were reviewed to gather the background information of the existing sewerage infrastructure in the area. Based on the desktop review of drainage record plan and drainage survey, the sewage from the proposed development is expected to be discharged to the closest manhole no. FMH4020906. The sewage will then be diverted to a 300mm dia. sewer along Ta Chuen Ping Street.

1.3 Objectives

The assessment has based on the latest proposed floor uses and site surveys and shall serve to:

- assess the potential sewerage impacts arising from the proposed development
- recommend measures to mitigate unacceptable sewerage impacts, if any.

2. Design Assumptions and Criteria

2.1 General Assumptions and Criteria

This sewerage impact assessment has been prepared in accordance with the below guidelines and reference:

- Sewerage Manual ("*SM*") published by the Drainage Services Department ("*DSD*") in 2013.
- Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 ("*GESF*") published by the Environmental Protection Department ("*EPD*") in 2005.
- Corresponding Drainage Record Plans published by the Drainage Services Department.
- Commercial and Industrial Floor Space Utilization Survey ("*CIFSUS*") published by the Planning Department.
- Hong Kong Planning Standards and Guidelines ("*HKPSG*") published by the Planning Department.

2.2 Population

Population in the proposed development will be dominated by industrial activities, and the industrial employee occupancy density has been assumed as 2.9 person per 100 m^2 in accordance with Chapter 5 of the HKPSG. The figure have been summarized in **Table 1** below.

Since the capacity of the proposed development is independent to population growth, the annual growth in population has not been considered in this study. Please refer to the below table and **Appendix A** for summary estimation of population at the proposed development and detailed estimation of population per catchment respectively.

Type of Population	Occupancy Density (person/ 100m^2 GFA)	Estimated Population	Data Source
Proposed Development			
Industrial Employee	2.9	505	Planning Department's HKPSG Chapter 5 (Table 2) for new industrial areas

Table 1 Population of Proposed Development

2.3 Unit Flow Factors

The unit flow factors tabulated below have been adopted in the calculation of sewerage impact.

Type of Population	Unit Flow Factor (m^3/day/person)	Data Source
Proposed Development		
Industrial Employee	0.73	GESF – J1 Manufacturing in Kwai Chung
Other Development in the Vicinity		
Industrial Employee	0.73	GESF – J1 Manufacturing in Kwai Chung
Commercial Employee	0.08	GESF – J6 Finance, Insurance, Real Estate and Business Services

Table 2 Unit Flow Factors

2.4 Peaking Factors

The peaking factors adopted for peak discharge calculation has made reference to Table T-5 of the *GESF* as extracted below. Peaking factors (including stormwater allowance) from the guidelines have been adopted based on the corresponding population range being served by the sewers throughout the study.

Population Range	Peaking Factor (including stormwater allowance) for facility with existing upstream sewerage	Peaking Factor (excluding stormwater allowance) for facility with new upstream sewerage
<1,000	8	6
1,000 – 5,000	6	5
5,000 – 10,000	5	4
10,000 – 50,000	4	3
>50,000	Max($\frac{7.3}{N^{0.15}}$,2.4)	Max($\frac{6}{N^{0.175}}$,1.6)

Note: N is the contributing population in thousands.

Table 3 Peaking Factor for Sewers

2.5 Hydraulic Equation

The Colebrook-White equation can be applied to analyse flow conditions of circular pipes and hence has been adopted for hydraulic analysis of the sewerage system. In this study, conservative value has been

adopted here for long-term and permanent design and a roughness coefficient, *ks*, is assumed to be 6.0mm for all existing pipes.

2.6 Catchment Inflow Factor

A catchment inflow means the net overall ingress of water or wastewater to the sewerage system. Since the proposed development and development in the vicinity are located in Kwai Chung, a catchment inflow factor of 1.1 has been adopted by making reference to Table T-4 of the *GESF*.

2.7 Calculation Assumptions

The following sites are expected to reach the manholes downstream, as annotated in **Figure 1**:

- Cheung Wing Industrial Building, Tak Kee Group Centre, Kam Chong Industrial Building, iCity, Kam Foo Factory Building (Catchment A, Upstream) – diverted to FMH4020904.
- Regent Centre Tower B (Catchment B) – diverted to FMH4020905.
- Kwai Wu Industrial Building (Catchment C) – diverted to FMH4020767.
- Kwai Hing Industrial Building and Koon Wo Industrial Building (Catchment D1) – diverted to FMH4020746.
- Sang Hing Industrial Building, Proposed Data Centre Development and Hotel Ease (Catchment D2) – diverted to FMH4020747.

3. Evaluation and Assessment of Impact

Wastewater from industrial activities are the major sewage sources arising from the development. All sewage will be collected by the nearest sewers and the sewers will be connected to the new last manhole and eventually directed to Government sewerage networks and treatment facilities.

Base on the design assumptions and criteria as detailed in Section 2 above, the calculation of peak sewage flow from each of the catchment has been tabulated below. Detailed calculation has been presented in **Appendix A**.

Manhole	Catchment Served	Estimated Cumulative Peak Discharge (m^3/s)
FMH4020906	Site	0.0282 m^3/s
FMH4020905	Site & A	0.0811 m^3/s
FMH4020767	Site & A & B	0.0820 m^3/s
FMH4020768	Site & A & B & C	0.0932 m^3/s
FMH4020749	Site & A & B & C & D	0.4790 m^3/s

Table 4 Summary of Peak Sewage Flow

The capacities of respective sewers have been calculated in accordance with the *SM* and *GESF*. Assessment of sewerage impacts associated with detailed calculations have also been provided in **Appendix B** and **C**.

The sewage from the proposed development will be collected and diverted to the existing 300mm diameter sewer underneath Ta Chuen Ping Street through manhole no. FMH4020897 where it will adjoin the flow from upstream of Ta Chuen Ping Street (i.e. Catchment A,B and C). Upon reaching manhole no. FMH4020749, the cumulative flow will eventually merge with sewage flow from Chun Pin Street (Catchment D). It is expected that the existing 300mm to 750mm dia. sewers can cater the cumulative peak discharge of the Site, Catchment A, Catchment B, Catchment C and Catchment D, and no exceedance of hydraulic capacity is anticipated. Also, the peak discharge from the proposed development contributes to less than 2.5% of the peak flow along the 750mm dia sewer underneath Ta Chuen Ping street. Hence, the sewage impact associated with the proposed conversion is considered insignificant.

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of sewer capacity	Sufficient Capacity?
FMH4020897	FMH4020906	0.300	0.2292	0.0282	12.3%	Yes
FMH4020906	FMH4020905	0.300	0.2553	0.0811	31.8%	Yes
FMH4020905	FMH4020767	0.300	0.1929	0.0820	42.5%	Yes
FMH4020767	FMH4020768	0.300	0.1929	0.0932	48.3%	Yes
FMH4020768	FMH4020769	0.300	0.1929	0.0932	48.3%	Yes
FMH4020769	FMH4020748	0.450	0.2702	0.0932	34.5%	Yes
FMH4020748	FMH4020749	0.600	0.5208	0.4790	92.0%	Yes
FMH4020749	FMH4020750	0.750	2.2379	0.4790	21.4%	Yes

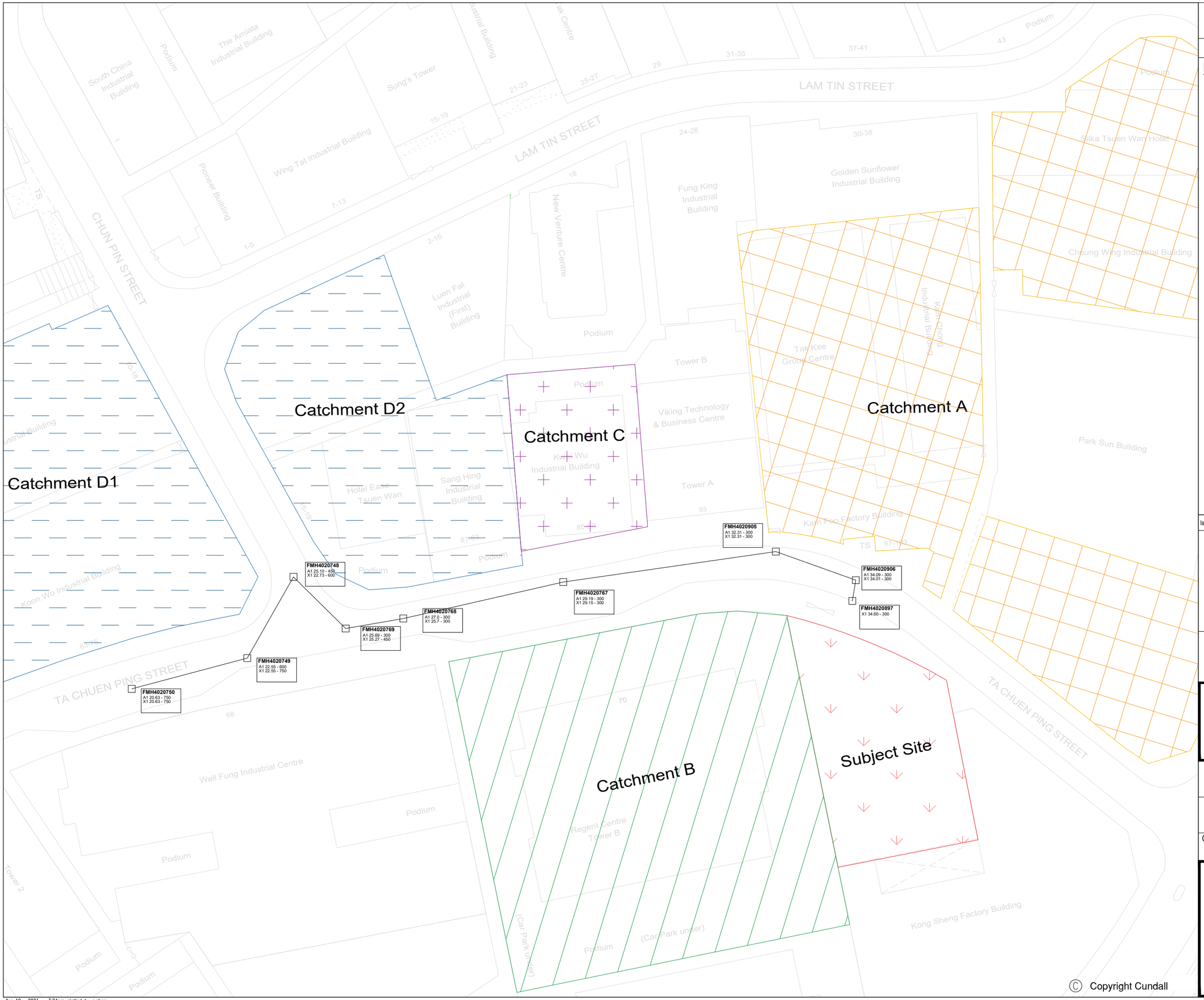
Table 5 Summary of Estimated Sewage Flow Capacities

4. Conclusions

A sewerage impact assessment (SIA) has been conducted to evaluate the potential sewerage impacts on the local sewerage network as a result of the Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

In conclusion, the results of the sewerage impact reveal that the existing sewage capacity is sufficient to cater the cumulative peak discharge arising from the proposed development and development in the vicinity along Ta Chuen Ping Street. Also, the peak discharge from the proposed development contributes to less than 2.5% of the peak flow along the 750mm dia sewer underneath Ta Chuen Ping street. Hence, the sewage impact associated with the proposed conversion is considered insignificant.

Figure 1 Drainage Plan



1029998 | A3

DO NOT SCALE FROM THIS DRAWING

Notes

1. Length of pipes NTS
2. Only concerned sewers and sewerage manholes have been indicated.

Issue	Date	Description	By	Chkd	Verfd

Project
Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung - Sewerage Impact Assessment

Client
Gain Champion Investment Limited

Title
DSD Drainage Record Plan

Figure No.	Drawing Status
1	Rev 0
Job No.	Scale
1029998	NTS

Originator	Checked	Verified	Issue.
CC			-

CUNDALL
7/F The Hennessy
256 Hennessy Road
Wanchai
Hong Kong, China
Website: www.cundall.com

Appendix A Calculation of Flow Estimation

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 01

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C. Chan	19 Apr 2021	J.Yau	

CALCULATION:

01 Calculation of Sewage Loading

Catchment	Sewer Manhole No.	Buildings in Zone	Type of Use	GFA/ UFA (m^2)	No. of Flats	Type of Population	Occupancy Density (person/100m^2 GFA)	Estimated Population	Unit Flow Factor (m^3/day/ person)	Estimated Average Dry Weather Flow (m^3/day)	Remarks
-	FMH4020906	Site	New Industrial	17,663.35	-	New Industrial	2.9	505	0.73	368.65	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.9 person per 100 m2 of utilized GFA in accordance with Planning Department's Hong Kong Planning Standards and Guidelines Chapter 5 (Table 2) for new industrial areas
A	FMH4020904	Cheung Wing Industrial Building	Industrial	16,754	-	Industrial	2.3	385	0.73	281.05	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing
		Tak Kee Group Centre	Office	4,831	-	Office	5.5	266	0.08	21.28	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and Business Services
		Kam Chong Industrial Building	Industrial	7,851	-	Industrial	2.3	181	0.73	132.13	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing
		iCity	Office	15,040	-	Office	5.5	827	0.08	66.16	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and
		Kam Foo Factory Building	Industrial	11,446	-	Industrial	2.3	263	0.73	191.99	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing
B	FMH4020905	Regent Centre Tower B	Office	51,725	-	Office	5.5	2845	0.08	227.60	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and Business Services
C	FMH4020767	Kwai Wu Industrial Building	Industrial	10,444	-	Industrial	2.3	240	0.73	175.20	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 01

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C. Chan	19 Apr 2021	J.Yau	

CALCULATION:

01 Calculation of Sewage Loading

Catchment	Sewer Manhole No.	Buildings in Zone	Type of Use	GFA/ UFA (m^2)	No. of Flats	Type of Population	Occupancy Density (person/100m^2 GFA)	Estimated Population	Unit Flow Factor (m^3/day/ person)	Estimated Average Dry Weather Flow (m^3/day)	Remarks
D1	FMH4020746	Kwai Hing Industrial Building	Industrial	24,517	-	Industrial	2.3	564	0.73	411.72	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing
		Koon Wo Industrial Building	Industrial	48,297	-	Industrial	2.3	1111	0.73	811.03	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing
D2	FMH4020747	Sang Hing Industrial Building	Industrial	9,000	-	Industrial	2.3	207	0.73	151.11	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing in Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing
		Proposed Data Centre Development	Data Centre	279	-	Industrial	10	28	0.33	9.24	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J2 Electricity Gas & Water 0.33 m3/person/day. Worker density: assumed to be 10 person per 100 m2 of utilized GFA per previous project experience.
		Hotel Ease. Tsuen Wan	Hotel Employee	10,323	-	Hotel	3.2	330	1.58	521.40	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J10 Restaurant & Hotels is 1.580 m3/person/day. Worker density: assumed to be 3.2 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for hotels and boarding houses.

Appendix B Detailed Calculation of Hydraulic Capacity

CUNDALL

JOB NUMBER / FILE:	CALCULATION NUMBER:	DRAWING REFERENCE:
1029998	02	

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C.Chan	19 Apr 2021	J.Yau	

CALCULATION:

01 Calculation of Sewage Loading (Cont')

Site			
Estimated Average Daily Flow	=	368.65	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	405.52	m^3/day
Contribution Population	=	1502	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0282	m^3/s
Catchment A			
Estimated Average Daily Flow	=	692.61	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	761.87	m^3/day
Contribution Population	=	2822	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0529	m^3/s
Catchment B			
Estimated Average Daily Flow	=	227.60	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	250.36	m^3/day
Contribution Population	=	927	
Peaking Factor	=	8	
Estimated Peak Flow	=	0.0232	m^3/s
Catchment C			
Estimated Average Daily Flow	=	175.20	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	192.72	m^3/day
Contribution Population	=	714	
Peaking Factor	=	8	
Estimated Peak Flow	=	0.0178	m^3/s
Catchment D1			
Estimated Average Daily Flow	=	1222.75	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1345.03	m^3/day
Contribution Population	=	4982	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0934	m^3/s
Catchment D2			
Estimated Average Daily Flow	=	681.75	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	749.93	m^3/day
Contribution Population	=	2778	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0521	m^3/s
Site + Catchment A			
Estimated Average Daily Flow	=	1061.26	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1167.39	m^3/day
Contribution Population	=	4324	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0811	m^3/s
Site + Catchment A + Catchment B			
Estimated Average Daily Flow	=	1288.86	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1417.75	m^3/day
Contribution Population	=	5251	
Peaking Factor	=	5	
Estimated Peak Flow	=	0.0820	m^3/s
Site + Catchment A + Catchment B + Catchment C			
Estimated Average Daily Flow	=	1464.06	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1610.47	m^3/day
Contribution Population	=	5965	
Peaking Factor	=	5	
Estimated Peak Flow	=	0.0932	m^3/s
Site + Catchment A + Catchment B + Catchment C + Catchment D1 + Catchment D2			
Estimated Average Daily Flow	=	3368.56	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	3705.42	m^3/day
Contribution Population	=	13724	
Peaking Factor	=	4	
Estimated Peak Flow	=	0.1715	m^3/s
Catchment D1 + Catchment D2			
Estimated Average Daily Flow	=	1904.50	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	2094.95	m^3/day
Contribution Population	=	7759	
Peaking Factor	=	5	
Estimated Peak Flow	=	0.1212	m^3/s
Site + Catchment A + Catchment B + Catchment C + Catchment D			
Estimated Peak Flow	=	0.4790	m^3/s

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 02

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C.Chan	19 Apr 2021	J.Yau	

CALCULATION:

02 Detailed Calculation of Hydraulic Capacity

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Cross-section Area, A (m^2)	Wetted Perimeter, P (m)	Length, L (m)	Inlet Invert Level (mPD)	Outlet Invert Level (mPD)	Colebrook-White Roughness Coefficient, Ks (mm)	Hydraulic Radius, R (m)	Slope, s	Velocity, V (m/s)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of Pipe capacity	Sufficient Capacity?	Remarks
FMH4020897	FMH4020906	0.300	0.0707	0.9425	5.4	34.56	34.09	6.0	0.0750	0.08704	3.2432	0.2292	0.0282	12.3%	Yes	Site
FMH4020906	FMH4020905	0.300	0.0707	0.9425	15.8	34.01	32.31	6.0	0.0750	0.10794	3.6119	0.2553	0.0811	31.8%	Yes	Site & Catchment A
FMH4020905	FMH4020767	0.300	0.0707	0.9425	50.6	32.31	29.19	6.0	0.0750	0.06162	2.7287	0.1929	0.0820	42.5%	Yes	Site & Catchment A & B
FMH4020767	FMH4020768	0.300	0.0707	0.9425	35.6	29.15	26.96	6.0	0.0750	0.06163	2.7287	0.1929	0.0932	48.3%	Yes	Site & Catchment A & B & C; Invert levels of FMH4020769 missing, assume similar slope to previous segment
FMH4020768	FMH4020769	0.300	0.0707	0.9425	8.2	26.19	25.69	6.0	0.0750	0.06162	2.7287	0.1929	0.0932	48.3%	Yes	Invert levels of FMH4020769 missing, assume similar slope to previous segment
FMH4020769	FMH4020748	0.450	0.1590	1.4137	12.4	25.27	25.10	6.0	0.1125	0.01372	1.6988	0.2702	0.0932	34.5%	Yes	
FMH4020761	FMH4020762	0.375	0.1104	1.1781	50.0	29.41	27.05	6.0	0.0938	0.04720	2.7841	0.3075	0.3075	100.0%	Yes	Assume full capacity upstream (D1)
FMH4020748	FMH4020749	0.600	0.2827	1.8850	16.4	22.73	22.55	6.0	0.1500	0.01095	1.8420	0.5208	0.4790	92.0%	Yes	Site & Catchment A & B & C & D
FMH4020749	FMH4020750	0.750	0.4418	2.3562	31.3	22.55	20.63	6.0	0.1875	0.06144	5.0656	2.2379	0.4790	21.4%	Yes	Site & Catchment A & B & C & D

Remarks:

1 Information from Drainage Services Department (DSD)'s drainage record plans or proposed sewer design

2 Wetted perimeter, P, is calculated from:
P = πD

3 The mean velocity is calculated using the Colebrook-White Equation for circular pipes flowing full:

$$V = -2(2gDS)^{0.5}\log\left(\frac{k}{3.7D} + \frac{2.5\nu}{D(2gDS)^{0.5}}\right)$$

where

K = Colebrook-White roughness coefficient (m)
V = mean velocity (m/s)
D = circular cross-section pipe, inside diameter (m)
S = slope, in meters per meter
v = kinematic viscosity of water, in meters per second (0.000001306 m^2/s)
g = gravitational acceleration (m/s^2) (9.807m/s^2)

4 The Colebrook-White Roughness Coefficient, Ks, is assumed to be 6.0 mm (Table 5 in DSD's "Sewerage Manual Part 1") for existing pipes

5 Hydraulic radius, R, is calculated from:
R = A/P

6 Peak flow, Q, is calculated from:
Q = V x A

7 With reference Table T-4 in "Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning" issued by EPD, an inflow catchment factor of 1.0 was adopted for the Subject Site.

PLANNING LIMITED
規劃顧問有限公司

UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍鯉塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/004Lg

30 June 2021

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction
for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
in "Other Specified Uses" annotated "Business" zone
at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung

- Section 16 Planning Application No. A/KC/476 -
(Further Information No. 1)

Reference is made to the captioned S16 Planning Application which was received by the Town Planning Board on 21 May 2021.

Having reviewed the departmental comments received during circulation of the captioned S16 Planning Application, attached please find the table of response-to-departmental-comments with the relevant annexes as below:

Annex A: Updated Figure 3.1 of Traffic Impact Assessment (TIA) (from Appendix 3 of Planning Statement (PS));
Annex B: Updated Second Floor Plan and Design Diagram (from Appendix 1 of PS);
Annex C: Updated Tree Survey and Landscape Proposal from Appendix 2 of PS; and
Annex D: Updated Artist Impression of Enhanced Streetscape facing Ta Chuen Ping Street (updated Figures 3.2 – 3.3 in PS).

Please note that this Further Information merely includes technical clarification/ responses to comments of relevant Government departments without revised calculations of technical assessments. The Applicant shall further address the comments from EPD, DSD and TD once responses are prepared.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

Our Ref: S1399/94TCPS_KC/21/004Lg
Date: 30 June 2021

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl.: (70 hardcopies)

cc. the Applicant & Team

KT/DF/CL/EC/vy

Proposed Minor Relaxation of Plot Ratio for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
S16 Application No. A/KC/476

Items	Comments	Response
1	**Comments from Chief Highway Engineer/ NT West, Highways Department (HyD) received on 18 June 2021:**	
	TIA Report	
1.1	(i) It is noted that a new 9m skewed run-in/out along Ta Chuen Ping Street for the development is proposed which is in close vicinity of existing street furniture and the run-in/out of the opposite lot DD444 Lot 284 RP. Please clearly show these information on the plan and clarify if any road inventory would be affected by the proposed works. The reconstruction of footpath and any associated road marking and street furniture modification etc. due to the development should be approved by TD and subsequently carried out by the Applicant to HyD's standard.	Noted. Figure 3.1 attached has been updated to show existing street furniture and run-in/out in vicinity of the subject site. The proposed run-in/out will have no effect on the existing street furniture. Please refer to **Annex A** of this Further Information (FI).
1.2	(ii) TD's comments on the TIA report and the imposed conditions on the planning application shall be sought.	Noted.
1.3	Architectural Drawings (iii) It is noted that a full-height building set-back of 3.5m would be designated as NBA and dedication area proposed to be managed and maintained by the Applicant. Please clarify if there are any underground structures within the NBA. As referred to the Explanation Statement of draft Kwai Chung OZP No. S/KC/29, the Applicant should check with PlanD, LandsD, BD and TD if the proposed dedication arrangement is acceptable from their perspective.	There shall be no new underground structures within the NBA of the new development.
1.4	(iv) Discrepancy is noted on the proposed paving proposal among Appendix 1 and 2 of Planning Statement. Please clarify the extent and material of paving work. The Applicant should critically review the paving proposal and propose footpath finishes compatible with the adjacent environment.	It is proposed to repave the footpath area along Ta Chuen Ping Street (within Application Site) with "granite / paving blocks" to match with existing adjacent finish and enhance the pedestrian experience. The design merits diagram in the original Appendix 1 of the Planning Statement (PS) and the landscape section in the original Appendix 2 of the PS have been updated accordingly. Please refer to the relevant updated figures in **Annex B** and **Annex C** respectively in this FI.

Items	Comments	Response
1.5	Tree Survey and Landscape Proposal (v) It is noted that the greenery proposed at Ground Floor fallen within the NBA which predominantly contributes to the minimum greenery ratio required in PNAP APP-152. While it is unsure on the arrangement of NBA and if the greenery could be retained in the NBA when catering for the long-term road widening proposal, please check with BD if it is still acceptable from their perspective.	The proposed greenery within the dedication area shall be contributed towards the greenery ratio required in PNAP APP-152.
2	**Comments from Secretary for Development, Development Bureau (DevB) received on 18 June 2021:**	
2.1	It is Government's policy to incentivise owners to redevelop old industrial buildings (IBs) to optimise utilisation of existing industrial stock and make better use of our valuable land resources, while addressing more effectively the issues of fire safety and non-compliant uses. To this end, relaxation of the maximum permissible non-domestic plot ratio by up to 20% may be permitted, on a case-by-case basis, under the current revitalisation scheme for redevelopment of pre-1987 IBs located outside "R" zones in Main Urban Areas and New Towns. In this light, we accept that the landowner of a site which was occupied by a pre-1987 IB immediately in plot ratio, as long as a relevant planning application is submitted to the Town Planning Board within three years starting from 10 October 2018.	Noted.
2.2	We note that the applicant considers that the proposed development is in line with the planning intention of that "OU(B)" zone, and would help facilitate the transformation of the areas at Castle Peak Road / Wo Yi Hop Road. Along this direction, the new building would appear to bring greater benefits in the longer term if it allows flexibly a mix of different uses including commercial ones.	Noted.

Items	Comments	Response
2.3	Accordingly, we would like to invite the applicant to enlighten us with additional details before we appraise fully the proposal, particularly in the following aspects: (a) the specific nature/type(s) of non-polluting industrial uses intended to be pursued in this redevelopment project;	According to the "Town Planning Board Guidelines for Development within "Other Specified Uses (Business)" Zone" ("TPB PG-No. 22D"), "non-polluting industrial use" is defined as "any industrial use which does not involve activities that are detriment to the occupants of the building and amenity of the area by reason of noise, waste, water discharge, vibration, smell, fume, smoke, soot, ash, dust or grit". Under the existing leases, the lots are restricted to 'Industrial Purposes excluding offensive trades'. The future use of the proposed development will need to fulfill the relevant restrictions under both the planning and leases regimes. In this early planning stage, the Applicant has not targeted on a specific nature/ types of non-polluting industrial uses as it is believed that the market would help to determine the most appropriate type of non-polluting industrial use to be accommodated in the future. As revealed in the "*Final Consultancy Report on the Review of Land Requirement for Grade A Offices, Business and Industrial Uses"* (prepared as part of the Hong Kong 2030+ Study) completed in 2017, Hong Kong will have a shortfall of about 0.8, 3.61 and 5.09 million metres of floorspace for industries in short, medium and long term respectively. The proposed redevelopment of the Site into an industrial building for non-polluting industrial use would help to meet the projected shortfall and support the long-term economic development of Hong Kong. The proposal is totally in-line with the policy objective of the new revitalization scheme to optimize utilization of the existing industrial stock and make better use of our valuable land resources.
	(b) whether the applicant intends to use any floor area in the new building as "office" or "data centre"; and	Despite that the prevailing "OU(B)" zone provides the flexibility of a range of uses, including "Office (excluding those involving direct provision of customer services or goods)" use, the prevailing leases restrict the use of the Application Site for industrial use only. Uses within the development shall always be complied with the lease restrictions.

Items	Comments	Response
		Nevertheless, upon completion of the proposed industrial building for non-polluting industrial uses, the Applicant has no intention to restrict future occupiers from applying waivers for individual premises to enable other "Column 1 uses", including "office" or "Information Technology and Telecommunications Industries" under the "OU(B)" zone.
	(c) the applicant's assessment of the potential risk of the "workshop units", particularly those with ensuite lavatories, being used inappropriately for domestic purposes in future.	The proposed redevelopment is for "non-polluting industrial use" only and no part of the development is proposed/intended for domestic use. All future works and usages shall follow strictly the prevailing PNAP APP-159, building regulations, fire codes and regulations, statutory zoning plan restrictions, lease restriction, etc. Inappropriate domestic use within the proposed development will be subject to persecution under Buildings Ordinance, Hotel and Accommodation Ordinance and enforcement under land lease.
3	**Comments from Urban Design Unit, Urban Design and Landscape Section (UD&L), Planning Department (PlanD), received on 18 June 2021:**	
3.1	The subject site of about 1,486 m^2 abuts Ta Chuen Ping Street, and forms part of a large cluster of industrial buildings/sites zoned "OU(B)" with intended building height (BH) of 130mPD. The proposed development does not involve additional BH beyond what is permitted in the OZP. Given the context, it is unlikely that the proposed development will induce any significant adverse effects on the visual character of the surrounding townscape.	Noted
3.2	As gathered from the submission, the proposed development has incorporated a minimum 3.5m wide full-height setback along Ta Chuen Ping Street as per the OZP requirement. Trees have been proposed within the setback area. Landscape treatments in the form of planters and vertical greening are provided at G/F, 1/F, 2/F and the roof. The above design measures may promote visual interest and pedestrian comfort.	Noted

Items	Comments	Response
3.3	Advisory comments The flat roofs at 2/F along Ta Chuen Ping Street seem to offer an opportunity for greening, which may further enhance the pedestrian environment.	It is proposed to have planter strip with shrubs/groundcovers on 2nd Floor flat roof facing Ta Chuen Ping Street for further enhancement as part of the visual streetscape upgrade. Please refer to the updated Tree Survey and Landscape Proposal in **Annex C** of this FI. Updated 2/F Plan is also provided in **Annex B**.
4	**Comments from Landscape Unit, UD&L, PlanD, received on 18 June 2021:**	
4.1	The application site, bounded by Ta Chuen Ping Street to the north, Kong Sheng Factory Building to the southeast and Regent Centre Block A and B to the west, falls within an area zoned "Other Specified Uses" annotated "Business" on the Draft Kwai Chung Outline Zoning Plan No. S/KC/29.	Noted.
4.2	According to the aerial photo of 2020, the site is located in an area of industrial urban landscape character, dominated by industrial buildings. The site is currently used as a temporary loading and unloading area and existing trees are observed at the northern and eastern boundary of the site. The proposed development is considered not incompatible with the surrounding environment.	Noted.
4.3	With reference to the Tree Survey and Landscape Proposal in Appendix 2, 7 nos. of existing trees of common species within the site area proposed to be felled due to conflict with the proposed development. 7 nos. of trees in heavy standard size area proposed at-grade within the site along Ta Chuen Ping Street. Moreover, landscape treatments including landscape areas with seating on 2/F and roof level, edge planting on 1/F and 2/F and 15m (H) vertical greening from G/F to 2/F in front of the entrance lobby are proposed. In view that significant adverse landscape impact arising from the development is not anticipated, UD&L has no objection to the application from landscape planning perspective.	Noted.

Items	Comments	Response
4.4	Comments on the submission from landscape planning perspective are as follows: (a) With reference to the paragraph 3.3.2 of the Planning Statement, paragraph 5.3.3 of Appendix 2 and "Landscape Section 01", 4 nos. of *Terminalia mantaly* are proposed in 2.5m wide at-grade planters along the building edge facing Ta Chuen Ping Street, which may not have adequate growing space for future growth of tree canopy. The applicant should select the appropriate tree species, taken the principle of 'right tree in the right place' into account, for sustainable tree growth.	Noted. 4 nos. of *Terminalia mantaly* will be replaced with 4 nos. of *Osmanthus Fragrans* along Ta Chuen Ping Street with minimum 5m centre to centre. The smaller size species within 2.5m width and the 1m pedestrian path immediately adjacent to the strip of planter should be sufficient for future healthy tree growth. Please refer to the updated Tree Survey and Landscape Proposal in **Annex C** and the updated artist impression in **Annex D**.
4.5	(b) The applicant should clarify how horticultural maintenance works for the proposed vertical green wall on building façade from G/F to 2/F and the edge planting on 1/F and 2/F can be carried out. The applicant is reminded of the long-term commitment in providing proper maintenance to the vertical green wall for healthy and sustainable plant growth.	Automatic drip irrigation and drainage gutters are provided for the Vertical Green wall to avoid. Cherry picker or gondola will be provided for the 15mH Vertical Green Wall and inaccessible planters on 2/F for routine horticultural maintenance works. Whereas, edge planters on 1F and 2F pocket space are accessible for maintenance purpose, therefore regular horticultural maintenance will be provided for sustainable plant growth
4.6	(c) Noting from paragraph 5.1.10 in Appendix 2 that accessible small pocket space with seating areas are proposed on the green roof. The applicant should indicate the proposed seating facilities on roof level plan as appropriate.	Multi-purpose functional area with planting area is proposed on roof of the building block for communal use. Fixed seating facilities are not provided for future programme flexibility.
4.7	<u>Advisory comments</u> The applicant is reminded that approval of Section 16 Application under Town Planning Ordinance does not imply approval of the site coverage of greenery requirements under APP PNAP-152 and/or under the lease. The site coverage of greenery calculation should be submitted separately to BD for approval. Similarly for any proposed tree preservation/removal scheme and compensatory planting proposal, the applicant is reminded to approach relevant authority direct to obtain the necessary approval, where appropriate.	Noted.

Items	Comments	Response
5	**Comments from District Lands Officer/ Tsuen Wan and Kwai Chung, Lands Department (DLO) received on 18 June 2021:**	
5.1	As stated in para. 3.1.1 of the Supporting Planning Statement, it is proposed to develop the land lot for permitted "Non-polluting Industrial Use". "Non-polluting industrial uses" in planning terms covers a wide range of uses which include but are not limited to the following as quoted from TPB guidelines: (i) Research and development; (ii) Quality control; (iii) Information technology support; (iv) Training for the process of enhanced productivity/delivery of goods; (v) Computer-aided design service; (vi) Editing of newspapers/books/magazines; & (vii) After-sale services of products However, the Applicant should be fully aware that the user restriction under the Lease has a different interpretation from the TPB's definition on Column I uses under the planning regime. For example, the uses quoted above will constitute breach of the user restriction of "industrial purpose" under the Lease, which should involve manufacturing process as decided by court cases. If the proposed industrial development is intended to be used for "non-polluting industrial uses" that are in breach of the Lease, the Lot owners should apply to LandsD for a lease modification prior to its redevelopment.	The Applicant is fully aware of the user restriction under the Lease has a different interpretation from the TPB's definition on Column I uses under the planning regime. Please note that Applicant has no intention to apply for any lease modification to change the existing user restriction under land grant, and will ensure there is no breach of the user of the lease at the subject building at the Application Site.
5.2	Upon receipt of a lease modification application, it will be considered by the LandsD acting in the capacity as landlord at its sole discretion. There is no guarantee that any application will be approved. In the event that an application is approved, it will be subject to such terms and conditions as the Government shall see fit, including, among others, payment of premium and administrative fee.	Noted.

Items	Comments	Response
5.3	Per para. 3.1.2 of the Supporting Planning Statement, the Proposed Development incorporates the 3.5m NBA, which the Applicant is prepared to dedicate as a public passage and claim the bonus plot ratio and site coverage under the B(P)R. Should the Building Authority approve to grant concessions in exchange for the dedication, the Applicant will be required to enter into a Deed of Dedication with the Buildings Department and a Modification Letter with LandsD, which will be subject to such terms and conditions as the Government sees fit as detailed in sub-para. (b) above.	Noted.
6	**Comments from Chief Architect/ Central Management Division 2, Architectural Services Department (ArchSD) received on 18 June 2021:**	
6.1	It is noted that the proposed non-polluting industrial development mainly consists of a tower with plot ratio (PR) 11.4 (including 20% increase of PR) and building height of 130mPD, which may not be incompatible with adjacent 'OU' developments with BHR of 130mPD permitted in the OZP. In this regard, he has no comment from architectural and visual point of view.	Noted.
6.2	For toilets at 1st, 2nd, 4th to 19th Floor, natural lighting and ventilation complying relevant B(P)R shall be considered.	Noted.
7	**Comments from Chief Building Surveyor/ New Territories West, Buildings Department (BD) received on 18 June 2021:**	
7.1	(a) The proposed development parameter should not exceed the limitation under the First Schedule of Building (Planning) Regulations.	Noted.
7.2	(b) Refer to the para 3.1.2 of planning statement, the applicant intends to dedicate the non-building area as a public passage with bonus plot ratio and site coverage with reference to the B(P)R22. Bonus plot ratio and site coverage for the development will be considered on the basic of the criteria set out PNAP APP-108 and will be commented at building plan submission stage.	Noted.

Items	Comments	Response
7.3	(c) The site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the Building (Planning) Regulations respectively.	Noted.
8	**Comments from Chief Building Surveyor/ New Territories West, Buildings Department (BD) received on 18 June 2021:**	
8.1	The proposed development parameter should not exceed the limitation under the First Schedule of Building (Planning) Regulations.	Noted.
8.2	Refer to the para 3.1.2 of planning statement, the applicant intends to dedicate the non-building area as a public passage with bonus plot ratio and site coverage with reference to the B(P)R22. Bonus plot ratio and site coverage for the development will be considered on the basic of the criteria set out PNAP APP-108 and will be commented at building plan submission stage.	Noted.
8.3	(a) The site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the Building (Planning) Regulations respectively.	Noted.
8.4	(b) Disregarding carparking spaces from GFA calculation under the BO will be considered on the basic of the criteria set out in PNAP APP-2 during building plan submission stage	Noted.
8.5	(c) For features to be excluded from the calculation of the total gross floor area, it shall be subject to compliance with the requirements laid down in the relevant JPNs and PNAPs including APP-151 as appropriate. If the applicant applies for the GFA concession, Building Set Back, Building Separation and Site Coverage of Greenery as required under PNAP APP-152 also apply	Noted.
8.6	Detailed comments will be given during the building plan submission stage.	Noted.

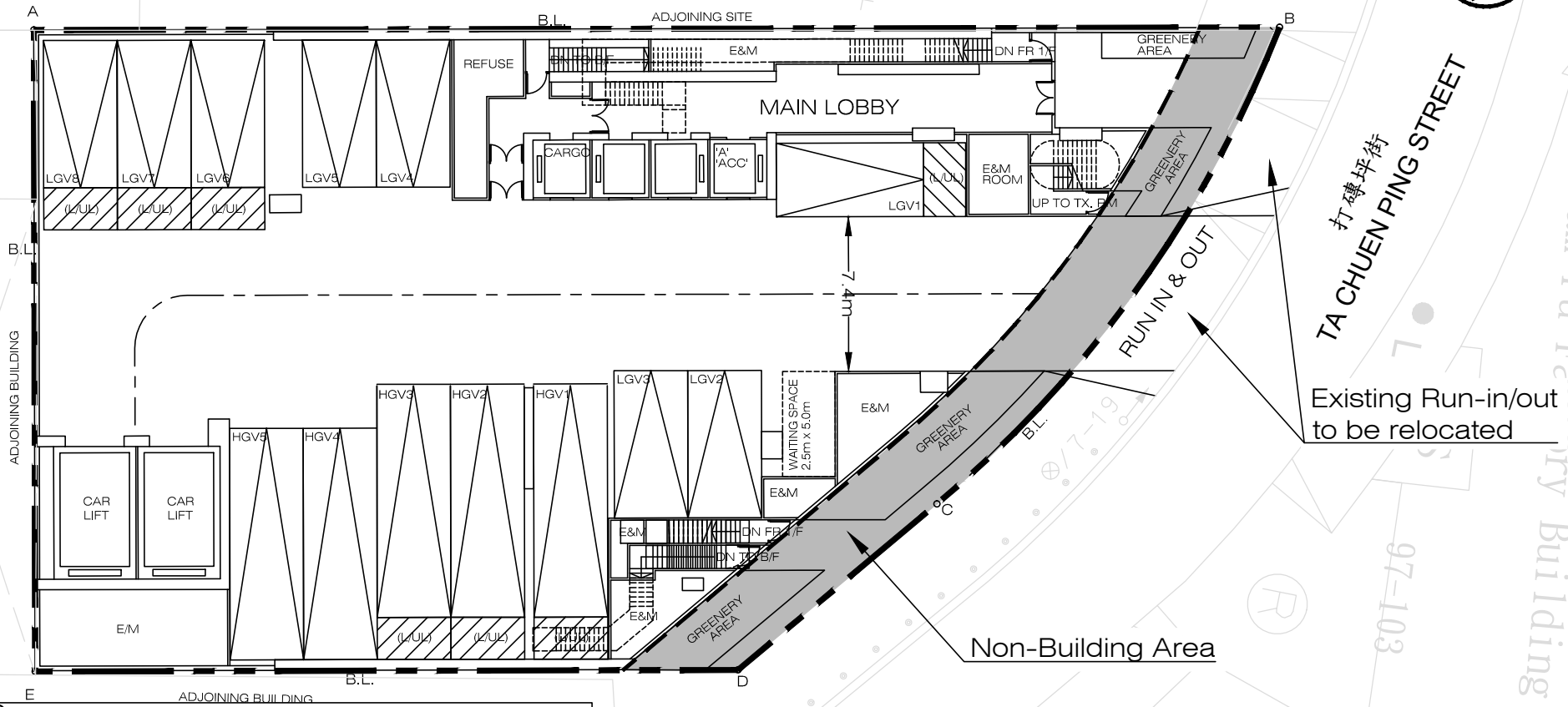
Complied by: KTA

Enclosure:

Annex A: Updated Figure 3.1 of Traffic Impact Assessment (TIA) (from Appendix 3 of Planning Statement (PS));
Annex B: Updated Second Floor Plan and Design Diagram (from Appendix 1 of PS);
Annex C: Updated Tree Survey and Landscape Proposal from Appendix 2 of PS; and
Annex D: Updated Artist Impression of Enhanced Streetscape facing Ta Chuen Ping Street (updated Figures 3.2 – 3.3 in PS).

Complied by: KTA
Date: 21 June 2021
File Ref: 20210618_S1399_FI1_V01

Annex A



LEGEND :

LGV1

Light Goods Vehicle
@7.0m(L) X 3.5m(W) X min.3.6m(H)

HGV1

Heavy Goods Vehicle
@11.0m(L) X 3.5m(W) X min.4.7m(H)

Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

PROPOSED GROUND FLOOR PLAN

Figure No.	Revision
3.1	A

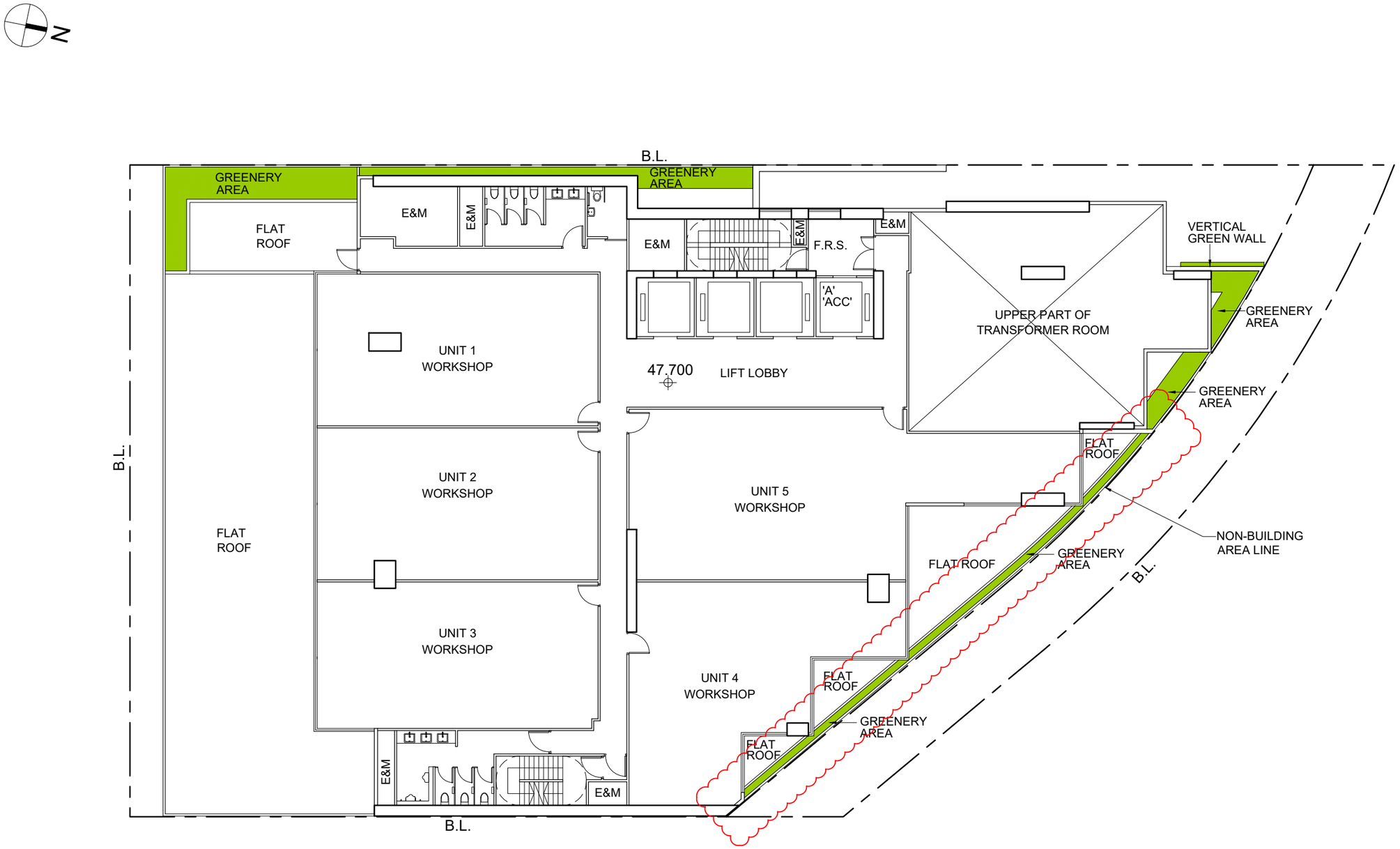
Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	23 JUN 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\TIA 2021 06\Fig 3.1-3.2.dwg

Annex B



2ND FLOOR PLAN

REF.

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE
2ND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A

20210623

DESIGN DIAGRAM - DESIGN MERITS

1. NON-BUILDING AREA
The set back at Ta Chuen Ping Street could enhance natural ventilation, increase permeability to surrounding areas. Greenery is to be provided in the area to improve the urban environment.

2. AT GRADE GREENERY
The extensive planting including trees planting along with complimenting at grade greenery along Ta Chuen Ping Street enhances the pedestrian experience, provides natural shades, and enhances the streetscape. It also enriches the building envelop and reduces the building bulk.

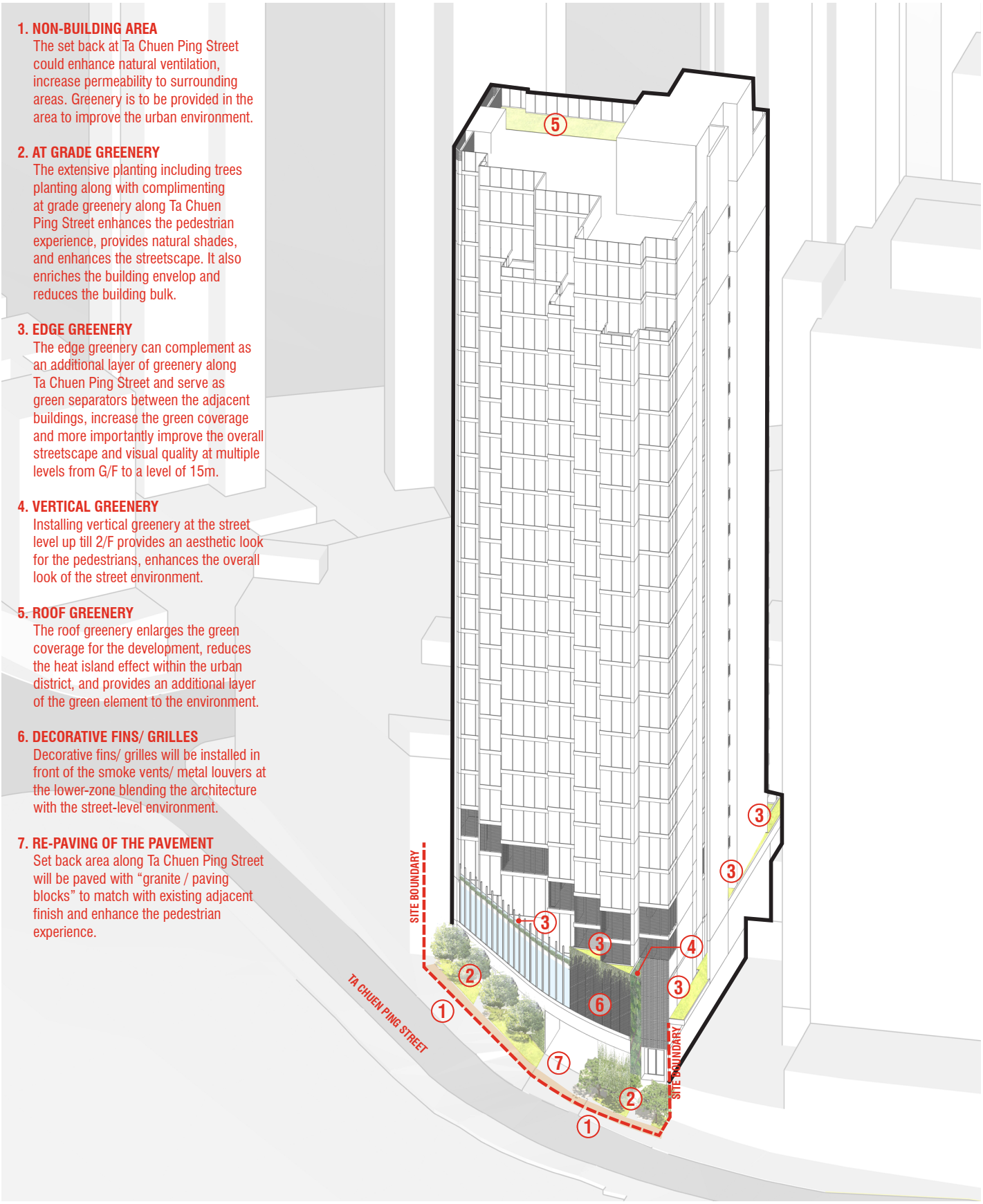
3. EDGE GREENERY
The edge greenery can complement as an additional layer of greenery along Ta Chuen Ping Street and serve as green separators between the adjacent buildings, increase the green coverage and more importantly improve the overall streetscape and visual quality at multiple levels from G/F to a level of 15m.

4. VERTICAL GREENERY
Installing vertical greenery at the street level up till 2/F provides an aesthetic look for the pedestrians, enhances the overall look of the street environment.

5. ROOF GREENERY
The roof greenery enlarges the green coverage for the development, reduces the heat island effect within the urban district, and provides an additional layer of the green element to the environment.

6. DECORATIVE FINS/ GRILLES
Decorative fins/ grilles will be installed in front of the smoke vents/ metal louvers at the lower-zone blending the architecture with the street-level environment.

7. RE-PAVING OF THE PAVEMENT
Set back area along Ta Chuen Ping Street will be paved with “granite / paving blocks” to match with existing adjacent finish and enhance the pedestrian experience.



Annex C

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 - 100 Ta Chuen Ping Street, Kwai Chung

TREE SURVEY AND LANDSCAPE PROPOSAL

(1st Submission- Rev.1)

Submission Date: June 2021

Client: Gain Champion Investment Limited
Landscape Architect : Gain Champion Investment Limited

LIST OF CONTENTS

APPENDICES

Drawing No.:	Drawing Title:	Rev.
TCPS/TS01	Tree Survey Plan	0
TCPS/TR01	Tree Recommendation Plan	0
TCPS/SEC01	Landscape section 01	1
TCPS/VG01	Typical Vertical Green Wall Detail	0
TCPS/LMP01	Landscape Master Plan - Ground Floor	1
TCPS/LMP02	Landscape Master Plan - First Floor	0
TCPS/LMP03	Landscape Master Plan - Second Floor	1
TCPS/LMP04	Landscape Master Plan - Roof Floor	0
TCPS/GA01	Greenery Area Provision - Ground Floor	1
TCPS/GA02	Greenery Area Provision - First Floor	1
TCPS/GA03	Greenery Area Provision - Second Floor	1
TCPS/GA04	Greenery Area Provision - Roof Floor	1

1. INTRODUCTION

1.1 Background

1.1.1 The proposed revitalisation Industrial building site is located at D.D. 444 Lot No. 290, No.94-100 Ta Chuen Ping Street, Kwai Chung, Kowloon. The development comprises of twenty-three storey factories/ workshops, a mechanical floor and one basement car park.

1.1.2 This Submission presents the Landscape Proposal (LP) which includes the Tree Survey. Given the site has no landscaping nor tree preservation clause, it serves as information and supporting document for Section16 purpose only.

1.2 Landscape Proposal for the Lot

1.2.1 This Landscape Proposal (LP) follows the requirements of Joint Practice Note no.3 (JPN3).

1.3 Tree Survey Report

1.3.1 The Tree Survey Report Is presented in **Section 4** of this Report.

1.4 Relevant Legislation and Guidelines

1.4.1 In preparation of this Report, reference has been made to the following technical circulars, practice notes and publications:

- Buildings Department / Lands Department / Planning Department Joint Practice Note No. 3 Re-engineering of Approval Process for Land and Building Developments. (August 2003);
- Forests and Countryside Ordinance (Cap.96);
- Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Country Parks Ordinance (Cap. 208);
- Development Bureau Technical Circular (Works) No. 5/2020 – Registration of Old and Valuable Trees, and Guidelines for their Preservation;
- Development Bureau Technical Circular (Works) No. 6/2015 -- Maintenance of Vegetation and Hard Landscape Features;
- Standing Interdepartmental Landscape Technical Group (SILTECH) publication - 'Tree Planting and maintenance in Hong Kong' (1991);
- Agriculture, Fisheries and Conservation Department Publication - 'Check List of Hong Kong Plants 2012' (2012);
- Agriculture, Fisheries and Conservation Department Publication - 'Rare and Precious Plants of Hong Kong' (2003).
- GEO Publication No. 1/2011 – 'Technical Guidelines on Landscape Treatment for Slopes';
- Works Branch Technical Circular (WBTC) No. 25/93 – Control of Visual Impact of Slopes;
- Works Bureau Technical Circular No. 17/2000 – Improvement to the Appearance of Slopes;
- Works Bureau Technical Circular No. 7/2002 – Tree Planting in Public Works;
- Highways Department – Landscape Unit – Requirements for Handover of Vegetation to Highways Department (2012);
- Highways Department Technical Circular No. 3/2008 on Independent Vetting of Tree Works under the Maintenance of Highways Department;
- BS 3888:2010 – Tree Work – Recommendations;
- BS 5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations.
- Guidelines promulgated by the Development Bureau at: http://www.greening.gov.hk/en/management

1.5 Changes in this revision

1.5.1 Changes includes the following in response to the comments received:

- 4 nos. of *Terminalia mantaly* will be replaced with 4 nos. of *Osmanthus Fragrans* along Ta Chuen Ping Street with minimum 5m centre to centre. The smaller size species within 2.5m width and the 1m pedestrian path immediately adjacent to the strip of planter should be sufficient for future healthy tree growth. Para 5.3.3 and drawing TCPS/LMP01 are revised accordingly.
- Para 5.1.11 is revised to clarify that the roof floor is proposed to be a multi-purpose functional area with planting area for communal use.
- A planter strip with shrubs/ groundcovers will be proposed on 2nd Floor flat roof facing Ta Chuen Ping Street for further enhancement as part of the visual streetscape upgrade. Para 5.1.7 and the associate drawings are revised accordingly.
- Table 5.6 of greenery area provision calculations and the associate drawings have been updated.
- Drawing TCPS/SEC01 paving material is revised to tally with the report.
- All changes in text will be highlighted in grey and clouded on drawings.

2. TREE SURVEY METHODOLOGY

2.1 Definition

2.1.1 In accordance with Lands Department's Practice Note Issue No. 2/2020, all existing trees of its trunk diameter measures 95mm or more at a height of 1.3m above ground level were identified.

2.2 Individual Tree Survey

2.2.1 Every tree surveyed individually shall be recorded with the following information and detailed in **Appendix 2**:

- Tree number
- Species
- Height
- Crown Spread
- Trunk Diameter
- Tree Form
- Amenity Value
- Health Condition
- Anticipated Survival Rate after Transplanting

2.3 Tree Assessment Schedule

2.3.1 A Tree Assessment Schedule recording the detailed information of existing trees together with photographic records of existing trees are enclosed in **Appendix 2** and **Appendix 3** respectively. All surveyed trees shall be identified to confirm whether the trees are:

- Included in the Register of Old and Valuable Trees promulgated under Environment, Development Bureau Technical Circular (Works) No. 5/2020,
- Potentially registrable in accordance with the criteria as set out in Environment, Development Bureau Technical Circular (Works) No. 5/ 2020,
- Tree species included in the latest edition of the publication: Rare and Precious Plants of Hong Kong, issued by Agriculture Fisheries and Conservation Department, and /or
- Potentially hazardous.

2.3.2 Terms Used in the Tree Assessment Schedule

(a) Tree No.:

Surveyed tree reference number recorded

(b) Species

Botanical names and Chinese names of the surveyed tree recorded

(c) Height

Full height measured from ground level to the top branch in meters

(d) Spread

Diameter of tree canopy in meter

(e) Trunk diameter

Diameter at breast height (DBH) of the main trunk measured at a height of 1300mm above ground level

(f) Health Condition

Estimated according to the Foliage, Exposed Roots, Branches and Trunk

(G) = Good Without any visible disease or defect, sound and healthy tree

(F) = Fair With few visible defects or health problem

(P) = Poor With many visible defects or health problem such as rot, cavities in the main trunk, insect or fungi attack, lack of vigour and crown die back, etc.

(g) Tree Form

Estimated according to the canopy, branch and trunk

(G) = Good Well-balanced canopy and straight strong trunk(s) without any broken branch

(F) = Fair Slightly unbalanced canopy and non-straight trunk(s)

(P) = Poor Heavily leaning, unbalanced canopy misshapen, awkwardly-forked trunk or with any broken branch or trunk

(h) Amenity Value

Estimated according to the species, age, size, health condition and tree form

(H) = High

Specimen of rare trees to be retained if at all possible

(M) = Medium

Trees which individually or collectively make a useful but not vital contribution to the local environment

(L) = Low

Dead, dangerous and unhealthy trees and trees of generally poor form and shape

(i) Anticipated survival rate after transplanting

The survival rate after transplanting for individual tree is assessed and categorized as follows:

(H) = High

(M) = Medium

(L) = Low

The following criteria are taken into account:

- Condition of the Tree - trees with balanced form, in good health and with high amenity value are considered for transplanting
- Size and Maturity - small and younger trees have a better chance of surviving transplantation while larger, mature trees are difficult to transplant both logistically and in terms of survival rate
- Species - different tree species have better chances of survival or are better suited to transplanting than others
- Access - large machinery is required to lift the trees, steep slopes and rocky terrain therefore make it difficult to access trees
- Trees Located on Sloping Ground - for those trees located on sloping ground, they may not survive after transplanting even if they are accessible. It is difficult for their inclined root systems to adapt to the normally more gentle ground at the receptor site.

(j) Remarks

Supplementary special features identified on site and having status / characteristics / condition as stated in the bullet points of Section 3.2.3 Tree Assessment Schedule.

3. EXISTING SITE CONDITIONS

3.1 Description of Existing Site and Landscape Context

3.1.1 The Development Site is within an area of about 1486.436 sqm., falls within the industrial area in Kwai Chung. The site is bounded by Regent Centre and Kong Sheng Factory Building along Ta Chuen Ping Street.

3.1.2 Photographs showing the existing site conditions are enclosed in **Appendix 1** The ground levels along Ta Chuen Ping Street are around +36mPD. The lowest point of the ramp is approximately +36mPD and slowly ramping up to the flat area around +39mPD.

3.1.3 The site is relatively flat with concrete paved and an approximate 3m ramp up to the main site which is currently uses for vehicles manoeuvring by the owners of DD444 Lot 291.

3.1.4 There are iron sheet fences of around 2m height to the West of the site and the North, South and West of the site is immediately abutting the adjacent Kong Sheng Factory building and Regent Centre.

3.1.5 There are no SIMAR slopes found in the vicinity of the site.

3.2 Existing Trees

3.2.1 There are total 7 no. existing trees found within the site. All of them grow along the boundary edge with average tree condition except one located adjacent to the ramp on the flat area.

3.2.2 There are no trees within or adjacent to the site that are included in the Register of Old and Valuable Trees promulgated under ETWB TC(W) 5/2020 and since only trees on unleased Government land within built-up areas or tourist attraction spots in village areas are eligible for inclusion in the Register, there are no surveyed trees that are potentially registrable in accordance with the criteria as set out in ETWB TC(W) No. 5/2020.

3.2.3 The Tree Survey Report is presented in **Section 4** of this Report

4. TREE SURVEY REPORT

4.1 Background

4.1.1 The Tree Survey is based on the Topographic Survey undertaken by Chynchen Associates Limited in March 2021.

4.1.2 The assessment and survey of the existing trees within the site were carried out and recommendations were made regarding the treatment of existing trees in response to the design proposals.

4.1.3 The tree survey report outlines the approach and findings of the tree survey; describes the type, extent and condition of existing trees that will be affected by the proposed development, makes recommendations for the treatment to these existing trees within the site.

4.2 Tree Survey Finding

4.2.1 There are a total of 7 nos. existing trees surveyed. Locations of trees are indicated in the Tree Survey Plan enclosed in **Appendix 4** and Photographic Record of Existing Trees in **Appendix 3.**

4.2.2 The tree species recorded are mostly common species in Hong Kong. There are 4 species identified, the height ranges from 4m to 10m, crown spread from 4m to 8m, and DBH from 125mm to 620mm, no weed species *(Leucaena leucocephala)* are found.

4.2.3 The species of surveyed trees and number of each tree species are summarized in **Table 4.2** below.

Table 4.2 Summary of surveyed Trees

Scientific name	Chinese Name	Origin	Quantity (no.)
Ficus microcarpa	細葉榕	Native	2
Ficus rumphii	心葉榕	Exotic	1
Ficus variegate	青果榕	Native	1
Macaranga tanarius var. tomentosa	血桐	Native	3
Total no. of Tree Surveyed			7

4.3 Assessment of Impacts on Existing Trees

4.3.1 The number and species of trees to be retained, transplanted or fell shall depend on various factors, e.g. cost of planting and transplanting, health, amenity value, size, survival rate, location and details of the proposed works.

The following definitions with regard to the recommendations for treatment for each tree in the Tree Assessment Schedule are used:

(1) Retain

Trees in unaffected areas are recommended to be retained and will be protected during construction by temporary fencing when in proximity to construction works.

(2) Transplant

Tree species that are rare or endangered are recommended to be transplanted. Trees approved to be transplanted will be relocated to a suitable location with consent of the Government.

(3) Fell

Trees in direct conflict with the proposed works and are unsuitable for transplanting will be felled. This shall be the last resort if retain and transplant are both not feasible.

4.4 Criteria for Recommendation

4.4.1 The main criteria for judging 'Tree Treatment' for each tree are as follows:

(1) **Retain**

- The feasibility of retaining a tree has been considered with regards to the following:
- Potential damage to the trees as a result of the work.
- Changes to ground levels on a macro-scale that affects the ground water table and may cause severe stress.
- Special construction to maintain the existing ground.
- Conflict between tree roots and slope stabilization method.

(2) **Transplant**

- In situation where a tree is impossible to retain, then transplanting will be considered. The criteria upon which the assessment of transplanting tree are based on the following:
- Potential damage to the trees as a result of the work.
- Rarity of species - rare or endangered Hong Kong species.
- Distinctiveness - trees with high amenity value and high local importance.
- Condition of tree - trees with balanced form, good health and high amenity value, which will affect the success of the proposed transplanting
- Maturity - younger trees have higher survival rate while mature trees do not.
- Species character - different tree species have different rates of survival.
- Rootball feasibility - tree growing on loosen rocky sub-base / slope or adjacent to important utility will not be considered.
- Availability and suitability of a permanent receptor site, both within and outside the site.
- Adequate time for preparation of transplanting operation.
- Identification of a long term maintenance works for the transplanted tree(s).
- Access to the existing location and transportation to the receptor site (including availability of access to accommodate the tree, topography of the proposed route, engineering limitations, etc).
- Cost-effectiveness

(3) **Fell**

The guidelines for the proposed felling of trees are:

- No irreplaceable rare tree species involved.
- Felling of trees would not cause a serious environmental impact.
- A genuine development or traffic need for tree felling exists, which cannot be reasonably overcome.
- The tree is not unusually large or is not a fine specimen of its type.
- The tree is low amenity value and/or poor health, structure or form (e.g. imbalanced form, leaning, with major cavity/ cracks/ splits),
- The tree with low survival rate after transplanting.
- The tree with irrecoverable form after transplanting, which substantial crown and root pruning are necessary to facilitate the transplanting.
- The tree with very large size, which is not considered financially reasonable and technically feasible during feasible stage.
- Undesirable species (e.g. *Leucaena leucocephala*, which is an invasive, self-weeded exotic tree).
- The tree is dead, hazardous or diseased

4.5 Recommendation on Tree Treatment

4.5.1 Among the 7 nos. surveyed trees, all of them would be affected by the excavation works for site formation of the proposed development. All trees affected are in fair to poor form, fair health condition, poor structural condition, with medium to low amenity value and low anticipated survival rate after transplanting.

4.5.2 All of the surveyed trees are not feasible to transplant as the root balls of the trees are either growing within the adjacent concrete wall or immediately abutting the adjacent structure or growing in a narrow planter, which makes the formation of root ball to transplant very difficult and impractical. Therefore, recommend to be felled.

4.5.3 Recommendations for works on the affected trees are shown in the Tree Assessment Schedules in **Appendix 2** and by colour coding the Tree Survey Plan **TCPS/TS01** in **Appendix 4.**

4.5.4 The following is proposed for the 7 surveyed trees:

- All 7nos. of trees are proposed to be felled.
- 0 trees are proposed to be retained
- 0 trees are proposed to be transplanted

4.5.5 **T1** *Ficus microcarpa* and **T7** *Ficus rumphii* both with fair form and fair health condition are proposed to be felled. Even though they are located on the proposed planting area, due to direct conflict to the proposed basement development. While the proposed development has a full height set back of minimum 3.5m wide non- building area the proposed works will not be able to further set back as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement. Therefore site formation works will unavoidability be in direct conflict with the existing trees.

4.5.6 With the existing location and condition of these trees, transplantation is impossible as T1 is growing very closely to the existing hoarding, making it very difficult to form the rootballs for onsite/ offsite transplanting. T7's roots are growing within the adjacent concrete low wall, separating the root to the concrete structure is impossible and potential hazard of stability might occur after the separation of concrete structure as it is not a registered wall and stability of such wall is uncertain. It is occurs to be a potential tree failure in the future if we proposed to retained the concern trees.

4.5.7 **T2, T3** *Macaranga tanarius var. tomentosa* and **T4** *Ficus variegate* in poor form and health condition are also proposed to be felled as it is in direct conflict with the proposed building envelope and transplantation of these trees are impossible as their root collar are unable to be seen and their tree trunk are locate immediately adjacent to the building block.

4.5.8 **T5** *Ficus microcarpa* is leaning located within the proposed building envelope and a small narrow planter immediately adjacent to the building rendering the rootball preparation for transplantation very difficult, therefore it is proposed to fell given the consideration of the tree amenity value and cost imbalance.

4.5.9 **T6** *Macaranga tanarius var. tomentosa* is located in the middle of the proposed driveway and between the two level along the side of the ramp from the existing entrance. Considering the level difference from the future proposed level and the existing root collar level, it will be directly affected by the proposed construction works and will not be able to retain nor transplant. Transplantation is not recommended due to the tight growing planter space currently for the roots rendering it very difficult to prepare a rootball for transplant.

4.6 Summary of Tree Treatment

4.6.1 **Table 4.6** below provides consolidated findings and recommendations of the existing trees.

Table 4.2 Summary of Tree Treatment

Proposed Treatment	**Quantity (nos.)**
To be retained	0
To be transplanted	0
To be felled	7
Total no. of Tree Surveyed	**7**

5. THE LANDSCAPE PROPOSAL

5.1 Landscape Design Objectives

5.1.1 The landscape design is responsive to the surrounding environment and complement to the contemporary architectural design of the development. The design takes into consideration of the aesthetic, functional and sustainable aspect of the site and its surrounding. The landscape areas and facilities have been considered and arranged to allow ease of pedestrian circulation and adjacent to relevant indoor facilities. A balance of hard and soft landscape area/ elements have been sought wherever possible. The proposed plant species are both native and exotic species for blending with the local climate/ micro-climate.

5.1.2 The proposed landscape area is distributed at Ground Floor, 1st Floor, 2nd Floor and Roof. Ground Floor, 2nd Floor and roof are open and accessible to general tenants for enjoyment. The other landscape area on 1st Floor are inaccessible but visually accessible to create a greenery connection on site.

5.1.3 The landscape design proposal is illustrated on the plans **(TCPS/LMP01** to **TCPS/LMP04)** and section **(TCPS/SEC01)** enclosed in **Appendix 4** of this report

5.1.4 Description of each landscape area are further elaborated below.

Ground Floor Landscape area and Streetscapes

5.1.5 The streetscape design for the pedestrian pavements along Ta Chuen Ping Street will be upgraded with new trees and shrubs planting and additional 1m widening (set back line) on the existing pedestrian paving for a more generous and welcoming opening within site boundary. These landscape measures will serve to tie together the surrounding space and the proposed building.

5.1.6 Trees and shrubs planting are designed to provide partial screening between the public and the development which also invite the surrounding, adjacent spaces into the development, creating seamless integration with the new development. In addition, tree canopies will create a comfortable shaded environment and enhance the edge treatment as well as improving the street environment.

5.1.7 As part of the visual streetscape upgrade, a planter strip with shrubs/ groundcovers will be proposed on 2nd Floor flat roof facing Ta Chuen Ping Street for further enhancement.

5.1.8 Instead of providing only horizontal greening, our scheme has also included vertical greening, the provision enhances the overall greening effect to at-grade levels and maximise the greening opportunities.

5.1.9 Furthermore, the finishes and plant species provided within the development will be compatible with those selected for the surrounding public areas, details of the indicative proposed species are listed in **Section 5.3** below.

Landscape areas located on 1st Floor, 2nd Floor and Roof

5.1.10 Planters are designed along the edge adjacent to Regent Centre on as well as an edge corner of the side facing Ta Chuen Ping Street on 2nd Floor to create a green buffer and to reduce the visual prominence, soften the form of the proposed architectural scheme and create a greener perimeter where it interfaces with the spaces surrounding the site.

5.1.11 Accessible small pocket space with seating areas are proposed on the Western corner on 2nd Floor.

5.1.12 Multi-purpose functional area with planting area are proposed on roof of the building block for communal use, fixed seating facilities are not provided for future programme flexibility.

5.1.13 The landscaping areas on 1st Floor and corner of 2nd Floor are not accessible by communal users, they are provided with weeping planting to further enhance the overall greening effect of the Development.

5.2 Hard Landscape Element

5.2.1 Paving used for vehicular traffic shall be of adequate thickness to withstand the required loading, and the colour and pattern shall match with the overall paving character. Feature paving shall be adopted at building entrances and landscape areas for accent.

5.2.2 For curbs, planters and walls, natural granite and ceramic tiles with different colours and textures are proposed and in line with the overall colour tone of the hard landscape.

5.2.3 All hard paved areas shall be paved with a mixture of ceramic tiles and natural granite with sizes and colours complementary with the proposed building finishes for the site.

5.2.4 Non-slip paving materials are designed and selected to suit the various active and passive recreational areas within the site and the proposed finishes and materials are summarized in the Hard Landscape Schedule below.

Ground Floor Landscape Area

Landscape Zone	**Brief Description of Hardworks Elements**
Entrance area	*Pavement – granite/ paving blocks*
EVA/ loading & unloading area	*EVA road – granite/ ceramic tiles* *Loading and unloading area/ ceramic tiles*
Shop area	*Pavement/Staircase – granite / ceramic tiles/ paving blocks*
Edge planters along boundary fence/wall	*Planter wall – granite / ceramic tiles*

1st Floor, 2nd Floor and Roof Landscape Area

Landscape Zone	**Brief Description of Hardworks Elements**
Landscaped area	*Pavement - granite/ ceramic tiles* *Planter wall - granite/ ceramic tiles*

5.3 Soft Landscape

5.3.1 Plants enhance the visual quality and add seasonal interests to the landscape area. Also, it softens the hardscape and increase the landscape quality of the development. Both native and exotic plant species are used to provide ecological benefits as well as ornamental purpose.

5.3.2 Trees, shrubs and groundcovers will be planted throughout the site whenever appropriate. Species with shade tolerant plants, evergreen nature and different foliage colours are selected to ensure year round greening effect and visual interest. For feature planting at focal points, evergreen or deciduous species with different foliage colours will be selected to enhance visual and seasonal interest.

5.3.3 7 nos. of heavy standard *Osmanthus Fragrans* are proposed on the Ground Floor as a green edge buffer treatment along Ta Chuen Ping Street and the proposed planting area immediately adjacent to Regent Centre to reduce the wall effect and act as a screen planting.

5.3.4 Proprietary vertical green wall is also introduced to the site for additional greening and create a vibrant visual appreciation for the pedestrian and it's surrounding. Evergreen and easily maintained species will be proposed on the vertical green for immediate visual effect. Typical detail of the vertical green wall is show on Drawing No. **TCPS/VG01** enclosed in **Appendix 4**.

5.3.5 Self-clinging climbing species are also proposed on the walls behind the proposed trees facing Ta Chuen Ping Street for a more natural form of vertical greening in the future.

5.3.6 No planting area is under cover in the proposed layout plan. Section Drawing, drawing no. **TCPS/SEC01** showing the section of proposed planting area, are enclosed in **Appendix 4**.

The planting areas are shown on Drawing No**. TCPS/LMP01** to **TCPS/LMP04** enclosed in **Appendix 4** of this Report and the indicative planting schedule are summarised in **Table 5.3** below

Table 5.3 Indicative Planting Schedule

Planting Species	**Chinese name**	**Size (height x spread) (mm)**	**Min. Planting Spacing (mm) /c**	**Proposed Location**
Tree Planting (for Compensatory Planting)*				
Osmanthus Fragrans	桂花	Heavy Standard	3000	G/F (7 nos.)
~~*Terminalia mantaly*~~	~~小葉欖仁~~	~~Heavy Standard~~	~~5000~~	~~G/F (4 nos.)~~
Shrubs and Groundcovers				
Allamanda cathartica	軟枝黃蟬	1000x300	300	1/F, 2/F, RF
Bougainvillea glabra	勒杜鵑	1000x300	300	1/F, 2/F, RF
Cuphea hyssopifolia	台灣雪茄花	150x200	150	2/F, RF
Duranta repens 'Dwarf golden'	黃金假連翹	400x400	400	G/F, 2/F
Fatsia japonica	八角金盤	400x400	400	G/F, RF
Fagraea ceilanica	非洲茉莉	400x400	400	G/F, 1/F, 2/F
Ficus microcarpa cv. Golden Leaves	黃金榕	800x800	800	RF
Ixora chinensis	龍船花	400x400	400	G/F, 1/F, 2/F
Liriope spicata	蒲草	150x150	150	1/F, 2/F, RF
Nephrolepis hirsutula	毛葉腎蕨	200x200	200	2/F
Nandina domestica	南天竹	300x600	300	2/F
Parthenocissus tricuspidata	爬牆虎	400X400	400	G/F
Osmanthus fragrans	桂花	500x500	500	2/F
Rhododendron simsii	紅杜鵑	400x400	400	G/F, 2/F
Schefflera arboricola 'Dazzle'	鵝掌藤	500x500	500	G/F, 2/F
Syzygium hancei	韓氏蒲桃	500x500	500	G/F, 2/F
Climbers				
Ficus pumila	薜荔	500 x 300	300	GF
Parthenocissus dalzielii	爬牆虎	750 x 300	500	GF

Trachelospermum jasminoides	絡石	900 x 500	700	GF

5.4 Tree Planting Method

5.4.1 A minimum of 1200mm soil depth is proposed for all compensatory tree planting areas. A 500mm radius around the trunk of the trees shall remain clear of shrubs or ground covers in accordance with Guidelines promulgated by the Development Bureau, and a 50mm layer of mulch shall be applied.

5.5 Greenery provision

5.5.1 Upon full establishment of greening measures mentioned in the landscape design proposal, visible greening at different levels of the proposed development will be about 20.33% not less than 20% of the site area. Minimum greenery ratio required within the Lot is 20% of the total site area as per PNAP APP-152. Drawing No. **TCPS/GA01 to 04** enclosed in **Appendix 4** of this report shows details of the Green Coverage. Requirement of greenery, please refer to **Table 5.5** and **Table 5.6.**

Table 5.5 – Green Area Provision requirement

Greenery Area Requirement	
Development Site	1,486.436 m^2
Primary Zone (below 15m) – 10%	148.644 m^2
Overall Greenery Area – 20%	297.287 m^2

Table 5.6 – Green Area Provision Calculations

Greenery Area Provision		
Location		**Area (m^2)**
Primary Zone (below 15m)	Ground Floor (G/F)	60.4
	First Floor (1/F)	5.75
	Second Floor (2/F)	29.99
	Vertical Greening (VG)	58.5
	Total	**154.64 (>10%)**
	Roof Floor (R/F)	147.51
	Overall	**302.15 (20.33%>20%)**

5.5.2 As per the general sustainable building design guidelines, a minimum greenery ratio of 10% of the total 20% (148.636 m^2) visible to pedestrians or accessible by any person or persons entering the Lot is required. A total greenery area of (154.64 m^2) at Primary Zone has been provided on G/F, 1/F and 2/F in the Development Site. Calculation of greenery area requirements is based on (PNAP) APP-152.

5.5.3 Due to the height limit imposed on the site, the site coverage of the proposed building is up to the maximum allowable limit of 61.537% in order to achieve the allowable GFA under lease. The remaining uncovered area is only 38.463% of the site area which had to cater for the planting area, vehicular access and pedestrian access. Further set back of the building along Ta Chuen Ping Street is not feasible as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement, maximum at grade planting area has been considered.

5.5.4 Rendering the tight space for the development with building blocks situated immediate to the three sides of our site, providing greenery along the street frontage/ primary zone is difficult. Therefore, a 15m (H) x 3.9m (W) proprietary vertical wall is provided facing Ta Chuen Ping street for immediate visual enjoyment to the adjacent building occupants and public pedestrians.

5.6 Landscape Lighting

5.6.1 Lighting for the landscaped areas will be designed to contribute to the quality of the development. All accessible points and open space areas will be provided with sufficient illumination to meet the required lighting standards. Lighting designed for all open space will be carefully designed to avoid glare. The lighting strategy includes four types of lighting as follows:

- Amenity lighting provides in-ground flood lighting for feature trees and planting on roof gardens;
- Up-lighting for landscape features (e.g. walls / sculpture / feature trees);
- Area lighting on roof gardens (e.g. wall recessed lights and low level lighting) is proposed for sitting out areas and courtyard gardens to minimize the potential visual intrusion; and
- Safety lighting with minimum lux level in accordance with acceptable standards and requirements for the perimeter areas and any areas used as means of escape.

5.7 Soil Requirement

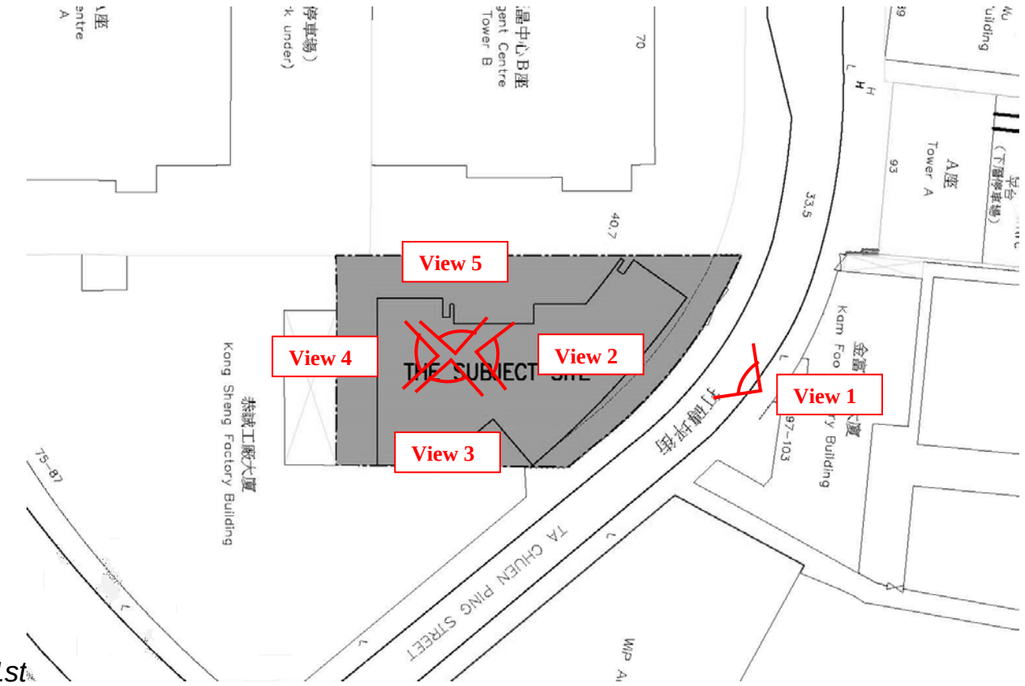
5.7.1 Provision of soil depth to all planted areas will be a minimum depth of 1200mm for trees, 600mm for shrubs and 300mm groundcover area, excluding drainage layer.

5.8 Irrigation and Drainage

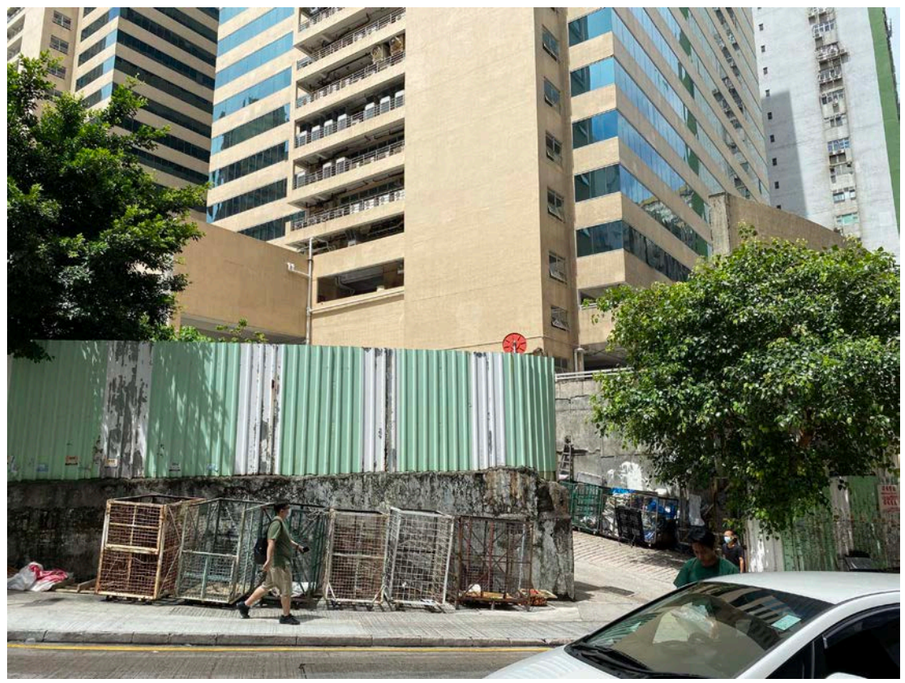
5.8.1 Drainage for all planted area with the provision of adequate source of water supply will be provided

Appendix 1

Site Plan and Existing Site Condition Photos

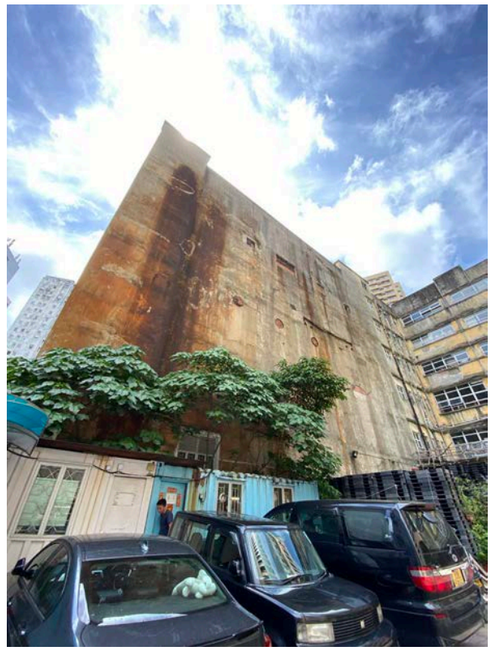


Site Plan

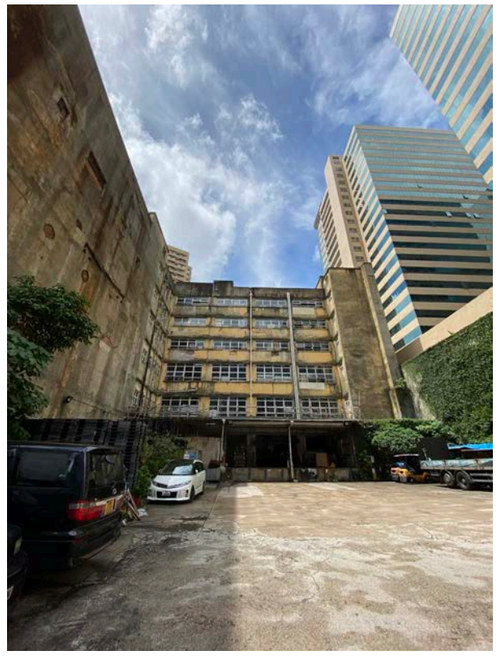


View 1

View 2



View 3



View 4

View 5

Appendix 2

Tree Assessment Schedule

Tree Assessment Schedule

Date of Tree Survey: 16-三月-21

Tree No.	Species		Measurement			Form	Health Condition	Structural Condition	Amenity Value	Conservation status	Suitability for Transplanting		Recommendation (Retain/ Transplant/ Fell)
	Scientific Name	Chinese Name	DBH (mm)	Height (m)	Crown Spread (m)	Good / Fair / Poor			High / Medium / Low		High / Medium / Low	Remarks	
T1	Ficus microcarpa	榕樹 (細葉榕)	620	10	8	Fair	Fair	Poor	Medium	NIL	Low	Dead branch; close to existing hoarding; difficult to form rootball	Fell
T2	Macaranga tanarius	血桐	135	6	5	Poor	Fair	Poor	Low	NIL	Low	Slightly leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T3	Macaranga tanarius	血桐	125	7	6	Poor	Fair	Poor	Low	NIL	Low	Slightly leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T4	Ficus variegata (syn. Ficus variegata var. chlorocarpa)	青果榕	155	9	6	Fair	Fair	Poor	Medium	NIL	Low	Leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T5	Ficus microcarpa	榕樹 (細葉榕)	210	4	4	Fair	Fair	Poor	Medium	NIL	Low	Leaning; locate in small planter, unstable rootball for transplantation	Fell
T6	Macaranga tanarius var. tomentosa	血桐	270	5	5	Poor	Fair	Poor	Low	NIL	Low	Multi-trunks; Dead branch; Asymmetirc canopy; root cramped inside a small concrete planter, imposible to form rootball for transplantation	Fell
T7	Ficus rumphii	心葉榕 (假菩提樹)	350	10	8	Fair	Fair	Poor	Medium	NIL	Low	Dead branch; Asymmetirc canopy; root growing into adjacent concrte low wall; imposible to form rootball for transplantation	Fell

Summary of Tree surveyed

Recommendation	no.
Trees to be Retain	0
Trees to be Transplant	0
Trees to be Fell	7

Appendix 3

Tree Survey Photographs

Photo No. 1 | T1

Photo No. 2 | T1

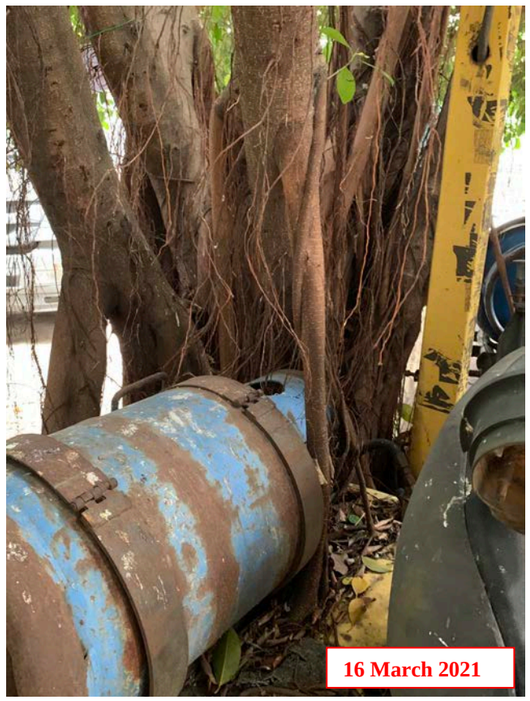


Photo No. 3 | T1

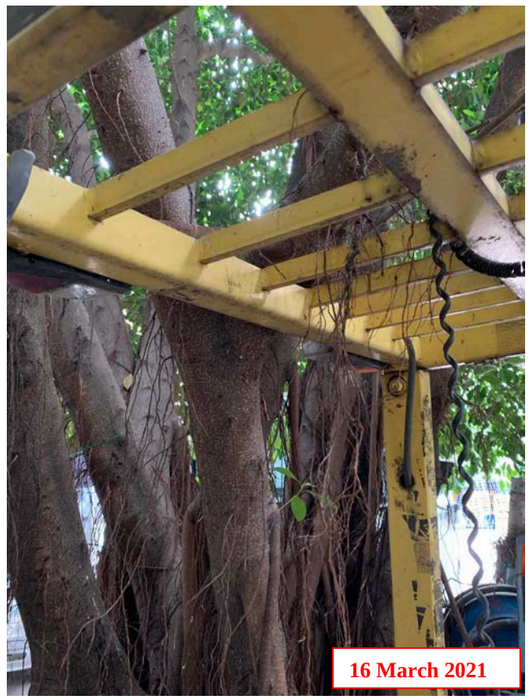


Photo No. 4 | T1

Photo No. 5 | T1

Photo No. 6 | T2

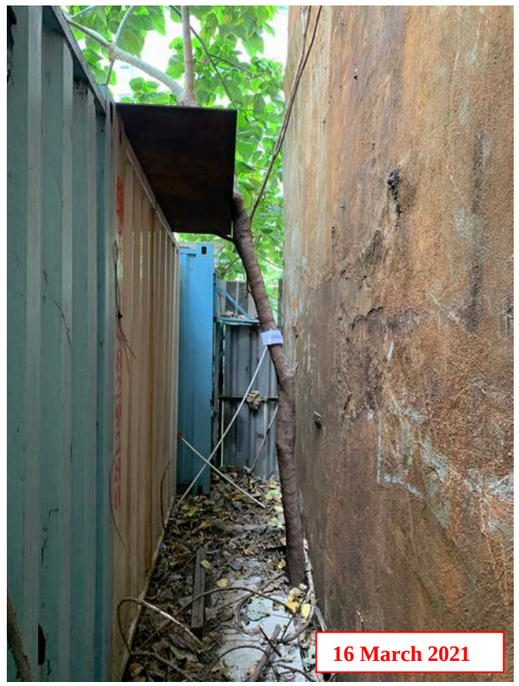


Photo No. 7 | T2

Photo No. 8 | T2

Photo No. 9 | T3

Photo No. 10 | T3

Photo No. 11 | T4

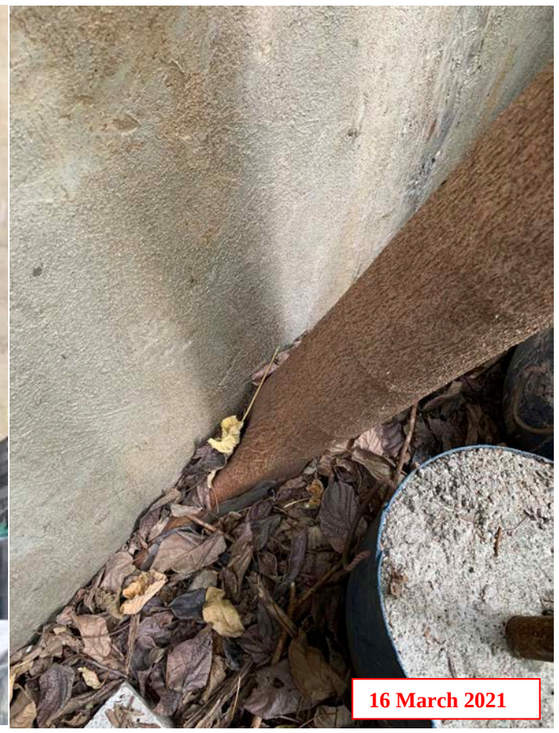


Photo No. 12 | T4

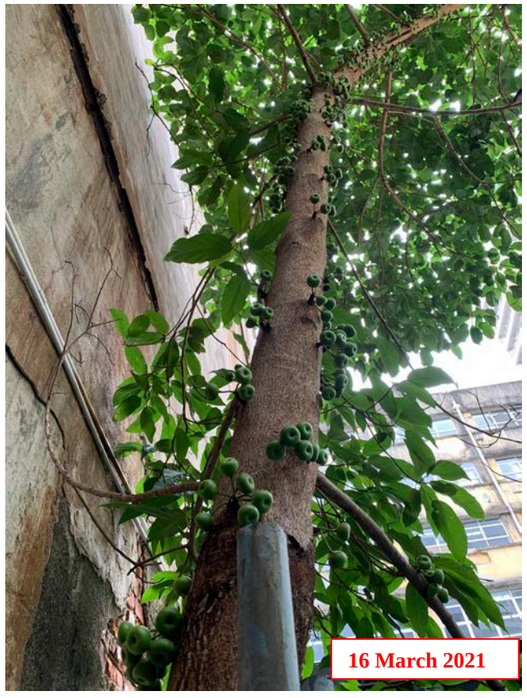


Photo No. 13 | T4

Photo No. 14 | T5

Photo No. 15 | T5

Photo No. 16 | T5

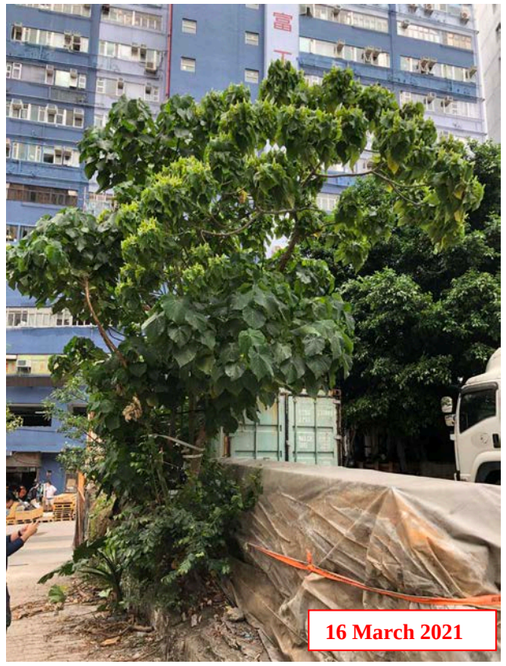


Photo No. 17 | T6

Photo No. 18 | T6

Photo No. 19 | T7

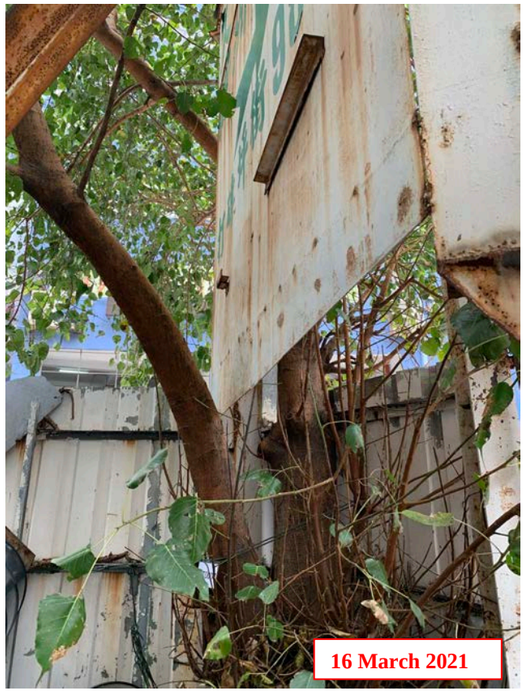


Photo No. 20 | T7

Photo No. 21 | T7

Photo No. 22 | T7

Photo No. 23 | T7

Photo No. 24 | T7

Appendix 4

Landscape Drawings

T5
(+39.67)

T6
(+39.11)

T7
(+36.62)

T1
(+39.30)

T4
(+39.29)

T3
(+39.43)

T2
(+39.25)

A

B

C

D

E

WALL

PLF

TS

RAMP

G.L.

SP

HD

TA CHUEN PING ROAD

LEGEND :

LOT BOUNDARY

TREE SURVEYED
WITHIN LOT BOUNDARY

T5
(+39.67)

TREE NUMBER AND
EXISTING GROUND LEVEL
AT TRUNK BASE (M)

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

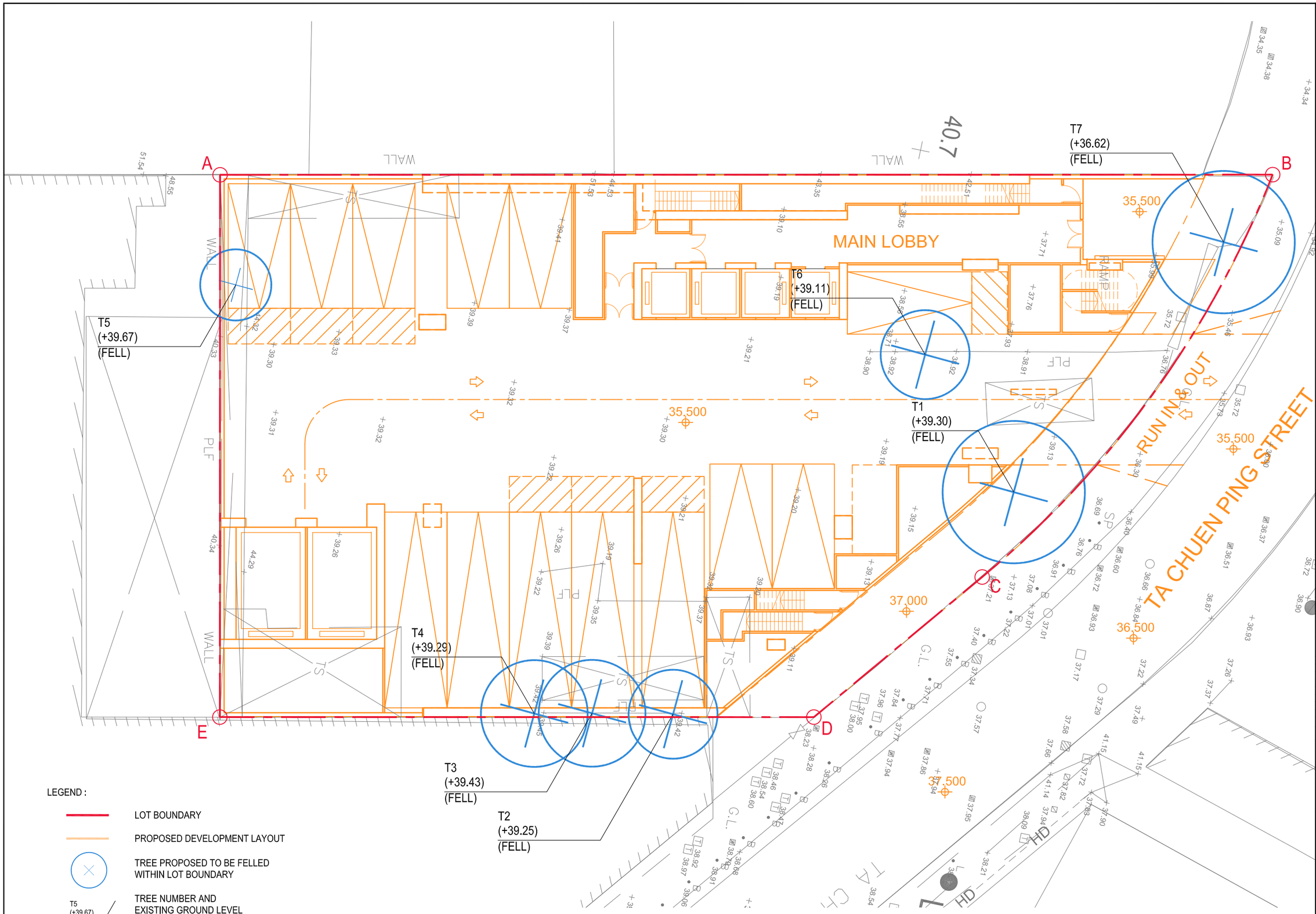
DRAWING TITLE

TREE SURVEY PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TS01

REVISION 0



LEGEND :

- LOT BOUNDARY
- PROPOSED DEVELOPMENT LAYOUT
- TREE PROPOSED TO BE FELLED WITHIN LOT BOUNDARY
- T5 (+39.67) — TREE NUMBER AND EXISTING GROUND LEVEL AT TRUNK BASE (M)

REF:

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

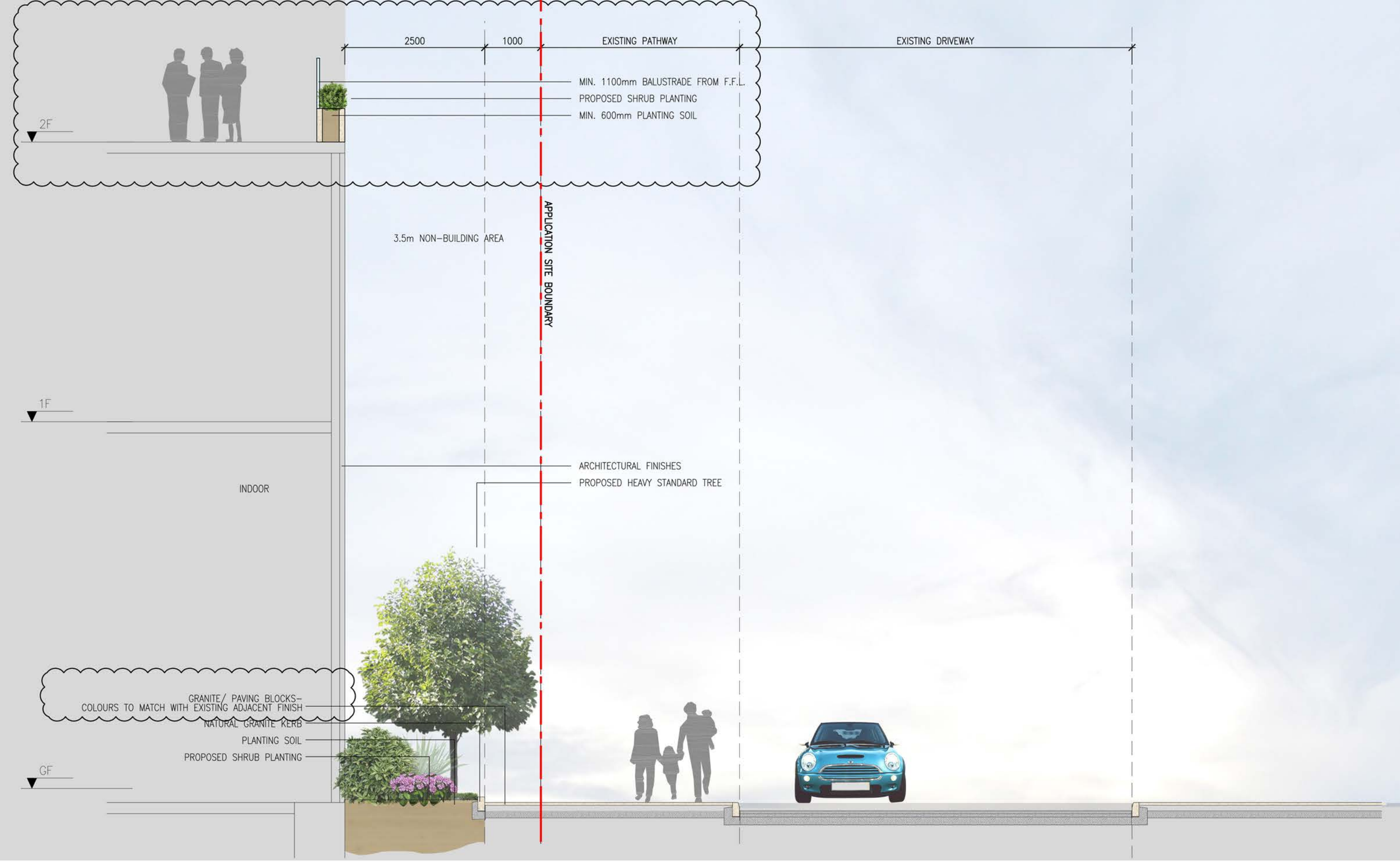
JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG

DRAWING TITLE
TREE RECOMMENDATION PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TR01
REVISION 0

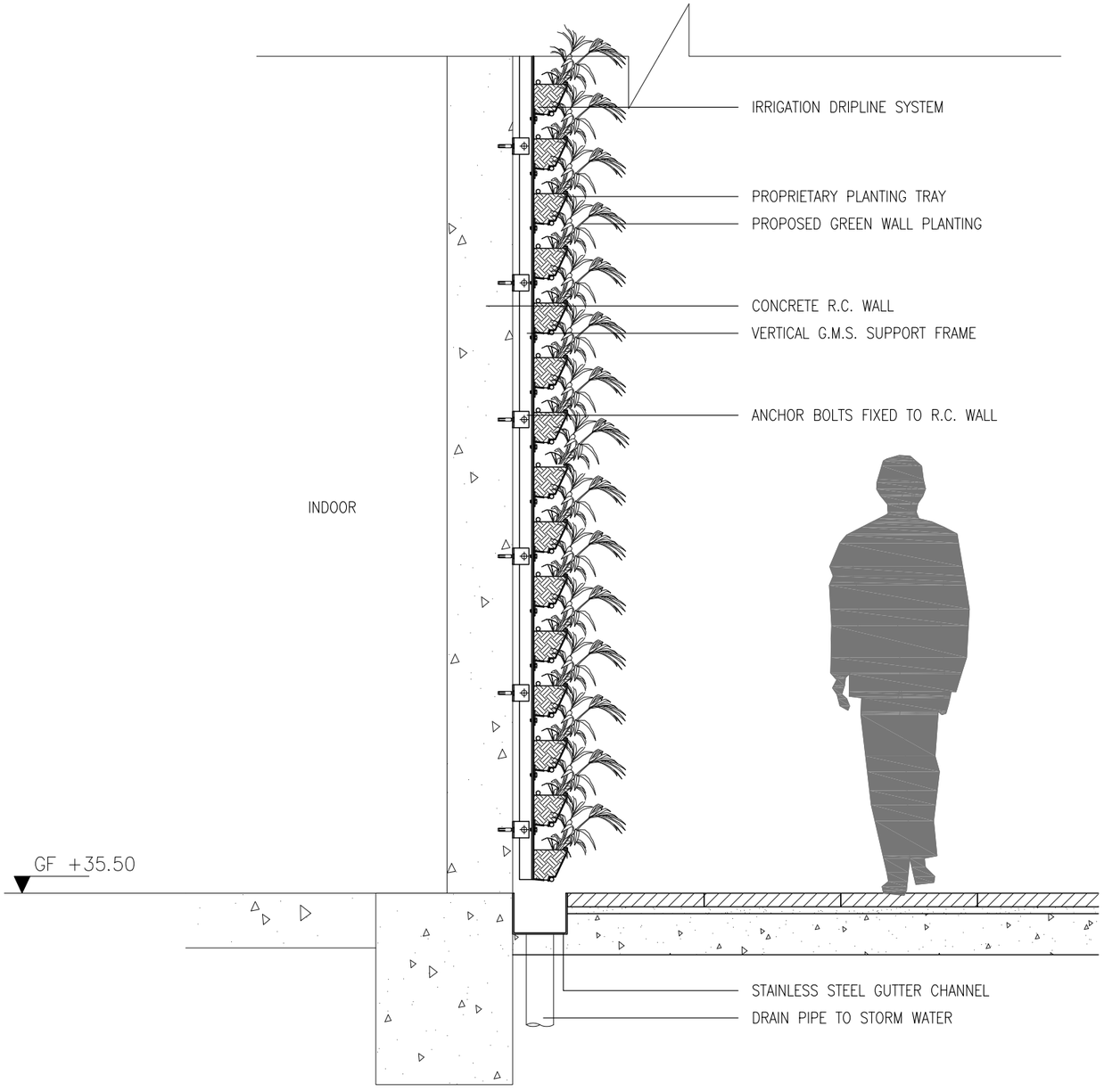


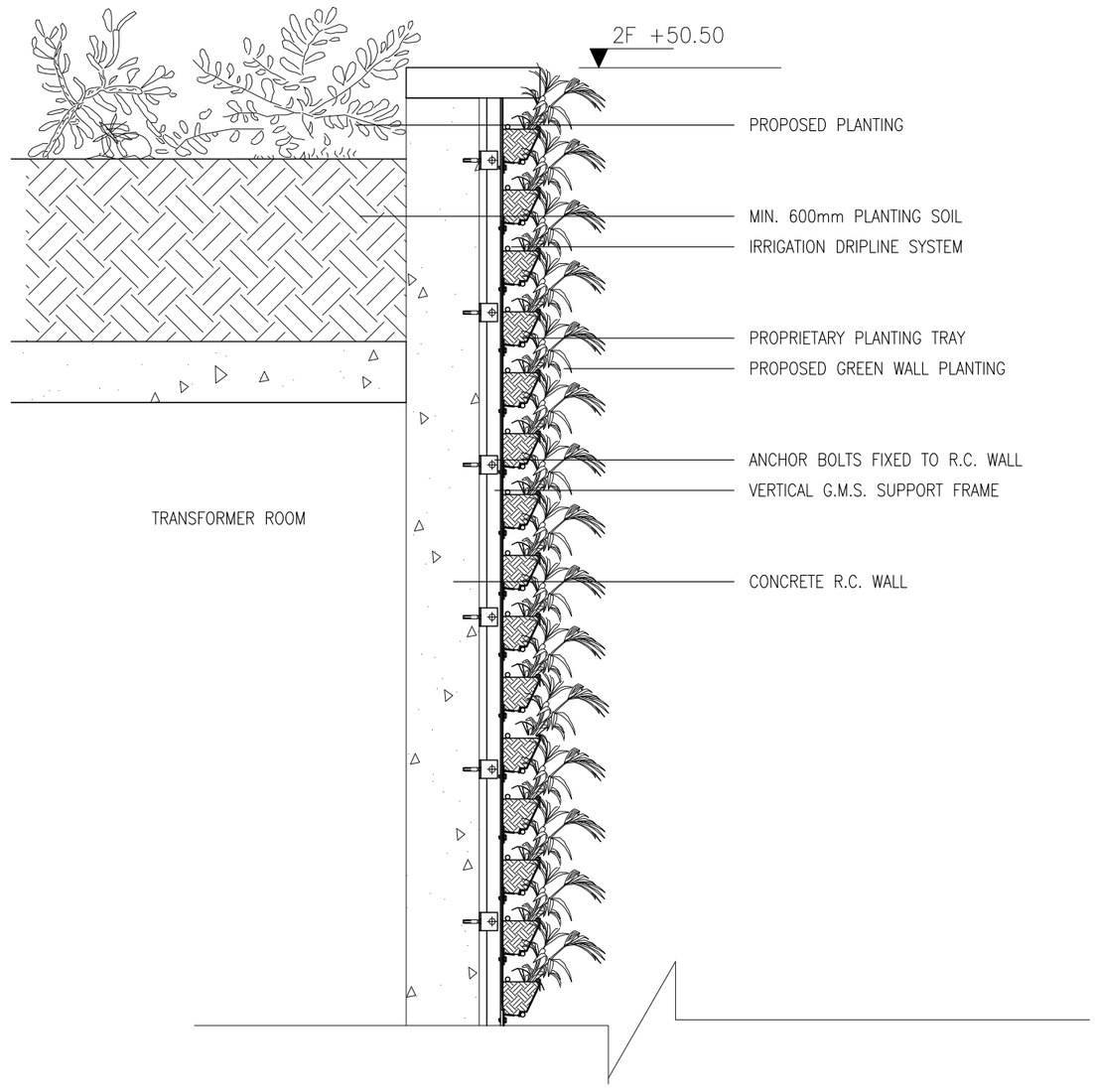
94-100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

LANDSCAPE SECTION 01- ALONG TA CHUEN PING STREET

TCPS/SEC01 (REV.1)

1:50@A3





94–100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

TYPICAL VERTICAL GREEN WALL DETAIL

TCPS/VG01

1:20●A3

REGENT CENTRE TOWER A

REGENT CENTRE TOWER B

FL +35.50

FL +35.50

FL +35.50

FL +37.00

+35.50

TA CHUEN PING STREET

KONG SHENG FACTORY BUILDING

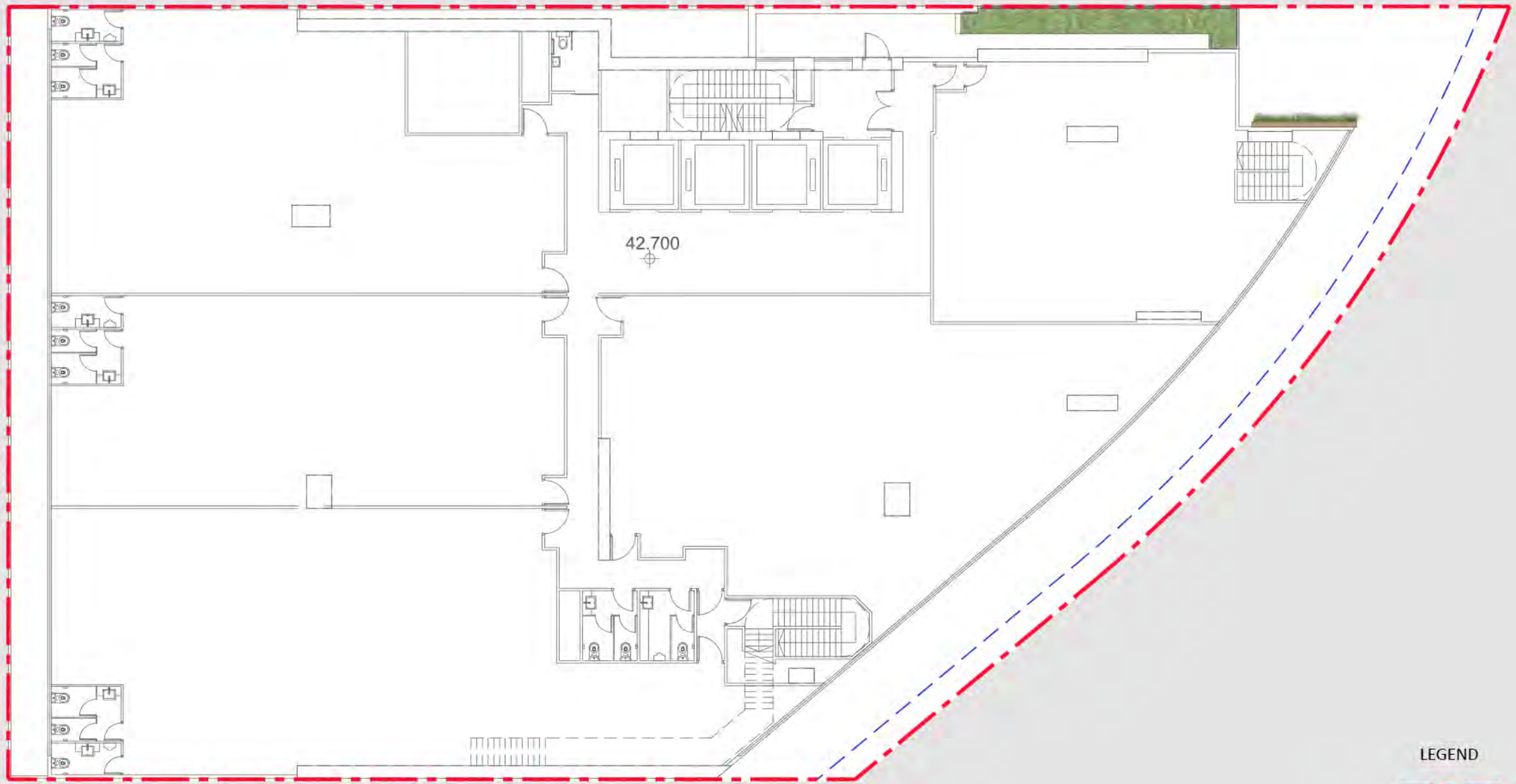
LEGEND

- Lot boundary
- Set back line
- +35.50 Existing level
- FL +35.50 Proposed finish floor level
- Pedestrian entrance
- Vehicle entrance
- Run in out
- Paving
- Planting Area with shrubs and groundcovers
- Proprietary green wall system
- Proposed tree- Osmanthus Fragrans

0 1 2 5 10m

LANDSCAPE MASTER PLAN - GROUND FLOOR

DRAWING NO. TCPS/LMP01 (REV.1)



LEGEND

Lot boundary

Set back line

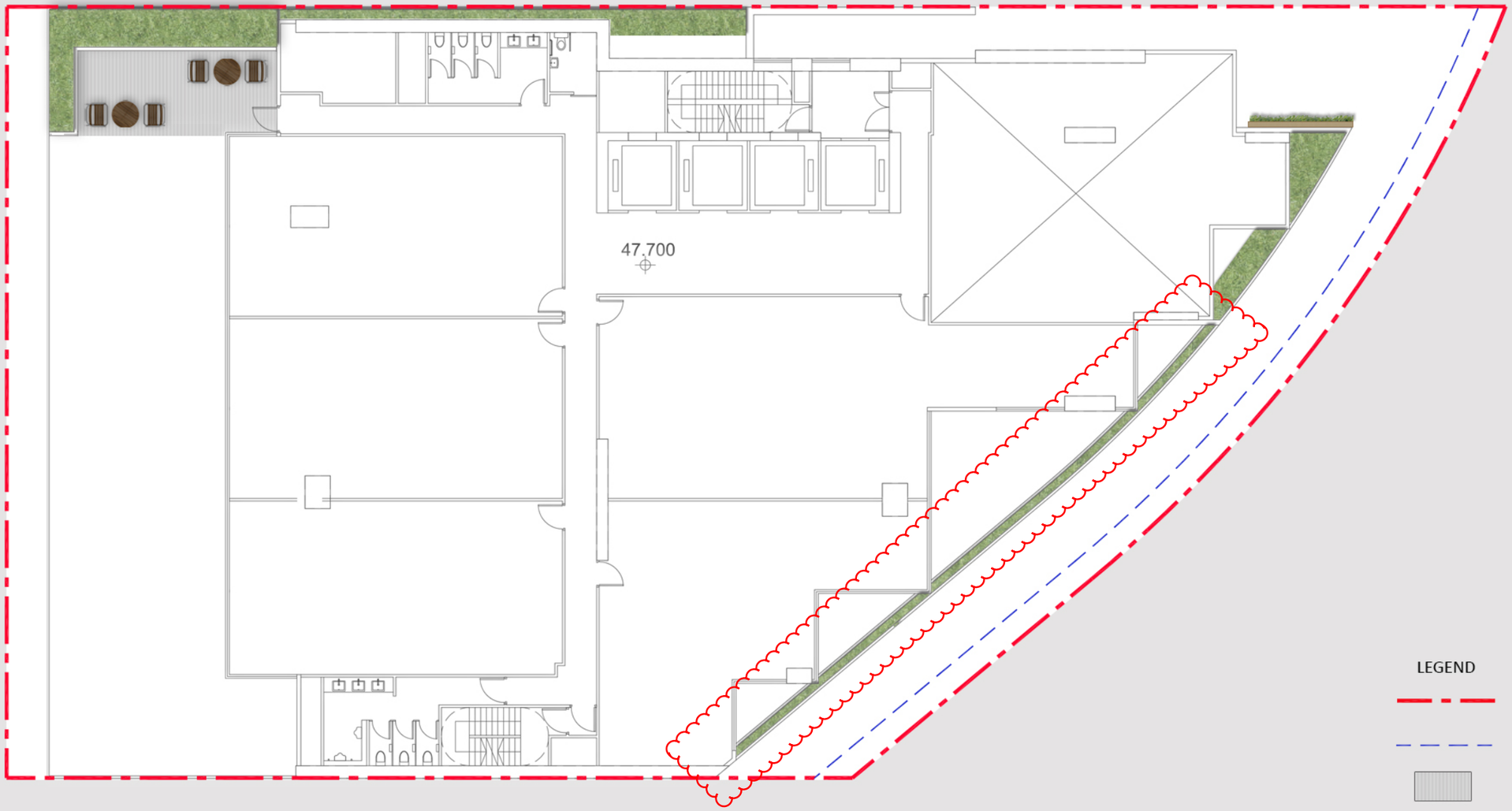
Planting Area with shrubs and groundcovers

Proprietary Green wall System

0 1 2 5 10m

LANDSCAPE MASTER PLAN - FIRST FLOOR

DRAWING NO. TCPS/LMP02



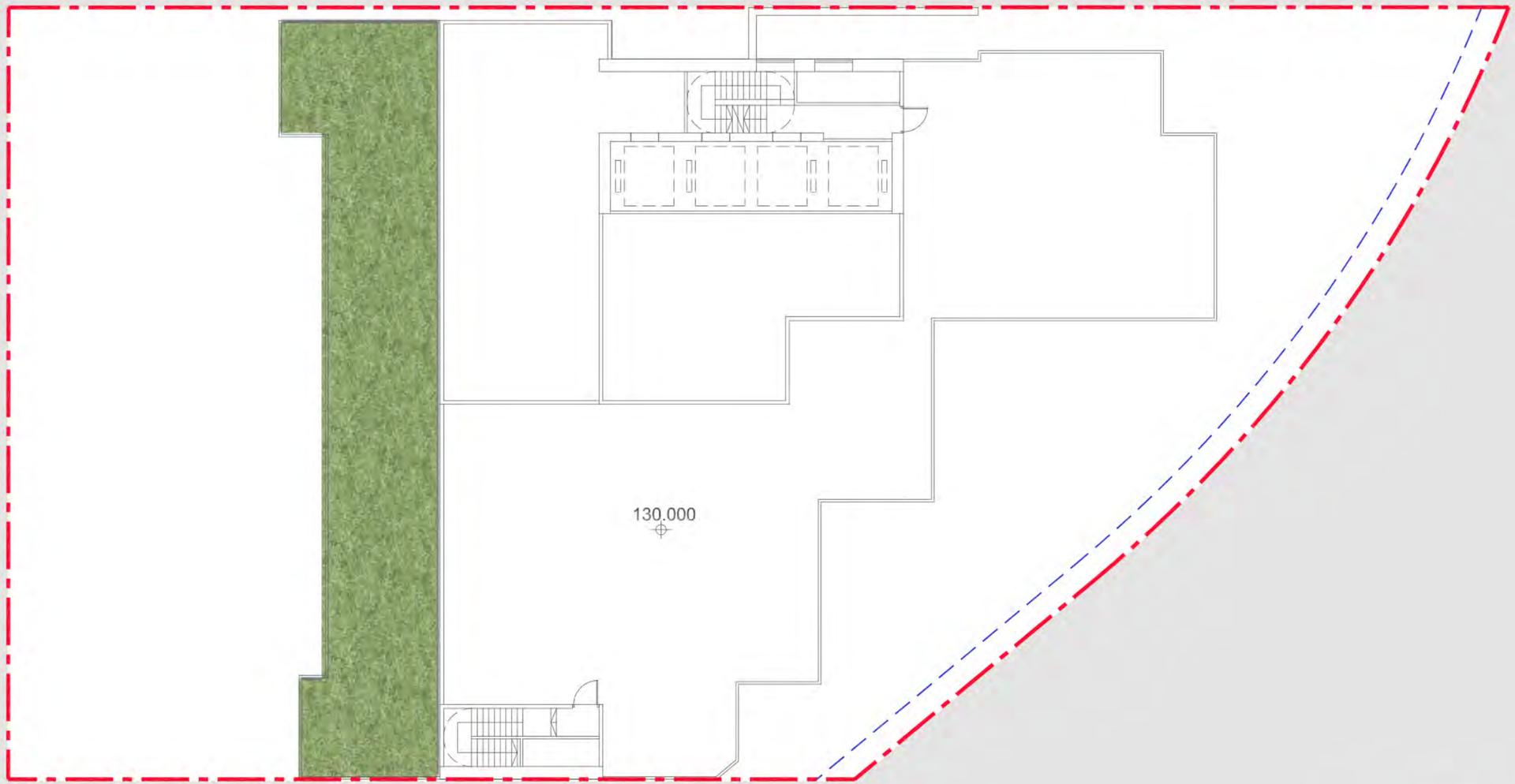
LEGEND

- Lot boundary
- Set back line
- Landscape paving
- Planting Area with shrubs and groundcovers
- Propreietary Green wall system
- Outdoor Furniture

0 1 2 5 10m

LANDSCAPE MASTER PLAN - SECOND FLOOR

DRAWING NO. TCPS/LMP03 (REV.1)



LEGEND

Lot boundary

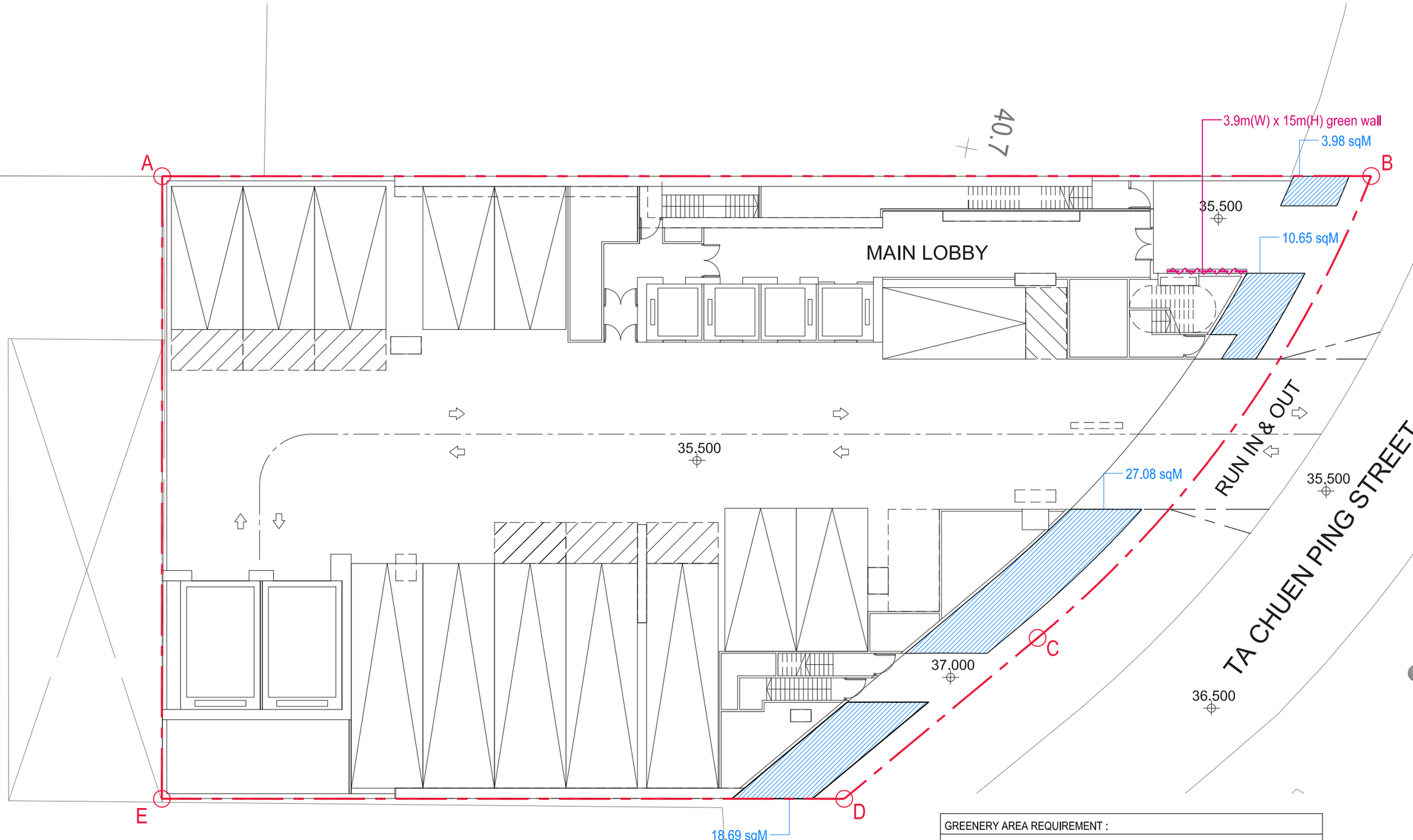
Set back line

Planting Area with shrubs and groundcovers

0 1 2 5 10m

LANDSCAPE MASTER PLAN - ROOF FLOOR

DRAWING NO. TCPS/LMP04



LEGEND :

- LOT BOUNDARY
- GREENERY AREA (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	29.99 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	154.64sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	302.15 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
A	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

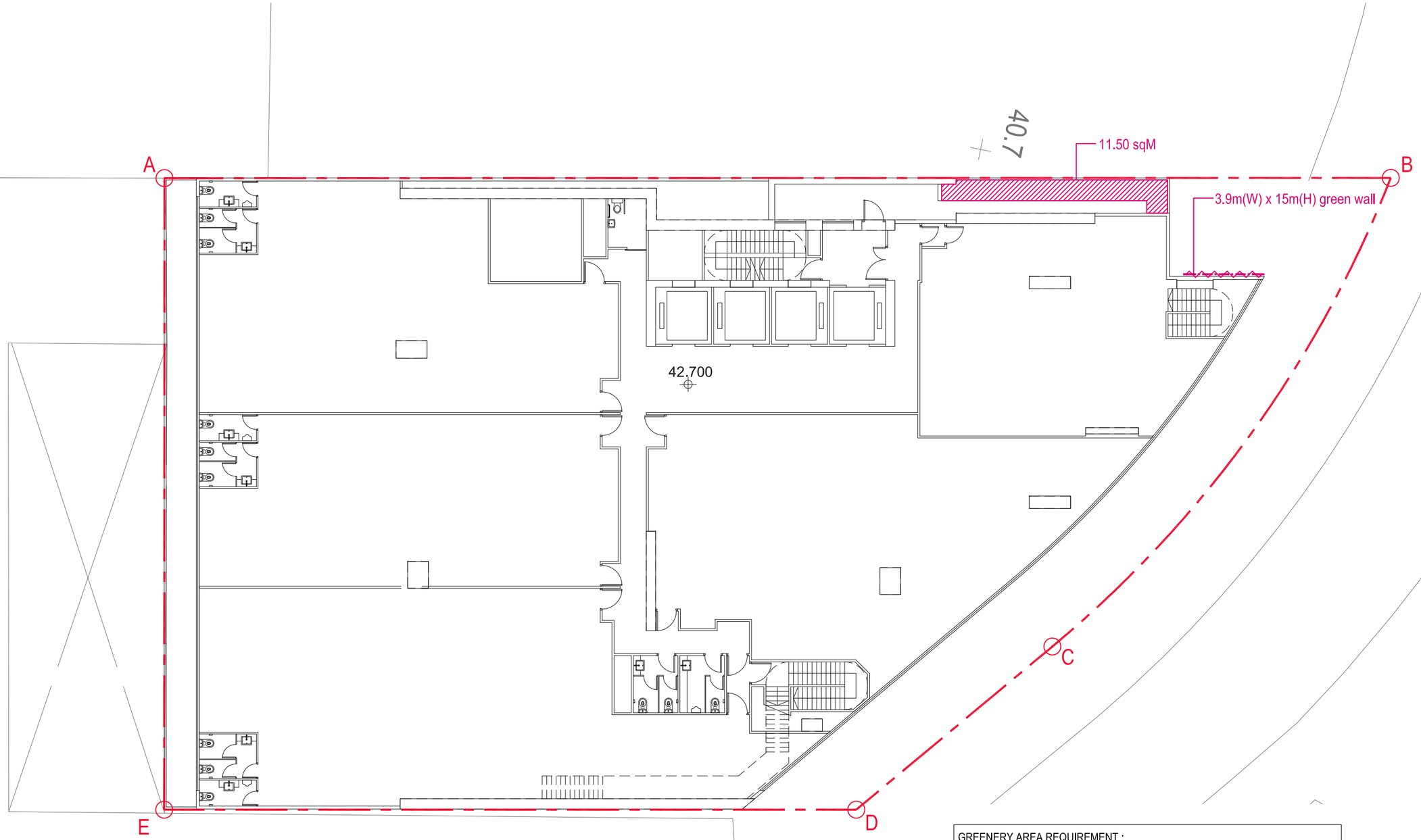
DRAWING TITLE

GREENERY AREA PROVISION - GROUND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA01

REVISION Rev1



LEGEND :

- LOT BOUNDARY
- INACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	29.99 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	154.64sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	302.15 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
A	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

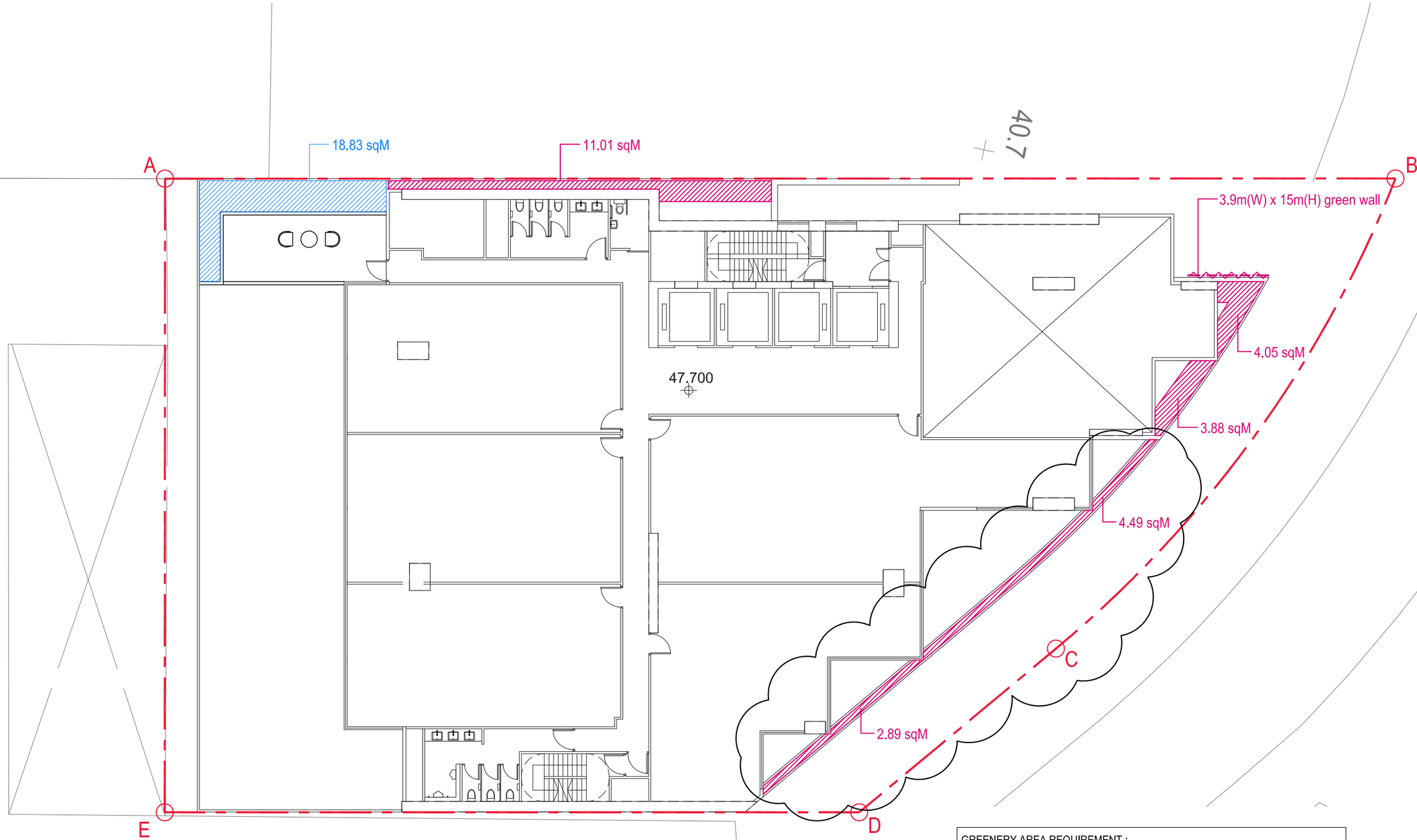
DRAWING TITLE

GREENERY AREA PROVISION - FIRST FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA02

REVISION Rev1



LEGEND :

- LOT BOUNDARY
- NON-ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	29.99 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	154.64sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	302.15 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
A	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

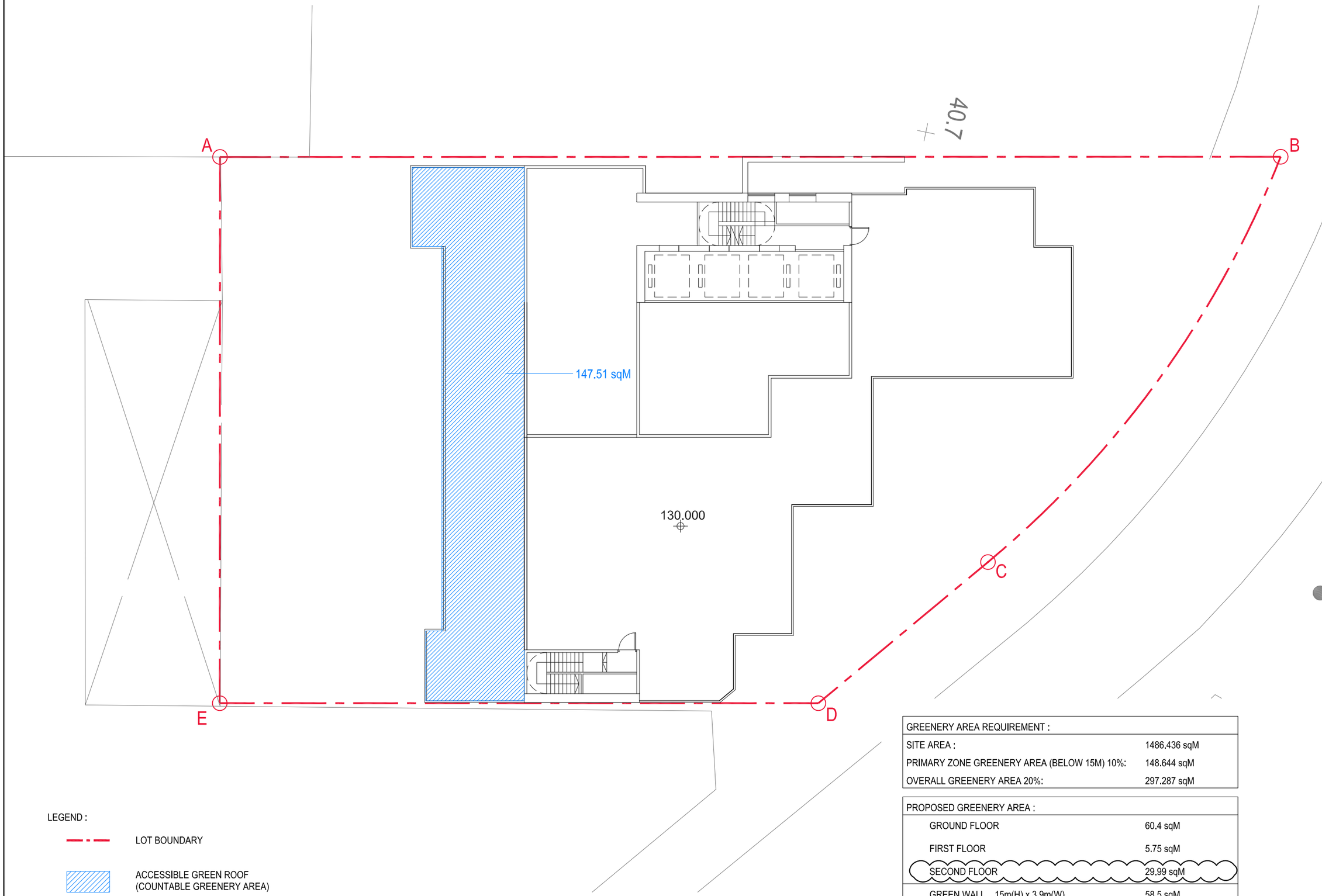
DRAWING TITLE

GREENERY AREA PROVISION - SECOND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA03

REVISION Rev1



LEGEND :

LOT BOUNDARY

ACCESSIBLE GREEN ROOF
(COUNTABLE GREENERY AREA)

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	29.99 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	154.64sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	302.15 sqM > 297.287

N

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
A	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

GREENERY AREA PROVISION - ROOF FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA04

REVISION Rev1

Annex D

Figure 3.2: Artist Impression of Enhanced Streetscape (1)

Figure 3.3: Artist Impression of Enhanced Streetscape (2)

PLANNING LIMITED
規劃顧問有限公司

UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/005Lg

9 July 2021

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction
for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
in "Other Specified Uses" annotated "Business" zone
at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application No. A/KC/476 -
(Further Information No. 2)

Reference is made to the captioned S16 Planning Application which was received by the Town Planning Board on 21 May 2021.

Having reviewed the departmental comments received during circulation of the captioned S16 Planning Application, attached please find the table of response-to-departmental-comments with the relevant annexes as below:

Annex A: Updated Sewerage Impact Assessment (SIA) (from Appendix 4 of Planning Statement (PS)); and
Annex B: Replacement Pages and Supplementary Information of the Traffic Impact Assessment (TIA) (from Appendix 3 of PS).

Meanwhile, our office would like to take this opportunity to clarify the canopy, vertical greening and landscape areas of the proposed development respectively. The proposed development has provided a row of street planting offering shadings for pedestrians on Ta Chuen Ping Street. Considering that a continuous canopy along the street frontage will be in conflict with the proposed street tree planting, no continuous canopy along Ta Chuen Ping Street is proposed in the development. In regard to the use of grey water for irrigation of vertical greening in the development, the Applicant will consider the feasibility and possibility for having such system as part of the green building design features of the development in the detailed design stage. Lastly, the landscape areas with seating at 2/F and Roof level will serve future tenants and visitors of the proposed development only. It is not intended to be opened for the enjoyment of general public.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

Thank you for your kind attention.

Our Ref: S1399/94TCPS_KC/21/005Lg
Date: 9 July 2021

PLANNING LIMITED
規劃顧問有限公司

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl. (70 hardcopies)
cc. the Applicant & Team

KT/DF/CL/EC/vy

Proposed Minor Relaxation of Plot Ratio for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
S16 Application No. A/KC/476

Items	Comments	Response
1	**Comments from Chief Engineer/ Mainland South, Drainage Services Department (DSD) received on 18 June 2021:**	
1.1	Comments on Sewerage Impact Assessment Report are as follows (i) The SIA for the subject planning application needs to meet the full satisfaction of Environmental Protection Department (EPD), the planning authority of sewerage infrastructure. DSD's comments on the captioned SIA submitted by the developer are subject to views and agreement of EPD	Noted.
1.2	(ii) Figure 1 – The invert levels for FMH4020897 and FMH4020768 do not tally with Appendix B, please review.	Figure 1 has been revised accordingly.
1.3	(iii) Appendix A – The GFA/UFA for the Proposed Data Centre Development in Catchment D2 appears to be unrealistic, please review.	The UFA of the proposed date centre has only taken into account the ancillary office area of employees. Discharge due to cooling tower bleed off water of the cooling tower has been further incorporated separately in *Appendix A* for estimation of peak flow from Catchment D2. Please refer to **Annex A** of this Further Information (FI).
1.4	(iv) Appendix B – • For those manholes with unknown or doubtful invert level (i.e. FMH4020768), the Consultant may consider to conduct site survey to verify invert levels for assessment of pipe capacity. Please note that the information shown on drainage records plans is subject to verification on site and no guarantee can be given that this is a complete record.	In view of the comment, a manhole survey was conducted to verify invert levels at FMH4020768 and the identified invert levels were further adopted in the revised assessment. The manhole survey report is enclosed in Appendix C (within **Annex A** of this FI) for record.
1.5	• It is noted that invert levels of FMH4020769 is referenced from the drainage records from this department. Please clarify the basis of invert levels of FMH4020768 as shown in the report	Typo on FMH4020769 under remarks of Appendix B (within **Annex A** of this FI) has been rectified.

Items	Comments	Response
1.6	(v) The location and details of terminal manhole are missing. Please advise.	The location and details of the newly proposed terminal manhole has been updated in Section 1.2, Appendix B and Figure 1 accordingly. Please refer to **Annex A** of this FI.
2 2.1	**Comments from Director of Environment Protection, Environmental Protection Department received on 23 June 2021:** (a) Based on the information provided, she notes that the proposed Application is to seek planning permission for minor relaxation of plot ratio restriction for permitted non-polluting industrial use. The site falls within an area zoned "OU(B)" on the draft Kwai Chung OZP No. S/KC/29. According to the Notes of the OZP, 'non-polluting industrial use (excluding industrial undertakings involving the use/storage of dangerous goods)' is Column 1 use and is always permitted.	Noted
2.2	(b) It is also noted that the subject site used to be occupied by a 7-storey building designed for industrial use. As such, the Applicant should address the potential land contamination issue. If the Applicant chooses to address this issue at a later stage, an approval condition on land contamination assessment shall be imposed, should the case be approved by TPB.	Noted
2.3	(c) Besides, the Applicant should address our comments on the SIA given below	Noted
2.4	Comments on SIA (i) Figure 1 (P.4), Table 4, Figure 1 (P.13) - Please clarify if the proposed site should refer to "project site", "subject site" or "site" and revise accordingly.	The corresponding wordings have been aligned accordingly.
2.5	(ii) The "Site Location Plan" and "Drainage Plan" are both named Figure 1, please review.	The "Site Location Plan" has been renamed as Plate 1 to avoid confusion.
2.6	(iii) Section 2.2 & Appendix A – Please review the calculation of estimated population with respective to the GFA of the proposed development and the quoted worker density.	Section 2.2 and Appendix A (within **Annex A** of this FI) have been revised accordingly.

Items	Comments	Response
2.7	(iv) Section 2.7 & Appendix A – Please review if the following development should be included in the assessment: (1) Silka Tsuen Wan Hotel; (2) Pak Sun Building; (3) Kong Sheung Factory; and (4) Regent Centre Tower A.	According to the DSD drainage record plan, sewage discharge from Silka Tsuen Wan Hotel and Pak Sun Building will be adjoined as Catchment D3 to along Wo Yi Hop Road and Lam Tin Street respectively. Kong Sheung Factory has been added to Catchment A and Regent Centre Tower A has been added to Catchment B respectively.
2.8	(v) Section 2.7 – Upstream development of manhole FMH4020748 should be mentioned	Upstream development of manhole FMH4020748 include Catchment D1, D2 and D3 and have been elaborated in Section 2.7.
2.9	(vi) Section 3, Table 4: For manhole FMH4020749, the estimated cumulative peak discharge should include the sewage flow from upstream development apart from the proposed site and catchments A to D. Hence, the discharge from the upstream area should also be mentioned in column “catchment served” of the table.	Table 4 has been revised accordingly.
2.10	(vii) Drainage plan – Re. above comment 4 and 5, all concerned existing/planned development as well as the sewerage system should be shown in the drainage plan. Please clearly indicated the building names.	Drainage plan as Figure 1 has been revised accordingly.
2.11	(viii) Appendix A – It is suggested to adopt one reference (i.e. either HKPSG or “Commercial and Industrial Floor Space Utilisation Survey”) for calculation of working density.	As per comment, reference to HKPSG has been removed from the revised SIA report for consistency.
2.12	ix) Appendix A – Please review the GFA of iCity and provide source of reference. In addition, there should be a swimming pool in iCity, the discharge rate from filer backwash should be included.	The GFA and of iCity has been revised per online source and enclosed as Appendix D (within **Annex A** of this FI) for details. As the size of swimming pool is unknown for iCity, an assumption of backwash flow rate of 3L/s has been assumed in Appendix A.
2.13	(x) Appendix A – The discharge rate of bleed-off water from cooling tower of the data centre should be included.	Discharge of bleed-off water from cooling tower of the data centre has been included in the revised calculation based on best estimate.
2.14	(xi) Appendix B – It appears that the length of sewer do not tally with DSD’s drainage record, please review.	The length of sewer has been revised in Appendix B within **Annex A** of this FI.

<table>
<tr><th>Items</th><th>Comments</th><th>Response</th></tr>
<tr><td>2.15</td><td>(xii) Appendix B – The hydraulic assessment of the segment between FMH4020762 and FMH4020748 is missing in the calculation.</td><td>Appendix B has been revised accordingly to include the section between FMH4020762 and FMH4020748. Please refer to the Annex A of this FI.</td></tr>
<tr><td>3</td><td><u>Comments from Commissioner for Transport, Transport Department received on 28 June 2021:</u></td><td></td></tr>
<tr><td>3.1</td><td>Comments from traffic point of view are as follows:
(a) Table 2.2 – comparison of the 2019 and 2021 traffic flow refers. The 2-way traffic flow at Castle Peak Road – Kwai Chung and Wo Yi Hop Road are not matched with the traffic flow in Figure 2.10 and 2.12. Please clarify;</td><td>The comparisons of the 2019 and 2021 traffic flow are for 2-way traffic flows at the section of Castle Peak Road – Kwai Chung between Wo Yi Hop Road and Shek Pai Street; and the section of Wo Yi Hop Road between Castle Peak Road – Kwai Chung and Tai Loong Street. The typo in the traffic flow in PM peak hour in Table 2.2 has been revised and shown in Table A below,

TABLE A COMPARISON OF THE 2019 AND 2021 TRAFFIC FLOWS
<table>
<tr><th rowspan="2">Road Link</th><th colspan="3">Observed 2-way Traffic Flow in PM Peak Hour (pcu)</th></tr>
<tr><th>2019</th><th>2021</th><th>Difference</th></tr>
<tr><td>Castle Peak Road – Kwai Chung (between Wo Yi Hop Road and Shek Pai Street)</td><td>2,116</td><td>1,917</td><td>-9%</td></tr>
<tr><td>Wo Yi Hop Road (between Castle Peak Road – Kwai Chung and Tai Loong Street)</td><td>907</td><td>829</td><td>-9%</td></tr>
</table></td></tr>
<tr><td>3.2</td><td>(b) Table 3.2 – trip rates adopted from the TPDM and estimated traffic generation of the proposed industrial development refers. The traffic attraction (AM peak) due to the propose development is not tally with the difference between Figure 4.2 and 4.</td><td>The rounding issue has been addressed and Figures 4.2 and 4.3 have been revised accordingly.</td></tr>
<tr><td>3.3</td><td>(c) Paragraph 3.6 – traffic generation of the proposed industrial development refers. Please clarify whether trip rate for hotel or industrial building is used to estimate the traffic generation of the proposed industrial development;</td><td>The trip rates for industrial building found in the TPDM have been used to the estimate the traffic generation of the Proposed Industrial Development. The typo “hotel” has been revised to “industrial building” in paragraph 3.6. Please refer to the replacement pages of TIA report in Annex B of this FI.</td></tr>
<tr><td>3.4</td><td>(d) Paragraph 4 – traffic impact refers. Link flow capacity should be duly considered in the traffic impact assessment;</td><td>The road link performances for the cases without and with the Proposed Industrial Development in 2028 are found in the new Table B, which is presented in Annex B of this FI.</td></tr>
</table>

<table>
<tr><th>Items</th><th>Comments</th><th>Response</th></tr>
<tr><td>3.5</td><td>(e) Table 4.1 – expected traffic generations and of the developments refers. Planning Application No. A/KC/473 (No. 2-10 Tai Yuen Street) should be included as one of the other developments in the assessment;</td><td>Planning Application A/KC/473 at 2 – 10 Tai Yuen Street has been included in the assessment and Table 4.1 has been revised as follows:

TABLE 4.1 EXPECTED TRAFFIC GENERATIONS OF THE OTHER DEVELOPMENTS

<table>
<tr><th rowspan="3">Site</th><th rowspan="3">Address</th><th rowspan="3">Use</th><th colspan="4">Traffic Generation (pcu/hour)</th></tr>
<tr><th colspan="2">AM Peak Hour</th><th colspan="2">PM Peak Hour</th></tr>
<tr><th>Gen.</th><th>Att.</th><th>Gen.</th><th>Att,</th></tr>
<tr><td>1.</td><td>45 – 51 Kwok Shui Road</td><td>Industrial</td><td>12</td><td>19</td><td>18</td><td>14</td></tr>
<tr><td>2.</td><td>57 – 59 Kwok Shui Road</td><td>Office</td><td>19</td><td>27</td><td>17</td><td>13</td></tr>
<tr><td>3.</td><td>4 – 30 Lei Muk Road</td><td>Hotel</td><td>79</td><td>117</td><td>61</td><td>125</td></tr>
<tr><td>4.</td><td>1 – 7 Cheung Wing Road</td><td>Residential, Office, Retail</td><td>150</td><td>114</td><td>112</td><td>133</td></tr>
<tr><td>5.</td><td>15 – 19 Chun Ping Street</td><td>Hotel</td><td>26</td><td>28</td><td>26</td><td>31</td></tr>
<tr><td>6.</td><td>20 – 24 Kwai Wing Road</td><td>Industrial</td><td>17</td><td>25</td><td>24</td><td>19</td></tr>
<tr><td>7.</td><td>2 – 16 Lam Tin Street</td><td>Data Centre</td><td>9</td><td>7</td><td>7</td><td>12</td></tr>
<tr><td>8.</td><td>105 – 113 Ta Chuen Ping Street</td><td>Industrial</td><td>16</td><td>24</td><td>24</td><td>19</td></tr>
<tr><td>9.</td><td>57 – 61 Ta Chuen Ping Street</td><td>Hotel</td><td>174</td><td>159</td><td>185</td><td>154</td></tr>
<tr><td>10.</td><td>2 – 10 Tai Yuen Street</td><td>Data Centre</td><td>5</td><td>7</td><td>6</td><td>5</td></tr>
</table>
Gen. – Generation Att. – Attraction

The 2028 junction capacity analysis has been re-conducted taking into account the additional development, and is presented in Table 4.6.

TABLE 4.6 2028 JUNCTION PERFORMANCE

<table>
<tr><th rowspan="2">Ref.</th><th rowspan="2">Junction</th><th rowspan="2">Type of Junction</th><th rowspan="2">Para-meter</th><th colspan="2">Without the Proposed Industrial Development</th><th colspan="2">With the Proposed Industrial Development</th></tr>
<tr><th>AM Peak Hour</th><th>PM Peak Hour</th><th>AM Peak Hour</th><th>PM Peak Hour</th></tr>
<tr><td>J01</td><td>Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street</td><td>Signal</td><td>RC</td><td>35%</td><td>32%</td><td>34%</td><td>31%</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Items</th><th>Comments</th><th>Response</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>J02</td><td>Wo Yi Hop Road / Ta Chuen Ping Street</td><td>Signal</td><td>RC</td><td>55%</td><td>31%</td><td>55%</td><td>31%</td></tr>
<tr><td>J03</td><td>Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road</td><td>Signal</td><td>RC</td><td>61%</td><td>47%</td><td>58%</td><td>43%</td></tr>
<tr><td>J04</td><td>Ta Chuen Ping Street / Chun Pin Street</td><td>Priority</td><td>RFC</td><td>0.170</td><td>0.213</td><td>0.184</td><td>0.225</td></tr>
<tr><td>J05</td><td>Lei Muk Road / Chun Pin Street</td><td>Priority</td><td>RFC</td><td>0.711</td><td>0.745</td><td>0.711</td><td>0.745</td></tr>
<tr><td>J06</td><td>Lei Muk Road / Kwok Shui Road</td><td>Signal</td><td>RC</td><td>38%</td><td>26%</td><td>38%</td><td>26%</td></tr>
<tr><td>J07</td><td>Lei Muk Road / Wo Yi Hop Road</td><td>Signal</td><td>RC</td><td>21%</td><td>39%</td><td>20%</td><td>38%</td></tr>
</table>

Table 4.6 shows that the junctions analyzed have capacity to accommodate the expected traffic growth to 2028 and the traffic generated by the Proposed Industrial Development.
</td></tr>
<tr><td>3.6</td><td>(f) Paragraph 4.2 – traffic forecast refers. Calibration and validation of BDTM model should be included in the TIA report;</td><td>The BDTM obtained was calibrated and validated by Transport Department but further review of the area in the vicinity of the study area was undertaken so that the traffic forecast produced is robust. The road links and junctions were checked to ensure that the level of detail given in the BDTM road network is sufficient. The schedule of public transport services such as franchised bus and green / red minibus were also checked to ensure that the updated routings and headway information are adopted. The zone and centroid connectors were reviewed so that the traffic zones generate and attract traffic at the appropriate locations.

The traffic flow produced by the BDTM was validated against the observed traffic flow at the surveyed junctions. Based on the BDTM validation approach, all count locations were reviewed and checked by GEH statistic (a modified chi squared test to provide a statistic for both</td></tr>
</table>

Items	Comments	Response

the magnitude of the difference and the percentage difference between modelled and observed flows). It is used in preference to percentage differences which can over emphasise differences in relatively small traffic volumes. The GEH is defined by:

$\sqrt{\frac{(V_2-V_1)^2}{\frac{1}{2}(V_1+V_2)}}$, *where V_1 and V_2 are the observed and modelled flows*

The validation criteria adopted are found below in **Table C**, and the validation results are presented in **Table D**.

TABLE C VALIDATION CRITERIA

Location	Target
All Count Locations	85% return a GEH error of 5 or less 100% return a GEH error of 10 or less

TABLE D VALIDATION RESULTS

Criteria	Target	Results	
		AM Peak	PM Peak
Total No. of Movements	-	44	44
No. of Movements within GEH ≤ 5	-	40	41
No. of Movements within GEH ≤ 10	-	44	44
No. of Movements GEH > 10	-	0	0
% of Movements within GEH ≤ 5	**85%**	**91%**	**93%**
% of Movements within GEH ≤ 10	**100%**	**100%**	**100%**

Table D shows that the results meet the validation criteria listed in Table C. Therefore, the traffic flows produced by BDTM are applicable for this application.

Items	Comments	Response
3.7	(g) Figure 3.1 – proposed ground floor plan refers. For space HGV1, 2 and 3, it is noted from the swept path in appendix B that the loading/unloading area is at the front of the vehicle. However, for HGV, the goods are usually loaded or unloaded at the rear side of the vehicle. You are reminded that the space provided for loading/unloading is required to about a goods handling platform or area which must be provided and so laid out that the goods loading/unloading from/to such platform or area may be transported within the lot to all parts of the building both horizontally and vertically;	The loading/unloading area for HGV1,2,3 on G/F in Figure 3.1 have been relocated to the rear side of the goods vehicles as shown in the swept path in appendix B within the **Annex B** of this FI.
3.8	(h) Figure 4.2 and 4.3 refers – the traffic flow of junction J05 (Lei Muk Road westbound) in 2028 with proposed development is smaller than 2028 without proposed development. Please review;	The typo “173” for the traffic flow of junction J05 (Lei Muk Road westbound) in Figure 4.3 has been revised to “174”.
3.9	(i) Swept path of the run-in of the proposed development should be provided;	The swept path of light goods vehicle, heavy goods vehicle and private car entering and leaving the run-in/out are presented in Figures SP100, SP200 and SP300 respectively.
3.10	(j) Please explore if more PC or MC parking spaces can be provided.	The provision of internal transport facilities of the Proposed Industrial Development has met the HKPSG maximum recommendation. Additional parking space will have implications to the GFA.
4	**Comments from the Chief Estate Surveyor/Development Control, Lands Department received on 8 July 2021:**	
4.1	(a) To be qualified for the measure on relaxation of the maximum permissible non-domestic plot ratio (PR) by 20% for redevelopment project, the building has to be pre-l987 IBs located outside “Residential” zones in Main Urban Areas and New Towns and subject to the maximum non-domestic PR allowed under the B(P)R. Pre-1987 IB refers to those wholly or partly constructed on or before 1.3.1987 or those constructed with building plans first submitted to Building Authority (BA) for approval on or before 1.3.1987. You may approach BD on confirmation of Pre-1987 status and no excess of non-domestic PR under B(P)R.	Noted. Please be confirmed that the occupation permit of the previous industrial building named as Kam Yu Building at the Application Site was issued by Buildings Authority in 1963.

Items	Comments	Response
4.2	(b) "Non-polluting industrial uses" in planning terms covers a wide range of uses, the examples below are quoted from the Board's guidelines but are not exhaustive: (i) research and development; (ii) quality control; (iii) information technology support; (iv) training for the process of enhanced productivity/delivery of goods; (v) computer-aided design service; (vi) editing of newspapers / books /magazines; and (vii) after-sale services of products (viii) storage, mini storage will constitute uses in breach of the lease conditions including the user restriction of 'industrial purposes' which should involve manufacturing process as decided by court cases. The applicant, being the owner of the lot under application, should be fully aware of the user restriction of the 'industrial purposes' under lease which has a different interpretation under TPB's definition on Column 1 uses permitted under the planning regime. Given the wide range of users under 'non-polluting industrial use', the applicant should be invited to advise the specific nature/type(s) of non-polluting industrial uses intended to be provided in the proposed development.	The Applicant is fully aware of the user restriction under the Lease has a different interpretation from the TPB's definition on Column I uses under the planning regime. Please note that Applicant has no intention to apply for any lease modification to change the existing user restriction under land grant, and will ensure there is no breach of the user of the lease at the subject building at the Application Site.
4.3	(c) If the lot owner applies for a lease modification for its redevelopment, LandsD will upon receipt of the lease modification application act in the capacity as landlord, consider the application and impose such appropriate terms and conditions including user restriction, the 5-year time limit for completion of the development, payment of full premium and administrative fee, other conditions applicable to 2018 IB revitalisation measure etc. There is no guarantee that the application will be approved by LandsD. Under the 2018 IB revitalisation measure for redevelopment, the modification letter/conditions of exchange shall be executed within 3 years from the date of TPB's approval letter.	Noted. The applied use/ development under S.16 planning application complies with the existing New Grant No.3839 dated 12 September 1960. No lease modification application is proposed for the applied use/ development.

Items	Comments	Response
4.4	(d) For technical assessments, such as traffic impact, sewage impact, building design, landscaping and setback requirements etc., should be considered by the relevant Bureaux/Departments.	Noted.

Enclosure:
Annex A: Updated Sewerage Impact Assessment (SIA) (from Appendix 4 of Planning Statement (PS))
Annex B: Replacement Pages and Supplementary Information of the Traffic Impact Assessment (TIA) (from Appendix 3 of PS)

Complied by: KTA
Date: 7 July 2021
File Ref: 20210707_S1399_FI2_V01

Annex A

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Sewage Impact Assessment

For: Gain Champion Investment Limited

Job No:	1029998
Doc Ref:	1019000\1029998 – Ta Chuen Ping St SIA\Cundall Docs\Reports\SIA
Latest Revision:	A
Date:	7/07/2021

Cundall Hong Kong Limited 7/F The Hennessy, 256 Hennessy Road, Wanchai, Hong Kong Tel: +852 2566 6260 www.cundall.com

Project Name:	Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
Client:	Gain Champion Investment Limited
Report Title:	Sewage Impact Assessment
Job Number:	1029998

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
-	19/04/2021	Initial Issue
A	07/07/2021	Revision to address comment from EPD and DSD

Document Validation (latest issue)

Revision	Issue Date	Purpose of issue / description of revision / version			
A	7/07/2021	--			
			Prepared by	Checked by	Verified by
		Initials	Various	Carol Chan	Joe Tang
		Signature			

Executive Summary

A sewerage impact assessment (SIA) has been conducted to evaluate the possible impacts on the local sewerage network as a result of the Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung (the “proposed development”). The assessment has based on the latest proposed floor uses and site surveys and shall serve to:

- assess the potential sewerage impacts arising from the proposed development
- recommend measures to mitigate unacceptable sewerage impacts, if any.

In conclusion, the results of the sewerage impact reveal that the existing sewage capacity is sufficient to cater the cumulative peak discharge arising from the proposed development and development in the vicinity.

Contents

1. Introduction

1.1 Subject Site Description

The project involves a proposed industrial redevelopment which is located at 94-100 Ta Chuen Ping Street, Kwai Chung (hereinafter refer to as the "Subject site"), as shown in Plate 1 below.

Plate 1 Site Location Plan

The proposed development will comprise a 23-storey industrial development (including G/F and mechanical floor) and 1 level of basement carpark, with a maximum permitted GFA of 17,663.350 m^2 [1]. There will be workshop areas located on 1/F to 21/F, with a mechanical floor at 3/F. The proposed development is expected to commence its operation by 2025 and start to have sewage flow discharged to the sewerage network.

[1] The GFA will be 17,663.350 m^2 after taking into account of the bonus GFA related to the dedication of the proposed NBA, subject to the approval by Buildings Department, or otherwise, about 16,945.370 m^2 if the plot ratio is relaxed to 11.4.

1.2 Existing Sewerage Network

The relevant drainage record plans “T7-SW-17C-4” and “T7-SW-17D-3” were reviewed to gather the background information of the existing sewerage infrastructure in the area. Based on the desktop review of drainage record plan and drainage survey, the sewage from the proposed development is expected to be discharged to the closest manhole no. FMH4020897 via a newly proposed terminal manhole and a newly proposed 200mm dia. sewer. The exact location of the terminal manhole will be confirmed at later design stage. The sewage will then be diverted to a 300mm dia. public sewer along Ta Chuen Ping Street.

1.3 Objectives

The assessment has based on the latest proposed floor uses and site surveys and shall serve to:

- assess the potential sewerage impacts arising from the proposed development
- recommend measures to mitigate unacceptable sewerage impacts, if any.

2. Design Assumptions and Criteria

2.1 General Assumptions and Criteria

This sewerage impact assessment has been prepared in accordance with the below guidelines and reference:

- Sewerage Manual ("*SM*") published by the Drainage Services Department ("*DSD*") in 2013.
- Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 ("*GESF*") published by the Environmental Protection Department ("*EPD*") in 2005.
- Corresponding Drainage Record Plans published by the Drainage Services Department.
- Commercial and Industrial Floor Space Utilization Survey ("*CIFSUS*") published by the Planning Department.

2.2 Population

Population in the proposed development will be dominated by industrial activities, and the industrial employee occupancy density has been assumed as 2.3 person per 100 m^2 in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing. The figures have been summarized in **Table 1** below.

Since the capacity of the proposed development is independent to population growth, the annual growth in population has not been considered in this study. Please refer to the below table and **Appendix A** for summary estimation of population at the proposed development and detailed estimation of population per catchment respectively.

Type of Population	Occupancy Density (person/ 100m^2 GFA)	Estimated Population	Data Source
Proposed Development			
Industrial Employee	2.3	406	Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing

Table 1 Population of Proposed Development

2.3 Unit Flow Factors

The unit flow factors tabulated below have been adopted in the calculation of sewerage impact. A site visit was conducted on 6 July 2021 to confirm that all industrial buildings identified in Section 2.7 below only possess commercial activities, except for Kong Sheng Factory Building, Kwai Hing Industrial Building and Koon Wo Industrial Building.

Type of Population	Unit Flow Factor (m^3/day/person)	Data Source
Proposed Development		
Industrial Employee	0.73	GESF – J1 Manufacturing in Kwai Chung
Other Development in the Vicinity		
Commercial Employee	0.18	GESF – J3 Transport, Storage & Communication
Industrial Employee	0.73	GESF – J1 Manufacturing
Office Employee	0.08	GESF – J6 Finance, Insurance, Real Estate and Business Services
Hotel Employee	1.58	GESF – J10 Restaurant & Hotels
Data Centre	0.33	GESF – J2 Electricity Gas & Water

Table 2 Unit Flow Factors

2.4 Peaking Factors

The peaking factors adopted for peak discharge calculation has made reference to Table T-5 of the *GESF* as extracted below. Peaking factors (including stormwater allowance) from the guidelines have been adopted based on the corresponding population range being served by the sewers throughout the study.

Population Range	Peaking Factor (including stormwater allowance) for facility with existing upstream sewerage	Peaking Factor (excluding stormwater allowance) for facility with new upstream sewerage
<1,000	8	6
1,000 – 5,000	6	5
5,000 – 10,000	5	4
10,000 – 50,000	4	3

Population Range	Peaking Factor (including stormwater allowance) for facility with existing upstream sewerage	Peaking Factor (excluding stormwater allowance) for facility with new upstream sewerage
>50,000	Max($\frac{7.3}{N^{0.15}}$,2.4)	Max($\frac{6}{N^{0.175}}$,1.6)

Note: N is the contributing population in thousands.

Table 3 Peaking Factor for Sewers

2.5 Hydraulic Equation

The Colebrook-White equation can be applied to analyse flow conditions of circular pipes and hence has been adopted for hydraulic analysis of the sewerage system. In this study, conservative value has been adopted here for long-term and permanent design and a roughness coefficient, *ks*, is assumed to be 6.0mm for all existing pipes.

2.6 Catchment Inflow Factor

A catchment inflow means the net overall ingress of water or wastewater to the sewerage system. Since the proposed development and development in the vicinity are located in Kwai Chung, a catchment inflow factor of 1.1 has been adopted by making reference to Table T-4 of the *GESF*.

2.7 Calculation Assumptions

The following sites are expected to reach the manholes downstream, as annotated in **Figure 1**:

- Cheung Wing Industrial Building, Tak Kee Group Centre, Kam Chong Industrial Building, iCity, Kam Foo Factory Building and Kong Sheng Factory Building (Catchment A, Upstream) – diverted to FMH4020906.
- Regent Centre Tower A and Regent Centre Tower B (Catchment B) – diverted to FMH4020905.
- Kwai Wu Industrial Building (Catchment C) – diverted to FMH4020767.
- Kwai Hing Industrial Building and Koon Wo Industrial Building (Catchment D1) – diverted to FMH4020746.
- Sang Hing Industrial Building, Proposed Data Centre Development and Hotel Ease (Catchment D2) – diverted to FMH4020747.
- Luen Fat Industrial (First) Building, New Venture Centre, Fung King Industrial Building, Wiking Technology & Business Centre, Golden Sunflower Industrial Building, Silka Tsuen Wan Hotel, Park Sun Building, etc. (Catchment D3) – diverted to FMH4020761.

3. Evaluation and Assessment of Impact

Wastewater from industrial activities are the major sewage sources arising from the development. All sewage will be collected by the nearest sewers and the sewers will be connected to the new last manhole and eventually directed to Government sewerage networks and treatment facilities.

Base on the design assumptions and criteria as detailed in Section 2 above, the calculation of peak sewage flow from each of the catchment has been tabulated below. Detailed calculation has been presented in **Appendix A**.

Manhole	Catchment Served	Estimated Cumulative Peak Discharge (m^3/s)
FMH4020897	Subject Site	0.0226 m^3/s
FMH4020906	Subject Site & A	0.0623 m^3/s
FMH4020905	Subject Site & A & B	0.0824 m^3/s
FMH4020767	Subject Site & A & B & C	0.0869 m^3/s
FMH4020761	Subject Site D3	0.3075 m^3/s
FMH4020746	Subject Site D1 & D3	0.4009 m^3/s
FMH4020747	Subject Site D (D1 & D2 & D3)	0.4244 m^3/s
FMH4020748	Subject Site & A & B & C & D	0.4714 m^3/s

Table 4 Summary of Peak Sewage Flow

The capacities of respective sewers have been calculated in accordance with the *SM* and *GESF*. Assessment of sewerage impacts associated with detailed calculations have also been provided in **Appendix B** and **C**.

The sewage from the proposed development will be collected and diverted to the existing 300mm diameter sewer underneath Ta Chuen Ping Street through manhole no. FMH4020897 where it will adjoin the flow from upstream of Ta Chuen Ping Street (i.e. Catchment A,B and C). Upon reaching manhole no. FMH4020748, the cumulative flow will eventually merge with sewage flow from Chun Pin Street (Catchment D). It is expected that the existing 300mm to 750mm dia. sewers can cater the cumulative peak discharge of the Subject Site, Catchment A, Catchment B, Catchment C and Catchment D, and no exceedance of hydraulic capacity is anticipated. Also, the peak discharge from the proposed development contributes to less than 1.0% of the peak flow along the 750mm dia. sewer underneath Ta Chuen Ping street. Hence, the sewage impact associated with the proposed conversion is considered insignificant.

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of sewer capacity	Sufficient Capacity?
Terminal Manhole	FMH4020897	0.200	0.0318	0.0226	71.2%	Yes
FMH4020897	FMH4020906	0.300	0.2269	0.0226	10.0%	Yes
FMH4020906	FMH4020905	0.300	0.2559	0.0623	24.3%	Yes
FMH4020905	FMH4020767	0.300	0.1929	0.0824	42.7%	Yes
FMH4020767	FMH4020768	0.300	0.1191	0.0869	73.0%	Yes
FMH4020768	FMH4020769	0.300	0.4391	0.0869	19.8%	Yes
FMH4020769	FMH4020748	0.450	0.2648	0.0869	32.8%	Yes
FMH4020761	FMH4020762	0.375	0.3075	0.3075	100.0%	Yes
FMH4020762	FMH4020745	0.375	0.3307	0.3075	93.0%	Yes
FMH4020745	FMH4020746	0.600	0.6968	0.3075	44.1%	Yes
FMH4020746	FMH4020747	0.600	0.5302	0.4009	75.6%	Yes
FMH4020747	FMH4020748	0.600	0.6873	0.4244	61.7%	Yes
FMH4020748	FMH4020749	0.600	0.5180	0.4714	91.0%	Yes
FMH4020749	FMH4020750	0.750	2.2301	0.4714	21.1%	Yes

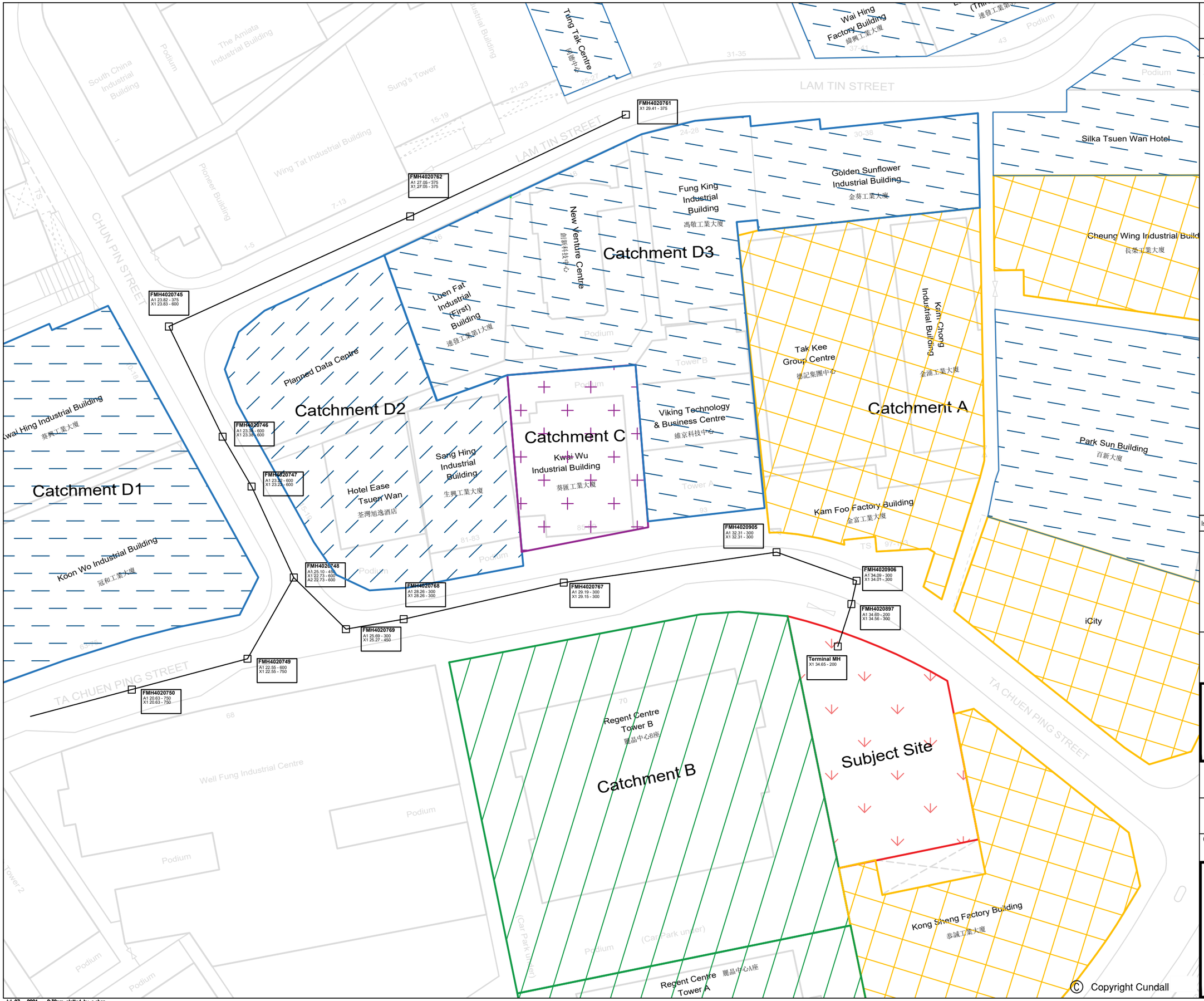
Table 5 Summary of Estimated Sewage Flow Capacities

4. Conclusions

A sewerage impact assessment (SIA) has been conducted to evaluate the potential sewerage impacts on the local sewerage network as a result of the Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

In conclusion, the results of the sewerage impact reveal that the existing sewage capacity is sufficient to cater the cumulative peak discharge arising from the proposed development and development in the vicinity along Ta Chuen Ping Street. Also, the peak discharge from the proposed development contributes to less than 1.0% of the peak flow along the 750mm dia sewer underneath Ta Chuen Ping street. Hence, the sewage impact associated with the proposed conversion is considered insignificant.

Figure 1 DSD Drainage Record Plan



Jul 07, 2021 - 2:38pm plotted by c.chan

1029998 | A3

DO NOT SCALE FROM THIS DRAWING

Notes

1. Length of pipes NTS
2. Only concerned sewers and sewerage manholes have been indicated.

Issue	Date	Description	By	Chkd	Verfd

Project
Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung - Sewerage Impact Assessment

Client
Gain Champion Investment Limited

Title
DSD Drainage Record Plan

Figure No.	Drawing Status
1	Rev 1
Job No.	**Scale**
1029998	NTS

Originator	Checked	Verified	Issue.
CC			-

CUNDALL
7/F The Hennessy
256 Hennessy Road
Wanchai
Hong Kong, China
Website: www.cundall.com

Appendix A Calculation of Flow Estimation

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 01

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C. Chan	7 July 2021	J.Tang	

CALCULATION:

01 Calculation of Sewage Loading

Catchment	Sewer Manhole No.	Buildings in Zone	Type of Use	GFA/ UFA (m^2)	No. of Flats	Type of Population	Occupancy Density (person/100m^2 GFA)	Estimated Population	Unit Flow Factor (m^3/day/ person)	Estimated Average Dry Weather Flow (m^3/day)	Remarks
-	FMH4020897	Site	Industrial	17,663.35	-	Industrial Employee	2.3	406	0.73	296.38	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
A	FMH4020906	Cheung Wing Industrial Building (長榮工業大廈)	Commercial	16,754	-	Commercial Employee	3.8	637	0.18	114.66	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J3 Transport, Storage & Communication is (0.1+0.08) = 0.18 m3/person/day. Worker density: assumed to be 3.8 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Transport
		Tak Kee Group Centre (德記集團中心)	Office	4,831	-	Office Employee	5.5	266	0.08	21.28	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and Business Services
		Kam Chong Industrial Building (金涌工業大廈)	Commercial	7,851	-	Commercial Employee	3.8	298	0.18	53.64	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J3 Transport, Storage & Communication is (0.1+0.08) = 0.18 m3/person/day. Worker density: assumed to be 3.8 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Transport
		iCity (Planned)	Office	15,345	-	Office Employee	5.5	844	0.08	67.52	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and
		Kong Sheng Factory Building (恭誠工業大廈)	Industrial	8,610	-	Industrial Employee	2.3	198	0.73	144.54	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		Kam Foo Factory Building (金富工業大廈)	Commercial	11,446	-	Commercial Employee	3.8	435	0.18	78.30	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J3 Transport, Storage & Communication is (0.1+0.08) = 0.18 m3/person/day. Worker density: assumed to be 3.8 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Transport
B	FMH4020905	Regent Centre Tower A (麗晶中心A座)	Office	55,184	-	Office Employee	5.5	3035	0.08	242.80	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and
		Regent Centre Tower B (麗晶中心B座)	Office	51,725	-	Office Employee	5.5	2845	0.08	227.60	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and Business Services

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 01

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C. Chan	7 July 2021	J.Tang	

CALCULATION:

01 Calculation of Sewage Loading

Catchment	Sewer Manhole No.	Buildings in Zone	Type of Use	GFA/ UFA (m^2)	No. of Flats	Type of Population	Occupancy Density (person/100m^2 GFA)	Estimated Population	Unit Flow Factor (m^3/day/ person)	Estimated Average Dry Weather Flow (m^3/day)	Remarks
C	FMH4020767	Kwai Wu Industrial Building (葵匯工業大廈)	Commercial	10,444	-	Commercial Employee	3.8	397	0.18	71.46	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J3 Transport, Storage & Communication is (0.1+0.08) = 0.18 m3/person/day. Worker density: assumed to be 3.8 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Transport
D1	FMH4020746	Kwai Hing Industrial Building (葵興工業大廈)	Industrial	24,517	-	Industrial Employee	2.3	564	0.73	411.72	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		Koon Wo Industrial Building (冠和工業大廈)	Industrial	48,297	-	Industrial Employee	2.3	1111	0.73	811.03	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
D2	FMH4020747	Sang Hing Industrial Building (生興工業大廈)	Commercial	9,000	-	Commercial Employee	3.8	342	0.18	61.56	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J3 Transport, Storage & Communication is (0.1+0.08) = 0.18 m3/person/day. Worker density: assumed to be 3.8 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Transport
		Proposed Data Centre Development	Data Centre	279	-	Commercial Employee	10	28	0.33	9.24	Unit Flow Factor: GESF - Combined UFF of commerciall employees and commercial activities in J2 Electricity Gas & Water is 0.33 m3/person/day. Worker density: assumed to be 10 person per 100 m2 of utilized GFA. Utilized GFA for ancillary office use for the proposed building is 278.6m2 (i.e. 1.2% of overall GFA) according to the latest information available.
					-	Bleed off Water from Cooling Tower	-	-	-	119.00	Bleed off water from cooling tower of the proposed data centre is assumed to be 119 m^3/day (assuming total heat rejection of cooling towers: 21692.7kW). For conservative assessment prupose, all bleed-off water is assumed to be discharged to the public sewerage system
		Hotel Ease. Tsuen Wan (旭逸酒店· 荃灣)	Hotel	10,323	160	Hotel Employee	3.2	330	1.58	521.40	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J10 Restaurant & Hotels is 1.580 m3/person/day. Worker density: assumed to be 3.2 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for hotels and boarding houses.

CUNDALL

JOB NUMBER / FILE:	CALCULATION NUMBER:	DRAWING REFERENCE:
1029998	02	

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C.Chan	7 July 2021	J.Tang	

CALCULATION:

01 Calculation of Sewage Loading (Cont')

Site			
Estimated Average Daily Flow	=	296.38	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	326.02	m^3/day
Contribution Population	=	1207	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0226	m^3/s
Catchment A			
Estimated Average Daily Flow	=	479.94	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	527.93	m^3/day
Contribution Population	=	1955	
Peaking Factor	=	6	
Estikmated Backwash Flow of Swimming Pool		0.003	m^3/s
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.0397	m^3/s
Catchment B			
Estimated Average Daily Flow	=	470.40	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	517.44	m^3/day
Contribution Population	=	1916	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0359	m^3/s
Catchment C			
Estimated Average Daily Flow	=	71.46	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	78.61	m^3/day
Contribution Population	=	291	
Peaking Factor	=	8	
Estimated Peak Flow	=	0.0073	m^3/s
Catchment D1			
Estimated Average Daily Flow	=	1222.75	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1345.03	m^3/day
Contribution Population	=	4982	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0934	m^3/s
Catchment D2			
Estimated Average Daily Flow	=	592.20	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	651.42	m^3/day
Contribution Population	=	2413	
Peaking Factor	=	6	
Estikmated Bleed off Water from Cooling Tower		119.00	m^3/day
Estimated Peak Flow	=	0.0466	m^3/s
Site + Catchment A			
Estimated Average Daily Flow	=	776.32	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	853.95	m^3/day
Contribution Population	=	3163	
Peaking Factor	=	6	
Estikmated Backwash Flow of Swimming Pool		0.003	m^3/s
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.0623	m^3/s
Site + Catchment A + Catchment B			
Estimated Average Daily Flow	=	1246.72	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1371.39	m^3/day
Contribution Population	=	5079	
Peaking Factor	=	5	
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.0824	m^3/s
Site + Catchment A + Catchment B + Catchment C			
Estimated Average Daily Flow	=	1318.18	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1450.00	m^3/day
Contribution Population	=	5370	
Peaking Factor	=	5	
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.0869	m^3/s
Catchment D1 + Catchment D2			
Estimated Average Daily Flow	=	1814.95	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1996.45	m^3/day
Contribution Population	=	7394	
Peaking Factor	=	5	
Estikmated Bleed off Water from Cooling Tower		119.00	m^3/day
Estimated Peak Flow (with Cooling Tower Bleed off water)	=	0.1169	m^3/s
Catchment D1 + Catchment D2 + Catchment D3			
Estimated Peak Flow	=	0.4244	m^3/s
Site + Catchment A + Catchment B + Catchment C + Catchment D1 + Catchment D2			
Estimated Average Daily Flow	=	3133.13	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	3446.44	m^3/day
Contribution Population	=	12765	
Peaking Factor	=	4	
Estimated Peak Flow	=	0.1639	m^3/s
Site + All Catchments			
Estimated Peak Flow	=	0.4714	m^3/s

Appendix B Detailed Calculation of Hydraulic Capacity

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 02

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

CALCULATION:

02 Detailed Calculation of Hydraulic Capacity

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C.Chan	7 July 2021	J.Tang	

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Cross-section Area, A (m^2)	Wetted Perimeter, P (m)	Length, L (m)	Inlet Invert Level (mPD)	Outlet Invert Level (mPD)	Colebrook-White Roughness Coefficient, Ks (mm)	Hydraulic Radius, R (m)	Slope, s	Velocity, V (m/s)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of Pipe capacity	Sufficient Capacity?	Remarks
Terminal Manhole	FMH4020897	0.200	0.0314	0.6283	6.0	34.65	34.56	6.0	0.0500	0.01500	1.0127	0.0318	0.0226	71.2%	Yes	Site: New terminal manhole proposed with 200mm sewer connecting government manhole
FMH4020897	FMH4020906	0.300	0.0707	0.9425	5.5	34.56	34.09	6.0	0.0750	0.08530	3.2107	0.2269	0.0226	10.0%	Yes	
FMH4020906	FMH4020905	0.300	0.0707	0.9425	15.7	34.01	32.31	6.0	0.0750	0.10842	3.6199	0.2559	0.0623	24.3%	Yes	Site & Catchment A
FMH4020905	FMH4020767	0.300	0.0707	0.9425	50.6	32.31	29.19	6.0	0.0750	0.06165	2.7292	0.1929	0.0824	42.7%	Yes	Site & Catchment A & B
FMH4020767	FMH4020768	0.300	0.0707	0.9425	35.8	29.15	28.31	6.0	0.0750	0.02350	1.6843	0.1191	0.0869	73.0%	Yes	Site & Catchment A & B & C. Refer to Appendix C for inlet invert level of FMH4020768
FMH4020768	FMH4020769	0.300	0.0707	0.9425	8.1	28.26	25.69	6.0	0.0750	0.31913	6.2118	0.4391	0.0869	19.8%	Yes	Refer to Appendix C for outlet invert level of FMH4020768
FMH4020769	FMH4020748	0.450	0.1590	1.4137	12.9	25.27	25.10	6.0	0.1125	0.01318	1.6648	0.2648	0.0869	32.8%	Yes	
FMH4020761	FMH4020762	0.375	0.1104	1.1781	50.0	29.41	27.05	6.0	0.0938	0.04719	2.7838	0.3075	0.3075	100.0%	Yes	Assume full capacity upstream (D3 along Lam Tin Street)
FMH4020762	FMH4020745	0.375	0.1104	1.1781	59.2	27.05	23.82	6.0	0.0938	0.05458	2.9940	0.3307	0.3075	93.0%	Yes	
FMH4020745	FMH4020746	0.600	0.2827	1.8850	23.0	23.83	23.38	6.0	0.1500	0.01959	2.4645	0.6968	0.3075	44.1%	Yes	
FMH4020746	FMH4020747	0.600	0.2827	1.8850	14.1	23.38	23.22	6.0	0.1500	0.01135	1.8753	0.5302	0.4009	75.6%	Yes	Catchment D1 + D3
FMH4020747	FMH4020748	0.600	0.2827	1.8850	25.7	23.22	22.73	6.0	0.1500	0.01906	2.4308	0.6873	0.4244	61.7%	Yes	Catchment D1 + D2 + D3
FMH4020748	FMH4020749	0.600	0.2827	1.8850	16.6	22.73	22.55	6.0	0.1500	0.01083	1.8320	0.5180	0.4714	91.0%	Yes	Site & Catchment A & B & C & D
FMH4020749	FMH4020750	0.750	0.4418	2.3562	31.5	22.55	20.63	6.0	0.1875	0.06101	5.0479	2.2301	0.4714	21.1%	Yes	Site & Catchment A & B & C & D

Remarks:

1 Information from Drainage Services Department (DSD)'s drainage record plans or proposed sewer design

2 Wetted perimeter, P, is calculated from:
$P = \pi D$

3 The mean velocity is calculated using the Colebrook-White Equation for circular pipes flowing full:

$$V = -2(2gDS)^{0.5}\log\left(\frac{k}{3.7D} + \frac{2.5\nu}{D(2gDS)^{0.5}}\right)$$

where

K = Colebrook-White roughness coefficient (m)
V = mean velocity (m/s)
D = circular cross-section pipe, inside diameter (m)
S = slope, in meters per meter
v = kinematic viscosity of water, in meters per second (0.000001306 m^2/s)
g = gravitational acceleration (m/s^2) (9.807m/s^2)

4 The Colebrook-White Roughness Coefficient, Ks, is assumed to be 6.0 mm (Table 5 in DSD's "Sewerage Manual Part 1") for existing pipes

5 Hydraulic radius, R, is calculated from:
$R = A/P$

6 Peak flow, Q, is calculated from:
$Q = V \times A$

7 With reference Table T-4 in "Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning" issued by EPD, an inflow catchment factor of 1.0 was adopted for the Subject Site.

Appendix C Manhole Survey

Buried Utility Damage Avoidance
Engineering, Engineers, Consultants,
Surveyors & Specialists

B - Manhole Internal Condition Survey (MHICS)

Manhole Survey Report

Y21-P001-005

Underground Utility Survey and Manhole Survey for proposed industrial Development at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Version 1.0, Jul 2021

BUDA Engineers and Consultants Co., Limited

The confined spaces problem-solver

Quality, environmental and safety management systems are certified to

ISO 9001 : 2015
Certificate No.: CC 6224

ISO 9001 : 2015
Certificate No.: CC 6224

Address: Suite 212-214, 2/F, Favor Industrial Centre,
2-6 Kin Hong Street, Kwai Chung, NT

Tel: 2690 9999 Fax: 2690 9993

Web: www.buda.com.hk E-mail: info@buda.com.hk

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

FOREWORD

This report presents the Manhole Internal Condition Survey (MHICS) by qualified persons (Member of HKIUS) at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

BUDA Engineers and Consultants Co., Ltd. is a company member of Hong Kong Institute of Utility Specialists (HKIUS) and works as a group in Hong Kong for various types of utility specialist works since 1998.

Being appointed as Utility Specialist (US) by the client and for the works as stated in the introduction, BUDA offers the services by qualified personnel (OMHKIUS) with relevant training and at least 3 years on site experiences.

Prepared by:

Mr. Anthony So OMHKIUS
Senior Technical Officer

Surveyed and checked by:

Mr. Wong Wai Fung OMHKIUS
Chief Technical Officer

Approved by:

Mr. Victor Chow OMHKIUS
Project Manager

Quality Control by UtilityINFO Limited
The Underground Information Provider

1. INTRODUCTION

1.1 Background

1.1.1. Client Information

Table 1.1.1 – Client Information

Client	Gain Champion Investment Ltd
Client's Representative	Mr. Marco Ng
Contact	3571 7942

BUDA Engineers and Consultants Co., Ltd. was appointed by **Nam Fung Property Management Limited.** as the specialist to carry out the captioned project of Manhole Survey at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

1.2 Survey scope

In accordance with the particular specification for this project, the works include:

i. To preliminary study the site condition
ii. Coordination and liaison with government departments and all relevant parties to obtain the necessary record drawing for the field works, including TTA (Temporary Traffic arrangement) application
iii. To coordinate and liaison with client for assistance (if necessary)
iv. To carry out Risk Assessment before works
v. To address to the safety precaution measures required to tackle the potential risks identified by the Risk Assessment.
vi. To issue permit to work before entering confined space
vii. To carry out Manhole Internal Condition Survey (MHICS) to identify the internal condition of concerned manholes (Storm water manholes, catch pits, gullies) at Kao Chiu Road.
viii. Topographic survey by Total Station is to be carried out.
ix. To submit technical report with survey drawing, manhole cards and photographs for client's future use by OMHKIUS/MHKIUS in relevant disciplines.
x. To check, endorse and submit technical report with with survey drawing, manhole cards and photographs for client's future use by MHKIUS/FHKIUS in relevant disciplines.

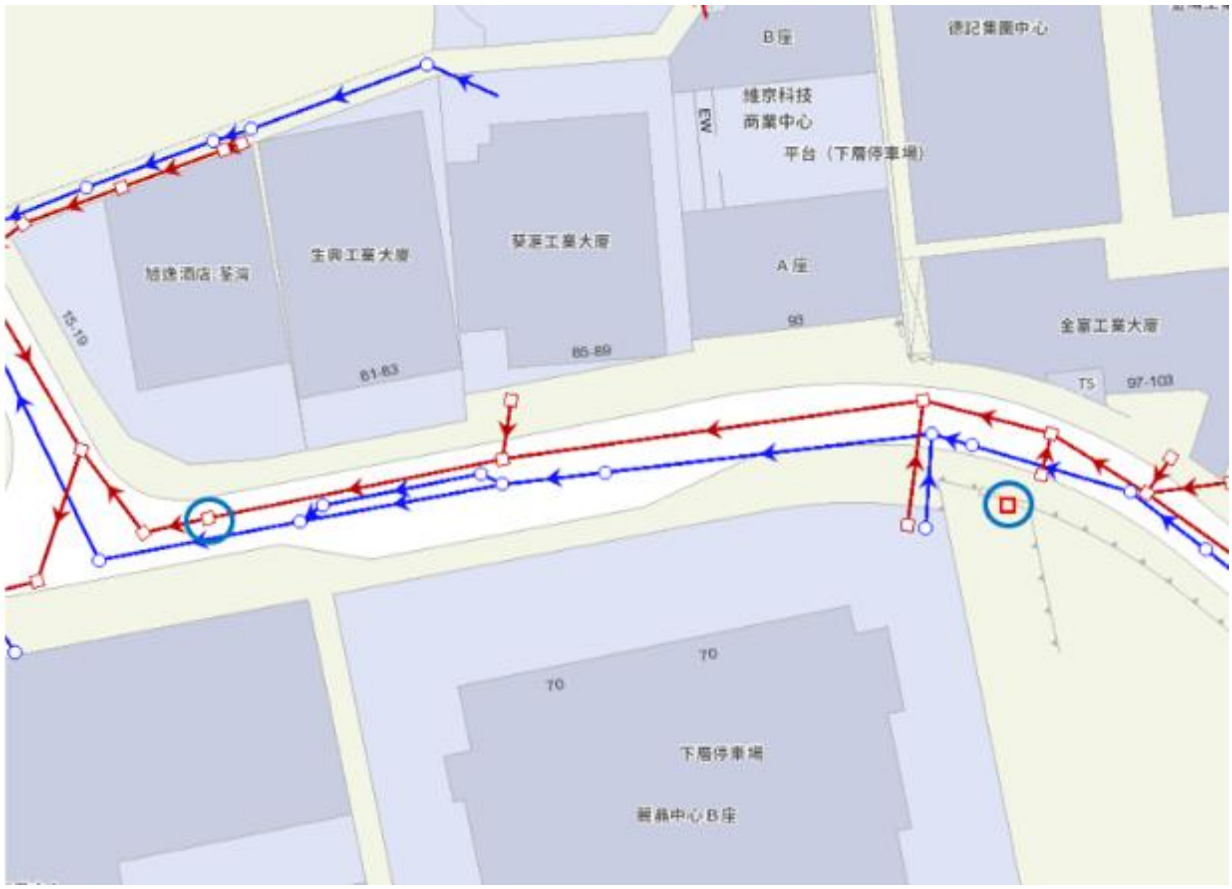
2. SITE DESCRIPTION

Location: Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Survey Dates: 28 June 2021 to 5 July 2021

Crew Leader: Mr. Wong Wai Fung (OMHKIUS) with 2 members involved

Fig 2.1 Drainage Manhole to be surveyed



3. SURVEY RESULT

3.1 Summary Manhole Internal Condition Survey (MHICS)

20 manholes/pit were surveyed. The results are as follows:

Item	Manhole/ Pit Ref.	Survey Day	Type	Location	Manhole survey (Y/N)
1	S999	29/06/2021	Storm Water Manhole	Ta Chuen Ping Street	Y
2	FMH4020768	29/06/2021	Foul Water Manhole	Ta Chuen Ping Street	Y

Table 3.1: Summary of manholes - Please refer to Appendix B – IDMS Manhole Record

4. DISCUSSION AND CONCLUSIONS

1. 20 nos. of manholes/pits were surveyed successfully.

Item	Type	Number of Manhole/Pit Surveyed
1	Storm Water Manhole	1
2	Foul Water Manhole	1

Table 4.1: Summary of manholes types

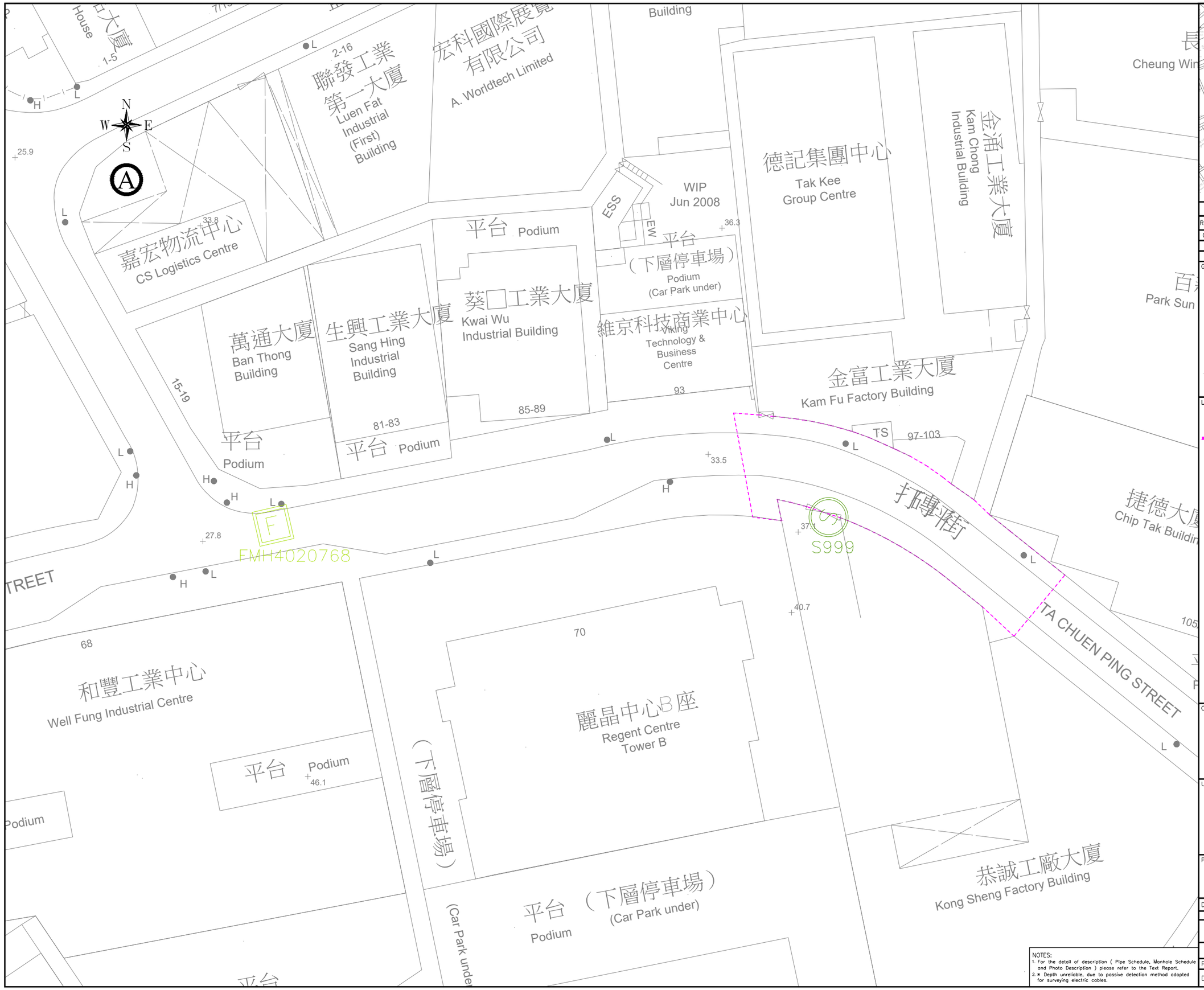
5. RECOMMENDATIONS AND REMARKS

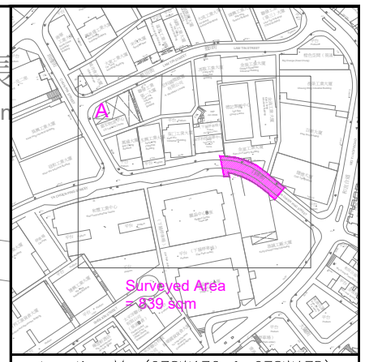
- UTR=Unable to Raise, UTS=Unable to Survey, UTL=Unable to Locate, UTGA=Unable to Gain Access
- S999# wrong type cover (this is a storm water manhole)

6. REFERENCES

- Hong Kong Institute of Utility Specialists, Particular Specification for Manhole Internal Condition Survey (MHICS), HKIUS-MHICS PS, June 2011.
- Hong Kong Institute of Utility Specialists, Particular Specification for Utility Mapping By Non-Destructive Methods, HKIUS-UT PS, June 2011.
- Environment, Transport and Works Bureau, HKSAR, Nov 2006, Code of Practice on Monitoring and Maintenance of Water-Carrying Services Affecting Slopes, Second Edition.

Appendix A – Manhole Card with Photographs of Manhole Internal Condition Survey (MHICS)





Location Map(07SW17C & 07SW17D)

Rev.	Date	Drawn by	Description
01	05/07/2021	Anthony So	First Issue

GENERAL NOTES :

1. Unit of all depth shown is in m, indicated as #d.
2. Unit of all dimension shown is in mm dia..
3. Coordinates and levels are to the Hong Kong 1980 Grid System and the Hong Kong Principle Datum.
4. All units are in metric.
5. Pipes or cables are buried in the same level and are very close to each other making identification of each pipe and cable not possible. In the case, it will be assumed that the pipe of a larger diameter is indicated.
6. Pipes or cables are located at the same or very close vertical layer. In this case, the first layer will be located and reported.
7. Width of the utility line in the drawing does not represent in actual dimension.
8. 90% of a representative sample of points on locatable services are within ±150mm or 0.15d(depth) whichever is bigger.
9. Manholes/Chambers/Pits for Drainage, Watermains and Utilities, etc. shown are measured in internal dimension.
10. Symbols shown are indicative, and not to scale.

LEGEND :

- F — Foul Water Manhole
- S — Storm Water Manhole
- Contract Survey Boundary

NOTES:

1. For the detail of description (Pipe Schedule, Manhole Schedule and Photo Description) please refer to the Text Report.
2. ✖ Depth unreliable, due to passive detection method adopted for surveying electric cables.

CLIENT :

南豐物業管理 NAN FUNG PROPERTY MANAGEMENT

Nam Fung Property Management Limited

UTILITY SPECIALIST :

BUDA **Buried Utility Damage Avoidance**
Engineering, Engineers, Consultants, Surveyors & Specialists

BUDA Engineers and Consultants CO., Ltd.

Tel : 2690 9999 Fax : 2690 9993
Email : info @ buda.com.hk Web Site : www.buda.com.hk

PROJECT TITLE :

Underground Utility Survey for Proposed Industrial Development at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

DRAWING TITLE : Manhole Survey Drawing

A1 Size Scale: 1:300	Survey Date: June 2021
Wong Wai Fung	Victor Chow
Prepared By Mr. Wong Wai Fung	Approved By Mr. Chow Kei Hong
Project No.	Y21-P011-005-MH-D-01
Drawing No.	Y21-P011-005-MH-D-01_01 Sheet 1 of 1

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

STC25 COMPUTERISED SEWER RECORDS

NODE REFERENCE	S999
NATIONAL GRID	825441.428 N 832291.562 E
DRAINAGE AREA CODE	07SW17D

STC25 GRID REFERENCE														
LOCATION	Ta Chuen Ping Street													
YEAR LAID	Z	STATUS	PU	FUNC-TION	S	NODE TYPE	M		(diam)			SURVEY DATE	28/06/2021	
COVER	SHAPE D	HINGED	N	LOCK	N	DUTY	H	SIZE (mm)	580	X	580	TOXIC ATMOSPHERE	N	
SHAFT	SIDE ENTRY N	REGULAT COURSES	0	DEPTH (mm)	1050			SIZE (mm)	0	X	0	EVIDENCE OF VERMIN	N	
CHAM	SOFFIT --	STEPS	0	LADDERS	0	LNDGS	0	SIZE (mm)	600	X	600	CONSTRUCT CODE	I	

DEPTH OF FLOW (mm)	DEPTH OF SILT	HEIGHT SURCH (mm)	COVER LEVEL (mPD)
0	0	0	35.69

1

INCOMING PIPES

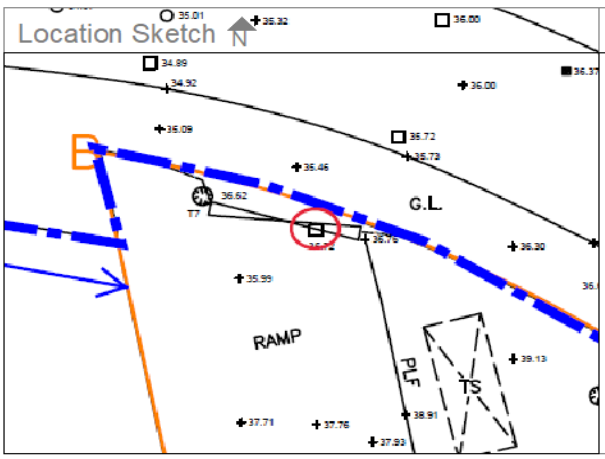
	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm)	BACKDROP DIAM (mm)	PIPE MATERIAL	LINING	DEPTH OF COVER	INVERT LEVEL (m)
A	GNA	C	225		CI		0.52	35.17
B	GNB	C	150		CO		1.00	34.69
C								
D								
E								
F								

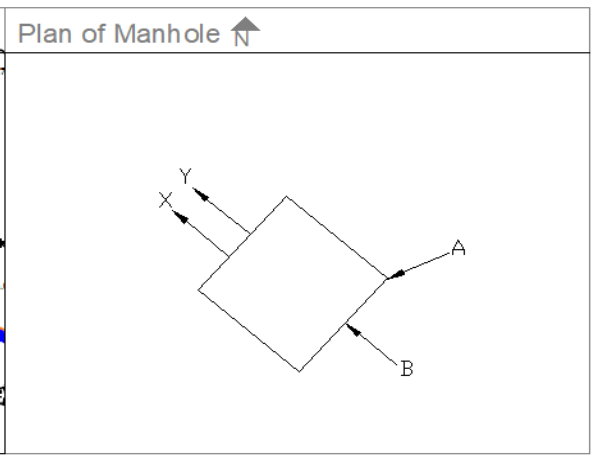
OUTGOING PIPES

	DOWNSTREAM REFERENCE			OCT Vc	Crity			
X	S02	C	150			PVC	1.05	34.64
Y	S02	C	150			PVC	1.05	34.64

CONDITIONS (Y if attention required)	COVER	IRONS/ LADDERS	SHAFT	CHAMBER	BENCHING	OTHER
	N	N	N	N	N	N

REMARKS
Wrong Type Cover (this is a storm water manhole)





沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference S999

Photograph No. :

S999 - P01

Location :

Ta Chuen Ping Street

Description :

Manhole location photo

Remark :

Photograph No. :

S999 - P02

Location :

Ta Chuen Ping Street

Description :

Wrong mahole cover photo

Remark :

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference S999

Photograph No. :

S999 - P03

Location :

Ta Chuen Ping Street

Description :

Manhole internal photo

Remark :

Photograph No. :

S999 - P04

Location :

Ta Chuen Ping Street

Description :

Manhole internal photo

Remark :

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

STC25 COMPUTERISED SEWER RECORDS

NODE REFERENCE	FMH4020768
NATIONAL GRID	825440.034 N 832196.034 E
DRAINAGE AREA CODE	07SW17C
SURVEY DATE	29/06/2021

STC25 GRID REFERENCE							
LOCATION	Ta Chuen Ping Street						
YEAR LAID	Z	STATUS	PU	FUNC-TION	F	NODE TYPE	M
COVER SHAPE	D	HINGED	N	LOCK	N	DUTY	H
SHAFT SIDE ENTRY	N	REGULAT COURSES	0	DEPTH (mm)	1550		
CHAM SOFFIT	--	STEPS	2	LADDERS	0	LNDGS	0

	(diam)				
SIZE (mm)	580	X	580	TOXIC ATMOSPHERE	N
SIZE (mm)	600	X	600	EVIDENCE OF VERMIN	N
SIZE (mm)	1100	X	1400	CONSTRUCT CODE	I

DEPTH OF FLOW (mm)	30	DEPTH OF SILT	0	HEIGHT SURCH (mm)	0

COVER LEVEL (mPD): 29.809 (1)

INCOMING PIPES

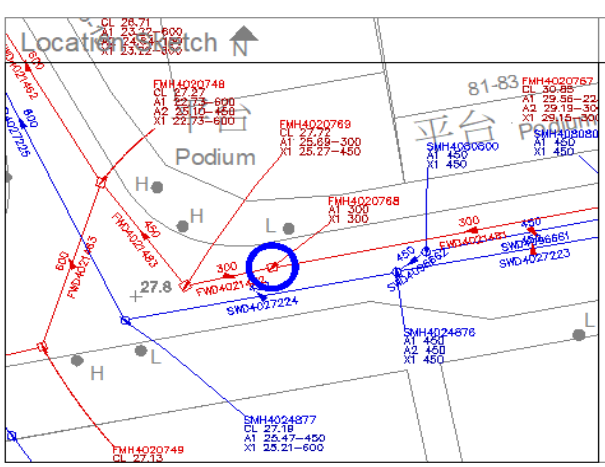
	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm)	BACKDROP DIAM (mm)	PIPE MATERIAL	LINING	DEPTH OF COVER	INVERT LEVEL (m)
A	FMH4020767	C	300		CO		1.50	28.31
B								
C								
D								
E								
F								

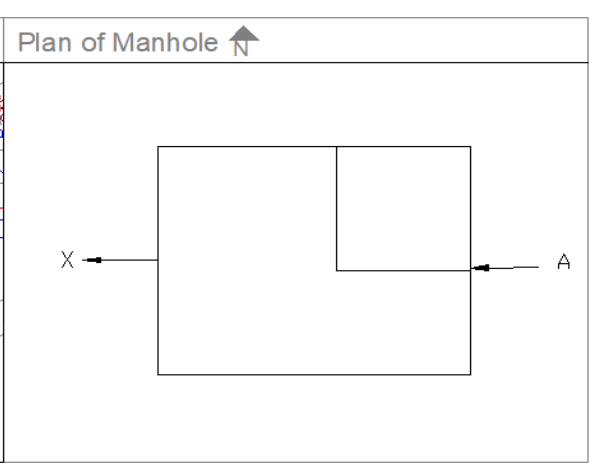
OUTGOING PIPES

	DOWNSTREAM REFERENCE			OCT Vc	Crity			
X	FMH4020769	C	300			CO		1.55	28.26
Y									

CONDITIONS (Y if attention required)	COVER	IRONS/ LADDERS	SHAFT	CHAMBER	BENCHING	OTHER
	N	N	N	N	N	N

REMARKS





沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference FMH4020768

Photograph No. :

FMH4020768 - P01

Location :

Ta Chuen Ping Street

Description :

Manhole location photo

Remark :

Photograph No. :

FMH4020768 - P02

Location :

Ta Chuen Ping Street

Description :

Manhole DSD Reference No

Remark :

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference FMH4020768

Photograph No. :

FMH4020768 - P03

Location :

Ta Chuen Ping Street

Description :

Manhole condition photo

Remark :

Photograph No. :

FMH4020768 - P04

Location :

Ta Chuen Ping Street

Description :

Manhole step photo

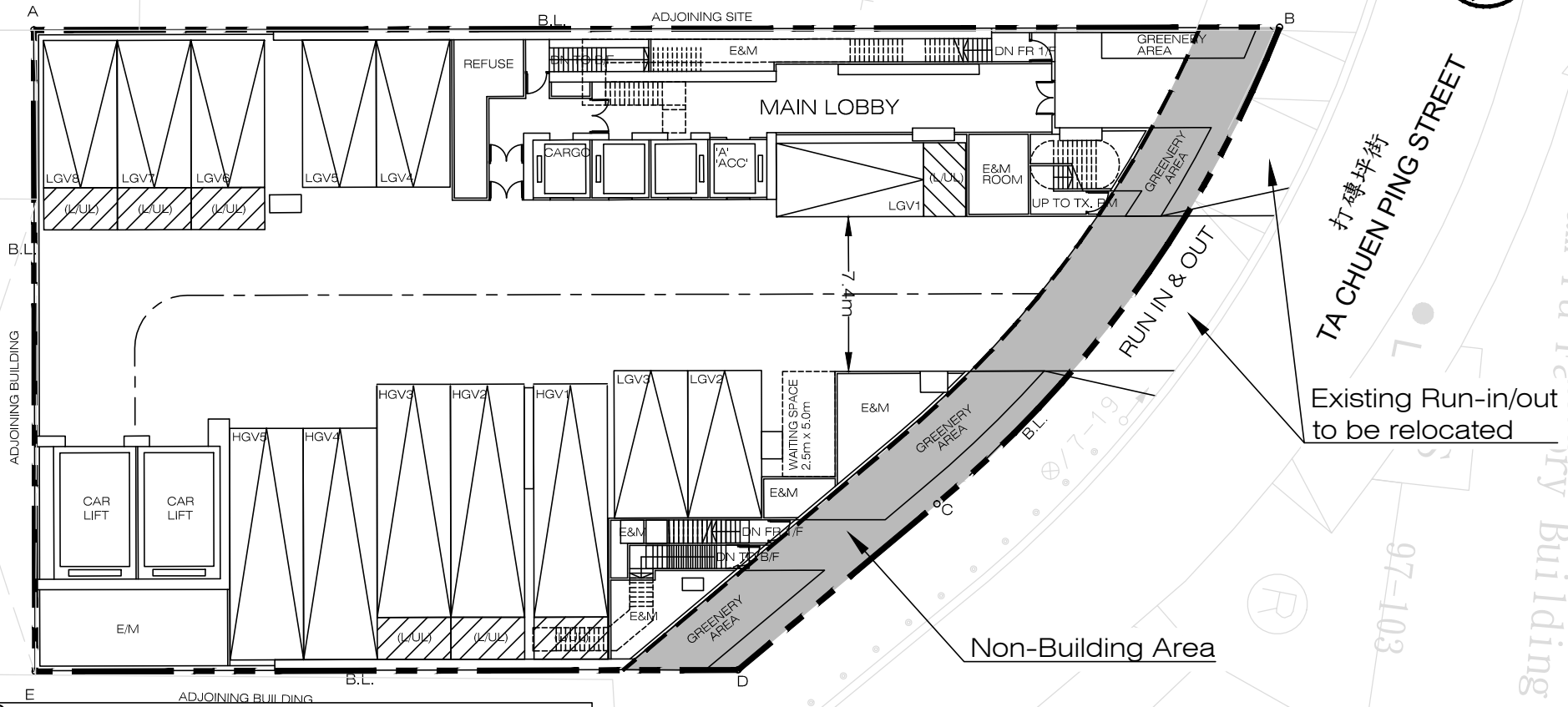
Remark :

Annex B

TABLE B 2028 TRAFFIC FLOWS AND VOLUME TO CAPACITY RATIO ASSESSMENT OF SURVEY ROAD LINKS

Road Link		Capacity (pcu/hr) [C][(1)(2)]	AM Peak Hour				PM Peak Hour			
			Without the Proposed Industrial Development		With the Proposed Industrial Development		Without the Proposed Industrial Development		With the Proposed Industrial Development	
			Traffic Flow (pcu/hr) [V3]	Ratio [V3]/[C]	Traffic Flow (pcu/hr) [V4]	Ratio [V4]/[C]	Traffic Flow (pcu/hr) [V5]	Ratio [V5]/[C]	Traffic Flow (pcu/hr) [V6]	Ratio [V6]/[C]
Castle Peak Road - Kwai Chung (Between Lei Muk Road and Wo Yi Hop Road)	NB	2,890	1,104	0.4	1,147	0.4	1,104	0.4	1,147	0.4
	SB	4,330	1,798	0.4	1,471	0.3	1,808	0.4	1,477	0.3
Castle Peak Road - Kwai Chung (Between Wo Yi Hop Road and Shek Pai Street)	NB	4,330	1,500	0.4	1,552	0.4	1,504	0.4	1,555	0.4
	SB	2,890	1,426	0.5	1,170	0.4	1,429	0.5	1,173	0.4
Wo Yi Hop Road (Between Castle Peak Road - Kwai Chung and Tai Loong Street)	EB	2,110	1,054	0.5	1,022	0.5	1,068	0.5	1,031	0.5
	WB	1,060	286	0.3	316	0.3	289	0.3	319	0.3
Wo Yi Hop Road (Between Tai Loong Street and Ta Chuen Ping Street)	EB	2,110	1,303	0.6	1,330	0.6	1,317	0.6	1,339	0.6
	WB	1,060	192	0.2	209	0.2	195	0.2	212	0.2
Wo Yi Hop Road (Between Ta Chuen Ping Street and Ta Chuen Ping Street)	EB	1,060	343	0.3	341	0.3	343	0.3	341	0.3
	WB	1,060	606	0.6	589	0.6	609	0.6	592	0.6
Wo Yi Hop Road (Between Ta Chuen Ping Street and Lei Muk Road)	NB	3,170	681	0.2	796	0.3	695	0.2	817	0.3
	SB	2,110	656	0.3	621	0.3	667	0.3	631	0.3
Wo Yi Hop Road (Between Lei Muk Road and Cheung Wing Road)	NB	2,110	1,484	0.7	1,533	0.7	1,498	0.7	1,554	0.7
	SB	2,110	1,067	0.5	1,118	0.5	1,078	0.5	1,128	0.5
Tai Loong Street (Between Wo Yi Hop Road and Shek Pai Street)	NB	890	344	0.4	416	0.5	344	0.4	416	0.5
Ta Chuen Ping Street (Between Wo Yi Hop Road and Chun Ping Street)	NB	890	880	1.0	863	1.0	894	1.0	872	1.0
	SB	450	70	0.2	53	0.1	70	0.2	53	0.1
Ta Chuen Ping Street (Between Chun Ping Street and Wo Yi Hop Road)	EB	890	378	0.4	521	0.6	395	0.4	545	0.6
Chun Ping Street (Between Lei Muk Road and Ta Chuen Ping Street)	NB	890	618	0.7	606	0.7	618	0.7	606	0.7
	SB	450	152	0.3	195	0.4	163	0.4	205	0.5
Lei Muk Road (Between Castle Peak Road - Kwai Chung and Kwok Shui Road)	EB	890	493	0.6	502	0.6	493	0.6	502	0.6
	WB	1,060	117	0.1	101	0.1	117	0.1	101	0.1
Lei Muk Road (Between Kwok Shui Road and Chun Ping Street)	EB	2,110	242	0.1	226	0.1	242	0.1	226	0.1
	WB	1,060	562	0.5	606	0.6	562	0.5	606	0.6
Lei Muk Road (Between Chun Ping Street and Wo Yi Hop Road)	EB	3,170	443	0.1	400	0.1	443	0.1	400	0.1
	WB	2,110	146	0.1	174	0.1	146	0.1	174	0.1
Lei Muk Road (Between Wo Yi Hop Road and Tung Chi Street)	EB	2,110	508	0.2	526	0.3	508	0.2	526	0.3
	WB	2,110	603	0.3	539	0.3	603	0.3	539	0.3
Kwok Shui Road (Between Wo Yi Hop Road and Tai Yuen Street)	NB	1,060	756	0.7	829	0.8	756	0.7	829	0.8
	SB	1,060	60	0.1	48	0.1	60	0.1	48	0.1

Note: [(1)] Capacity based on Table 2.4.1.1 of Section 2.4, Chapter 2, Volume 2, TPDM [(2)] Adopted pcu factor of 1.11 based on survey results



LEGEND :

LGV1

Light Goods Vehicle
@7.0m(L) X 3.5m(W) X min.3.6m(H)

HGV1

Heavy Goods Vehicle
@11.0m(L) X 3.5m(W) X min.4.7m(H)

Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

PROPOSED GROUND FLOOR PLAN

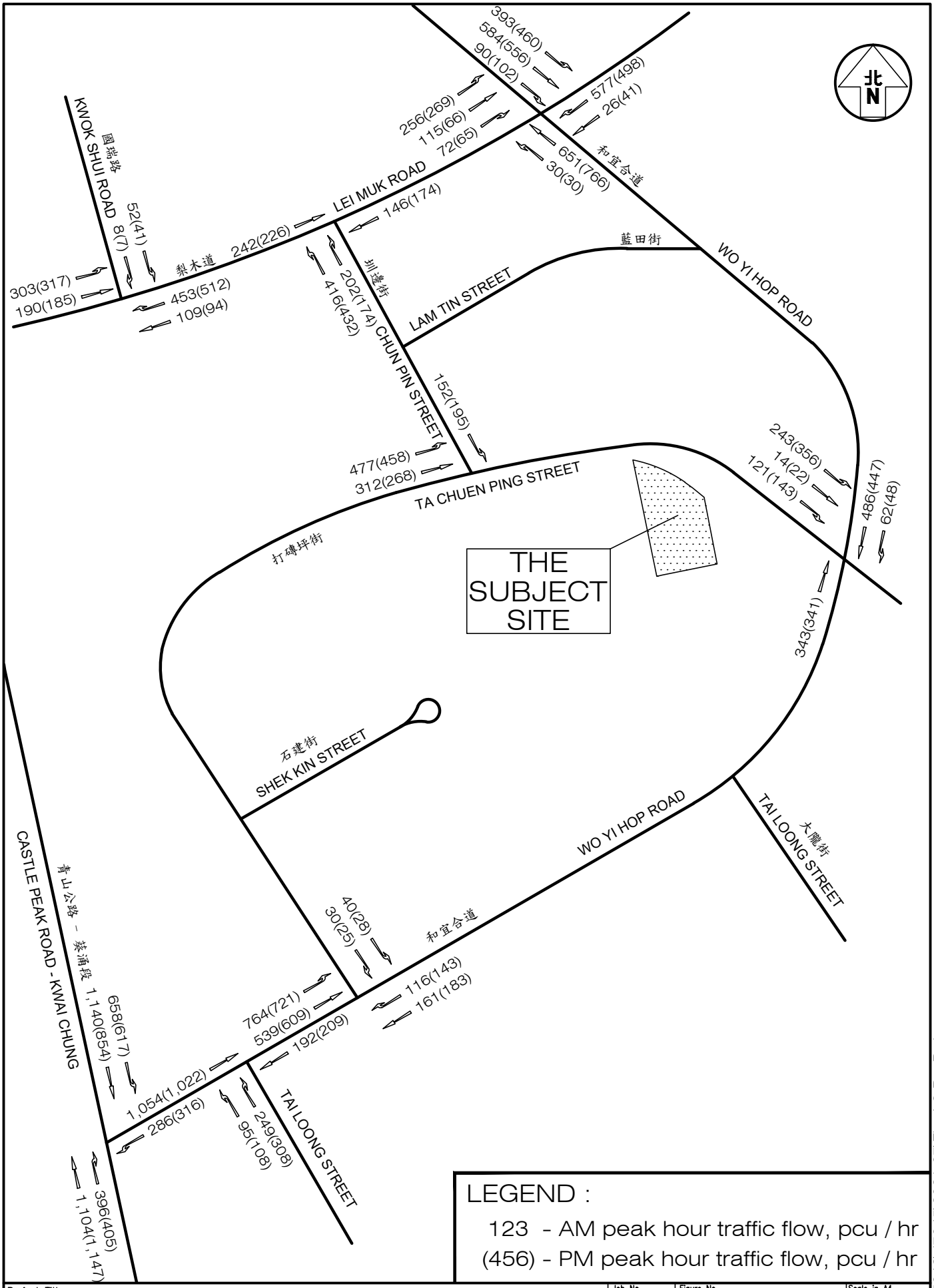
Figure No.	Revision
3.1	A

Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	23 JUN 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\TIA 2021 06\Fig 3.1-3.2.dwg



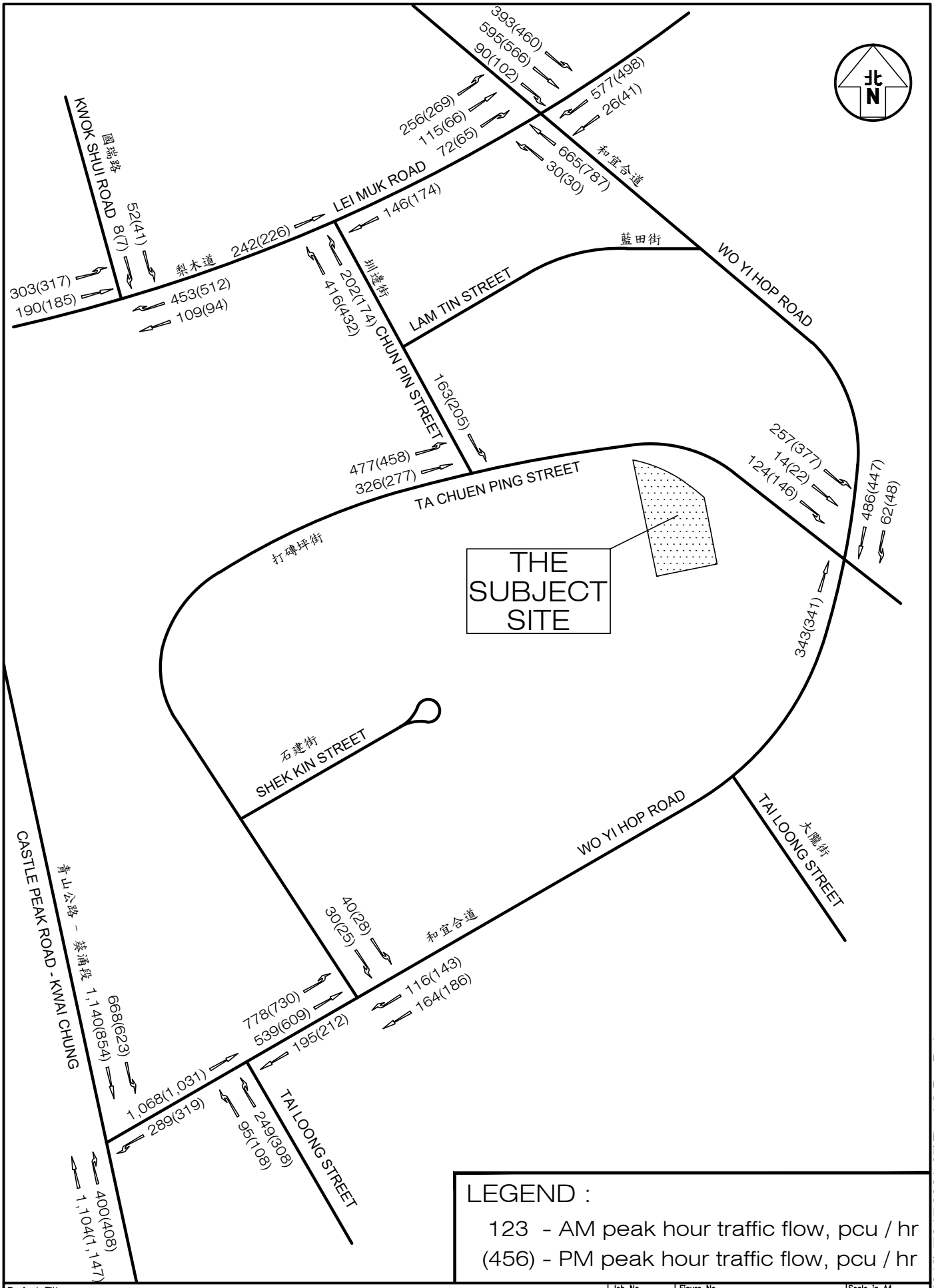
LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 4.2		Scale in A4 N.T.S.
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision B	Date 07 JUL 2021
Figure Title	YEAR 2028 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED INDUSTRIAL DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

T:\JOB\J7000-J7049\J7045\2021 07\Fig 4.2 RevB.dwg



LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 4.3		Scale in A4 N.T.S.
		Designed by L T F	Drawn by S C Y	Checked by K C	Revision B	Date 07 JUL 2021
Figure Title	YEAR 2028 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED INDUSTRIAL DEVELOPMENT	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk			

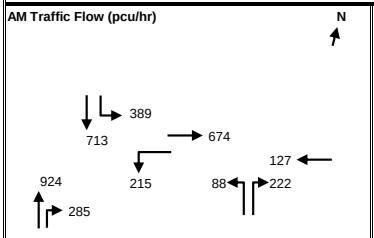
T:\JOB\J7000-J7049\J7045\2021 07\Fig 4.3 RevB.dwg

Signal Junction Analysis

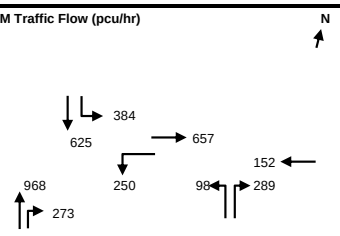
Junction:	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	1
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Castle Peak Road – Kwai Chung SB	LT	A1	1	3.20	15.0		100	1886	389	0.206	0.206	100	1886	384	0.204	0.204
Castle Peak Road – Kwai Chung SB	SA	A2	1	3.50				2105	357	0.170			2105	313	0.149	
Castle Peak Road – Kwai Chung SB	SA	A3	1	3.40				2095	356	0.170			2095	312	0.149	
Castle Peak Road – Kwai Chung NB	SA	B1	1, 2, 3	3.00				2055	924	0.450			2055	968	0.471	
Castle Peak Road – Kwai Chung NB	RT	B2	2	3.40	18.0		100	1934	144	0.074	0.074	100	1934	138	0.071	0.071
Castle Peak Road – Kwai Chung NB	RT	B3	2	3.00	18.0		100	1897	141	0.074		100	1897	135	0.071	
Wo Yi Hop Road WB	LT	C1	2, 3	3.50	13.0		100	1887	215	0.114		100	1887	250	0.132	
Wo Yi Hop Road EB	SA	D1	1, 2	3.10				2065	334	0.162			2065	325	0.157	
Wo Yi Hop Road EB	SA	D2	1, 2	3.50				2105	340	0.162			2105	332	0.158	
Tai Loong Street NB	LT	E1	3	3.30	12.0		100	1853	88	0.047		100	1853	98	0.053	
Tai Loong Street NB	RT	E2	3	3.30	19.0		100	1932	222	0.115	0.115	100	1932	289	0.150	0.150
Wo Yi Hop Road WB	SA	F1	1, 2	3.30				2085	127	0.061			2085	152	0.073	
Pedestrian Phase		P1	1		Min Crossing Time =		5	sec GM +		6	sec FGM =		11	sec		
		P2	3		Min Crossing Time =		5	sec GM +		7	sec FGM =		12	sec		
		P3	1, 2		Min Crossing Time =		5	sec GM +		8	sec FGM =		13	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S_M = S / (1 + 1.5\ f/r)$

$S = 2080 + 100\ (W-3.25)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

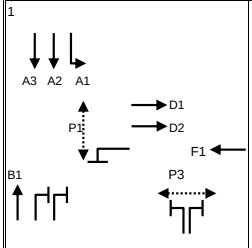
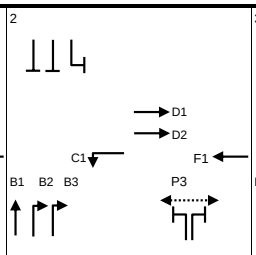
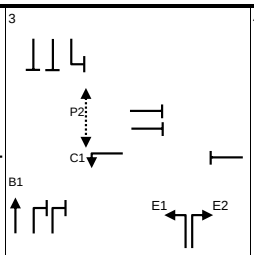
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check 3	Check 1	Check 2	Check 3
Sum y	0.396	0.450	0.320	0.425	0.471	0.336
L (s)	15	0	10	15	0	10
C (s)	120	120	120	114	114	114
Prac. y	0.788	0.900	0.825	0.782	0.900	0.821
R.C. (%)	99%	100%	158%	84%	91%	144%

NOTE:

Check 1: Phase A1 + B2 + E2

Check 2: Phase B1

Check 3: Phase A1 + C1

	1	2	3	4	5
					
AM	G = / I/G = 6	G = / I/G = 7	G = / I/G = 5	G = / I/G =	G = / I/G =
	G = / I/G =	G = / I/G =	G = / I/G =	G = / I/G =	G = / I/G =
	G = / I/G = 7	G = / I/G =	G = / I/G = 5	G = / I/G =	G = / I/G =
PM	G = / I/G = 6	G = / I/G = 7	G = / I/G = 5	G = / I/G =	G = / I/G =
	G = / I/G =	G = / I/G =	G = / I/G =	G = / I/G =	G = / I/G =
	G = / I/G = 7	G = / I/G =	G = / I/G = 5	G = / I/G =	G = / I/G =

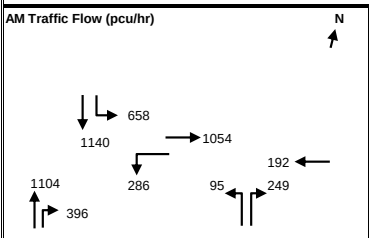
Signal Junction Analysis

Junction:	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	2
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

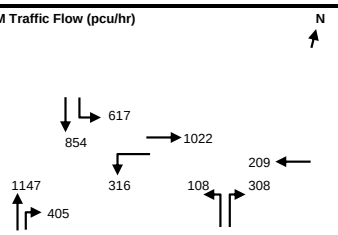
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Castle Peak Road – Kwai Chung SB	LT	A1	1	3.20	15.0		100	1886	658	0.349	0.349	100	1886	617	0.327	0.327
Castle Peak Road – Kwai Chung SB	SA	A2	1	3.50				2105	571	0.271			2105	428	0.203	
Castle Peak Road – Kwai Chung SB	SA	A3	1	3.40				2095	569	0.272			2095	426	0.203	
Castle Peak Road – Kwai Chung NB	SA	B1	1, 2, 3	3.00				2055	1104	0.537			2055	1147	0.558	
Castle Peak Road – Kwai Chung NB	RT	B2	2	3.40	18.0		100	1934	200	0.103	0.103	100	1934	204	0.105	0.105
Castle Peak Road – Kwai Chung NB	RT	B3	2	3.00	18.0		100	1897	196	0.103		100	1897	201	0.106	
Wo Yi Hop Road WB	LT	C1	2, 3	3.50	13.0		100	1887	286	0.152		100	1887	316	0.167	
Wo Yi Hop Road EB	SA	D1	1, 2	3.10				2065	522	0.253			2065	506	0.245	
Wo Yi Hop Road EB	SA	D2	1, 2	3.50				2105	532	0.253			2105	516	0.245	
Tai Loong Street NB	LT	E1	3	3.30	12.0		100	1853	95	0.051		100	1853	108	0.058	
Tai Loong Street NB	RT	E2	3	3.30	19.0		100	1932	249	0.129	0.129	100	1932	308	0.159	0.159
Wo Yi Hop Road WB	SA	F1	1, 2	3.30				2085	192	0.092			2085	209	0.100	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	6	sec FGM =	11	sec
	P2	3		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P3	1, 2		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

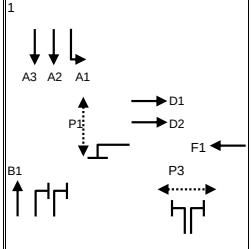
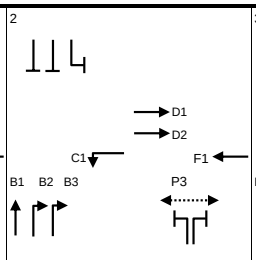
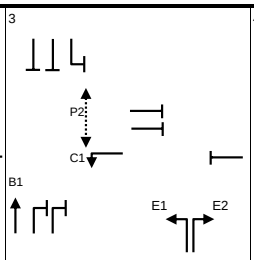
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check 3	Check 1	Check 2	Check 3
Sum y	0.581	0.537	0.500	0.592	0.558	0.495
L (s)	15	0	10	15	0	10
C (s)	120	120	120	114	114	114
Prac. y	0.788	0.900	0.825	0.782	0.900	0.821
R.C. (%)	35%	68%	65%	32%	61%	66%

NOTE:

Check 1: Phase A1 + B2 + E2

Check 2: Phase B1

Check 3: Phase A1 + C1

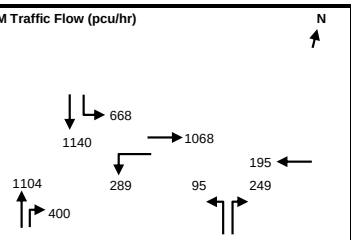
	1	2	3	4	5
					
AM	G =	G =	G =	G =	G =
	I/G = 6	I/G = 7	I/G = 5	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G =	I/G =	I/G =	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G = 7	I/G =	I/G = 5	I/G =	I/G =
PM	G =	G =	G =	G =	G =
	I/G = 6	I/G = 7	I/G = 5	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G =	I/G =	I/G =	I/G =	I/G =
	G =	G =	G =	G =	G =
	I/G = 7	I/G =	I/G = 5	I/G =	I/G =

Signal Junction Analysis

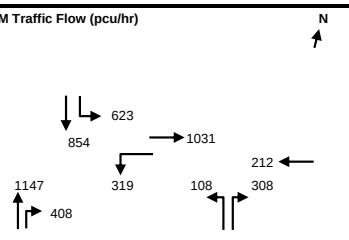
Junction:	Castle Peak Road – Kwai Chung / Wo Yi Hop Road / Tai Loong Street			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	3
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Castle Peak Road – Kwai Chung SB	LT	A1	1	3.20	15.0		100	1886	668	0.354	0.354	100	1886	623	0.330	0.330
Castle Peak Road – Kwai Chung SB	SA	A2	1	3.50				2105	571	0.271			2105	428	0.203	
Castle Peak Road – Kwai Chung SB	SA	A3	1	3.40				2095	569	0.272			2095	426	0.203	
Castle Peak Road – Kwai Chung NB	SA	B1	1, 2, 3	3.00				2055	1104	0.537			2055	1147	0.558	
Castle Peak Road – Kwai Chung NB	RT	B2	2	3.40	18.0		100	1934	202	0.104	0.104	100	1934	206	0.107	0.107
Castle Peak Road – Kwai Chung NB	RT	B3	2	3.00	18.0		100	1897	198	0.104		100	1897	202	0.106	
Wo Yi Hop Road WB	LT	C1	2, 3	3.50	13.0		100	1887	289	0.153		100	1887	319	0.169	
Wo Yi Hop Road EB	SA	D1	1, 2	3.10				2065	529	0.256			2065	511	0.247	
Wo Yi Hop Road EB	SA	D2	1, 2	3.50				2105	539	0.256			2105	520	0.247	
Tai Loong Street NB	LT	E1	3	3.30	12.0		100	1853	95	0.051		100	1853	108	0.058	
Tai Loong Street NB	RT	E2	3	3.30	19.0		100	1932	249	0.129	0.129	100	1932	308	0.159	0.159
Wo Yi Hop Road WB	SA	F1	1, 2	3.30				2085	195	0.094			2085	212	0.102	
Pedestrian Phase		P1	1		Min Crossing Time =		5	sec GM +		6	sec FGM =		11	sec		
		P2	3		Min Crossing Time =		5	sec GM +		7	sec FGM =		12	sec		
		P3	1, 2		Min Crossing Time =		5	sec GM +		8	sec FGM =		13	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

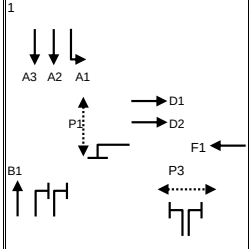
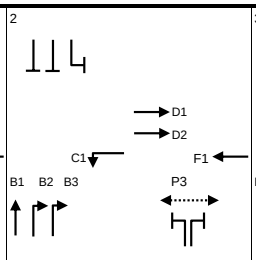
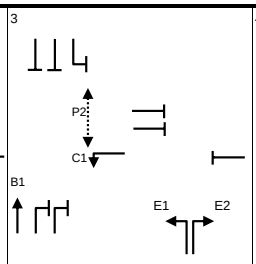
	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check 3	Check 1	Check 2	Check 3
Sum y	0.588	0.537	0.507	0.596	0.558	0.499
L (s)	15	0	10	15	0	10
C (s)	120	120	120	114	114	114
Prac. y	0.788	0.900	0.825	0.782	0.900	0.821
R.C. (%)	34%	68%	63%	31%	61%	64%

NOTE:

Check 1: Phase A1 + B2 + E2

Check 2: Phase B1

Check 3: Phase A1 + C1

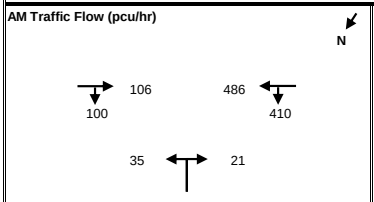
	1	2	3	4	5
					
AM	G = I/G = 6	G = I/G = 7	G = I/G = 5	G = I/G =	G = I/G =
	G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
	G = I/G = 7	G = I/G =	G = I/G = 5	G = I/G =	G = I/G =
PM	G = I/G = 6	G = I/G = 7	G = I/G = 5	G = I/G =	G = I/G =
	G = I/G =	G = I/G =	G = I/G =	G = I/G =	G = I/G =
	G = I/G = 7	G = I/G =	G = I/G = 5	G = I/G =	G = I/G =

Signal Junction Analysis

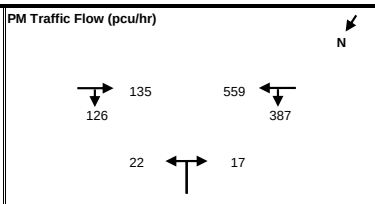
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street	Job Number:	J7045
Scenario:	2019 Existing Condition	Page	4
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	1	3.50	16.5		100	1801	56	0.031		100	1801	39	0.022	
Wo Yi Hop Road EB	LT	B1	1, 2	2.65	17.5		100	1861	410	0.220		100	1861	387	0.208	
Wo Yi Hop Road EB	SA	B2	2	3.20				2075	486	0.234	0.234		2075	559	0.269	0.269
Wo Yi Hop Road WB	SA	C1	2, 3	2.40				1995	106	0.053			1995	135	0.068	
Wo Yi Hop Road WB	RT	C2	3	3.20	26.0		100	1962	100	0.051	0.051	100	1962	126	0.064	0.064
Pedestrian Phase		P1	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		
		P2	4		Min Crossing Time =		8	sec GM +		8	sec FGM =		16	sec		
		P3	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

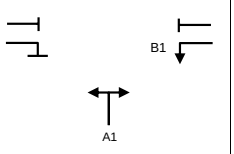
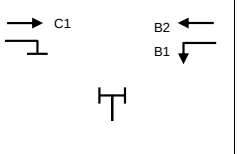
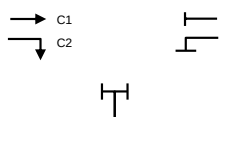
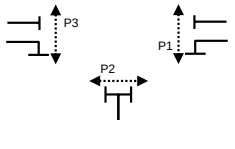
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.285	0.316		0.333	0.355	
L (s)	54	41		53	41	
C (s)	120	120		114	114	
Prac. y	0.495	0.593		0.482	0.576	
R.C. (%)	74%	87%		45%	62%	

NOTE:

Check 1: Phase A1 + B2 + C2 + P2 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B2 + C2 + P2

	1	2	3	4	5
					
AM	G = 18	G =	G =	G =	G =
	I/G = 2	I/G = 5	I/G = 5	I/G = 3	I/G =
	G =	G =	G =	G = 29	G =
	I/G = 5	I/G = 5	I/G = 5	I/G = 3	I/G = 2
PM	G = 17	G =	G =	G =	G =
	I/G = 2	I/G = 5	I/G = 5	I/G = 3	I/G =
	G =	G =	G =	G = 29	G =
	I/G = 5	I/G = 5	I/G = 5	I/G = 3	I/G = 2

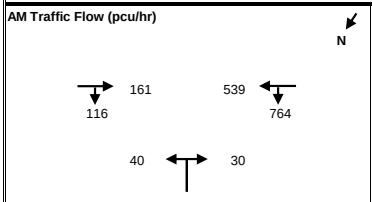
Signal Junction Analysis

Junction:	Wo Yi Hop Road / Ta Chuen Ping Street			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	5
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

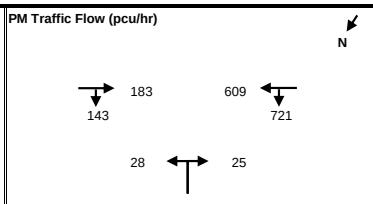
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	1	3.50	16.5		100	1801	70	0.039		100	1801	53	0.029	
Wo Yi Hop Road EB	LT	B1	1, 2	2.65	17.5		100	1861	764	0.411		100	1861	721	0.387	
Wo Yi Hop Road EB	SA	B2	2	3.20				2075	539	0.260	0.260		2075	609	0.293	0.293
Wo Yi Hop Road WB	SA	C1	2, 3	2.40				1995	161	0.081			1995	183	0.092	
Wo Yi Hop Road WB	RT	C2	3	3.20	26.0		100	1962	116	0.059	0.059	100	1962	143	0.073	0.073

Pedestrian Phase	P1	4		Min Crossing Time =	6	sec GM +	6	sec FGM =	12	sec
	P2	4		Min Crossing Time =	8	sec GM +	8	sec FGM =	16	sec
	P3	4		Min Crossing Time =	6	sec GM +	6	sec FGM =	12	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

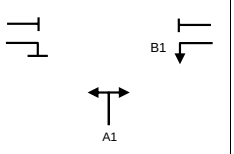
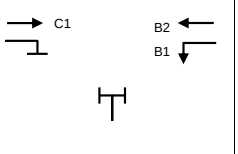
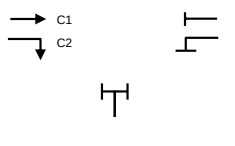
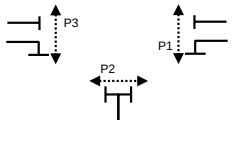
$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR Check 1	AM PEAK HOUR Check 2	AM PEAK HOUR Check	PM PEAK HOUR Check 1	PM PEAK HOUR Check 2	PM PEAK HOUR Check
Sum y	0.319	0.358		0.366	0.396	
L (s)	54	41		53	41	
C (s)	120	120		114	114	
Prac. y	0.495	0.593		0.482	0.576	
R.C. (%)	55%	66%		31%	46%	

NOTE:

Check 1: Phase A1 + B2 + C2 + P2 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B2 + C2 + P2

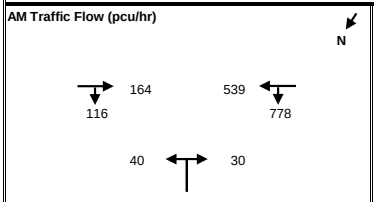
	1	2	3	4	5
					
AM	G = 18	G =	G =	G =	G =
	I/G = 2	I/G = 5	I/G = 5	I/G = 3	I/G =
	G =	G =	G =	G = 29	G =
	I/G = 5	I/G = 5	I/G = 5	I/G = 3	I/G = 2
PM	G = 17	G =	G =	G =	G =
	I/G = 2	I/G = 5	I/G = 5	I/G = 3	I/G =
	G =	G =	G =	G = 29	G =
	I/G = 5	I/G = 5	I/G = 5	I/G = 3	I/G = 2

Signal Junction Analysis

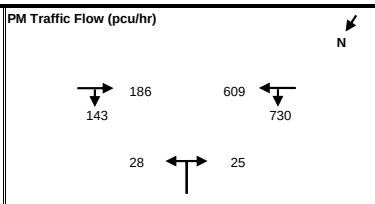
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street		Job Number: J7045
Scenario:	2028 With Proposed Industrial Development		Page 6
Design Year: 2028	Designed By: LTF	Checked By: WCH	Date: 08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	1	3.50	16.5		100	1801	70	0.039		100	1801	53	0.029	
Wo Yi Hop Road EB	LT	B1	1, 2	2.65	17.5		100	1861	778	0.418		100	1861	730	0.392	
Wo Yi Hop Road EB	SA	B2	2	3.20				2075	539	0.260	0.260		2075	609	0.293	0.293
Wo Yi Hop Road WB	SA	C1	2, 3	2.40				1995	164	0.082			1995	186	0.093	
Wo Yi Hop Road WB	RT	C2	3	3.20	26.0		100	1962	116	0.059	0.059	100	1962	143	0.073	0.073
Pedestrian Phase		P1	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		
		P2	4		Min Crossing Time =		8	sec GM +		8	sec FGM =		16	sec		
		P3	4		Min Crossing Time =		6	sec GM +		6	sec FGM =		12	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

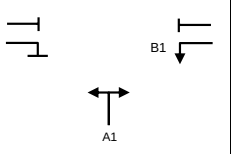
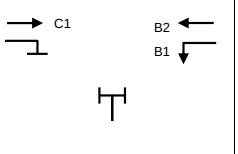
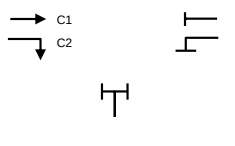
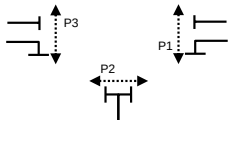
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.319	0.358		0.366	0.396	
L (s)	54	41		53	41	
C (s)	120	120		114	114	
Prac. y	0.495	0.593		0.482	0.576	
R.C. (%)	55%	66%		31%	46%	

NOTE:

Check 1: Phase A1 + B2 + C2 + P2 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B2 + C2 + P2

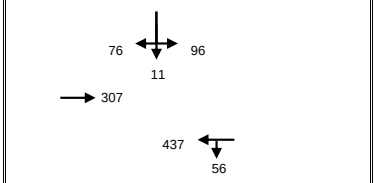
	1	2	3	4	5
					
AM	G = 18	G =	G =	G =	G =
	I/G = 2	I/G = 5	I/G = 5	I/G = 3	I/G =
	G =	G =	G =	G = 29	G =
	I/G = 5	I/G = 5	I/G = 5	I/G = 3	I/G = 2
PM	G = 17	G =	G =	G =	G =
	I/G = 2	I/G = 5	I/G = 5	I/G = 3	I/G =
	G =	G =	G =	G = 29	G =
	I/G = 5	I/G = 5	I/G = 5	I/G = 3	I/G = 2

Signal Junction Analysis

Junction:	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	7
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	2	3.00	12.0		100	1827	96	0.053		100	1827	117	0.064	
Ta Chung Ping Street SB	SA+RT	A2	2	3.50	20.0		87	1976	87	0.044		84	1980	121	0.061	
Wo Yi Hop Road EB	SA	B1	1	4.50				2205	307	0.139			2205	310	0.141	
Wo Yi Hop Road WB	LT+SA	C1	1, 4	3.90	12.3		11	2117	493	0.233	0.233	9	2122	437	0.206	0.206
Pedestrian Phase		P1	1, 3, 4		Min Crossing Time =		6	sec GM +		10	sec FGM =		16	sec		
		P2	3, 4		Min Crossing Time =		5	sec GM +		7	sec FGM =		12	sec		
		P3	2, 3		Min Crossing Time =		5	sec GM +		6	sec FGM =		11	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)

$S = 1940 + 100\ (W-3.25)$ $S_M = S / (1 + 1.5\ f/r)$

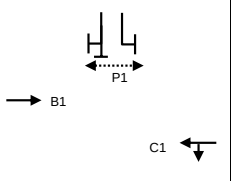
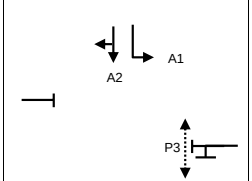
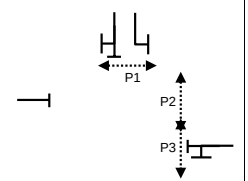
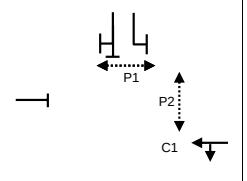
$S = 2080 + 100\ (W-3.25)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR Check 1	AM PEAK HOUR Check 2	AM PEAK HOUR Check	PM PEAK HOUR Check 1	PM PEAK HOUR Check 2	PM PEAK HOUR Check
Sum y	0.233	0.285		0.206	0.270	
L (s)	51	33		60	33	
C (s)	110	110		110	110	
Prac. y	0.483	0.630		0.409	0.630	
R.C. (%)	107%	121%		99%	133%	

NOTE: According to Traffic Control Division, Stage 4 is skipped from 00:00 to 23:59.

Check 1: Phase C1 + P3

Check 2: Phase A1 + C1 (by considering whole Stage 3 as loss time)

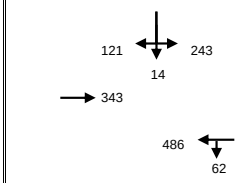
	1	2	3	4	5
				 Stage 4 is skipped from 00:00 to 23:59	
AM	G =	G = 22	G = 24	G =	G =
	I/G = 4	I/G =	I/G = 2	I/G =	I/G =
	G =	G =	G = 24	G =	G =
	I/G = 6	I/G = 3	I/G = 2	I/G =	I/G =
PM	G =	G = 31	G = 24	G =	G =
	I/G = 4	I/G =	I/G = 2	I/G =	I/G =
	G =	G =	G = 24	G =	G =
	I/G = 6	I/G = 3	I/G = 2	I/G =	I/G =

Signal Junction Analysis

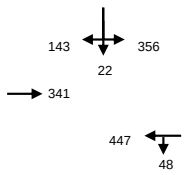
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	8
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	2	3.00	12.0		100	1827	243	0.133	0.133	100	1827	356	0.195	0.195
Ta Chung Ping Street SB	SA+RT	A2	2	3.50	20.0		90	1972	135	0.068		87	1976	165	0.084	
Wo Yi Hop Road EB	SA	B1	1	4.50				2205	343	0.156			2205	341	0.155	
Wo Yi Hop Road WB	LT+SA	C1	1, 4	3.90	12.3		11	2117	548	0.259	0.259	10	2119	495	0.234	0.234
Pedestrian Phase		P1	1, 3, 4		Min Crossing Time =			6	sec GM +		10	sec FGM =		16	sec	
		P2	3, 4		Min Crossing Time =			5	sec GM +		7	sec FGM =		12	sec	
		P3	2, 3		Min Crossing Time =			5	sec GM +		6	sec FGM =		11	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S_M = S / (1 + 1.5\ f/r)$

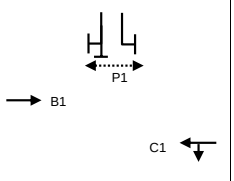
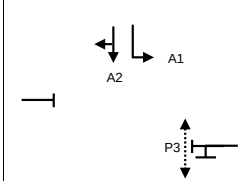
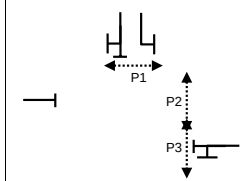
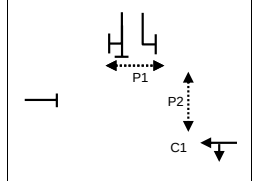
$S = 2080 + 100\ (W-3.25)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR Check 1	AM PEAK HOUR Check 2	AM PEAK HOUR Check	PM PEAK HOUR Check 1	PM PEAK HOUR Check 2	PM PEAK HOUR Check
Sum y	0.392	0.259		0.428	0.234	
L (s)	33	51		33	60	
C (s)	110	110		110	110	
Prac. y	0.630	0.483		0.630	0.409	
R.C. (%)	61%	86%		47%	75%	

NOTE: According to Traffic Control Division, Stage 4 is skipped from 00:00 to 23:59.

Check 1: Phase A1 + C1 (by considering whole Stage 3 as loss time)

Check 2: Phase C1 + P3

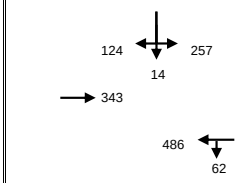
	1	2	3	4	5
				 Stage 4 is skipped from 00:00 to 23:59	
AM	G = 6 / G = 4	I/G = 6 / I/G = 4	G = 3 / G = 22	I/G = 3 / I/G =	G = 24 / G = 24	I/G = 24 / I/G = 2	G = 2 / G =	I/G = / I/G =	G = / G =
PM	G = 6 / G = 4	I/G = 6 / I/G = 4	G = 3 / G = 31	I/G = 3 / I/G =	G = 24 / G = 24	I/G = 24 / I/G = 2	G = 2 / G =	I/G = / I/G =	G = / G =

Signal Junction Analysis

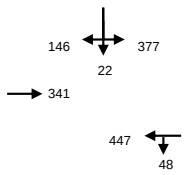
Junction:	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	9
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Ta Chung Ping Street SB	LT	A1	2	3.00	12.0		100	1827	257	0.141	0.141	100	1827	377	0.206	0.206
Ta Chung Ping Street SB	SA+RT	A2	2	3.50	20.0		90	1972	138	0.070		87	1976	168	0.085	
Wo Yi Hop Road EB	SA	B1	1	4.50				2205	343	0.156			2205	341	0.155	
Wo Yi Hop Road WB	LT+SA	C1	1, 4	3.90	12.3		11	2117	548	0.259	0.259	10	2119	495	0.234	0.234
Pedestrian Phase		P1	1, 3, 4		Min Crossing Time =			6	sec GM +		10	sec FGM =		16	sec	
		P2	3, 4		Min Crossing Time =			5	sec GM +		7	sec FGM =		12	sec	
		P3	2, 3		Min Crossing Time =			5	sec GM +		6	sec FGM =		11	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

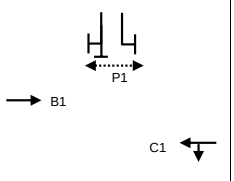
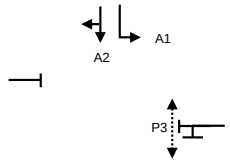
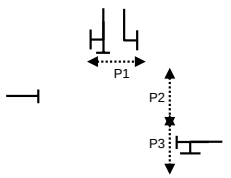
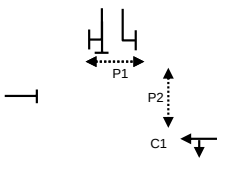
$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.400	0.259		0.440	0.234	
L (s)	33	51		33	60	
C (s)	110	110		110	110	
Prac. y	0.630	0.483		0.630	0.409	
R.C. (%)	58%	86%		43%	75%	

NOTE: According to Traffic Control Division, Stage 4 is skipped from 00:00 to 23:59.

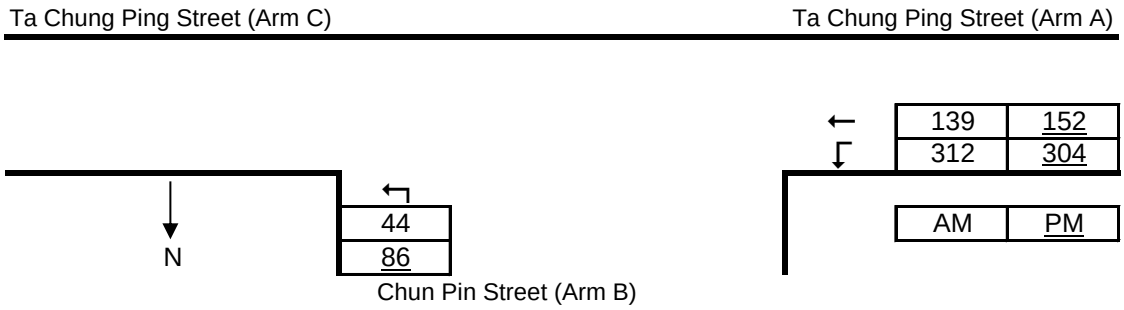
Check 1: Phase A1 + C1 (by considering whole Stage 3 as loss time)

Check 2: Phase C1 + P3

	1	2	3	4	5
				 Stage 4 is skipped from 00:00 to 23:59	
AM	G = 6	G = 3	G = 24	G = 2	G =
	I/G = 4	G = 22 I/G =	G = 24	I/G = 2	I/G = G =
PM	G = 6	G = 3	G = 24	G = 2	G =
	I/G = 4	G = 31 I/G =	G = 24	I/G = 2	I/G = G =

Priority Junction Analysis

Junction:	Ta Chung Ping Street / Chun Pin Street				
Design Year:	2019	Job Number:	J7045	Date:	08 July 2021
Scenario:	2019 Existing Condition				Page 10



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	6.72	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	10.00	E	1.4747
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7682

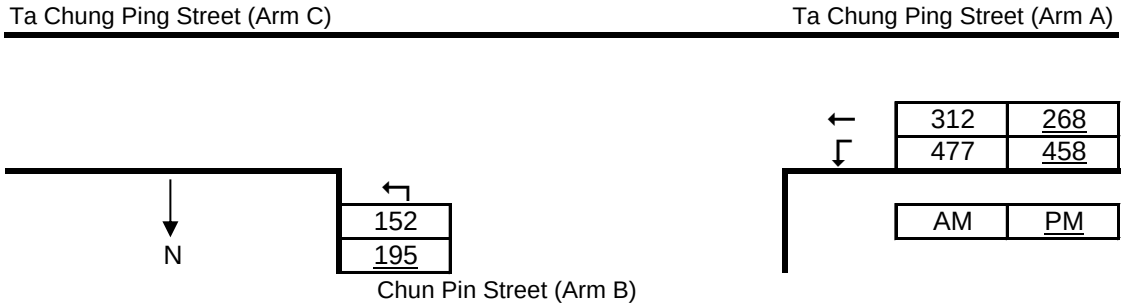
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	295	294
q-CB	0	0	Q-BC	990	986
q-AB	312	304	Q-CB	363	362
q-AC	139	152	Q-BAC	990	986
q-BA	0	0			
q-BC	44	86			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.044	0.087
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Ta Chung Ping Street / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	08 July 2021
Scenario:	2028 Without Proposed Industrial Development			Page	11



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	6.72	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	10.00	E	1.4747
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7682

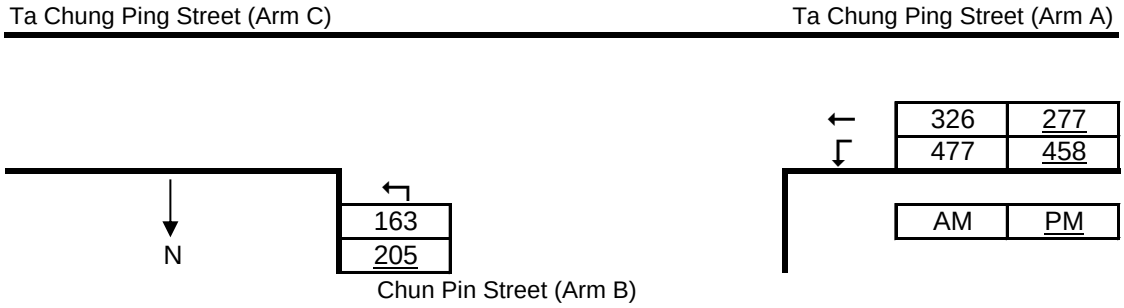
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	260	267
q-CB	0	0	Q-BC	892	913
q-AB	477	458	Q-CB	307	318
q-AC	312	268	Q-BAC	892	913
q-BA	0	0			
q-BC	152	195			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.170	0.213
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Ta Chung Ping Street / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	08 July 2021
Scenario:	2028 With Proposed Industrial Development				Page 12



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	6.72	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-lBA	0	w-BC	10.00	E	1.4747
			V-rBC	35	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7682

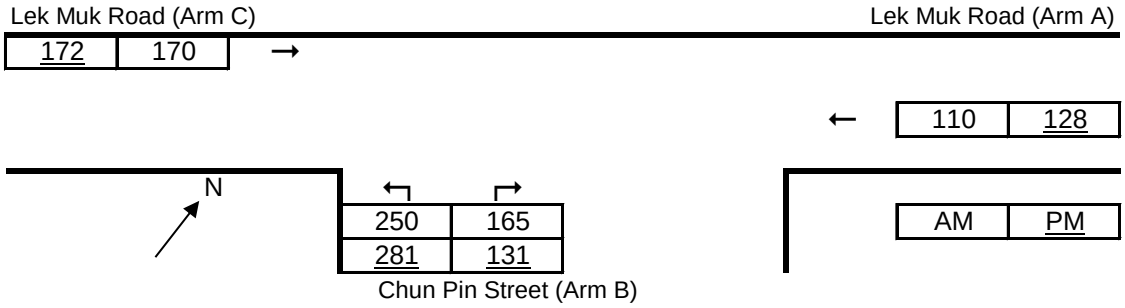
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	258	266
q-CB	0	0	Q-BC	886	910
q-AB	477	458	Q-CB	305	316
q-AC	326	277	Q-BAC	886	910
q-BA	0	0			
q-BC	163	205			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.184	0.225
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Lek Muk Road / Chun Pin Street				
Design Year:	2019	Job Number:	J7045	Date:	08 July 2021
Scenario:	2019 Existing Condition				Page 13



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	64	w-BA	2.10	D	0.7538
	W-CR	0.00	V-lBA	32	w-BC	2.10	E	0.8235
			V-rBC	80	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6447

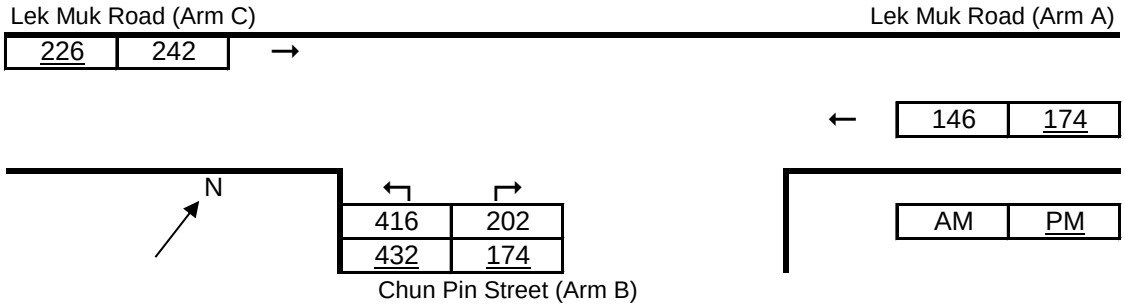
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	170	172	Q-BA	434	431
q-CB	0	0	Q-BC	592	589
q-AB	0	0	Q-CB	421	419
q-AC	110	128	Q-BAC	517	527
q-BA	165	131			
q-BC	250	281			
f	0.602	0.682			

Ratio-of-flow to Capacity	AM	PM
B-A	0.380	0.304
B-C	0.422	0.477
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Lek Muk Road / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	08 July 2021
Scenario:	2028 Without Proposed Industrial Development				Page 14



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	64	w-BA	2.10	D	0.7538
	W-CR	0.00	V-lBA	32	w-BC	2.10	E	0.8235
			V-rBC	80	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6447

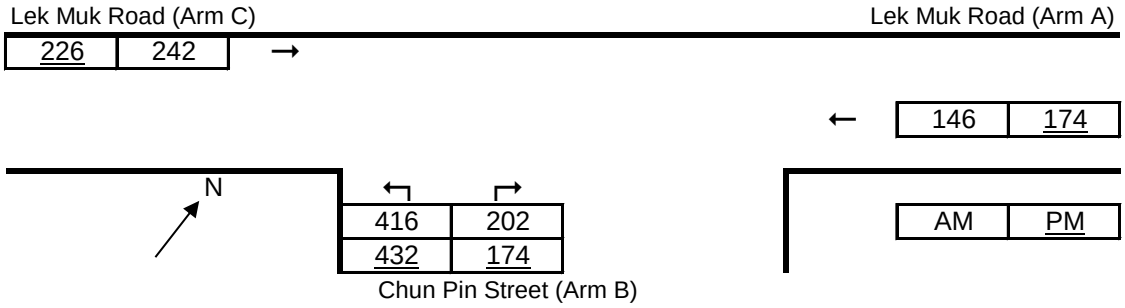
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	242	226	Q-BA	420	417
q-CB	0	0	Q-BC	585	580
q-AB	0	0	Q-CB	416	413
q-AC	146	174	Q-BAC	519	521
q-BA	202	174			
q-BC	416	432			
f	0.673	0.713			

Ratio-of-flow to Capacity	AM	PM
B-A	0.481	0.418
B-C	0.711	0.745
C-B	0.000	0.000

Priority Junction Analysis

Junction:	Lek Muk Road / Chun Pin Street				
Design Year:	2028	Job Number:	J7045	Date:	08 July 2021
Scenario:	2028 With Proposed Industrial Development				Page 15



The predictive equations of capacity of movement are:

Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]

Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]

Q-CB = F[745 - 0.364Y(q-AC + q-AB)]

The geometric parameters represented by D, E, F are:

D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-lBA - 150)]

E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]

F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]

where Y = 1 - 0.0345W

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	64	w-BA	2.10	D	0.7538
	W-CR	0.00	V-lBA	32	w-BC	2.10	E	0.8235
			V-rBC	80	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.6447

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	242	226	Q-BA	420	417
q-CB	0	0	Q-BC	585	580
q-AB	0	0	Q-CB	416	413
q-AC	146	174	Q-BAC	519	521
q-BA	202	174			
q-BC	416	432			
f	0.673	0.713			

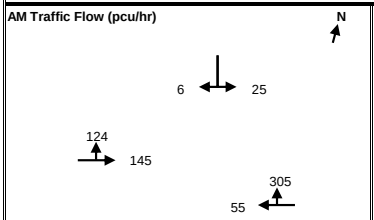
Ratio-of-flow to Capacity	AM	PM
B-A	0.481	0.418
B-C	0.711	0.745
C-B	0.000	0.000

Signal Junction Analysis

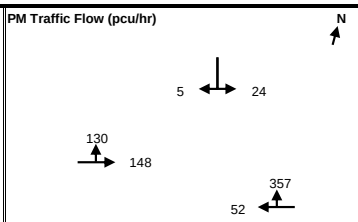
Junction:	Lei Muk Road / Kwok Shui Road			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	16
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwok Shui Road SB	LT+RT	A1	2	4.00	12.5		100	1799	31	0.017		100	1799	29	0.016	
Lei Muk Road EB	LT+SA	B1	1	3.50	12.5		100	1754	124	0.071	0.071	100	1754	130	0.074	0.074
Lei Muk Road EB	SA	B2	1	3.50				2105	145	0.069			2105	148	0.070	
Lei Muk Road WB	SA+RT	C1	3	3.30	17.5		85	1813	360	0.199	0.199	87	1810	409	0.226	0.226
Pedestrian Phase		P1	4		Min Crossing Time =		5	sec GM +		9	sec FGM =		14	sec		
		P2	4		Min Crossing Time =		5	sec GM +		9	sec FGM =		14	sec		

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

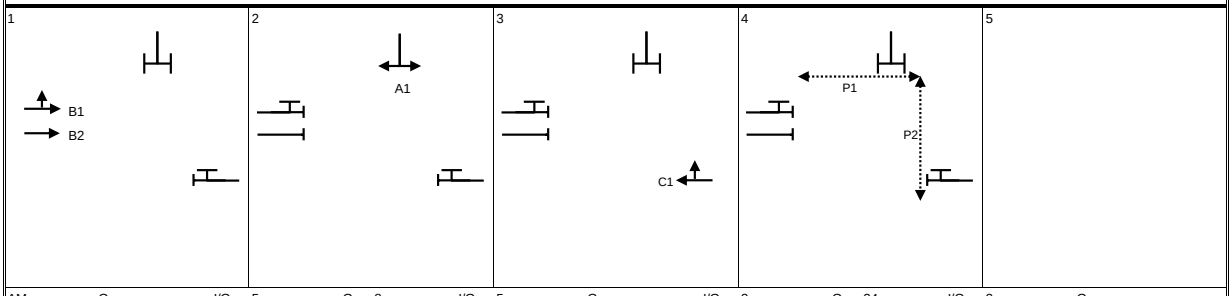
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.269	0.286		0.300	0.316	
L (s)	44	36		44	36	
C (s)	90	90		90	90	
Prac. y	0.460	0.540		0.460	0.540	
R.C. (%)	71%	88%		53%	71%	

NOTE:

Check 1: Phase A1 + B1 + C1 + P1 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B1 + C1 + P1



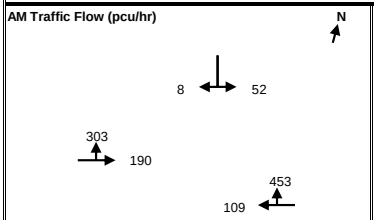
AM	G =		I/G = 5	G = 8		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			
	G =		I/G = 5	G =		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			
PM	G =		I/G = 5	G = 8		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			
	G =		I/G = 5	G =		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			

Signal Junction Analysis

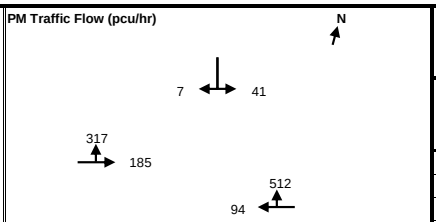
Junction:	Lei Muk Road / Kwok Shui Road			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	17
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwok Shui Road SB	LT+RT	A1	2	4.00	12.5		100	1799	60	0.033		100	1799	48	0.027	
Lei Muk Road EB	LT+SA	B1	1	3.50	12.5		100	1754	303	0.173	0.173	100	1754	317	0.181	0.181
Lei Muk Road EB	SA	B2	1	3.50				2105	190	0.090			2105	185	0.088	
Lei Muk Road WB	SA	C1	3	3.30				1945	109	0.056			1945	94	0.048	
Lei Muk Road WB	RT	C2	3	3.30	15.0		100	1895	453	0.239	0.239	100	1895	512	0.270	0.270
Pedestrian Phase		P1	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	
		P2	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

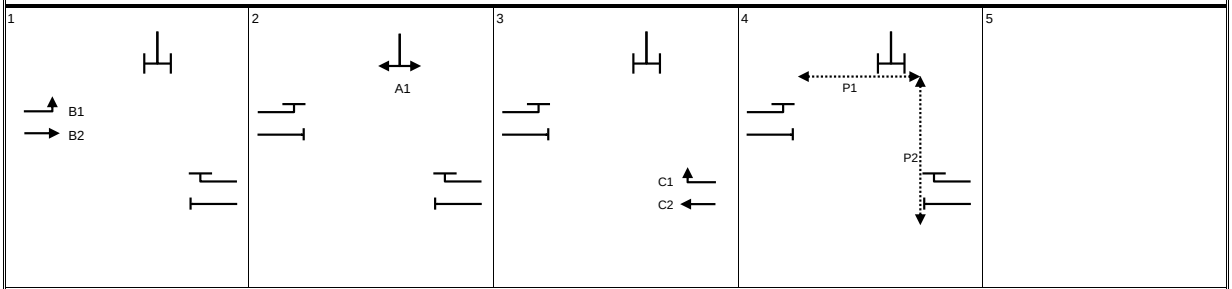
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.412	0.445		0.451	0.478	
L (s)	44	36		44	36	
C (s)	120	120		120	120	
Prac. y	0.570	0.630		0.570	0.630	
R.C. (%)	38%	42%		26%	32%	

NOTE: Improvement scheme proposed by the approved development A/KC/444

Check 1: Phase A1 + B1 + C1 + P1 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B1 + C1 + P1



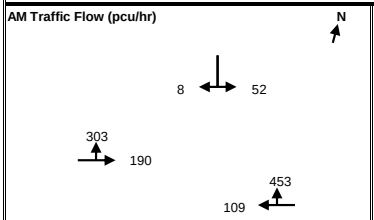
AM	G =		I/G = 5		G = 8		I/G = 5		G =		I/G = 3		G = 24		I/G = 2	G =
	G =		I/G = 5		G =		I/G = 5		G =		I/G = 3		G = 24		I/G = 2	G =
PM	G =		I/G = 5		G = 8		I/G = 5		G =		I/G = 3		G = 24		I/G = 2	G =
	G =		I/G = 5		G =		I/G = 5		G =		I/G = 3		G = 24		I/G = 2	G =

Signal Junction Analysis

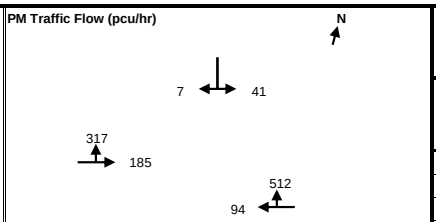
Junction:	Lei Muk Road / Kwok Shui Road			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	18
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Kwok Shui Road SB	LT+RT	A1	2	4.00	12.5		100	1799	60	0.033		100	1799	48	0.027	
Lei Muk Road EB	LT+SA	B1	1	3.50	12.5		100	1754	303	0.173	0.173	100	1754	317	0.181	0.181
Lei Muk Road EB	SA	B2	1	3.50				2105	190	0.090			2105	185	0.088	
Lei Muk Road WB	SA	C1	3	3.30				1945	109	0.056			1945	94	0.048	
Lei Muk Road WB	RT	C2	3	3.30	15.0		100	1895	453	0.239	0.239	100	1895	512	0.270	0.270
Pedestrian Phase		P1	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	
		P2	4		Min Crossing Time =			5	sec GM +		9	sec FGM =		14	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

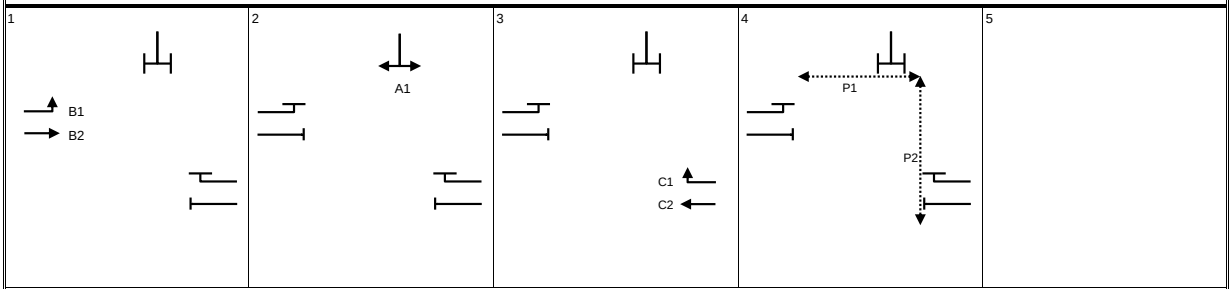
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.412	0.445		0.451	0.478	
L (s)	44	36		44	36	
C (s)	120	120		120	120	
Prac. y	0.570	0.630		0.570	0.630	
R.C. (%)	38%	42%		26%	32%	

NOTE: Improvement scheme proposed by the approved development A/KC/444

Check 1: Phase A1 + B1 + C1 + P1 (by considering whole Phase A1 as loss time)

Check 2: Phase A1 + B1 + C1 + P1



AM	G =		I/G = 5	G = 8		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			
	G =		I/G = 5	G =		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			
PM	G =		I/G = 5	G = 8		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			
	G =		I/G = 5	G =		I/G = 5	G =		I/G = 3	G = 24		I/G = 2	G =			

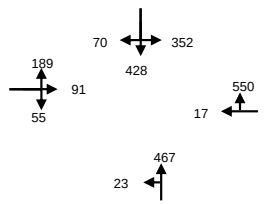
Signal Junction Analysis

Junction:	Lei Muk Road / Wo Yi Hop Road			Job Number:	J7045
Scenario:	2019 Existing Condition			Page	19
Design Year:	2019	Designed By:	LTF	Checked By:	HCF	Date:	08 July 2021

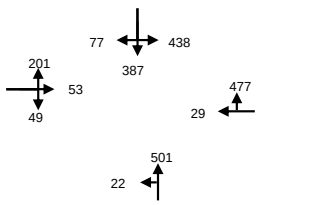
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wo Yi Hop Road SB	LT+SA	A1	3, 4	3.60	22.0		87	1864	403	0.216	0.216	100	1849	438	0.237	0.237
Wo Yi Hop Road SB	SA+RT	A2	3, 4	3.40	19.0		16	2069	447	0.216		17	2067	464	0.224	
Lei Muk Road EB	LT	B1	1	2.20	17.5		100	1690	89	0.053		100	1690	95	0.056	0.056
Lei Muk Road EB	LT	B2	1	3.10	17.5		100	1902	100	0.053		100	1902	106	0.056	
Lei Muk Road EB	SA+RT	B3	1	3.10	19.5		38	2006	146	0.073	0.073	48	1991	102	0.051	
Wo Yi Hop Road NB	LT	C1	3	2.20	15.0		100	1795	23	0.013		100	1795	22	0.012	
Wo Yi Hop Road NB	SA	C2	3	2.80				2035	232	0.114			2035	249	0.122	
Wo Yi Hop Road NB	SA	C3	3	3.00				2055	235	0.114			2055	252	0.123	
Lei Muk Road WB	SA+RT	D1	2	3.40	22.0		94	1969	283	0.144	0.144	89	1975	253	0.128	0.128
Lei Muk Road WB	RT	D2	2	3.50	22.0		100	1971	284	0.144		100	1971	253	0.128	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P2	2		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P3	4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P4	1, 2		Min Crossing Time =	6	sec GM +	11	sec FGM =	17	sec
	P5	1, 3, 4		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec
	P6	2, 3, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P7	1, 2, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $\quad S = 2080 + 100\ (W-3.25)$

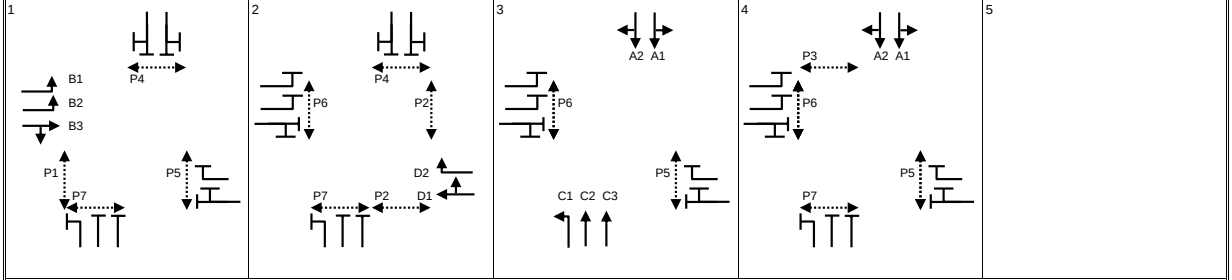
$S_M = S / (1 + 1.5\ f/r)$ $\quad S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.433	0.331		0.421	0.307	
L (s)	22	51		22	42	
C (s)	112	112		110	110	
Prac. y	0.723	0.490		0.720	0.556	
R.C. (%)	67%	48%		71%	81%	

NOTE:

Check 1: Phase A1 + B1/B3 + D1

Check 2: Phase B1/B3 + C3 + D1 + P3



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 34	I/G = 2	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 25	I/G = 2	G =	

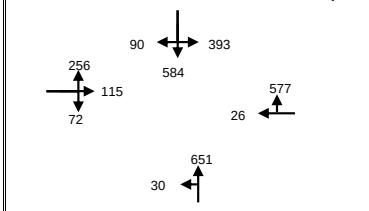
Signal Junction Analysis

Junction:	Lei Muk Road / Wo Yi Hop Road			Job Number:	J7045
Scenario:	2028 Without Proposed Industrial Development			Page	20
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

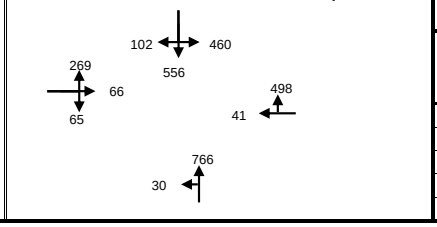
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wo Yi Hop Road SB	LT+SA	A1	3, 4	3.60	22.0		78	1875	507	0.270		87	1864	530	0.284	
Wo Yi Hop Road SB	SA+RT	A2	3, 4	3.40	19.0		16	2069	560	0.271		17	2067	588	0.284	
Lei Muk Road EB	LT	B1	1	2.20	17.5		100	1690	120	0.071		100	1690	127	0.075	0.075
Lei Muk Road EB	LT	B2	1	3.10	17.5		100	1902	136	0.072		100	1902	142	0.075	
Lei Muk Road EB	SA+RT	B3	1	3.10	19.5		39	2005	187	0.093	0.093	50	1989	131	0.066	
Wo Yi Hop Road NB	LT	C1	3	2.20	15.0		100	1795	30	0.017		100	1795	30	0.017	
Wo Yi Hop Road NB	SA	C2	3	2.80				2035	324	0.159			2035	381	0.187	
Wo Yi Hop Road NB	SA	C3	3	3.00				2055	327	0.159	0.159		2055	385	0.187	0.187
Lei Muk Road WB	SA+RT	D1	2	3.40	22.0		91	1973	302	0.153	0.153	85	1980	270	0.136	0.136
Lei Muk Road WB	RT	D2	2	3.50	22.0		100	1971	301	0.153		100	1971	269	0.136	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P2	2		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P3	4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P4	1, 2		Min Crossing Time =	6	sec GM +	11	sec FGM =	17	sec
	P5	1, 3, 4		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec
	P6	2, 3, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P7	1, 2, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

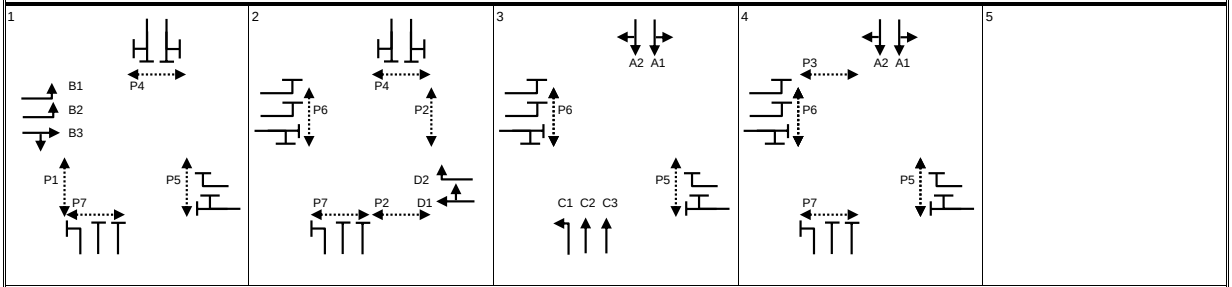
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.405	0.517		0.399	0.496	
L (s)	51	22		42	22	
C (s)	112	112		110	110	
Prac. y	0.490	0.723		0.556	0.720	
R.C. (%)	21%	40%		39%	45%	

NOTE:

Check 1: Phase B1/B3 + C3 + D1 + P3

Check 2: Phase A1 + B1/B3 + D1



AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 34	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 25	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	

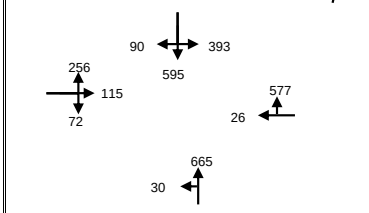
Signal Junction Analysis

Junction:	Lei Muk Road / Wo Yi Hop Road			Job Number:	J7045
Scenario:	2028 With Proposed Industrial Development			Page	21
Design Year:	2028	Designed By:	LTF	Checked By:	WCH	Date:	08 July 2021

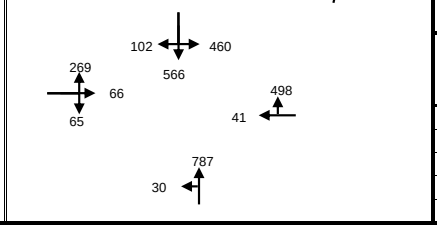
Approach		Phase	Stage	Width (m)	Radius (m)	% Uphill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wo Yi Hop Road SB	LT+SA	A1	3, 4	3.60	22.0		77	1876	513	0.273		86	1866	535	0.287	
Wo Yi Hop Road SB	SA+RT	A2	3, 4	3.40	19.0		16	2069	565	0.273		17	2067	593	0.287	
Lei Muk Road EB	LT	B1	1	2.20	17.5		100	1690	120	0.071		100	1690	127	0.075	0.075
Lei Muk Road EB	LT	B2	1	3.10	17.5		100	1902	136	0.072		100	1902	142	0.075	
Lei Muk Road EB	SA+RT	B3	1	3.10	19.5		39	2005	187	0.093	0.093	50	1989	131	0.066	
Wo Yi Hop Road NB	LT	C1	3	2.20	15.0		100	1795	30	0.017		100	1795	30	0.017	
Wo Yi Hop Road NB	SA	C2	3	2.80				2035	331	0.163			2035	392	0.193	
Wo Yi Hop Road NB	SA	C3	3	3.00				2055	334	0.163	0.163		2055	395	0.192	0.192
Lei Muk Road WB	SA+RT	D1	2	3.40	22.0		91	1973	302	0.153	0.153	85	1980	270	0.136	0.136
Lei Muk Road WB	RT	D2	2	3.50	22.0		100	1971	301	0.153		100	1971	269	0.136	

Pedestrian Phase	P1	1		Min Crossing Time =	5	sec GM +	7	sec FGM =	12	sec
	P2	2		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P3	4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P4	1, 2		Min Crossing Time =	6	sec GM +	11	sec FGM =	17	sec
	P5	1, 3, 4		Min Crossing Time =	5	sec GM +	8	sec FGM =	13	sec
	P6	2, 3, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec
	P7	1, 2, 4		Min Crossing Time =	5	sec GM +	9	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)

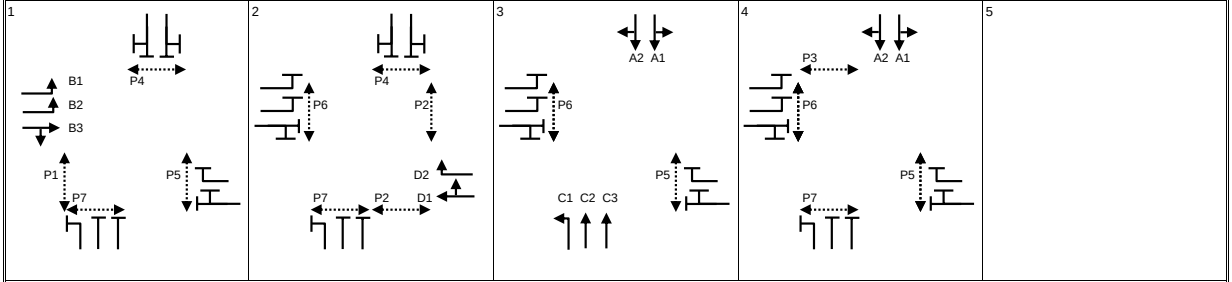
S = 2080 + 100 (W-3.25)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM PEAK HOUR			PM PEAK HOUR		
	Check 1	Check 2	Check	Check 1	Check 2	Check
Sum y	0.409	0.520		0.404	0.498	
L (s)	51	22		42	22	
C (s)	112	112		110	110	
Prac. y	0.490	0.723		0.556	0.720	
R.C. (%)	20%	39%		38%	45%	

NOTE:

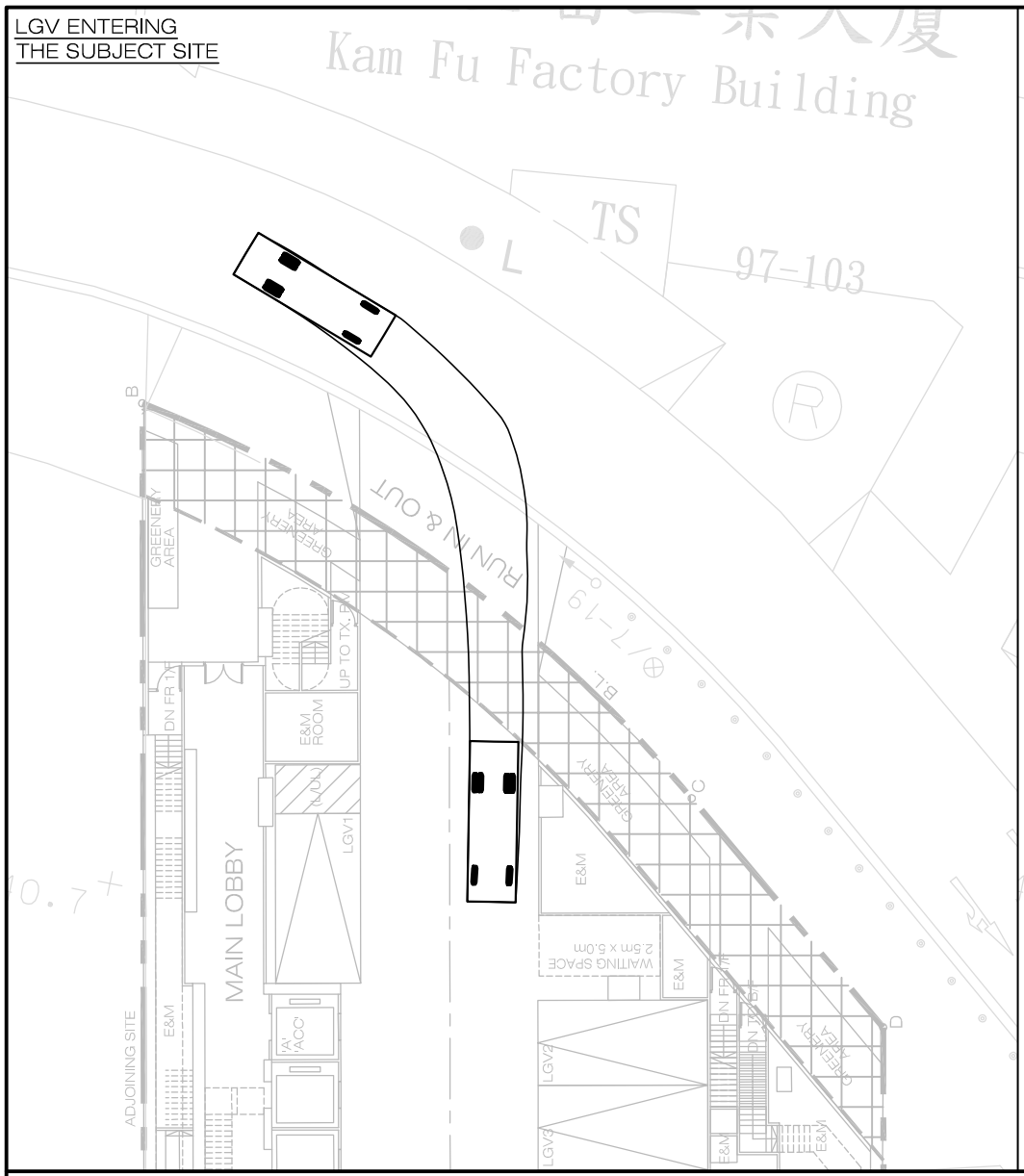
Check 1: Phase B1/B3 + C3 + D1 + P3

Check 2: Phase A1 + B1/B3 + D1

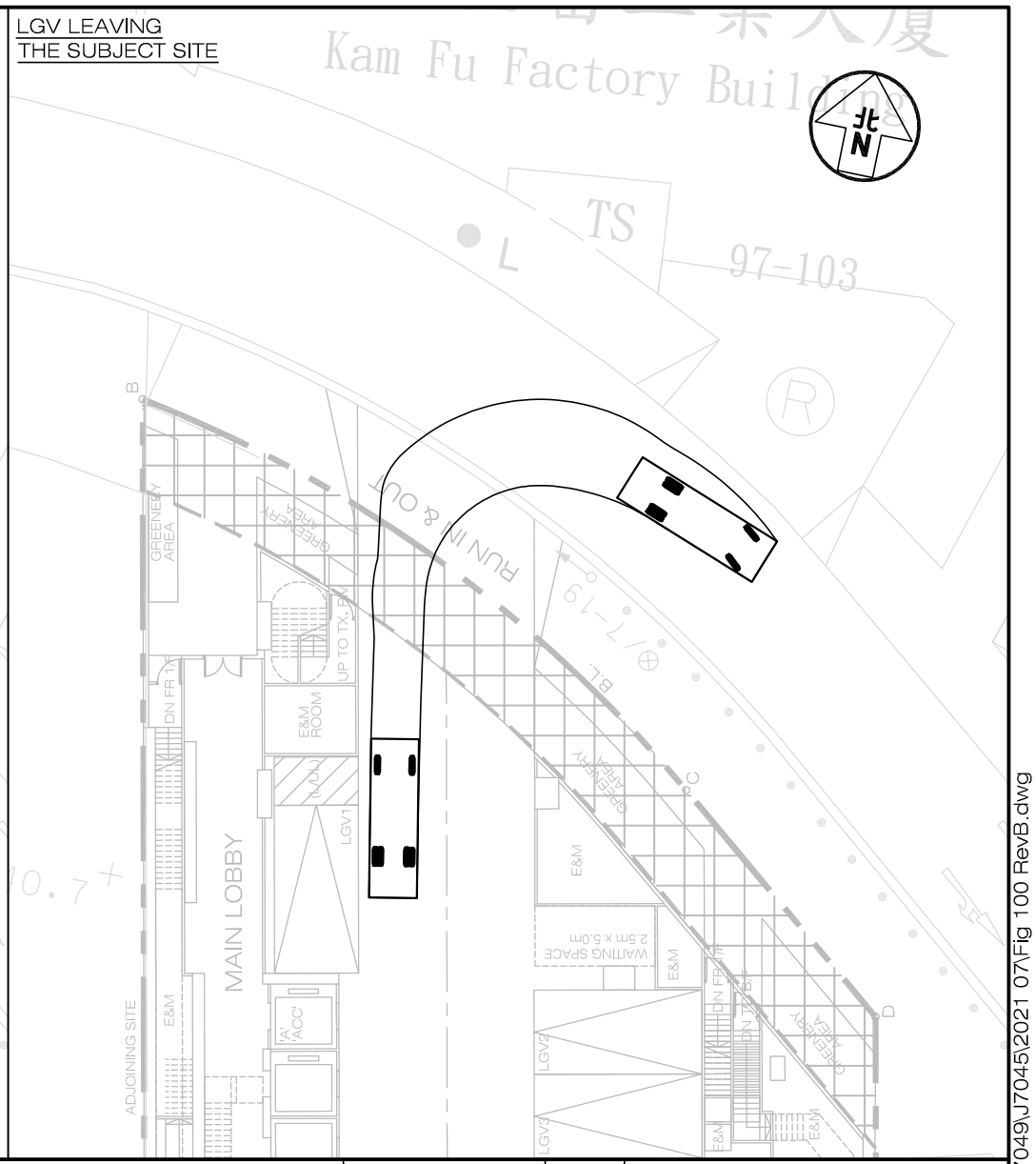


AM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 34	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	
PM	G =	I/G = 6	G =	I/G = 7	G =	I/G = 5	G = 25	I/G = 2	G =	
	G =	I/G = 6	G =	I/G = 7	G =	I/G =	G =	I/G = 12	G =	

LGV ENTERING
THE SUBJECT SITE



LGV LEAVING
THE SUBJECT SITE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE SUBJECT SITE

Figure No.	Revision
SP 100	B

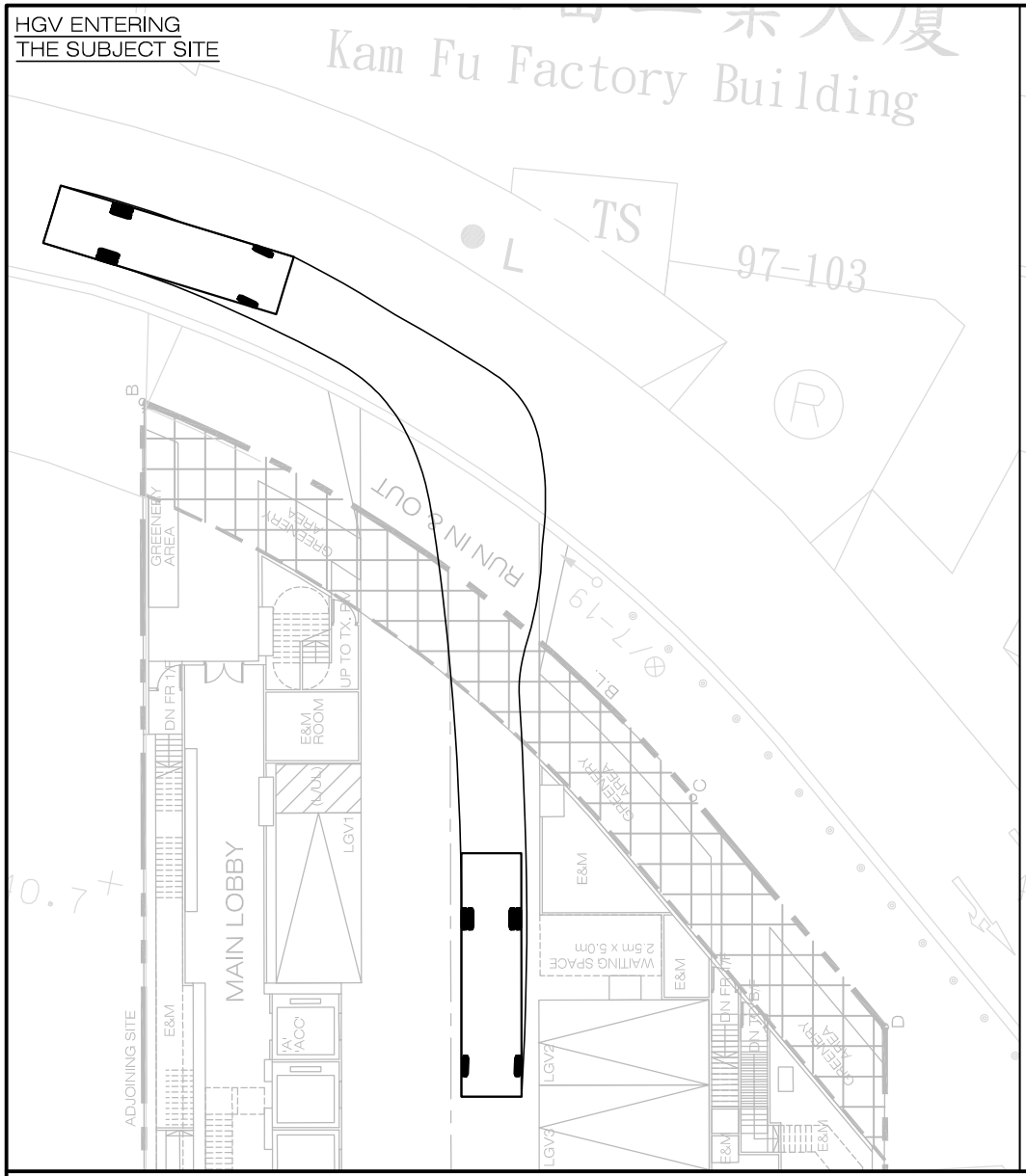
Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	07 JUL 2021

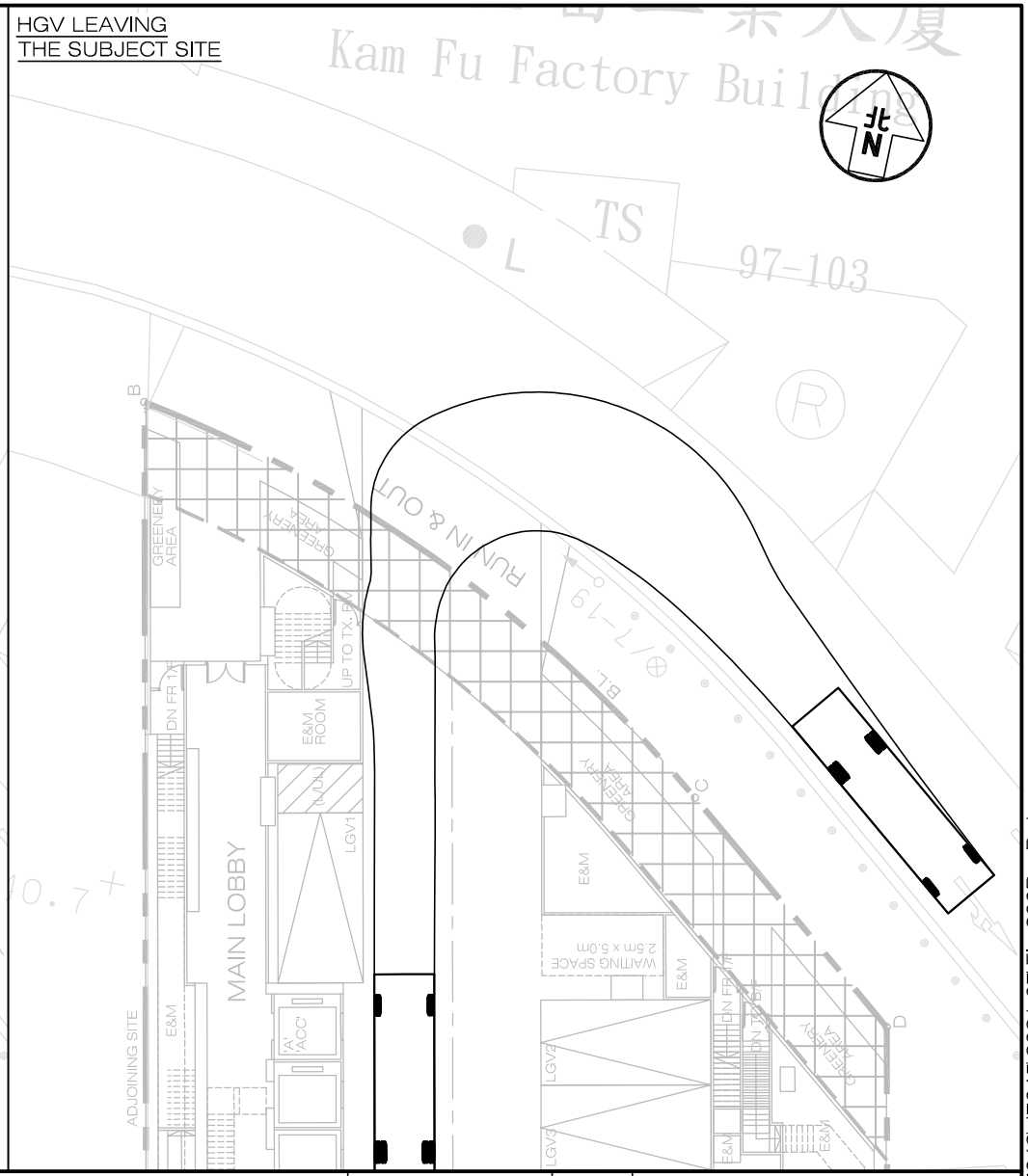
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 07\Fig 100 RevB.dwg

HGV ENTERING
THE SUBJECT SITE



HGV LEAVING
THE SUBJECT SITE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE SUBJECT SITE

Figure No.	Revision
SP 200	B

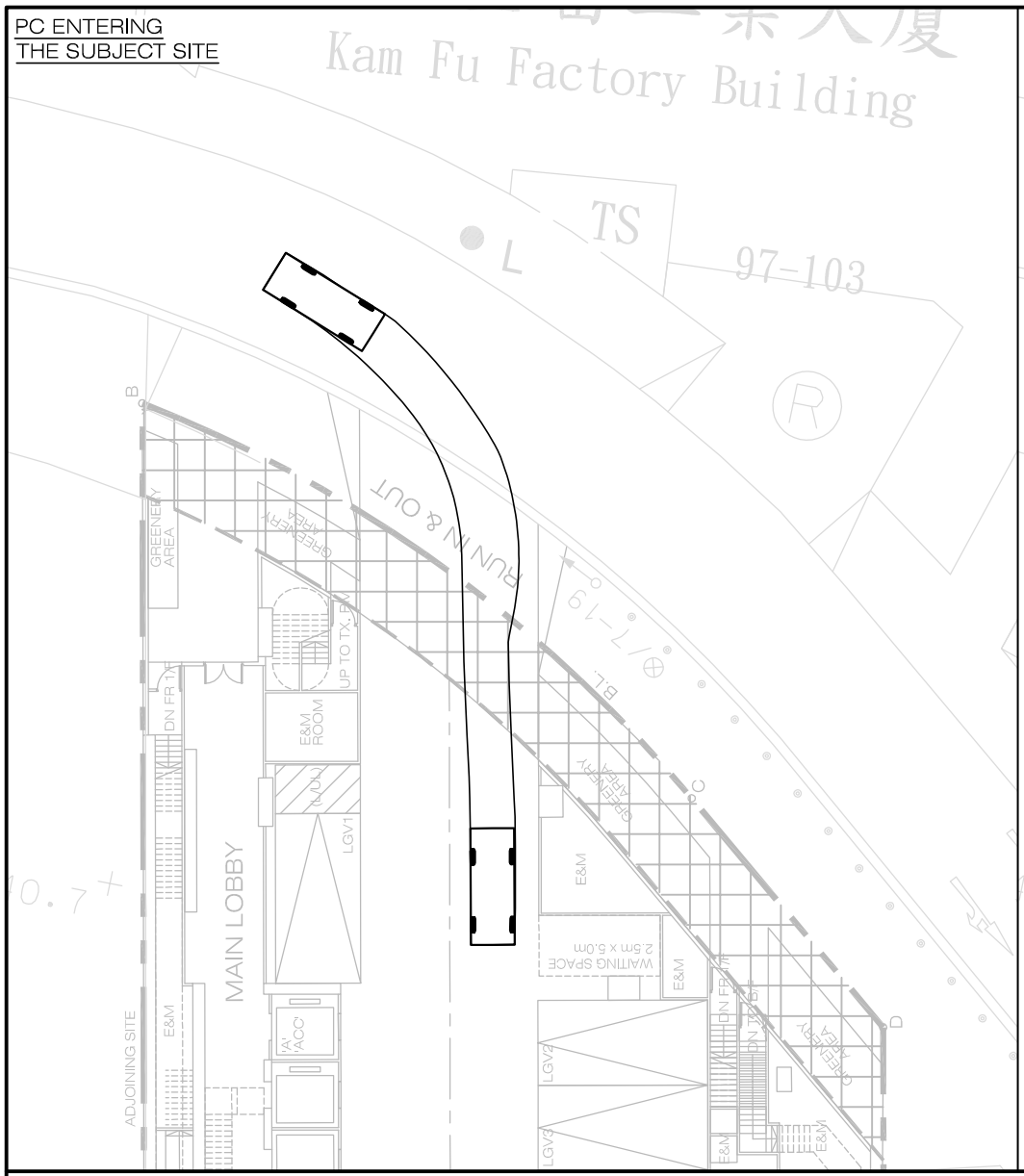
Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	07 JUL 2021

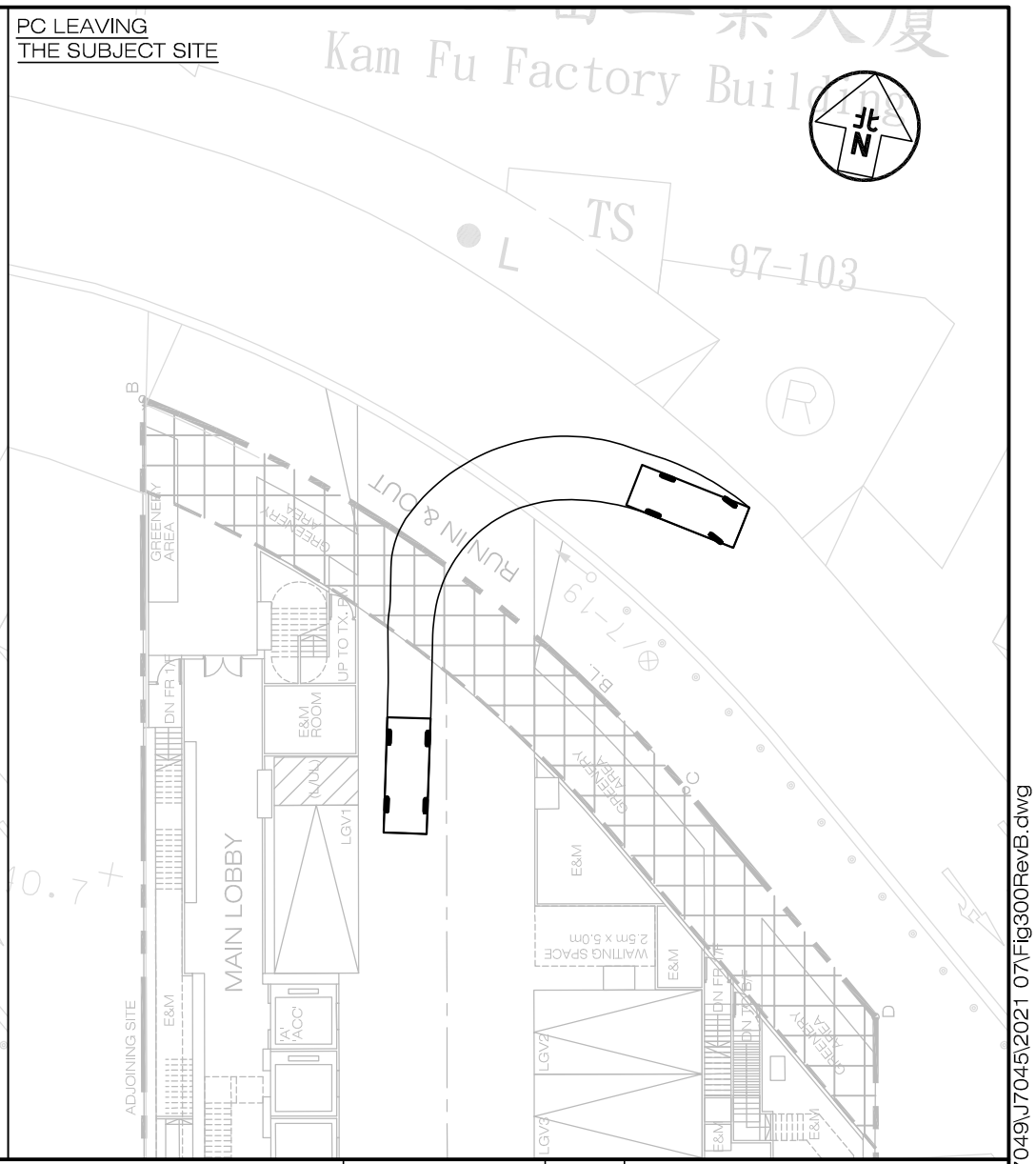
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 07\Fig 200RevB.dwg

PC ENTERING
THE SUBJECT SITE



PC LEAVING
THE SUBJECT SITE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE SUBJECT SITE

Figure No.	Revision
SP 300	B

Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	07 JUL 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 07\Fig300RevB.dwg

PLANNING LIMITED
規劃顧問有限公司
UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

RECEIVED
2021 AUG 12 P 4:44
TOWN PLANNING BOARD

Our Ref: S1399/94TCPS_KC/21/006Lg

12 August 2021

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction
for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
in "Other Specified Uses" annotated "Business" zone
at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application No. A/KC/476 -
(Further Information No. 3)

We refer to the captioned S16 Planning Application which was received by the Town Planning Board (TPB) on 21 May 2021 and the departmental comments on the captioned Application received between 30 July and 5 August 2021.

Having reviewed the departmental comments received, attached please find the table of response-to-departmental-comments with the relevant annexes as below:

Annex A: Updated Sewerage Impact Assessment (SIA);
Annex B: Updated Figures and Supplementary Information of the Traffic Impact Assessment (TIA);
Annex C: Updated Ground Floor Plan of the Architectural Drawings and Tree Survey and Landscape Proposal; and
Annex D: Schematic Diagram of Automatic Irrigation System and Typical Elevation of the Green Wall.

Please note that this Further Information merely includes technical clarification/ responses to comments of relevant Government departments. For **Annex C**, there is only minor adjustment to the internal layout of G/F plan to allow accessibility to the loading / unloading area for Heavy Goods Vehicles (HGVs) in order to address comments from Transport Department (TD).

In addition, a schematic diagram of automatic irrigation system and typical elevation of the green wall is attached as **Annex D** to demonstrate the technical feasibility of the Proposed Green Wall at the captioned application site.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl. (70 hardcopies)
cc. the Applicant & Team

KT/DF/CL/EC/vy

KTA
PLANNING LIMITED
城 市 規 劃 有 限 公 司
UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬光豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9727
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/008Lg

19 August 2021

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction
for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
in "Other Specified Uses" annotated "Business" zone
at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application No. A/KC/476 -
(Supplementary Information of Further Information No. 3)

We refer to the captioned S16 Planning Application which was received by the Town Planning Board (TPB) on 21 May 2021 and the departmental comments on the captioned Application received between 30 July and 5 August 2021.

Further to the discussions with the officers of Tsuen Wan and West Kowloon District Planning Office dated 18th August 2021, we would like to request to withdraw the Clarification Letter dated 16th August 2021 on the NBA to be surrendered to Government when required.

Clarification on the NBA to be surrendered to Government when required

In this regard, we would like to clarify that the captioned development is proposed to set back with a minimum 3.5m Non-Building Area (NBA) from its lot boundary to cater long-term road widening proposal along Ta Chuen Ping Street. It is well aligned with the requirement under the Kwai Chung Outline Zoning Plan (OZP) No. S/KC/29.

We would also like to clarify that the 3.5m NBA under the OZP requirement are to be surrendered to Government when required, subject to bonus Plot Ratio of 0.483 under B(P)R 22(2) and no adverse comments from relevant Government Departments for the purpose of street widening. The bonus PR would only be dealt with at the GBP submission stage.

Recycled Water for irrigation of Vertical Greening

Meanwhile, we would like to clarify the term 'Greywater' on FI No.2 dated 9th July 2021. The term 'Greywater' shall be replaced with 'Recycled Water'. The Applicant will consider to use recycled water for irrigation of vertical greening in the development.

Our Ref: S1399/94TCPS_KC/21/008Lg
Date: 19 August 2021

PLANNING LIMITED
規劃顧問有限公司

Revised Architectural and Landscape Drawings

Our office would like to take this opportunity to attach a set of revised architectural and revised landscape drawings for necessary action by DPO.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl. (70 hardcopies)
cc. the Applicant & Team

KT/DF/CL/EC/vy

Proposed Minor Relaxation of Plot Ratio for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
S16 Application No. A/KC/476

Items	Comments	Response
1	**Comments from Director of Environment Protection, Environmental Protection Department received on 30 July 2021:**	
	RtC 2.2	
1.1	(1) The Applicant should clarify whether the potential land contamination issue would be addressed at this stage or at a later stage.	The Applicant is intended to address the potential land contamination issue at a later stage. The Applicant is also readily to accept the condition set out by TPB to address potential land contamination issue at the captioned site.
	Appendix A- Sewerage Impact Assessment	
1.2	(2) Unit flow factor for industrial flow should be adopted for surrounding industrial buildings, please review.	The assessment has been revised accordingly to assume unit flow factor for industrial flow has been applied to surrounding industrial buildings. Please refer to updated Sewerage Impact Assessment (SIA) in **Annex A**.
1.3	(3) Please review the GFA of Kong Sheng Factory Building and provide source of reference.	The GFA of 5-storey Kong Sheng Factory Building has been revised as 14,350m^2 based on a unit floor GFA of 2,870 m^2 (**Annex A** refers).
1.4	(4) The source of reference for GFA of iCity (Appendix D) as mentioned in the RtC is missing in the submission.	Appendix D of **Annex A** (now renamed as Appendix E) has been enclosed.
1.5	(5) The assumed discharge rate for filter back wash from swimming pool of iCity appears to be on the low side, please review and provide source of reference.	The 3.0L/s estimated backwash flow of swimming pool adopted has made reference to previously approved SIA reports. In view of the comment, a more conservative estimated backwash flow of 5.0L/s has been adopted in the revised calculation. Please refer to **Annex A**.
2	**Comments from Commissioner for Transport, Transport Department received on 2 August 2021:**	
2.1	Figure 2.2 - Location of survey junctions refers. As J01 cover the junction of Castle Peak Road - Kwai Chung, Wo Yi Hop Road and Tai Loong Street, please adjust the legend of J01 to reflect the actual coverage.	The Figure 2.2 has been revised. Please refer to the Updated Figures and Supplementary Information of Traffic Impact Assessment (TIA) in **Annex B.**
2.2	Figure 3.1 - Proposed ground floor plan refers. The loading / unloading area for HGV 1, 2 and 3 are inaccessible. Please review.	The G/F layout plan in Figure 3.1 of **Annex B** has been revised and the loading / unloading areas of HGV1, 2, 3 are now accessible.

<table>
<tr><th>Items</th><th>Comments</th><th>Response</th></tr>
<tr><td>2.3</td><td>Table B of the response to comment - 2028 Traffic flows and volume to capacity ratio assessment of survey road links refers. Please critically review the capacity of all of the road links, including but not limited to Castle Peak Road - Kwai Chung (Between Wo Yi Hop Road and Shek Pai Street), Lei Muk Road (Between Chun Ping Street and Wo Yi Hop Road) and Wo Yi Hop Road (Between Ta Chuen Ping Street and Lei Muk Road).</td><td>The capacity of the road links are obtained with reference to Section 2.4.1 in Volume 2 of the Transport Planning and Design Manual (“TPDM”), which is published by the Transport Department. The road type and the capacity of the road links are presented in Table A.

TABLE A DETAILS OF THE SURVEYED ROAD LINKS
<table>
<tr><th>Road Link</th><th>Direction</th><th>Road Type</th><th>No. of Lane</th><th>Capacity (veh/hr) [C]</th><th>Capacity(1) (pcu/hr) [C]</th></tr>
<tr><td rowspan="2">Castle Peak Road - Kwai Chung (Between Lei Muk Road and Wo Yi Hop Road)</td><td>NB</td><td>PD</td><td>2</td><td>2,600</td><td>2,890</td></tr>
<tr><td>SB</td><td>PD</td><td>3</td><td>3,900</td><td>4,330</td></tr>
<tr><td rowspan="2">Castle Peak Road - Kwai Chung (Between Wo Yi Hop Road and Shek Pai Street)</td><td>NB</td><td>PD</td><td>3</td><td>3,900</td><td>4,330</td></tr>
<tr><td>SB</td><td>PD</td><td>2</td><td>2,600</td><td>2,890</td></tr>
<tr><td rowspan="2">Wo Yi Hop Road (Between Castle Peak Road - Kwai Chung and Tai Loong Street)</td><td>EB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td>WB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td rowspan="2">Wo Yi Hop Road (Between Tai Loong Street and Ta Chuen Ping Street)</td><td>EB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td>WB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td rowspan="2">Wo Yi Hop Road (Between Ta Chuen Ping Street and Ta Chuen Ping Street)</td><td>EB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td>WB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td rowspan="2">Wo Yi Hop Road (Between Ta Chuen Ping Street and Lei Muk Road)</td><td>NB</td><td>DD</td><td>3</td><td>2,850</td><td>3,170</td></tr>
<tr><td>SB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td rowspan="2">Wo Yi Hop Road (Between Lei Muk Road and Cheung Wing Road)</td><td>NB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td>SB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td>Tai Loong Street (Between Wo Yi Hop Road and Shek Pai Street)</td><td>NB</td><td>LD</td><td>2</td><td>800</td><td>890</td></tr>
<tr><td rowspan="2">Ta Chuen Ping Street (Between Wo Yi Hop Road and Chun Ping Street)</td><td>NB</td><td>LD</td><td>2</td><td>800</td><td>890</td></tr>
<tr><td>SB</td><td>LD</td><td>1</td><td>400</td><td>450</td></tr>
<tr><td>Ta Chuen Ping Street (Between Chun Ping Street and Wo Yi Hop Road)</td><td>EB</td><td>LD</td><td>2</td><td>800</td><td>890</td></tr>
<tr><td rowspan="2">Chun Ping Street (Between Lei Muk Road and Ta Chuen Ping Street)</td><td>NB</td><td>LD</td><td>2</td><td>800</td><td>890</td></tr>
<tr><td>SB</td><td>LD</td><td>1</td><td>400</td><td>450</td></tr>
<tr><td rowspan="2">Lei Muk Road (Between Castle Peak Road - Kwai Chung and Kwok Shui Road)</td><td>EB</td><td>DD</td><td>2</td><td>800</td><td>890</td></tr>
<tr><td>WB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td rowspan="2">Lei Muk Road (Between Kwok Shui Road and Chun Ping Street)</td><td>EB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td>WB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td rowspan="2">Lei Muk Road (Between Chun Ping Street and Wo Yi Hop Road)</td><td>EB</td><td>DD</td><td>3</td><td>2,850</td><td>3,170</td></tr>
<tr><td>WB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td rowspan="2">Lei Muk Road (Between Wo Yi Hop Road and Tung Chi Street)</td><td>EB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td>WB</td><td>DD</td><td>2</td><td>1,900</td><td>2,110</td></tr>
<tr><td rowspan="2">Kwok Shui Road (Between Lei Muk Road and Tai Yuen Street)</td><td>NB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
<tr><td>SB</td><td>DD</td><td>1</td><td>950</td><td>1,060</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Items</th><th>Comments</th><th>Response</th></tr>
<tr><td></td><td></td><td>Note: (1) – Adopted pcu factor of 1.11 based on survey results
PD – Primary Distributor; DD – District Distributor; LD – Local Distributor</td></tr>
<tr><td>2.4</td><td>Pedestrian flow assessment should be included in the TIA.</td><td><u>Existing Pedestrian Flow</u>
Pedestrian surveys were conducted at footpaths and pedestrian crossings at Ta Chuen Ping Street and Wo Yi Hop Road in the vicinity of the Subject Site during the AM and PM peak periods on Wednesday, 4th August 2021. The surveyed locations are summarised in Tables 2.5 and 2.6, and shown in Figure 2.12.

TABLE 2.5 DETAILS OF THE SURVEYED FOOTPATHS
<table><tr><th>Ref.</th><th>Road</th><th>Footpath</th><th>Section</th></tr><tr><td>FP01</td><td>Ta Chuen Ping Street</td><td>Northern</td><td>Between Shek Kin Street and Chun Pin Street</td></tr><tr><td>FP02</td><td>Ta Chuen Ping Street</td><td>Southern</td><td>Between Shek Kin Street and Chun Pin Street</td></tr><tr><td>FP03</td><td>Ta Chuen Ping Street</td><td>Eastern</td><td>Between Chun Pin Street and Wo Yi Hop Road</td></tr><tr><td>FP04</td><td>Ta Chuen Ping Street</td><td>Western</td><td>Between Chun Pin Street and Wo Yi Hop Road</td></tr><tr><td>FP05</td><td>Ta Chuen Ping Street</td><td>Western</td><td>Between Wo Yi Hop Road and Shek Kin Street</td></tr><tr><td>FP06</td><td>Ta Chuen Ping Street</td><td>Eastern</td><td>Between Wo Yi Hop Road and Shek Kin Street</td></tr><tr><td>FP07</td><td>Wo Yi Hop Road</td><td>Northern</td><td>Between Ta Chuen Ping Street and Ta Chuen Ping Street</td></tr><tr><td>FP08</td><td>Wo Yi Hop Road</td><td>Northern</td><td>Between Ta Chuen Ping Street and Lam Tin Street</td></tr><tr><td>FP09</td><td>Wo Yi Hop Road</td><td>Southern</td><td>Between Ta Chuen Ping Street and Ta Chuen Ping Street</td></tr></table>
TABLE 2.6 DETAILS OF THE SURVEYED CROSSINGS
<table><tr><th>Ref.</th><th>Junction</th><th>Type of Crossing</th></tr><tr><td>XING01</td><td>Junction of Wo Yi Hop Road / Ta Chuen Ping Street</td><td>Signalised</td></tr><tr><td>XING02</td><td>Junction of Wo Yi Hop Road / Ta Chuen Ping Street</td><td>Signalised</td></tr><tr><td>XING03</td><td>Junction of Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road</td><td>Signalised</td></tr><tr><td>XING04</td><td>Junction of Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road</td><td>Signalised</td></tr><tr><td>XING05</td><td>Wo Yi Hop Road / Ta Junction of Chuen Ping Street / Shek Yam Road</td><td>Cautionary</td></tr></table>
<u>Pedestrian Flow at Footpaths</u>
Based on the peak hour pedestrian flows shown in Figure 2.12, the Levels of Service (“LOS“) analysis was conducted. A 0.5m ‘dead area’ is assumed along building frontages and line of railings when calculating the “Effective Width”. The LOS grading is as per TPDM Vol 6, Section 10.4, and LOS ‘C’ is generally considered as desirable at streets with dominant ‘living’ pedestrian activities. Table 2.7 summarizes the analysis results.</td></tr>
</table>

Items	Comments	Response

TABLE 2.7 EXISTING FOOTPATH OPERATIONAL PERFORMANCE

Pedestrian Facility		Measured Width (m)	Effective Width (m)	AM Peak Hour		PM Peak Hour	
				2-way Pedestrian Flow (ped/hour)	Flow Rates [LOS] (ped/m/min)	2-way Pedestrian Flow (ped/hour)	Flow Rates [LOS] (ped/m/min)
FP01	Ta Chuen Ping Street	2.4	1.4	382	4.55 [A]	757	9.01 [A]
FP02	Ta Chuen Ping Street	2.9	1.9	300	2.63 [A]	348	3.05 [A]
FP03	Ta Chuen Ping Street	2.2	1.2	300	4.17 [A]	509	7.07 [A]
FP04	Ta Chuen Ping Street	3.0	2.0	224	1.87 [A]	193	1.61 [A]
FP05	Ta Chuen Ping Street	5.0	4.0	242	1.01 [A]	314	1.31 [A]
FP06	Ta Chuen Ping Street	3.5	2.5	96	0.64 [A]	79	0.53 [A]
FP07	Wo Yi Hop Road	2.7	1.7	519	5.09 [A]	653	6.40 [A]
FP08	Wo Yi Hop Road	2.7	1.7	688	6.75 [A]	476	4.67 [A]
FP09	Wo Yi Hop Road	2.7	1.7	734	7.20 [A]	1,259	12.34 [A]

Table 2.7 shows that the footpath assessed operate with capacity, i.e. LOS “A”, during AM and PM peak hours.

Pedestrian Flow at Crossing Points

Table 2.8 summarises the pedestrian flow and volume-to-capacity (“v/c”) ratio at the surveyed crossing points, and the capacity of these pedestrian crossing points are determined based on TPDM Vol 4, Chapter 3.2.

TABLE 2.8 EXISTING PEDESTRIAN CROSSING OPERATIONAL PERFORMANCE

Pedestrian Facility		Width (m)	Type / Capacity (ped/hour)	AM Peak Hour		PM Peak Hour	
				2-way Pedestrian Flow (ped/hour)	v/c Ratio	2-way Pedestrian Flow (ped/hour)	v/c Ratio
XING01	Wo Yi Hop Road / Ta Chuen Ping Street	7.0	Signalised / 2,220[(1)]	412	0.19	509	0.23
XING02	Wo Yi Hop Road / Ta Chuen Ping Street	5.0	Signalised / 2,140[(2)]	340	0.16	339	0.16
XING03	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road	5.0	Signalised / 3,800[(3)]	429	0.11	532	0.14
XING04	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road	4.5	Signalised / 1,480[(4)]	741	0.5	718	0.49
XING05	Wo Yi Hop Road / Ta Chuen Ping Street / Shek Yam Road	5.0	Cautionary / 3,000	633	0.21	1,057	0.35

Items	Comments	Response

Note:
(1) Calculated based on a 120-second cycle including 20 seconds pedestrian green + flashing green time.
(2) Calculated based on a 120-second cycle including 27 seconds pedestrian green + flashing green time.
(3) Calculated based on a 110-second cycle including 44 seconds pedestrian green + flashing green time.
(4) Calculated based on a 110-second cycle including 19 seconds pedestrian green + flashing green time.

Table 2.8 shows that these pedestrian crossing points operate with capacity.

Pedestrian Generation of the Proposed Industrial Development

The Transport Planning and Design Manual does not provide pedestrian generation rates. Hence, the pedestrian generation associated with the Proposed Industrial Development is estimated based on trip generation rates obtained from in-house surveys conducted for 2 industrial buildings in Kwai Chung district, which are presented in Table 3.3.

TABLE 3.3 RESULTS OF VISITOR COUNTS AT INDUSTRIAL BUILDINGS

Industrial Building	District	Industrial GFA (m^2)	AM Peak Hour			PM Peak Hour		
			Gen.	Att.	2-way	Gen.	Att.	2-way
iPlace	Kwai Chung	10,679	11	77	88	35	29	64
The Galaxy	Kwai Chung	15,562	32	69	101	62	29	91
Total		26,241	43	146	189	97	58	155
Weighted Average (person/hr/100m^2 GFA)			0.164	0.556	0.720	0.370	0.221	0.591

Note: Gen. – Generation Att. – Attraction

Based on the pedestrian generation rates in Table 3.3, the estimated pedestrian trip generation of the Proposed Industrial Development are calculated and presented in Table 3.4.

TABLE 3.4 ESTIMATED PEDESTRIAN TRIP GENERATION OF THE PROPOSED INDUSTRIAL DEVELOPMENT

Item	AM Peak Hour			PM Peak Hour		
	Gen.	Att.	2-Way	Gen.	Att.	2-Way
Trip Rates for Industrial Building (person / hour / 100m^2 GFA)	0.164	0.556	0.720	0.370	0.221	0.591
Pedestrian Generation for the Proposed Industrial Development with 17,663.35m^2 GFA (person / hour)	29	99	128	66	40	106

Note: Gen. – Generation Att. – Attraction

Items	Comments	Response

2028 Pedestrian Flows

Year 2028 traffic flows for the junction capacity analysis are derived as follows:

2028 Peak Pedestrian Flow = *2021 Peak Pedestrian Flow* x *2021 to 2028 Pedestrian Growth Factor* + *Pedestrian Generation of Proposed Industrial Development [From Table 3.4]*

As shown in Table 4.3 of the TIA Report, between 2015 and 2019, the ATC stations located in the vicinity have AADT growth averaging at +0.1% per annum. To be conservative, an annual growth of +1% per annum is adopted. The 2028 pedestrian flow during the AM and PM peak hour without and with the Proposed Industrial Development are shown in Figures 4.4 and 4.5 respectively, and the footpath operational performances are summarised in Table 4.6.

TABLE 4.6 2028 FOOTPATH OPERATIONAL PERFORMANCES

Pedestrian Facilities*	Actual Width (m)	Effective Width (m)	Without the Proposed Industrial Development		With the Proposed Industrial Development	
			Peak Hour 2-way Pedestrian Flow (ped/hour)	Flow Rates [LOS] (ped/m/min)	Peak Hour 2-way Pedestrian Flow (ped/hour)	Flow Rates [LOS] (ped/m/min)
AM Peak Hour						
FP01	2.4	1.4	622	7.40 [A]	666	7.93 [A]
FP02	2.9	1.9	462	4.05 [A]	497	4.36 [A]
FP03	2.2	1.2	444	6.17 [A]	517	7.18 [A]
FP04	3.0	2.0	338	2.82 [A]	393	3.28 [A]
FP05	5.0	4.0	349	1.45 [A]	368	1.53 [A]
FP06	3.5	2.5	145	0.97 [A]	152	1.01 [A]
FP07	2.7	1.7	619	6.07 [A]	635	6.23 [A]
FP08	2.7	1.7	762	7.47 [A]	780	7.65 [A]
FP09	2.7	1.7	812	7.96 [A]	832	8.16 [A]
PM Peak Hour						
FP01	2.4	1.4	1,019	12.13 [A]	1,068	12.71 [A]
FP02	2.9	1.9	476	4.18 [A]	499	4.38 [A]
FP03	2.2	1.2	670	9.31 [A]	747	10.38 [A]
FP04	3.0	2.0	279	2.33 [A]	308	2.57 [A]
FP05	5.0	4.0	420	1.75 [A]	435	1.81 [A]
FP06	3.5	2.5	116	0.77 [A]	120	0.80 [A]
FP07	2.7	1.7	755	7.40 [A]	768	7.53 [A]
FP08	2.7	1.7	524	5.14 [A]	533	5.23 [A]
FP09	2.7	1.7	1,372	13.45 [A]	1,386	13.59 [A]

Items	Comments	Response

Note: * – Footpaths listed in Table 2.5.

Table 4.6 shows that the footpaths will operate with capacities during the AM and PM peak hours. Hence, the Proposed Industrial Development will have no significant impact to the surrounding pedestrian footpaths.

2028 Pedestrian Crossings Operation Performance

The 2028 pedestrian crossings operational performances are summarised in Table 4.7.

TABLE 4.7 2028 PEDESTRIAN CROSSINGS OPERATIONAL PERFORMANCES

Pedestrian Facilities*	Actual Width (m)	Type / Capacity (ped/hour)	Without the Proposed Industrial Development		With the Proposed Industrial Development	
			Peak Hour Pedestrian Flow (ped/hour)	v/c ratio	Peak Hour Pedestrian Flow (ped/hour)	v/c ratio
AM Peak Hour						
XING01	7.0	Signalised / 2,220(1)	501	0.23	520	0.23
XING02	5.0	Signalised / 2,140(2)	375	0.18	385	0.18
XING03	5.0	Signalised / 3,800(3)	509	0.13	520	0.14
XING04	4.5	Signalised / 1,480(4)	819	0.55	839	0.57
XING05	5.0	Cautionary / 3,000	704	0.23	724	0.24
PM Peak Hour						
XING01	7.0	Signalised / 2,220(1)	599	0.27	614	0.28
XING02	5.0	Signalised / 2,140(2)	370	0.17	376	0.18
XING03	5.0	Signalised / 3,800(3)	606	0.16	617	0.16
XING04	4.5	Signalised / 1,480(4)	792	0.54	806	0.54
XING05	5.0	Cautionary / 3,000	1,155	0.39	1,169	0.39

Note:
* – Crossing listed in Table 2.6.
(1) – Calculated based on a 120-second cycle including 20 seconds pedestrian green + flashing green time.
(2) – Calculated based on a 120-second cycle including 27 seconds pedestrian green + flashing green time.
(3) – Calculated based on a 110-second cycle including 44 seconds pedestrian green + flashing green time.
(4) – Calculated based on a 110-second cycle including 19 seconds pedestrian green + flashing green time.

Table 4.7 shows that these pedestrian crossing points are expected to operate with capacity in 2028 without and with the Proposed Industrial Development.

Items	Comments	Response
		Based on the above findings, it can be concluded that the Proposed Industrial Development will have no significant impact to the surrounding pedestrian footpaths and crossing points.
2.5	The proposed run-in/out is different from the existing run-in/out. Please seek DLO's advice from land perspective point of view.	Noted.
3	**Comments from Drainage Services Department on 3 August 2021**	
3.1	(i) The SIA for the subject planning application needs to meet the full satisfaction of Environmental Protection Department (EPD), the planning authority of sewerage infrastructure. DSD's comments on the captioned SIA submitted by the developer are subject to views and agreement of EPD.	Noted.
3.2	(ii) Section 1.2 - please clarify the pipe material for the proposed 200mm dia. connection pipe.	The pipe material of the proposed 200mm dia connection pipe will be subject to future design, yet vitrified clay or concrete pipe will be specified due to durability. Hence, a conservative ks of 6.0mm has been assumed. Please refer to the updated SIA report in **Annex A**.
3.3	(iii) Figure 1 - (a) please review the invert levels which are inconsistent with Appendix B; (b) the cover level of proposed terminal manhole is missing; (c) please advise whether the level of proposed connection pipe as shown in terminal manhole is D.T.L or I.L.; and (d) please advise the fall of proposed connection pipe from terminal manhole	(a) Figure 1 has been revised accordingly. (b) The cover level of the proposed terminal manhole will be approx. 35mPD, subject to actual design at later design stage. (c) The level of proposed connection pipe as shown in terminal manhole is D.T.L. (d) The fall of proposed connection pipe from terminal manhole is 1:66.7 as shown in Appendix B of the updated SIA report in **Annex A**.
3.4	(iv) Appendix A - according to the SIA for the proposed data centre development at 2-16 Lam Tin Street, the estimated ADWF for commercial employee was 11.9m3/day (excluding the instant peak flow from cooling tower	The revised assessment has now adopted the estimated ADWF from the approved SIA report. Please refer to the updated SIA report in **Annex A**.
3.5	(v) Appendix B - (a) please state the assumptions on pipe condition and material for the selection of roughness coefficient; and (b) please add remark for those invert levels	(a) Appendix B of the updated SIA report in **Annex A** has been revised accordingly. (b) Invert levels determined by manhole survey has been highlighted in colour.

Items	Comments	Response
	determined by manhole survey.	
4	**Comments from Highways Department on 5 August 2021**	
4.1	(a) RtC item 1.3 - Please check with PlanD and TD of the proposed dedication arrangement is acceptable under the draft Kwai Chung OZP No. S/KC/29	Noted.
4.2	(b) RtC item 1.4 - Noted. The applicant should at his own expenses and to the satisfaction of this department make good for any damage done to the adjoining public roads, footpaths, street furniture and highway structures due to his works and paving proposal and footpath finishes need compatible with adjacent environment and existing footpath	Noted.
4.3	(c) RtC item 1.5 – The comment is still valid and the applicant should check with BD if it is still acceptable from their perspective	Noted.

Enclosure:
Annex A: Updated Sewerage Impact Assessment (SIA)
Annex B: Updated Figures and Supplementary Information of the Traffic Impact Assessment (TIA)
Annex C: Updated Ground Floor Plan of the Architectural Drawings and Tree Survey and Landscape Proposal
Annex D: Schematic Diagram of Automatic Irrigation System and Typical Elevation of the Green Wall

Complied by: KTA
Date: 11 August 2021
File Ref: 20210811_S1399_FI3_V01

Annex A

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Sewage Impact Assessment

For: Gain Champion Investment Limited

Job No:	1029998
Doc Ref:	1019000\1029998 – Ta Chuen Ping St SIA\Cundall Docs\Reports\SIA
Latest Revision:	B
Date:	4/08/2021

Cundall Hong Kong Limited 7/F The Hennessy, 256 Hennessy Road, Wanchai, Hong Kong Tel: +852 2566 6260 www.cundall.com

Project Name:	Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
Client:	Gain Champion Investment Limited
Report Title:	Sewage Impact Assessment
Job Number:	1029998

Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
-	19/04/2021	Initial Issue
A	07/07/2021	Revision to address comment from EPD and DSD
B	04/08/2021	Revision to address comment from EPD and DSD

Document Validation (latest issue)

Revision	Issue Date	Purpose of issue / description of revision / version --			
B	4/08/2021		Prepared by	Checked by	Verified by
		Initials	Various	Carol Chan	Joe Tang
		Signature			

Executive Summary

A sewerage impact assessment (SIA) has been conducted to evaluate the possible impacts on the local sewerage network as a result of the Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung (the "proposed development"). The assessment has based on the latest proposed floor uses and site surveys and shall serve to:

- assess the potential sewerage impacts arising from the proposed development
- recommend measures to mitigate unacceptable sewerage impacts, if any.

In conclusion, the sewerage impact arising from the proposed development is considered acceptable with the proper implementation of the proposed mitigation measures, namely:

- Proposed 300mm sewer along the existing 300mm diameter pipe from manhole FMH4020767 to FMH4020769 (a conservative roughness value, ks, of 0.06mm was adopted)

The proposed sewerage upgrading works shall be undertaken by the Applicant at her own expense if such works have not been otherwise carried out by other development upstream of the aforementioned sewers. A Sewerage Upgrading Programme shall be submitted to DSD and/or EPD for agreement before commencement of superstructure works, and the future Contractor of the proposed development shall undertake site survey(s) and refine the proposed sewerage upgrading works whenever necessary.

Contents

1. Introduction

1.1 Subject Site Description

The project involves a proposed industrial redevelopment which is located at 94-100 Ta Chuen Ping Street, Kwai Chung (hereinafter refer to as the "Subject site"), as shown in Plate 1 below.

Plate1 Site Location Plan

The proposed development will comprise a 23-storey industrial development (including G/F and mechanical floor) and 1 level of basement carpark, with a maximum permitted GFA of 17,663.350 m^2 [1]. There will be workshop areas located on 1/F to 21/F, with a mechanical floor at 3/F. The proposed development is expected to commence its operation by 2025 and start to have sewage flow discharged to the sewerage network.

[1] The GFA will be 17,663.350 m^2 after taking into account of the bonus GFA related to the dedication of the proposed NBA, subject to the approval by Buildings Department, or otherwise, about 16,945.370 m^2 if the plot ratio is relaxed to 11.4.

1.2 Existing Sewerage Network

The relevant drainage record plans “T7-SW-17C-4” and “T7-SW-17D-3” were reviewed to gather the background information of the existing sewerage infrastructure in the area. Based on the desktop review of drainage record plan and drainage survey, the sewage from the proposed development is expected to be discharged to the closest manhole no. FMH4020897 via a newly proposed terminal manhole and a newly proposed 200mm dia. sewer. The exact location of the terminal manhole will be confirmed at later design stage. The sewage will then be diverted to a 300mm dia. public sewer along Ta Chuen Ping Street.

1.3 Objectives

The assessment has based on the latest proposed floor uses and site surveys and shall serve to:

- assess the potential sewerage impacts arising from the proposed development
- recommend measures to mitigate unacceptable sewerage impacts, if any.

2. Design Assumptions and Criteria

2.1 General Assumptions and Criteria

This sewerage impact assessment has been prepared in accordance with the below guidelines and reference:

- Sewerage Manual ("*SM*") published by the Drainage Services Department ("*DSD*") in 2013.
- Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning Version 1.0 ("*GESF*") published by the Environmental Protection Department ("*EPD*") in 2005.
- Corresponding Drainage Record Plans published by the Drainage Services Department.
- Commercial and Industrial Floor Space Utilization Survey ("*CIFSUS*") published by the Planning Department.

2.2 Population

Population in the proposed development will be dominated by industrial activities, and the industrial employee occupancy density has been assumed as 2.3 person per 100 m^2 in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for manufacturing. The figure has been summarized in **Table 1** below.

Since the capacity of the proposed development is independent to population growth, the annual growth in population has not been considered in this study. Please refer to the below table and **Appendix A** for summary estimation of population at the proposed development and detailed estimation of population per catchment respectively.

Type of Population	Occupancy Density (person/ 100m^2 GFA)	Estimated Population	Data Source
Proposed Development			
Industrial Employee	2.3	406	Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing

Table 1 Population of Proposed Development

2.3 Unit Flow Factors

The unit flow factors tabulated below have been adopted in the calculation of sewerage impact.

Type of Population	Unit Flow Factor (m^3/day/person)	Data Source
Proposed Development		
Industrial Employee	0.73	GESF – J1 Manufacturing
Other Development in the Vicinity		
Industrial Employee	0.73	GESF – J1 Manufacturing
Office Employee	0.08	GESF – J6 Finance, Insurance, Real Estate and Business Services
Hotel Employee	1.58	GESF – J10 Restaurant & Hotels

Table 2 Unit Flow Factors

2.4 Peaking Factors

The peaking factors adopted for peak discharge calculation has made reference to Table T-5 of the *GESF* as extracted below. Peaking factors (including stormwater allowance) from the guidelines have been adopted based on the corresponding population range being served by the sewers throughout the study.

Population Range	Peaking Factor (including stormwater allowance) for facility with existing upstream sewerage	Peaking Factor (excluding stormwater allowance) for facility with new upstream sewerage
<1,000	8	6
1,000 – 5,000	6	5
5,000 – 10,000	5	4
10,000 – 50,000	4	3
>50,000	Max($\frac{7.3}{N^{0.15}}$,2.4)	Max($\frac{6}{N^{0.175}}$,1.6)

Note: N is the contributing population in thousands.

Table 3 Peaking Factor for Sewers

2.5 Hydraulic Equation

The Colebrook-White equation can be applied to analyse flow conditions of circular pipes and hence has been adopted for hydraulic analysis of the sewerage system. In this study, conservative value has been adopted here for long-term and permanent design and a roughness coefficient, *ks*, is assumed to be 6.0mm for all existing pipesat poor condition. For the newly proposed connection pipe from terminal manhole to FMH4020897, *ks* of 6.0mm is assumed as a worst-case scenario and pipe material will be determined at later design stage.

2.6 Catchment Inflow Factor

A catchment inflow means the net overall ingress of water or wastewater to the sewerage system. Since the proposed development and development in the vicinity are located in Kwai Chung, a catchment inflow factor of 1.1 has been adopted by making reference to Table T-4 of the *GESF*.

2.7 Calculation Assumptions

The following sites are expected to reach the manholes downstream, as annotated in **Figure 1**:

- Cheung Wing Industrial Building, Tak Kee Group Centre, Kam Chong Industrial Building, iCity, Kam Foo Factory Building and Kong Sheng Factory Building (Catchment A, Upstream) – diverted to FMH4020906.
- Regent Centre Tower A and Regent Centre Tower B (Catchment B) – diverted to FMH4020905.
- Kwai Wu Industrial Building (Catchment C) – diverted to FMH4020767.
- Kwai Hing Industrial Building and Koon Wo Industrial Building (Catchment D1) – diverted to FMH4020746.
- Sang Hing Industrial Building, Proposed Data Centre Development and Hotel Ease (Catchment D2) – diverted to FMH4020747.
- Luen Fat Industrial (First) Building, New Venture Centre, Fung King Industrial Building, Wiking Technology & Business Centre, Golden Sunflower Industrial Building, Silka Tsuen Wan Hotel, Park Sun Building, etc. (Catchment D3) – diverted to FMH4020761.

3. Evaluation and Assessment of Impact

3.1 Unmitigated Scenario

Wastewater from industrial activities are the major sewage sources arising from the development. All sewage will be collected by the nearest sewers and the sewers will be connected to the new last manhole and eventually directed to Government sewerage networks and treatment facilities.

Base on the design assumptions and criteria as detailed in Section 2 above, the calculation of peak sewage flow from each of the catchment has been tabulated below. Detailed calculation has been presented in **Appendix A**.

Manhole	Catchment Served	Estimated Cumulative Peak Discharge (m^3/s)
FMH4020897	Subject Site	0.0226 m^3/s
FMH4020906	Subject Site & A	0.0834 m^3/s
FMH4020905	Subject Site & A & B	0.1133 m^3/s
FMH4020767	Subject Site & A & B & C	0.1245 m^3/s
FMH4020761	Subject Site D3	0.3464 m^3/s
FMH4020746	Subject Site D1 & D3	0.4399 m^3/s
FMH4020747	Subject Site D (D1 & D2 & D3)	0.4692 m^3/s
FMH4020748	Subject Site & A & B & C & D	0.5455 m^3/s

Table 4 Summary of Peak Sewage Flow

The capacities of respective sewers have been calculated in accordance with the *SM* and *GESF*. Assessment of sewerage impacts associated with detailed calculations have also been provided in **Appendix B** and **C**.

The sewage from the proposed development will be collected and diverted to the existing 300mm diameter sewer underneath Ta Chuen Ping Street through manhole no. FMH4020897 where it will adjoin the flow from upstream of Ta Chuen Ping Street (i.e. Catchment A, B and C) and it is expected that the existing 300mm dia sewer has marginally exceeded sewer capacity from FMH4020767 to FMH4020768. Upon reaching manhole no. FMH4020748, the cumulative flow will eventually merge with sewage flow from Chun Pin Street (Catchment D). It is expected that the existing 300mm to 750mm dia. sewers can cater the cumulative peak discharge of the Subject Site, Catchment A, Catchment B, Catchment C and Catchment D, and no exceedance of hydraulic capacity is anticipated. Also, the peak discharge from the proposed development contributes to less than 1.0% of the peak flow along the 750mm dia. sewer underneath Ta Chuen Ping street. Hence, the sewage impact associated with the proposed conversion is considered insignificant.

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of sewer capacity	Sufficient Capacity?
Terminal Manhole	FMH4020897	0.200	0.0318	0.0226	71.2%	Yes
FMH4020897	FMH4020906	0.300	0.2269	0.0226	10.0%	Yes
FMH4020906	FMH4020905	0.300	0.2559	0.0834	32.6%	Yes
FMH4020905	FMH4020767	0.300	0.1929	0.1133	58.7%	Yes
FMH4020767	FMH4020768	0.300	0.1191	0.1245	104.6%	No
FMH4020768	FMH4020769	0.300	0.4391	0.1245	28.3%	Yes
FMH4020769	FMH4020748	0.450	0.2648	0.1245	47.0%	Yes
FMH4020761	FMH4020762	0.375	0.3075	0.3075	100.0%	Yes
FMH4020762	FMH4020745	0.375	0.3307	0.3075	93.0%	Yes
FMH4020745	FMH4020746	0.600	0.6968	0.3075	44.1%	Yes
FMH4020746	FMH4020747	0.600	0.5302	0.4009	75.6%	Yes
FMH4020747	FMH4020748	0.600	0.6873	0.4302	62.6%	Yes
FMH4020748	FMH4020749	0.600	0.5180	0.5065	97.8%	Yes
FMH4020749	FMH4020750	0.750	2.2301	0.5065	22.7%	Yes

Table 5 Summary of Estimated Sewage Flow Capacities

3.2 Mitigated Scenario

In view of the potential cumulative sewage impacts that could result from the proposed development and other development in the vicinity, it is recommended to upgrade some of the existing sewer segments. The proposed mitigation measures are listed out as below:

- Proposed 300mm diameter sewer from manhole FMH4020767 to FMH4020769 (a conservative roughness value, k_s, of 0.06mm was adopted)

The proposed sewerage upgrade networks are expected to reduce the exceedance in sewer capacity in all the aforementioned pipe segments and the sewerage impact arising from the proposed development is considered acceptable.

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of sewer capacity	Sufficient Capacity?
Terminal Manhole	FMH4020897	0.200	0.0318	0.0226	71.2%	Yes
FMH4020897	FMH4020906	0.300	0.2269	0.0226	10.0%	Yes
FMH4020906	FMH4020905	0.300	0.2559	0.0834	32.6%	Yes
FMH4020905	FMH4020767	0.300	0.1929	0.1133	58.7%	Yes
FMH4020767	FMH4020768	0.300	0.1669	0.1245	74.6%	Yes
FMH4020768	FMH4020769	0.300	0.3685	0.1245	33.8%	Yes
FMH4020769	FMH4020748	0.450	0.2648	0.1245	47.0%	Yes
FMH4020761	FMH4020762	0.375	0.3075	0.3075	100.0%	Yes
FMH4020762	FMH4020745	0.375	0.3307	0.3075	93.0%	Yes
FMH4020745	FMH4020746	0.600	0.6968	0.3075	44.1%	Yes
FMH4020746	FMH4020747	0.600	0.5302	0.4009	75.6%	Yes
FMH4020747	FMH4020748	0.600	0.6873	0.4302	62.6%	Yes
FMH4020748	FMH4020749	0.600	0.5180	0.5065	97.8%	Yes
FMH4020749	FMH4020750	0.750	2.2301	0.5065	22.7%	Yes

Table 6 Summary of Estimated Sewage Flow Capacities (Mitigated)

The proposed sewerage upgrading works shall be undertaken by the Applicant at her own expense if such works have not been otherwise carried out by other development upstream of the aforementioned sewers.

A Sewerage Upgrading Programme shall be submitted to DSD and/or EPD for agreement before commencement of superstructure works. The content of the programme shall at least include the following:

- Commencement date of construction works for the whole project
- Durations of excavation of existing sewers
- Construction of new sewers

- Handover of upgraded sewers to DSD

- Anticipated date for obtaining the Occupation Permit (OP) of the proposed development

The future Contractor of the proposed development shall undertake site survey(s) and refine the proposed sewerage upgrading works whenever necessary. The future Contractor will also be responsible to properly design and construct the proposed sewerage upgrading works at their own cost to convey sewer from the proposed development to the sewer manholes in accordance with all relevant legislations, standards, guidelines and code of practices published by the Hong Kong government. The detailed design of the sewerage upgrading works prepared by the future Contractor will include all required calculations to the satisfaction of the relevant authorities.

4. Conclusions

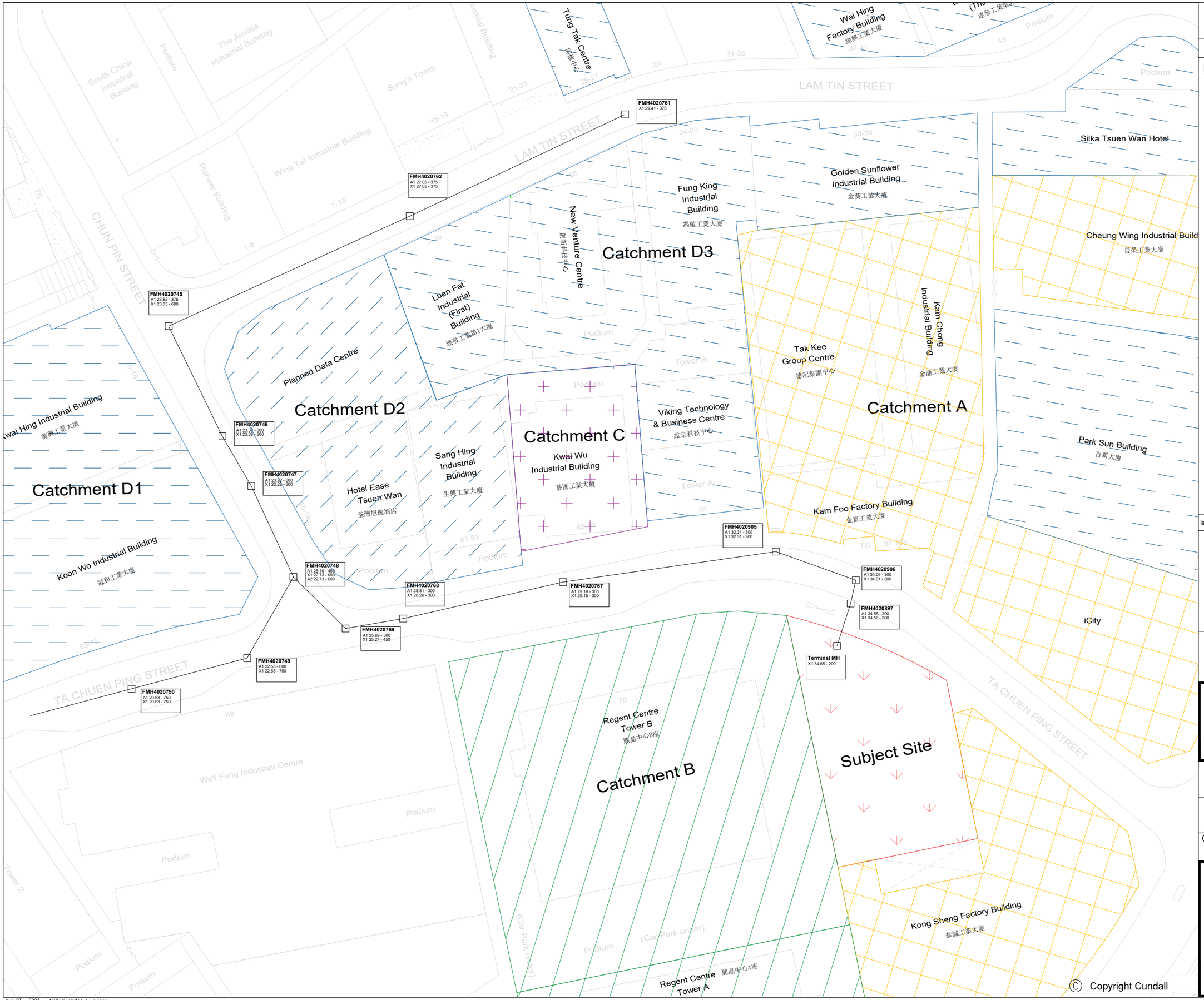
A sewerage impact assessment (SIA) has been conducted to evaluate the potential sewerage impacts on the local sewerage network as a result of the Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

In conclusion, the sewerage impact arising from the proposed development is considered acceptable with the proper implementation of the proposed mitigation measures, namely:

- Proposed 300mm sewer along the existing 300mm diameter pipe from manhole FMH4020767 to FMH4020769 (a conservative roughness value, ks, of 0.06mm was adopted)

The proposed sewerage upgrading works shall be undertaken by the Applicant at her own expense if such works have not been otherwise carried out by other development upstream of the aforementioned sewers. A Sewerage Upgrading Programme shall be submitted to DSD and/or EPD for agreement before commencement of superstructure works, and the future Contractor of the proposed development shall undertake site survey(s) and refine the proposed sewerage upgrading works whenever necessary.

Figure 1 DSD Drainage Record Plan



Aug 03, 2021 - 4:19pm plotted by c.chan

1029998 | A3

DO NOT SCALE FROM THIS DRAWING

Notes

1. Length of pipes NTS
2. Only concerned sewers and sewerage manholes have been indicated.

Issue	Date	Description	By	Chkd	Verfd

Project
Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung - Sewerage Impact Assessment

Client
Gain Champion Investment Limited

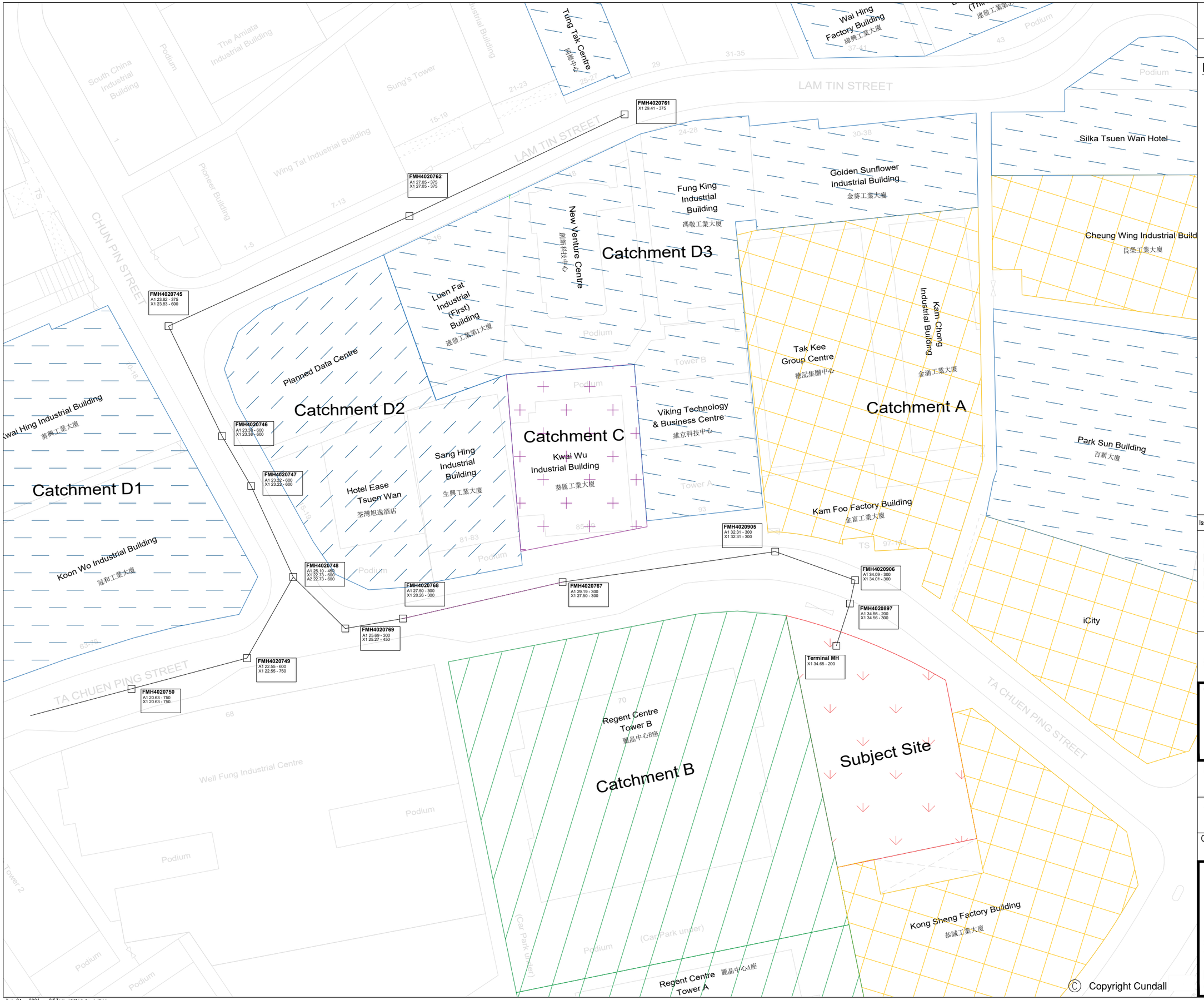
Title
DSD Drainage Record Plan

Figure No.	Drawing Status
1	Rev B
Job No.	Scale
1029998	NTS

Originator	Checked	Verified	Issue.
CC			-

CUNDALL
7/F The Hennessy
256 Hennessy Road
Wanchai
Hong Kong, China
Website: www.cundall.com

Figure 2 Drainage Plan (Mitigated)



Aug 04, 2021 - 2:53pm plotted by c.chan

1029998 | A3

DO NOT SCALE FROM THIS DRAWING

Notes

1. Length of pipes NTS
2. Only concerned sewers and sewerage manholes have been indicated.

Newly proposed 300mm dia. sewer

Issue	Date	Description	By	Chkd	Verfd

Project
Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung - Sewerage Impact Assessment

Client
Gain Champion Investment Limited

Title
Drainage Plan (Mitigated)

Figure No.	Drawing Status
2	Rev 0
Job No.	Scale
1029998	NTS

Originator	Checked	Verified	Issue.
CC			-

CUNDALL
7/F The Hennessy
256 Hennessy Road
Wanchai
Hong Kong, China
Website: www.cundall.com

Appendix A Calculation of Flow Estimation

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 01

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
B	C. Chan	4 Aug 2021	J.Tang	

CALCULATION:

01 Calculation of Sewage Loading

Catchment	Sewer Manhole No.	Buildings in Zone	Type of Use	GFA/ UFA (m^2)	No. of Flats	Type of Population	Occupancy Density (person/100m^2 GFA)	Estimated Population	Unit Flow Factor (m^3/day/ person)	Estimated Average Dry Weather Flow (m^3/day)	Remarks
-	FMH4020897	Site	Industrial	17,663.35	-	Industrial Employee	2.3	406	0.73	296.38	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
A	FMH4020906	Cheung Wing Industrial Building (長榮工業大廈)	Industrial	16,754	-	Industrial Employee	2.3	385	0.73	281.05	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		Tak Kee Group Centre (德記集團中心)	Office	4,831	-	Office Employee	5.5	266	0.08	21.28	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and Business Services
		Kam Chong Industrial Building (金涌工業大廈)	Industrial	7,851	-	Industrial Employee	2.3	181	0.73	132.13	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		iCity (Planned)	Office	15,345	-	Office Employee	5.5	844	0.08	67.52	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and
		Kong Sheng Factory Building (恭誠工業大廈)	Industrial	14,350	-	Industrial Employee	2.3	330	0.73	240.90	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		Kam Foo Factory Building (金富工業大廈)	Industrial	11,446	-	Industrial Employee	2.3	263	0.73	191.99	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
B	FMH4020905	Regent Centre Tower A (麗晶中心A座)	Office	55,184	-	Office Employee	5.5	3035	0.08	242.80	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and
		Regent Centre Tower B (麗晶中心B座)	Office	51,725	-	Office Employee	5.5	2845	0.08	227.60	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J6 Finance, Insurance, Real Estates and Business Services is 0.080 m3/person/day. Worker density: assumed to be 5.5 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Finance, Insurance, Real Estates and Business Services

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 01

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
B	C. Chan	4 Aug 2021	J.Tang	

CALCULATION:

01 Calculation of Sewage Loading

Catchment	Sewer Manhole No.	Buildings in Zone	Type of Use	GFA/ UFA (m^2)	No. of Flats	Type of Population	Occupancy Density (person/100m^2 GFA)	Estimated Population	Unit Flow Factor (m^3/day/ person)	Estimated Average Dry Weather Flow (m^3/day)	Remarks
C	FMH4020767	Kwai Wu Industrial Building (葵匯工業大廈)	Industrial	10,444	-	Industrial Employee	2.3	240	0.73	175.20	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
D1	FMH4020746	Kwai Hing Industrial Building (葵興工業大廈)	Industrial	24,517	-	Industrial Employee	2.3	564	0.73	411.72	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		Koon Wo Industrial Building (冠和工業大廈)	Industrial	48,297	-	Industrial Employee	2.3	1111	0.73	811.03	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
D2	FMH4020747	Sang Hing Industrial Building (生興工業大廈)	Industrial	9,000	-	Industrial Employee	2.3	207	0.73	151.11	Unit Flow Factor: GESF - Combined UFF of industrial employees and industrial activities in J1 Manufacturing for Kwai Chung is 0.73 m3/person/day. Worker density: assumed to be 2.3 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for Manufacturing
		Proposed Data Centre Development	Data Centre	-	-	Data Centre Employee	-	-	-	11.90	Unit Flow Factor: GESF - Combined UFF of commerciall employees and commercial activities in J2 Electricity Gas & Water is 0.33 m3/person/day. Estimated Population: Made reference to approved SIA report of proposed data centre development at 2-16 Lam Tin Street
					-	Bleed off Water from Cooling Tower	-	-	-	119.00	Bleed off water from cooling tower of the proposed data centre is assumed to be 119 m^3/day (assuming total heat rejection of cooling towers: 21692.7kW). For conservative assessment prupose, all bleed-off water is assumed to be discharged to the public sewerage system
		Hotel Ease. Tsuen Wan (旭逸酒店· 荃灣)	Hotel	10,323	160	Hotel Employee	3.2	330	1.58	521.40	Unit Flow Factor: GESF - Combined UFF of commercial employees and commercial activities in J10 Restaurant & Hotels is 1.580 m3/person/day. Worker density: assumed to be 3.2 person per 100 m2 of utilized GFA in accordance with Planning Department's "Commercial and Industrial Floor Space Utilization Survey", worker density by Industry Group (Figure 9) for hotels and boarding houses.

CUNDALL

JOB NUMBER / FILE: 1029998 | CALCULATION NUMBER: 02 | DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
B	C.Chan	4 Aug 2021	J.Tang	

CALCULATION:

01 Calculation of Sewage Loading (Cont')

Site			
Estimated Average Daily Flow	=	296.38	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	326.02	m^3/day
Contribution Population	=	1207	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0226	m^3/s
Catchment A			
Estimated Average Daily Flow	=	934.87	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1028.36	m^3/day
Contribution Population	=	3809	
Peaking Factor	=	6	
Estikmated Backwash Flow of Swimming Pool	=	0.005	m^3/s
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.0764	m^3/s
Catchment B			
Estimated Average Daily Flow	=	470.40	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	517.44	m^3/day
Contribution Population	=	1916	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0359	m^3/s
Catchment C			
Estimated Average Daily Flow	=	175.20	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	192.72	m^3/day
Contribution Population	=	714	
Peaking Factor	=	8	
Estimated Peak Flow	=	0.0178	m^3/s
Catchment D1			
Estimated Average Daily Flow	=	1222.75	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1345.03	m^3/day
Contribution Population	=	4982	
Peaking Factor	=	6	
Estimated Peak Flow	=	0.0934	m^3/s
Catchment D2			
Estimated Average Daily Flow	=	684.41	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	752.85	m^3/day
Contribution Population	=	2788	
Peaking Factor	=	6	
Estikmated Bleed off Water from Cooling Tower	=	119.00	m^3/day
Estimated Peak Flow	=	0.0537	m^3/s
Site + Catchment A			
Estimated Average Daily Flow	=	1231.25	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1354.38	m^3/day
Contribution Population	=	5016	
Peaking Factor	=	5	
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.0834	m^3/s
Site + Catchment A + Catchment B			
Estimated Average Daily Flow	=	1701.65	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	1871.82	m^3/day
Contribution Population	=	6933	
Peaking Factor	=	5	
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.1133	m^3/s
Site + Catchment A + Catchment B + Catchment C			
Estimated Average Daily Flow	=	1876.85	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	2064.54	m^3/day
Contribution Population	=	7646	
Peaking Factor	=	5	
Estimated Peak Flow (with Backwash Flow of Swimming Pool)	=	0.1245	m^3/s
Catchment D1 + Catchment D2			
Estimated Average Daily Flow	=	1907.16	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	2097.88	m^3/day
Contribution Population	=	7770	
Peaking Factor	=	5	
Estikmated Bleed off Water from Cooling Tower		119.00	m^3/day
Estimated Peak Flow (with Cooling Tower Bleed off water)	=	0.1228	m^3/s
Catchment D1 + Catchment D2 + Catchment D3			
Estimated Peak Flow	=	0.4302	m^3/s
Site + Catchment A + Catchment B + Catchment C + Catchment D1 + Catchment D2			
Estimated Average Daily Flow	=	3784.01	m^3/day
Catchment Inflow Factor	=	1.1	
Corrected Average Daily Flow	=	4162.41	m^3/day
Contribution Population	=	15416	
Peaking Factor	=	4	
Estimated Peak Flow	=	0.1991	m^3/s
Site + All Catchments			
Estimated Peak Flow	=	0.5065	m^3/s

Appendix B Detailed Calculation of Hydraulic Capacity (Unmitigated)

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 02

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
B	C.Chan	4 Aug 2021	J.Tang	

CALCULATION:

02 Detailed Calculation of Hydraulic Capacity (Unmitigated)

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Cross-section Area, A (m^2)	Wetted Perimeter, P (m)	Length, L (m)	Inlet Invert Level (mPD)	Outlet Invert Level (mPD)	Colebrook-White Roughness Coefficient, Ks (mm)	Hydraulic Radius, R (m)	Slope, s	Velocity, V (m/s)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of Pipe capacity	Sufficient Capacity?	Remarks
Terminal Manhole	FMH4020897	0.200	0.0314	0.6283	6.0	34.65	34.56	6.0	0.0500	0.01500	1.0127	0.0318	0.0226	71.2%	Yes	Site: New terminal manhole proposed with 200mm sewer connecting government manhole
FMH4020897	FMH4020906	0.300	0.0707	0.9425	5.5	34.56	34.09	6.0	0.0750	0.08530	3.2107	0.2269	0.0226	10.0%	Yes	
FMH4020906	FMH4020905	0.300	0.0707	0.9425	15.7	34.01	32.31	6.0	0.0750	0.10842	3.6199	0.2559	0.0834	32.6%	Yes	Site & Catchment A
FMH4020905	FMH4020767	0.300	0.0707	0.9425	50.6	32.31	29.19	6.0	0.0750	0.06165	2.7292	0.1929	0.1133	58.7%	Yes	Site & Catchment A & B
FMH4020767	FMH4020768	0.300	0.0707	0.9425	35.8	29.15	28.31	6.0	0.0750	0.02350	1.6843	0.1191	0.1245	104.6%	No	Site & Catchment A & B & C. Refer to Appendix C for invert level of FMH4020768
FMH4020768	FMH4020769	0.300	0.0707	0.9425	8.1	28.26	25.69	6.0	0.0750	0.31913	6.2118	0.4391	0.1245	28.3%	Yes	Refer to Appendix C for invert level of FMH4020768
FMH4020769	FMH4020748	0.450	0.1590	1.4137	12.9	25.27	25.10	6.0	0.1125	0.01318	1.6648	0.2648	0.1245	47.0%	Yes	
FMH4020761	FMH4020762	0.375	0.1104	1.1781	50.0	29.41	27.05	6.0	0.0938	0.04719	2.7838	0.3075	0.3075	100.0%	Yes	Assume full capacity upstream (D3 along Lam Tin Street)
FMH4020762	FMH4020745	0.375	0.1104	1.1781	59.2	27.05	23.82	6.0	0.0938	0.05458	2.9940	0.3307	0.3075	93.0%	Yes	
FMH4020745	FMH4020746	0.600	0.2827	1.8850	23.0	23.83	23.38	6.0	0.1500	0.01959	2.4645	0.6968	0.3075	44.1%	Yes	
FMH4020746	FMH4020747	0.600	0.2827	1.8850	14.1	23.38	23.22	6.0	0.1500	0.01135	1.8753	0.5302	0.4009	75.6%	Yes	Catchment D1 + D3
FMH4020747	FMH4020748	0.600	0.2827	1.8850	25.7	23.22	22.73	6.0	0.1500	0.01906	2.4308	0.6873	0.4302	62.6%	Yes	Catchment D1 + D2 + D3
FMH4020748	FMH4020749	0.600	0.2827	1.8850	16.6	22.73	22.55	6.0	0.1500	0.01083	1.8320	0.5180	0.5065	97.8%	Yes	Site & Catchment A & B & C & D
FMH4020749	FMH4020750	0.750	0.4418	2.3562	31.5	22.55	20.63	6.0	0.1875	0.06101	5.0479	2.2301	0.5065	22.7%	Yes	Site & Catchment A & B & C & D

Remarks:

1 Information from Drainage Services Department (DSD)'s drainage record plans or proposed sewer design

2 Wetted perimeter, P, is calculated from:
$P = \pi D$

3 The mean velocity is calculated using the Colebrook-White Equation for circular pipes flowing full:

$$V = -2(2gDS)^{0.5}\log\left(\frac{k}{3.7D} + \frac{2.5\nu}{D(2gDS)^{0.5}}\right)$$

where

K = Colebrook-White roughness coefficient (m)
V = mean velocity (m/s)
D = circular cross-section pipe, inside diameter (m)
S = slope, in meters per meter
v = kinematic viscosity of water, in meters per second (0.000001306 m^2/s)
g = gravitational acceleration (m/s^2) (9.807m/s^2)

4 The Colebrook-White Roughness Coefficient, Ks, is assumed to be 6.0 mm (Table 5 in DSD's "Sewerage Manual Part 1") for existing sewers under poor condition

5 Hydraulic radius, R, is calculated from:
$R = A/P$

6 Peak flow, Q, is calculated from:
$Q = V \times A$

7 With reference Table T-4 in "Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning" issued by EPD, an inflow catchment factor of 1.0 was adopted for the Subject Site.

Appendix C Detailed Calculation of Hydraulic Capacity (Mitigated)

CUNDALL

JOB NUMBER / FILE: 1029998

CALCULATION NUMBER: 02

DRAWING REFERENCE:

JOB TITLE:

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

CALCULATION:

02 Detailed Calculation of Hydraulic Capacity (Mitigated)

REV:	CALCULATION BY:	DATE:	CHECKED BY:	VERIFIED BY:
-	C.Chan	4 Aug 2021	J.Tang	

Sewer Manhole No. (From)	Sewer Manhole No. (To)	Pipe Diameter, D (m)	Cross-section Area, A (m^2)	Wetted Perimeter, P (m)	Length, L (m)	Inlet Invert Level (mPD)	Outlet Invert Level (mPD)	Colebrook-White Roughness Coefficient, Ks (mm)	Hydraulic Radius, R (m)	Slope, s	Velocity, V (m/s)	Pipe Capacity, Q (m^3/s)	Estimated Cumulative Peak Discharge (m^3/s)	Percentage of Pipe capacity	Sufficient Capacity?	Remarks
Terminal Manhole	FMH4020897	0.200	0.0314	0.6283	6.0	34.65	34.56	6.0	0.0500	0.01500	1.0127	0.0318	0.0226	71.2%	Yes	
FMH4020897	FMH4020906	0.300	0.0707	0.9425	5.5	34.56	34.09	6.0	0.0750	0.08530	3.2107	0.2269	0.0226	10.0%	Yes	
FMH4020906	FMH4020905	0.300	0.0707	0.9425	15.7	34.01	32.31	6.0	0.0750	0.10842	3.6199	0.2559	0.0834	32.6%	Yes	
FMH4020905	FMH4020767	0.300	0.0707	0.9425	50.6	32.31	29.19	6.0	0.0750	0.06165	2.7292	0.1929	0.1133	58.7%	Yes	
FMH4020767	FMH4020768	0.300	0.0707	0.9425	35.8	29.15	27.50	6.0	0.0750	0.04615	2.3612	0.1669	0.1245	74.6%	Yes	Newly Proposed 300mm dia sewer
FMH4020768	FMH4020769	0.300	0.0707	0.9425	8.1	27.50	25.69	6.0	0.0750	0.22484	5.2138	0.3685	0.1245	33.8%	Yes	Newly Proposed 300mm dia sewer
FMH4020769	FMH4020748	0.450	0.1590	1.4137	12.9	25.27	25.10	6.0	0.1125	0.01318	1.6648	0.2648	0.1245	47.0%	Yes	
FMH4020761	FMH4020762	0.375	0.1104	1.1781	50.0	29.41	27.05	6.0	0.0938	0.04719	2.7838	0.3075	0.3075	100.0%	Yes	
FMH4020762	FMH4020745	0.375	0.1104	1.1781	59.2	27.05	23.82	6.0	0.0938	0.05458	2.9940	0.3307	0.3075	93.0%	Yes	
FMH4020745	FMH4020746	0.600	0.2827	1.8850	23.0	23.83	23.38	6.0	0.1500	0.01959	2.4645	0.6968	0.3075	44.1%	Yes	
FMH4020746	FMH4020747	0.600	0.2827	1.8850	14.1	23.38	23.22	6.0	0.1500	0.01135	1.8753	0.5302	0.4009	75.6%	Yes	
FMH4020747	FMH4020748	0.600	0.2827	1.8850	25.7	23.22	22.73	6.0	0.1500	0.01906	2.4308	0.6873	0.4302	62.6%	Yes	
FMH4020748	FMH4020749	0.600	0.2827	1.8850	16.6	22.73	22.55	6.0	0.1500	0.01083	1.8320	0.5180	0.5065	97.8%	Yes	
FMH4020749	FMH4020750	0.750	0.4418	2.3562	31.5	22.55	20.63	6.0	0.1875	0.06101	5.0479	2.2301	0.5065	22.7%	Yes	

Remarks:

1 Information from Drainage Services Department (DSD)'s drainage record plans or proposed sewer design

2 Wetted perimeter, P, is calculated from:
P = πD

3 The mean velocity is calculated using the Colebrook-White Equation for circular pipes flowing full:

$$V = -2(2gDS)^{0.5}\log\left(\frac{k}{3.7D} + \frac{2.5\nu}{D(2gDS)^{0.5}}\right)$$

where

K = Colebrook-White roughness coefficient (m)
V = mean velocity (m/s)
D = circular cross-section pipe, inside diameter (m)
S = slope, in meters per meter
v = kinematic viscosity of water, in meters per second (0.000001306 m^2/s)
g = gravitational acceleration (m/s^2) (9.807m/s^2)

4 The Colebrook-White Roughness Coefficient, Ks, is assumed to be 6.0 mm (Table 5 in DSD's "Sewerage Manual Part 1") for existing sewers under poor condition

5 Hydraulic radius, R, is calculated from:
R = A/P

6 Peak flow, Q, is calculated from:
Q = V x A

7 With reference Table T-4 in "Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning" issued by EPD, an inflow catchment factor of 1.0 was adopted for the Subject Site.

Appendix D Manhole Survey

Buried Utility Damage Avoidance
Engineering, Engineers, Consultants,
Surveyors & Specialists

B - Manhole Internal Condition Survey (MHICS)

Manhole Survey Report

Y21-P001-005

Underground Utility Survey and Manhole Survey for proposed industrial Development at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Version 1.0, Jul 2021

BUDA Engineers and Consultants Co., Limited

The confined spaces problem-solver

Quality, environmental and safety management systems are certified to

ISO 9001 : 2015
Certificate No.: CC 6224

ISO 9001 : 2015
Certificate No.: CC 6224

Address: Suite 212-214, 2/F, Favor Industrial Centre,
2-6 Kin Hong Street, Kwai Chung, NT

Tel: 2690 9999 Fax: 2690 9993

Web: www.buda.com.hk E-mail: info@buda.com.hk

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

FOREWORD

This report presents the Manhole Internal Condition Survey (MHICS) by qualified persons (Member of HKIUS) at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

BUDA Engineers and Consultants Co., Ltd. is a company member of Hong Kong Institute of Utility Specialists (HKIUS) and works as a group in Hong Kong for various types of utility specialist works since 1998.

Being appointed as Utility Specialist (US) by the client and for the works as stated in the introduction, BUDA offers the services by qualified personnel (OMHKIUS) with relevant training and at least 3 years on site experiences.

Prepared by:

Mr. Anthony So OMHKIUS
Senior Technical Officer

Surveyed and checked by:

Mr. Wong Wai Fung OMHKIUS
Chief Technical Officer

Approved by:

Mr. Victor Chow OMHKIUS
Project Manager

Quality Control by UtilityINFO Limited
The Underground Information Provider

1. INTRODUCTION

1.1 Background

1.1.1. Client Information

Table 1.1.1 – Client Information

Client	Gain Champion Investment Ltd
Client's Representative	Mr. Marco Ng
Contact	3571 7942

BUDA Engineers and Consultants Co., Ltd. was appointed by **Nam Fung Property Management Limited.** as the specialist to carry out the captioned project of Manhole Survey at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung.

1.2 Survey scope

In accordance with the particular specification for this project, the works include:

i. To preliminary study the site condition
ii. Coordination and liaison with government departments and all relevant parties to obtain the necessary record drawing for the field works, including TTA (Temporary Traffic arrangement) application
iii. To coordinate and liaison with client for assistance (if necessary)
iv. To carry out Risk Assessment before works
v. To address to the safety precaution measures required to tackle the potential risks identified by the Risk Assessment.
vi. To issue permit to work before entering confined space
vii. To carry out Manhole Internal Condition Survey (MHICS) to identify the internal condition of concerned manholes (Storm water manholes, catch pits, gullies) at Kao Chiu Road.
viii. Topographic survey by Total Station is to be carried out.
ix. To submit technical report with survey drawing, manhole cards and photographs for client's future use by OMHKIUS/MHKIUS in relevant disciplines.
x. To check, endorse and submit technical report with with survey drawing, manhole cards and photographs for client's future use by MHKIUS/FHKIUS in relevant disciplines.

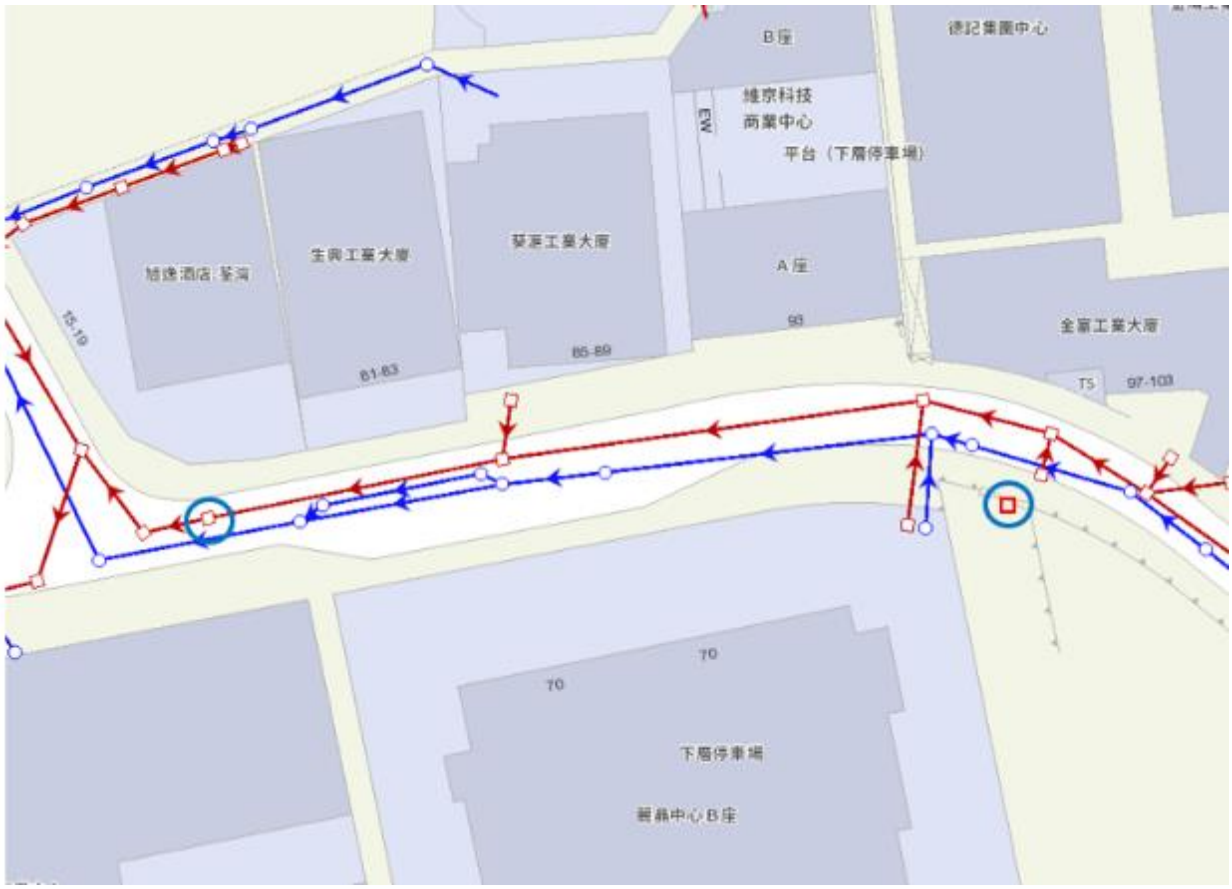
2. SITE DESCRIPTION

Location: Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

Survey Dates: 28 June 2021 to 5 July 2021

Crew Leader: Mr. Wong Wai Fung (OMHKIUS) with 2 members involved

Fig 2.1 Drainage Manhole to be surveyed



3. SURVEY RESULT

3.1 Summary Manhole Internal Condition Survey (MHICS)

20 manholes/pit were surveyed. The results are as follows:

Item	Manhole/ Pit Ref.	Survey Day	Type	Location	Manhole survey (Y/N)	Topo survey for location (Y/N)	Z
1	S999	29/06/2021	Storm Water Manhole	Ta Chuen Ping Street	Y	N	35.686
2	FMH4020768	29/06/2021	Foul Water Manhole	Ta Chuen Ping Street	Y	N	29.809

Table 3.1: Summary of manholes - Please refer to Appendix B – IDMS Manhole Record Cards for details.

4. DISCUSSION AND CONCLUSIONS

1. 20 nos. of manholes/pits were surveyed successfully.

Item	Type	Number of Manhole/Pit Surveyed
1	Storm Water Manhole	1
2	Foul Water Manhole	1

Table 4.1: Summary of manholes types

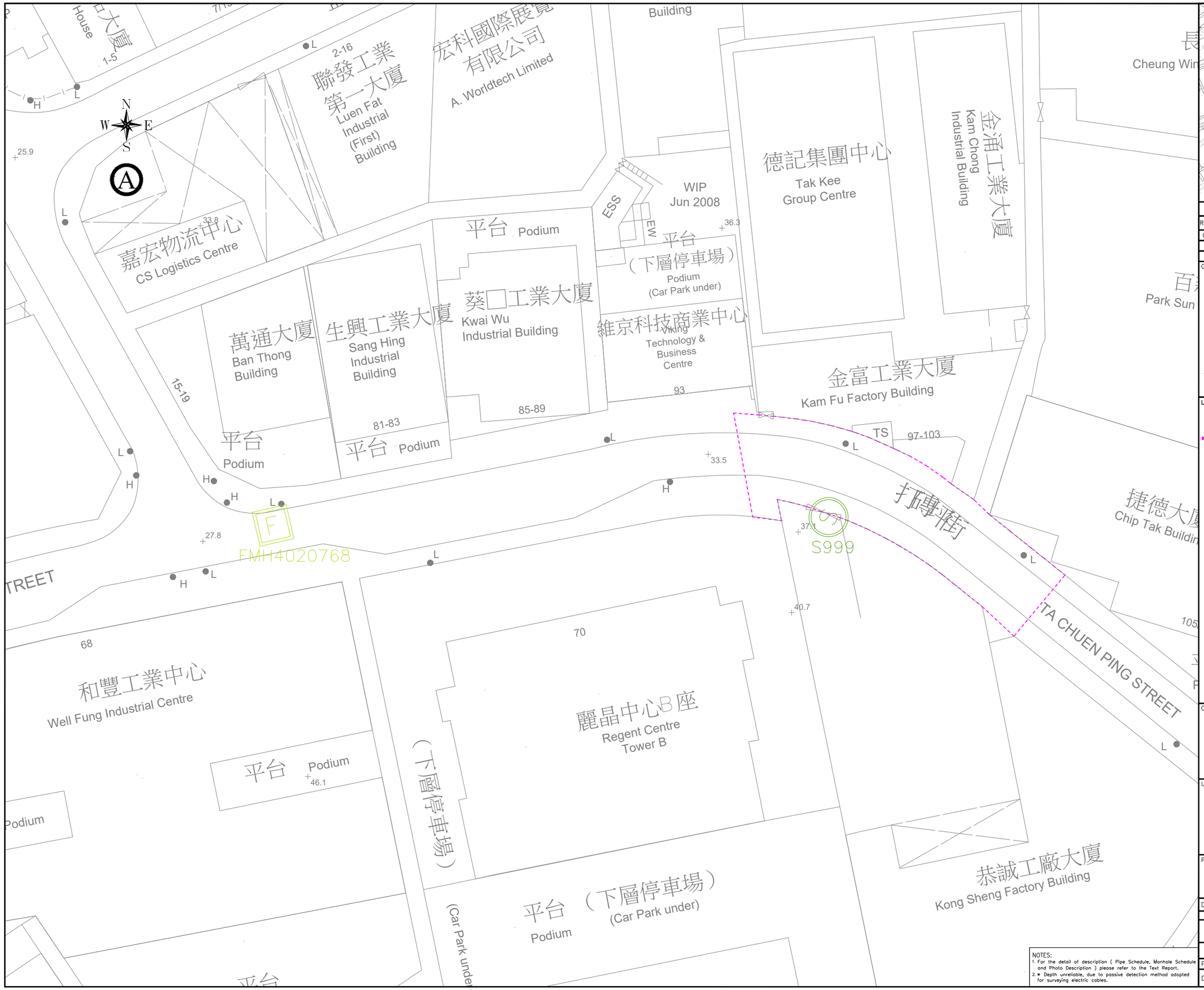
5. RECOMMENDATIONS AND REMARKS

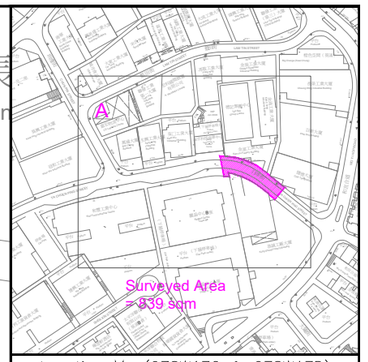
- UTR=Unable to Raise, UTS=Unable to Survey, UTL=Unable to Locate, UTGA=Unable to Gain Access
- S999# wrong type cover (this is a storm water manhole)

6. REFERENCES

- Hong Kong Institute of Utility Specialists, Particular Specification for Manhole Internal Condition Survey (MHICS), HKIUS-MHICS PS, June 2011.
- Hong Kong Institute of Utility Specialists, Particular Specification for Utility Mapping By Non-Destructive Methods, HKIUS-UT PS, June 2011.
- Environment, Transport and Works Bureau, HKSAR, Nov 2006, Code of Practice on Monitoring and Maintenance of Water-Carrying Services Affecting Slopes, Second Edition.

Appendix A – Manhole Card with Photographs of Manhole Internal Condition Survey (MHICS)





Location Map(07SW17C & 07SW17D)

Rev.	Date	Drawn by	Description
01	05/07/2021	Anthony So	First Issue

GENERAL NOTES :

1. Unit of all depth shown is in m, indicated as #d.
2. Unit of all dimension shown is in mm dia..
3. Coordinates and levels are to the Hong Kong 1980 Grid System and the Hong Kong Principle Datum.
4. All units are in metric.
5. Pipes or cables are buried in the same level and are very close to each other making identification of each pipe and cable not possible. In the case, it will be assumed that the pipe of a larger diameter is indicated.
6. Pipes or cables are located at the same or very close vertical layer. In this case, the first layer will be located and reported.
7. Width of the utility line in the drawing does not represent in actual dimension.
8. 90% of a representative sample of points on locatable services are within ±150mm or 0.15d(depth) whichever is bigger.
9. Manholes/Chambers/Pits for Drainage, Watermains and Utilities, etc. shown are measured in internal dimension.
10. Symbols shown are indicative, and not to scale.

LEGEND :

- F — Foul Water Manhole
- S — Storm Water Manhole
- Contract Survey Boundary

NOTES:

1. For the detail of description (Pipe Schedule, Manhole Schedule and Photo Description) please refer to the Text Report.
2. ✖ Depth unreliable, due to passive detection method adopted for surveying electric cables.

CLIENT :

南豐物業管理 NAN FUNG PROPERTY MANAGEMENT

Nam Fung Property Management Limited

UTILITY SPECIALIST :

BUDA **Buried Utility Damage Avoidance**
Engineering, Engineers, Consultants, Surveyors & Specialists

BUDA Engineers and Consultants CO., Ltd.

Tel : 2690 9999 Fax : 2690 9993
Email : info @ buda.com.hk Web Site : www.buda.com.hk

PROJECT TITLE :

Underground Utility Survey for Proposed Industrial Development at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung

DRAWING TITLE : Manhole Survey Drawing

A1 Size Scale: 1:300	Survey Date: June 2021
Wong Wai Fung	Victor Chow
Prepared By Mr. Wong Wai Fung	Approved By Mr. Chow Kei Hong
Project No.	Y21-P011-005-MH-D-01
Drawing No.	Y21-P011-005-MH-D-01_01 Sheet 1 of 1

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

STC25 COMPUTERISED SEWER RECORDS

NODE REFERENCE S999

NATIONAL GRID 825441.428 N, 832291.562 E

DRAINAGE AREA CODE 07SW17D

STC25 GRID REFERENCE

LOCATION: Ta Chuen Ping Street

SURVEY DATE 28/06/2021

YEAR LAID	Z	STATUS	PU	FUNC-TION	S	NODE TYPE	M		(diam)				
COVER	SHAPE D	HINGED	N	LOCK	N	DUTY	H	SIZE (mm)	580	X	580	TOXIC ATMOSPHERE	N
SHAFT	SIDE ENTRY N	REGULAT COURSES	0	DEPTH (mm)	1050			SIZE (mm)	0	X	0	EVIDENCE OF VERMIN	N
CHAM	SOFFIT --	STEPS	0	LADDERS	0	LNDGS	0	SIZE (mm)	600	X	600	CONSTRUCT CODE	I

DEPTH OF FLOW (mm)	DEPTH OF SILT	HEIGHT SURCH (mm)	COVER LEVEL (mPD)
0	0	0	35.69

1

INCOMING PIPES

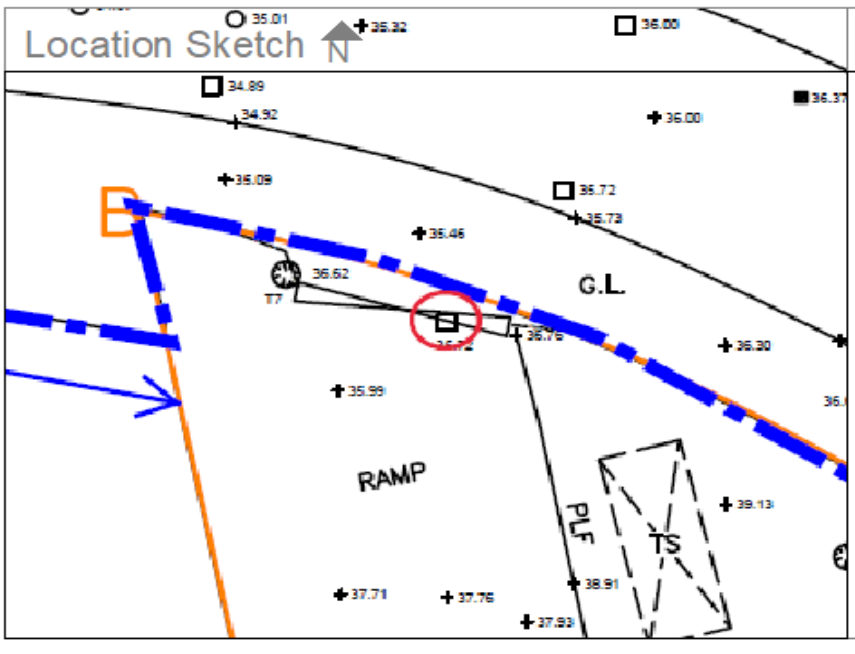
	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm)	BACKDROP DIAM (mm)	PIPE MATERIAL	LINING	DEPTH OF COVER	INVERT LEVEL (m)
A	GNA	C	225		CI		0.52	35.17
B	GNB	C	150		CO		1.00	34.69
C								
D								
E								
F								

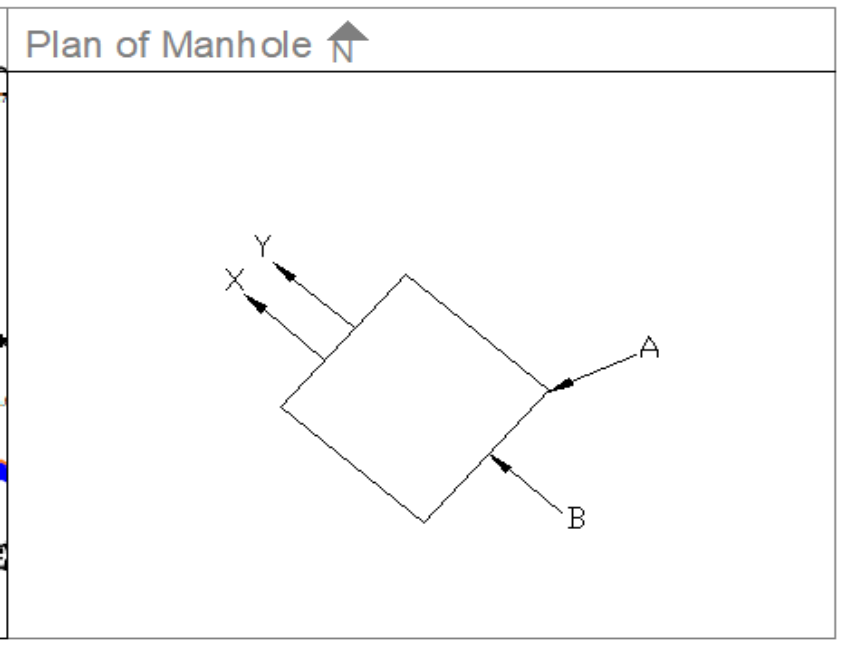
OUTGOING PIPES

	DOWNSTREAM REFERENCE				OCT Vc	Crity			
X	S02	C	150			PVC		1.05	34.64
Y	S02	C	150			PVC		1.05	34.64

CONDITIONS (Y if attention required): COVER N | IRONS/ LADDERS N | SHAFT N | CHAMBER N | BENCHING N | OTHER N

REMARKS
Wrong Type Cover (this is a storm water manhole)





沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference S999

Photograph No. :

S999 - P01

Location :

Ta Chuen Ping Street

Description :

Manhole location photo

Remark :

Photograph No. :

S999 - P02

Location :

Ta Chuen Ping Street

Description :

Wrong mahole cover photo

Remark :

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference S999

Photograph No. :

S999 - P03

Location :

Ta Chuen Ping Street

Description :

Manhole internal photo

Remark :

Photograph No. :

S999 - P04

Location :

Ta Chuen Ping Street

Description :

Manhole internal photo

Remark :

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

STC25 COMPUTERISED SEWER RECORDS

NODE REFERENCE FMH4020768

NATIONAL GRID 825440.034 N, 832196.034 E

DRAINAGE AREA CODE 07SW17C

STC25 GRID REFERENCE

LOCATION: Ta Chuen Ping Street

SURVEY DATE 29/06/2021

YEAR LAID	Z	STATUS	PU	FUNC-TION	F	NODE TYPE	M		(diam)				
COVER	SHAPE D	HINGED	N	LOCK	N	DUTY	H	SIZE (mm)	580	X	580	TOXIC ATMOSPHERE	N
SHAFT	SIDE ENTRY N	REGULAT COURSES	0	DEPTH (mm)	1550			SIZE (mm)	600	X	600	EVIDENCE OF VERMIN	N
CHAM	SOFFIT --	STEPS	2	LADDERS	0	LNDGS	0	SIZE (mm)	1100	X	1400	CONSTRUCT CODE	I

DEPTH OF FLOW (mm)	DEPTH OF SILT	HEIGHT SURCH (mm)	COVER LEVEL (mPD)
30	0	0	29.809

1

INCOMING PIPES

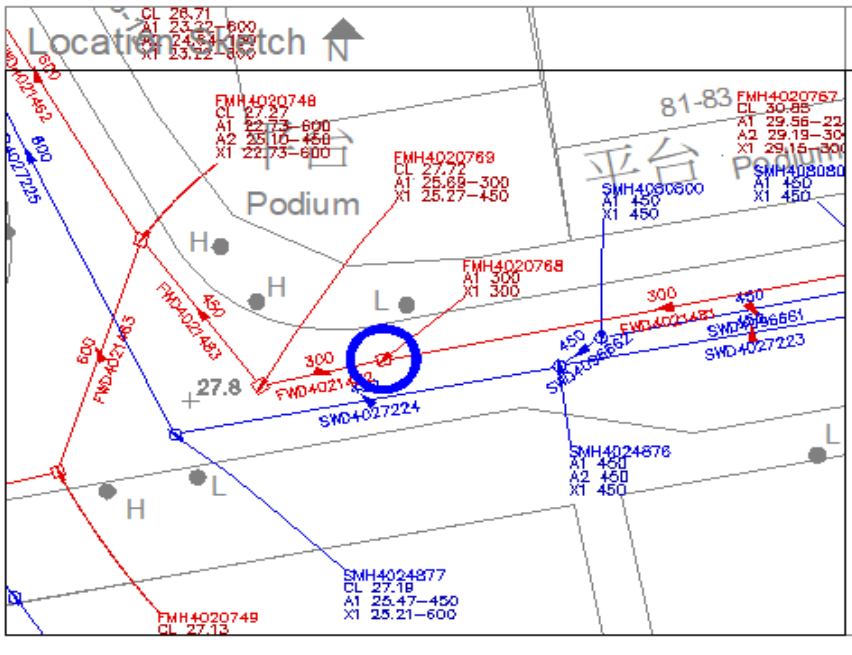
	UPSTREAM REFERENCE	PIPE SHAPE	PIPE SIZE (mm)	BACKDROP DIAM (mm)	PIPE MATERIAL	LINING	DEPTH OF COVER	INVERT LEVEL (m)
A	FMH4020767	C	300		CO		1.50	28.31
B								
C								
D								
E								
F								

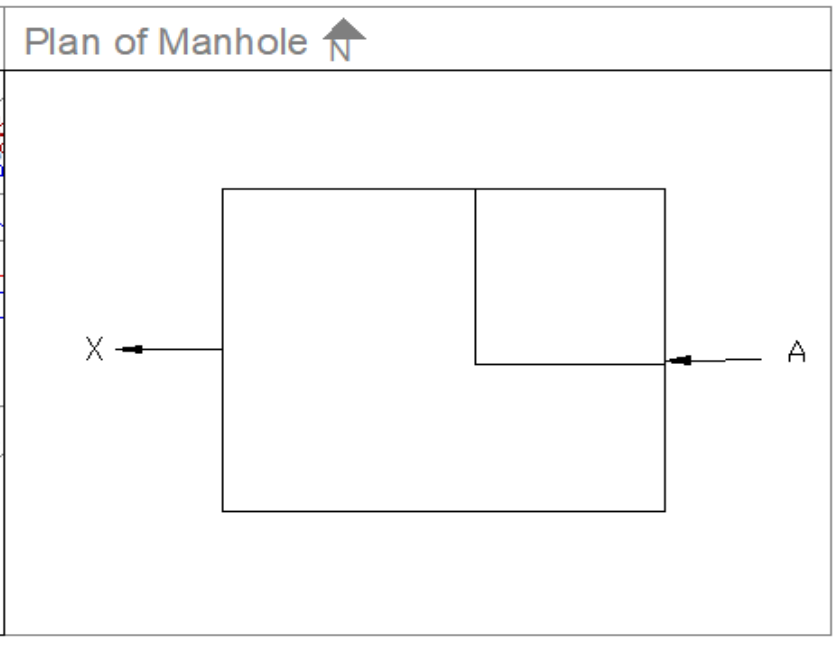
OUTGOING PIPES

	DOWNSTREAM REFERENCE				OCT Vc	Crity			
X	FMH4020769	C	300			CO		1.55	28.26
Y									

CONDITIONS (Y if attention required): COVER N | IRONS/ LADDERS N | SHAFT N | CHAMBER N | BENCHING N | OTHER N

REMARKS





沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference FMH4020768

Photograph No. :

FMH4020768 - P01

Location :

Ta Chuen Ping Street

Description :

Manhole location photo

Remark :

Photograph No. :

FMH4020768 - P02

Location :

Ta Chuen Ping Street

Description :

Manhole DSD Reference No

Remark :

沛達工程顧問有限公司
BUDA Engineers & Consultants Limited
Buried Utility Damage Avoidance

Manhole Survey Photographs

Project No.: Y21-P011-005(BU)

Manhole Reference FMH4020768

Photograph No. :

FMH4020768 - P03

Location :

Ta Chuen Ping Street

Description :

Manhole condition photo

Remark :

Photograph No. :

FMH4020768 - P04

Location :

Ta Chuen Ping Street

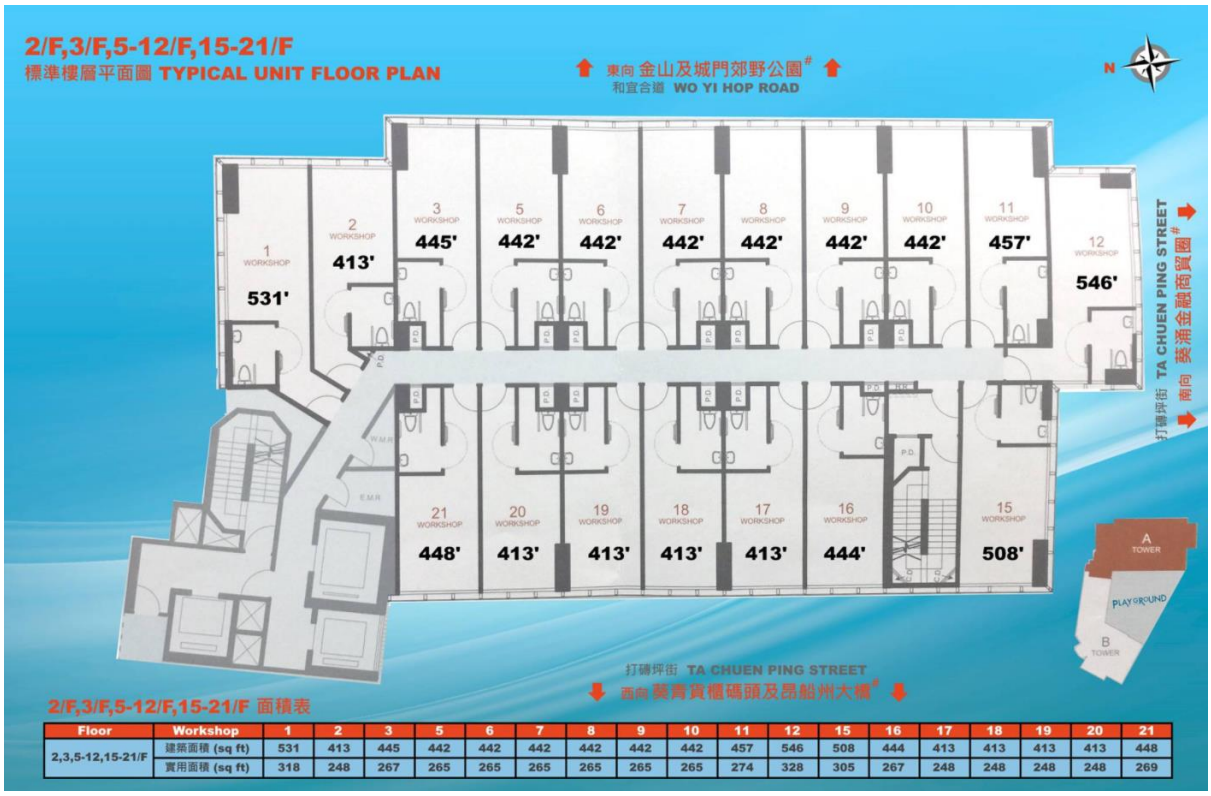
Description :

Manhole step photo

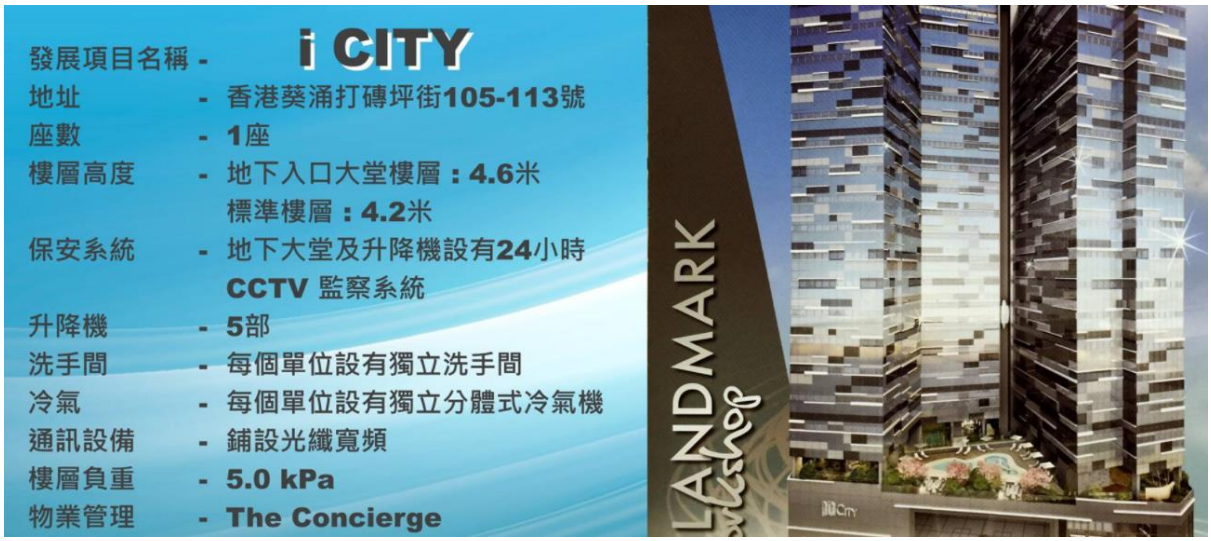
Remark :

Appendix E Supplementary Information

iCity (Planned Development)



Floor	Workshop	1	2	3	5	6	7	8	9	10	11	12	15	16	17	18	19	20	21
2,3,5-12,15-21/F	建築面積 (sq ft)	531	413	445	442	442	442	442	442	442	457	546	508	444	413	413	413	413	448
	實用面積 (sq ft)	318	248	267	265	265	265	265	265	265	274	328	305	267	248	248	248	248	269

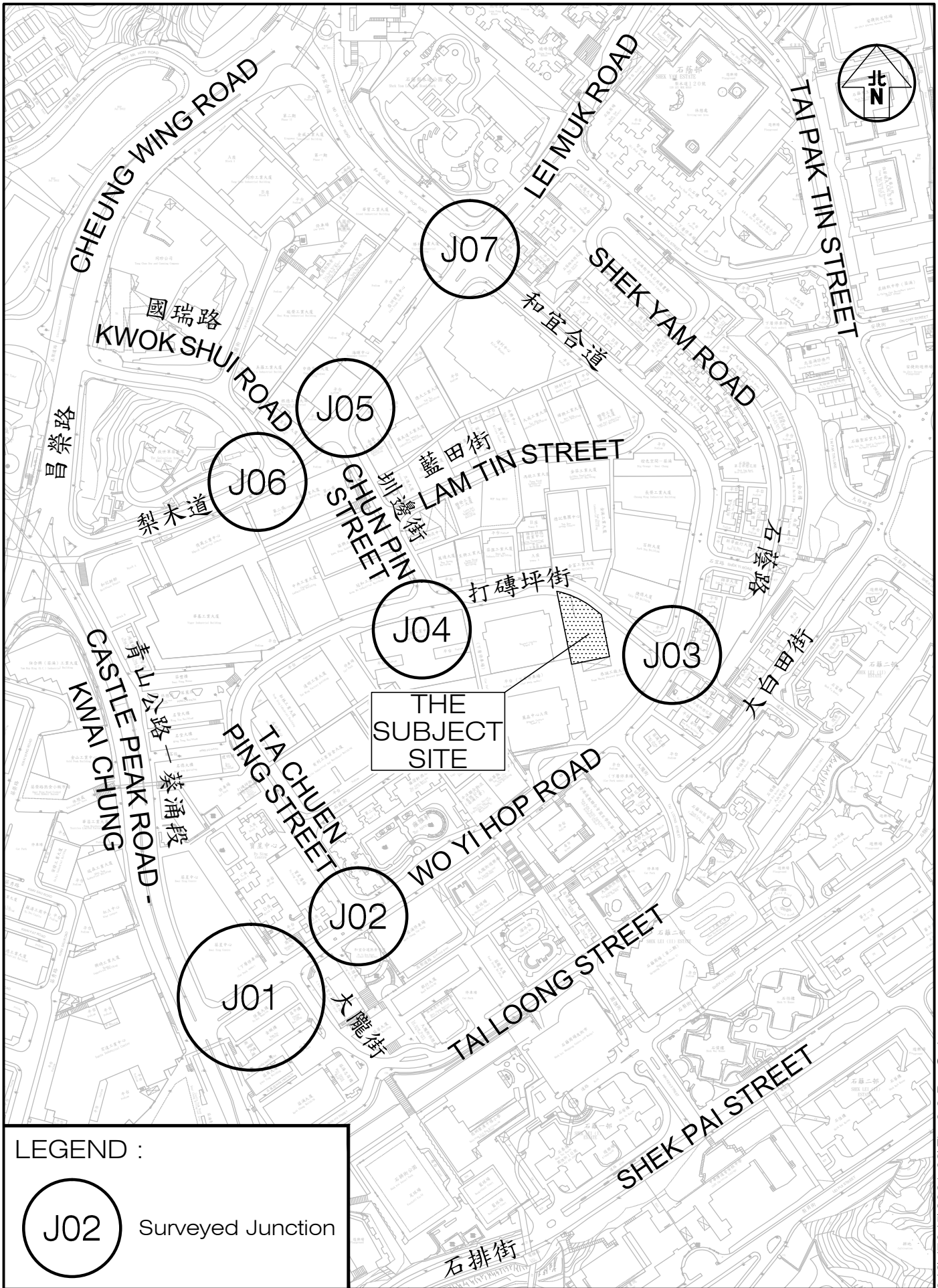


Total: 2 Tower, 17 storey each

GFA/UFA = 2 x 17 x (318 + 248 + 267 + 265 + 265 + 265 + 265 + 265 + 265 + 274 + 328 + 305 + 267 + 248 + 248 + 248 + 248 + 269) sq.ft. / 10.7639 sq.ft/sq.m.

= 15,345 sq.m.

Annex B

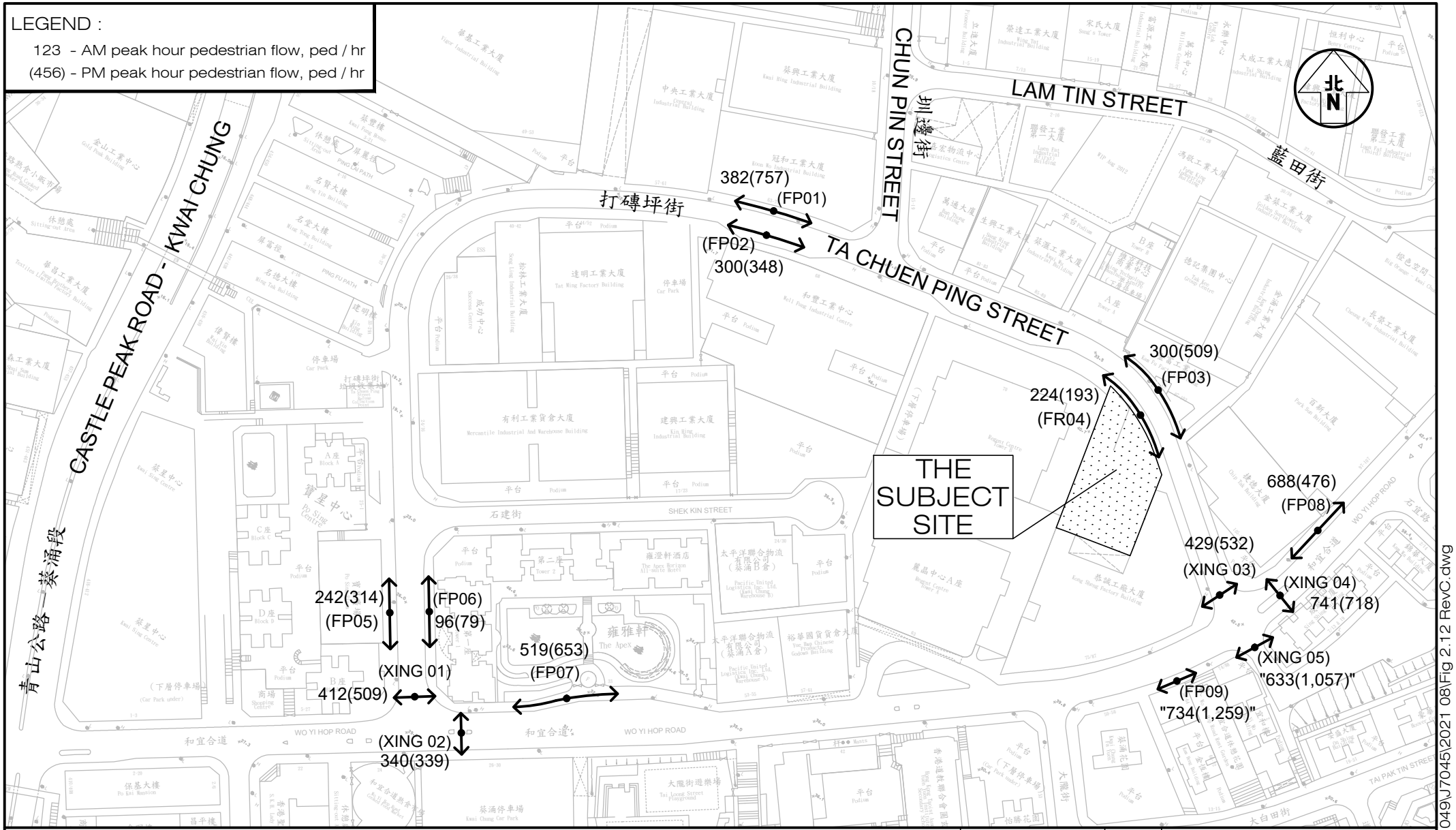


LEGEND :

J02 Surveyed Junction

Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	Job No. J7045	Figure No. 2.2			Scale in A4 1 : 4,000
	Designed by L T F	Drawn by S C Y	Checked by K C	Revision C	Date 10 AUG 2021
Figure Title: LOCATION OF SURVEYED JUNCTIONS	CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk				

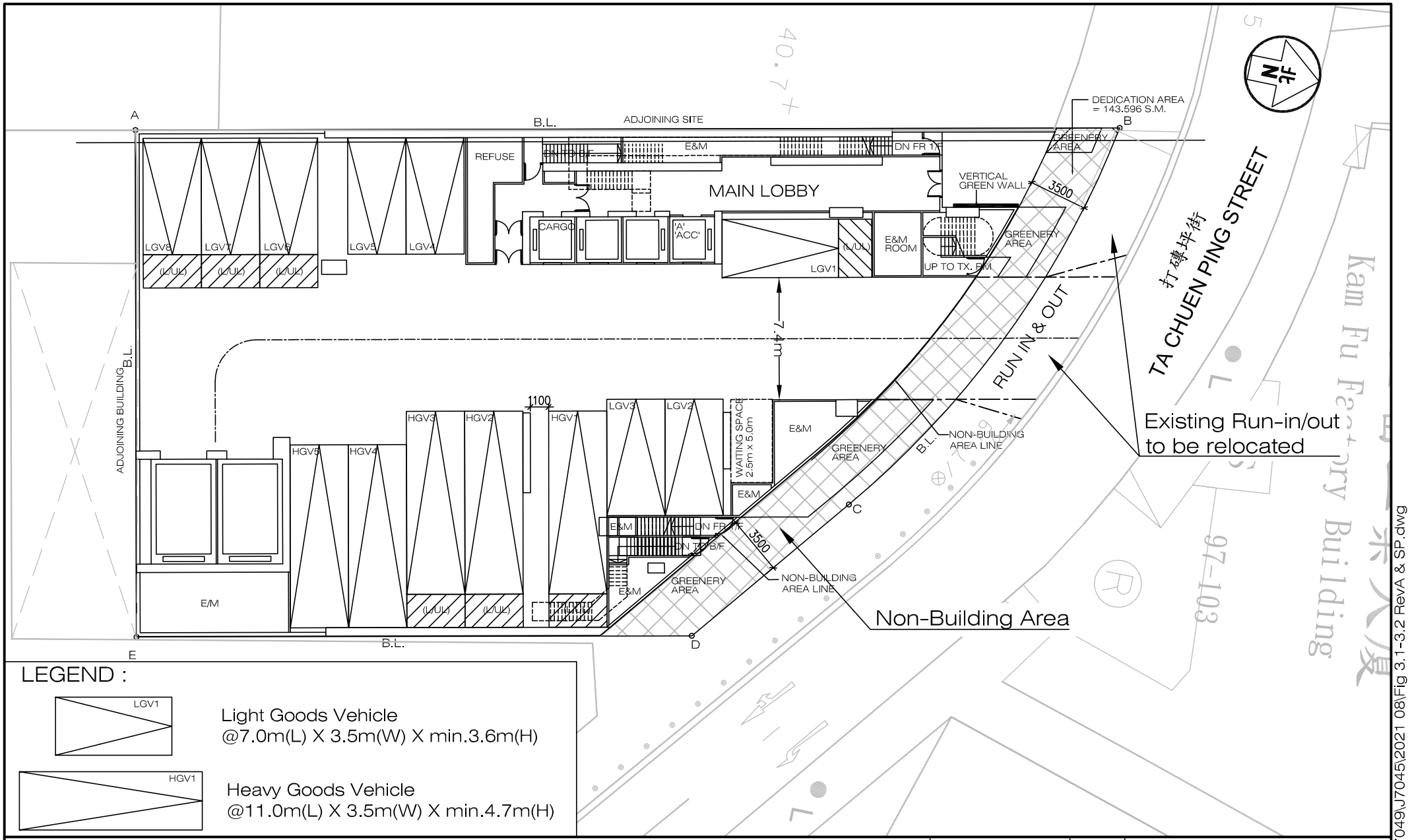
T:\JOB\J7000-J7049\J7045\2021 08\Fig 2.2 RevC.dwg



Project Title: PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	J7045	Figure No. 2.12	Revision C
Figure Title: OBSERVED PEAK HOUR PEDESTRIAN FLOWS		Designed by H C F / Drawn by S C Y / Checked by K C	
		Scale in A4: 1 : 2,000	Date: 10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 2.12 RevC.dwg



LEGEND :

LGV1 — Light Goods Vehicle
@7.0m(L) X 3.5m(W) X min.3.6m(H)

HGV1 — Heavy Goods Vehicle
@11.0m(L) X 3.5m(W) X min.4.7m(H)

Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
PROPOSED GROUND FLOOR PLAN

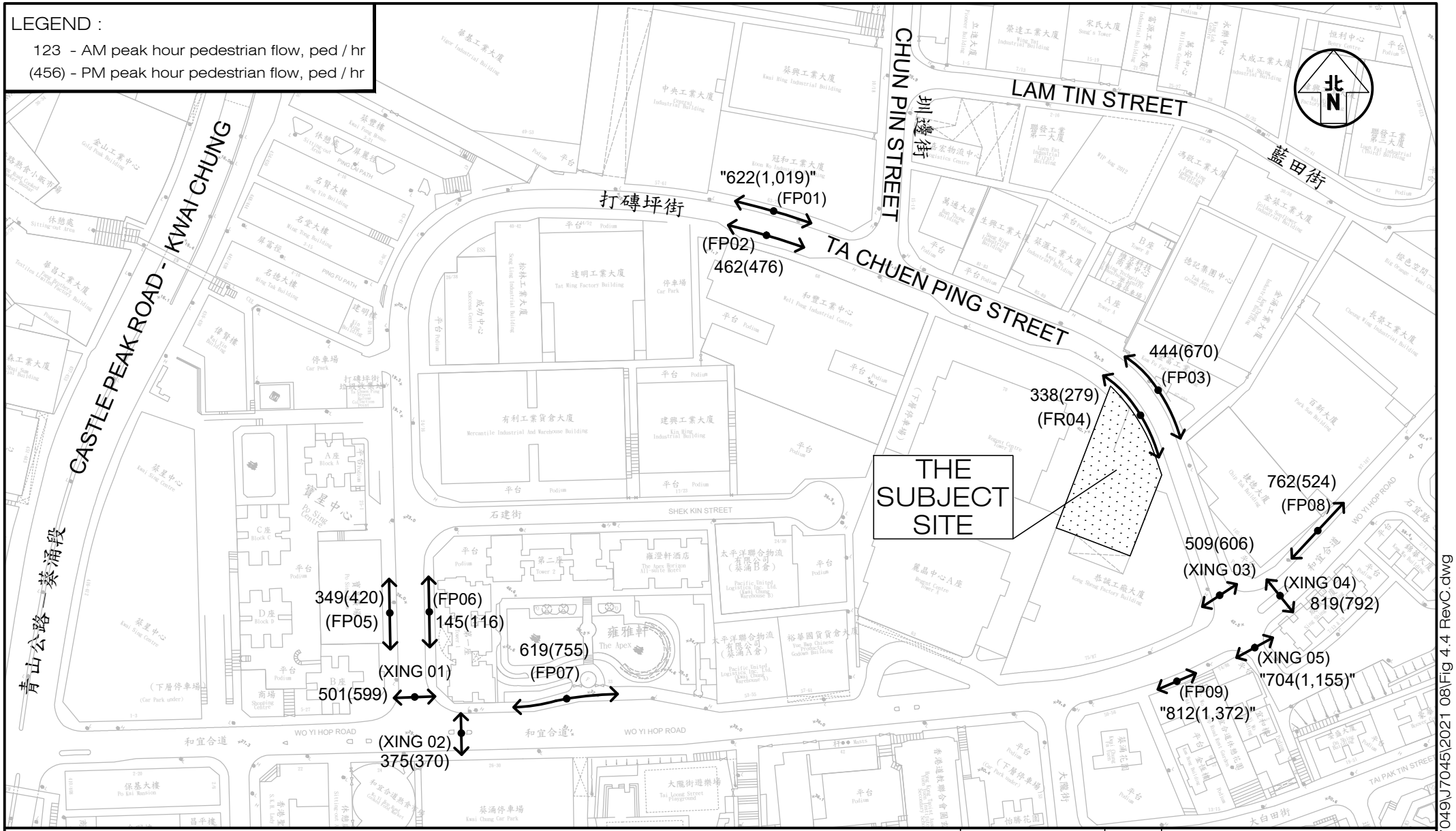
Figure No.	Revision
3.1	A

Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

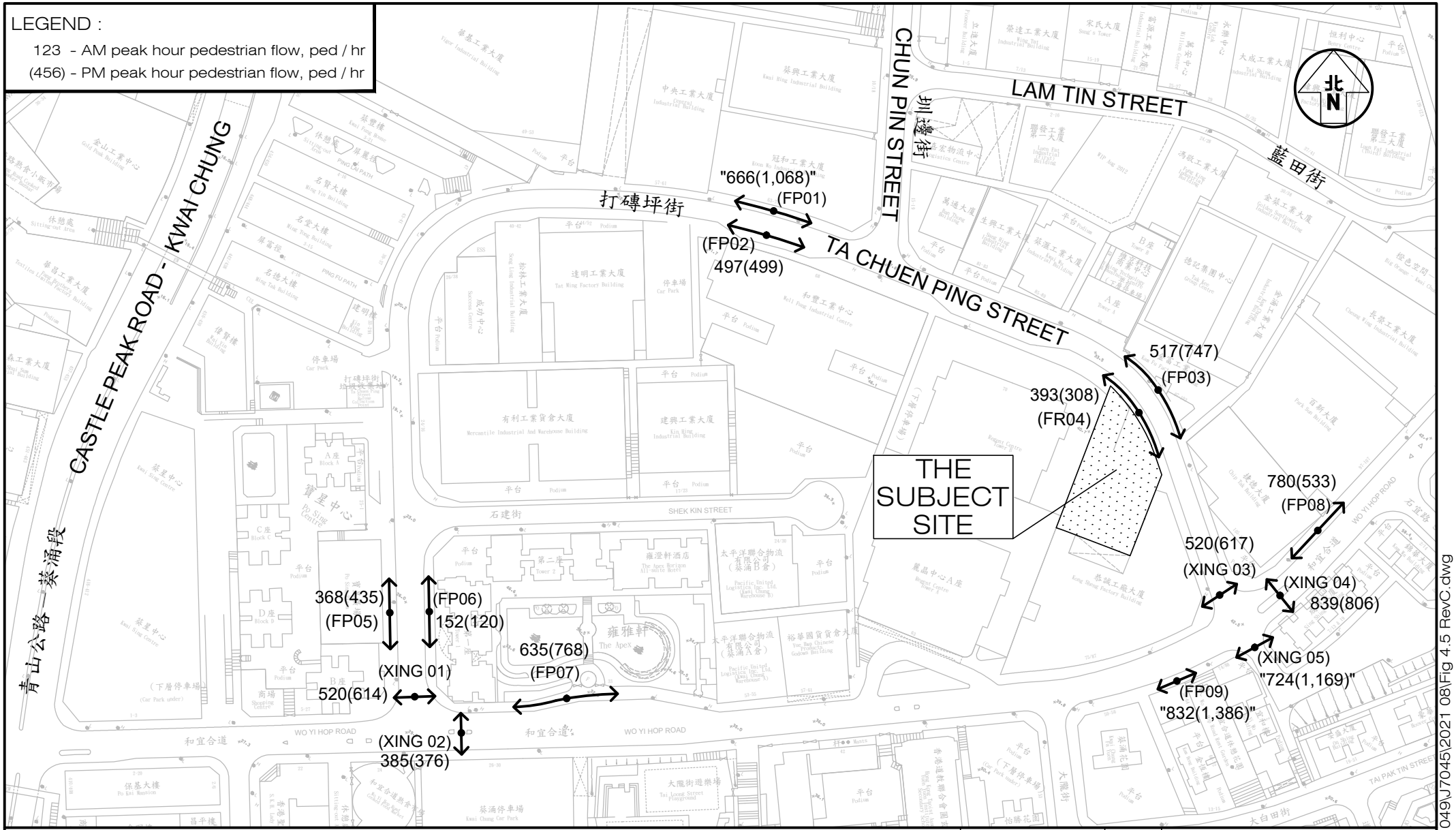
T:\JOB\J7000-J7049\J7045\2021 08\Fig 3.1-3.2 RevA & SP.dwg



Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	J7045	
Figure Title	2028 PEDESTRIAN FLOWS WITHOUT THE PROPOSED INDUSTRIAL DEVELOPMENT	Figure No. 4.4	Revision C
		Designed by H C F / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 2,000	Date 10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 4.4 RevC.dwg

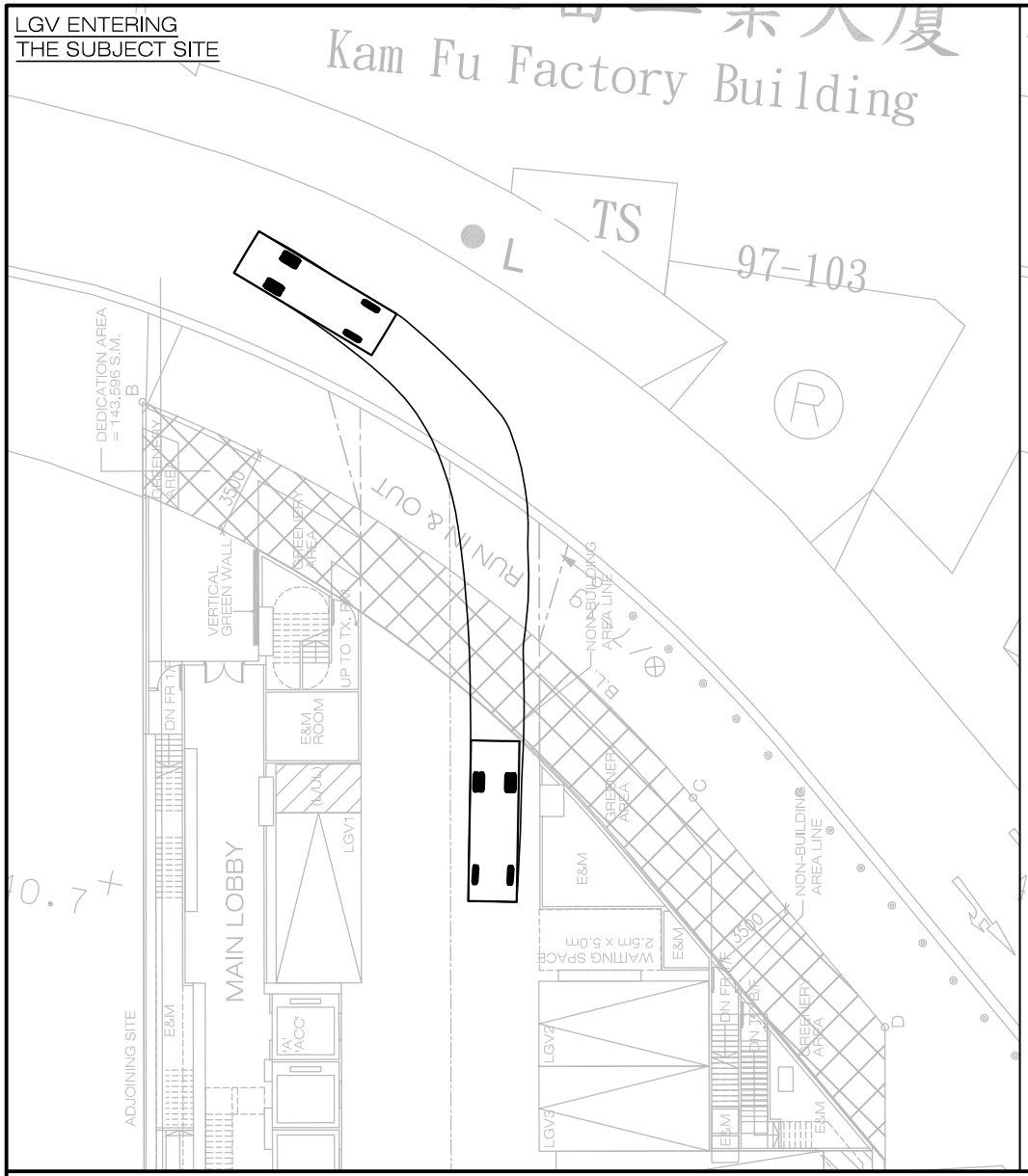


Project Title	PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG	J7045	
Figure Title	2028 PEDESTRIAN FLOWS WITH THE PROPOSED INDUSTRIAL DEVELOPMENT	Figure No. 4.5	Revision C
		Designed by H C F / Drawn by S C Y / Checked by K C	
		Scale in A4 1 : 2,000	Date 10 AUG 2021

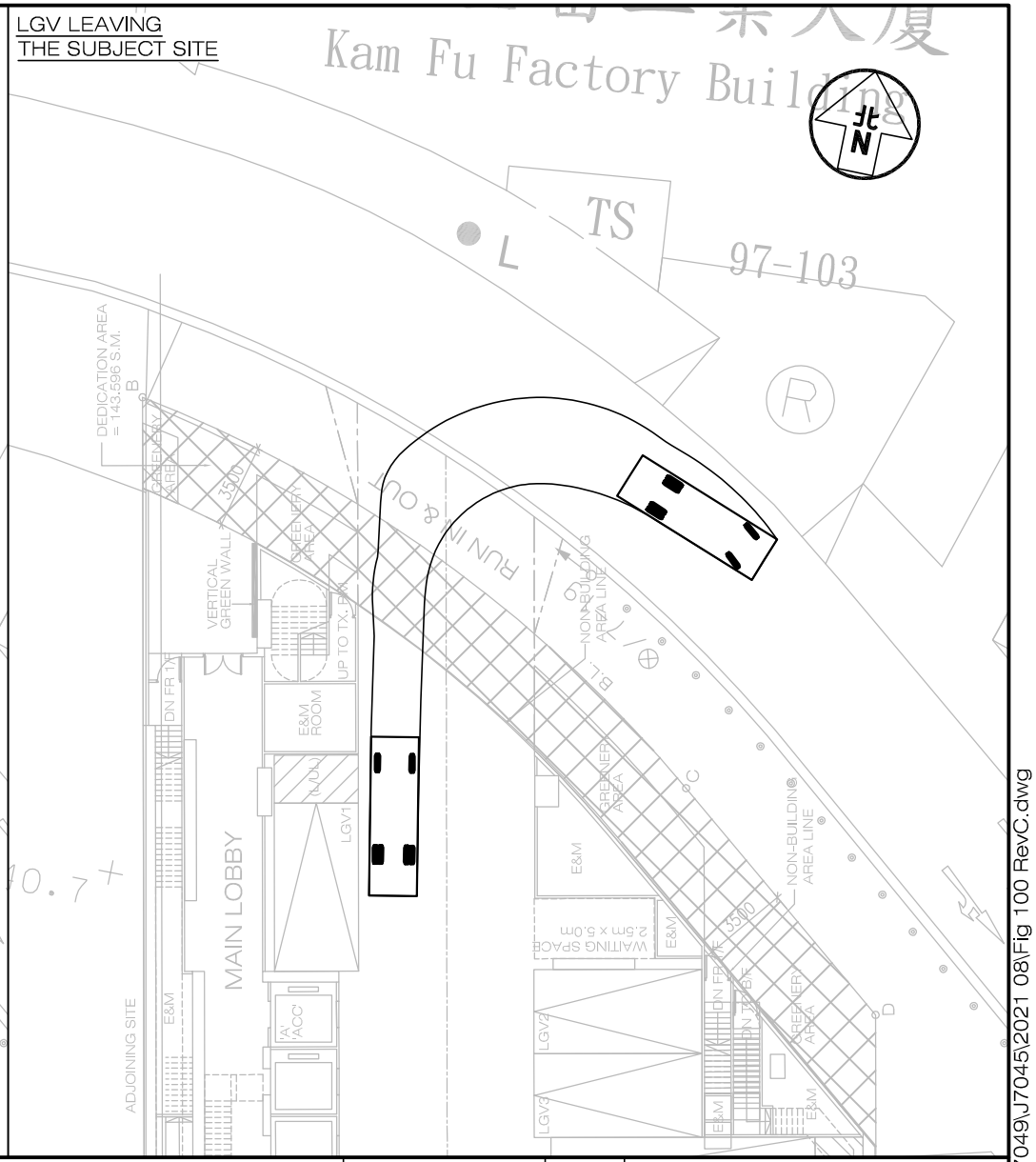
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 4.5 RevC.dwg

LGV ENTERING
THE SUBJECT SITE



LGV LEAVING
THE SUBJECT SITE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE SUBJECT SITE

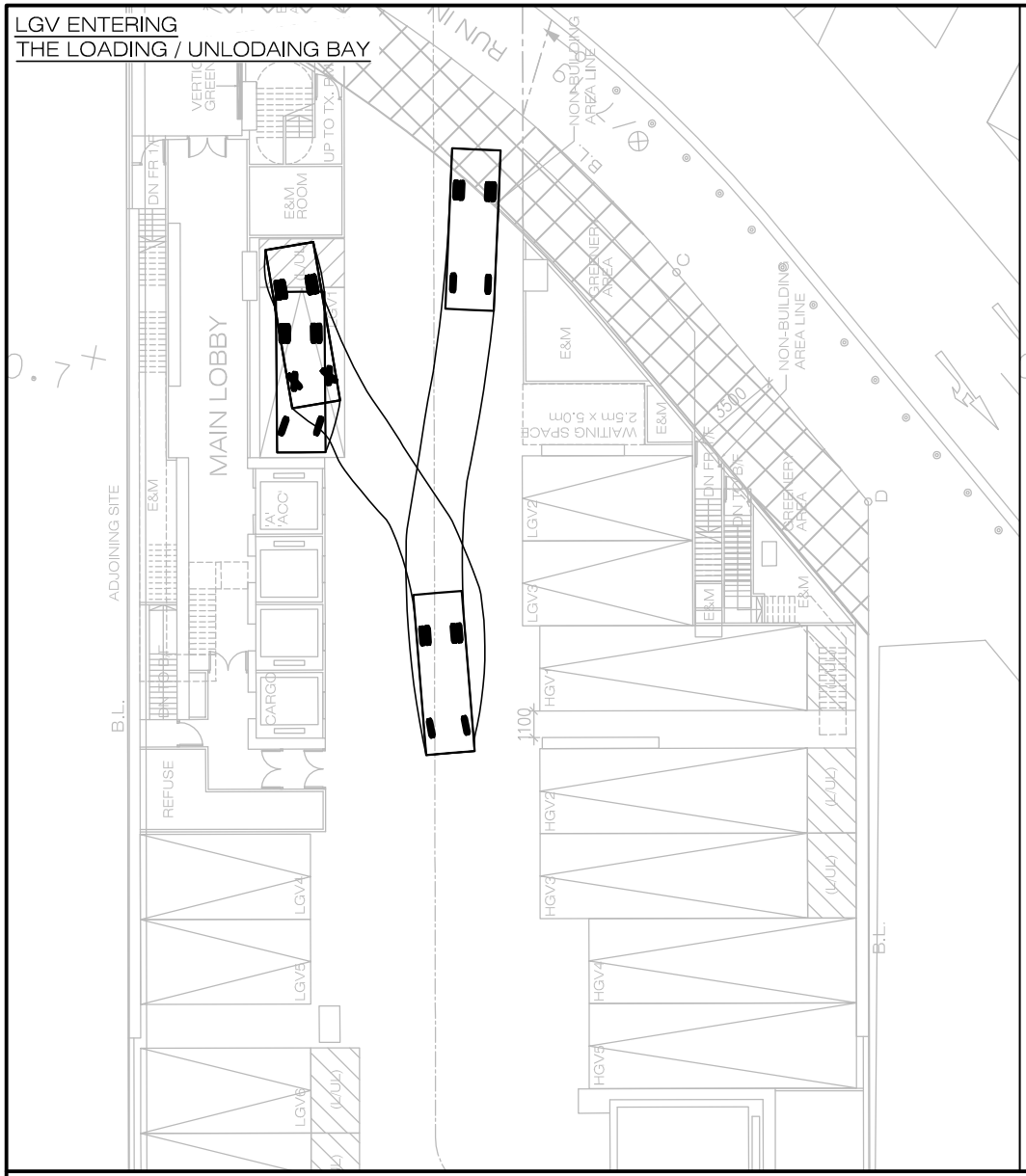
Figure No.	Revision
SP 100	C

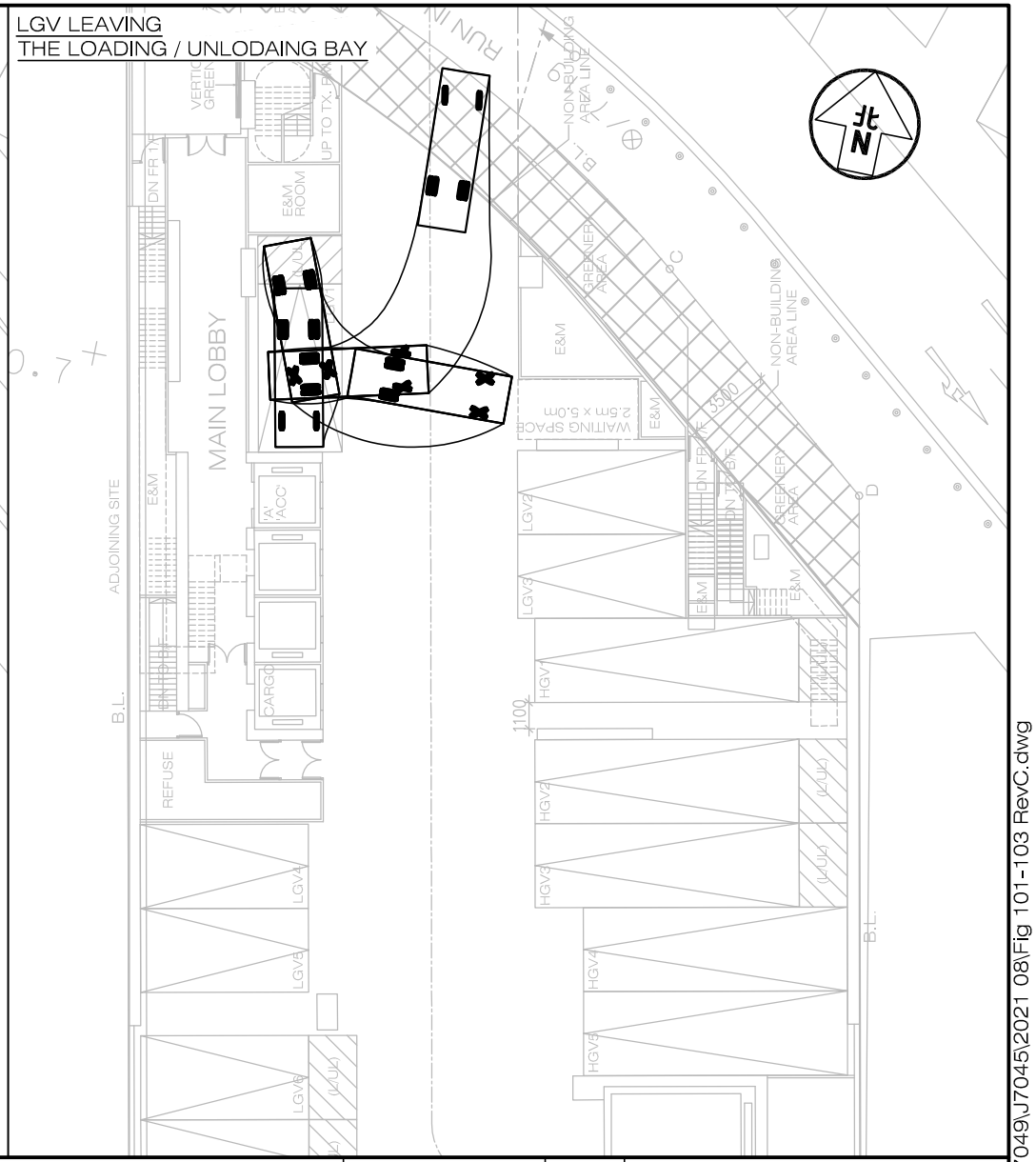
Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 100 RevC.dwg





Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 101	C

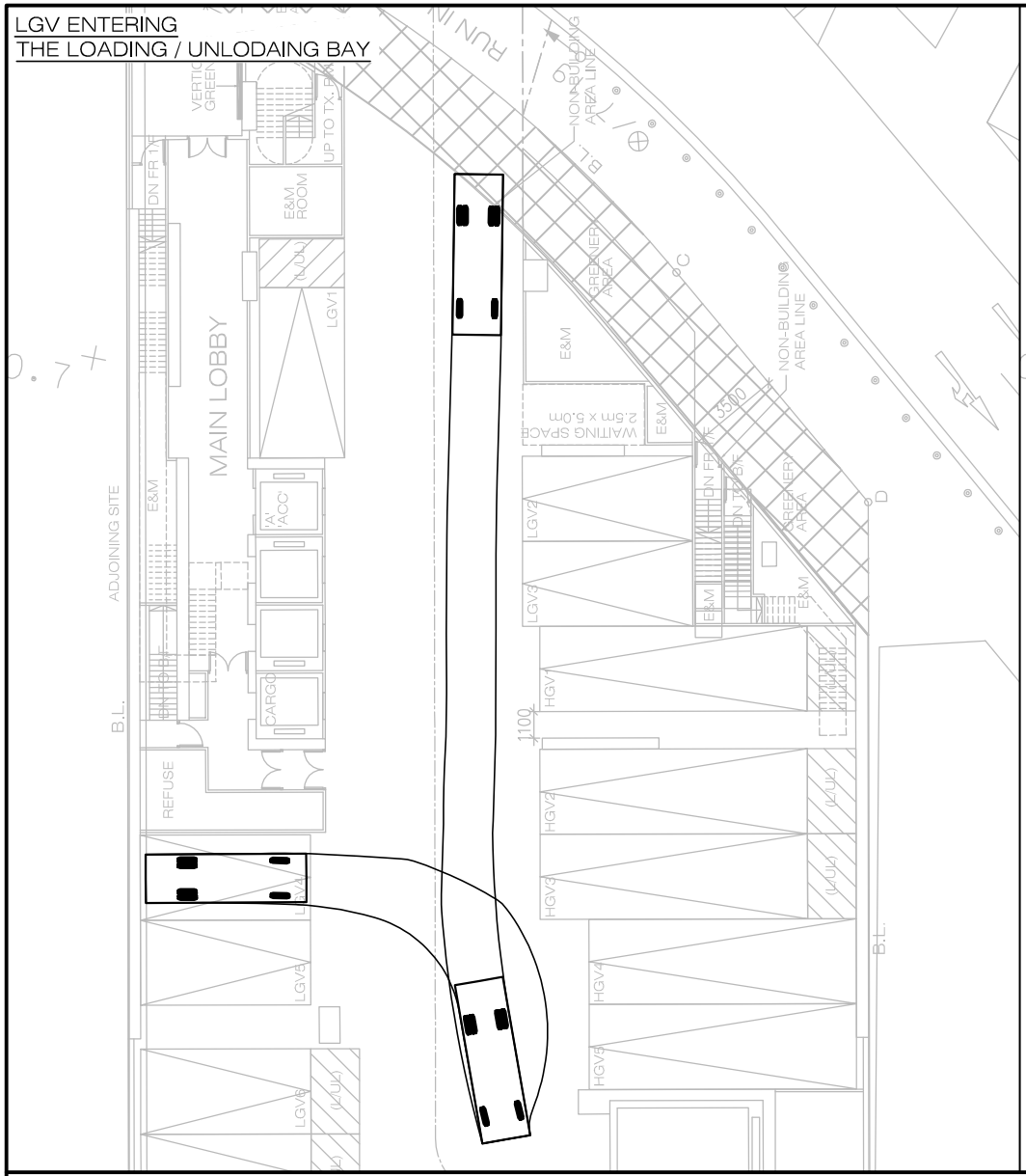
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

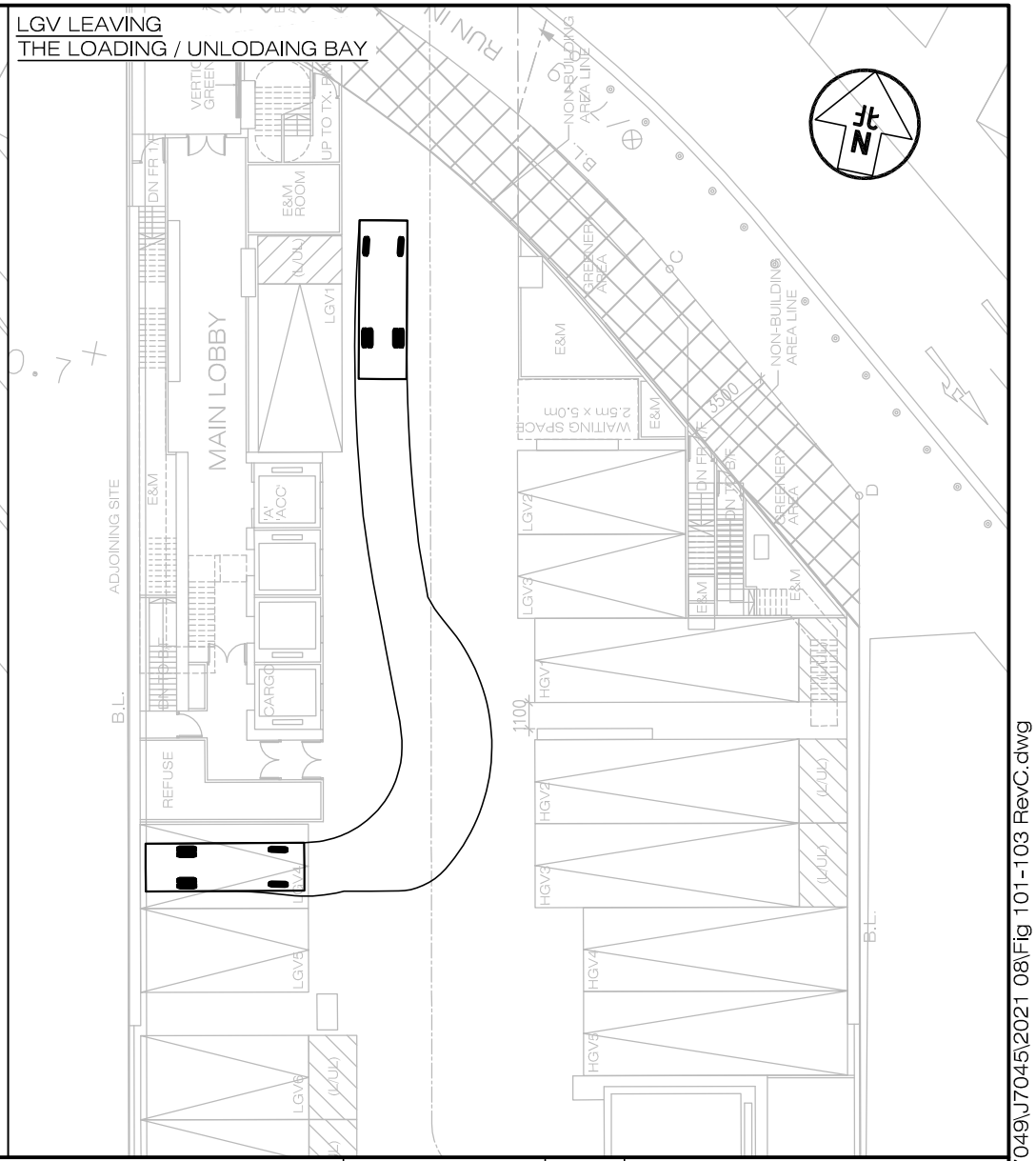
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 101-103 RevC.dwg

LGV ENTERING
THE LOADING / UNLODAING BAY



LGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 102	C

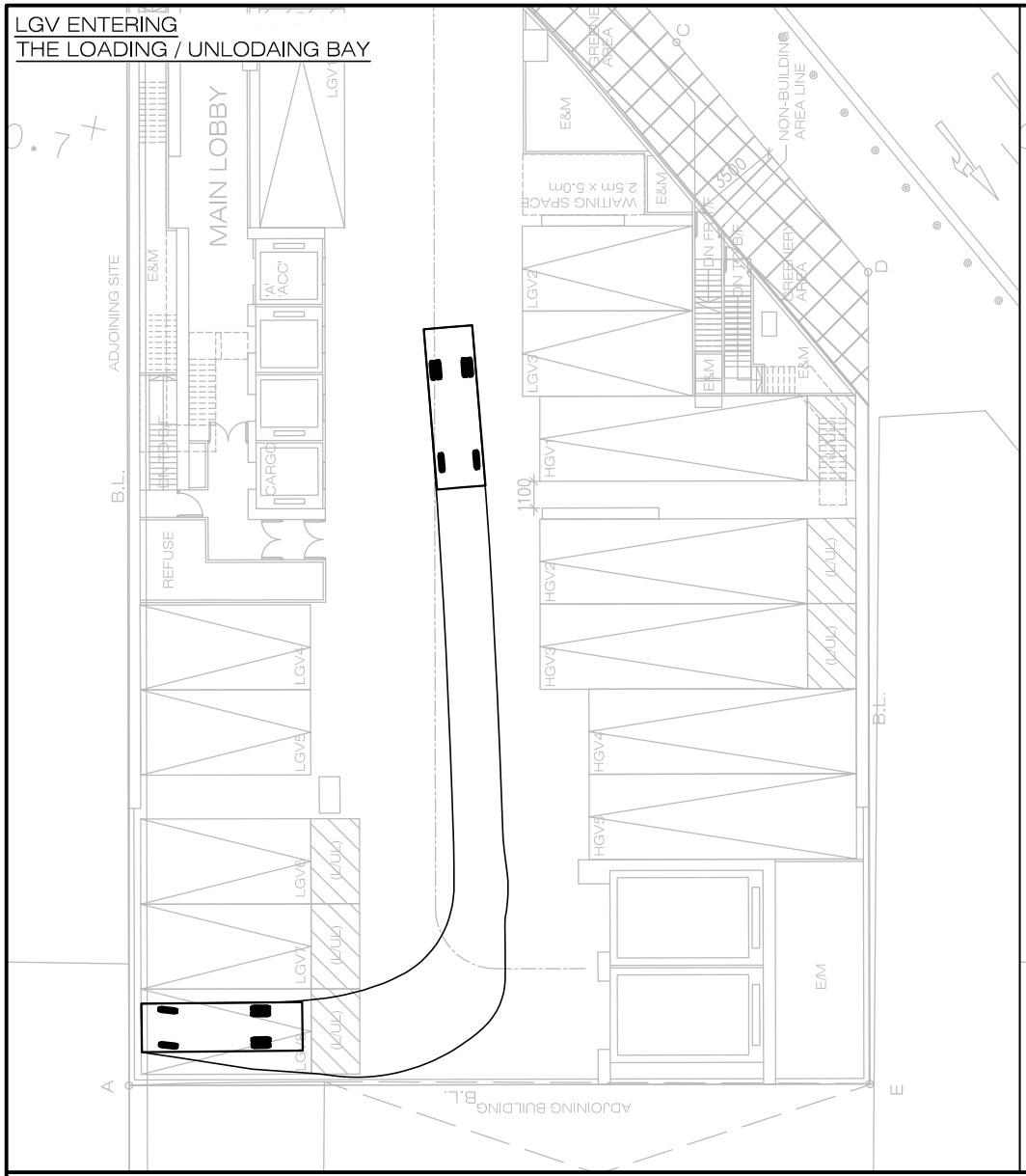
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

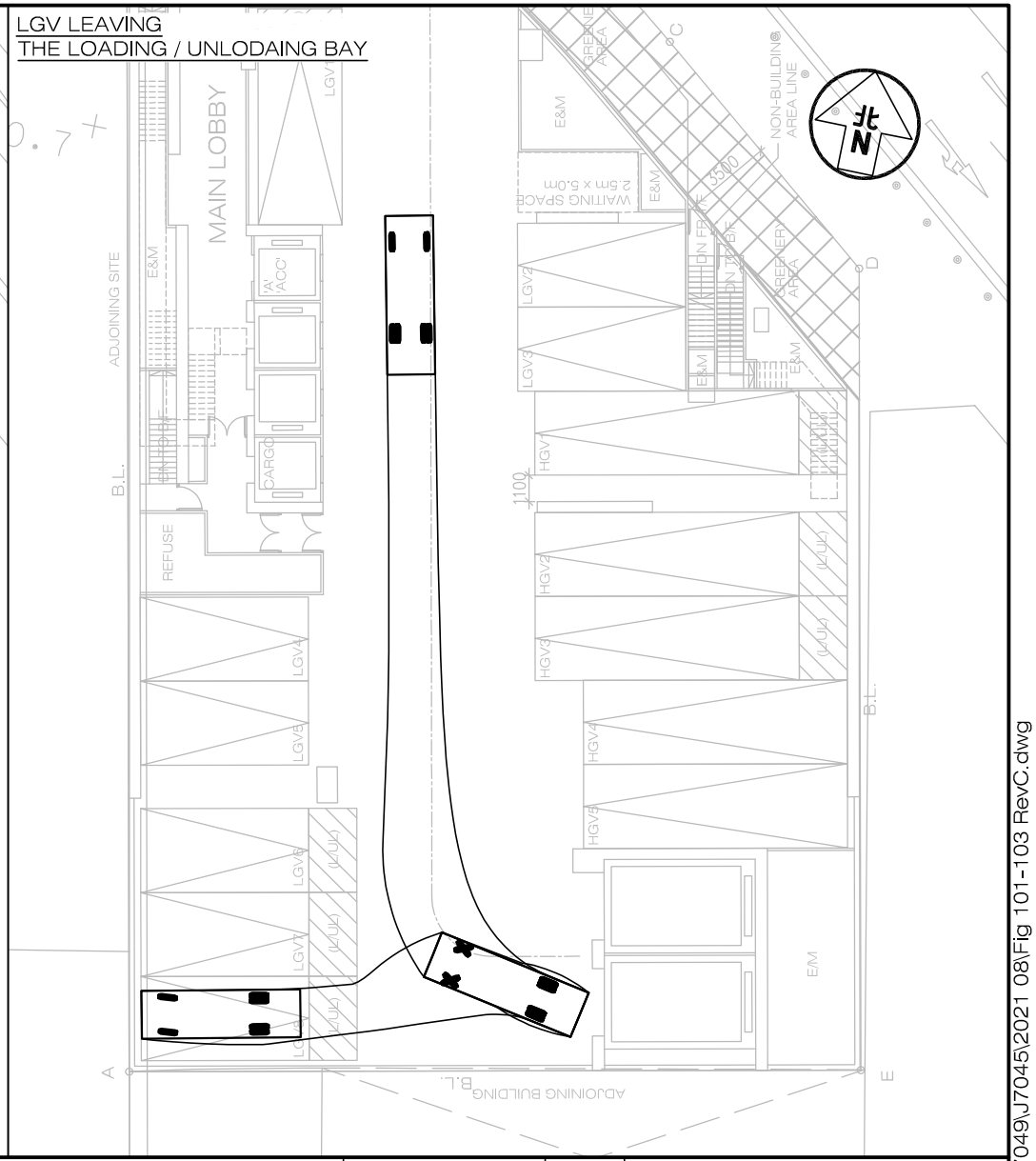
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 101-103 RevC.dwg

LGV ENTERING
THE LOADING / UNLODAING BAY



LGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF LIGHT GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

Figure No.	Revision
SP 103	C

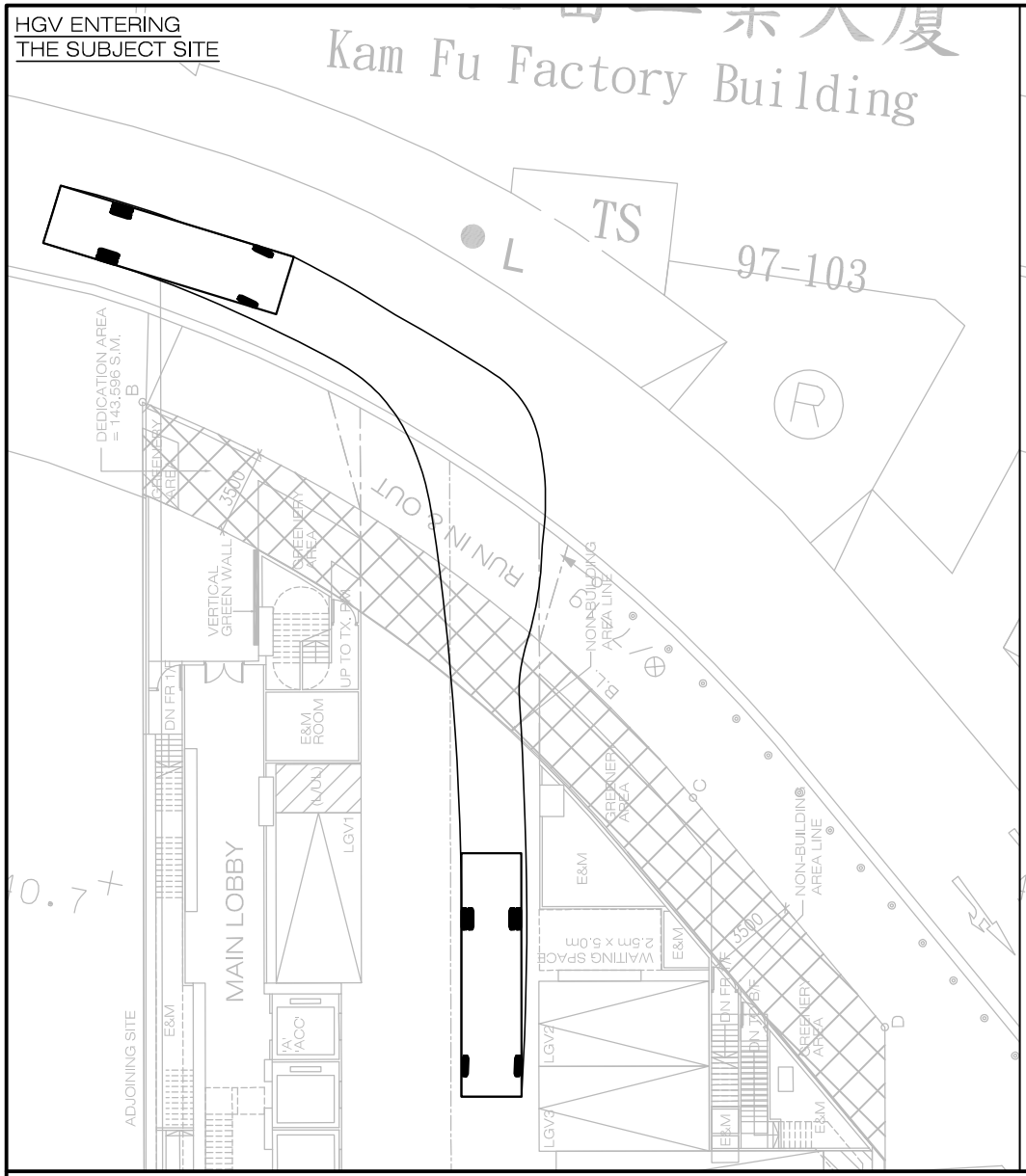
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

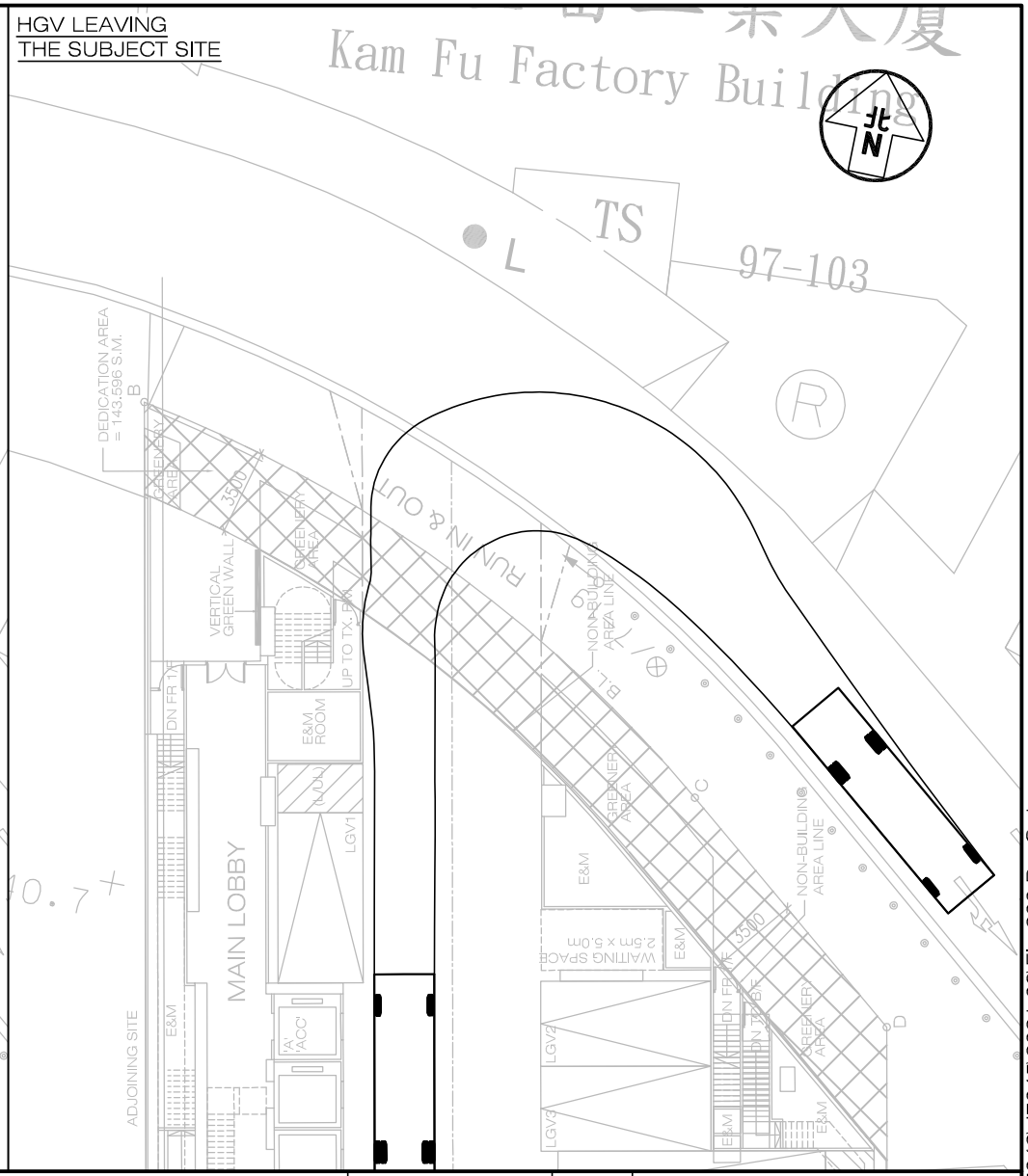
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 101-103 RevC.dwg

HGV ENTERING
THE SUBJECT SITE



HGV LEAVING
THE SUBJECT SITE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE SUBJECT SITE

Figure No.	Revision
SP 200	C

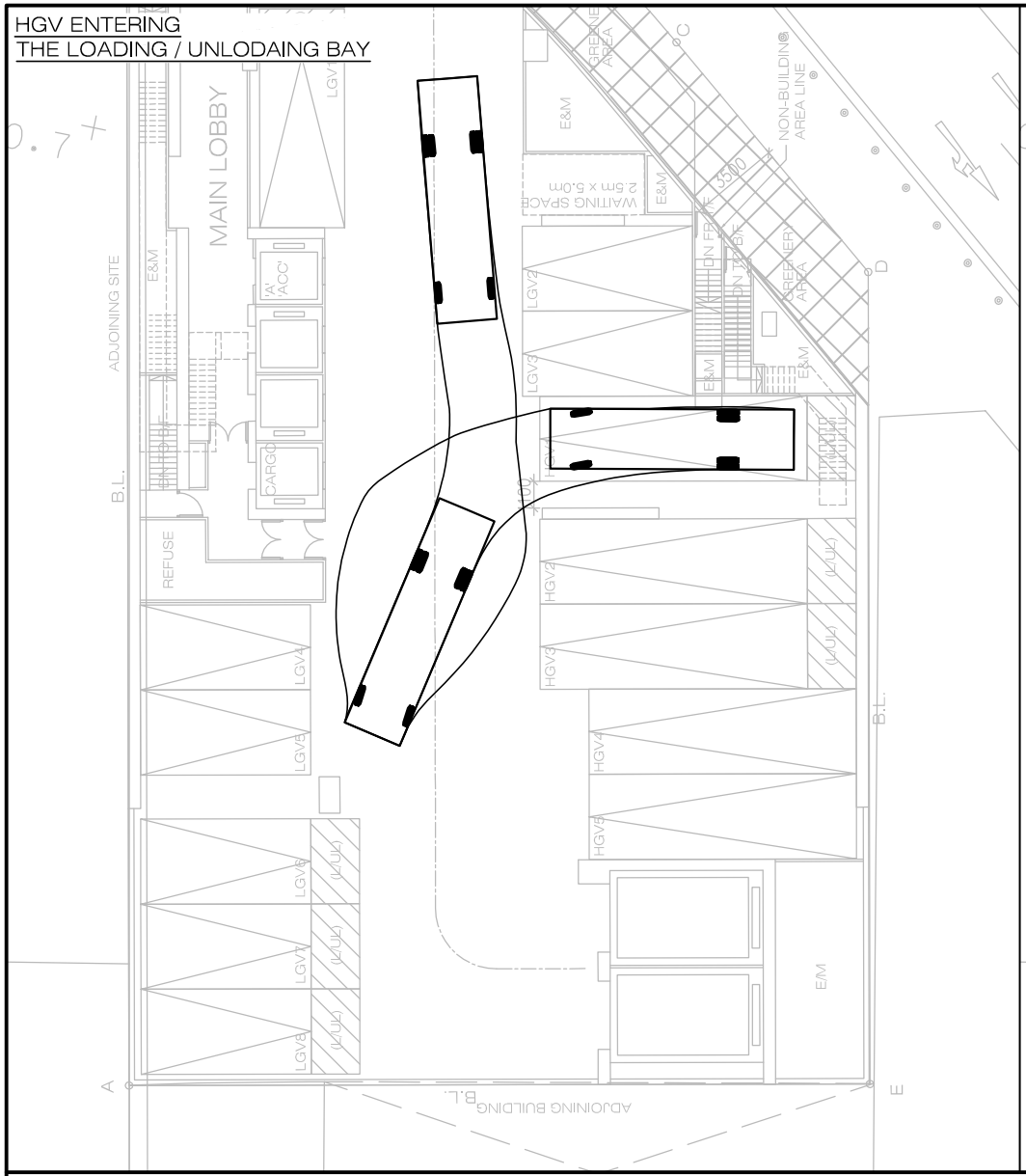
Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

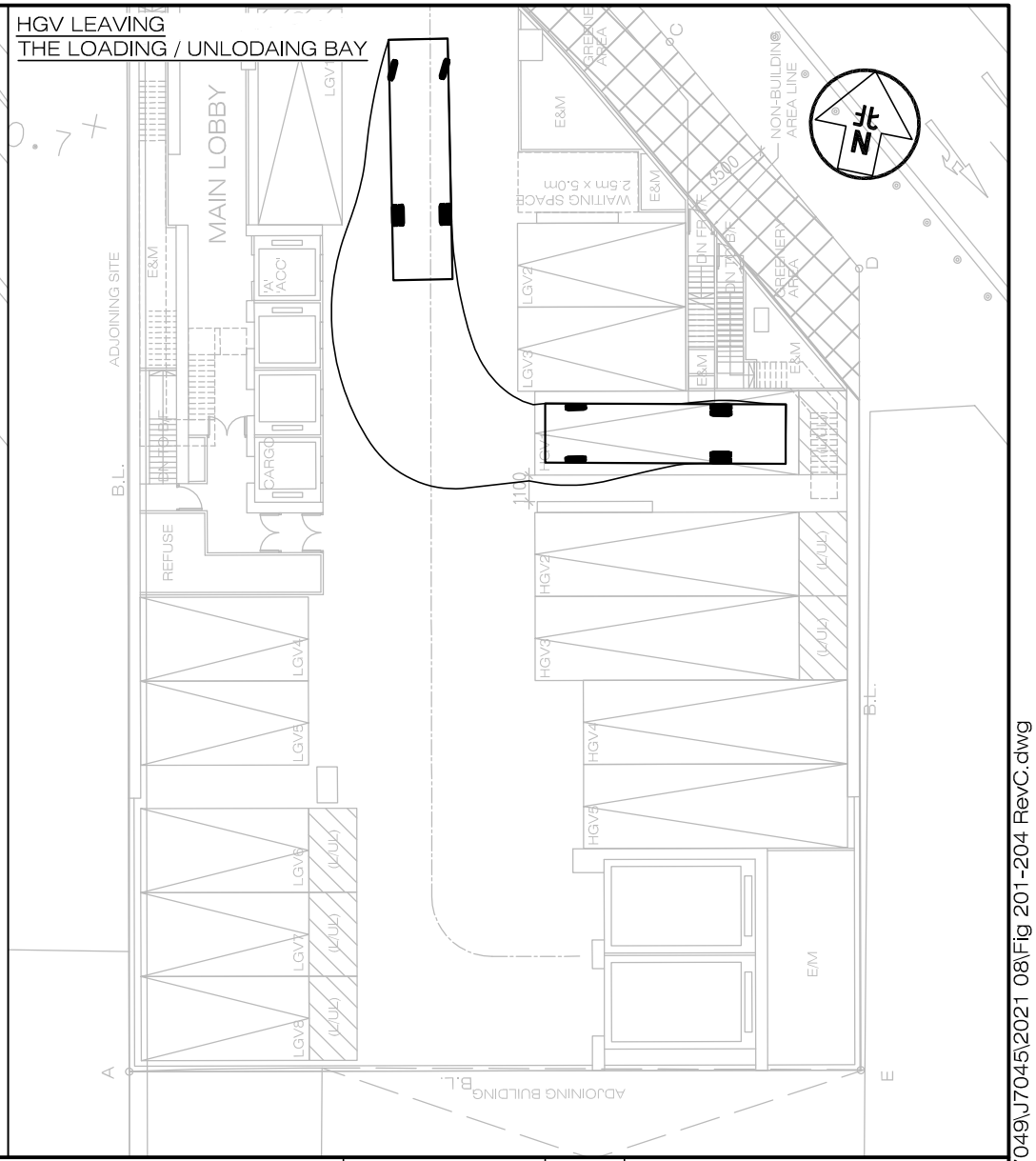
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 200 RevC.dwg

HGV ENTERING
THE LOADING / UNLODAING BAY



HGV LEAVING
THE LOADING / UNLODAING BAY



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

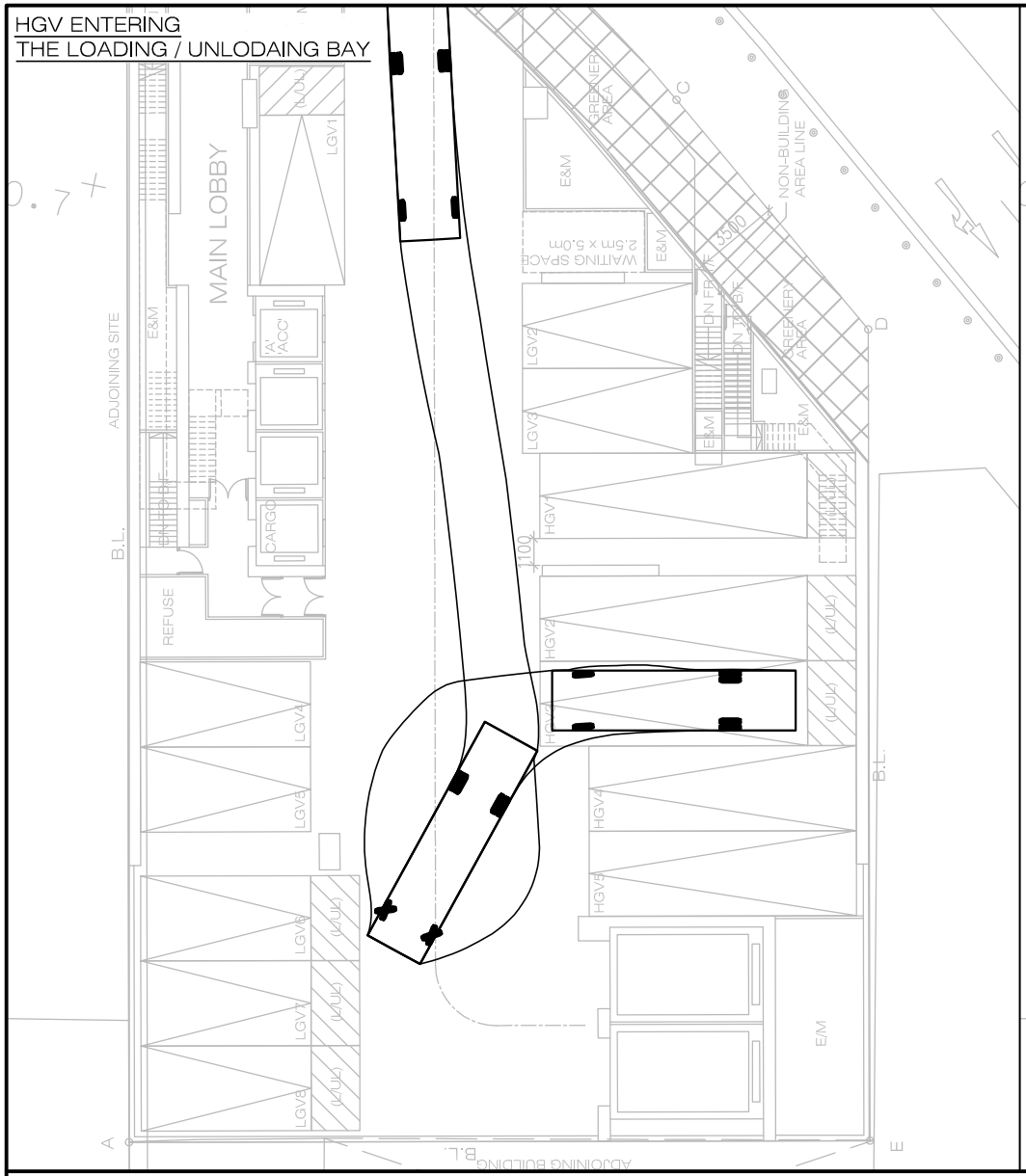
Figure No.	Revision
SP 201	C

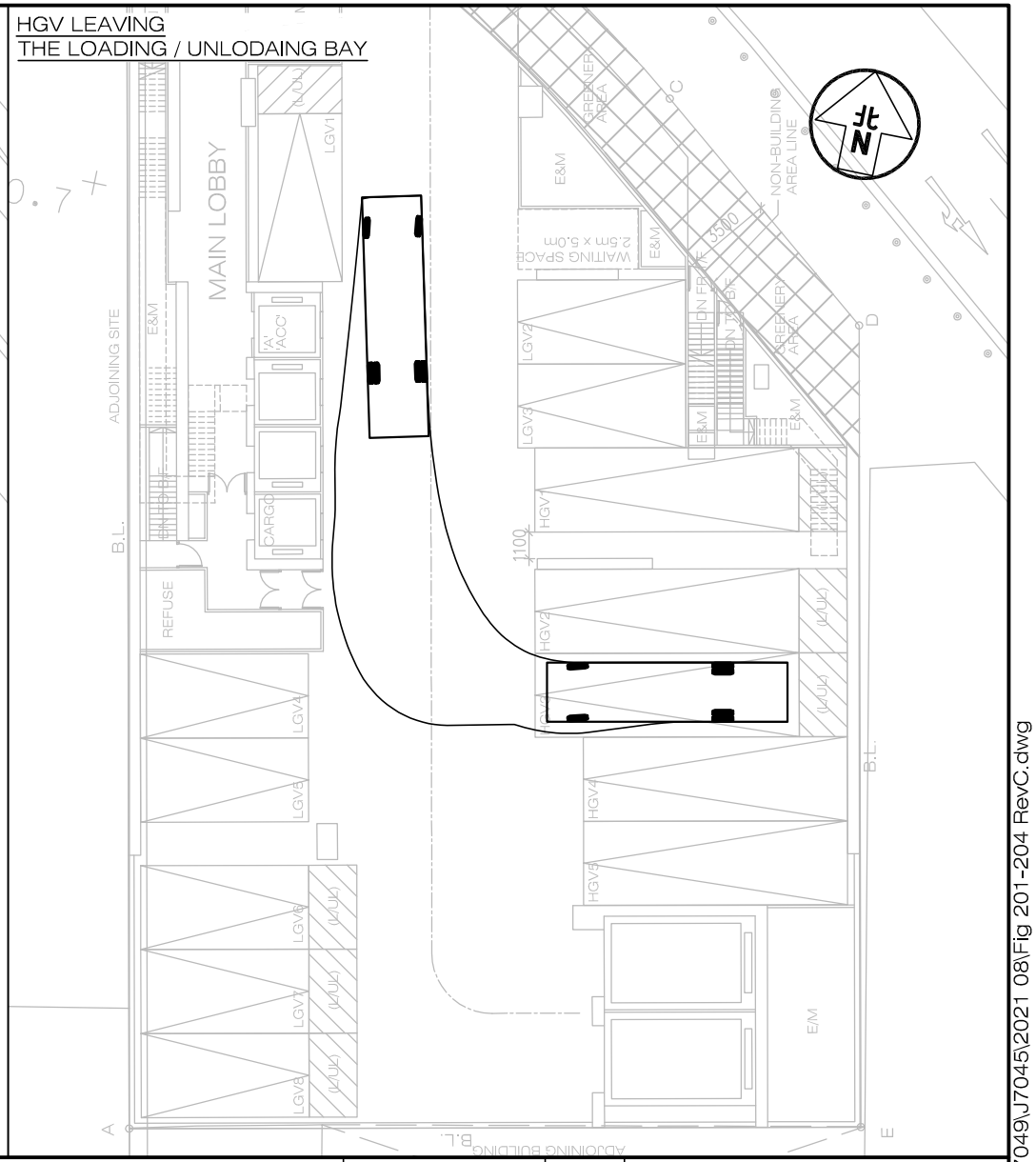
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 201-204 RevC.dwg





Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

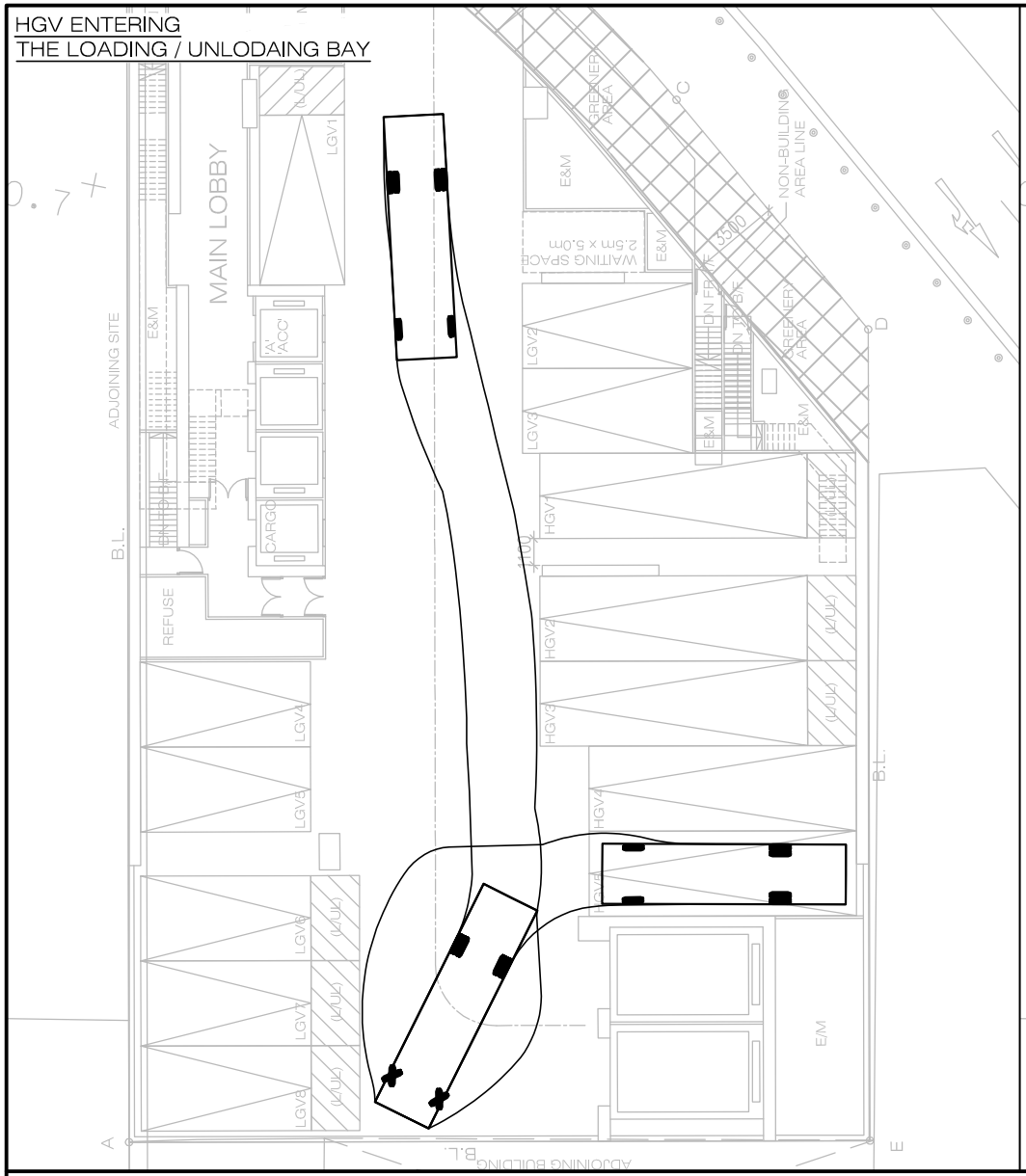
Figure No.	Revision
SP 202	C

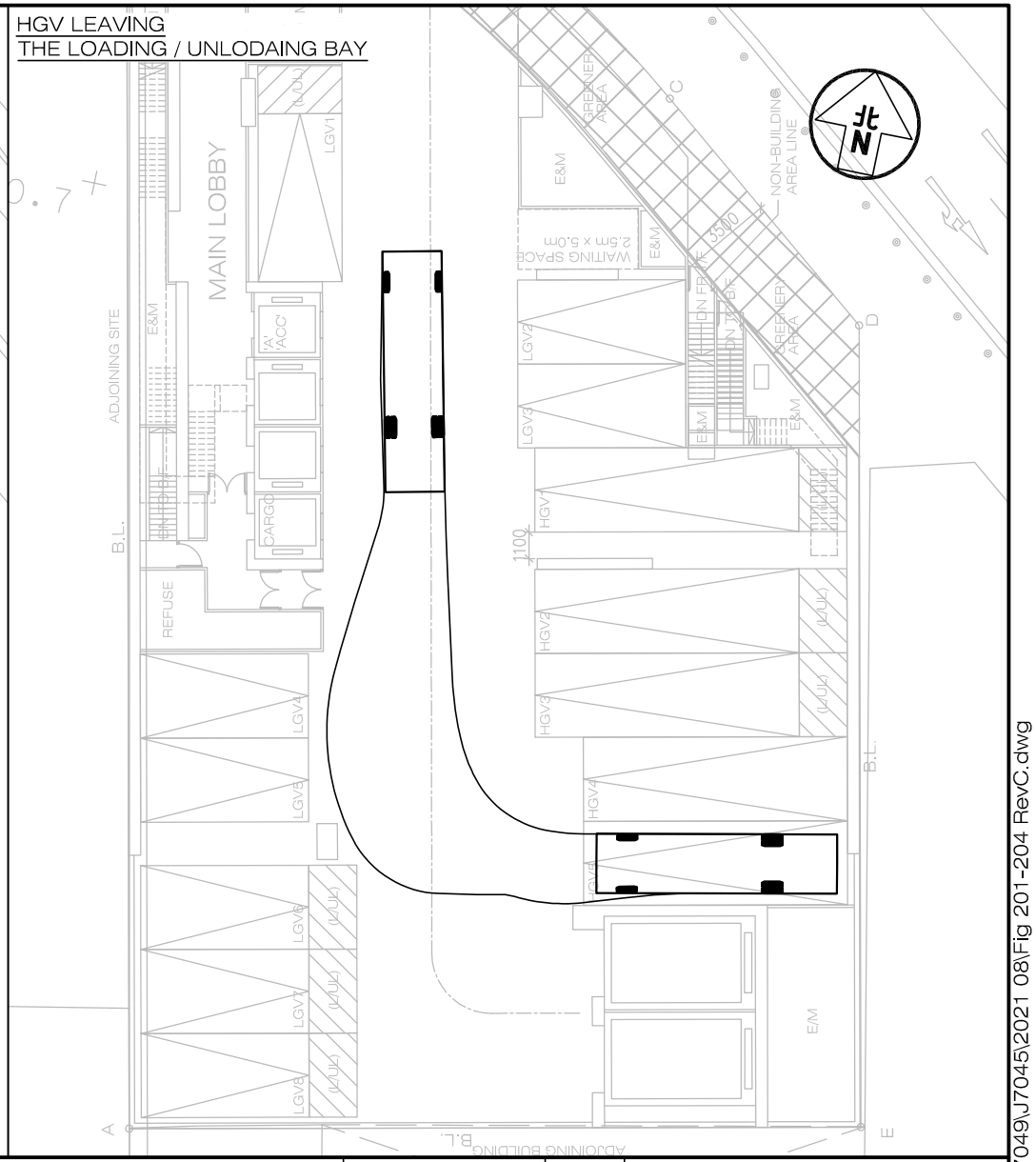
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 201-204 RevC.dwg





Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE LOADING / UNLOADING BAY

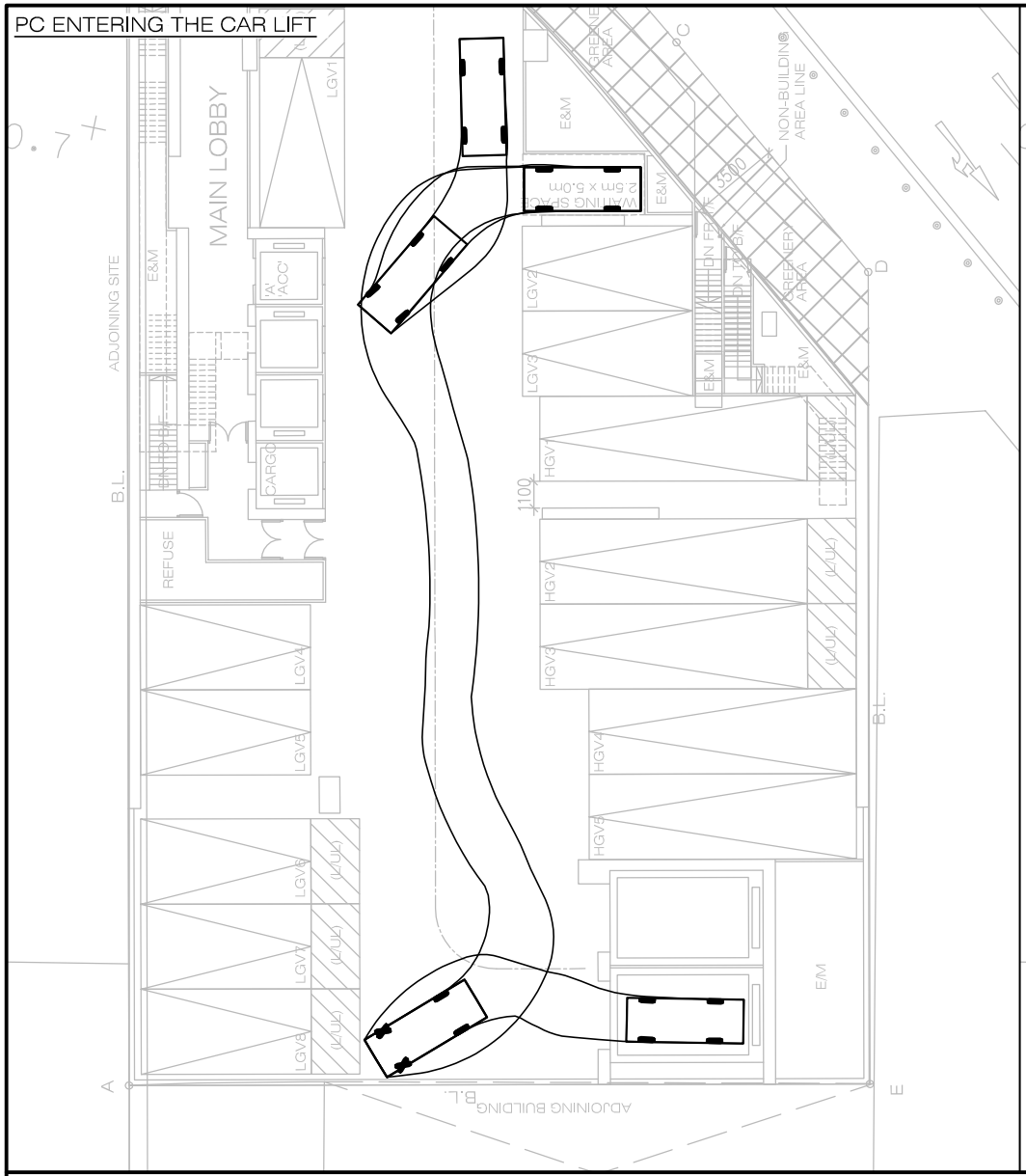
Figure No.	Revision
SP 203	C

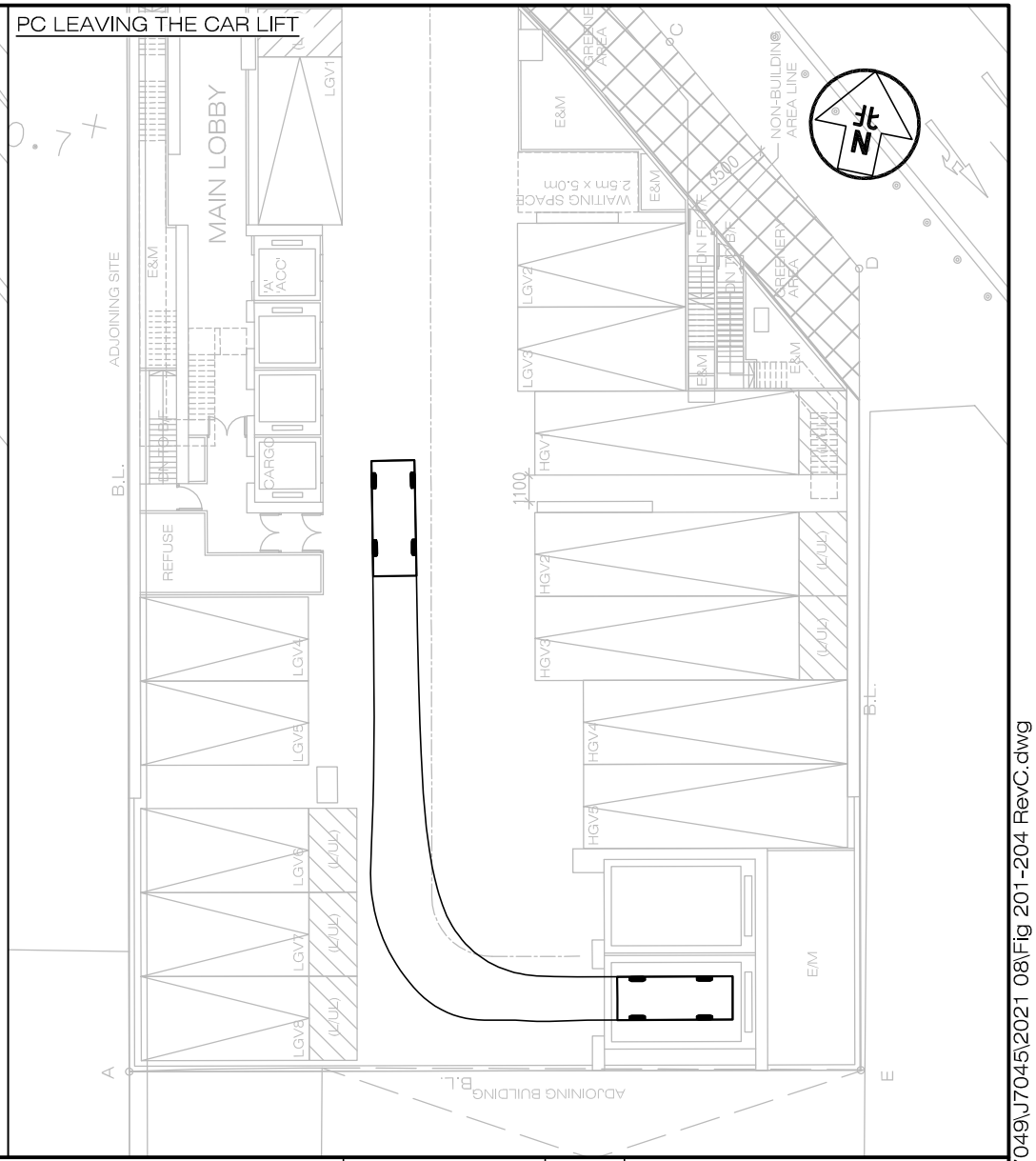
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 201-204 RevC.dwg





Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 – 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title

SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR LIFT

Figure No.	Revision
SP 204	C

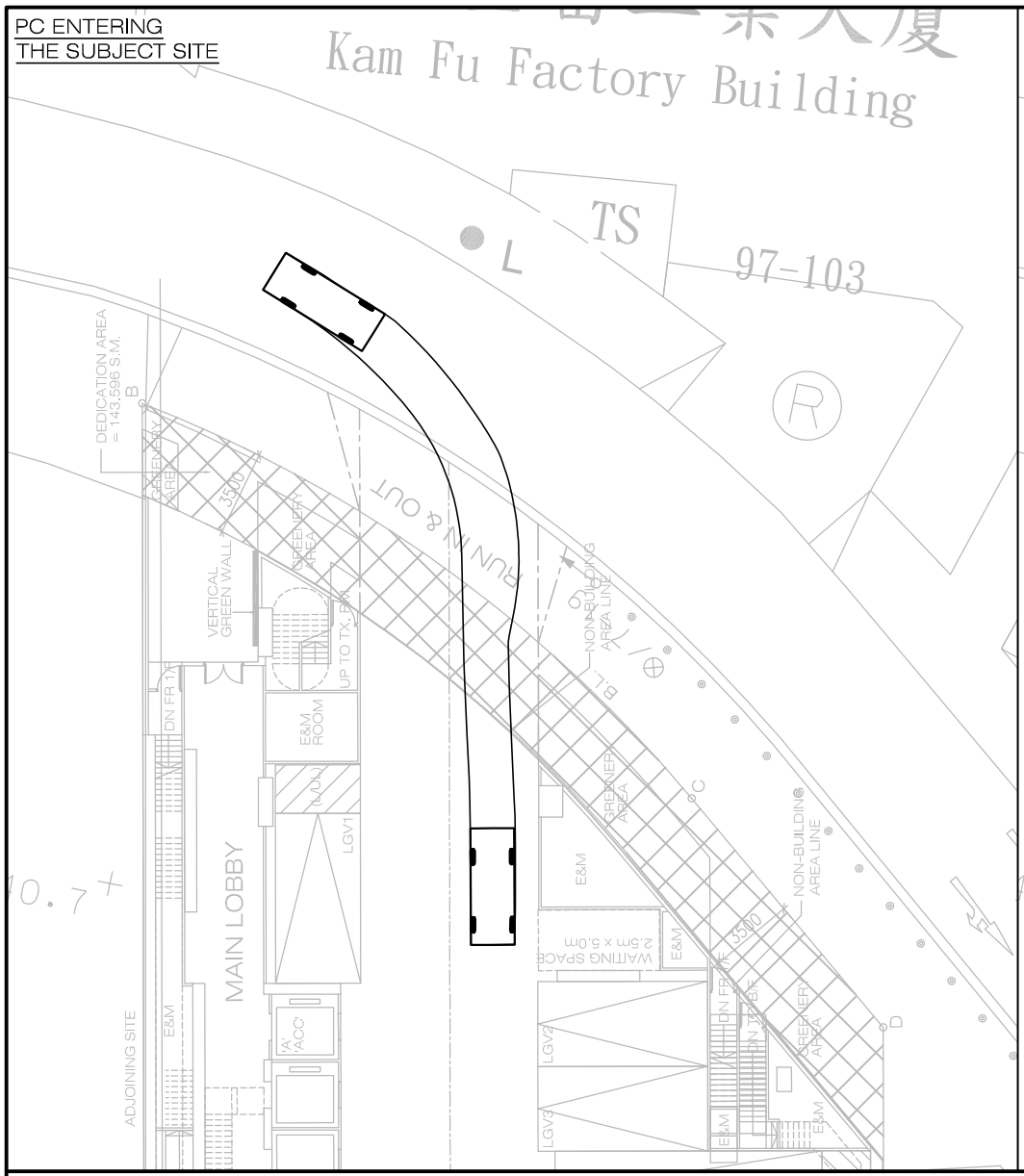
Designed by	Drawn by	Checked by
L T F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

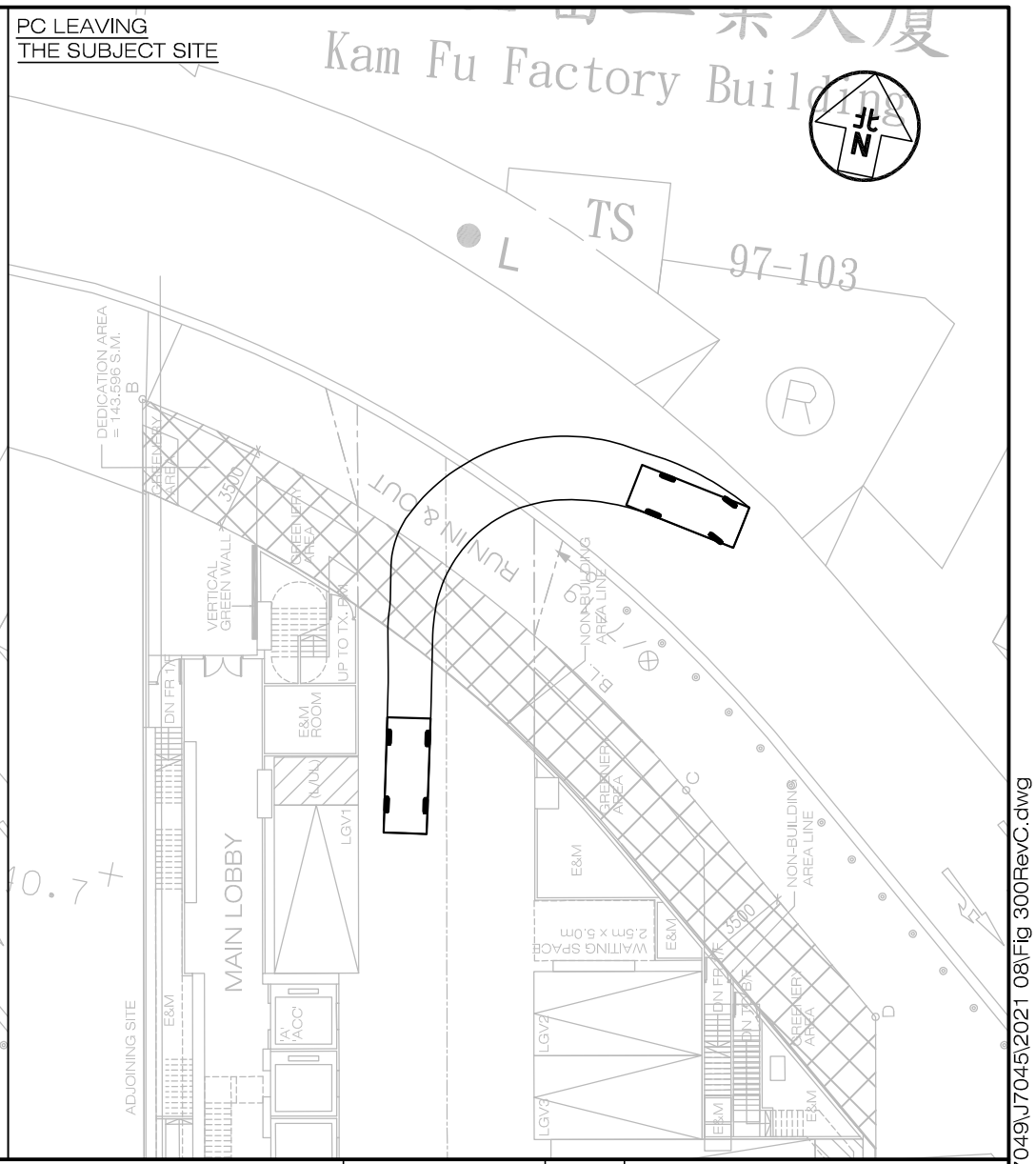
CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 201-204 RevC.dwg

PC ENTERING
THE SUBJECT SITE



PC LEAVING
THE SUBJECT SITE



Project Title
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION
FOR A PERMITTED NON-POLLUTING INDUSTRIAL BUILDING AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG J7045

Figure Title
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE SUBJECT SITE

Figure No.	Revision
SP 300	C

Designed by	Drawn by	Checked by
H C F	S C Y	K C

Scale in A4	Date
1 : 300	10 AUG 2021

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road,
Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

T:\JOB\J7000-J7049\J7045\2021 08\Fig 300RevC.dwg

Annex C

N

ADJOINING BUILDING

A

B.L.

ADJOINING SITE

B

DEDICATION AREA
= 143.596 S.M.

REFUSE

DN TO B/F

E&M

DN FR 1/F

35.500

GREENERY AREA

VERTICAL GREEN WALL

3500

MAIN LOBBY

CARGO

'A' 'ACC'

LGV8 LGV7 LGV6 LGV5 LGV4

(L/UL) (L/UL) (L/UL)

LGV1

(L/UL)

E&M ROOM

UP TO TX. RM

GREENERY AREA

RUN IN & OUT

35.500

35.500

TA CHUEN PING STREET

ADJOINING BUILDING

B.L.

1100

HGV3 HGV2 HGV1

LGV3 LGV2

WAITING SPACE
2.5m x 5.0m

E&M

NON-BUILDING AREA LINE

B.L.

GREENERY AREA

C

HGV5 HGV4

E&M

DN FR 1/F

37.000

3500

DN TO B/F

E&M

GREENERY AREA

NON-BUILDING AREA LINE

36.500

E/M

(L/UL) (L/UL) (L/UL)

B.L.

E

ADJOINING BUILDING

D

37.500

GROUND FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

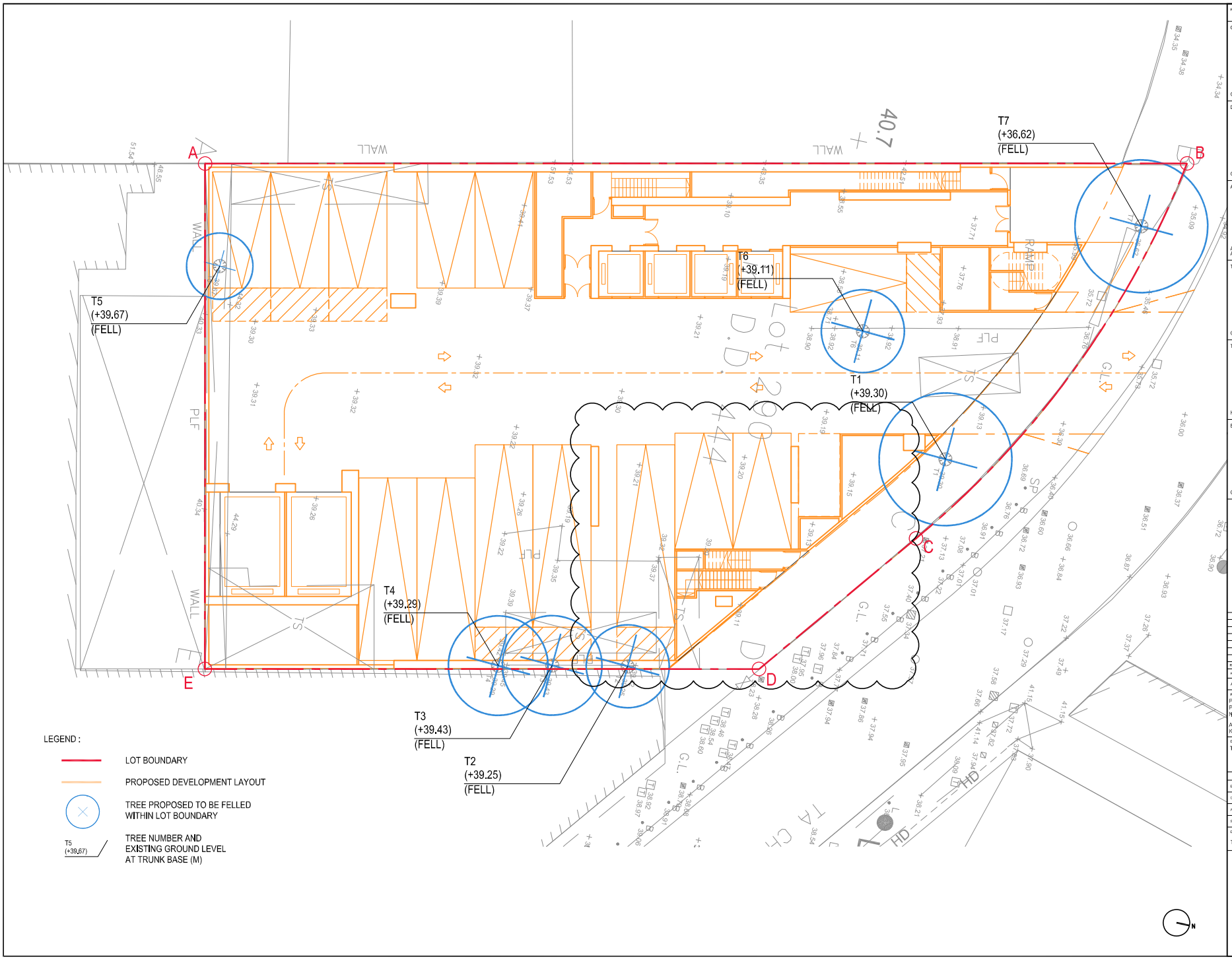
DRAWING TITLE

GROUND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -



REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATE ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

Rev	DATE	DESCRIPTION	DRAWN	APP.
A	Aug 2021	SIF LAYOUT REVISED		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

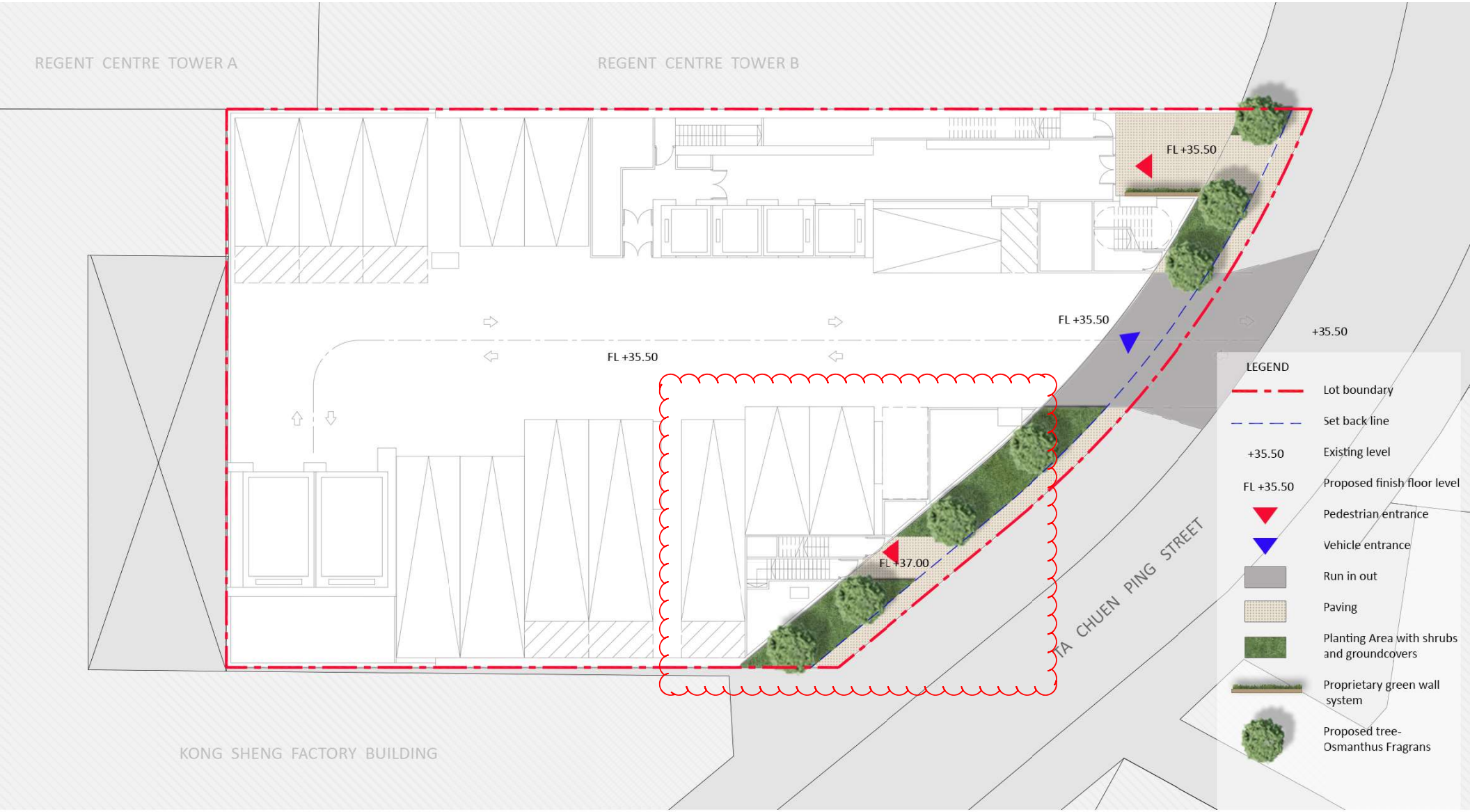
DRAWING TITLE

TREE RECOMMENDATION PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	WZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TR01

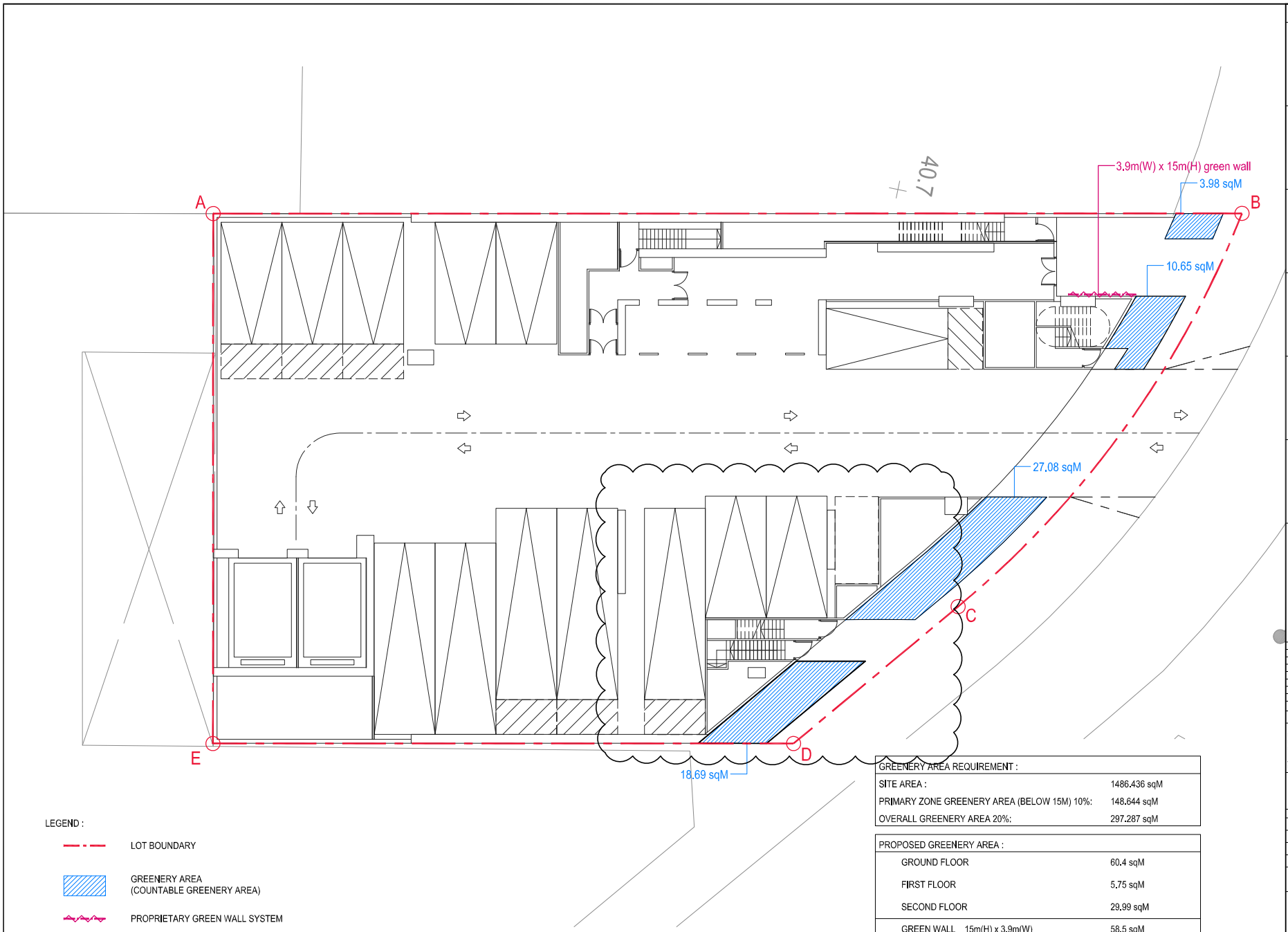
REVISION Rev1



LANDSCAPE MASTER PLAN - GROUND FLOOR

0 1 2 5 10m

DRAWING NO. TCPS/LMP01 (REV.2)



LEGEND :

- LOT BOUNDARY
- GREENERY AREA (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	60.4 sqM
FIRST FLOOR	5.75 sqM
SECOND FLOOR	29.99 sqM
GREEN WALL 15m(H) x 3.9m(W)	58.5 sqM
TOTAL PRIMARY ZONE	154.64sqM >148.644
ROOF FLOOR	147.51 sqM
OVERALL GREENERY AREA	302.15 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev2	Aug 2021	SIP LAYOUT REVISED		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

GREENERY AREA PROVISION - GROUND FLOOR

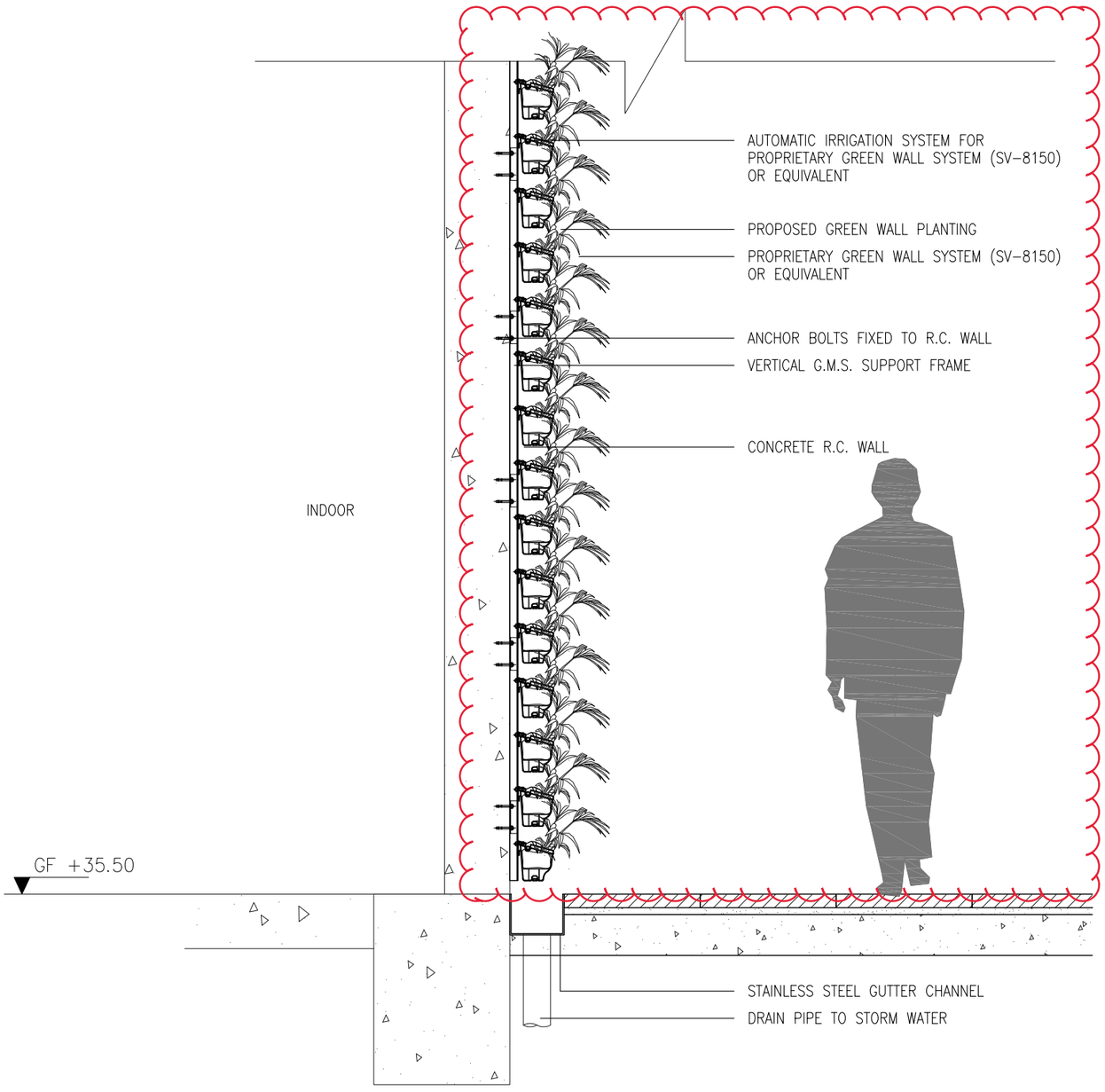
	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	KE		04/2021

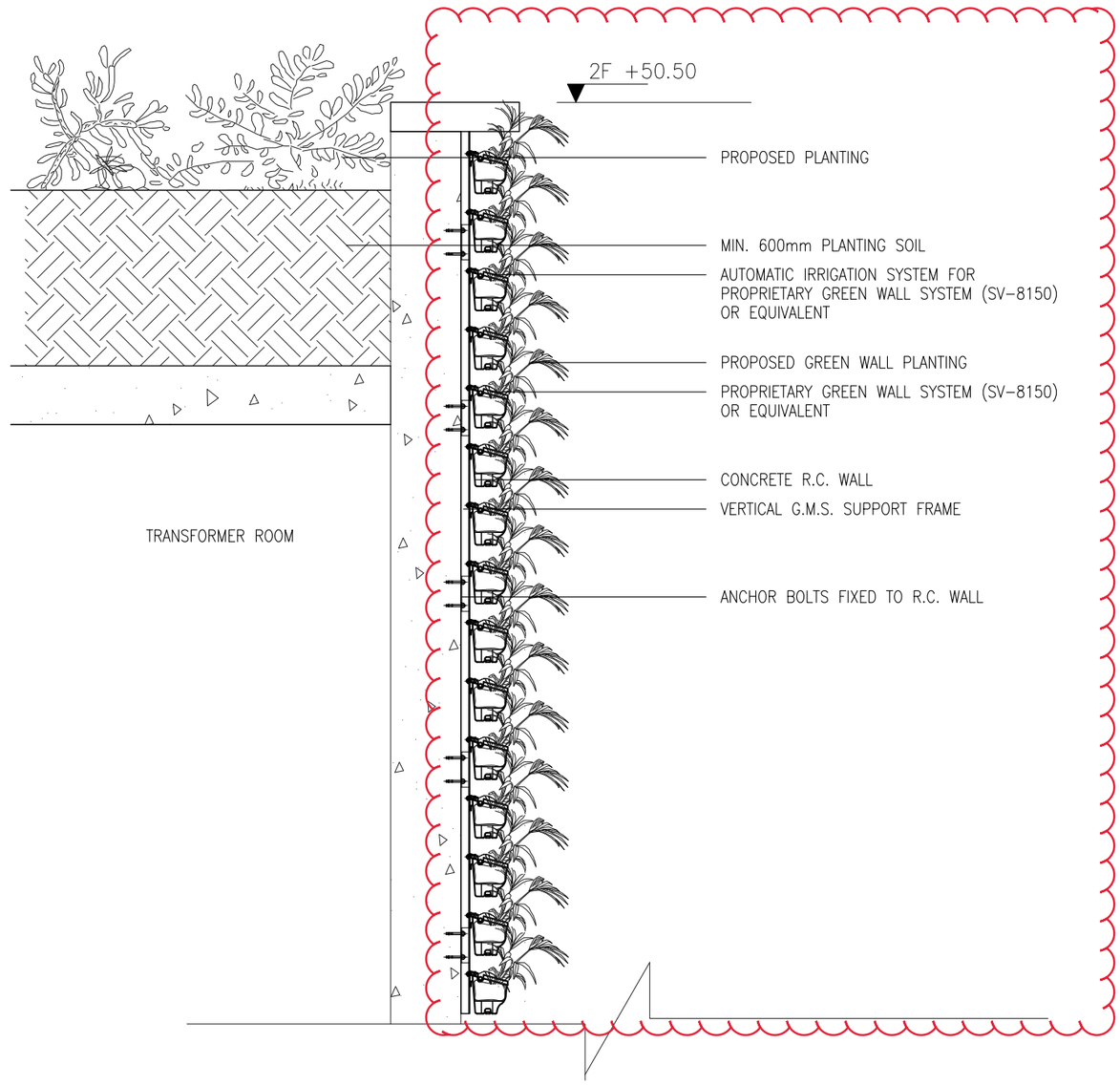
SCALE 1 : 200 @ A3

DRAWING NO. TCPS / GA01

REVISION Rev2

Annex D



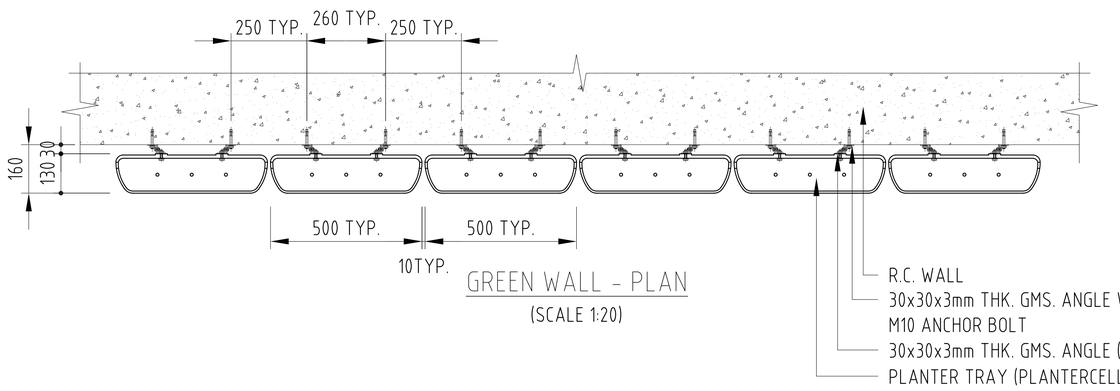


94-100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

TYPICAL VERTICAL GREEN WALL DETAIL

TCPS/VG01 (REV.1)

1:20 @ A3



GREEN WALL - PLAN

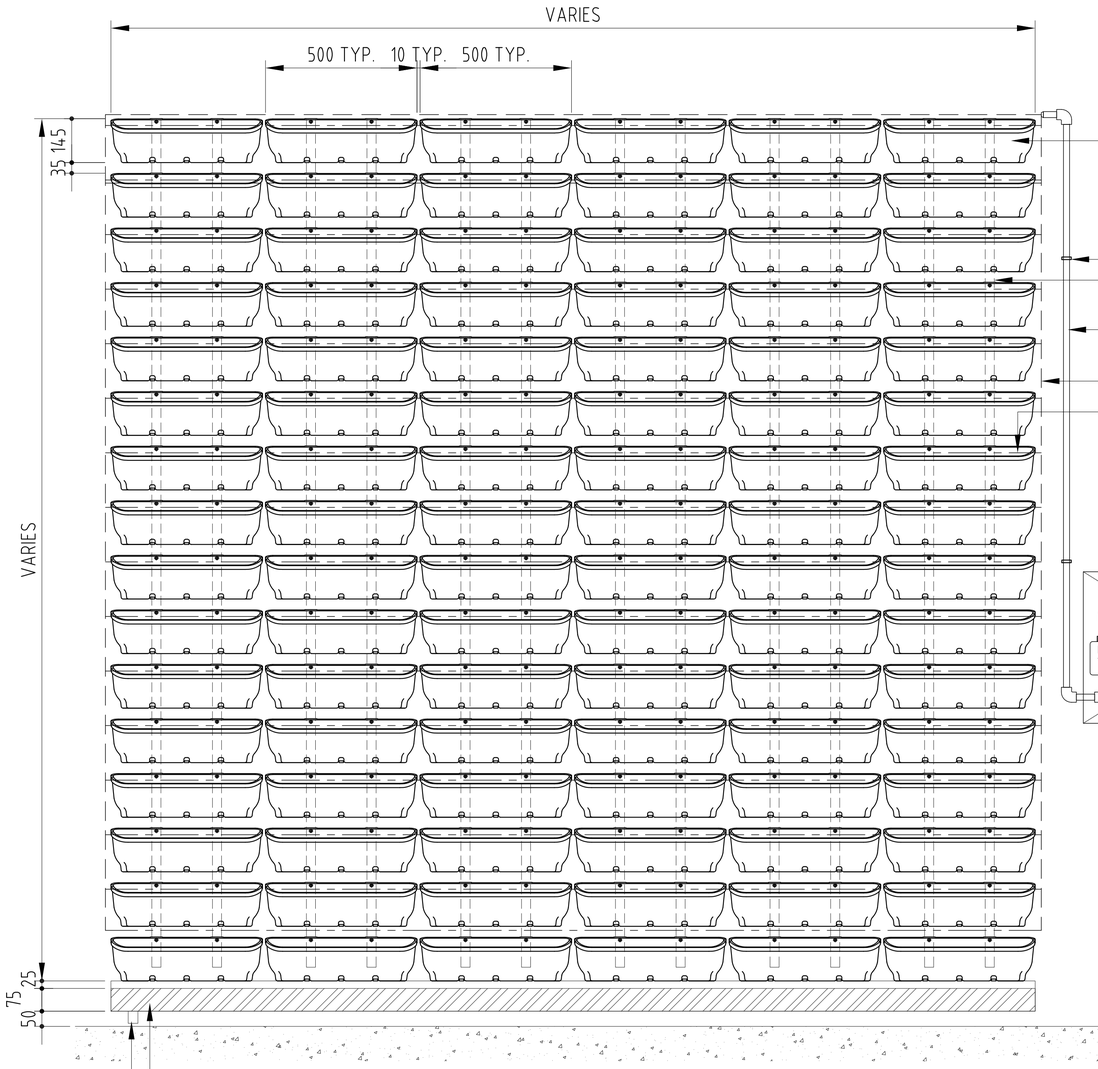
(SCALE 1:20)

NOTES:

1. THIS DRAWING AND DESIGN ARE COPYRIGHTED.
2. ALL DIMENSIONS SHOULD BE VERIFIED ON SITE.
3. ALL ITEMS SHOW IN THIS DRAWING ARE FOR REFERENCE ONLY.
4. ALL STEEL MEMBERS MAY BE CHANGED SUBJECT TO DESIGN CALCULATION BY R.S.E.
5. THE MOUNTING METHOD IS ABLE TO BE CHANGED TO SUIT THE ACTUAL ENVIRONMENT.
6. THE DISTANCE BETWEEN THE MOUNTING BRACKET WILL BE CHANGED SUBJECT TO THE ACTUAL SITE AND THE DESIGN CALCULATION.
7. THE LOCATION OF IRRIGATION CONTROL PANEL IN THIS DRAWING IS FOR REFERENCE ONLY, ACTUAL LOCATION IS SUBJECT TO SITE AND NEAR THE WATER SUPPLY POINT.
8. SHOP DRAWING WILL BE SUBMITTED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

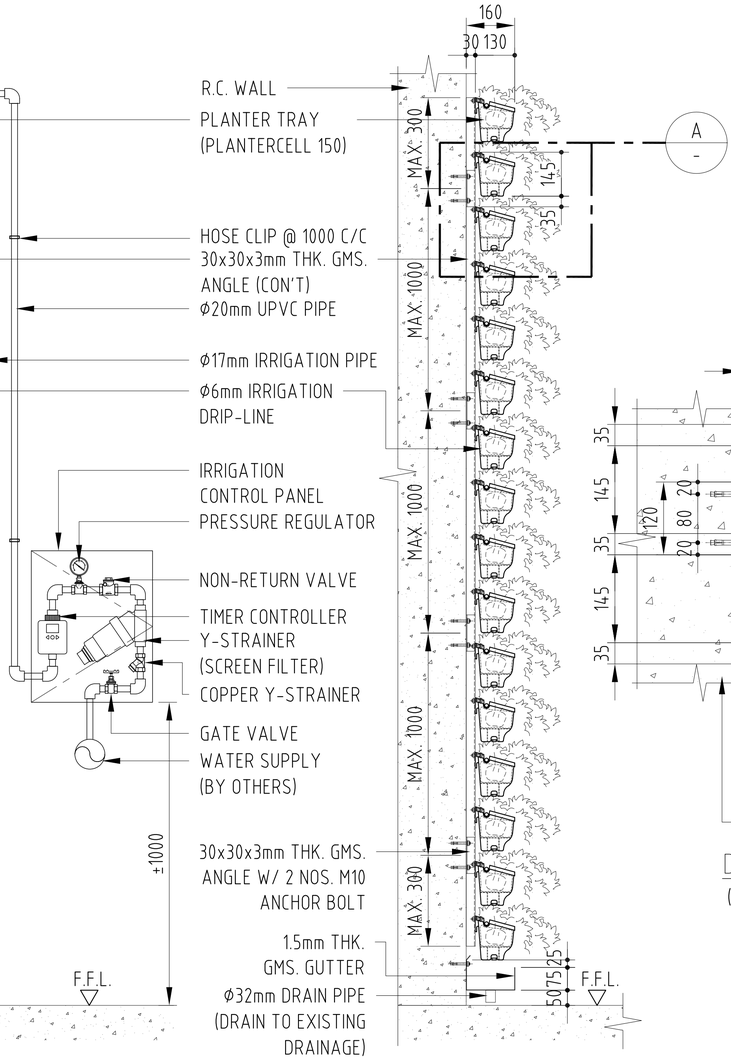
WATER IRRIGATION MAIN REQUIREMENT

- WATER INLET: Dia 25mm
- FLOW RATE : 1.0 LITER / SECOND (MINIMUM)
- OPERATING PRESSURE : 2.5 - 4 BAR AT WORKING LEVEL



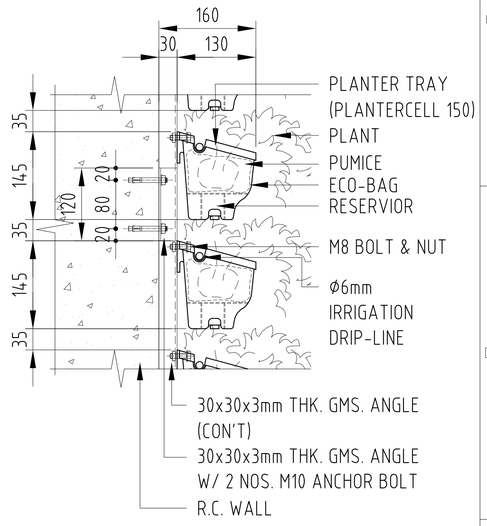
GREEN WALL - ELEVATION

(SCALE 1:20)



GREEN WALL - TYPICAL SECTION

(SCALE 1:20)



DETAIL A

(SCALE 1:10)

CAD FILE:
SIC-ST-PC150-101

REV.	DESCRIPTION	DATE
-		25OCT17

CLIENT:

ARCHITECT:

LANDSCAPE ARCHITECT:

STRUCTURAL ENGINEER:

E & M CONTRACTOR:

MAIN CONTRACTOR:

SUB CONTRACTOR:

STRONGLY
International Limited
TEL: 3696 6666 FAX: 3696 6669
EMAIL: egg@hk-egg.com

DRAWN	CHECKED	APPROVED
-	-	-

DATE -

PROJECT No. -

PROJECT
TYPICAL GREEN WALL & AUTOMATIC IRRIGATION SYSTEM

TITLE
TYPICAL DRAWINGS FOR GREEN WALL SYSTEM (SV-8150)

SCALE 1 : 20 OR AS STATED

DRAWING NUMBER
TCPS/VG02

DRF171044C REV. -

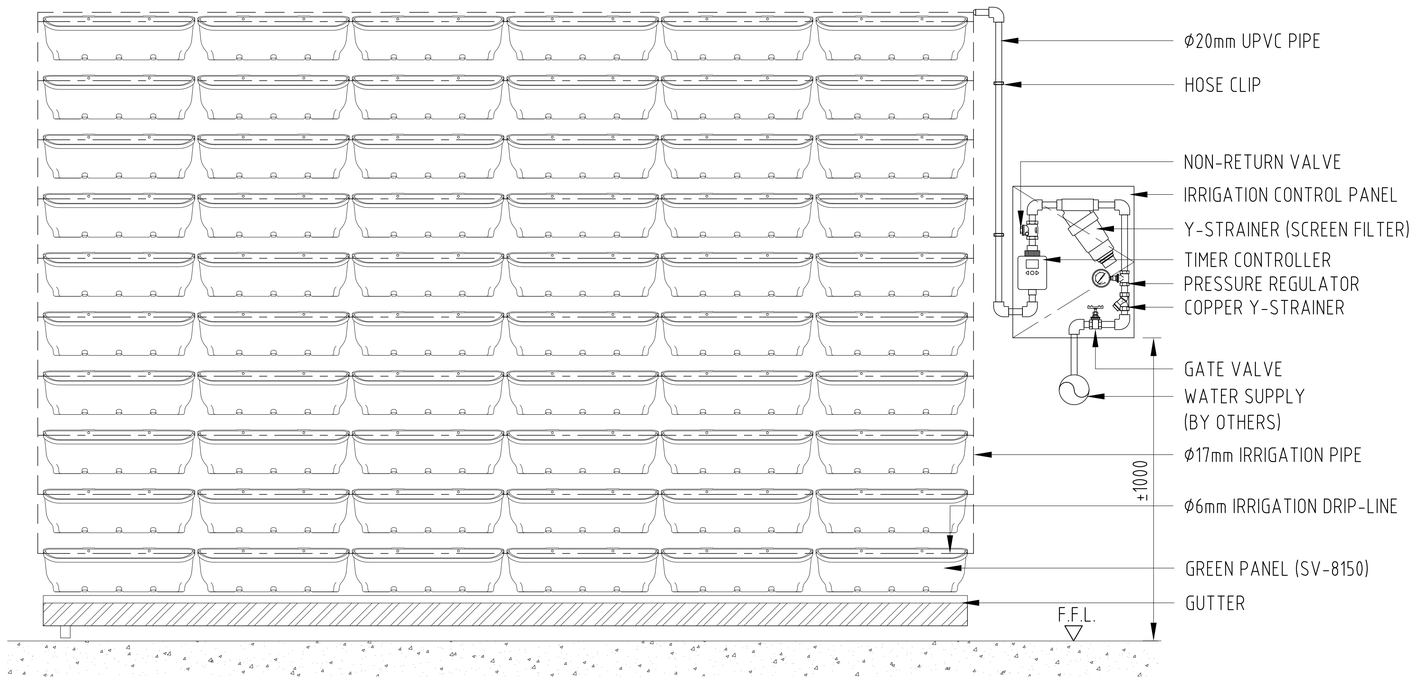
ALL DIMENSIONS IN mm
A3 SIZE (420 x 297)
DO NOT SCALE

LEGEND:

	WATER SUPPLY (BY OTHERS)
	GATE VALVE
	Y-STRAINER (SCREEN FILTER)
COPPER	Y-STRAINER (COPPER)
	NON-RETURN VALVE
P	PRESSURE REGULATOR
T	TIMER CONTROLLER
———	ϕ20mm UPVC PIPE
- - - - -	ϕ17mm IRRIGATION PIPE
—— - ——	ϕ6mm IRRIGATION DRIP-LINE

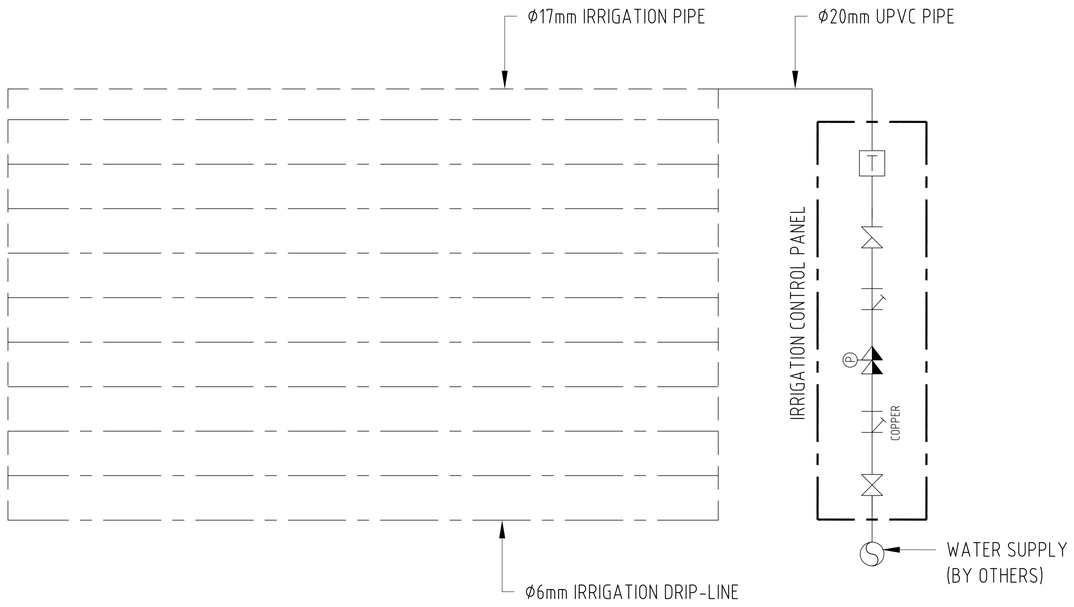
WATER IRRIGATION MAIN REQUIREMENT

- FLOW RATE : 1.0 LITER / SECOND (MINIMUM)
- PRESSURE : 2.5 - 4 BAR AT WORKING LEVEL



GREEN WALL (SV-8150) - TYPICAL IRRIGATION PLAN

(SCALE 1:20)



SCHEMATIC DIAGRAM OF AUTOMATIC IRRIGATION SYSTEM FOR GREEN WALL (SV-8150)

CAD FILE:
Green Wall - Typical Irrigation.dwg

REV.	DESCRIPTION	DATE
-		6JUN17

CLIENT:

ARCHITECT:

LANDSCAPE ARCHITECT:

STRUCTURAL ENGINEER:

E & M CONTRACTOR:

MAIN CONTRACTOR:

SUB CONTRACTOR:

STRONGLY
International Limited

TEL: 3696 6666 FAX: 3696 6669
EMAIL: egg@hk-egg.com

DRAWN	CHECKED	APPROVED
-	-	-

DATE: -

PROJECT No.: -

PROJECT
TYPICAL GREEN WALL & AUTOMATIC IRRIGATION SYSTEM

TITLE
AUTOMATIC IRRIGATION SYSTEM FOR GREEN WALL SYSTEM (SV-8150)

SCALE: 1 : 20 OR AS STATED

DRAWING NUMBER
T C P S / V G 03

REV. -

ALL DIMENSIONS IN mm
A3 SIZE (420 x 297)
DO NOT SCALE

PLANNING LIMITED
規劃顧問有限公司

UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/008Lg

19 August 2021

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction
for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
in "Other Specified Uses" annotated "Business" zone
at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application No. A/KC/476 -
(Supplementary Information of Further Information No. 3)

We refer to the captioned S16 Planning Application which was received by the Town Planning Board (TPB) on 21 May 2021 and the departmental comments on the captioned Application received between 30 July and 5 August 2021.

Further to the discussions with the officers of Tsuen Wan and West Kowloon District Planning Office dated 18th August 2021, we would like to request to withdraw the Clarification Letter dated 16th August 2021 on the NBA to be surrendered to Government when required.

Clarification on the NBA to be surrendered to Government when required

In this regard, we would like to clarify that the captioned development is proposed to set back with a minimum 3.5m Non-Building Area (NBA) from its lot boundary to cater long-term road widening proposal along Ta Chuen Ping Street. It is well aligned with the requirement under the Kwai Chung Outline Zoning Plan (OZP) No. S/KC/29.

We would also like to clarify that the 3.5m NBA under the OZP requirement are to be surrendered to Government when required, subject to bonus Plot Ratio of 0.483 under B(P)R 22(2) and no adverse comments from relevant Government Departments for the purpose of street widening. The bonus PR would only be dealt with at the GBP submission stage.

Recycled Water for irrigation of Vertical Greening

Meanwhile, we would like to clarify the term 'Greywater' on FI No.2 dated 9th July 2021. The term 'Greywater' shall be replaced with 'Recycled Water'. The Applicant will consider to use recycled water for irrigation of vertical greening in the development.

Our Ref: S1399/94TCPS_KC/21/008Lg
Date: 19 August 2021

KTA PLANNING LIMITED
規劃顧問有限公司

Revised Architectural and Landscape Drawings

Our office would like to take this opportunity to attach a set of revised architectural and revised landscape drawings for necessary action by DPO.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

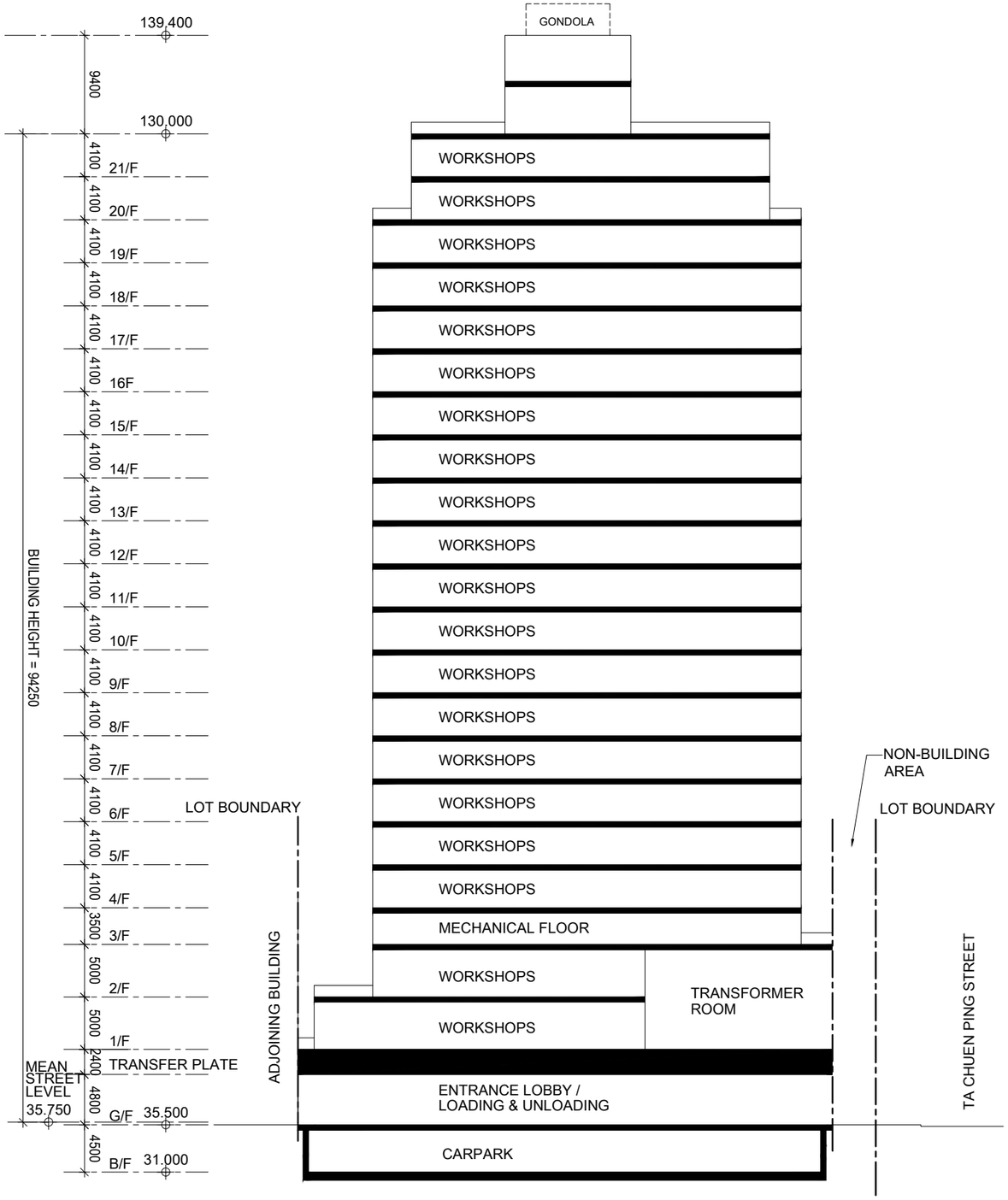
Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl. (70 hardcopies)
cc. the Applicant & Team

KT/DF/CL/EC/vy



SCHEMATIC SECTION

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

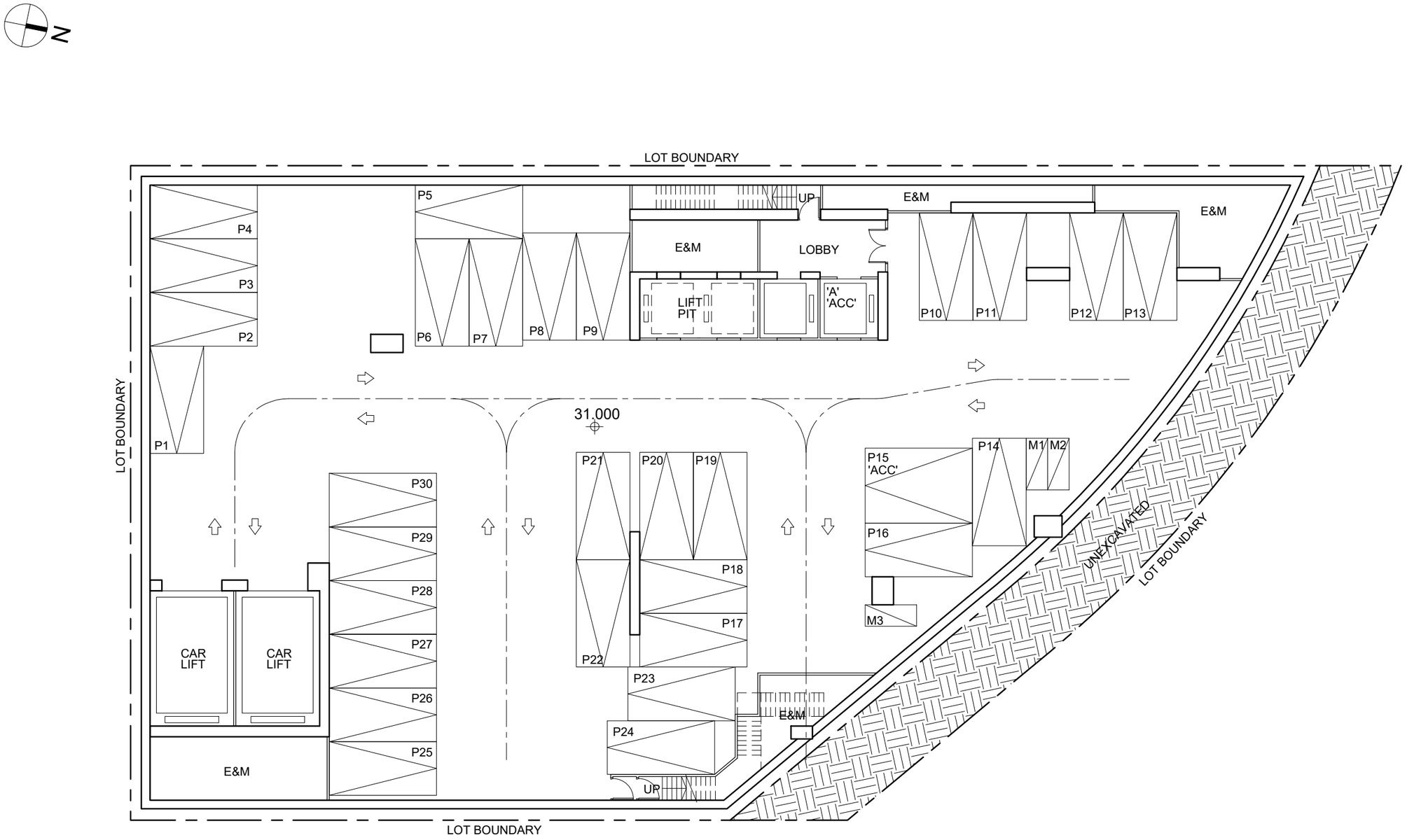
SCHEMATIC SECTION

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-

SCALE 1 : 500 @ A3

DRAWING NO. -

REVISION A



BASEMENT 1 FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

BASEMENT 1 FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A

N

ADJOINING SITE

ADJOINING BUILDING

A

LOT BOUNDARY

B

REFUSE

DN TO B/F

E&M

DN FR 1/F

35.500

VERTICAL GREEN WALL

3500

GREENERY AREA

143.596 S.M.

MAIN LOBBY

CARGO

'A' 'ACC'

LGV8 LGV7 LGV6 LGV5 LGV4

(L/UL) (L/UL) (L/UL)

LGV1

(L/UL)

E&M ROOM

UP TO TX. RM

GREENERY AREA

LOT BOUNDARY

ADJOINING BUILDING

35.500

RUN IN & OUT

35.500

TA CHUEN PING STREET

1100

HGV3 HGV2 HGV1

LGV3 LGV2

WAITING SPACE 2.5m x 5.0m

E&M

NON-BUILDING AREA

GREENERY AREA

LOT BOUNDARY

C

HGV5 HGV4

E&M

DN FR 1/F

37.000

3500

DN TO B/F

36.500

GREENERY AREA

2500

1000

NON-BUILDING AREA

E/M

(L/UL) (L/UL) (L/UL)

E&M

LOT BOUNDARY

D

E

ADJOINING BUILDING

37.500

GROUND FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

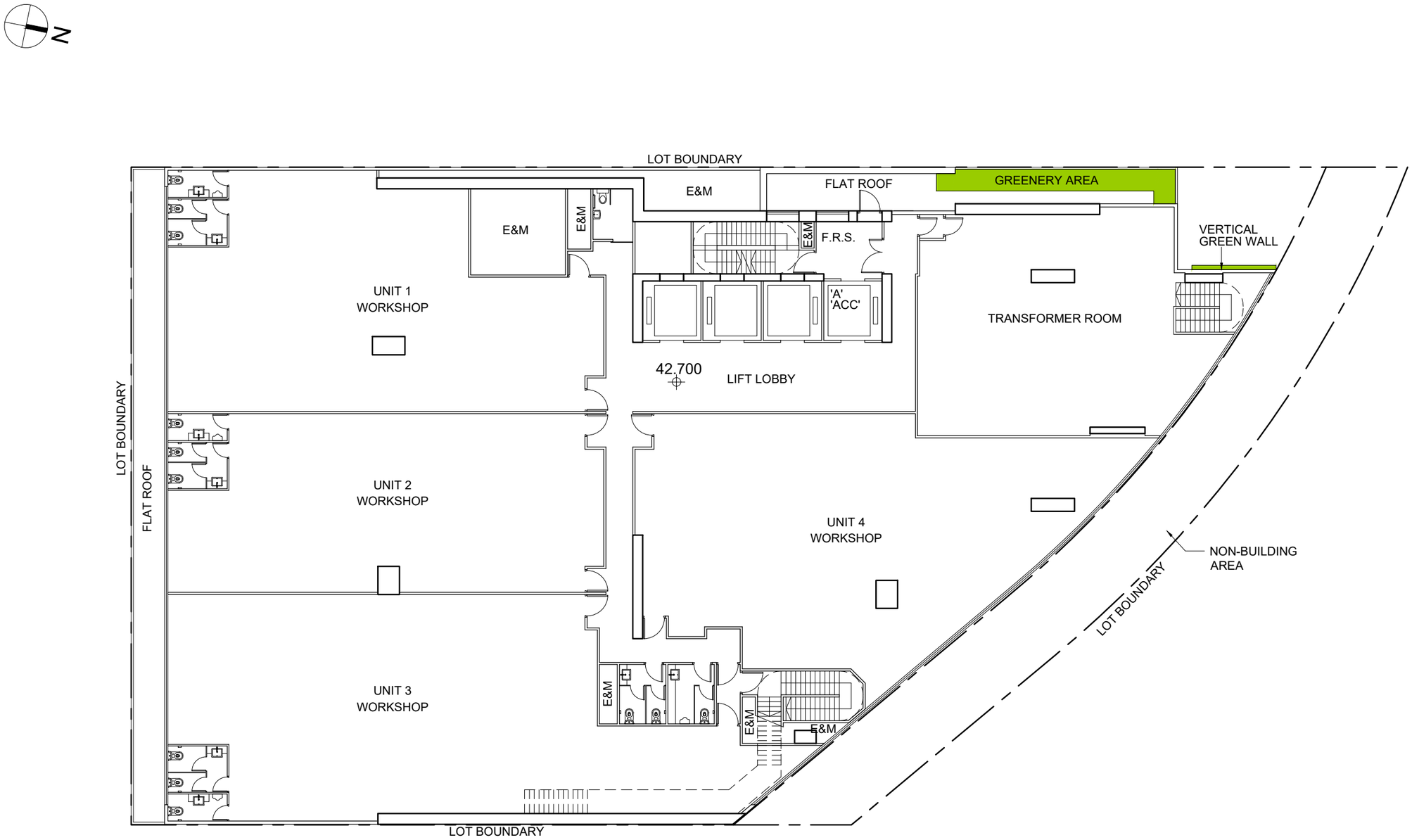
DRAWING TITLE

GROUND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION B



1ST FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

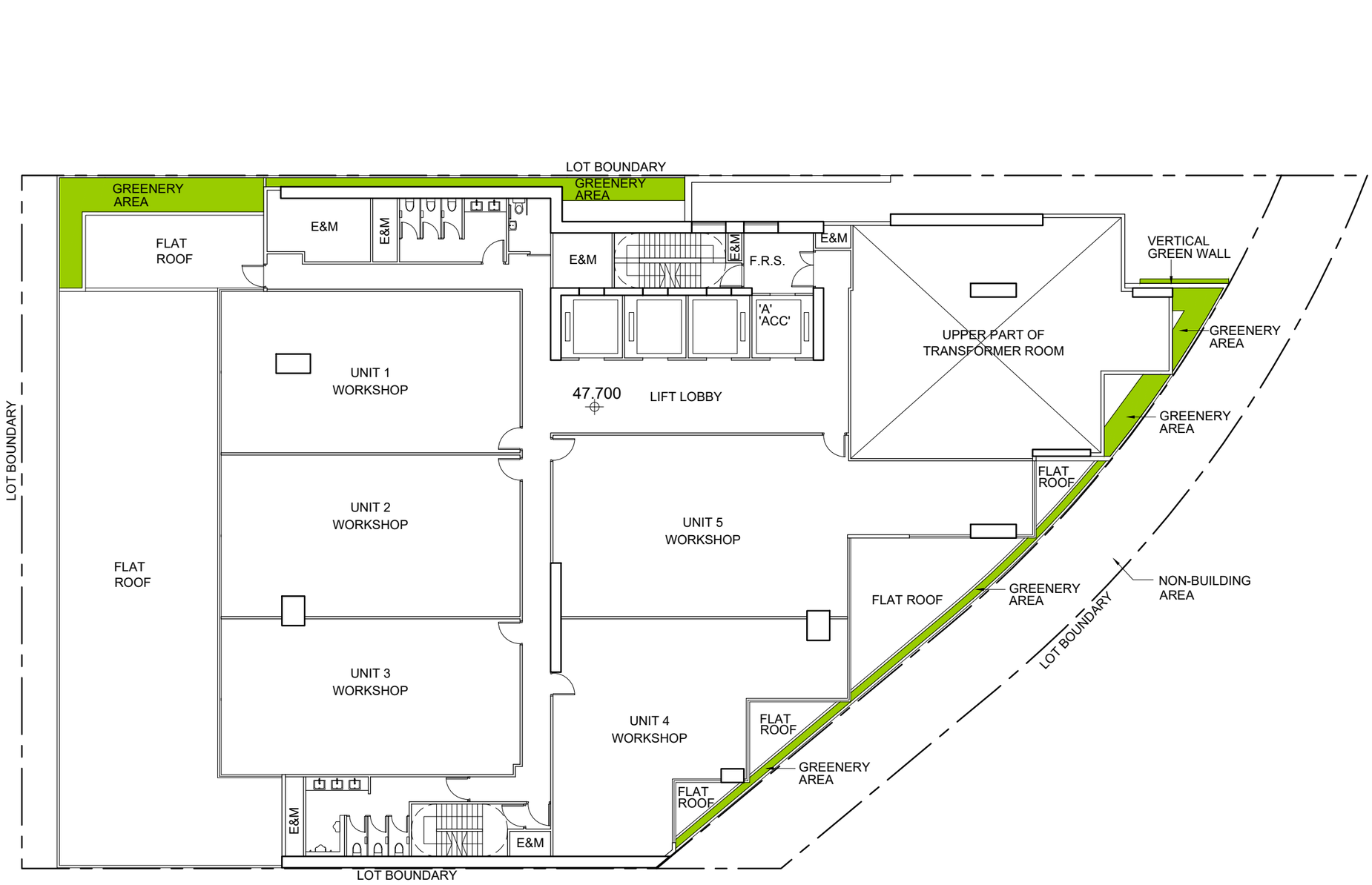
DRAWING TITLE:

1ST FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A



2ND FLOOR PLAN

REF.

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

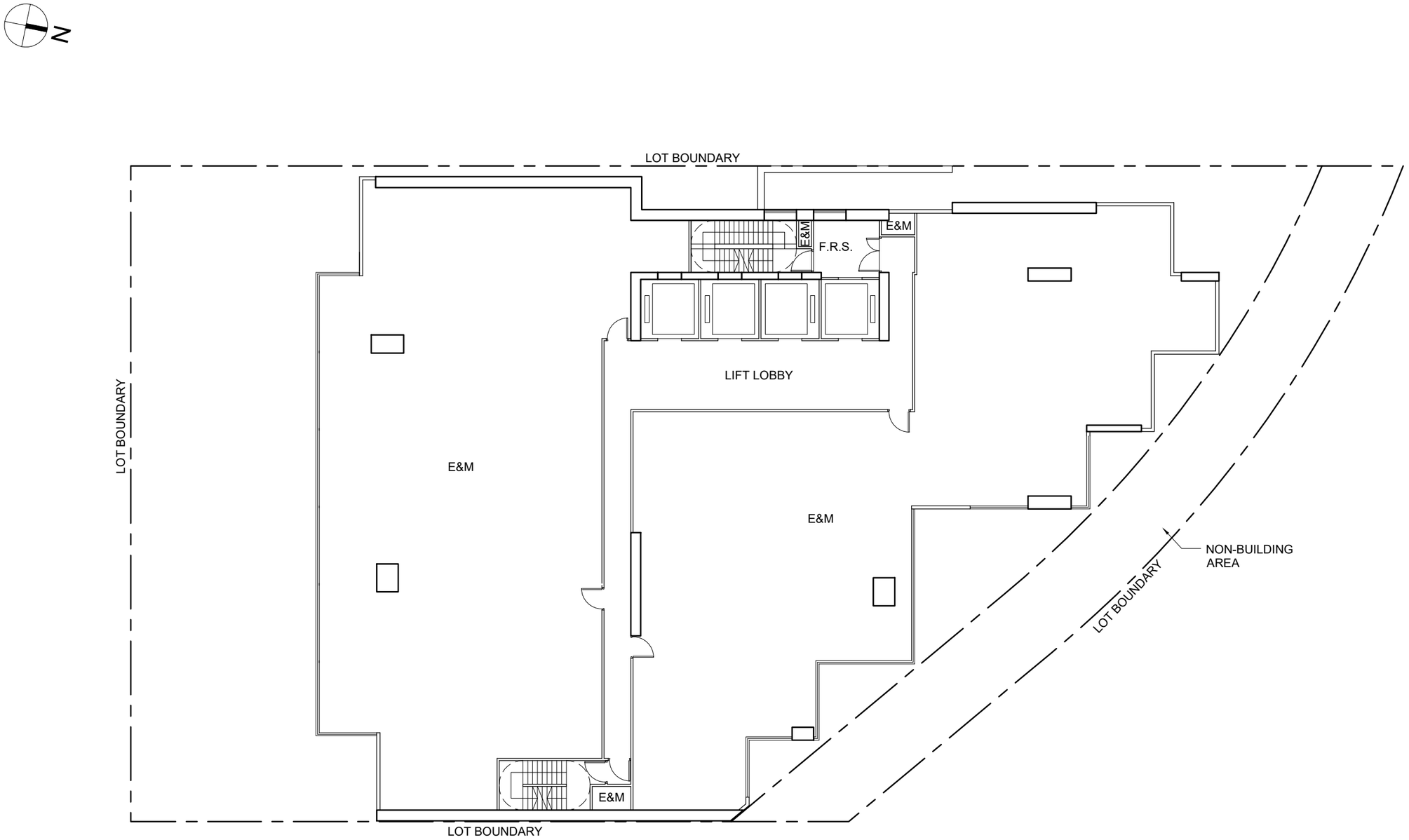
JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE
2ND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -
REVISION B



3RD FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

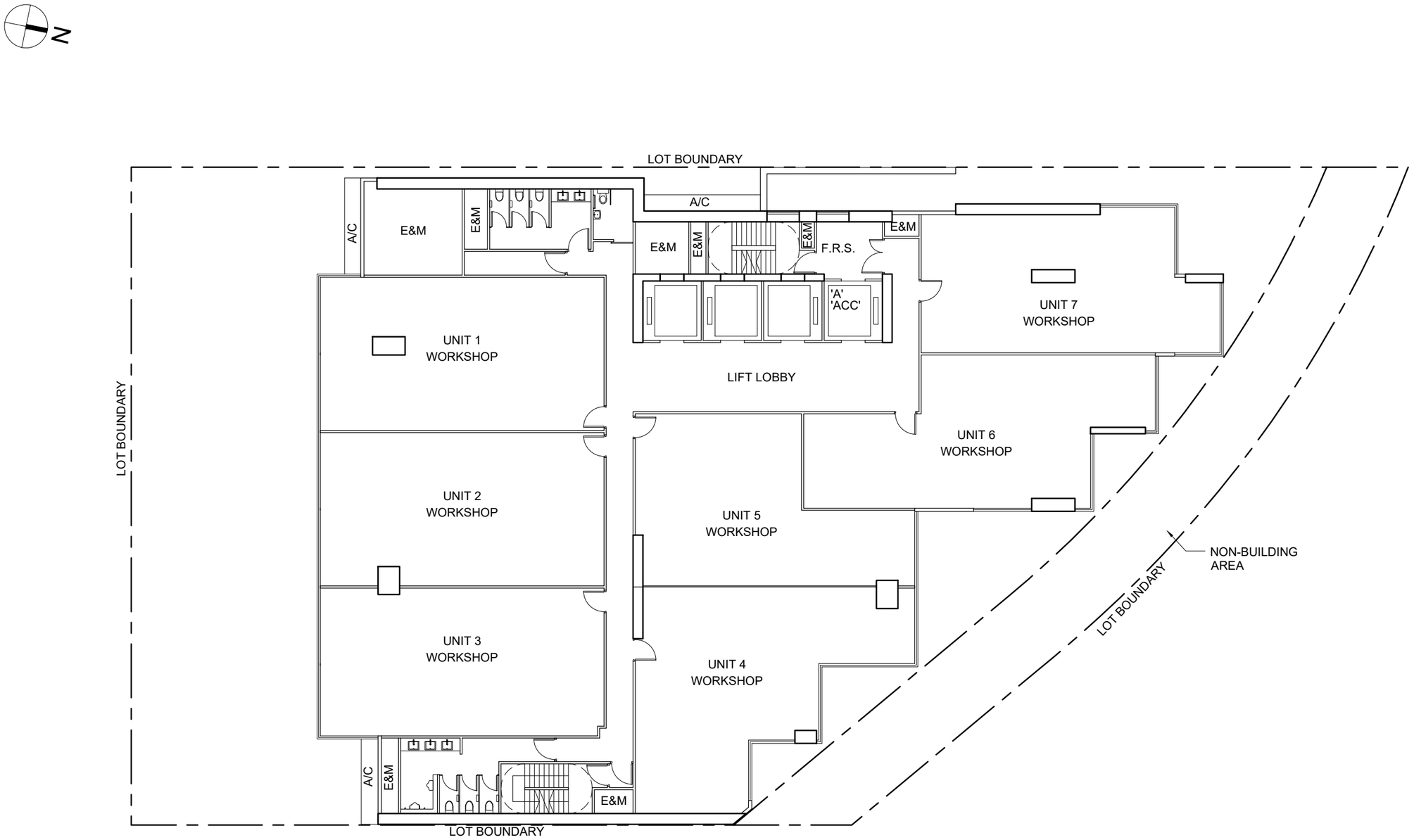
DRAWING TITLE

3RD FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A



4TH - 19TH FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

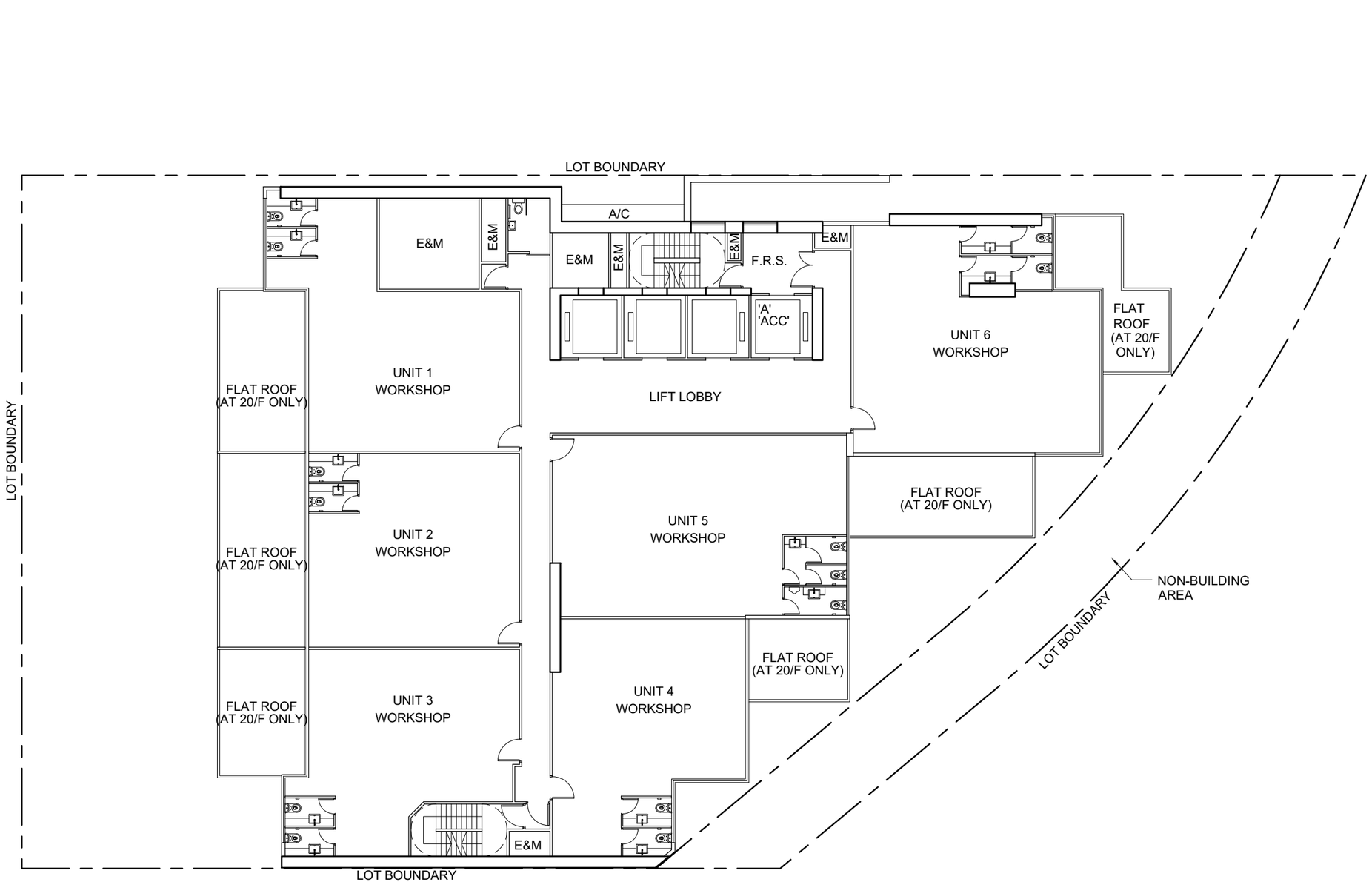
DRAWING TITLE:

TYPICAL FLOOR PLAN
(4TH - 19TH FLOOR PLAN)

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A



20TH - 21ST FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

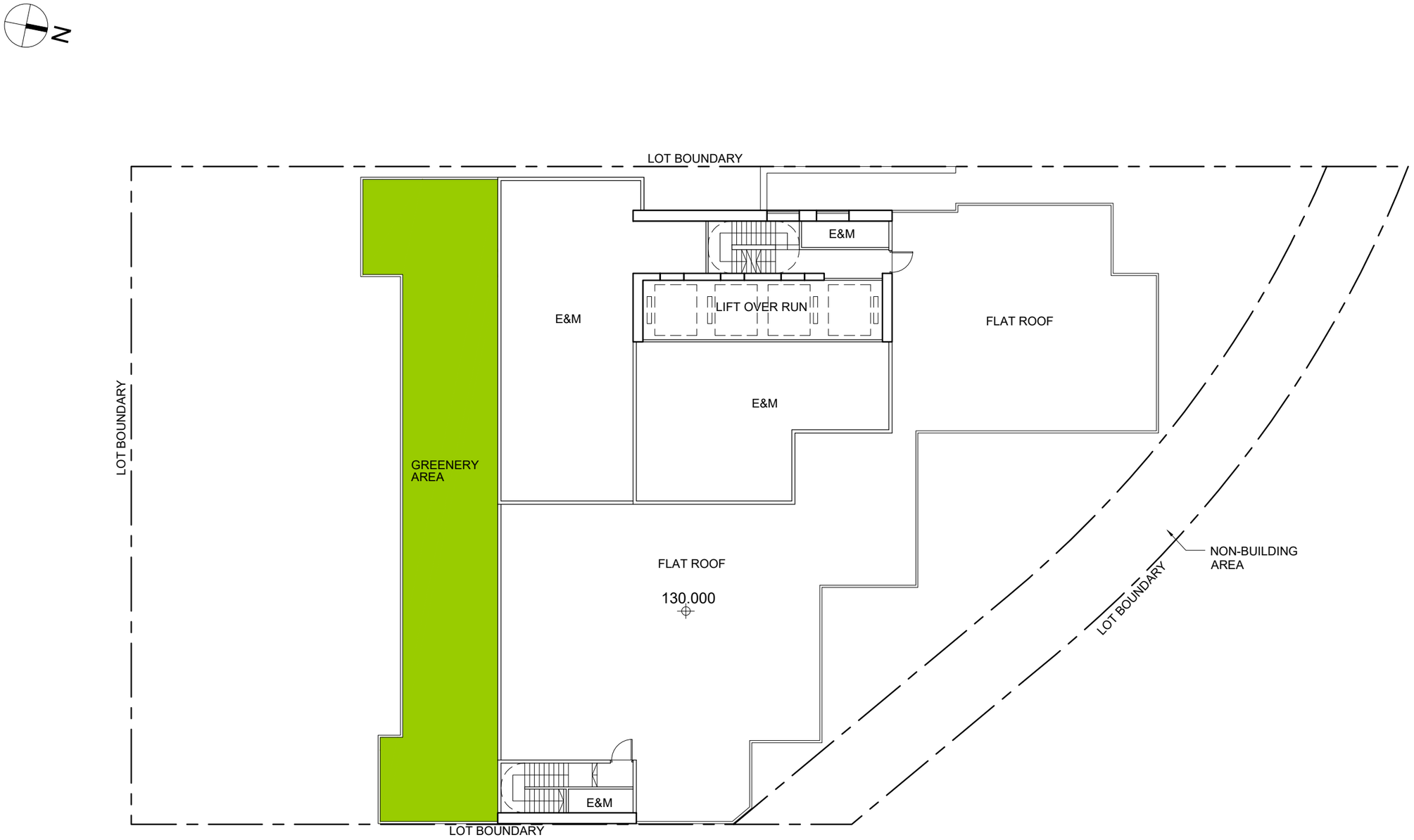
DRAWING TITLE

20TH - 21ST FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A



ROOF PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

ROOF PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION A

REGENT CENTRE TOWER A

REGENT CENTRE TOWER B

FL +35.50

FL +35.50

FL +35.50

+35.50

FL +37.00

2500

3500

1000

Non-Building Area

TA CHUEN PING STREET

KONG SHENG FACTORY BUILDING

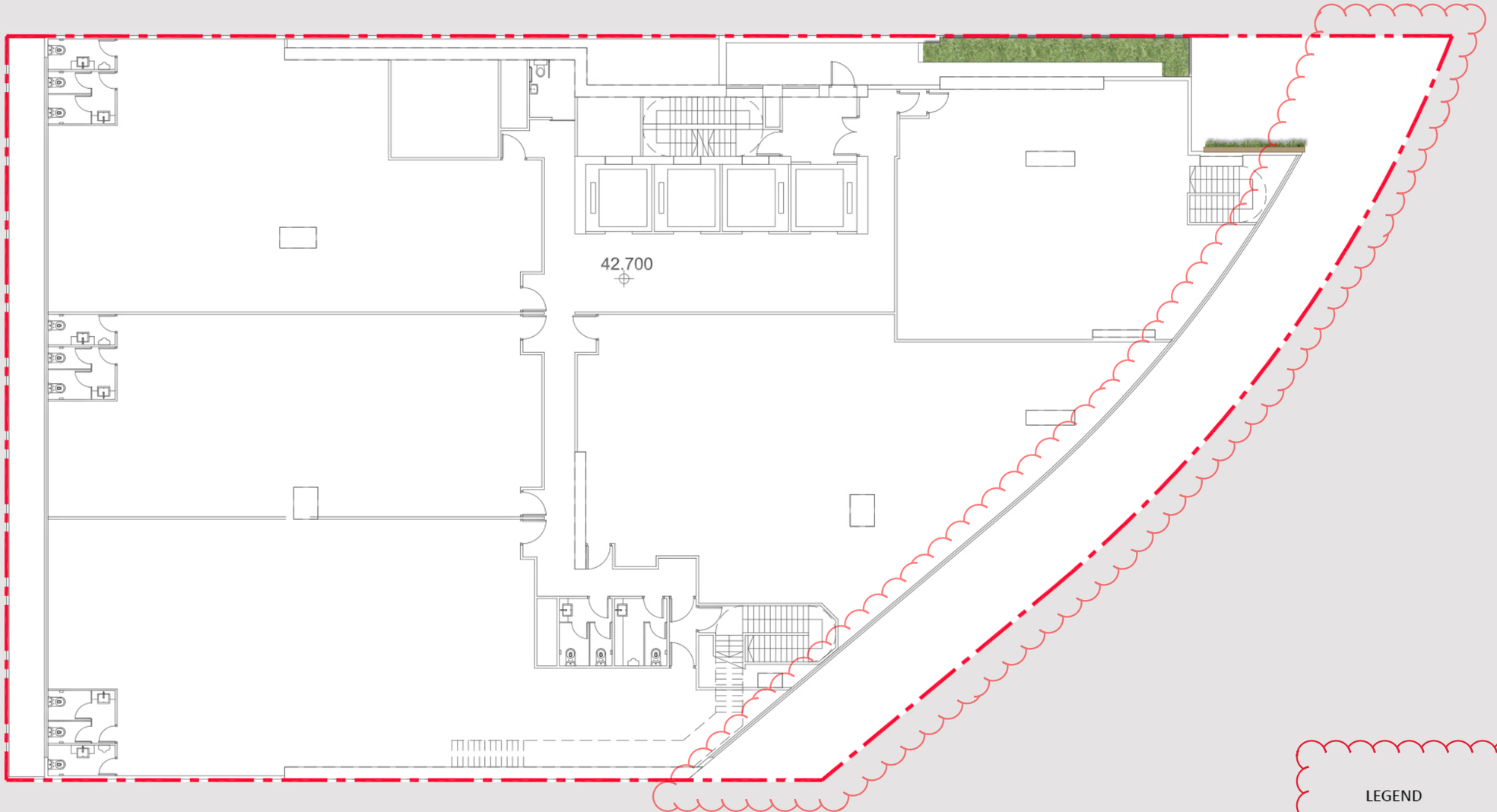
LEGEND

	Lot boundary
+35.50	Existing level
FL +35.50	Proposed finish floor level
	Pedestrian entrance
	Vehicle entrance
	Run in out
	Paving
	Planting Area with shrubs and groundcovers
	Proprietary green wall system
	Proposed tree- Osmanthus Fragrans

0 1 2 5 10m

LANDSCAPE MASTER PLAN - GROUND FLOOR

DRAWING NO. TCPS/LMP01 (REV.2)



LEGEND

Lot boundary

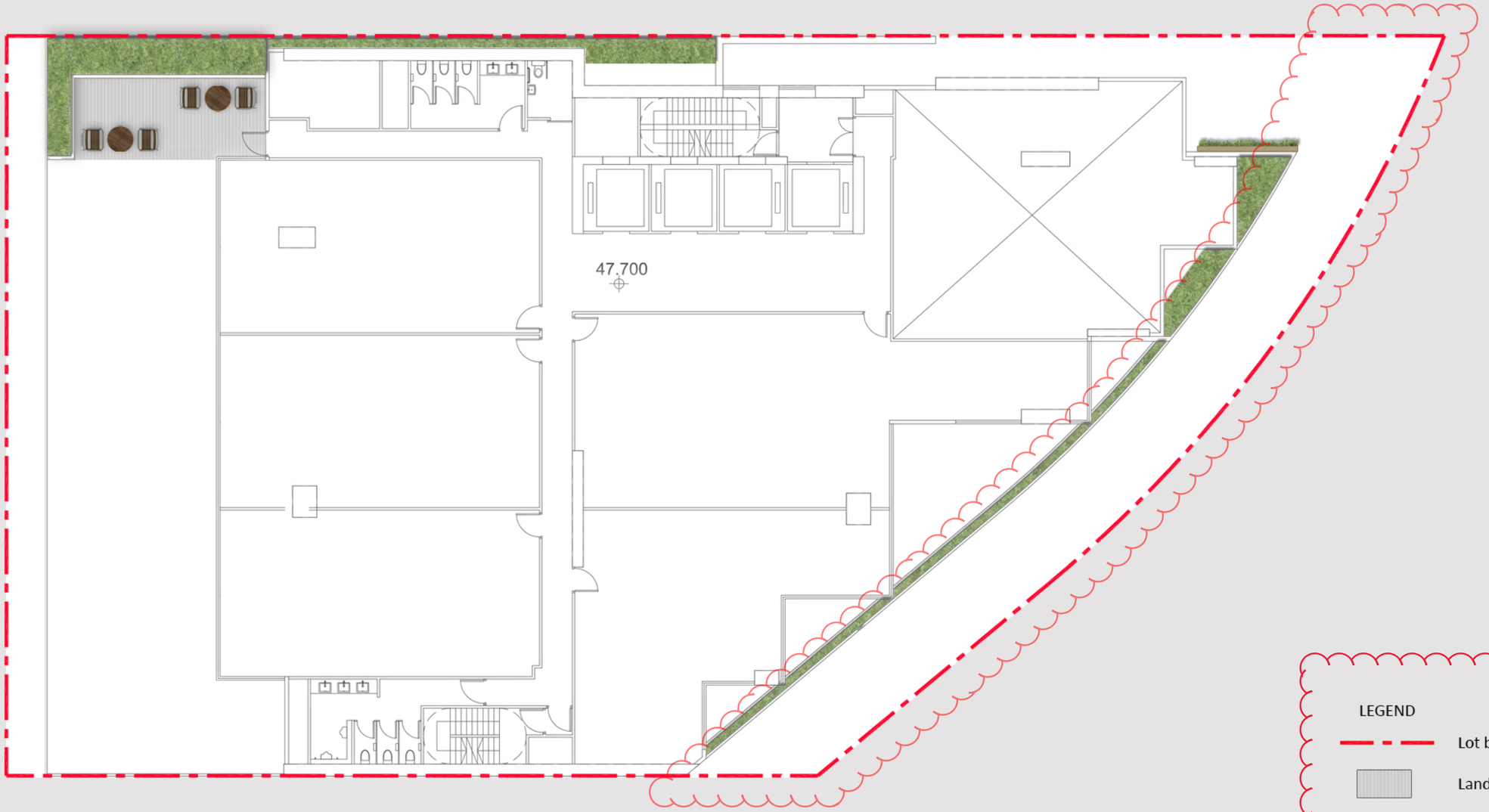
Planting Area with shrubs and groundcovers

Proprietary Green wall System

0 1 2 5 10m

LANDSCAPE MASTER PLAN - FIRST FLOOR

DRAWING NO. TCPS/LMP02 (REV.1)



LEGEND

Lot boundary

Landscape paving

Planting Area with shrubs and groundcovers

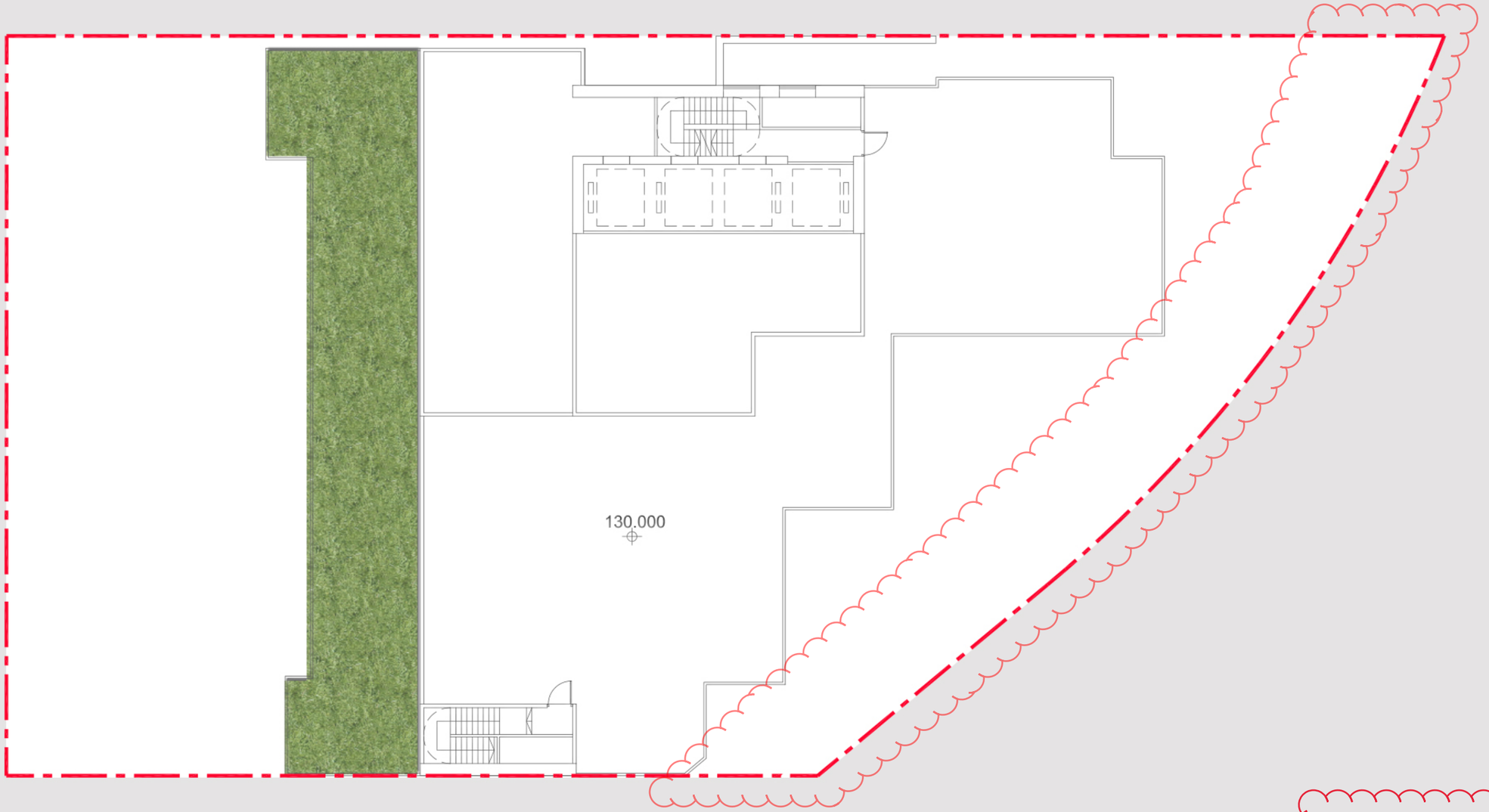
Propreietary Green wall system

Outdoor Furniture

0 1 2 5 10m

LANDSCAPE MASTER PLAN - SECOND FLOOR

DRAWING NO. TCPS/LMP03 (REV.2)



LEGEND

Lot boundary

Planting Area with shrubs and groundcovers

0 1 2 5 10m

LANDSCAPE MASTER PLAN - ROOF FLOOR

DRAWING NO. TCPS/LMP04 (REV.1)

Similar Applications

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
Yau Tsim Mong Area							
1.	S/K3/31 "OU(B)" A/K3/582 BHR: 110mPD	107-111 (Odd Numbers Only) Tung Chau Street, Tai Kok Tsui, Kowloon (386.5m^2)	I	PR 12 to 14.4 (+20%) BH Nil	**Approved** with conditions on 17.3.2020	4.025m (Workshop)	● Setback above 15m measured from the mean street level along Maple Street in accordance with OZP requirement ● Full-height setback along Tung Chau Street ● Greening ratio of about 33.4% (about 129m^2) with greening on G/F (about 11m^2) and 3/F (about 48m^2) as well as vertical greening (about 70m^2) ● Incorporation of landscaped area at the setback on G/F ● Incorporation of a sky garden with edge planters on 3/F ● Provision of vertical greening features on the podium façade along Tung Chau Street ● Compliance with SBDG and incorporation of green building design measures
2.	S/K3/32 "OU(B)" A/K3/588 BHR: 110mPD	100-114 Bedford Road, Kowloon (932.925m^2)	C/O	PR 12 to 14.4 (+20%) BH Nil	**Approved** with conditions on 29.5.2020	3.73m (Office)	● Voluntary Full-height setback from the south-eastern part of the lot boundary abutting Bedford Road ● Greening ratio of about 25.87% (about 241.39m^2) with greening on 3/F (about 116m^2) and R/F (about 80m^2) as well as green wall on lower floors (about 45.39m^2) ● Incorporation of a sky garden on 3/F ● Compliance with SBDG and incorporation of green building design measures
3.	S/K3/33 "OU(B)" A/K3/592 BHR: 110mPD	75 Bedford Road, Kowloon (308.7m^2)	I	PR 12 to 14.4 (+20%) BH Nil	**Approved** with conditions on 11.6.2021	4.79m (Workshop)	● Voluntary Full-height setback from the lot boundary along Bedford Road and Walnut Street ● Building setback on upper floor (i.e. 11/F to 21/F) will be provided from the northwestern lot boundary fronting the adjacent building ● Greening ratio of about 28.9% (about 89.48m^2) with greening on G/F (about 15.64m^2) and vertical greening (about 73.84m^2) ● Compliance with SBDG and incorporation of green building design measures
Cheung Sha Wan							
4.	S/K5/37 "OU(B)" A/K5/813 BHR: 120mPD	822 Lai Chi Kok Road, Cheung Sha Wan (1318.3m^2)	C/O	PR 12 to 14.4 (+20%) BH 120mPD to 125.7mPD (+4.75%)	**Approved** with conditions on 6.3.2020	4.375m (Office)	● Full-height setbacks along Lai Chi Kok Road and Cheung Lai Street in accordance with ODP requirement for street widening and streetscape improvement ● Voluntary setback at G/F and 1/F along Cheung Yee Street to provide shading and to enhance pedestrian connectivity and comfort ● Incorporation of refuge floor cum communal sky garden ● Incorporation of flat roofs/recessed terraces with greenery ● Greenery coverage of 263.891m^2 (about 20% of Site Area) with an additional 50m^2 vertical greening ● Compliance with SBDG and incorporation of green building design measures

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
5.	S/K5/37 "OU(B)" A/K5/816 BHR: 130mPD	121 King Lam Street, Cheung Sha Wan (509.4m^2)	I	PR 12 to 14.4 (+20%) BH Nil	**Approved** with conditions on 21.8.2020	4.5m (Workshop)	● Voluntary full-height setback along King Lam Street in addition to setback in accordance with ODP requirement for improving pedestrian circulation ● Voluntary full-height setback along eastern boundary to facilitate manoeuvring of vehicles ● Incorporation of podium garden for cross ventilation and visual permeability ● Greenery provision at G/F, 3/F and roof, with greenery coverage of 76.75m^2 (about 15.07% of Site Area) ● Compliance with SBDG
6.	S/K5/37 "OU(B)" A/K5/820 BHR: 130mPD	1016-1018 Tai Nan West Street, Cheung Sha Wan (1,374m^2)	I	PR 12 to 14.4 (+20%) BH Nil	**Approved** with conditions on 5.2.2021	4.7m (Workshop)	● Full-height setbacks along Wing Hong Street, Tai Nan West Street and King Lam Street in accordance with ODP requirement for street widening and streetscape improvement ● Weather protection canopy along Wing Hong Street, Tai Nan West Street and King Lam Street ● Corner splays ● Tree planting along Tai Nan West Street and King Lam Street ● Incorporation of vertical greening at G/F and 1/F facades, podium garden at 2/F and recessed platform with greenery ● Greenery provision of 313.64m^2 (about 22.83% of Site Area) with additional vertical greening ● Compliance with SBDG and incorporation of green building design measures
7.	S/K5/37 "OU(B)2" A/K5/825 BHR: 130mPD	916-922 Cheung Sha Wan Road, Cheung Sha Wan (892m^2)	I	PR 12 to 13.455 (+12.1%) BH Nil	**Approved** with conditions on 20.11.2020	4.55m (Workshop)	● Full-height setback along Cheung Sha Wan Road in accordance with ODP requirement for street widening and streetscape improvement ● Weather protection canopy and tree planting along Cheung Sha Wan Road ● Incorporation of podium garden and recessed platform with greenery ● Greenery provision at 1/F (including vertical greening of 53.512m^2) and 2/F, with greenery coverage of 222.733m^2 (about 20% of Site Area) ● Compliance with SBDG and incorporation of green building design measures
8.	S/K5/37 "OU(B)2" A/K5/826 BHR: 130mPD	924-926 Cheung Sha Wan Road, Cheung Sha Wan (1,115m^2)	I	PR 12 to 14.352 (+19.6%) BH Nil	**Approved** with conditions on 20.11.2020	4.55m (Workshop)	● Full-height setback along Cheung Sha Wan Road in accordance with ODP requirement for street widening and streetscape improvement ● Weather protection canopy and tree planting along Cheung Sha Wan Road ● Incorporation of podium garden and recessed platform with greenery ● Greenery provision at 1/F (including vertical greening of 66.89m^2) and 2/F, with greenery coverage of 241.58m^2 (about 20% of Site Area) ● Compliance with SBDG and incorporation of green building design measures

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
9.	S/K5/37 "OU(B)1" A/K5/829 BHR: 130mPD	550-556 Castle Peak Road, Cheung Sha Wan (1,471m^2)	I	PR 12 to 14.4 (+20%) BH Nil	**Approved** with conditions on 23.7.2021	4.75m/4.9m (Workshop)	● Full-height setback along Castle Peak Road (2m), Wing Hong Street (3.5m) and Yu Chau West Street (2m) in accordance with OZP/ODP requirements for street widening and streetscape improvement ● Voluntary full-height setback of 3m at the western portion of the façade facing Castle Peak Road ● A recessed area of 1.5m in width with a clear headroom up to 2/F at the western portion of the façade facing Wing Hong Street ● A continuous covered passageway of a minimum width of 1.2m in the form of overhang and canopy along the three building facades along Castle Peak Road, Yu Chau West Street and Wing Hong Street ● Incorporation of vertical greening at G/F and 1/F facades, trees and planters on G/F, landscaped sky-garden at 13/F and planting areas at 1/F, 2/F, 3/F and R/F ● Greenery coverage of 431.8m^2 (about 29.4% of Site Area), of which about 12.4% (181.8m^2) is within the pedestrian zone ● Compliance with SBDG and incorporation of green building design measures
Kwai Chung							
10.	S/KC/29 "OU(B)" A/KC/460 BHR: 130mPD	57 – 61 Ta Chuen Ping Street, Kwai Chung (2,261m^2)	I-O	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 5.7.2019	N/A	● Full-height setback along Ta Chuen Ping Street wider than OZP requirement for long-term road widening and improving air ventilation
11.	S/KC/29 "OU(B)" A/KC/464 BHR: 105mPD	20-24 Kwai Wing Road, Kwai Chung (1,579m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 29.11.2019	4.2m (Workshop)	● Voluntary full-height setbacks at the northern portion of site and along Castle Peak Road - Kwai Chung for improving pedestrian environment, air ventilation and visual permeability ● Greening provision of 316m^2 (about 20% of Site Area) ● Provision of communal escalator with universal accessible lift and staircase open to the public for improving pedestrian connectivity, accessibility and comfort ● Compliance with SBDG and incorporation of green building design measures

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
12.	S/KC/29 "OU(B)" A/KC/463 BHR: 105mPD	Kwai Chung Town Lot (KCTL) 49 and Ext. RP, 45-51 Kwok Shui Road, Kwai Chung, New Territories (Gross Site Area: 1,324.3m^2 Net Site Area[2]: 1,181.727m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 17.3.2020	4.20m (Workshop)	● 2m voluntary full-height setback along Kwok Shui Road for proposed pedestrian footpath and landscaped area ● Weather protection canopy along the northern and western facades ● Greening ratio of about 28.37% (335m^2) ● Incorporation of landscaped area at G/F, 1/F, 3/F and the rooftop ● Compliance with SBDG and incorporation of green building design measures
13.	S/KC/29 "OU(B)" A/KC/466 BHR: 130mPD	2-16 Lam Tin Street (1,858m^2)	Information Technology and Telecommu-nications Industries	PR 9.5 to 11.4 (+20%) BH 130mPD to 146.5mPD (+12.7%)	**Approved** with conditions on 29.5.2020	5.5m (Data Centre)	● Full-height NBAs along Lam Tin Street and Chun Pin Street in accordance with OZP requirement to cater for the long-term road widening proposal and enhance the air permeability of the area ● Incorporation of landscape area at B1/F, G/F, 1/F, 3/F and R/F and vertical greening at the low zone of the building along the western and eastern façades ● Greening ratio of about 22.69% (421.501m^2) ● Compliance with SBDG and incorporation of green building design measures
14.	S/KC/29 "OU(B)" A/KC/469 BHR: 130mPD	57-61 Ta Chuen Ping Street (2,248m^2)	Hotel	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 6.11.2020	3.3m (Hotel Rooms)	● Full-height NBAs abutting Ta Chuen Ping Street in accordance with OZP requirement and voluntary full-height setback to further improve permeability and streetscape ● Incorporation of landscaped area at G/F, 1/F and 2/F and vertical greening at 1/F façades ● Greening ratio of about 26.09% (586.5m^2) ● Compliance with SBDG and incorporation of green building design measures
15.	S/KC/29 "OU(B)" A/KC/471 BHR:	10-16 Kwai Ting Road (1,381.457m^2)	I	PR 11.75 to 14.1 (+20%)	**Approved** with conditions on 14.5.2021	4.1m (Workshop)	● 7m full-height NBA (without underground structures) from the northern lot boundary abutting Kwai On Road ● Voluntary 1m full-height setback and a further 2.685m up to 15m in height above the abutted street level ● Canopy along the building edge facing Kwai On Road ● Bollards on pavement along the frontage of the Site to prevent illegal parking of vehicles ● Plantings on street level within the Site along Kwai On Road and the western footpath

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
	105mPD			BH 105mPD to 121.2mPD (+15.43%)			● Vertical greening features alongside the building facade facing Kwai On Road, a sky garden cum refuge floor on 13/F, communal landscape garden on 3/F, and green roof ● Greening ratio of about 20.01% (276.43m^2) ● Compliance with SBDG and incorporation of green building design measures
16.	S/KC/29 "OU(B)" A/KC/473 BHR: 130mPD	2-10 Tai Yuen Street (1,865m^2)	Information Technology and Telecommu-nications Industries	PR 9.75 to 11.7 (+20%) BH Nil	**Approved** with conditions on 11.6.2021	5.5m (Data Centre)	● 2m voluntary full-height setbacks from lot boundary along Tai Yuen Street and Kwok Shui Road ● Glass canopy above the main entrance at Tai Yuen Street ● Bollards on footpath along the frontage of the Site to prevent illegal parking of vehicles ● Incorporation of landscaped area at G/F, rooftop greening at 1/F, 2/F and R/F, and vertical greening at G/F to 2/F façades fronting Tai Yuen Street ● Greening ratio of about 20.3% (379.98m^2) ● Compliance with SBDG and incorporation of green building design measures
17.	S/KC/29 "Industrial" A/KC/474 BHR: 120mPD	45-51 Tai Lin Pai Road (2,189m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 23.7.2021	3.5m (Workshop)	● 3.5m and 0.5 to 1.7m full-height setbacks along Tai Lin Pai Road and Wah Sing Street respectively ● A passage for the public as 'short-cut' connecting Tai Lin Pai Road at LG/F and Wah Sing Street at UG/F ● A landscape entrance courtyard at the southwestern corner of LG/F near Tai Lin Pai Road ● Traffic measures including installation of bollards to prevent illegal parking on the street ● Sky garden cum refuge floor with peripheral greening on 6/F, landscape treatments in the form of trees, planters, vertical greening and seating at LG/F, UG/F, 1/F, 2/F and 6/F ● Total greenery coverage of not less than 20% of the Site ● Compliance with SBDG and incorporation of green building design measures
Tsuen Wan							
18.	S/TW/33 "Industrial" A/TW/505 BHR: 100mPD	14-18 Ma Kok Street, Tsuen Wan (1,858.1m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 1.11.2019	3.5m (Workshop)	● Voluntary full-height setback along Ma Kok Street for improving pedestrian environment ● Greening at G/F (with 0.6m setback) along Tsuen Yip Street ● Greening provision of 389 m^2 (about 20% of Site Area) ● Compliance with SBDG and incorporation of green building design measures

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
19.	S/TW/33 "Industrial" A/TW/509 BHR: 100mPD	8-14 Sha Tsui Road, Tsuen Wan ($4,645.16m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 13.12.2019	4.95m (Workshop)	● Full-height setback along Sha Tsui Road, Pun Shan Street and back alley ● Building setback above 1/F ● Landscape and seating provided in setback area along Sha Tsui Road and Pun Shan Street ● Substantial vertical greenery in front facade and total greenery coverage of not less than 20% ● Compliance with SBDG and incorporation of green building design measures
20.	S/TW/33 "OU(B)" A/TW/508 BHR: 100mPD	18-20 Pun Shan Street, Tsuen Wan ($2,322.557m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 17.1.2020	3.85m (Workshop)	● Full-height setback along Pun Shan Street in accordance with ODP requirement for improving pedestrian environment ● Setback from G/F to 3/F along the service lane at the west of the application site ● Landscape area provided at 1/F, 2/F and roof floor ● Greenery provided at entrance foyer and run-in/out, and total greenery coverage of not less than 20% ● Compliance with SBDG and incorporation of green building design measures
21.	S/TW/33 "Industrial" A/TW/514 BHR: 100mPD	Tsuen Wan Town Lot 85 and Lot 486 in D.D. 443, Fui Yiu Kok Street, Tsuen Wan ($593\ m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 29.5.2020	3.5m (Workshop)	● Full-height setback along Fui Yiu Kok Street ● Upgrading works at G/F setback area and adjoining public footpath ● Provision of a continuous glass canopy structure facing Fui Yiu Kok Street above the pavement ● Incorporation of a communal podium garden at 1/F ● Total greenery provision of about $119.378m^2$ (not less than 20% of site area) ● Compliance with SBDG and incorporation of green building design measures
22.	S/TW/33 "Industrial" A/TW/516 BHR: 100mPD	24-32 Fui Yiu Kok Street, Tsuen Wan ($973.6\ m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 12.6.2020	4.08m (Workshop)	● Full-height setback along Fui Yiu Kok Street ● Incorporation of landscape area at the flat roof at 1/F ● Total greenery provision of about $201.8m^2$ (about 20.7% of site area) ● Compliance with SBDG and incorporation of green building design measures
23.	S/TW/33 "OU(B)" A/TW/517 BHR: 100mPD	46-48 Pak Tin Par Street, Tsuen Wan ($721.59\ m^2$)	I	PR 9.832 to 11.4 (+16%) BH	**Approved** with conditions on 9.10.2020	3.85m (Workshop)	● Voluntary full-height setback of 2m along Pak Tin Par Street with trees, and canopy above for rain protection and sun shading ● Provision of vertical greening at the building façade along Pak Tin Par Street, peripheral greening at 3/F and a sky garden with vegetated edge at 12/F ● Total greenery provision of about $177.8m^2$ (24.634% of site area)

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
				Nil			
24.	S/TW/33 "OU(B)" A/TW/518 BHR: 100mPD	Lot 301 RP in D.D. 355, Pun Shan Street, Tsuen Wan (903.5 m2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 22.1.2021	4.95m (Workshop)	● Full-height setback in form of non-building area (NBA) of 3.5m along Pun Shan Street for widening the existing footpath with provision of sunken planters to enhance pedestrian circulation and comfort ● 4.5m full-height setback in form of NBA along the south-western lot boundary for creating an extended pedestrian network from Sha Tsui Road into inner part of the street block bounded by Sha Tsui Road, Pun Shan Stret and Chai Wan Kok Street; and provision of canopy along this facade subject to GFA exemption ● Provision of vertical greening at G/F building facade along Pun Shan Street and roof greenery with total greenery provision of about 183.7m^2 (20.3% of the total site area)
25.	S/TW/34 "Industrial" A/TW/521 BHR: 100mPD	18-32 Fui Yiu Kok Street, Tsuen Wan (1,540 m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 14.5.2021	4.15m (Workshop)	● Voluntary 1m full-height setback on G/F and 6.3m full-height setback at 1/F and above fronting Fui Yiu Kok Street ● 1m wide canopy above the main entrance will be provided within the 1m setback area on G/F ● Vertical greening on G/F and 1/F building façade/edge facing Fui Yiu Kok Street ● Incorporation of landscape area at the flat roof on 1/F for tenants' and visitors' use only ● Total greenery provision of about 324m^2 (about 21% of the site area) ● Compliance with SBDG and incorporation of green building design measures
26.	S/TW/34 "OU(B)" A/TW/522 BHR: 100mPD	18-20 Pun Shan Street, Tsuen Wan (2,323 m^2)	Information Technology and Telecom-munications Industries	PR 9.5 to 11.4 (+20%) BH 100mPD to 116.2mPD (+16.2%)	**Approved** with conditions on 23.7.2021	5.8m (Data Centre)	● Full-height setback of about 0.2m along Pun Shan Street in accordance with ODP requirement ● Voluntary full height setbacks from the lot boundaries facing Castle Peak Road – Tsuen Wan (3m to 4.5m) and that facing the service lane (3.5m) ● A canopy with area about 17m^2 at the pedestrian entrance facing Castle Peak Road – Tsuen Wan ● Vertical greening on the facades from G/F to 15/F facing Castle Peak Road – Tsuen Wan, Pun Shan Street and the service lane ● Landscaped setback areas on G/F, flat roofs at 1/F, 8/F, 18/F and the roof/upper roof ● Planting of five trees at the setback areas facing Castle Peak Road – Tsuen Wan and the service lane ● Total greenery provision of about 766m^2 (about 33% of the site area) ● Compliance with SBDG and incorporation of green building design measures

Notes

[1] Proposed Uses: Industrial (I), Commercial/ Office (C/O), Office (O) and Industrial-Office (I-O)

[2] The Site comprises parent lot KCTL No.49 (about 1,181.727m^2) and Ext. RP (about 142.6m^2). The extension area was granted after the building plans for the existing Toppy Tower were approved in 1974. Under the lease, no structure other than boundary walls and fences is permitted to be erected within the extension area except with prior approval of the Director of Lands, and the extension area shall not be PR/site coverage accountable. Hence, only the area of KCTL 49, i.e. about 1,181.727m^2 should be accountable for PR/GFA calculation.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210602-120658-64925
提交限期 **Deadline for submission:**	18/06/2021 5-1
提交日期及時間 **Date and time of submission:**	02/06/2021 12:06:58
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	Cheung

意見詳情
Details of the Comment :

I support the application A/KC/476 for the reasons below:
The proposed development density complies with the planning context of the area and does not alter the maximum permitted building height
The application site has been vacant for a long time, the proposed development can optimize the valuable land resource to deliver floor space for industrial use which brings out economic benefits
The proposed development provides non-building area along Ta Chuen Ping Street to widen the existing footpath, which enhances the walking experience
There is substantial greening proposed in the development, especially the planting of trees along Ta Chuen Ping Street. The greenery provided improves the overall streetscape
The proposed development adopts zig-zagged façade which is aesthetically pleasing. Such design also allows certain degree of set back from Ta Chuen Ping Street and improves the visual permeability, ventilation, and sunlight
Multiple technical assessments have been submitted which confirms there is no adverse impacts

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210602-121903-12874
提交限期 **Deadline for submission:**	18/06/2021
提交日期及時間 **Date and time of submission:**	02/06/2021 12:19:03
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	女士 Ms. Catherine Li

5-2

意見詳情
Details of the Comment :

The application site has been vacant for a long time, the proposed development can optimize the valuable land resource to deliver floor space for industrial use.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210602-152604-11309
提交限期 **Deadline for submission:**	18/06/2021 5-3
提交日期及時間 **Date and time of submission:**	02/06/2021 15:26:04
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. KL Chan

意見詳情
Details of the Comment :

Dear Sir/Madam,

I would support the approval of application A/KC/476 at 94-100 Ta Cheung Ping Street based o n the following reasons:

1) The site has been vacant for decades. Such development with relaxed plot ratio would energiz e the area and trigger renewal of surrounding buildings;
2) The building is setback from the street providing extra pavement width and greenery which e nhance pedestrian experience in contrast to current situation which is being occupied by various to-be-recycled waste on the street;
3) The design of the tower and landscape on the ground level are the best around the area. Comp letion of such building would definitely beautify the streetscape.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210602-153903-01257
提交限期 **Deadline for submission:**	18/06/2021 5-4
提交日期及時間 **Date and time of submission:**	02/06/2021 15:39:03
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Ryan Yiu

意見詳情
Details of the Comment :

The application A/KC/476 could encourage more commercial redevelopments in the surrounding industrial area.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210603-002508-78654
提交限期 **Deadline for submission:**	18/06/2021 5-5
提交日期及時間 **Date and time of submission:**	03/06/2021 00:25:08
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss Chan

意見詳情
Details of the Comment :

支持，符合政府活化工廈的政策，進行大量綠化能改善環境

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210603-110828-97127
提交限期 **Deadline for submission:**	18/06/2021 5-6
提交日期及時間 **Date and time of submission:**	03/06/2021 11:08:28
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	女士 Ms. Karen Wong

意見詳情
Details of the Comment :

The application site has been vacant for many years, I support this application since the proposed development can optimize the valuable land resource and can provide an industrial building for the market.

致城市規劃委員會秘書：
專人送遞或郵遞:香港北角渣華道 333 號北角政府合署 15 樓
傳真 : 2877 0245 或 2522 8426
電郵: tpbpd@pland.gov.hk

5-7

To : Secretary, Town Planning Board
By hand or post : 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong
By Fax : 2877 0245 or 2522 8426
By e-mail : tpbpd@pland.gov.hk

有關的規劃申請編號 **The application no. to which the comment relates**
A/KC/476

意見詳情 (如有需要，請另頁說明)
Details of the Comment (use separate sheet if necessary)

認為放寬地積比率，有利土地的有效使用。
放寬北側不太，對人流和道路的使用相信不會造成很大影響。

「提意見人」姓名/名稱 Name of person/company making this comment 徐[illegible]金

簽署 Signature [signature] 日期 Date 3/6/2021

RECEIVED
- 3 JUN 2021
Town Planning Board

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210609-122502-76892
提交限期 **Deadline for submission:**	18/06/2021 6-8
提交日期及時間 **Date and time of submission:**	09/06/2021 12:25:02
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss Wong

意見詳情
Details of the Comment :

The proposed development demonstrates its planning merits, for example the substantial plantin
g of trees along Ta Chuen Ping Street which enhance the walking experience and overall streetsc
ape.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210610-162040-33417
提交限期 **Deadline for submission:**	18/06/2021 5-9
提交日期及時間 **Date and time of submission:**	10/06/2021 16:20:40
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	夫人 Mrs. Melody Fan

意見詳情
Details of the Comment :

本人支持規劃申請編號 A/KC/476：擬議略為放寬地積比率限制，以作准許的非污染工業發展(不包括涉及使用/貯存危險品的工業經營)，符合政府活化工廈的政策及釋放「新」樓面面積作非污染工業用途並解決工廈空置率下降，可加快青山公路/和宜合道商貿區的轉型

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210610-161507-64355
提交限期 **Deadline for submission:**	18/06/2021 5-10
提交日期及時間 **Date and time of submission:**	10/06/2021 16:15:07
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. CK Chan

意見詳情
Details of the Comment :

The application site has been vacant for a long time, the proposed development can optimize the land resource to deliver floor space for industrial use.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210610-163504-88595
提交限期 **Deadline for submission:**	18/06/2021 5-11
提交日期及時間 **Date and time of submission:**	10/06/2021 16:35:04
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	女士 Ms. Wong

意見詳情
Details of the Comment :

I support to this application, the site has been vacant for very long time.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210610-163327-34229
提交限期 **Deadline for submission:**	18/06/2021 5-12
提交日期及時間 **Date and time of submission:**	10/06/2021 16:33:27
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Head Li

意見詳情
Details of the Comment :

~~The subject application is supported base on the reasons listed as below:~~

1/ There are other applications for redevelopment of industrial buildings with minor relaxation i n plot ratio in Kwai Chung district, and most of them have been approved. It is believed that the subject application can contribute to meeting the policy initiative of revitalization of Industrial B uildings policy, and encourage the redevelopment of pre-1987 industrial buildings
2/ Multiple technical assessments have been submitted which confirms the technical feasibility o f the proposed development.

I think the application with strong justifications to be approved by the TPB members.

tpbpd@pland.gov.hk

寄件者: [redacted]
寄件日期: 2021年06月16日星期三 4:06
收件者: tpbpd
主旨: A/KC/476 94-100 Ta Chuen Ping Street, Kwai Chung MR

5-13

A/KC/476
94-100 Ta Chuen Ping Street, Kwai Chung
Site area : About 1,486.436sq.m
Zoning : "Other Specified Uses" annotated "Business"
Applied use : Proposed **Minor Relaxation of Plot Ratio** for Industrial Development / 39 Car / 7Goods Parking

Dear TPB Members,

This is the 11th application in a short period. that every development applies for the maximum MR and that PD, responsible for drafting the OZP in the first place, supports the applications makes a mockery of the OZP process. How can a district wide increase in PR and bulk of 20% be justified? Where is the data with regard to overall impact on the environment, transport and traffic and community of what is effectively a district wide increase of one fifth? To date there has not been a single application that has used the additional PR to incorporate innovative architecture. Its all about bulking up.

I would refer to the minutes of 31 May 2019 re a similar application: strong justification and planning merits for the proposed minor relaxation of BH restriction. Approving such applications without strong justification and planning merits would set an undesirable precedent.

(a) the planning and design merits of the proposed scheme, taking into account the site specific characteristics and local context;
(b) design of street level on pedestrian accessibility, connectivity and comfort;
(c) compliance with relevant provisions of Sustainable Building Design Guidelines; and
(d) consideration of green building design

So apart from the set back, mandated in the OZP, and the proposed and very welcome at grade tree planting, the only other green features are some edge greenery and a the now ubiquitous Green Rug along a part of the wall. The greening on the roof will not benefit the community and at that height its viability is dubious. Better install solar panels.

There is little to counteract the heat island effect of all that reflective glass.

No commitment to BEAM.

Members must ensure that relaxations come with community benefits and green measures that are sustainable and permanent, not merely ornaments trotted out to secure approval.

Mary Mulvihill

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210616-092128-35912
提交限期 **Deadline for submission:**	18/06/2021 5-14
提交日期及時間 **Date and time of submission:**	16/06/2021 09:21:28
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Mike Kwok

意見詳情
Details of the Comment :

我支持規劃申請編號 A/KC/476：此申請發展採用綠色建築設計，大廈外觀的鋸齒形設計能美化區內景觀及通風流動性，有效改善周圍環境。希望此申請能盡快得到通過，令周邊舊區環境得到活化。

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210616-112644-98536
提交限期 **Deadline for submission:**	18/06/2021 5-15
提交日期及時間 **Date and time of submission:**	16/06/2021 11:26:44
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Ng

意見詳情
Details of the Comment :

I support the application. There is substantial greening proposed in the development, especially the planting of trees along Ta Chuen Ping Street. The greenery provided improves the overall streetscape.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210616-112901-50862
提交限期 **Deadline for submission:**	18/06/2021 5-16
提交日期及時間 **Date and time of submission:**	16/06/2021 11:29:01
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	Ng Fan

意見詳情
Details of the Comment :

I support the proposal. The application site has been vacant for a long time, the proposed development can optimize the valuable land resource to deliver floor space for industrial use.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210616-144829-19968
提交限期 **Deadline for submission:**	18/06/2021 5-17
提交日期及時間 **Date and time of submission:**	16/06/2021 14:48:29
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss WONG

意見詳情
Details of the Comment :

I support the application to optimize the land resource.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210616-163129-88768
提交限期 **Deadline for submission:**	18/06/2021 5-18
提交日期及時間 **Date and time of submission:**	16/06/2021 16:31:29
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Simon Tong

意見詳情
Details of the Comment :

我支持規劃申請編號 A/KC/476：擬議於葵涌打磚坪街94-100 號經常准許的非污染工業發展，提出略為放寬20%地積比率限制，此申請發展將會在面向打磚坪街進行大量綠化包括樹木種植及邊緣種植，我認為能改善周圍環境及街道景觀。

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210616-171237-86247
提交限期 **Deadline for submission:**	18/06/2021 5-19
提交日期及時間 **Date and time of submission:**	16/06/2021 17:12:37
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	女士 Ms. Wong

意見詳情
Details of the Comment :

It is noticed that there have been other applications for redevelopment of industrial buildings wit h minor relaxation in plot ratio in Kwai Chung district, and most of them have been approved. It is believed that the subject application can together contribute to meeting the policy initiative of IB revitalization, and encourage the redevelopment of pre-1987 industrial buildings.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210617-154302-27881
提交限期 **Deadline for submission:**	18/06/2021
提交日期及時間 **Date and time of submission:**	17/06/2021 15:43:02
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss Lee

5-20

意見詳情
Details of the Comment :

I support to the application

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-085706-60869
提交限期 **Deadline for submission:**	18/06/2021
提交日期及時間 **Date and time of submission:**	18/06/2021 08:57:06
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss Li

5-21

意見詳情
Details of the Comment :

I support this development

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-182453-20959
提交限期 **Deadline for submission:**	18/06/2021 5-22
提交日期及時間 **Date and time of submission:**	18/06/2021 18:24:53
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Tom Ng

意見詳情
Details of the Comment :

The proposed development demonstrates its planning & design merits.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-182714-24743
提交限期 **Deadline for submission:**	18/06/2021 5-23
提交日期及時間 **Date and time of submission:**	18/06/2021 18:27:14
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	女士 Ms. Bovix Chan

意見詳情
Details of the Comment :

The application site has been vacant for a ling time, the proposal development can optimize the valuable land resource to deliver floor space its planning/ design.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-182933-70149
提交限期 **Deadline for submission:**	18/06/2021
提交日期及時間 **Date and time of submission:**	18/06/2021 18:29:33
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Samuel Wong

5-24

意見詳情
Details of the Comment :

I fully support the plan to put a new industrial building on the empty lot there which has been left vacant for a lot time. The building design looks good, especially with the proposed landscaping at the street level

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-183425-29418
提交限期 **Deadline for submission:**	18/06/2021 5-25
提交日期及時間 **Date and time of submission:**	18/06/2021 18:34:25
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss Apple Chan

意見詳情
Details of the Comment :

The proposed development demonstrates its planning merits! Good

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-191724-86979
提交限期 **Deadline for submission:**	18/06/2021 5-26
提交日期及時間 **Date and time of submission:**	18/06/2021 19:17:24
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. K K Li

意見詳情
Details of the Comment :

綠化設計切合所需，有示範作用，我支持申請。

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-191946-83262
提交限期 **Deadline for submission:**	18/06/2021 5-27
提交日期及時間 **Date and time of submission:**	18/06/2021 19:19:46
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	小姐 Miss Ip Luk Yan

意見詳情
Details of the Comment :

I support this application.

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210618-223928-84182
提交限期 **Deadline for submission:**	18/06/2021 5-28
提交日期及時間 **Date and time of submission:**	18/06/2021 22:39:28
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	先生 Mr. Chris

意見詳情
Details of the Comment :

Agree

就規劃申請/覆核提出意見 Making Comment on Planning Application / Review

參考編號 **Reference Number:**	210719-131014-85303 Seg 2
提交限期 **Deadline for submission:**	06/08/2021 5-29
提交日期及時間 **Date and time of submission:**	19/07/2021 13:10:14
有關的規劃申請編號 **The application no. to which the comment relates:**	A/KC/476
「提意見人」姓名/名稱 **Name of person making this comment:**	北葵涌交通關注組

意見詳情
Details of the Comment :

本人(身份證號碼[redacted])將代表北葵涌交通關注組，反對是次放寬地積比率限制申請。

由文件可見，該地段的地積比本身是9.5倍，但經數次申請後，是次申請地積比達11.4倍，數面面積達16,945.37平方米，同時有39個上位及7個上落客位，將對鄰近居民造成極大負面影響。

1. 交通問題

申請位置鄰近和宜合道，和宜合道為北葵涌主要對外道路，鄰近居民達10萬人住宅區、包括大型住宅區石梨村、安蔭村及石蔭村。以往發展麗晶中心，即本規劃旁的商業發展時，額外的車流已令和宜合道擠塞，更需要多項工程(包括增加石排街往來青山公路路口、和宜合道路口改善工程等)，以改善和宜合道擠塞情況。

實際上，近來接駁青山公路及和宜合道的路口亦見飽和，若在區內增加更多車流，該路口將不敷應付，將癱瘓北葵涌往來九龍的交通。

只一方面，商業設施帶來的上下班人流，以及額外人流，亦對區內對外交通帶來沉重負擔。北葵涌並不接近港鐵站，居民往往依靠接駁巴士31M及235M往來葵芳港鐵站接駁港鐵。然而以往批准發展麗晶中心，以及區內工廈改建為酒店後，巴士服務需求大幅增加，居民往往需要等待多班巴士才能上車。如遇上天雨或交通擠塞，居民有需要等待超過一小時才能夠上車，情況並不理想。

2. 配套問題

此商貿用地並無付有飯堂等配套設施，在此工作的人士，需依賴社區配套設施，例如食店來維持每日所需。現時午膳時間，鄰近和宜合道的食店已大排長龍，若有更多人流，居民外出用膳只會愈來愈難。

3. 光污染問題

梨木道近國瑞路的一幢工廈天台早年重建，其後在大廈頂部安裝燈牌，發出刺眼光線，而近該棟工廈的民居只有約一百五十米距離，不少居民投訴指該廣告牌令他們難以入睡。有住在距離廣告牌約六百米的小童因此羊癇症病發，甚至離廣告牌一公里遠的居民亦反映受廣告牌影響，即使拉上窗簾仍可見強光。此事曾被多間傳媒報道。

目前《戶外燈光約章》純粹自願參與性質，並法法例效力。本人希望城規會在處理本申請時，能考慮到此情況，考慮在條款中加入不准安裝大型燈牌或發光宣傳品，以減少對居民的影響。

tpbpd@pland.gov.hk

寄件者: [redacted]
寄件日期: 2021年08月02日星期一 4:24
收件者: tpbpd
主旨: Re: A/KC/476 94-100 Ta Chuen Ping Street, Kwai Chung MR

Seg 2

5-30

Dear TPB Members,

No specific information provided with regard to the 'Greenery Areas'on the pavement and first and second floors.

The site is well over 1,000sq.m and therefore the additional MR must come with definitive benefits to the community. All the reflective glass and additional height will reduce natural light to the pavement, block ventilation and reflect heat, impacting the ambient temperature.

Is the tree planting on the pavement viable,would it leave sufficient room for pedestrians, carts, etc?

Mary Mulvihill

From: "[redacted]
To: "tpbpd" <tpbpd@pland.gov.hk>
Sent: Wednesday, June 16, 2021 4:06:28 AM
Subject: A/KC/476 94-100 Ta Chuen Ping Street, Kwai Chung MR

A/KC/476
94-100 Ta Chuen Ping Street, Kwai Chung
Site area : About 1,486.436sq.m
Zoning : "Other Specified Uses" annotated "Business"
Applied use : Proposed **Minor Relaxation of Plot Ratio** for Industrial Development / 39 Car / 7Goods Parking

Dear TPB Members,

This is the 11th application in a short period. that every development applies for the maximum MR and that PD, responsible for drafting the OZP in the first place, supports the applications makes a mockery of the OZP process. How can a district wide increase in PR and bulk of 20% be justified? Where is the data with regard to overall impact on the environment, transport and traffic and community of what is effectively a district wide increase of one fifth? To date there has not been a single application that has used the additional PR to incorporate innovative architecture. Its all about bulking up.

I would refer to the minutes of 31 May 2019 re a similar application: strong justification and planning merits for the proposed minor relaxation of BH restriction. Approving such applications without strong justification and planning merits would set an undesirable precedent.

(a) the planning and design merits of the proposed scheme, taking into account the site specific characteristics and local context;
(b) design of street level on pedestrian accessibility, connectivity and comfort;
(c) compliance with relevant provisions of Sustainable Building Design Guidelines; and
(d) consideration of green building design

So apart from the set back, mandated in the OZP, and the proposed and very welcome at grade tree planting, the only other green features are some edge greenery and a the now ubiquitous Green Rug along a part of the wall. The greening on the roof will not benefit the community and at that height its viability is dubious. Better install solar panels.

There is little to counteract the heat island effect of all that reflective glass.

No commitment to BEAM.

Members must ensure that relaxations come with community benefits and green measures that are sustainable and permanent, not merely ornaments trotted out to secure approval.

Mary Mulvihill

Detailed Departmental Comments

1. Comments of the District Lands Officer/Tsuen Wan & Kwai Tsing (DLO/TW&KT) and the Chief Estate Surveyor/Development Control (CES/DC), Lands Department (LandsD):

(a) 'Non-polluting industrial uses' in planning terms covers a wide range of uses, the examples below are quoted from the Town Planning Board's (TPB) guidelines but are not exhaustive:

(i) research and development;
(ii) quality control;
(iii) information technology support;
(iv) training for the process of enhanced productivity/delivery of goods;
(v) computer-aided design service;
(vi) editing of newspapers/books/magazines;
(vii) after-sale services of products; and
(viii) storage, mini storage

will constitute uses in breach of the lease conditions including the user restriction of 'industrial purposes' which should involve manufacturing process as decided by court cases. The applicant, being the owner of the lot under application, should be fully aware of the user restriction of 'industrial purposes' under lease which has a different interpretation under the TPB's definition under Column 1 uses permitted under the planning regime. If the proposed industrial development is intended to be used for 'non-polluting industrial uses' that are in breach of the lease, the Lot owners shall apply to LandsD for a lease modification prior to its redevelopment;

(b) if the lot owner applies for a lease modification for its redevelopment, LandsD will upon receipt of the lease modification act in the capacity as landlord, consider the application and impose such appropriate terms and conditions including user restriction, the 5-year time limit for completion of the development, payment of full premium and administrative fee, other conditions applicable to 2018 industrial building (IB) revitalisation measure, etc. There is no guarantee that the application will be approved by LandsD. Under the 2018 IB revitalisation measure for redevelopment, the modification letter/conditions of exchange shall be executed within 3 years from the date of TPB's approval letter; and

(c) to be qualified for the measure on relaxation of the maximum permissible non-domestic plot ratio (PR) by 20% for redevelopment project, the building has to be pre-l987 IBs located outside "Residential" zones in Main Urban Areas and New Towns and subject to the maximum non-domestic PR allowed under the Building (Planning) Regulations (B(P)R). Pre-1987 IB refers to those wholly or partly constructed on or before 1.3.1987 or those constructed with building plans first submitted to Building Authority for approval on or before 1.3.1987.

2. Comments of the Chief Building Surveyor/New Territories West, Buildings Department (BD):

(a) the proposed development parameters should not exceed the limitation under the First Schedule of B(P)R;

(b) the Site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the B(P)R respectively;

(c) disregarding carparking spaces from gross floor area (GFA) calculation under the Buildings Ordinance will be considered on the basic of the criteria set out in Practice Notes for Authorised Persons (PNAP) APP-2 during building plan submission stage; and

(d) for features to be excluded from the calculation of the total GFA, it shall be subject to compliance with the requirements laid down in the relevant Joint Practice Notes and PNAPs including APP-151 as appropriate. If the applicant applies for the GFA concession, building setback, building separation and site coverage of greenery as required under PNAP APP-152 also apply.

Recommended Advisory Clauses

(a) the approval of the application does not imply that any proposal on building design elements to fulfil the requirements under the Sustainable Building Design Guidelines and any gross floor area (GFA) concession of the proposed development will be granted by the Building Authority (BA). The applicant should approach the Buildings Department (BD) direct to obtain the necessary approval. If the proposed building design elements and GFA concession are not approved/granted by the BA and major changes to the current scheme are required, a fresh planning application to the Town Planning Board (TPB) may be required;

(b) the planning permission is for minor relaxation of the plot ratio (PR) of the proposed development from 9.5 to 11.4. The claim for bonus PR should be dealt with under building plan submission stage and should not be taken as approved under the subject planning application;

(c) to note the comments of District Lands Officer/Tsuen Wan & Kwai Tsing (DLO/TW&KT) and Chief Estate Surveyor/Development Control (CES/DC), Lands Department (LandsD) that:

i. 'Non-polluting industrial uses' in planning terms may constitute uses in breach of the lease conditions including the user restriction of 'industrial purposes' which should involve manufacturing process as decided by court cases. The applicant, being the owner of the lot under application, should be fully aware of the user restriction of 'industrial purposes' under lease which has a different interpretation under the TPB's definition on Column 1 uses permitted under the planning regime. If the proposed industrial development is intended to be used for 'non-polluting industrial uses' that are in breach of the lease, the Lot owners shall apply to LandsD for a lease modification;

ii. if the lot owner applies for a lease modification for its redevelopment, LandsD will upon receipt of the lease modification act in the capacity as landlord, consider the application and impose such appropriate terms and conditions including user restriction, the 5-year time limit for completion of the development, payment of full premium and administrative fee, other conditions applicable to 2018 IB revitalisation measure, etc. There is no guarantee that the application will be approved by LandsD; and

iii. under the 2018 IB revitalisation measure for redevelopment, the lease modification letter/conditions of exchange shall be executed within 3 years from the date of TPB's approval letter.

(d) to note the comments of Chief Building Surveyor/New Territories West of Buildings Department that:

i. the proposed development parameter should not exceed the limitation under the First Schedule of Building (Planning) Regulations (B(P)R);

ii. the Site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the B(P)R respectively;

iii. disregarding carparking spaces from GFA calculation under the Buildings Ordinance (BO) will be considered on the basic of the criteria set out in Practice Notes for Authorised Persons (PNAP) APP-2 during building plan submission stage;

iv. for features to be excluded from the calculation of the total GFA, it shall be subject to compliance with the requirements laid down in the relevant Joint Practice Notes and PNAPs including APP-151 as appropriate. If the applicant applies for the GFA concession, building setback, building separation and site coverage (SC) of greenery as required under PNAP APP-152 also apply; and

v. detailed comments under the BO will be given at building plan submission stage.

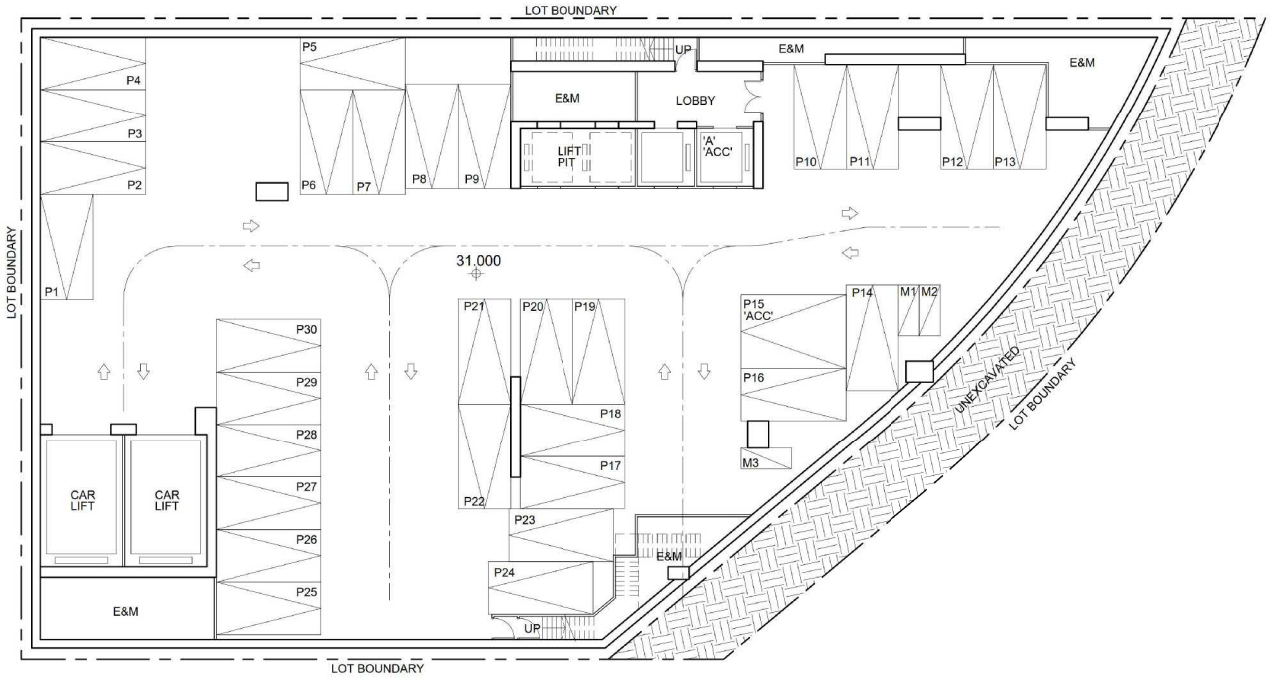
(e) to note the comment of Director of Environmental Protection that the applicant is advised to minimise the generation of Construction and Demolition (C&D) materials; reuse and recycle the C&D materials on-site as far as possible; and observe and comply with the legislative requirements and prevailing guidelines on proper waste management for the proposed development;

(f) to note the comments of Chief Town Planner/Urban Design and Landscape that:

i. the applicant is reminded of the long-term commitment in providing proper maintenance to the vertical green wall for healthy and sustainable plant growth; and

ii. the applicant is reminded that approval of section 16 application under the Ordinance does not imply approval of the SC of greenery requirements under PNAP APP-152 and/or under the lease. The SC of greenery calculation should be submitted separately to BD for approval. Similarly for any proposed tree preservation/removal scheme and compensatory planting proposal, the applicant should approach relevant authority direct to obtain necessary approval as appropriate.

(g) to note the comment of the Chief Architect/Central Management Division 2, Architectural Services Department that for toilets at 1/F, 2/F and 4/F to 19/F, natural lighting and ventilation complying relevant B(P)R shall be considered.



BASEMENT 1 FLOOR PLAN

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

BASEMENT 1 FLOOR PLAN

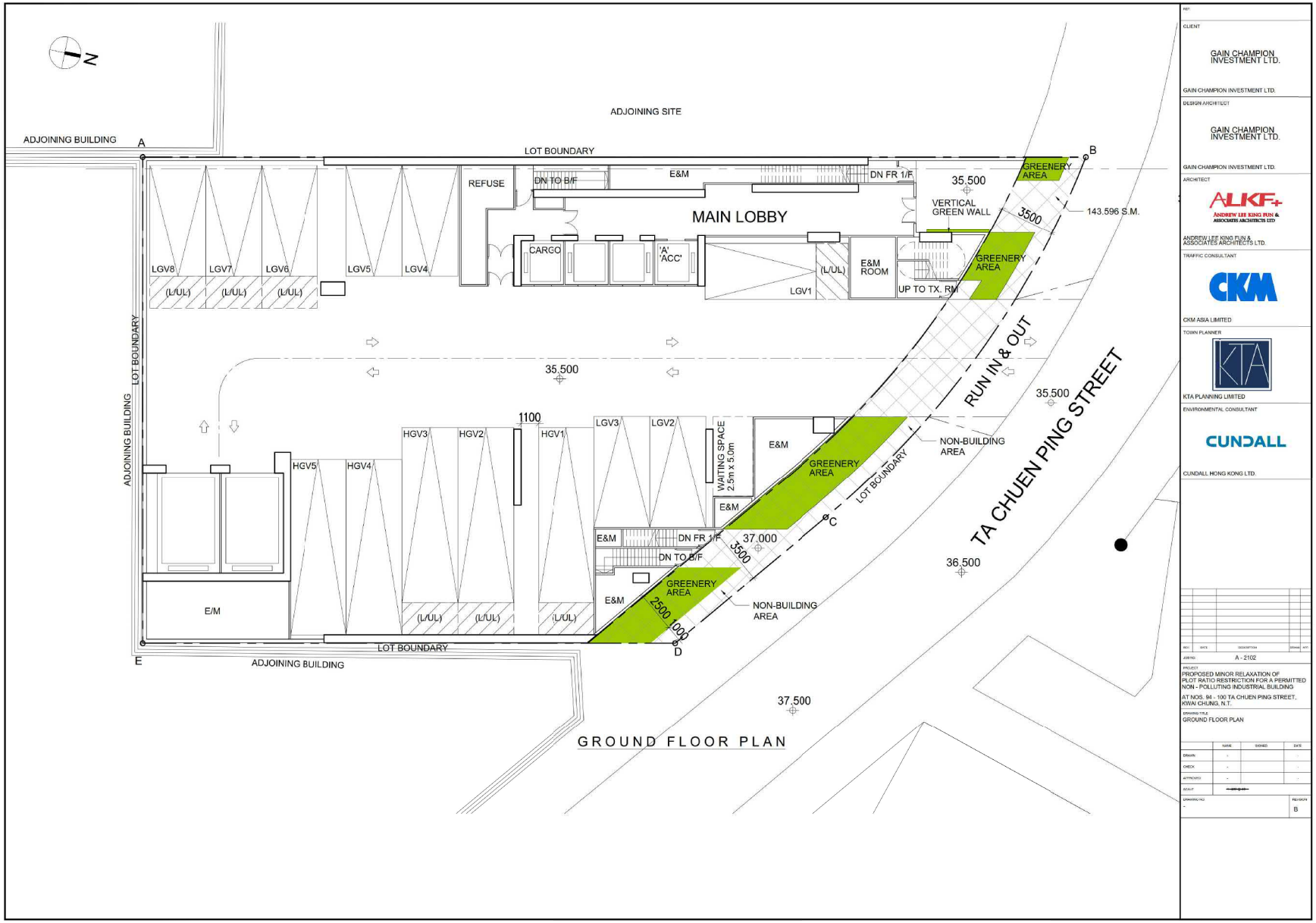
	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	~~1:100 @ A1~~		

DRAWING NO. -

REVISION A

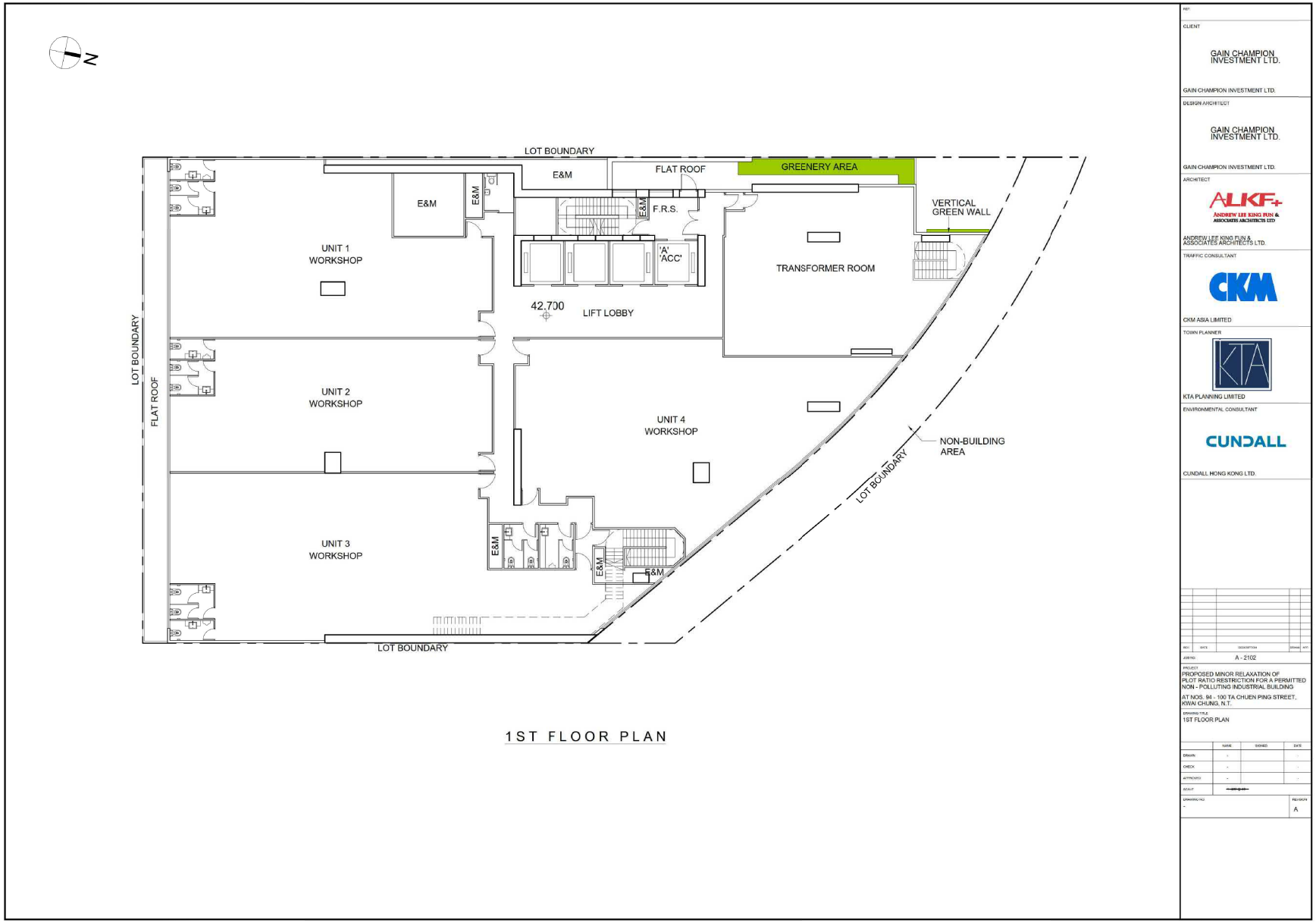
參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-1

（來源：附錄 Id）
(Source : Appendix Id)



參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-2

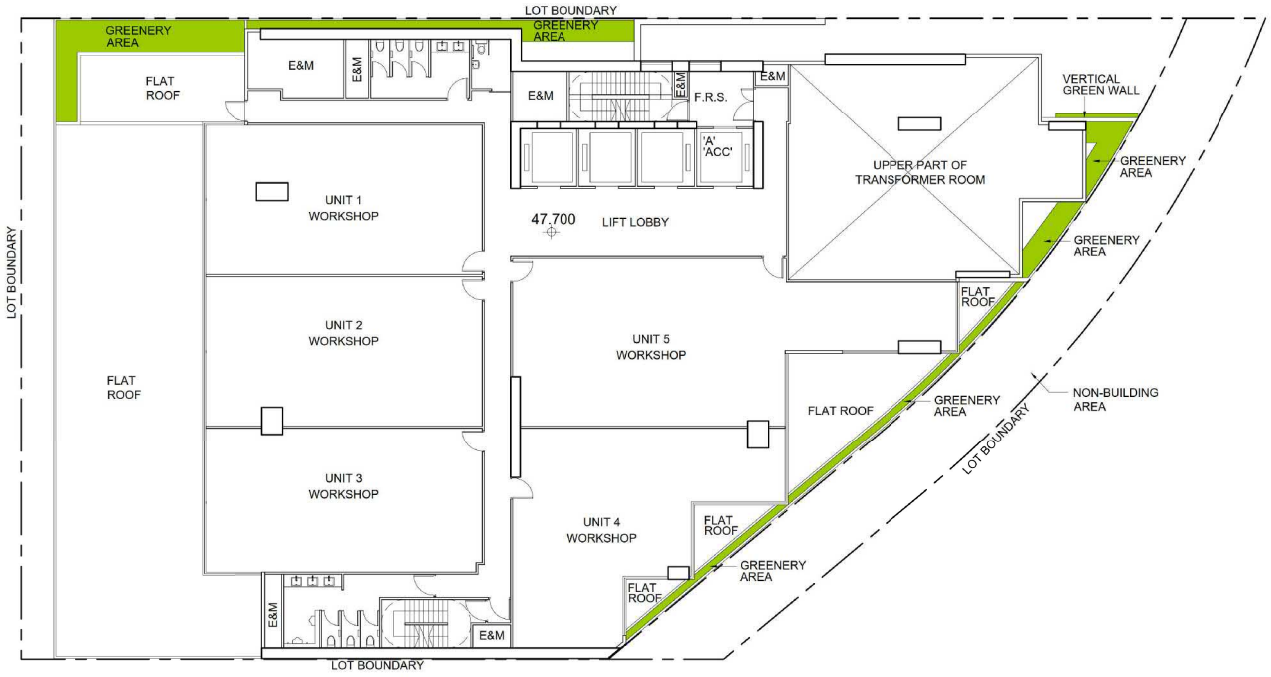
（來源：附錄 Id）
(Source : Appendix Id)



1ST FLOOR PLAN

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-3

（來源：附錄 Id）
(Source : Appendix Id)



2ND FLOOR PLAN

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

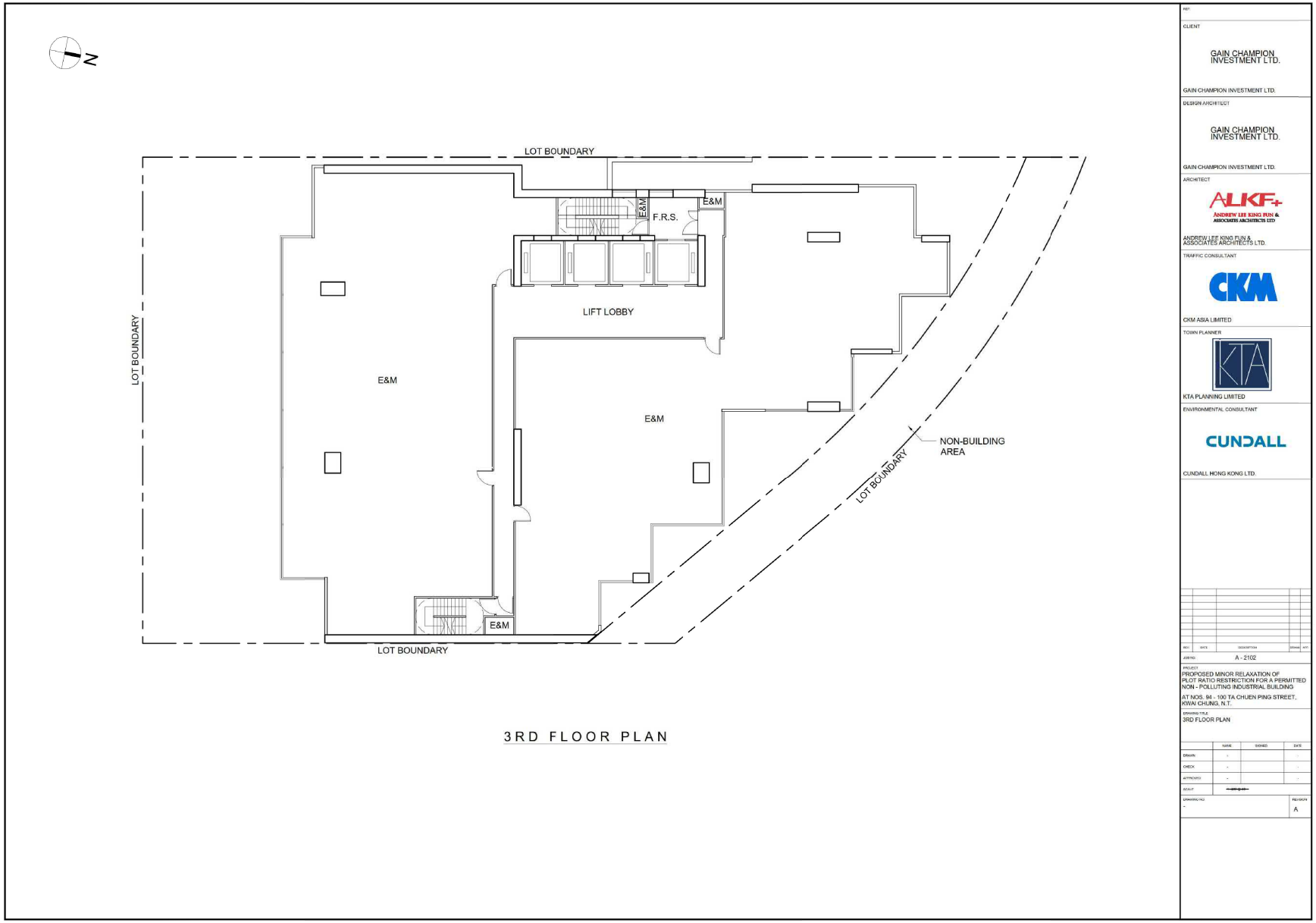
DRAWING TITLE
2ND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	~~1:100@A1~~		

DRAWING NO. -
REVISION B

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-4

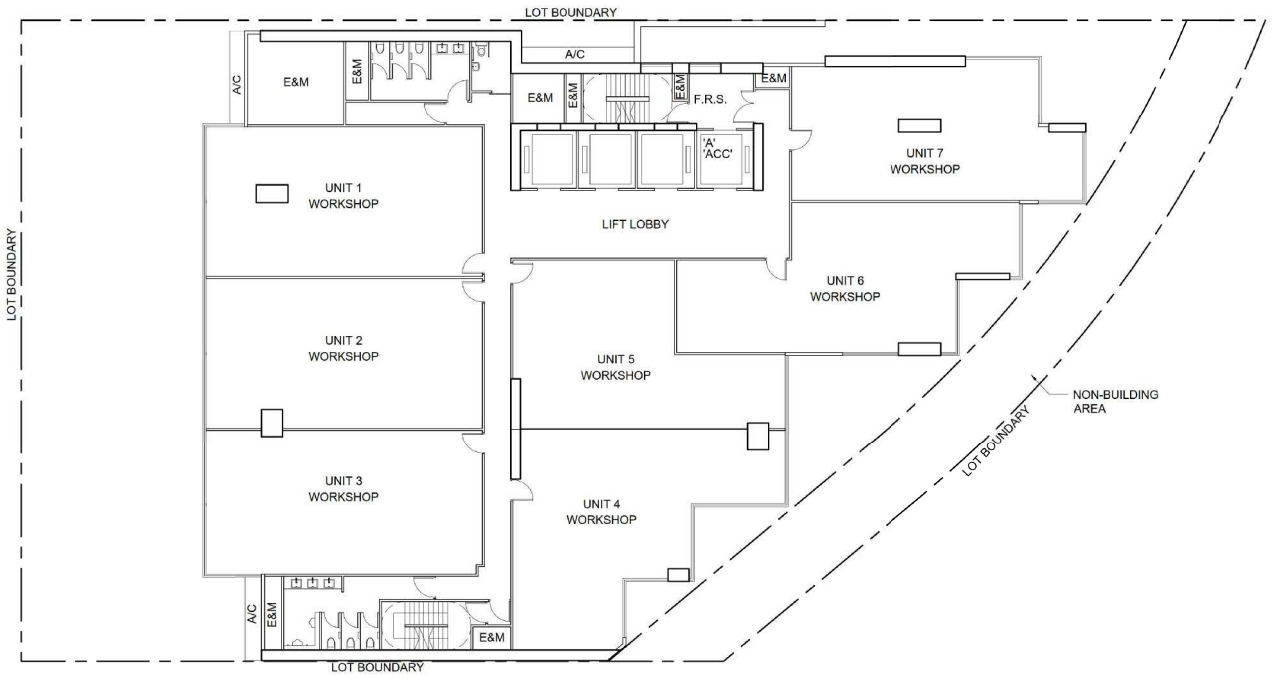
（來源：附錄 Id）
(Source : Appendix Id)



3RD FLOOR PLAN

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-5

（來源：附錄 Id）
(Source : Appendix Id)



4TH - 19TH FLOOR PLAN

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

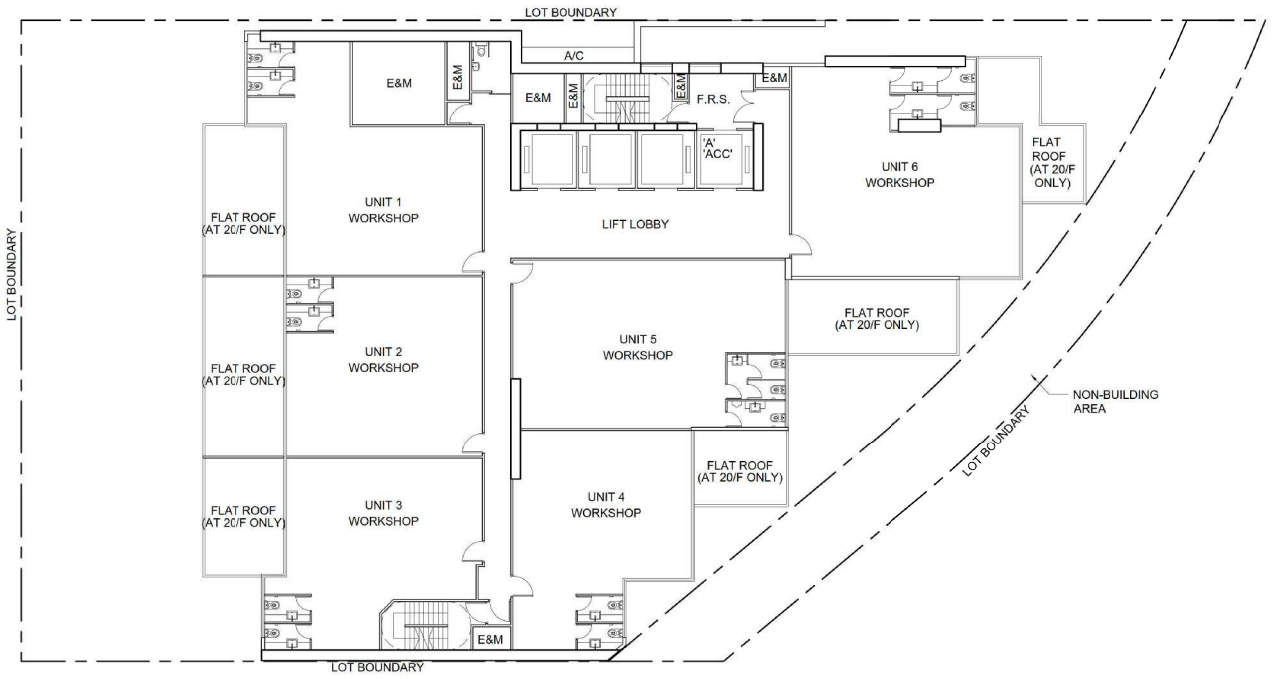
DRAWING TITLE
TYPICAL FLOOR PLAN (4TH - 19TH FLOOR PLAN)

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-

DRAWING NO. -
REVISION A

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-6

（來源：附錄 Id）
(Source : Appendix Id)



20TH - 21ST FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

NO.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

20TH - 21ST FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	~~1:100 @ A1~~		

DRAWING NO. -

REVISION A

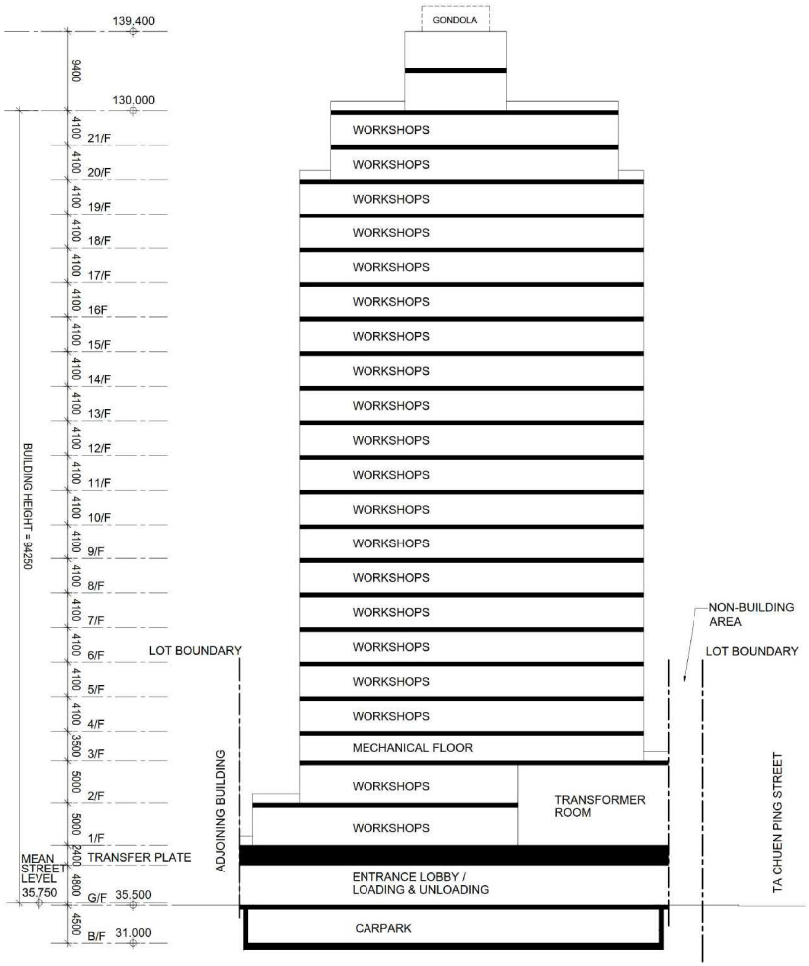
參考編號 REFERENCE No. A/KC/476	繪 圖 DRAWING A-7

（來源：附錄 Id）
(Source : Appendix Id)

ROOF PLAN

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-8

（來源：附錄 Id）
(Source : Appendix Id)



SCHEMATIC SECTION

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE
SCHEMATIC SECTION

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-

DRAWING NO. -
REVISION A

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-9

（來源：附錄 Id）
(Source : Appendix Id)

ALKF+

PROPOSED NON-POLLUTING INDUSTRIAL BUILDING
NO. 94-100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DESIGN DIAGRAM - DESIGN MERITS

1. NON-BUILDING AREA
The set back at Ta Chuen Ping Street could enhance natural ventilation, increase permeability to surrounding areas. Greenery is to be provided in the area to improve the urban environment.

2. AT GRADE GREENERY
The extensive planting including trees planting along with complimenting at grade greenery along Ta Chuen Ping Street enhances the pedestrian experience, provides natural shades, and enhances the streetscape. It also enriches the building envelop and reduces the building bulk.

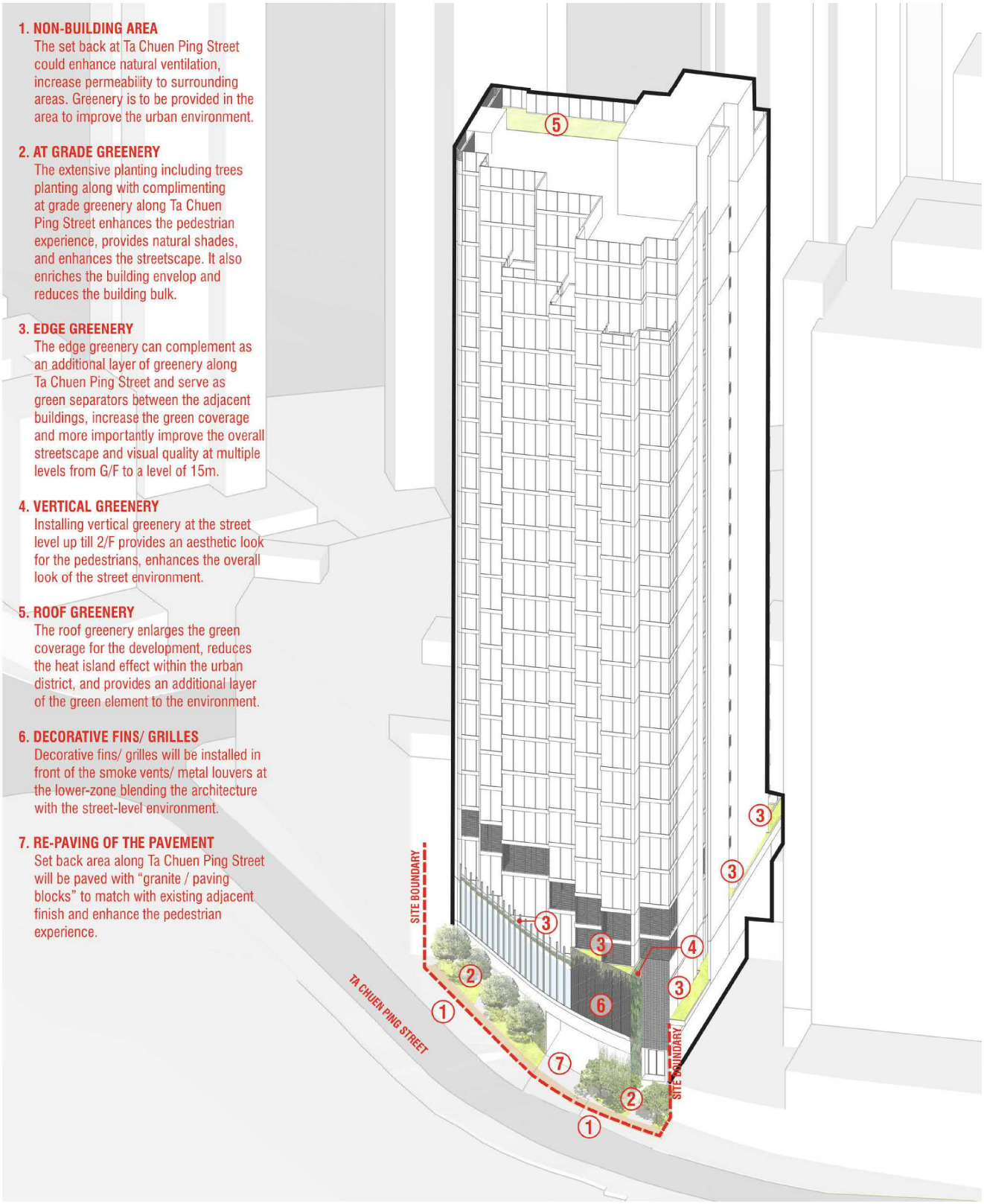
3. EDGE GREENERY
The edge greenery can complement as an additional layer of greenery along Ta Chuen Ping Street and serve as green separators between the adjacent buildings, increase the green coverage and more importantly improve the overall streetscape and visual quality at multiple levels from G/F to a level of 15m.

4. VERTICAL GREENERY
Installing vertical greenery at the street level up till 2/F provides an aesthetic look for the pedestrians, enhances the overall look of the street environment.

5. ROOF GREENERY
The roof greenery enlarges the green coverage for the development, reduces the heat island effect within the urban district, and provides an additional layer of the green element to the environment.

6. DECORATIVE FINS/ GRILLES
Decorative fins/ grilles will be installed in front of the smoke vents/ metal louvers at the lower-zone blending the architecture with the street-level environment.

7. RE-PAVING OF THE PAVEMENT
Set back area along Ta Chuen Ping Street will be paved with "granite / paving blocks" to match with existing adjacent finish and enhance the pedestrian experience.



20210625

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-10

（來源：附錄 Ib）
(Source : Appendix Ib)

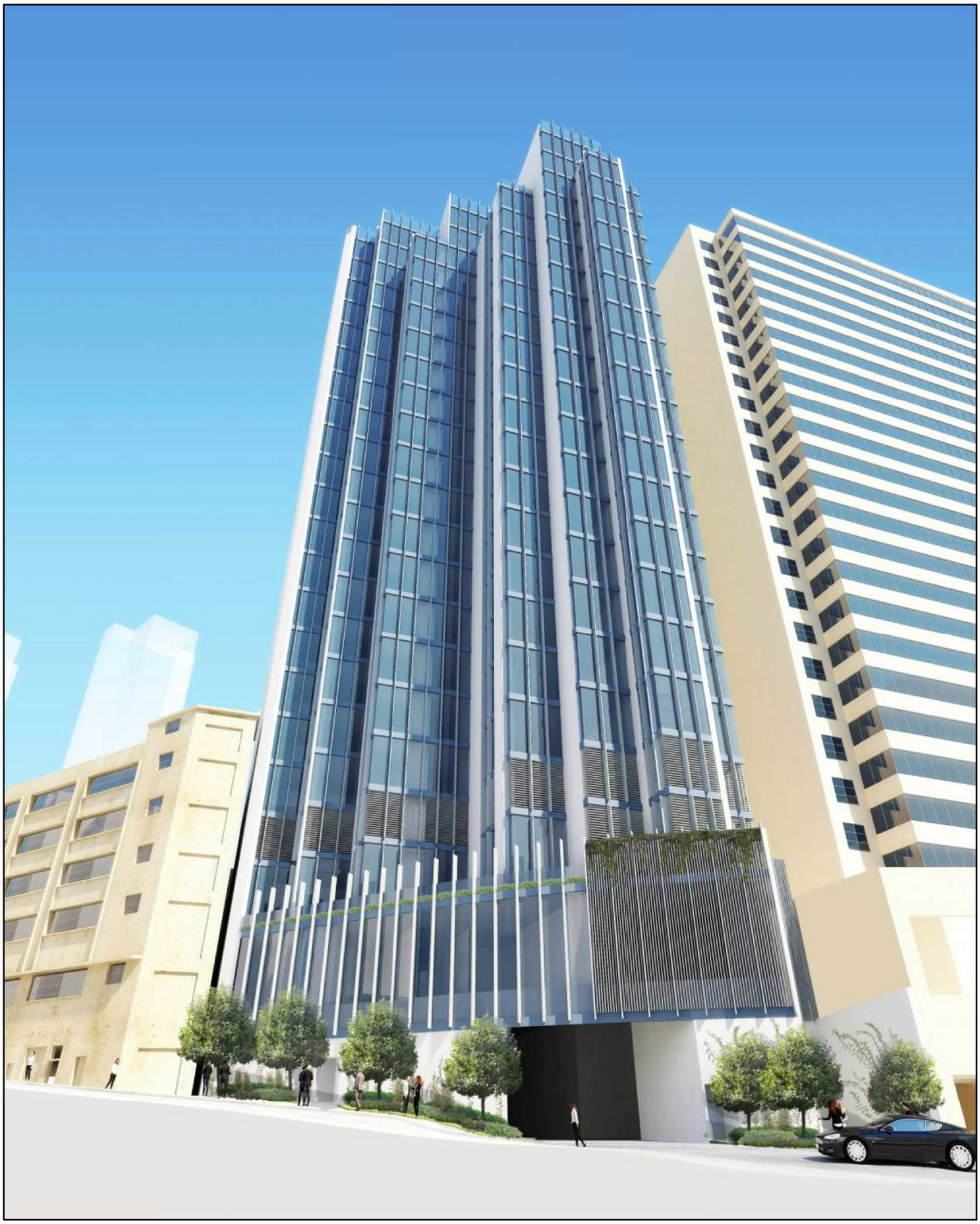
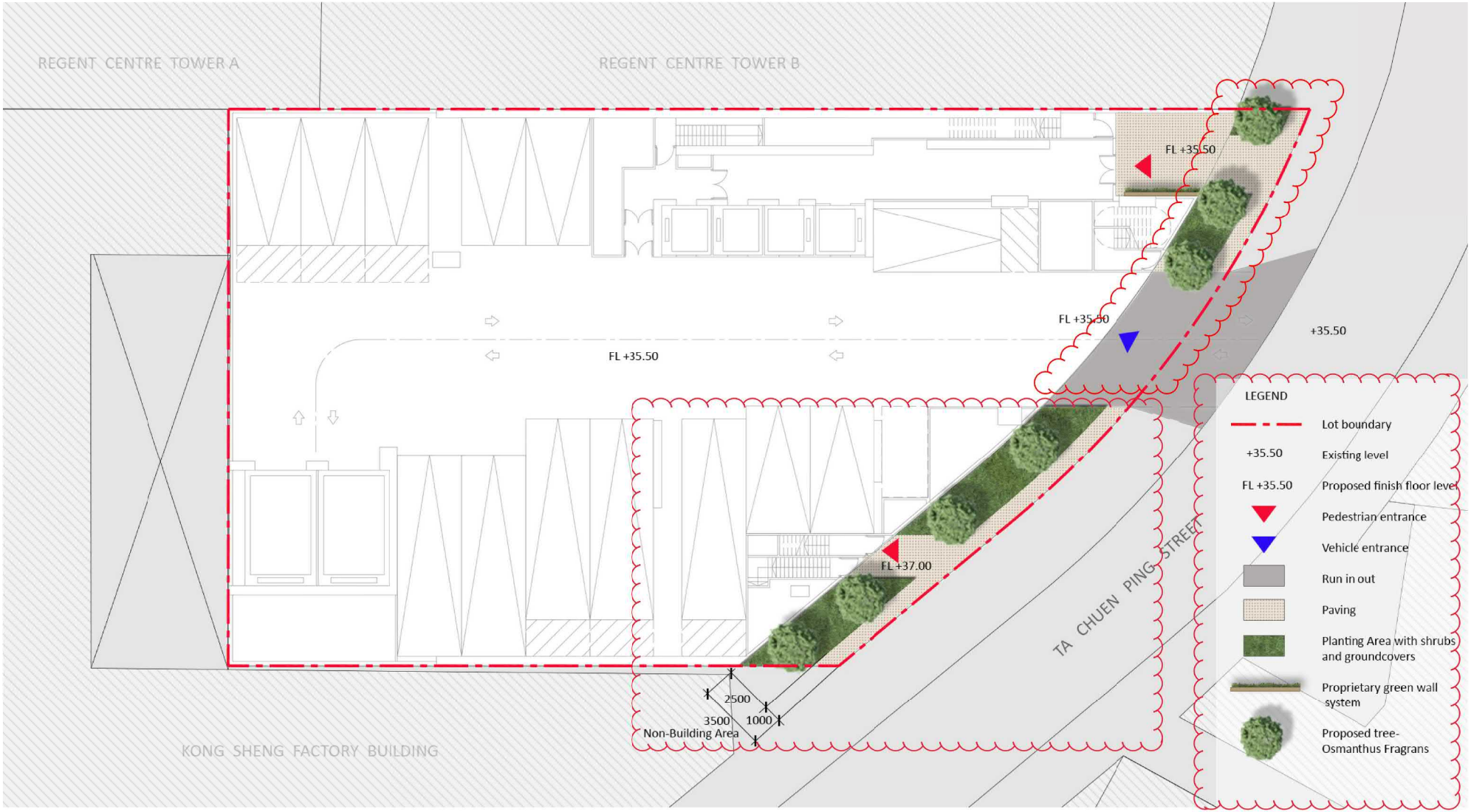


Figure 3.3: Artist Impression of Enhanced Streetscape (2)

參考編號 REFERENCE No. A/KC/476	繪 圖 DRAWING A-11

（來源：附錄 Ib）
(Source : Appendix Ib)



LANDSCAPE MASTER PLAN - GROUND FLOOR

DRAWING NO. TCPS/LMP01 (REV.2)

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-12

（來源：附錄 Id）
(Source : Appendix Id)

LANDSCAPE MASTER PLAN - FIRST FLOOR

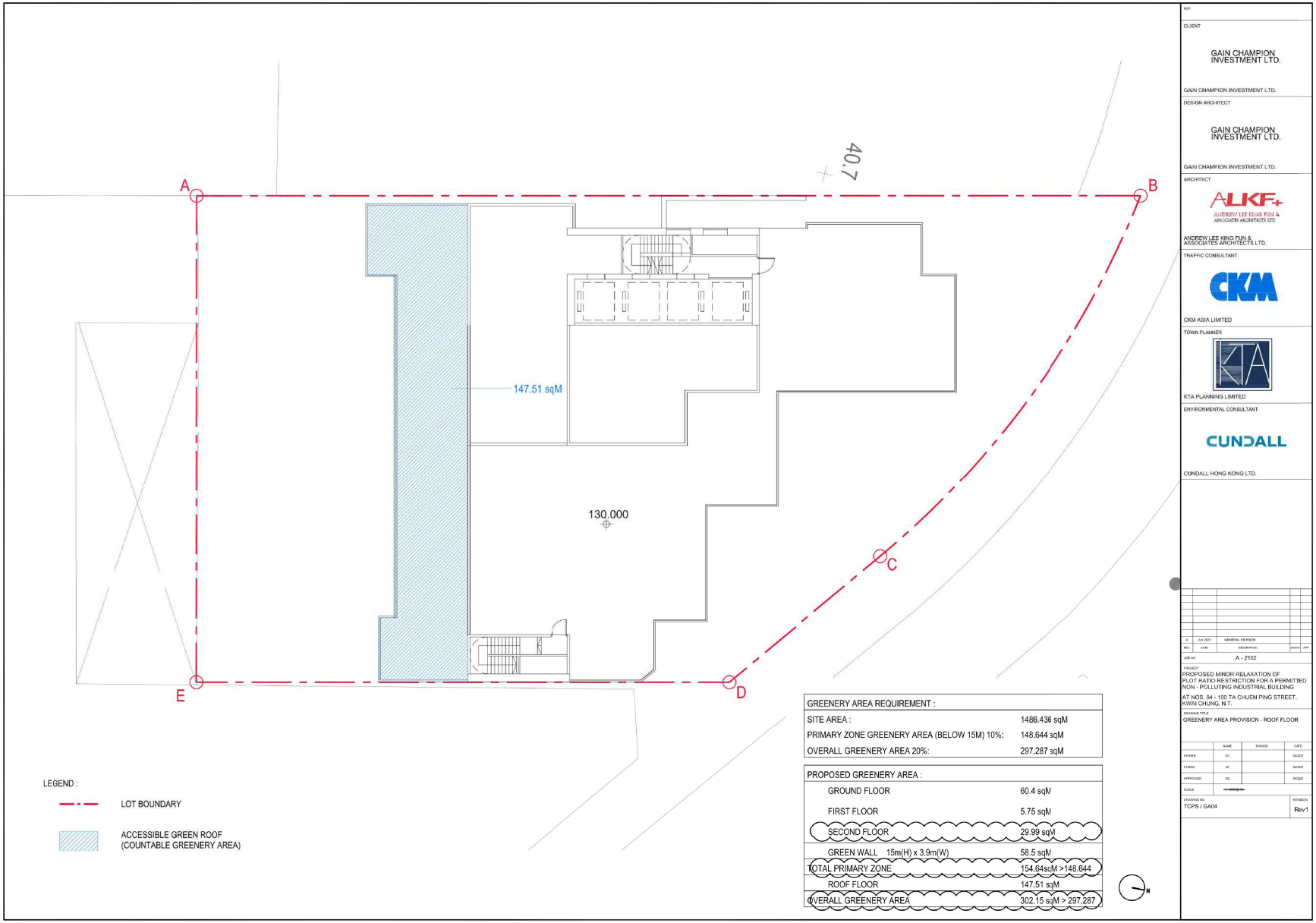
參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-13

（來源：附錄 Id）
(Source : Appendix Id)

LANDSCAPE MASTER PLAN - SECOND FLOOR

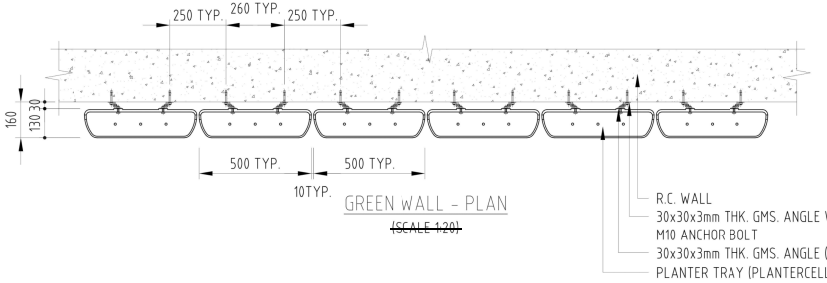
參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-14

（來源：附錄 Id）
(Source : Appendix Id)



參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-15

（來源：附錄 Ib）
(Source : Appendix Ib)



GREEN WALL - PLAN

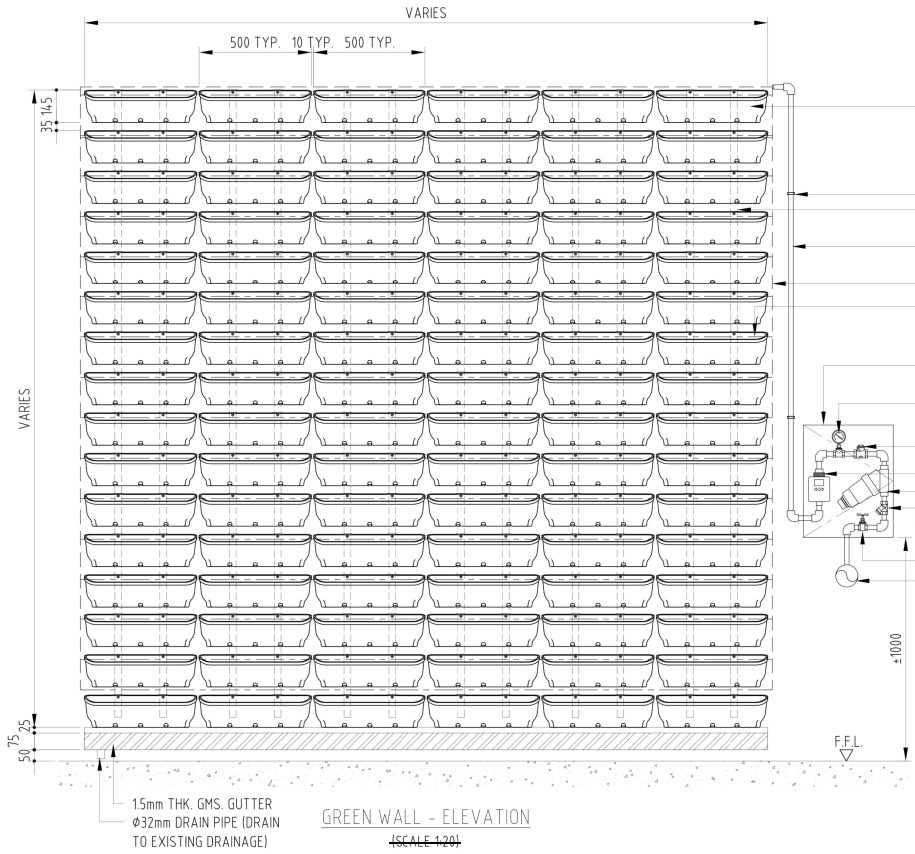
(SCALE 1:20)

NOTES:

1. THIS DRAWING AND DESIGN ARE COPYRIGHTED.
2. ALL DIMENSIONS SHOULD BE VERIFIED ON SITE.
3. ALL ITEMS SHOW IN THIS DRAWING ARE FOR REFERENCE ONLY.
4. ALL STEEL MEMBERS MAY BE CHANGED SUBJECT TO DESIGN CALCULATION BY R.S.E.
5. THE MOUNTING METHOD IS ABLE TO BE CHANGED TO SUIT THE ACTUAL ENVIRONMENT.
6. THE DISTANCE BETWEEN THE MOUNTING BRACKET WILL BE CHANGED SUBJECT TO THE ACTUAL SITE AND THE DESIGN CALCULATION.
7. THE LOCATION OF IRRIGATION CONTROL PANEL IN THIS DRAWING IS FOR REFERENCE ONLY, ACTUAL LOCATION IS SUBJECT TO SITE AND NEAR THE WATER SUPPLY POINT.
8. SHOP DRAWING WILL BE SUBMITTED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

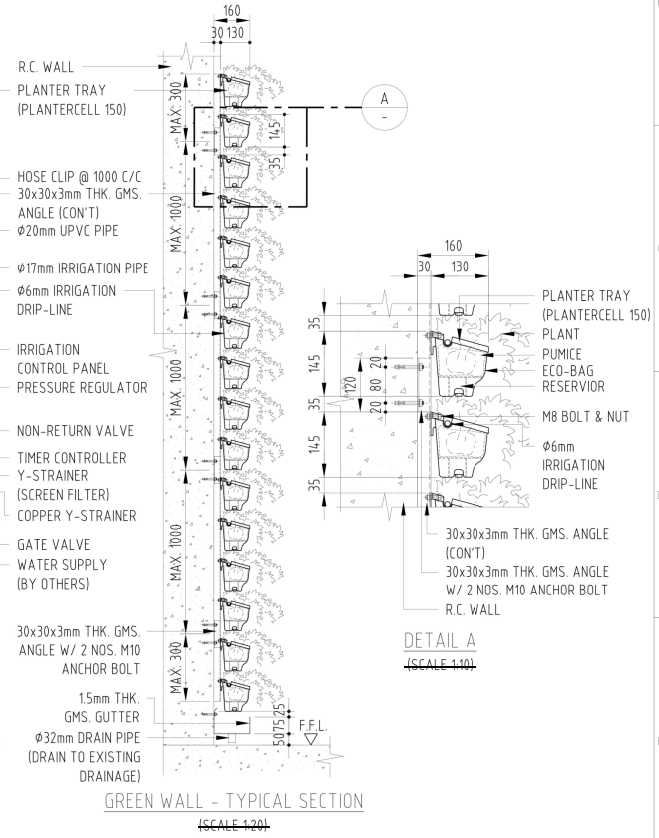
WATER IRRIGATION MAIN REQUIREMENT

- WATER INLET: Dia 25mm
- FLOW RATE : 1.0 LITER / SECOND (MINIMUM)
- OPERATING PRESSURE : 2.5 - 4 BAR AT WORKING LEVEL



GREEN WALL - ELEVATION

(SCALE 1:20)



GREEN WALL - TYPICAL SECTION

(SCALE 1:20)

DETAIL A

(SCALE 1:10)

CAD FILE: SIC-ST-PC150-101

REV.	DESCRIPTION	DATE
-		25OCT11

CLIENT:

ARCHITECT:

LANDSCAPE ARCHITECT:

STRUCTURAL ENGINEER:

E & M CONTRACTOR:

MAIN CONTRACTOR:

SUB CONTRACTOR:

STRONGLY International Limited
TEL. 3696 6666 FAX. 3695 6669
EMAIL. egg@hk-egg.com

DRAWN	CHECKED	APPROVED
-	-	-

DATE -

PROJECT No. -

PROJECT
TYPICAL GREEN WALL & AUTOMATIC IRRIGATION SYSTEM

TITLE
TYPICAL DRAWINGS FOR GREEN WALL SYSTEM (SV-8150)

SCALE ~~1:20 OR AS STATED~~

DRAWING NUMBER
TCPS/VG02

DRF171044C REV. -

ALL DIMENSIONS IN mm
A3 SIZE (420 x 297)
DO NOT SCALE

參考編號 REFERENCE No.	繪 圖 DRAWING
A/KC/476	A-16

（來源：附錄 Id）
(Source : Appendix Id)

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2021年8月19日擬備，所根據的資料為：於2018年1月19日展示的分區計劃大綱圖編號S/KC/29，以及於2021年2月26日展示的分區計劃大綱圖編號S/TW/34
EXTRACT PLAN PREPARED ON 19.8.2021 BASED ON OUTLINE ZONING PLANS No. S/KC/29 EXHIBITED ON 19.1.2018 AND S/TW/34 EXHIBITED ON 26.2.2021

位置圖 LOCATION PLAN

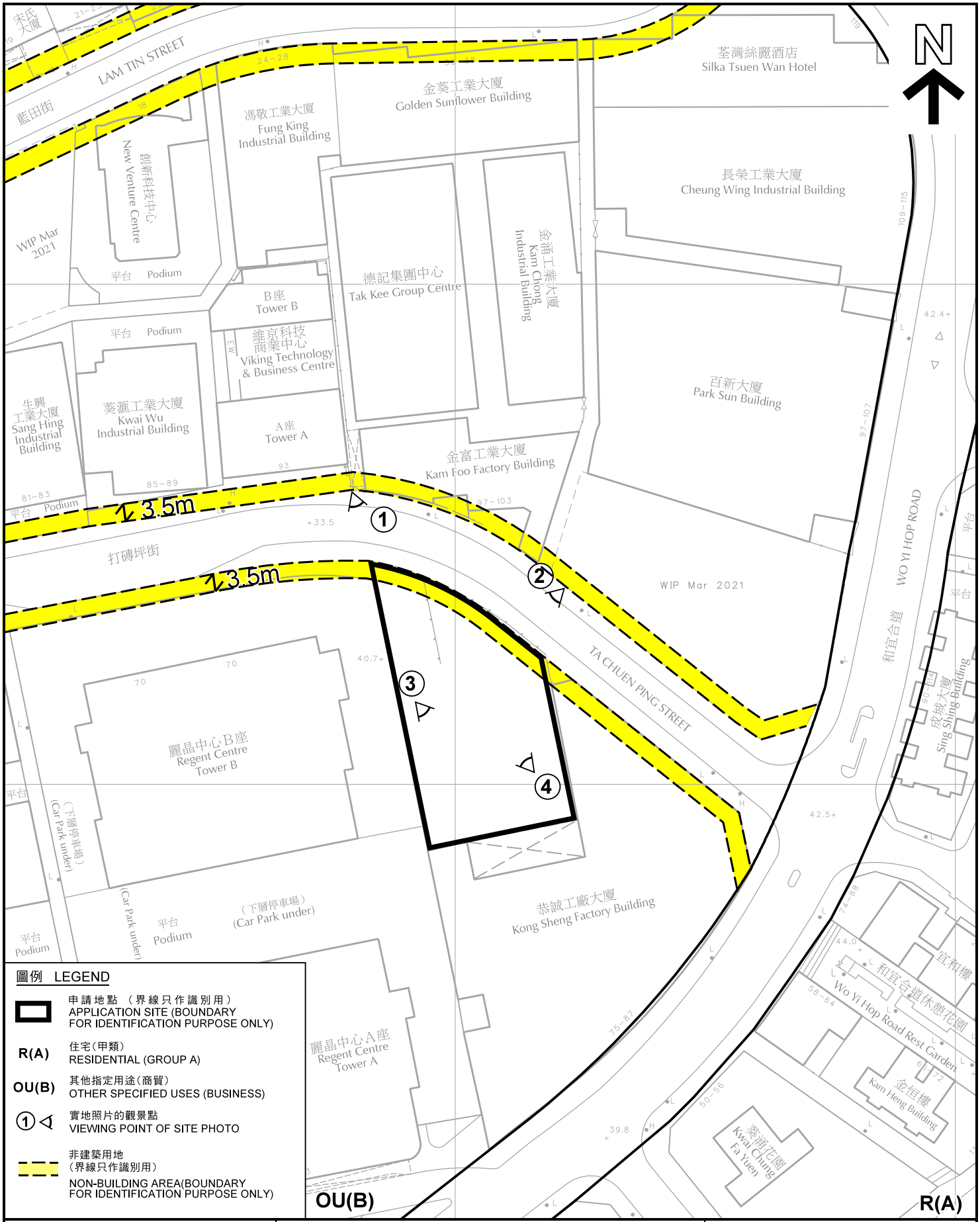
擬議略為放寬地積比率限制，以作准許的非污染工業發展
（不包括涉及使用/貯存危險品的工業經營）
葵涌打磚坪街 94-100 號
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PERMITTED NON-POLLUTING INDUSTRIAL USE
(EXCLUDING INDUSTRIAL UNDERTAKINGS INVOLVING THE USE/STORAGE OF DANGEROUS GOODS)
94-100 TA CHUEN PING STREET, KWAI CHUNG

SCALE 1 : 7 500 比例尺
米 METRES 100 0 100 200 300 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
A/KC/476

圖 PLAN
A-1



圖例 LEGEND

- 申請地點（界線只作識別用） APPLICATION SITE (BOUNDARY FOR IDENTIFICATION PURPOSE ONLY)
- R(A) 住宅(甲類) RESIDENTIAL (GROUP A)
- OU(B) 其他指定用途(商貿) OTHER SPECIFIED USES (BUSINESS)
- ① 實地照片的觀景點 VIEWING POINT OF SITE PHOTO
- 非建築用地（界線只作識別用） NON-BUILDING AREA(BOUNDARY FOR IDENTIFICATION PURPOSE ONLY)

本摘要圖於2021年6月24日擬備，所根據的資料為測量圖編號 7-SW-17C/D

EXTRACT PLAN PREPARED ON 24.6.2021 BASED ON SURVEY SHEETS NO. 7-SW-17C/D

平面圖 SITE PLAN

擬議略為放寬地積比率限制，以作准許的非污染工業發展
(不包括涉及使用/貯存危險品的工業經營)
葵涌打磚坪街 94-100 號

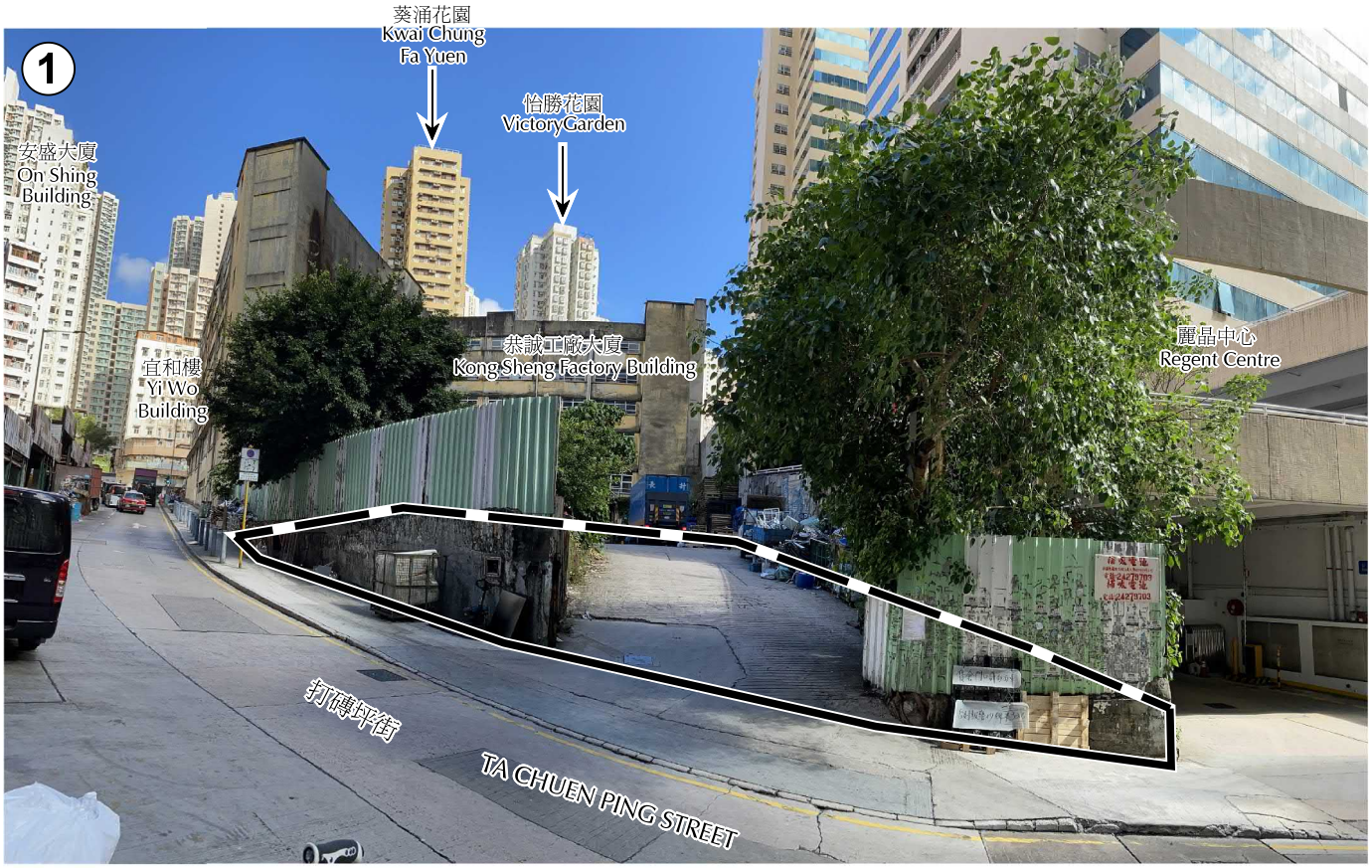
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PERMITTED NON-POLLUTING INDUSTRIAL USE (EXCLUDING INDUSTRIAL UNDERTAKINGS INVOLVING THE USE/STORAGE OF DANGEROUS GOODS)
94-100 TA CHUEN PING STREET, KWAI CHUNG
SCALE 1 : 1 000 比例尺

米 METRES 20 0 20 40 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
A/KC/476

圖 PLAN
A-2



圖例 LEGEND

申請地點（界線只作識別用）
APPLICATION SITE (BOUNDARY FOR IDENTIFICATION PURPOSE ONLY)

本圖於2021年6月24日擬備，所根據的資料為攝於2021年5月28日的實地照片

PLAN PREPARED ON 24.6.2021 BASED ON SITE PHOTOS TAKEN ON 28.5.2021

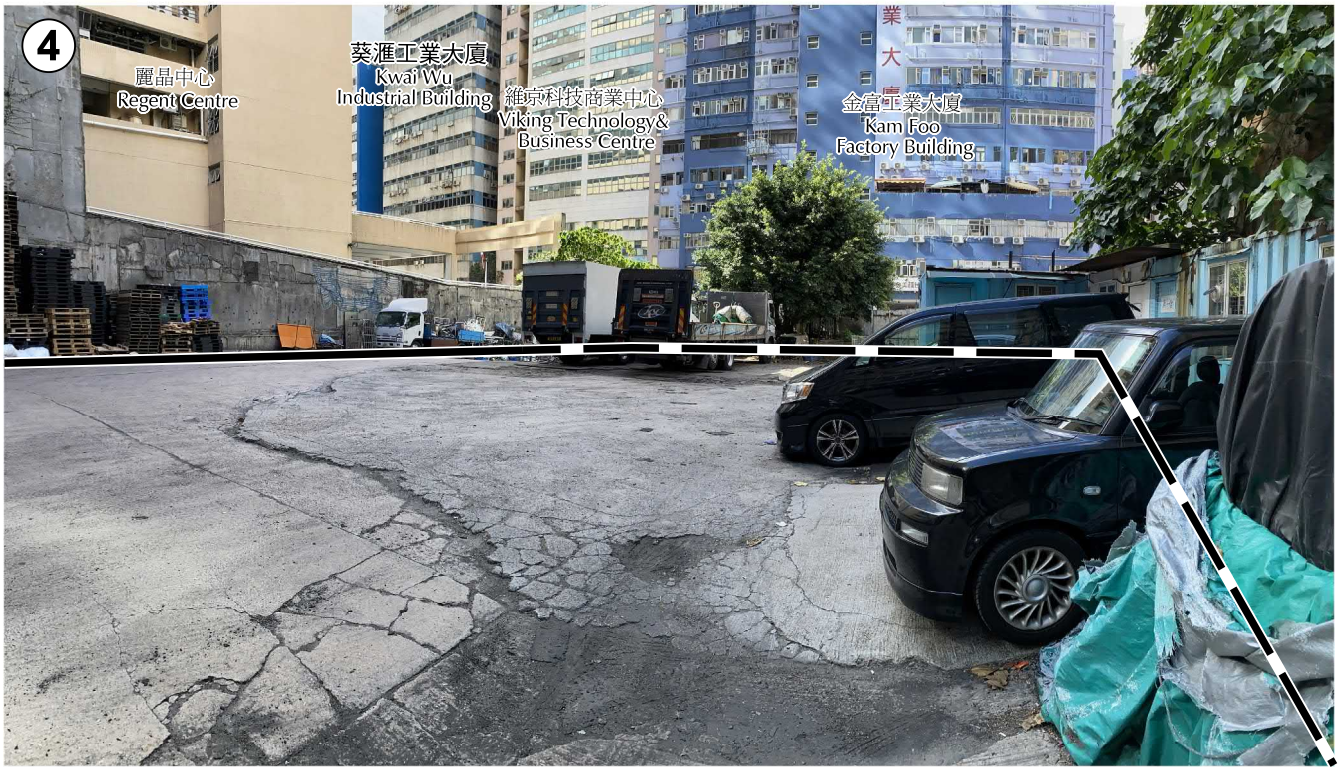
實地照片 SITE PHOTOS

擬議略為放寬地積比率限制，以作准許的非污染工業發展
（不包括涉及使用/貯存危險品的工業經營）
葵涌打磚坪街 94-100 號
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PERMITTED NON-POLLUTING INDUSTRIAL USE
(EXCLUDING INDUSTRIAL UNDERTAKINGS INVOLVING THE USE/STORAGE OF DANGEROUS GOODS)
94-100 TA CHUEN PING STREET, KWAI CHUNG

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
A/KC/476

圖 PLAN
A-3



圖例 LEGEND

申請地點（界線只作識別用）
APPLICATION SITE (BOUNDARY FOR IDENTIFICATION PURPOSE ONLY)

本圖於2021年6月24日擬備，所根據的資料為攝於2021年5月28日的實地照片

PLAN PREPARED ON 24.6.2021 BASED ON SITE PHOTOS TAKEN ON 28.5.2021

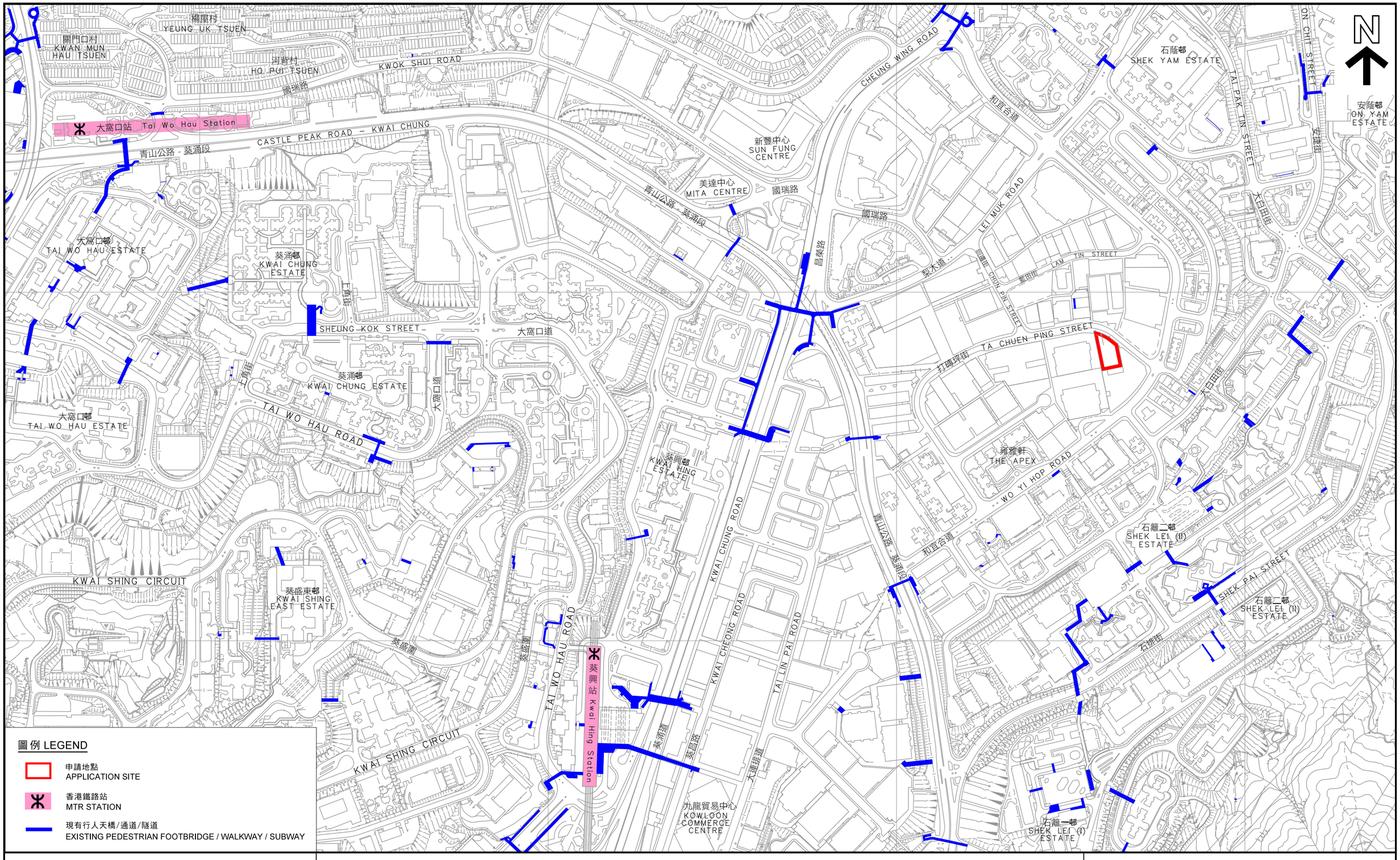
實地照片 SITE PHOTOS

擬議略為放寬地積比率限制，以作准許的非污染工業發展
（不包括涉及使用/貯存危險品的工業經營）
葵涌打磚坪街 94–100 號
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR PERMITTED NON-POLLUTING INDUSTRIAL USE
(EXCLUDING INDUSTRIAL UNDERTAKINGS INVOLVING THE USE/STORAGE OF DANGEROUS GOODS)
94-100 TA CHUEN PING STREET, KWAI CHUNG

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
A/KC/476

圖 PLAN
A-4



圖例 LEGEND

- 申請地點 APPLICATION SITE
- 香港鐵路站 MTR STATION
- 現有行人天橋/通道/隧道 EXISTING PEDESTRIAN FOOTBRIDGE / WALKWAY / SUBWAY

本摘要圖於2021年6月24日擬備
EXTRACT PLAN PREPARED ON 24.6.2021

葵涌行人通道網絡
PEDESTRIAN ACCESS NETWORK IN KWAI CHUNG

SCALE 1 : 5 000 比例尺

米 METRES 100 0 100 200 300 400 米 METRES

規劃署
PLANNING DEPARTMENT

參考編號
REFERENCE No.
A/KC/476

圖 PLAN
A-5

TOWN PLANNING BOARD

Minutes of 678th Meeting of the Metro Planning Committee held at 9:00 a.m. on 27.8.2021

Agenda Item 5

Section 16 Application

[Open Meeting (Presentation and Question Sessions only)]

A/KC/476	Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-Polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" Zone, 94-100 Ta Chuen Ping Street, Kwai Chung, New Territories (MPC Paper No. A/KC/476A)

---

12. The Secretary reported that KTA Planning Limited (KTA) was one of the consultants of the applicant. Mr Daniel K.S. Lau had declared an interest on the item for being a member and an ex-employee of the Hong Kong Housing Society which had business dealings with KTA.

13. As the interest of Mr Daniel K.S. Lau was indirect, the Committee agreed that he could stay in the meeting.

Presentation and Question Sessions

14. With the aid of a PowerPoint presentation, Ms Stephen C.Y. Chan, STP/TWK, presented the application and covered the following aspects as detailed in the Paper:

(a) background to the application;

(b) proposed minor relaxation of plot ratio (PR) restriction for permitted non-polluting industrial use (excluding industrial undertakings involving the use/storage of dangerous goods);

(c) departmental comments were set out in paragraph 9 of the Paper;

(d) during the statutory publication period, a total of 30 public comments were received, including 17 supporting comments from individuals, one objecting comment from North Kwai Chung Transport Concern Group and 12 comments providing views on the application from individuals. Major views were set out in paragraph 10 of the Paper; and

(e) the Planning Department (PlanD)'s views – PlanD had no objection to the application based on the assessments set out in paragraph 11 of the Paper. The application was for minor relaxation of PR restriction from 9.5 to 11.4 (+20%) for the redevelopment of a pre-1987 industrial building (IB) (already demolished) into a 23-storey IB for permitted non-polluting industrial use with building height complying with the Outline Zoning Plan (OZP) restriction. The proposed development was generally in line with the planning intention of the "Other Specified Uses" annotated "Business" ("OU(B)") zone. The Secretary for Development provided policy support to the subject application. The Chief Town Planner/Urban Design and Landscape (CTP/UD&L), PlanD considered that the proposed development would unlikely induce any significant adverse effects on the visual character of the surrounding townscape and the proposed design measures would promote visual interest and pedestrian comfort. Other concerned government departments had no objection to or no adverse comment on the application. Regarding the public comments received, the comments of

government departments and planning assessments above were relevant.

15. Members raised the following questions:

(a) why a continuous canopy, that would provide better sun and rain shading, could not be provided along the building facade on the Ta Chuen Ping Street frontage;

(b) how the proposed design measures e.g. vertical greening and decorative fins could improve the pedestrian environment and blend the architecture with the street level environment as claimed by the applicant;

(c) whether the intended road widening works in future would affect the proposed tree and shrub planting within the non-building area (NBA) and width of the pedestrian footpath;

(d) the types of structures allowed within the NBA in general;

(e) greenery coverage of the Site and within the NBA, and the details of the tree planting proposal within the NBA;

(f) noting that the Site was sloping along Tai Chuen Ping Street and the location of the ingress/egress point was proposed in between the proposed trees, whether the proposed tree and shrub planting would create conflict between vehicles and pedestrians and affect pedestrian safety;

(g) land ownership and surrender/resumption arrangement of the NBA before and upon the implementation of the intended road widening works in future; and

(h) whether there was any previously approved planning application in the vicinity with similar requirement for NBA.

16. In response, Stephen C.Y. Chan, STP/TWK, made the following main points:

(a) the applicant indicated that a continuous canopy along the street frontage on Ta Chuen Ping Street could not be provided as it would be in conflict with the trees proposed to be planted in the NBA. The applicant considered that the proposed trees would also offer shading and comfort to pedestrians and could enhance the street environment in the industrial area;

(b) landscape treatments were proposed in the form of vertical greening on G/F to 2/F near the entrance to the building at Tai Chuen Ping Street, planters at the building edge and greenery at the roof level as shown in Drawings A-10 and A-11. Decorative fins/grilles were proposed mainly to screen the smoke vents/metal louvers at the lower levels of the building. CTP/UD&L, PlanD considered that the proposed design measures might promote visual interest and pedestrian comfort;

(c) the proposed development would incorporate a 3.5m-wide full-height NBA along Ta Chuen Ping Street, with 2.5m for greenery area and 1m for footpath. The NBA, as required under the OZP, was intended for long-term road widening purpose and improvement of air ventilation in the area. The existing pavement of about 3.5m wide together with the proposed 1m-wide footpath within the NBA, would add to a total width of about 4.5m of the future pavement. The road widening was a long-term proposal and might be implemented after all buildings within the NBA on both sides of Tai Chuen Ping Street were redeveloped. Currently, there was no programme nor detailed design for the intended road widening works. In formulating the road widening proposal in future, the relevant departments would allow adequate width for the pavement to enhance pedestrian comfort. While the impact of the long-term road widening works on the proposed trees/landscaping within the NBA could not be ascertained at the current stage, the landscaping would serve to provide merits and benefits in terms of visual amenity, better air quality and shading in the interim period;

(d) boundary fence/wall or minor structure with high air porosity and visual permeability, landscaping and underground uses would be generally

allowed within NBA;

(e) the overall green coverage of the Site was about 20.3%. The greenery at ground floor level within the NBA was about 60m^2, accounting for about 20% of the total greenery area. According to the applicant's submission, the seven existing trees on the Site to be felled were not included in the Register of Old and Valuable Trees. The applicant also indicated that seven heavy standard trees would be planted within the NBA after the existing trees were felled;

(f) the Commissioner for Transport had no in-principle objection to the proposed development from traffic engineering perspective and had no adverse comment on the proposed location of the ingress/egress point. Nevertheless, should the application be approved, an approval condition on the design and provision of vehicular access, among others, for the proposed development was recommended;

(g) the lot owner would be required to surrender the land within the NBA upon the request of the Government or the land would be resumed by the Government when the road widening proposal along Tai Chuen Ping Street was to be implemented. However, as the road widening works was a long-term proposal, details of land surrender/resumption could not be ascertained at the current stage. In the interim period before the NBA was surrendered/resumed for road widening purpose, the NBA would remain under private ownership and would be managed and maintained by the land owner; and

(h) there were two s.16 planning applications (No. A/KC/460 and 469) involving the same site within the same "OU(B)" zone previously approved by the Board. Those two applications, which were also subject to the 3.5m-wide NBA requirement along Ta Chuen Ping Street under the OZP, were proposed for industrial/office and hotel development respectively. For both applications, no tree planting/landscaping was proposed within the NBA of the development.

17. Mr Albert K.L. Cheung, Assistant Director (Regional 1), Lands Department (LandsD), supplemented for Members' information that since there was no restriction on GFA, site coverage nor building height under the lease, there would not be a land administration mechanism to require the applicant to surrender the NBA for road widening in future. Mr Patrick K.H. Ho, Assistant Commissioner for Transport (Urban), Transport Department, remarked that the concerned NBA was a statutory requirement under the OZP, and if there were alternative means to require the applicant to surrender the land to the Government for taking forward the road widening works, resumption under the Roads (Works, Use and Compensation) Ordinance (Cap 370) might not be required. The Chairman said that whether the land in the NBA would be surrendered or resumed would be determined at the time upon implementation of the road widening works and was not a relevant consideration for the planning application. Members needed to consider whether the proposed planning and design merits warranted the minor relaxation of PR being sought.

[Dr Frankie W.C. Yeung joined the meeting during the question and answer sessions.]

Deliberation Session

18. Members generally had no in-principle objection to the application which was in line with the policy to incentivise redevelopment of industrial buildings but considered that the applicant should provide sufficient planning and design merits, in both quality and quantity, to justify the proposed minor relaxation of PR being sought. Members noted that the main planning and design merit of the subject proposal was to promote a full-height NBA which was a mandatory requirement under the OZP while other merits were obviously lacking. A Member said that in similar approved cases, there were additional planning and design merits such as voluntary setback in addition to the OZP requirements, provision of canopy, and more permeable and interesting building design. Whilst the proposals for greenery and tree planting were noted, Members generally considered that there was insufficient information on details of the greening proposal, landscape design and benefit to the public realm and to pedestrian comfort. There was also concern on the arrangement of uses within the NBA, such as location of the greenery/trees and footpaths and their respective widths. A Member said that information on proposals within the NBA of other similar approved planning applications in the vicinity would also be useful for the Board's consideration of the subject planning application.

19. After deliberation, the Committee decided to defer a decision on the application pending further information from the applicant on (i) the greening proposal and landscape design and (ii) uses within the NBA for further consideration of the Board. The Planning Department was also requested to provide information on the uses within the NBA of other similar planning applications previously approved by the Board for its reference.

[Mr Alex T.H. Lai left the meeting during the deliberation session.]

[The Chairman thanked Mr Stephen C.Y. Chan, STP/TWK, for his attendance to answer Members' enquiries. He left the meeting at this point.]

城 市 規 劃 委 員 會
香港北角渣華道三百三十三號
北角政府合署十五樓

TOWN PLANNING BOARD
15/F., North Point Government Offices
333 Java Road, North Point,
Hong Kong.

傳　真 Fax: 2877 0245 / 2522 8426
電　話 Tel: 2231 4810

來函檔號 Your Reference:

覆函請註明本會檔號
In reply please quote this ref.: TPB/A/KC/476

By Post & Fax (3426 9737)

10 September 2021

KTA Planning Ltd.
Unit K, 16/F, MG Tower
133 Hoi Bun Road
Kwun Tong, Kowloon

(Attn.: David Fok/ Ms. Camille Lam)

Dear Sir/Madam,

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-Polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" Zone, 94-100 Ta Chuen Ping Street, Kwai Chung, New Territories

I refer to my letter to you dated 24.8.2021.

After giving consideration to the application, the Town Planning Board (TPB) decided at its meeting on 27.8.2021 to defer a decision on the application pending further information from you on (i) the greening proposal and landscape design and (ii) uses within the non-building area (NBA) for further consideration of the Board. The Planning Department is also requested to provide information on the uses within the NBA of other similar planning applications previously approved by the TPB for its reference.

A copy of the TPB Paper in respect of the application (except the supplementary planning statement/technical report(s), if any) and the relevant extract of minutes of the TPB meeting held on 27.8.2021 are enclosed herewith for your reference.

If you wish to seek further clarifications/information on matters relating to the above decision, please contact Mr. Stephen Chan of Tsuen Wan and West Kowloon District Planning Office at 2417 6251.

Yours faithfully,

(Raymond KAN)
for Secretary, Town Planning Board

PLANNING LIMITED
規劃顧問有限公司

UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/009Lg

3 December 2021

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction
for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods)
in "Other Specified Uses" annotated "Business" zone
at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application No. A/KC/476 -
(Further Information No. 4)

We refer to the captioned S16 Planning Application which was considered by Metro Planning Committee (MPC) of Town Planning Board (TPB) on 27 August 2021, at which TPB members decided to defer a decision on the application pending further information from the applicant on (1) the greening proposal and landscape design, and (2) uses within the non-building area (NBA) for further consideration of the Board.

After reviewing on TPB members' concerns, the greening proposal and uses within the NBA, the Applicant proposes to increase greenery provision at the frontage facing Ta Chuen Ping Street, as well as revising the planter arrangement within the NBA and providing a continuous canopy to improve the pedestrian environment. We hereby summarise the key design merits of the proposed development for your reference *(**Revised Design Diagram – Design Merits** in **Annex A** referred)*.

1) <u>3.5m-wide NBA along Ta Chuen Ping Street</u>
Non-building Area:

- Following the requirement of OZP No. S/KC/29, the Applicant has reserved a 3.5m-wide NBA along its lot boundary fronting onto Ta Chuen Ping Street for the long-term road widening proposal and to improve air ventilation. After accommodating the proposed 3.5m-wide NBA, the G/F of the proposed development is barely adequate to accommodate all necessary L/UL or parking spaces for goods vehicles and hence there is no room for any further voluntary setback along Ta Chuen Ping Street. **The proposed 3.5m-wide NBA will be surrendered to the Government when required** *(Landscape Master Plan (G/F to R/F) and Landscape Section Plan in **Annex B – Revised Tree Survey and Landscape Proposal** referred)*. Please note that there shall be no new underground structures within the NBA of the new development.

2) <u>Interim Landscape Proposal within the NBA</u>
Revised Planter Arrangement:

- With due respect to the concerns from TPB members on the locations and width of the planters and footpath, the applicant has revised the interim landscape proposal as direct response to members' concern on the pedestrian comfort. In the revised proposal, the

Applicant proposed to reserve a 2.5m-wide footpath adjoining the development and provide a series of 1m-wide at-grade planters for shrubs planting within the 3.5m-wide NBA. Taken into account the existing 3.5m-wide footpath, the aggregated width of the footpath will be about 6m in front of the Application Site. The revised arrangement in the 3.5m-wide NBA enhances pedestrian comfort and safety by the provision of 2.5m-wide footpath at the inner side of Ta Chuen Ping Street leaning towards the future development. The proposed planters will become green islands on the footpath to further enhance the quality of the walking environment.

- We understand that there is no concrete design and implementation programme of the long-term road widening proposal for the section of Ta Chuen Ping Street in front of the site, the proposed planters will contribute to at-grade pedestrian comfort and beautifying the cityscape during this interim period before the relevant Government departments so decide on the appropriate landscape arrangement and the concrete long-term road widening proposal. For the avoidance of doubt, the proposed planters within the NBA will not account for the calculation of greening ratio for the proposed development, hence the Applicant considers such interim greenery proposal within the NBA to be an additional design merit in this application.

- The management and maintenance of the interim landscape proposal within the NBA in the lot will be the responsibility of the Applicant (the lot owner) until the concerned NBA is surrendered to the Government when required.

3) <u>Introducing Canopy within the NBA</u>

Continuous Canopy:

- With due respect to the TPB members' comments to further explore the possibility to provide a continuous all-weather canopy along Ta Chuen Ping Street, a continuous 1.5m wide canopy (over 30m in length) is introduced on its main façade on Ta Chuen Ping Street, as a new design merit of the development. The proposed canopy could provide sun shading and rain shelter for the proposed footpath adjoining the development. The canopy will overhang onto the 3.5m NBA. Due to site level difference of the ground level along the street frontage of the Site, the vertical clearance of the canopy will range from about 3.3m above ground (the eastern portion) to about 6.0m above ground (the western portion).

- Previous proposed trees along Ta Chuen Ping Street will be relocated to 2/F of the development due to the conflicts between the tree crown and canopy.

4) <u>Revised Greening Proposal for the development</u>

Greenery Calculation:

- The Applicant has made huge effort on increasing greenery visible to pedestrians. Large pieces of vertical green were introduced on its main façade on G/F, 1/F and 2/F facing Ta Chuen Ping Street. Under the latest proposal, the total greening area will be over 400m^2, i.e. about 27% of the site area. However, since the Applicant is dedicated to comply with the SBDG APP-152, the greenery calculation of the development is thus subject to the guidelines, which has reduction factor and cap for vertical greening. As a result, the countable greening ratio under SBDG APP-152 will be about 20% for the proposed development, and the most visible vertical greening are unaccountable due to the calculation method. Together with the planters to be provided within the NBA (as mentioned in paragraph 2 above), the extra greenery provided by the Applicant is >80m² which is 6% of the site area. Please refer to the greenery calculation below, the attached ***Revised Tree Preservation and Landscape Proposal (Annex B)*** and ***Revised Rendering Images (Annex C)*** for your information.

KTA PLANNING LIMITED 規劃顧問有限公司

Summary of Greenery Area Provision					
Zone	**Location**	**Type**	**Actual Area (m^2)**	**Area accountable under SBDG (m^2)**	**Extra Greenery Provision (not accountable under SBDG) (m^2)**
Primary Zone	G/F to 2/F	Planters	93.3	76.7 (1)	
	Vertical Green		138.3	72.5 (2)	65.8
	NBA	Planters	20.6		20.6
	Total		**252.2**	**149.2**	**86.4**
	% of Site Area		**17%**	**10%**	**6%**
R/F			148.8	148.8	
Development Total			**401.0**	**298.0**	**86.4**
% of Site Area			**27%**	**20%**	**6%**

Remarks
(1) Reduction factor of 50% applied to edge planter according to SBDG APP-152
(2) Calculation subject to a cap of 30% of the total greenery area provided under SBDG APP-152

Overall, the Applicant has demonstrated its best effort in enhancing the overall public realm setting of Ta Chuen Ping Street with enhanced site coverage of greenery and to the pedestrian comfort with the canopy. Besides, we confirm that the prevailing lease has no tree clause and there is no requirement for having any compensatory tree planting within the development. All proposed trees within the development are "new" trees instead of compensatory trees.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl. (70 hardcopies, incl.
Annex A – Revised Design Diagram – Design Merits and Floor Plans (G/F, 1/F & 2/F);
Annex B – Revised Tree Preservation and Landscape Proposal;
Annex C – Revised Rendering Images)
cc. the Applicant & Team
TW&WK DPO – Mr Robert Tsang (By Fax 2412 5435 w/oe & By Email w/e)

KT/DF/CL/EC/vy

Annex A

DESIGN DIAGRAM - DESIGN MERITS

1. NON-BUILDING AREA
The set back at Ta Chuen Ping Street could enhance natural ventilation, increase permeability to surrounding areas. Greenery is to be provided in the area to improve the urban environment.

2. AT GRADE GREENERY
The extensive at grade greenery along Ta Chuen Ping Street enhances the pedestrian experience, provides natural shades, and enhances the streetscape. It also enriches the building envelop and reduces the building bulk.

3. EDGE GREENERY
The edge greenery can complement as an additional layer of greenery along Ta Chuen Ping Street and serve as green separators between the adjacent buildings, increase the green coverage and more importantly improve the overall streetscape and visual quality at multiple levels from G/F to a level of 15m.

Moreover, small trees are proposed on 2/F landscape courtyard to maximize tree growing space

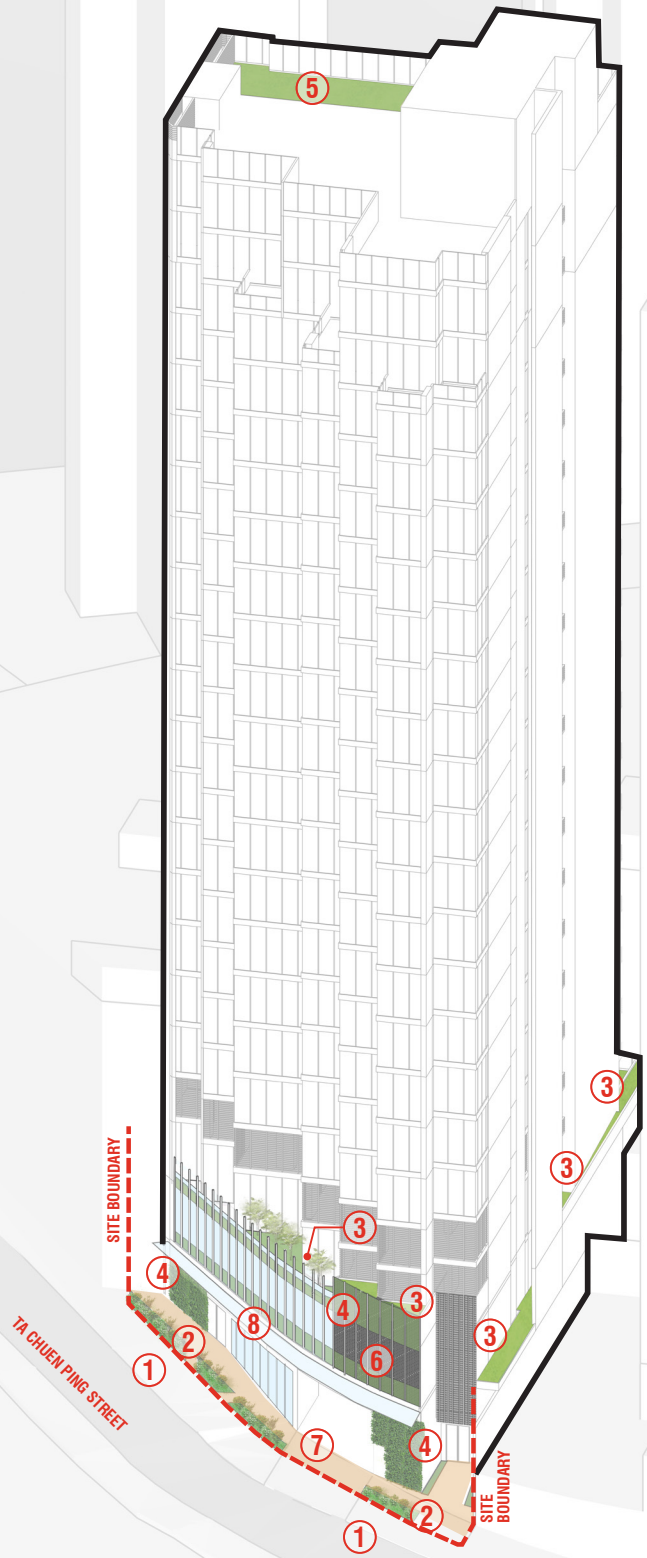
4. VERTICAL GREENERY
Installing vertical greenery at the street level up till 2/F provides an aesthetic look for the pedestrians, enhances the overall look of the street environment.

5. ROOF GREENERY
The roof greenery enlarges the green coverage for the development, reduces the heat island effect within the urban district, and provides an additional layer of the green element to the environment.

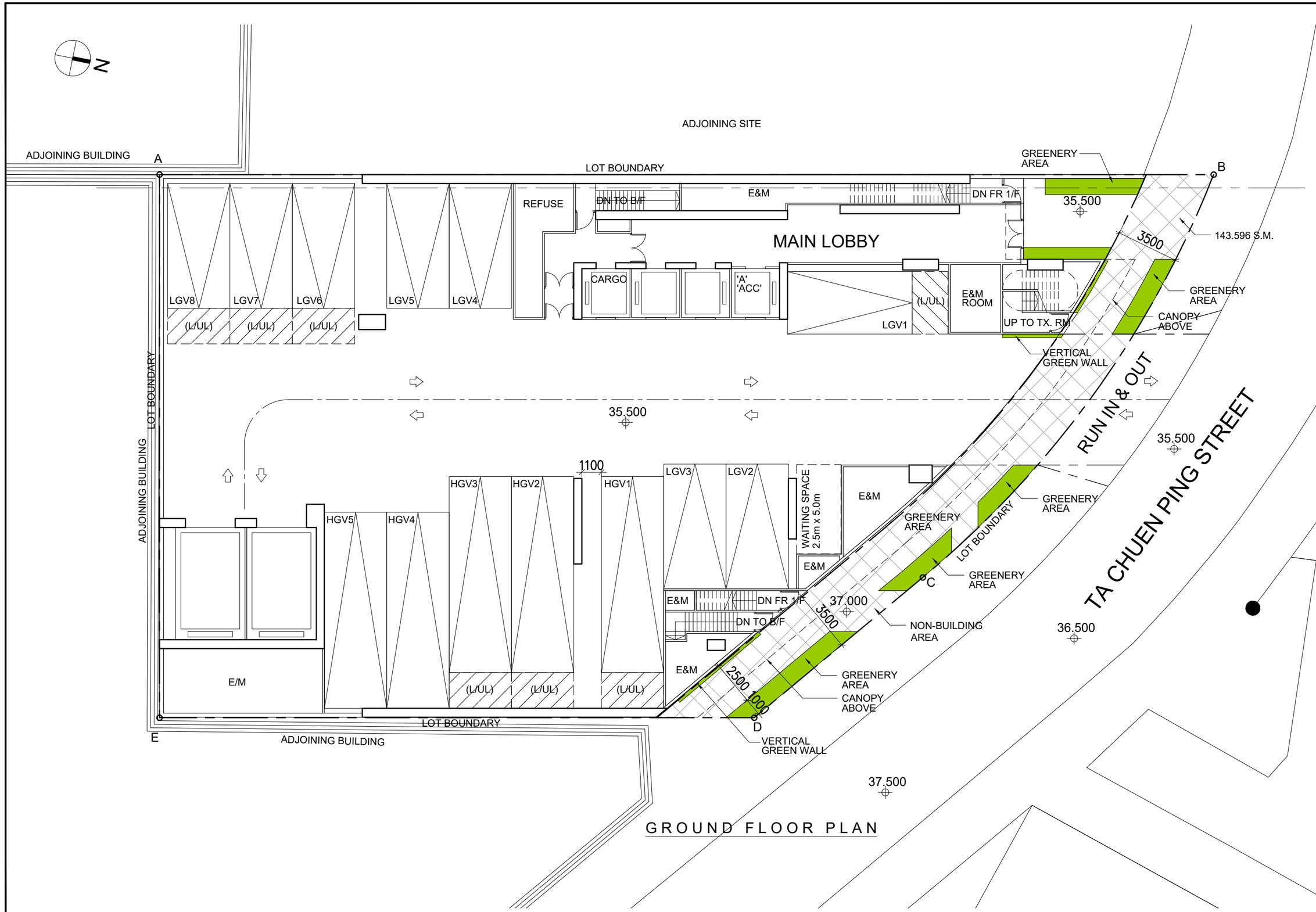
6. DECORATIVE FINS/ GRILLES
Decorative fins/ grilles will be installed in front of the smoke vents/ metal louvers at the lower-zone blending the architecture with the street-level environment.

7. RE-PAVING OF THE PAVEMENT
Set back area along Ta Chuen Ping Street will be paved with "granite / paving blocks" to match with existing adjacent finish and enhance the pedestrian experience.

8. CANOPY
Continuous "all-weather" canopy creates a shelter for the pedestrian along Ta Chuen Ping Street.



PROPOSED GREENERY



GROUND FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP
C	25/11/2021	THIRD REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

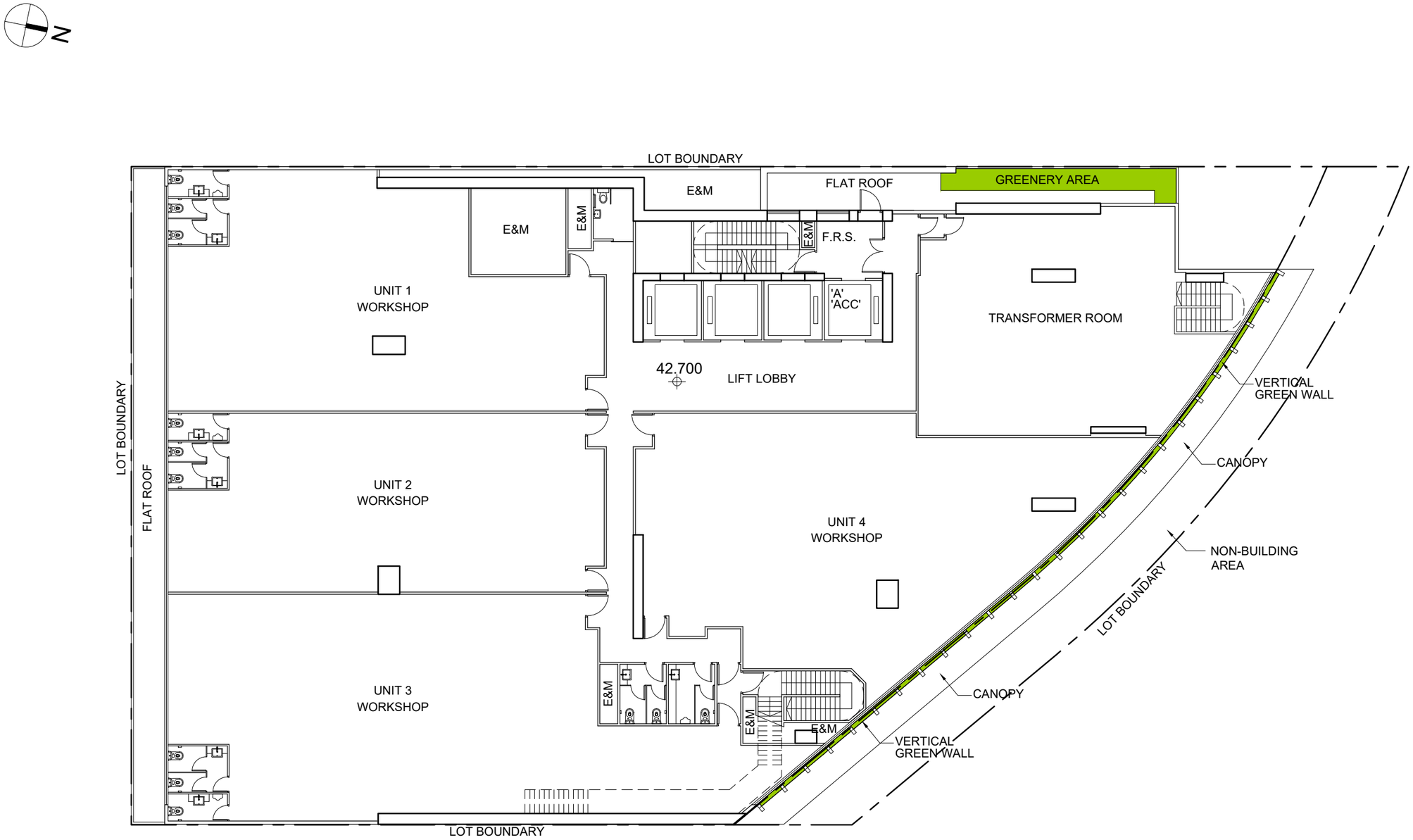
DRAWING TITLE

GROUND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION C



1ST FLOOR PLAN

REF.

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
C	25/11/2021	THIRD REVISION		

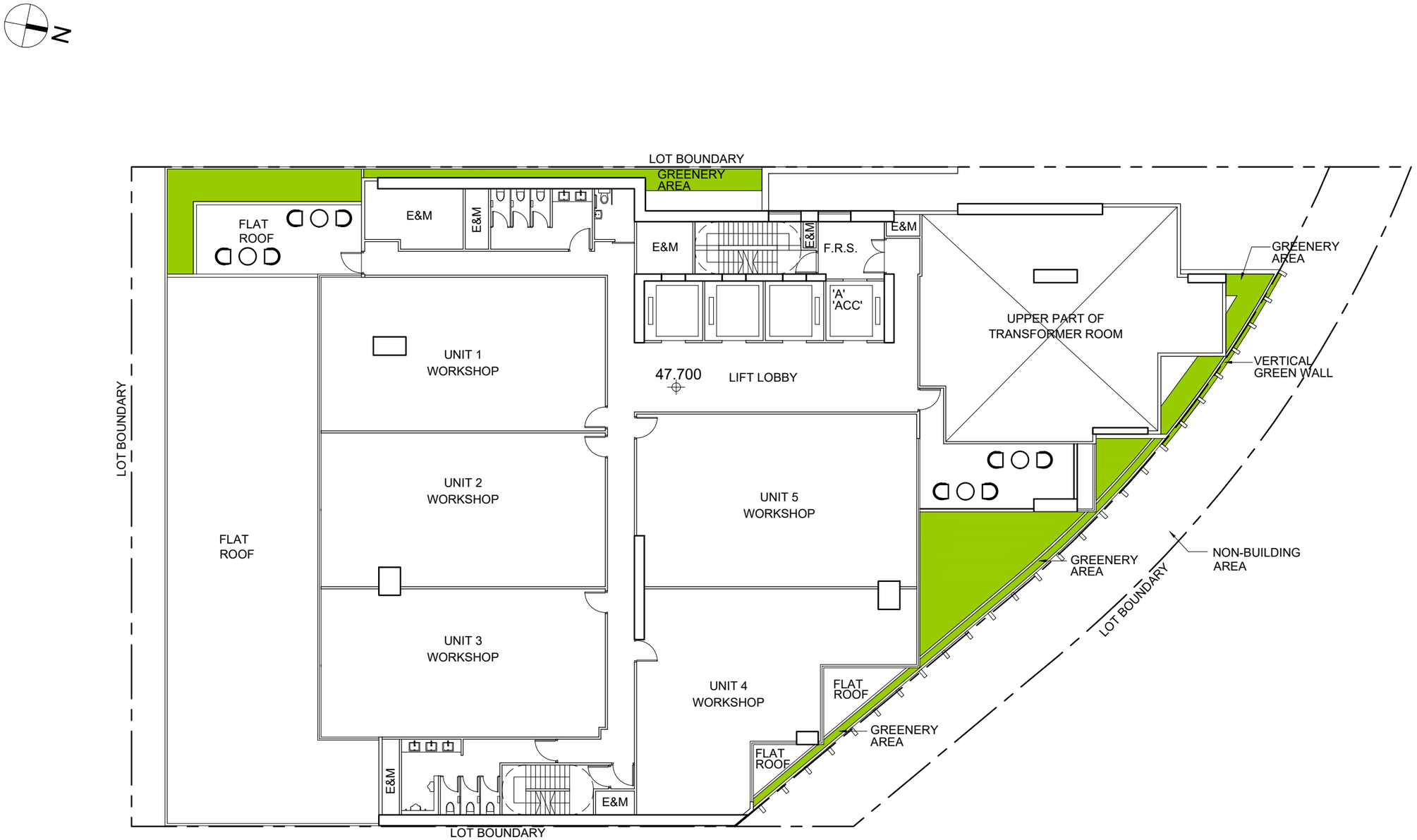
JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING
AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE
1ST FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -
REVISION C



2ND FLOOR PLAN

REF.

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
C	25/11/2021	THIRD REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

2ND FLOOR PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION B

Annex B

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 - 100 Ta Chuen Ping Street, Kwai Chung

TREE SURVEY AND LANDSCAPE PROPOSAL

(1st Submission- Rev.3)

Submission Date: December 2021

Client: Gain Champion Investment Limited
Landscape Architect: Gain Champion Investment Limited

LIST OF CONTENTS

APPENDICES

Drawing No.:	Drawing Title:	Rev.
TCPS/TS01	Tree Survey Plan	0
TCPS/TR01	Tree Recommendation Plan	1
TCPS/SEC01	Landscape section 01	3
TCPS/VG01	Typical Vertical Green Wall Detail	1
TCPS/VG02	Typical drawing for Green Wall system (SV-8150)	0
TCPS/VG03	Automatic irrigation system for Green Wall system (SV-8150)	0
TCPS/LMP01	Landscape Master Plan - Ground Floor	4
TCPS/LMP02	Landscape Master Plan - First Floor	2
TCPS/LMP03	Landscape Master Plan - Second Floor	3
TCPS/LMP04	Landscape Master Plan - Roof Floor	3
TCPS/GA01	Greenery Area Provision - Ground Floor	3
TCPS/GA02	Greenery Area Provision - First Floor	2
TCPS/GA03	Greenery Area Provision - Second Floor	2
TCPS/GA04	Greenery Area Provision - Roof Floor	2

1. INTRODUCTION

1.1 Background

1.1.1 The proposed revitalisation Industrial building site is located at D.D. 444 Lot No. 290, No.94-100 Ta Chuen Ping Street, Kwai Chung, Kowloon. The development comprises of twenty-three storey factories/ workshops, a mechanical floor and one basement car park.

1.1.2 This Submission presents the Landscape Proposal (LP) which includes the Tree Survey. Given the site has no landscaping nor tree preservation clause, it serves as information and supporting document for Section16 purpose only.

1.2 Landscape Proposal for the Lot

1.2.1 This Landscape Proposal (LP) follows the requirements of Joint Practice Note no.3 (JPN3).

1.3 Tree Survey Report

1.3.1 The Tree Survey Report Is presented in **Section 4** of this Report.

1.4 Relevant Legislation and Guidelines

1.4.1 In preparation of this Report, reference has been made to the following technical circulars, practice notes and publications:

- Buildings Department / Lands Department / Planning Department Joint Practice Note No. 3 Re-engineering of Approval Process for Land and Building Developments. (August 2003);
- Forests and Countryside Ordinance (Cap.96);
- Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Country Parks Ordinance (Cap. 208);
- Development Bureau Technical Circular (Works) No. 5/2020 – Registration of Old and Valuable Trees, and Guidelines for their Preservation;
- Development Bureau Technical Circular (Works) No. 6/2015 -- Maintenance of Vegetation and Hard Landscape Features;
- Standing Interdepartmental Landscape Technical Group (SILTECH) publication - ‘Tree Planting and maintenance in Hong Kong’ (1991);
- Agriculture, Fisheries and Conservation Department Publication - 'Check List of Hong Kong Plants 2012' (2012);
- Agriculture, Fisheries and Conservation Department Publication - 'Rare and Precious Plants of Hong Kong' (2003).
- GEO Publication No. 1/2011 – ‘Technical Guidelines on Landscape Treatment for Slopes’;
- Works Branch Technical Circular (WBTC) No. 25/93 – Control of Visual Impact of Slopes;
- Works Bureau Technical Circular No. 17/2000 – Improvement to the Appearance of Slopes;
- Works Bureau Technical Circular No. 7/2002 – Tree Planting in Public Works;
- Highways Department – Landscape Unit – Requirements for Handover of Vegetation to Highways Department (2012);
- Highways Department Technical Circular No. 3/2008 on Independent Vetting of Tree Works under the Maintenance of Highways Department;
- BS 3888:2010 – Tree Work – Recommendations;
- BS 5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations.
- Guidelines promulgated by the Development Bureau at: http://www.greening.gov.hk/en/management

1.5 Changes in this revision

1.5.1 As the proposed development is proposed to set back with a minimum 3.5m Non-Building Area (NBA) from its site boundary to cater long term road widening proposal along Ta Chuen Ping Street to align the Kwai Chung OZP.

1.5.2 All planting areas within the NBA are additionally provided on top of the overall required greenery area calculation.

1.5.3 A 1.5m wide glass canopy is also introduced in this revision to provide a more comfortable pedestrian experience within the NBA.

1.5.4 Proposed small trees have therefore been relocated to Second Floor within the landscape courtyard facing Ta Chuen Ping Street with more suitable species proposed for podium planting to avoid future tree removal for a higher flexibility of future planning and to enable future tree growth.

1.5.5 Vertical green walls are proposed on the façade facing Ta Chuen Ping Street to further enhance the streetscape while the trees relocated on Second Floor.

1.5.6 Greenery calculations, landscape plans of Ground floor and Second Floor plans are therefore revised according to the changes.

1.5.7 Ground Floor and Second Floor plans are revised with the updated greenery area

1.5.8 All changes in text will be highlighted in grey and drawings will be clouded for easy reference.

2. TREE SURVEY METHODOLOGY

2.1 Definition

2.1.1 In accordance with Lands Department's Practice Note Issue No. 2/2020, all existing trees of its trunk diameter measures 95mm or more at a height of 1.3m above ground level were identified.

2.2 Individual Tree Survey

2.2.1 Every tree surveyed individually shall be recorded with the following information and detailed in **Appendix 2**:

- Tree number
- Species
- Height
- Crown Spread
- Trunk Diameter
- Tree Form
- Amenity Value
- Health Condition
- Anticipated Survival Rate after Transplanting

2.3 Tree Assessment Schedule

2.3.1 A Tree Assessment Schedule recording the detailed information of existing trees together with photographic records of existing trees are enclosed in **Appendix 2** and **Appendix 3** respectively. All surveyed trees shall be identified to confirm whether the trees are:

- Included in the Register of Old and Valuable Trees promulgated under Environment, Development Bureau Technical Circular (Works) No. 5/2020,
- Potentially registrable in accordance with the criteria as set out in Environment, Development Bureau Technical Circular (Works) No. 5/ 2020,
- Tree species included in the latest edition of the publication: Rare and Precious Plants of Hong Kong, issued by Agriculture Fisheries and Conservation Department, and /or
- Potentially hazardous.

2.3.2 Terms Used in the Tree Assessment Schedule

(a) Tree No.:

Surveyed tree reference number recorded

(b) Species

Botanical names and Chinese names of the surveyed tree recorded

(c) Height

Full height measured from ground level to the top branch in meters

(d) Spread

Diameter of tree canopy in meter

(e) Trunk diameter

Diameter at breast height (DBH) of the main trunk measured at a height of 1300mm above ground level

(f) Health Condition

Estimated according to the Foliage, Exposed Roots, Branches and Trunk

(G) = Good Without any visible disease or defect, sound and healthy tree

(F) = Fair With few visible defects or health problem

(P) = Poor With many visible defects or health problem such as rot, cavities in the main trunk, insect or fungi attack, lack of vigour and crown die back, etc.

(g) Tree Form

Estimated according to the canopy, branch and trunk

(G) = Good Well-balanced canopy and straight strong trunk(s) without any broken branch

(F) = Fair Slightly unbalanced canopy and non-straight trunk(s)

(P) = Poor Heavily leaning, unbalanced canopy misshapen, awkwardly-forked trunk or with any broken branch or trunk

(h) Amenity Value

Estimated according to the species, age, size, health condition and tree form

(H) = High

Specimen of rare trees to be retained if at all possible

(M) = Medium

Trees which individually or collectively make a useful but not vital contribution to the local environment

(L) = Low

Dead, dangerous and unhealthy trees and trees of generally poor form and shape

(i) Anticipated survival rate after transplanting

The survival rate after transplanting for individual tree is assessed and categorized as follows:

(H) = High

(M) = Medium

(L) = Low

The following criteria are taken into account:

- Condition of the Tree - trees with balanced form, in good health and with high amenity value are considered for transplanting
- Size and Maturity - small and younger trees have a better chance of surviving transplantation while larger, mature trees are difficult to transplant both logistically and in terms of survival rate
- Species - different tree species have better chances of survival or are better suited to transplanting than others
- Access - large machinery is required to lift the trees, steep slopes and rocky terrain therefore make it difficult to access trees
- Trees Located on Sloping Ground - for those trees located on sloping ground, they may not survive after transplanting even if they are accessible. It is difficult for their inclined root systems to adapt to the normally more gentle ground at the receptor site.

(j) Remarks

Supplementary special features identified on site and having status / characteristics / condition as stated in the bullet points of Section 3.2.3 Tree Assessment Schedule.

3. EXISTING SITE CONDITIONS

3.1 Description of Existing Site and Landscape Context

3.1.1 The Development Site is within an area of about 1486.436 sqm., falls within the industrial area in Kwai Chung. The site is bounded by Regent Centre and Kong Sheng Factory Building along Ta Chuen Ping Street.

3.1.2 Photographs showing the existing site conditions are enclosed in **Appendix 1** The ground levels along Ta Chuen Ping Street are around +36mPD. The lowest point of the ramp is approximately +36mPD and slowly ramping up to the flat area around +39mPD.

3.1.3 The site is relatively flat with concrete paved and an approximate 3m ramp up to the main site which is currently uses for vehicles manoeuvring by the owners of DD444 Lot 291.

3.1.4 There are iron sheet fences of around 2m height to the West of the site and the North, South and West of the site is immediately abutting the adjacent Kong Sheng Factory building and Regent Centre.

3.1.5 There are no SIMAR slopes found in the vicinity of the site.

3.2 Existing Trees

3.2.1 There are total 7 no. existing trees found within the site. All of them grow along the boundary edge with average tree condition except one located adjacent to the ramp on the flat area.

3.2.2 There are no trees within or adjacent to the site that are included in the Register of Old and Valuable Trees promulgated under ETWB TC(W) 5/2020 and since only trees on unleased Government land within built-up areas or tourist attraction spots in village areas are eligible for inclusion in the Register, there are no surveyed trees that are potentially registrable in accordance with the criteria as set out in ETWB TC(W) No. 5/2020.

3.2.3 The Tree Survey Report is presented in **Section 4** of this Report

4. TREE SURVEY REPORT

4.1 Background

4.1.1 The Tree Survey is based on the Topographic Survey undertaken by Chynchen Associates Limited in March 2021.

4.1.2 The assessment and survey of the existing trees within the site were carried out and recommendations were made regarding the treatment of existing trees in response to the design proposals.

4.1.3 The tree survey report outlines the approach and findings of the tree survey; describes the type, extent and condition of existing trees that will be affected by the proposed development, makes recommendations for the treatment to these existing trees within the site.

4.2 Tree Survey Finding

4.2.1 There are a total of 7 nos. existing trees surveyed. Locations of trees are indicated in the Tree Survey Plan enclosed in **Appendix 4** and Photographic Record of Existing Trees in **Appendix 3.**

4.2.2 The tree species recorded are mostly common species in Hong Kong. There are 4 species identified, the height ranges from 4m to 10m, crown spread from 4m to 8m, and DBH from 125mm to 620mm, no weed species *(Leucaena leucocephala)* are found.

4.2.3 The species of surveyed trees and number of each tree species are summarized in **Table 4.2** below.

Table 4.2 Summary of surveyed Trees

Scientific name	Chinese Name	Origin	Quantity (no.)
Ficus microcarpa	細葉榕	Native	2
Ficus rumphii	心葉榕	Exotic	1
Ficus variegate	青果榕	Native	1
Macaranga tanarius var. tomentosa	血桐	Native	3
Total no. of Tree Surveyed			7

4.3 Assessment of Impacts on Existing Trees

4.3.1 The number and species of trees to be retained, transplanted or fell shall depend on various factors, e.g. cost of planting and transplanting, health, amenity value, size, survival rate, location and details of the proposed works.

The following definitions with regard to the recommendations for treatment for each tree in the Tree Assessment Schedule are used:

(1) Retain

Trees in unaffected areas are recommended to be retained and will be protected during construction by temporary fencing when in proximity to construction works.

(2) Transplant

Tree species that are rare or endangered are recommended to be transplanted. Trees approved to be transplanted will be relocated to a suitable location with consent of the Government.

(3) Fell

Trees in direct conflict with the proposed works and are unsuitable for transplanting will be felled. This shall be the last resort if retain and transplant are both not feasible.

4.4 Criteria for Recommendation

4.4.1 The main criteria for judging 'Tree Treatment' for each tree are as follows:

(1) **Retain**

- The feasibility of retaining a tree has been considered with regards to the following:
- Potential damage to the trees as a result of the work.
- Changes to ground levels on a macro-scale that affects the ground water table and may cause severe stress.
- Special construction to maintain the existing ground.
- Conflict between tree roots and slope stabilization method.

(2) **Transplant**

- In situation where a tree is impossible to retain, then transplanting will be considered. The criteria upon which the assessment of transplanting tree are based on the following:
- Potential damage to the trees as a result of the work.
- Rarity of species - rare or endangered Hong Kong species.
- Distinctiveness - trees with high amenity value and high local importance.
- Condition of tree - trees with balanced form, good health and high amenity value, which will affect the success of the proposed transplanting
- Maturity - younger trees have higher survival rate while mature trees do not.
- Species character - different tree species have different rates of survival.
- Rootball feasibility - tree growing on loosen rocky sub-base / slope or adjacent to important utility will not be considered.
- Availability and suitability of a permanent receptor site, both within and outside the site.
- Adequate time for preparation of transplanting operation.
- Identification of a long term maintenance works for the transplanted tree(s).
- Access to the existing location and transportation to the receptor site (including availability of access to accommodate the tree, topography of the proposed route, engineering limitations, etc).
- Cost-effectiveness

(3) **Fell**

The guidelines for the proposed felling of trees are:

- No irreplaceable rare tree species involved.
- Felling of trees would not cause a serious environmental impact.
- A genuine development or traffic need for tree felling exists, which cannot be reasonably overcome.
- The tree is not unusually large or is not a fine specimen of its type.
- The tree is low amenity value and/or poor health, structure or form (e.g. imbalanced form, leaning, with major cavity/ cracks/ splits),
- The tree with low survival rate after transplanting.
- The tree with irrecoverable form after transplanting, which substantial crown and root pruning are necessary to facilitate the transplanting.
- The tree with very large size, which is not considered financially reasonable and technically feasible during feasible stage.
- Undesirable species (e.g. *Leucaena leucocephala*, which is an invasive, self-weeded exotic tree).
- The tree is dead, hazardous or diseased

4.5 Recommendation on Tree Treatment

4.5.1 Among the 7 nos. surveyed trees, all of them would be affected by the excavation works for site formation of the proposed development. All trees affected are in fair to poor form, fair health condition, poor structural condition, with medium to low amenity value and low anticipated survival rate after transplanting.

4.5.2 All of the surveyed trees are not feasible to transplant as the root balls of the trees are either growing within the adjacent concrete wall or immediately abutting the adjacent structure or growing in a narrow planter, which makes the formation of root ball to transplant very difficult and impractical. Therefore, recommend to be felled.

4.5.3 Recommendations for works on the affected trees are shown in the Tree Assessment Schedules in **Appendix 2** and by colour coding the Tree Survey Plan **TCPS/TS01** in **Appendix 4.**

4.5.4 The following is proposed for the 7 surveyed trees:

- All 7nos. of trees are proposed to be felled.
- 0 trees are proposed to be retained
- 0 trees are proposed to be transplanted

4.5.5 **T1** *Ficus microcarpa* and **T7** *Ficus rumphii* both with fair form and fair health condition are proposed to be felled. Even though they are located on the proposed planting area, due to direct conflict to the proposed basement development. While the proposed development has a full height set back of minimum 3.5m wide non- building area the proposed works will not be able to further set back as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement. Therefore site formation works will unavoidability be in direct conflict with the existing trees.

4.5.6 With the existing location and condition of these trees, transplantation is impossible as T1 is growing very closely to the existing hoarding, making it very difficult to form the rootballs for onsite/ offsite transplanting. T7's roots are growing within the adjacent concrete low wall, separating the root to the concrete structure is impossible and potential hazard of stability might occur after the separation of concrete structure as it is not a registered wall and stability of such wall is uncertain. It is occurs to be a potential tree failure in the future if we proposed to retained the concern trees.

4.5.7 **T2, T3** *Macaranga tanarius var. tomentosa* and **T4** *Ficus variegate* in poor form and health condition are also proposed to be felled as it is in direct conflict with the proposed building envelope and transplantation of these trees are impossible as their root collar are unable to be seen and their tree trunk are locate immediately adjacent to the building block.

4.5.8 **T5** *Ficus microcarpa* is leaning located within the proposed building envelope and a small narrow planter immediately adjacent to the building rendering the rootball preparation for transplantation very difficult, therefore it is proposed to fell given the consideration of the tree amenity value and cost imbalance.

4.5.9 **T6** *Macaranga tanarius var. tomentosa* is located in the middle of the proposed driveway and between the two level along the side of the ramp from the existing entrance. Considering the level difference from the future proposed level and the existing root collar level, it will be directly affected by the proposed construction works and will not be able to retain nor transplant. Transplantation is not recommended due to the tight growing planter space currently for the roots rendering it very difficult to prepare a rootball for transplant.

4.6 Summary of Tree Treatment

4.6.1 **Table 4.6** below provides consolidated findings and recommendations of the existing trees.

Table 4.2 Summary of Tree Treatment

Proposed Treatment	**Quantity (nos.)**
To be retained	0
To be transplanted	0
To be felled	7
Total no. of Tree Surveyed	**7**

5. THE LANDSCAPE PROPOSAL

5.1 Landscape Design Objectives

5.1.1 The landscape design is responsive to the surrounding environment and complement to the contemporary architectural design of the development. The design takes into consideration of the aesthetic, functional and sustainable aspect of the site and its surrounding. The landscape areas and facilities have been considered and arranged to allow ease of pedestrian circulation and adjacent to relevant indoor facilities. A balance of hard and soft landscape area/ elements have been sought wherever possible. The proposed plant species are both native and exotic species for blending with the local climate/ micro-climate.

5.1.2 The proposed landscape area is distributed at Ground Floor, 1st Floor, 2nd Floor and Roof. Ground Floor, 2nd Floor and roof are open and accessible to general tenants for enjoyment. The other landscape area on 1st Floor are inaccessible but visually accessible to create a greenery connection on site.

5.1.3 The landscape design proposal is illustrated on the plans **(TCPS/LMP01** to **TCPS/LMP04)** and section **(TCPS/SEC01)** enclosed in **Appendix 4** of this report

5.1.4 Description of each landscape area are further elaborated below.

Ground Floor Landscape area and Streetscapes

5.1.5 The streetscape design for the pedestrian pavements along Ta Chuen Ping Street will be upgraded with 1.5m wide continuous glass canopy within the NBA for a better pedestrian experience for sun shading and rain shelter as the building footprint cannot be further set-back due to the number of parking that is required to be provided and the fire service requirement further explained in section 5.3.

5.1.6 To further enhance the streetscape design and to create a more inviting and welcoming space, a 3.5m wide pedestrian footpath set back from the site boundary will be provided along with 1m separated sidewalk planting to act as a minor barrier and interim greening before the future road widening proposal. The overall pedestrian path will therefore be around 6m including the existing 3.5m pedestrian footpath upon surrender to the government.

5.1.7 Besides, tree planting on Ground Floor is not recommended as the overall purpose on the streetscape design is to provide a more generous pedestrian pathway, planters width are minimised to 1m to better cater for the future high pedestrian flow.

5.1.8 Furthermore, as we have proposed a glass canopy along the building edge planting small trees within the planter is not recommended as the tree crown will eventually incur direct conflict with the glass canopy as it grows.

5.1.9 Small trees are therefore proposed on the Second Floor landscape courtyard instead on Ground Floor to maximise the tree growing space and a more flexible road widening proposal in the future to avoid unnecessary tree removal.

5.1.10 As part of the visual streetscape upgrade, a planting strip with shrubs/ groundcovers will be proposed on 2nd Floor flat roof facing Ta Chuen Ping Street for further enhancement.

5.1.11 Instead of providing only horizontal at-grade greening at the entrance, our scheme has also included vertical greening, the provision enhances the overall greening effect to at-grade levels and to maximise the greening opportunities.

5.1.12 Proprietary vertical green walls are proposed instead of self-climbing plantings to provide instant visual effect facing Ta Chuen Ping Street. Whereas, self-climbing plantings are proposed on the retaining wall between the site and Regent Centre.

5.1.13 Furthermore, the finishes and plant species provided within the development will be compatible with those selected for the surrounding public areas, details of the indicative proposed species are listed in **Section 5.3** below.

Landscape areas located on 1st Floor, 2nd Floor and Roof

5.1.14 Planters are designed along the edge adjacent to Regent Centre on as well as an edge corner of the side facing Ta Chuen Ping Street on 2nd Floor to create a green buffer and to reduce the visual

prominence, soften the form of the proposed architectural scheme and create a greener perimeter where it interfaces with the spaces surrounding the site.

5.1.15 Landscape courtyard are designed on Second Floor for more outdoor opportunities for the general tenants, small trees and movable furniture are proposed for sun shading and passive recreation.

5.1.16 Accessible small pocket space with seating areas and small trees are proposed on the Western corner on 2nd Floor.

5.1.17 Multi-purpose functional lawn area at roof floor will be designated as common part of the building.

5.1.18 The landscaping areas on 1st Floor and corner of 2nd Floor in front of transformer's room are not accessible by communal users.

5.2 Hard Landscape Element

5.2.1 Paving used for vehicular traffic shall be of adequate thickness to withstand the required loading, and the colour and pattern shall match with the overall paving character. Feature paving shall be adopted at building entrances and landscape areas for accent.

5.2.2 For curbs, planters and walls, natural granite and ceramic tiles with different colours and textures are proposed and in line with the overall colour tone of the hard landscape.

5.2.3 All hard paved areas shall be paved with a mixture of ceramic tiles and natural granite with sizes and colours complementary with the proposed building finishes for the site.

5.2.4 Non-slip paving materials are designed and selected to suit the various active and passive recreational areas within the site and the proposed finishes and materials are summarized in the Hard Landscape Schedule below.

Ground Floor Landscape Area

Landscape Zone	**Brief Description of Hardworks Elements**
Entrance area	*Pavement – granite/ paving blocks*
EVA/ loading & unloading area	*EVA road – granite/ ceramic tiles* *Loading and unloading area/ ceramic tiles*
Shop area	*Pavement/Staircase – granite / ceramic tiles/ paving blocks*
At-grade planters	*Planter edge – granite / ceramic tiles*

1st Floor, 2nd Floor and Roof Landscape Area

Landscape Zone	**Brief Description of Hardworks Elements**
Landscaped area	*Pavement - granite/ ceramic tiles* *Planter wall - granite/ ceramic tiles*

5.3 Soft Landscape

5.3.1 Plants enhance the visual quality and add seasonal interests to the landscape area. Also, it softens the hardscape and increase the landscape quality of the development. Both native and exotic plant species are used to provide ecological benefits as well as ornamental purpose.

5.3.2 Trees, shrubs and groundcovers will be planted throughout the site whenever appropriate. Species with shade tolerant plants, evergreen nature and different foliage colours are selected to ensure year round greening effect and visual interest. For feature planting at focal points, evergreen or deciduous species with different foliage colours will be selected to enhance visual and seasonal interest.

5.3.3 7 nos. of standard *Osmanthus Fragrans* are proposed on the Second Floor in the small landscape courtyard facing Ta Chuen Ping Street and pocket space immediately adjacent to Regent Centre to reduce the wall effect and act as a screen planting.

5.3.4 Proprietary vertical green wall is also introduced to the site for additional greening and create a vibrant visual appreciation for the pedestrian and it's surrounding. Evergreen and easily maintained species will be proposed on the vertical green for immediate visual effect. Typical detail of the vertical green wall is show on Drawing No. **TCPS/VG01** enclosed in **Appendix 4**.

5.3.5 Some of the vertical greenings are proposed underneath the glass canopy for a continuous design. All covered greenery area are not counted towards the greenery area calculations. Detail of the calculations are provided in **Section 5.5** below.

5.3.6 Section Drawing, drawing no. **TCPS/SEC01** showing the section of proposed planting area, are enclosed in **Appendix 4**.

The planting areas are shown on Drawing No**. TCPS/LMP01** to **TCPS/LMP04** enclosed in **Appendix 4** of this Report and the indicative planting schedule are summarised in **Table 5.3** below

Table 5.3 Indicative Planting Schedule

Planting Species	**Chinese name**	**Size (height x spread) (mm)**	**Min. Planting Spacing (mm) /c**	**Proposed Location**
Tree Planting				
Osmanthus Fragrans	桂花	Standard	3000	2/F (7 nos.)
Shrubs and Groundcovers				
Bougainvillea glabra	勒杜鵑	1000x300	300	1/F, 2/F, RF
Cuphea hyssopifolia	台灣雪茄花	150x200	150	2/F, RF
Duranta repens 'Dwarf golden'	黃金假連翹	400x400	400	G/F, 2/F
Fatsia japonica	八角金盤	400x400	400	G/F, RF
Fagraea ceilanica	非洲茉莉	400x400	400	G/F, 1/F, 2/F
Ficus microcarpa cv. Golden Leaves	黃金榕	800x800	800	RF
Ixora chinensis	龍船花	400x400	400	G/F, 1/F, 2/F
Liriope spicata	蒲草	150x150	150	1/F, 2/F, RF
Nephrolepis hirsutula	毛葉腎蕨	200x200	200	2/F
Nandina domestica	南天竹	300x600	300	2/F
Osmanthus fragrans	桂花	500x500	500	2/F
Rhododendron simsii	紅杜鵑	400x400	400	G/F, 2/F
Schefflera arboricola 'Dazzle'	鵝掌藤	500x500	500	G/F, 2/F
Syzygium hancei	韓氏蒲桃	500x500	500	G/F, 2/F

Climbers				
Ficus pumila	薜荔	500 x 300	300	GF
Parthenocissus dalzielii	爬牆虎	750 x 300	500	GF

5.4 Tree Planting Method

5.4.1 A minimum of 1200mm soil depth is proposed for all tree planting areas. A 500mm radius around the trunk of the trees shall remain clear of shrubs or ground covers in accordance with Guidelines promulgated by the Development Bureau, and a 50mm layer of mulch shall be applied.

5.5 Greenery provisions

5.5.1 Upon full establishment of greening measures mentioned in the landscape design proposal, visible greening at different levels of the proposed development will be about 20.04% not less than 20% of the site area. Minimum greenery ratio required within the Lot is 20% of the total site area as per PNAP APP-152. Drawing No. **TCPS/GA01 to 04** enclosed in **Appendix 4** of this report shows details of the Green Coverage. Requirement of greenery, please refer to **Table 5.5** and **Table 5.6.**

Table 5.5 – Green Area Provision requirement

Greenery Area Requirement	
Development Site	1,486.436 m^2
Primary Zone (below 15m) – 10%	148.644 m^2
Overall Greenery Area – 20%	297.287 m^2
Greening Features (not more than 30% of the total required greenery area)	89.186 m^2

Table 5.6 – Green Area Provision Calculations

Greenery Area Provision					
Location			**Area (m^2)**	**Reduction factor (%)**	**Area (m^2)**
Primary Zone (below 15m)		Ground Floor (G/F)	8.03	Nil	**8.03**
		First Floor (1/F)	-		-
		Second Floor (2/F)	52.02		**52.02**
	* Greening features	* Planters along the perimeter of an inaccessible roof	*11.50 (1F)*	50%	16.665
			21.83 (2F)		
		* Vertical Greening (VG)	*75.438*	Nil	75.438
	* maximum countable greening features area		92.103sqM > **89.186 (Capped)**		
Total primary zone			**149.236 (>10%)**		
Roof Floor (R/F)			148.77		
Overall			**298.006 (20.04%>20%)**		

5.5.2 As per the general sustainable building design guidelines, a minimum greenery ratio of 10% of the total 20% (148.644 m^2) visible to pedestrians or accessible by any person or persons entering the Lot is required. A total greenery area of (149.236 m^2) at Primary Zone has been provided on G/F, 1/F and 2/F in the Development Site. Calculation of greenery area requirements is based on (PNAP) APP-152.

5.5.3 At grade plantings are also proposed on the NBA for interim greening opportunities before the future road widening works along Ta Chuen Ping Street, a total area of 20.64 m^2 are proposed, these greenery areas are not countable towards the overall greenery calculations.

5.5.4 Due to the height limit imposed on the site, the site coverage of the proposed building is up to the maximum allowable limit of 61.537% in order to achieve the allowable GFA under lease. The remaining uncovered area is only 38.463% of the site area which had to cater for the planting area, vehicular access and pedestrian access. Further set back of the building along Ta Chuen Ping Street is not feasible as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement, maximum at grade planting area has been considered.

5.5.5 Rendering the tight space for the development with building blocks situated immediate to the three sides of our site, providing greenery along the street frontage/ primary zone is difficult. Therefore, proprietary vertical wall is provided facing Ta Chuen Ping street for immediate visual enjoyment to the adjacent building occupants and public pedestrians.

5.5.6 Vertical green walls are proposed on the building façade facing Ta Chuen Ping Street for street improvement with a total of 75.438 m^2 (countable 72.521 m^2) locate right above the glass canopy with 1.5m H banding and the top portion of the decorative fins in front of the transformers room.

5.5.7 Besides the countable vertical green walls, there are three other green walls proposed under the glass canopy at the side of the GF shop front and on the right wall of the carpark entrance for a consistent design of vertical greens. These covered vertical green consist a total of 65.8 m^2.

5.5.8 Therefore, the overall required greenery area is fulfilled with 298.006 m^2 (>20%). Additional 86.42 m^2 is also provided for more greening opportunities and to enhance the pedestrian experience along Ta Chuen Ping Street.

5.6 Landscape Lighting

5.6.1 Lighting for the landscaped areas will be designed to contribute to the quality of the development. All accessible points and open space areas will be provided with sufficient illumination to meet the required lighting standards. Lighting designed for all open space will be carefully designed to avoid glare. The lighting strategy includes four types of lighting as follows:

- Amenity lighting provides in-ground flood lighting for feature trees and planting on roof gardens;
- Up-lighting for landscape features (e.g. walls / sculpture / feature trees);
- Area lighting on roof gardens (e.g. wall recessed lights and low level lighting) is proposed for sitting out areas and courtyard gardens to minimize the potential visual intrusion; and
- Safety lighting with minimum lux level in accordance with acceptable standards and requirements for the perimeter areas and any areas used as means of escape.

5.7 Soil Requirement

5.7.1 Provision of soil depth to all planted areas will be a minimum depth of 1200mm for trees, 600mm for shrubs and 300mm groundcover area, excluding drainage layer.

5.8 Irrigation and Drainage

5.8.1 Drainage for all planted area with the provision of adequate source of water supply will be provided. Automatic dripped irrigation will be adopted to all planting areas at accessible and inaccessible roof on GF, 1 F, 2F and RF.

5.8.2 In addition, automatic dripped irrigation will also be used on the vertical green wall for easy maintenance. Typical details of the vertical green wall irrigation system is enclosed in **Appendix 4** Drawing no. **TCPS/VG02 to 03** for reference.

5.9 Landscape Management and Maintenance

5.9.1 The management and maintenance of the landscape area within lot would be taken by lot owner in a sustainable manner and keep in a safe, clean, neat, tidy, functional and healthy condition.

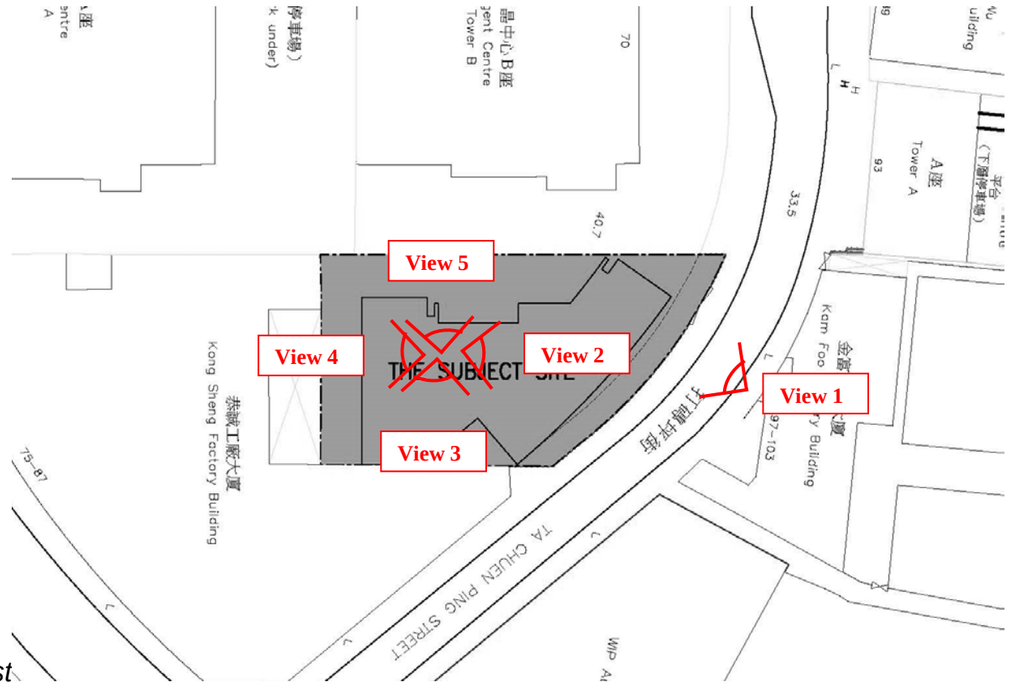
5.9.2 Maintenance under the NBA will be undertaken by the lot owner until the land has surrendered to the relevant government department.

5.9.3 The landscape contractor will be responsible for 12 months establishment period of plants after practical completion of the planting works. Upon the end of these 12 months establishment period, the Estate Management Office will employ maintenance staff/landscape contractor to take care all landscape areas.

5.9.4 Maintenance for hard landscape elements will be carried out by management office. Maintenance works of soft landscape will include the following regular operations: watering, weeding, firming up of plants, pruning/thinning, grass cutting, fertilizing, applying insecticide/fungicides, replanting/replacing dead/damaged plants, aeration and mulching, etc.

Appendix 1

Site Plan and Existing Site Condition Photos



Site Plan

View 1

View 2

View 3

View 4

View 5

Tree Assessment Schedule

Date of Tree Survey: 16-Mar-21

Tree No.	Species		Measurement			Form	Health Condition	Structural Condition	Amenity Value	Conservation status	Suitability for Transplanting		Recommendation (Retain/ Transplant/ Fell)
	Scientific Name	Chinese Name	DBH (mm)	Height (m)	Crown Spread (m)	Good / Fair / Poor			High / Medium / Low		High / Medium / Low	Remarks	
T1	Ficus microcarpa	榕樹 (細葉榕)	620	10	8	Fair	Fair	Poor	Medium	NIL	Low	Dead branch; close to existing hoarding; difficult to form rootball	Fell
T2	Macaranga tanarius	血桐	135	6	5	Poor	Fair	Poor	Low	NIL	Low	Slightly leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T3	Macaranga tanarius	血桐	125	7	6	Poor	Fair	Poor	Low	NIL	Low	Slightly leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T4	Ficus variegata (syn. Ficus variegata var. chlorocarpa)	青果榕	155	9	6	Fair	Fair	Poor	Medium	NIL	Low	Leaning; root locate immediately adjacent to building; impossible to form rootball for transplantation	Fell
T5	Ficus microcarpa	榕樹 (細葉榕)	210	4	4	Fair	Fair	Poor	Medium	NIL	Low	Leaning; locate in small planter, unstable rootball for transplantation	Fell
T6	Macaranga tanarius var. tomentosa	血桐	270	5	5	Poor	Fair	Poor	Low	NIL	Low	Multi-trunks; Dead branch; Asymmetirc canopy; root cramped inside a small concrete planter, imposible to form rootball for transplantation	Fell
T7	Ficus rumphii	心葉榕 (假菩提樹)	350	10	8	Fair	Fair	Poor	Medium	NIL	Low	Dead branch; Asymmetirc canopy; root growing into adjacent concrte low wall; imposible to form rootball for transplantation	Fell

Summary of Tree surveyed

Recommendation	no.
Trees to be Retain	0
Trees to be Transplant	0
Trees to be Fell	7

Appendix 3

Tree Survey Photographs

Photo No. 1 | T1

Photo No. 2 | T1

Photo No. 3 | T1

Photo No. 4 | T1

Photo No. 5 | T1

Photo No. 6 | T2

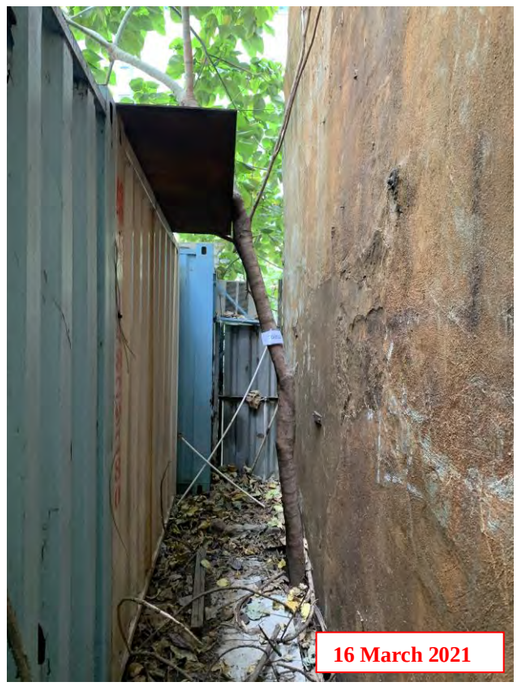


Photo No. 7 | T2

Photo No. 8 | T2

Photo No. 9 | T3

Photo No. 10 | T3

Photo No. 11 | T4

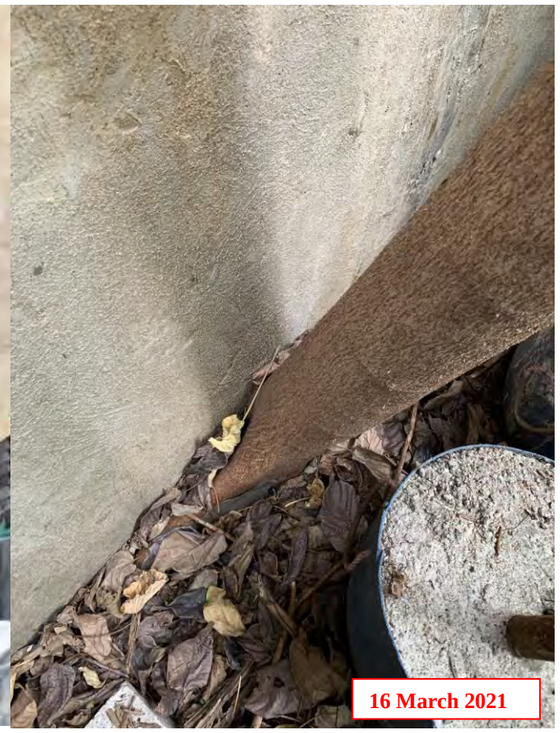


Photo No. 12 | T4

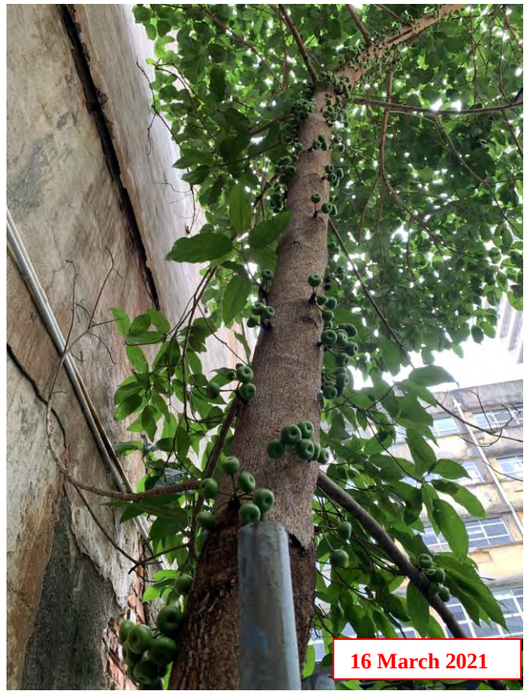


Photo No. 13 | T4

Photo No. 14 | T5

Photo No. 15 | T5

Photo No. 16 | T5

Photo No. 17 | T6

Photo No. 18 | T6

Photo No. 19 | T7

Photo No. 20 | T7

Photo No. 21 | T7

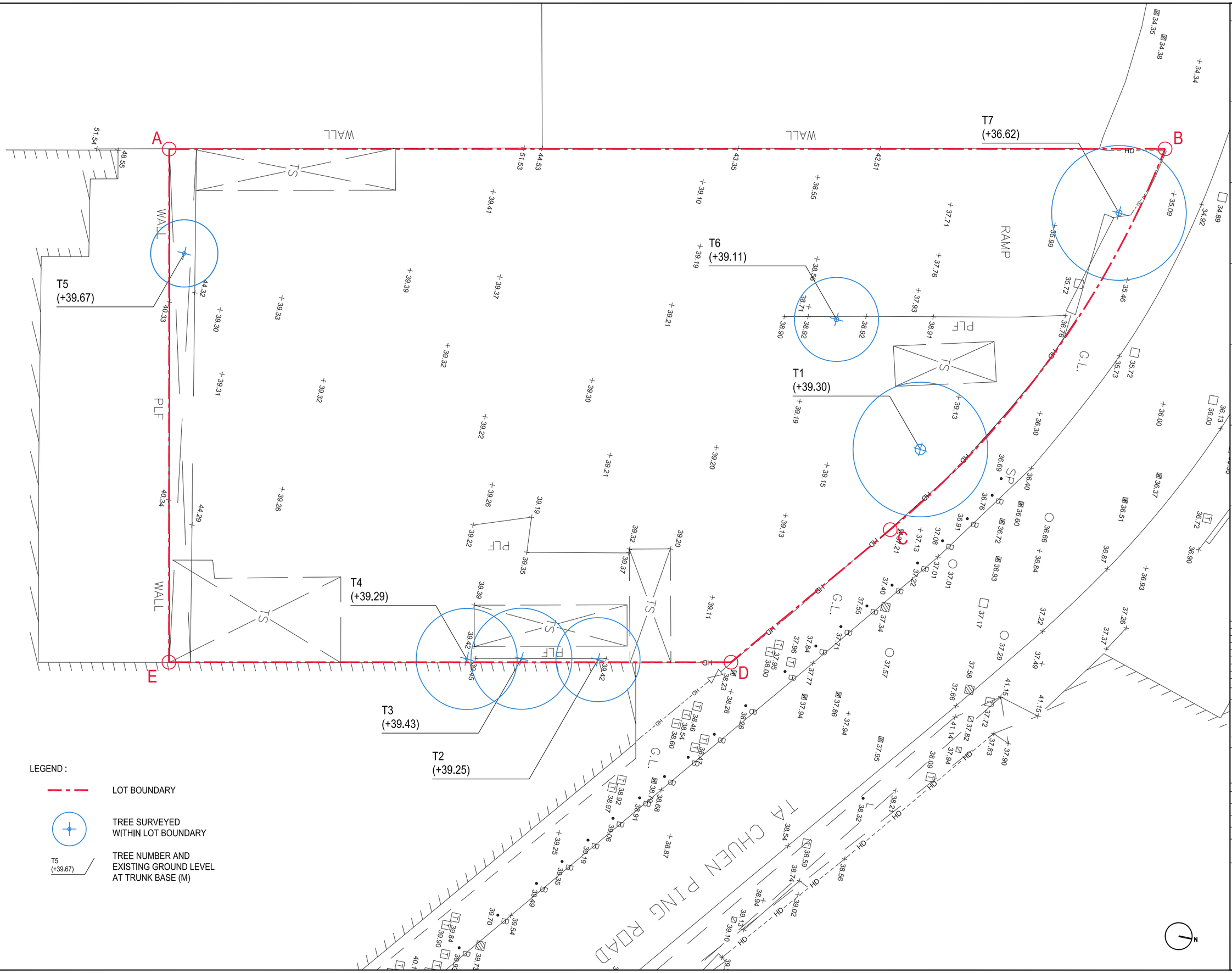
Photo No. 22 | T7

Photo No. 23 | T7

Photo No. 24 | T7

Appendix 4

Landscape Drawings



REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

TREE SURVEY PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TS01

REVISION 0

T5
(+39.67)
(FELL)

T6
(+39.11)
(FELL)

T7
(+36.62)
(FELL)

T1
(+39.30)
(FELL)

T4
(+39.29)
(FELL)

T3
(+39.43)
(FELL)

T2
(+39.25)
(FELL)

LEGEND :

- LOT BOUNDARY
- PROPOSED DEVELOPMENT LAYOUT
- TREE PROPOSED TO BE FELLED WITHIN LOT BOUNDARY
- T5 (+39.67) — TREE NUMBER AND EXISTING GROUND LEVEL AT TRUNK BASE (M)

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev1	Aug 2021	G/F LAYOUT REVISED		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

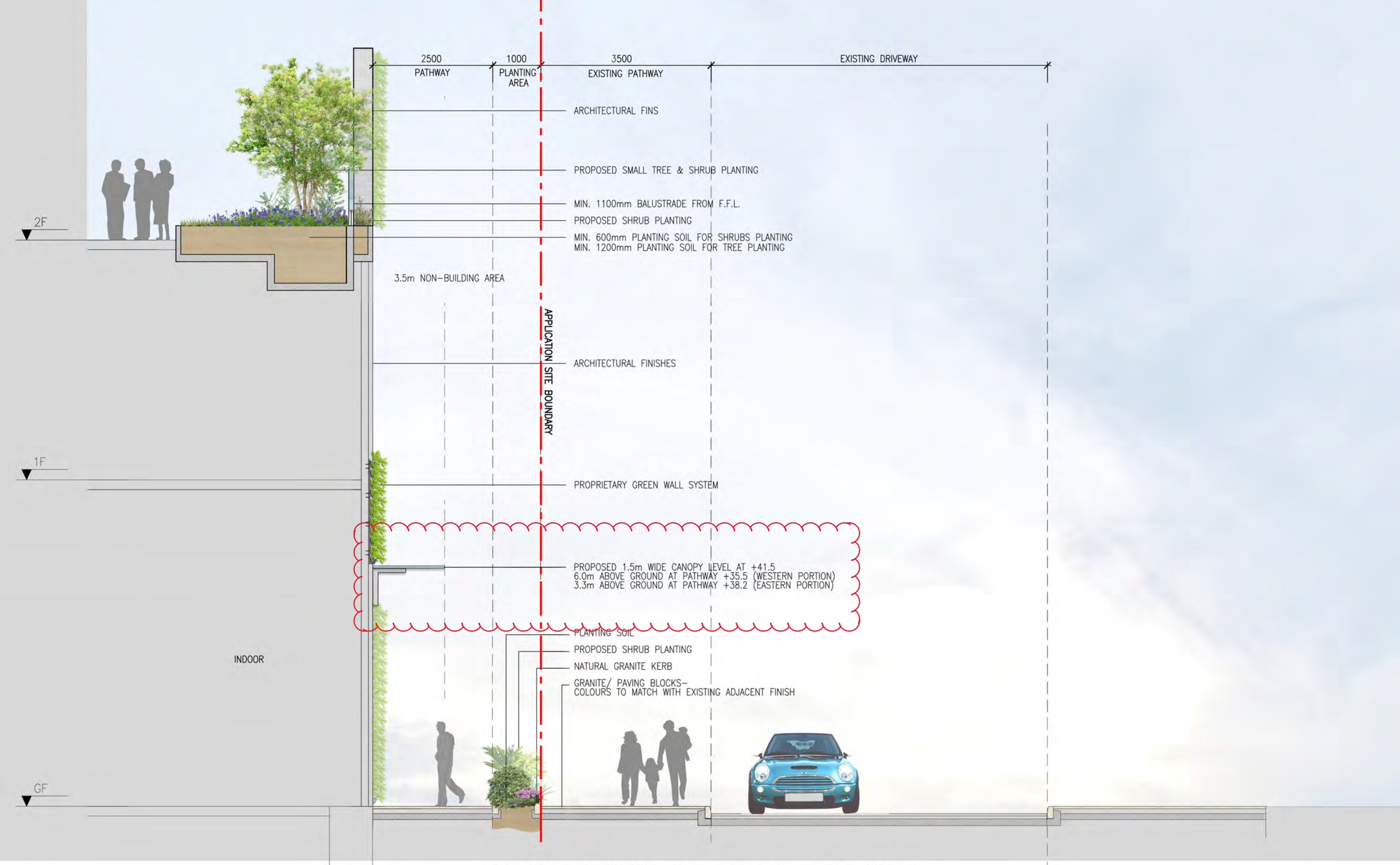
DRAWING TITLE

TREE RECOMMENDATION PLAN

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / TR01

REVISION Rev1

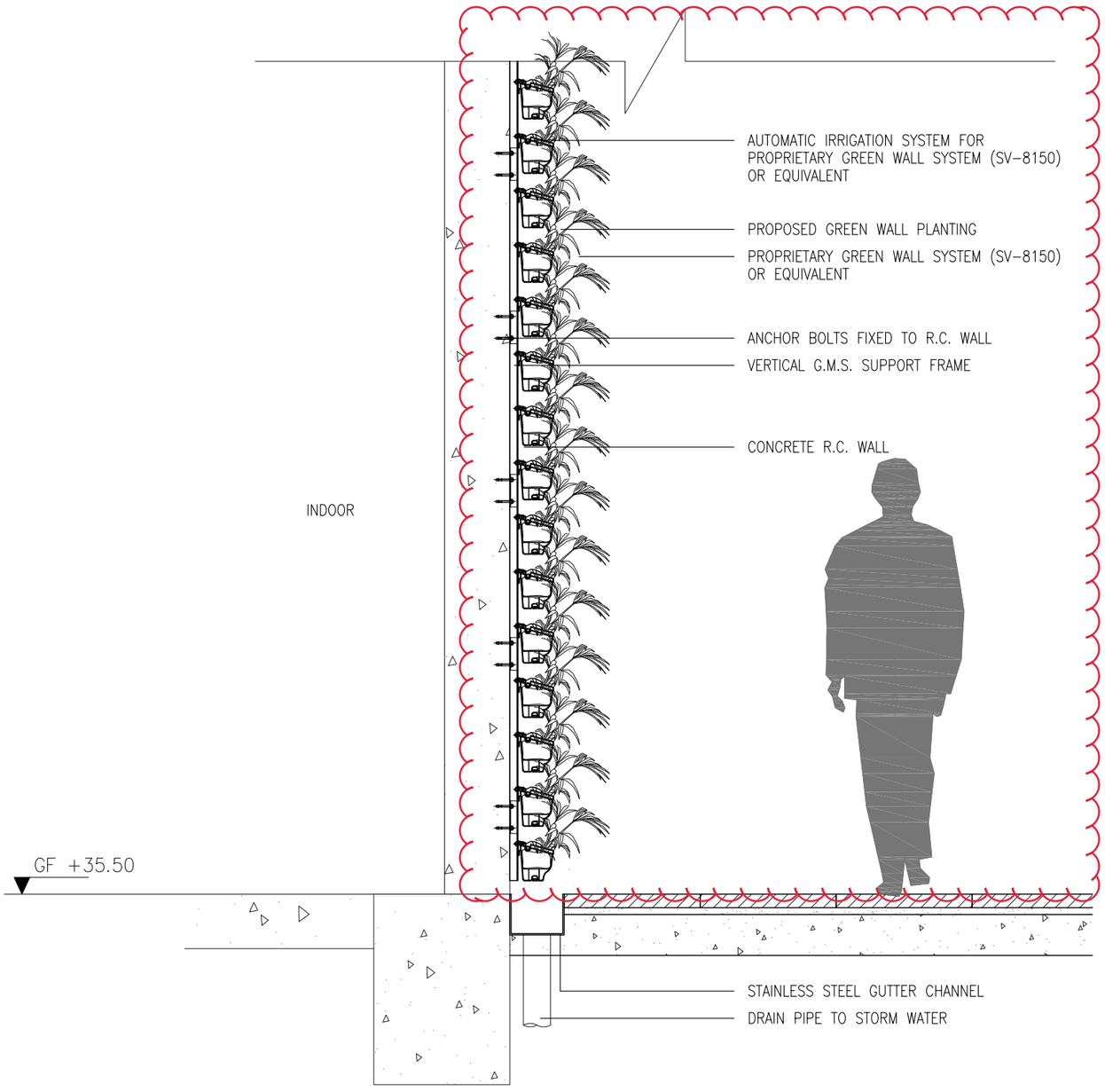


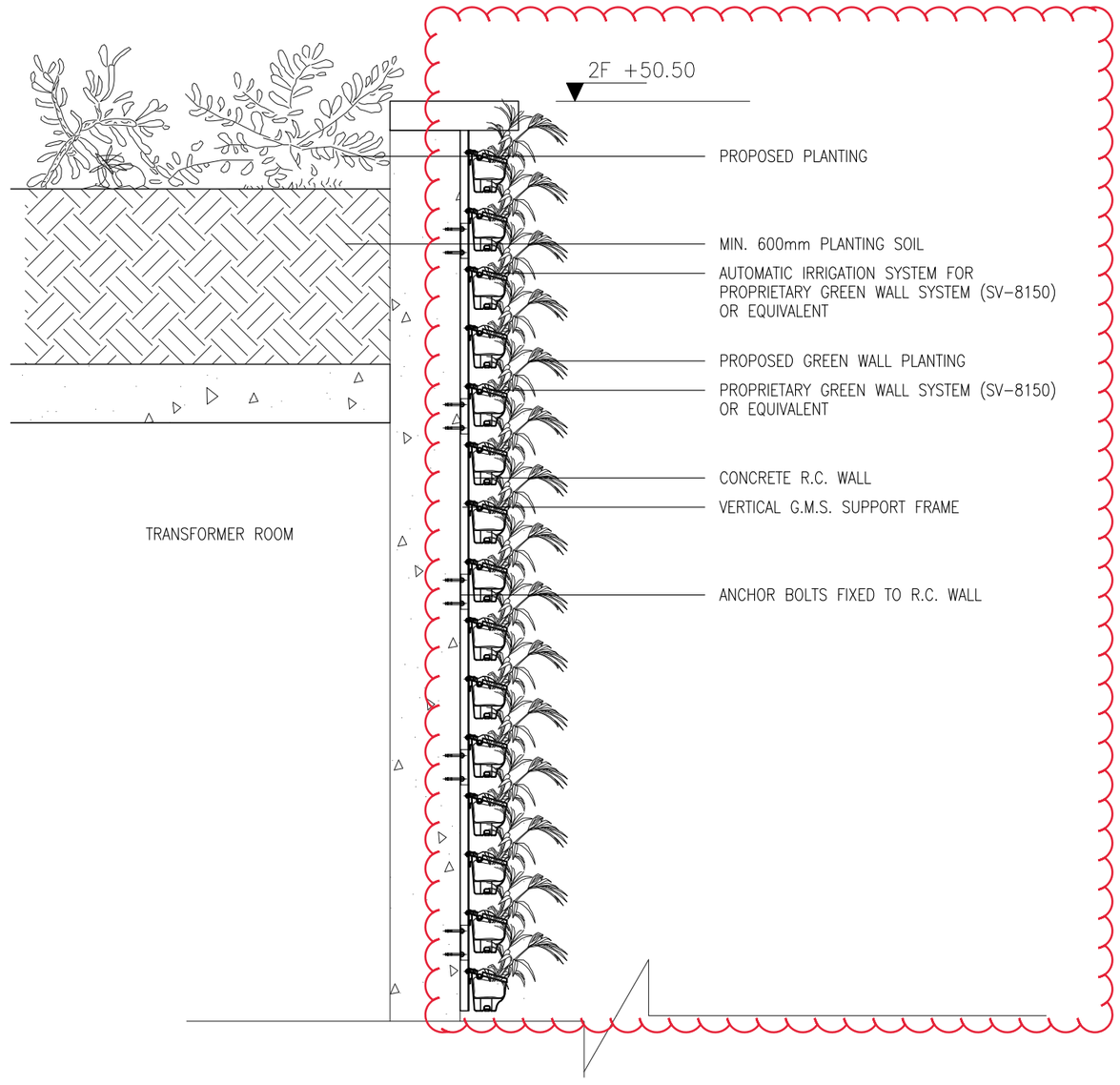
94-100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

LANDSCAPE SECTION 01- ALONG TA CHUEN PING STREET

TCPS/SEC01 (REV.3)

N.T.S @ A3





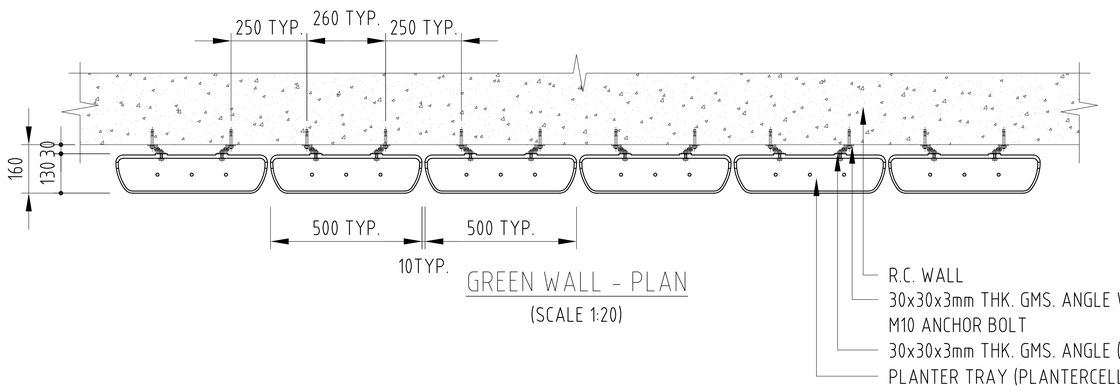
94-100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

TYPICAL VERTICAL GREEN WALL DETAIL

TCPS/VG01 (REV.1)

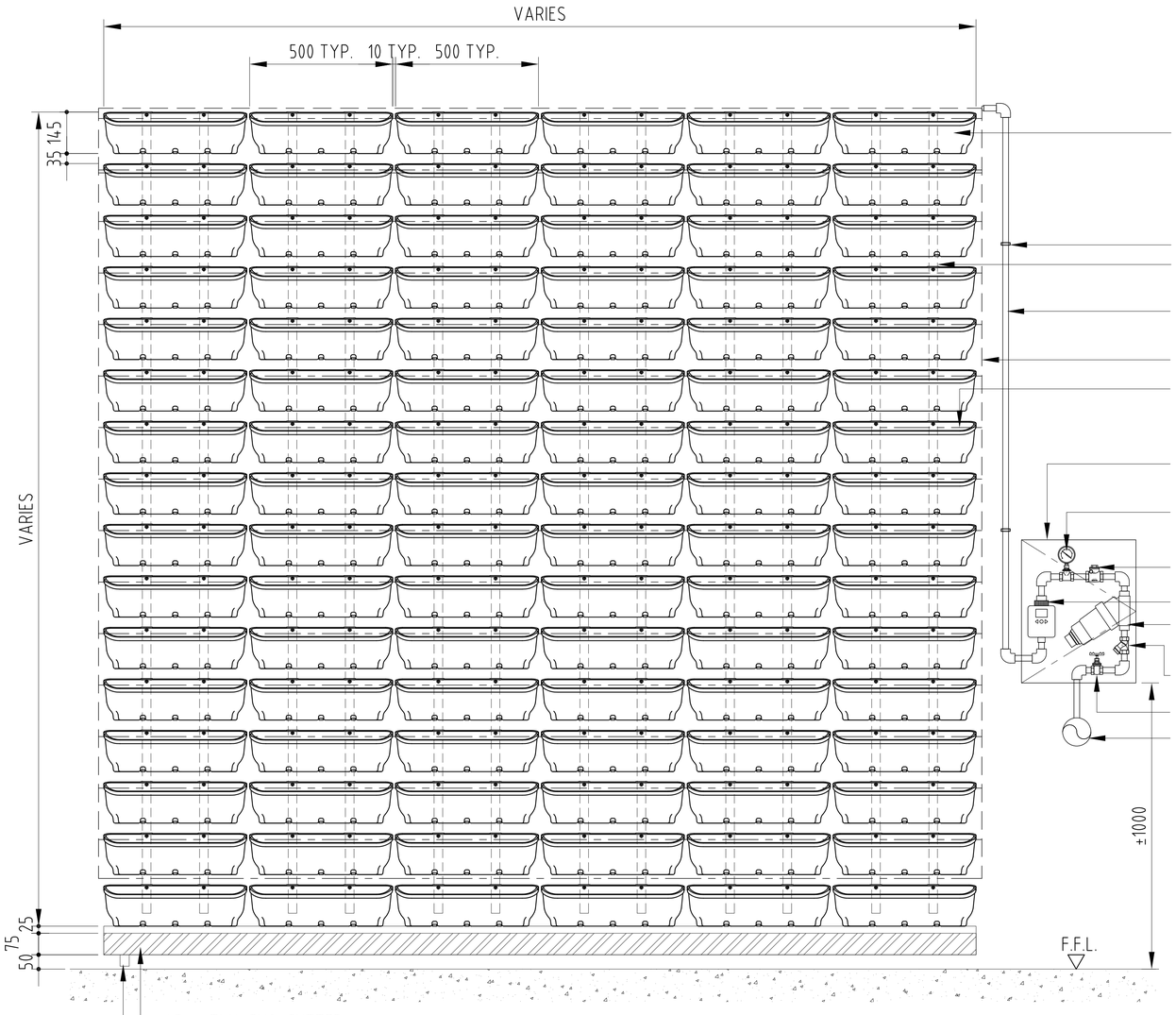
1:20 @ A3

for reference only



GREEN WALL - PLAN

(SCALE 1:20)



GREEN WALL - ELEVATION

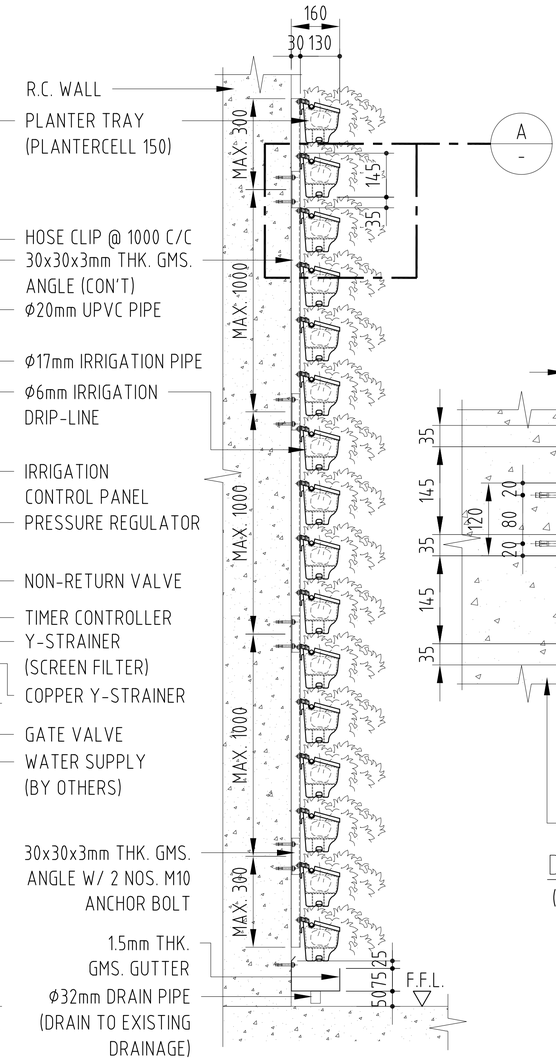
(SCALE 1:20)

NOTES:

1. THIS DRAWING AND DESIGN ARE COPYRIGHTED.
2. ALL DIMENSIONS SHOULD BE VERIFIED ON SITE.
3. ALL ITEMS SHOW IN THIS DRAWING ARE FOR REFERENCE ONLY.
4. ALL STEEL MEMBERS MAY BE CHANGED SUBJECT TO DESIGN CALCULATION BY R.S.E.
5. THE MOUNTING METHOD IS ABLE TO BE CHANGED TO SUIT THE ACTUAL ENVIRONMENT.
6. THE DISTANCE BETWEEN THE MOUNTING BRACKET WILL BE CHANGED SUBJECT TO THE ACTUAL SITE AND THE DESIGN CALCULATION.
7. THE LOCATION OF IRRIGATION CONTROL PANEL IN THIS DRAWING IS FOR REFERENCE ONLY, ACTUAL LOCATION IS SUBJECT TO SITE AND NEAR THE WATER SUPPLY POINT.
8. SHOP DRAWING WILL BE SUBMITTED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.

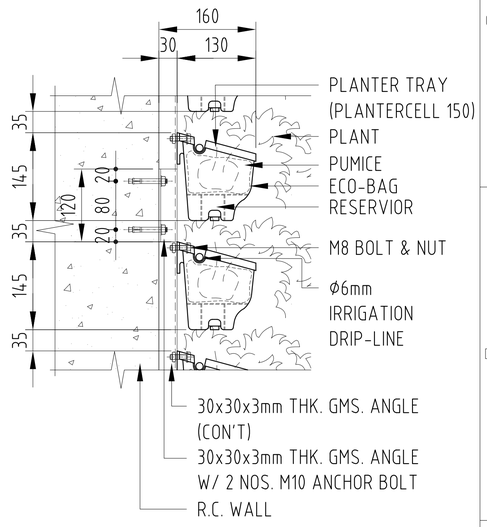
WATER IRRIGATION MAIN REQUIREMENT

- WATER INLET: Dia 25mm
- FLOW RATE : 1.0 LITER / SECOND (MINIMUM)
- OPERATING PRESSURE : 2.5 - 4 BAR AT WORKING LEVEL



GREEN WALL - TYPICAL SECTION

(SCALE 1:20)



DETAIL A

(SCALE 1:10)

CAD FILE:
SIC-ST-PC150-101

REV.	DESCRIPTION	DATE
-		25OCT17

CLIENT:

ARCHITECT:

LANDSCAPE ARCHITECT:

STRUCTURAL ENGINEER:

E & M CONTRACTOR:

MAIN CONTRACTOR:

SUB CONTRACTOR:

STRONGLY
International Limited

TEL: 3696 6666 FAX: 3696 6669
EMAIL: egg@hk-egg.com

DRAWN	CHECKED	APPROVED
-	-	-

DATE -

PROJECT No. -

PROJECT
TYPICAL GREEN WALL & AUTOMATIC IRRIGATION SYSTEM

TITLE
TYPICAL DRAWINGS FOR GREEN WALL SYSTEM (SV-8150)

SCALE 1 : 20 OR AS STATED

DRAWING NUMBER
TCPS/VG02

DRF171044C REV. -

ALL DIMENSIONS IN mm
A3 SIZE (420 x 297)
DO NOT SCALE

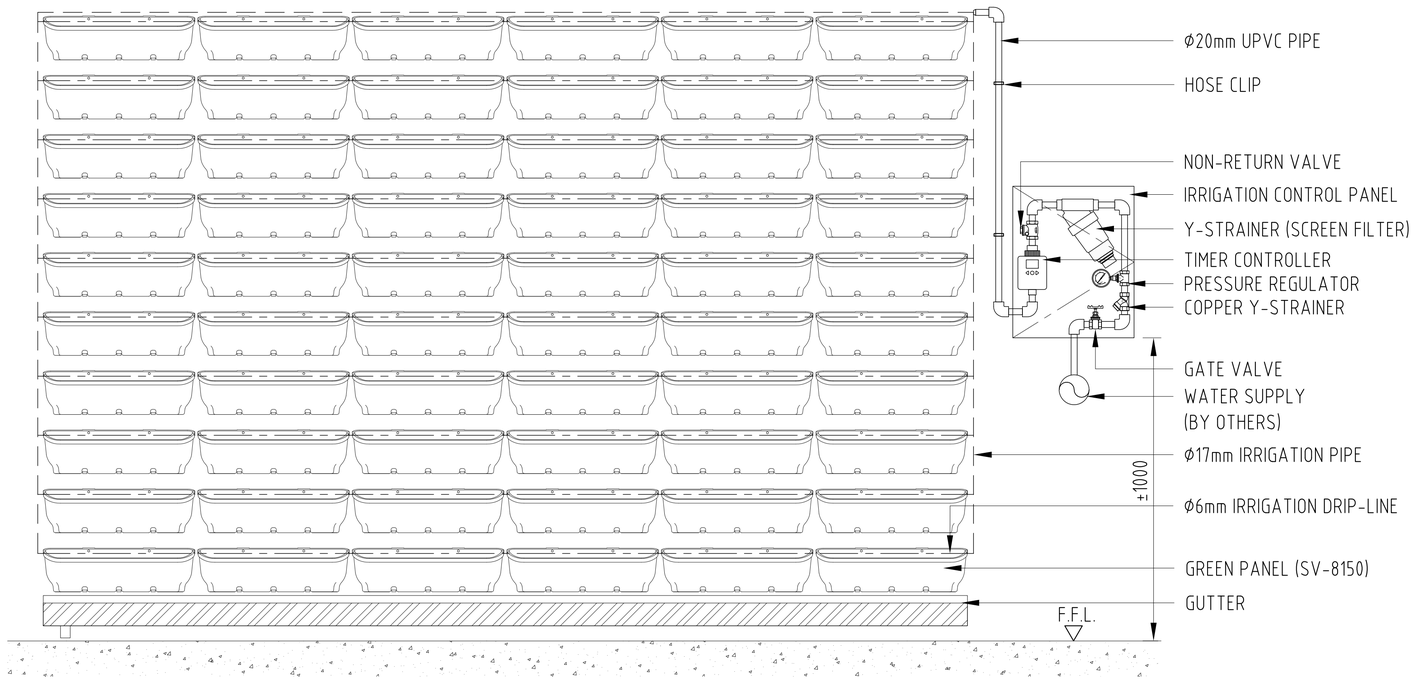
for reference only

LEGEND:

	WATER SUPPLY (BY OTHERS)
	GATE VALVE
	Y-STRAINER (SCREEN FILTER)
COPPER	Y-STRAINER (COPPER)
	NON-RETURN VALVE
P	PRESSURE REGULATOR
T	TIMER CONTROLLER
———	ϕ20mm UPVC PIPE
- - - - -	ϕ17mm IRRIGATION PIPE
—— - ——	ϕ6mm IRRIGATION DRIP-LINE

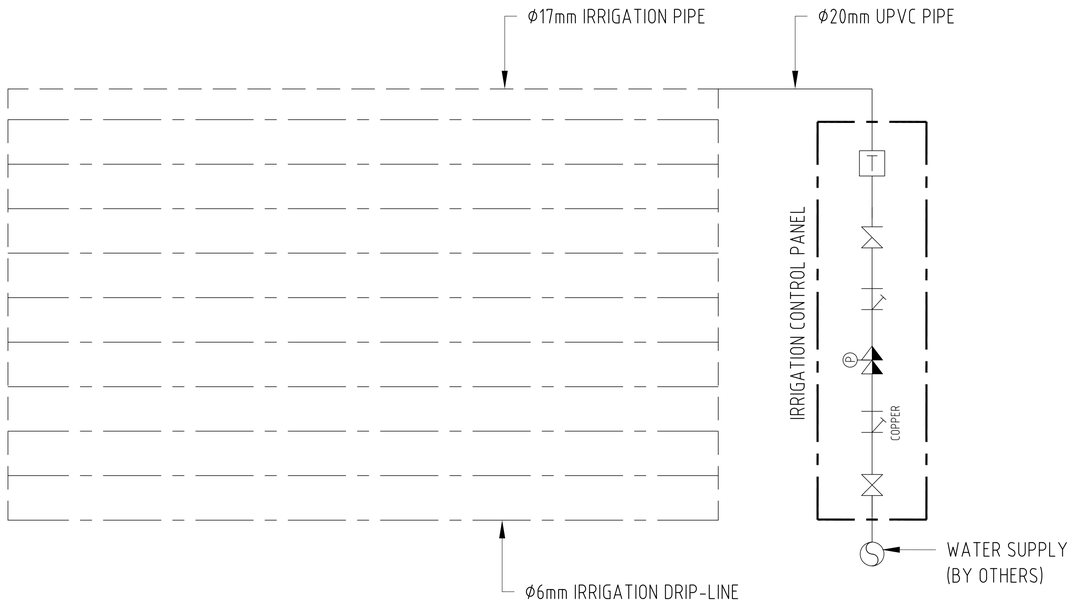
WATER IRRIGATION MAIN REQUIREMENT

- FLOW RATE : 1.0 LITER / SECOND (MINIMUM)
- PRESSURE : 2.5 - 4 BAR AT WORKING LEVEL



GREEN WALL (SV-8150) - TYPICAL IRRIGATION PLAN

(SCALE 1:20)



SCHEMATIC DIAGRAM OF AUTOMATIC IRRIGATION SYSTEM FOR GREEN WALL (SV-8150)

CAD FILE:
Green Wall - Typical Irrigation.dwg

REV.	DESCRIPTION	DATE
-		6JUN17

CLIENT:

ARCHITECT:

LANDSCAPE ARCHITECT:

STRUCTURAL ENGINEER:

E & M CONTRACTOR:

MAIN CONTRACTOR:

SUB CONTRACTOR:

STRONGLY
International Limited

TEL: 3696 6666 FAX: 3696 6669
EMAIL: egg@hk-egg.com

DRAWN	CHECKED	APPROVED
-	-	-

DATE: -

PROJECT No.: -

PROJECT
TYPICAL GREEN WALL & AUTOMATIC IRRIGATION SYSTEM

TITLE
AUTOMATIC IRRIGATION SYSTEM FOR GREEN WALL SYSTEM (SV-8150)

SCALE: 1 : 20 OR AS STATED

DRAWING NUMBER
TCPS/VG03

REV. -

ALL DIMENSIONS IN mm
A3 SIZE (420 x 297)
DO NOT SCALE

REGENT CENTRE TOWER A

REGENT CENTRE TOWER B

FL +35.50

FL +35.50

FL +35.50

+35.50

FL +37.00

FL +38.20

2500

1000

3500
Non-Building Area

TA CHUEN PING STREET

KONG SHENG FACTORY BUILDING

LEGEND

- Lot boundary
- +35.50 Existing level
- FL +35.50 Proposed finish floor level
- Pedestrian entrance
- Vehicle entrance
- Run in out
- Paving
- Planting Area with shrubs and groundcovers
- Proprietary green wall system
- Proposed 1.5m wide canopy @+41.50

0 1 2 5 10m

LANDSCAPE MASTER PLAN - GROUND FLOOR

DRAWING NO. TCPS/LMP01 (REV.4)

LEGEND

Lot boundary

Planting Area with shrubs and groundcovers

Proprietary Green wall System

0 1 2 5 10m

LANDSCAPE MASTER PLAN - FIRST FLOOR

DRAWING NO. TCPS/LMP02 (REV.2)

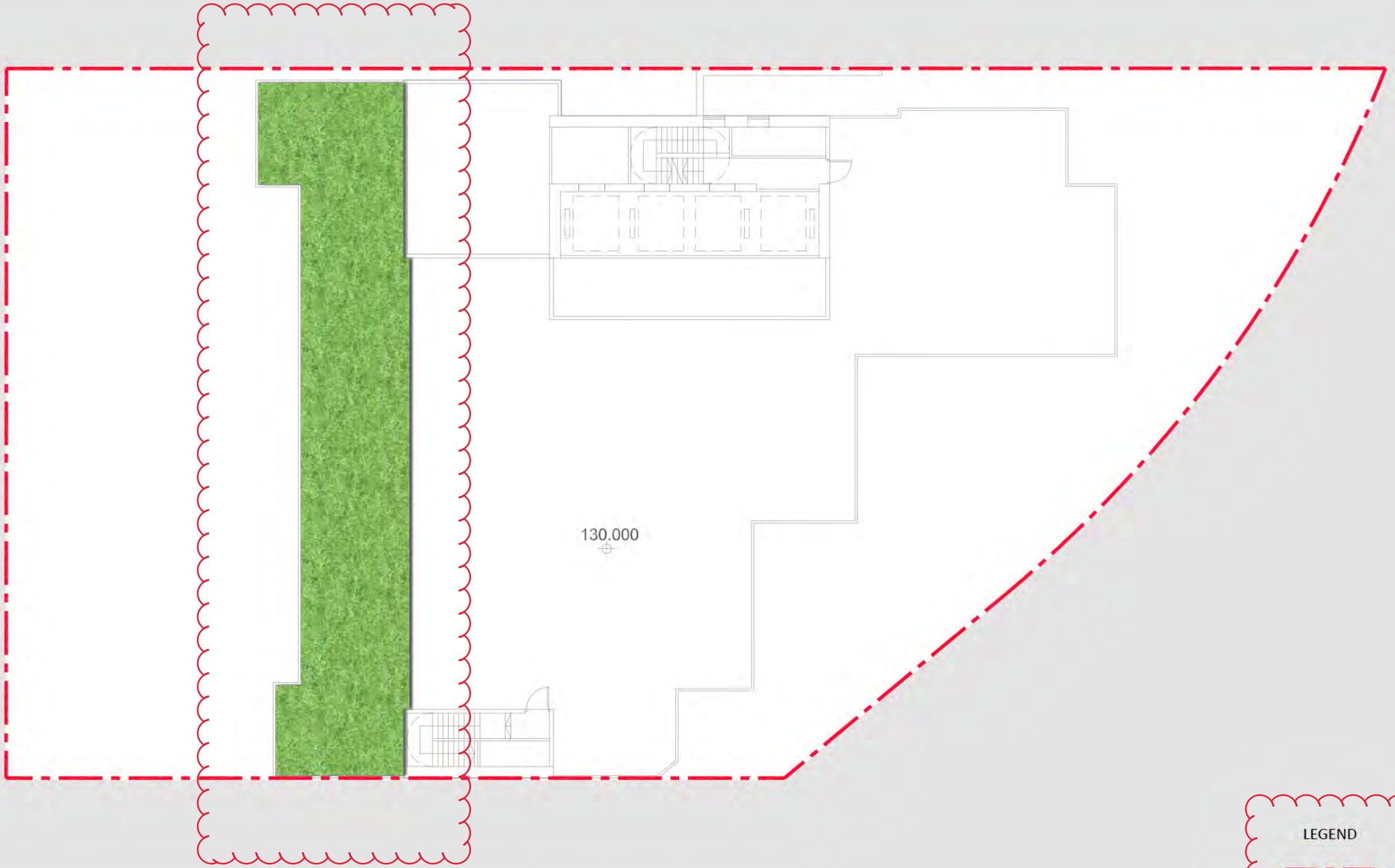
LEGEND

- Lot boundary
- Landscape paving
- Planting Area with shrubs and groundcovers
- Outdoor Furniture
- Proposed Small tree Osmanthus Fragrans
- Proprietary Green wall System

0 1 2 5 10m

LANDSCAPE MASTER PLAN - SECOND FLOOR

DRAWING NO. TCPS/LMP03 (REV.3)



LEGEND

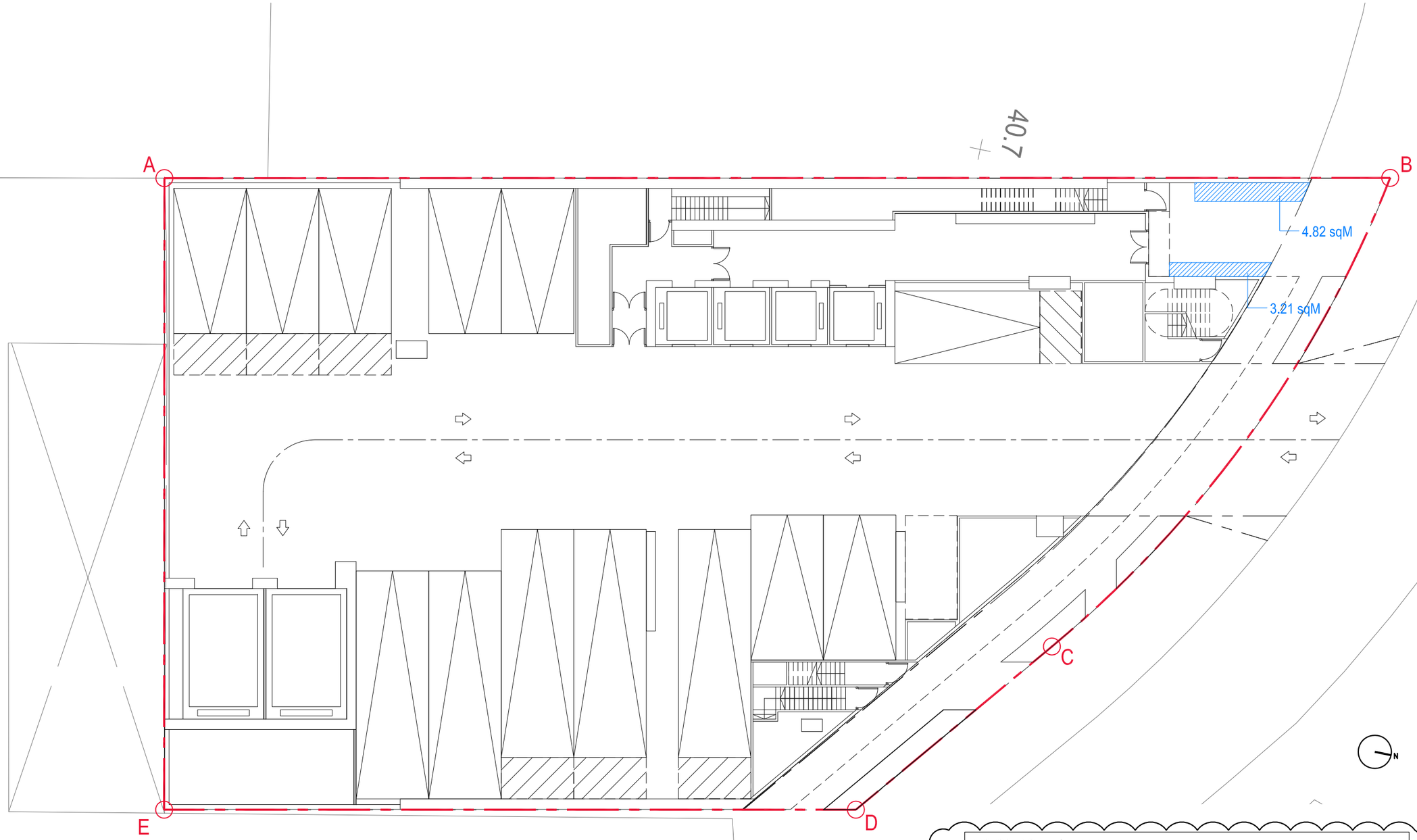
Lot boundary

Multi-purpose lawn area

0 1 2 5 10m

LANDSCAPE MASTER PLAN - ROOF FLOOR

DRAWING NO. TCPS/LMP04 (REV.3)



LEGEND :

- LOT BOUNDARY
- GREENERY AREA (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	8.03 sqM
SECOND FLOOR	52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :	
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)	
FIRST FLOOR	5.75 sqM
SECOND FLOOR	10.915 sqM
GREEN WALL 1.5m(H) x 1.25m(W) x 26 3.05m(H) x 1.25m(W) x 7	75.438 sqM
TOTAL GREENERY FOR GREENING FEATURE	92.103 sqM >89.186 (Capped)
TOTAL PRIMARY ZONE	149.236sqM >148.644
ROOF FLOOR	148.77 sqM
OVERALL GREENERY AREA	298.006 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev4	Nov1 2021	GENERAL REVISION		
Rev3	Oct 2021	GENERAL REVISION		
Rev2	Aug 2021	G/F LAYOUT REVISED		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

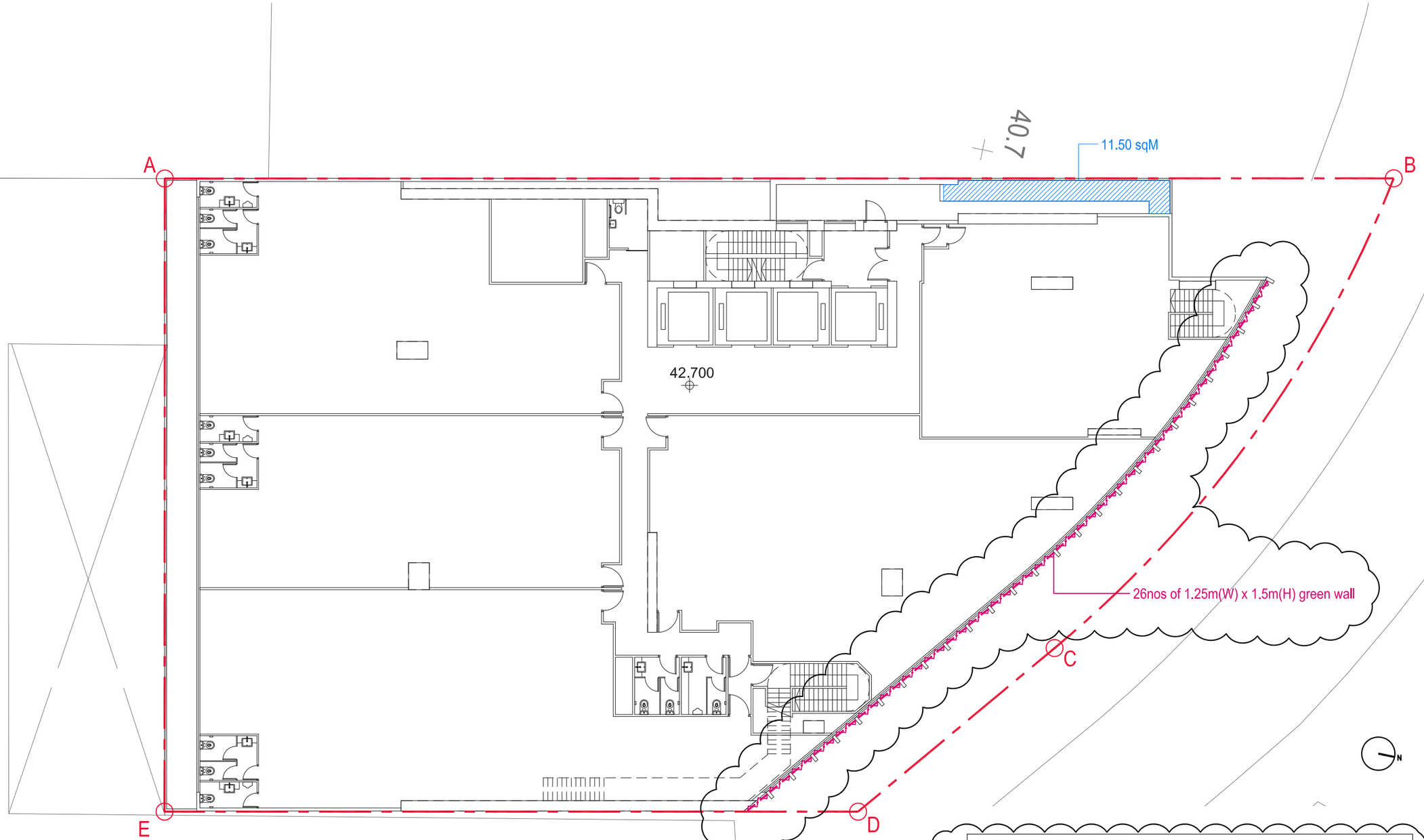
DRAWING TITLE

GREENERY AREA PROVISION - GROUND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA01

REVISION Rev4



LEGEND :

- LOT BOUNDARY
- INACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	8.03 sqM
SECOND FLOOR	52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :	
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)	
FIRST FLOOR	5.75 sqM
SECOND FLOOR	10.915 sqM
GREEN WALL 1.5m(H) x 1.25m(W) x 26 3.05m(H) x 1.25m(W) x 7	75.438 sqM
TOTAL GREENERY FOR GREENING FEATURE	92.103 sqM >89.186 (Capped)
TOTAL PRIMARY ZONE	149.236sqM >148.644
ROOF FLOOR	148.77 sqM
OVERALL GREENERY AREA	298.006 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev3	Nov 2021	GENERAL REVISION		
Rev2	Oct 2021	GENERAL REVISION		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

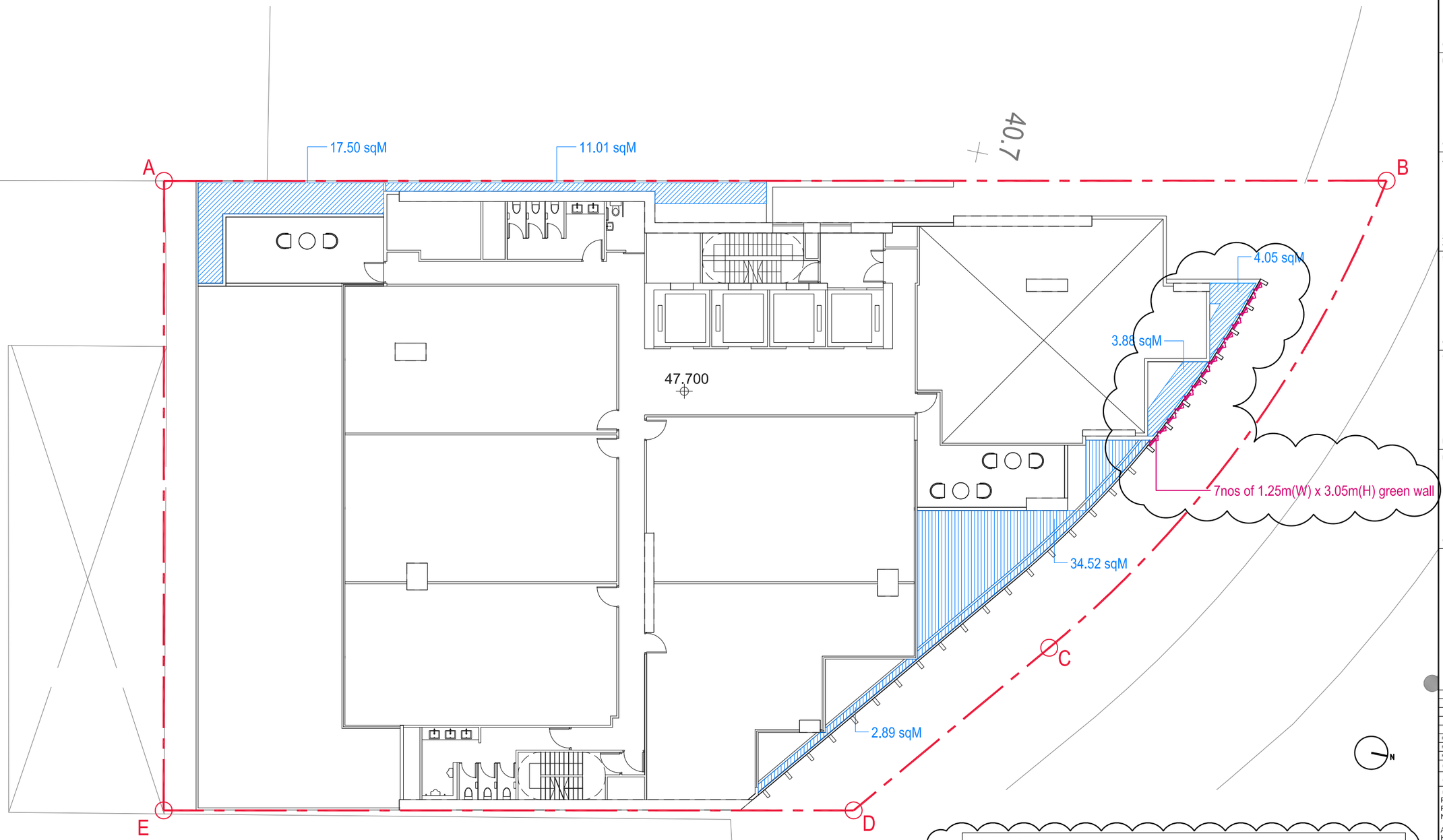
DRAWING TITLE

GREENERY AREA PROVISION - FIRST FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA02

REVISION Rev3



LEGEND :

- LOT BOUNDARY
- NON-ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :		
GROUND FLOOR		8.03 sqM
SECOND FLOOR		52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :		
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)		
FIRST FLOOR		5.75 sqM
SECOND FLOOR		10.915 sqM
GREEN WALL	1.5m(H) x 1.25m(W) x 26	75.438 sqM
	3.05m(H) x 1.25m(W) x 7	
TOTAL GREENERY FOR GREENING FEATURE		92.103 sqM >89.186 (Capped)
TOTAL PRIMARY ZONE		149.236sqM >148.644
ROOF FLOOR		148.77 sqM
OVERALL GREENERY AREA		298.006 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev3	Nov 2021	GENERAL REVISION		
Rev2	Oct 2021	GENERAL REVISION		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

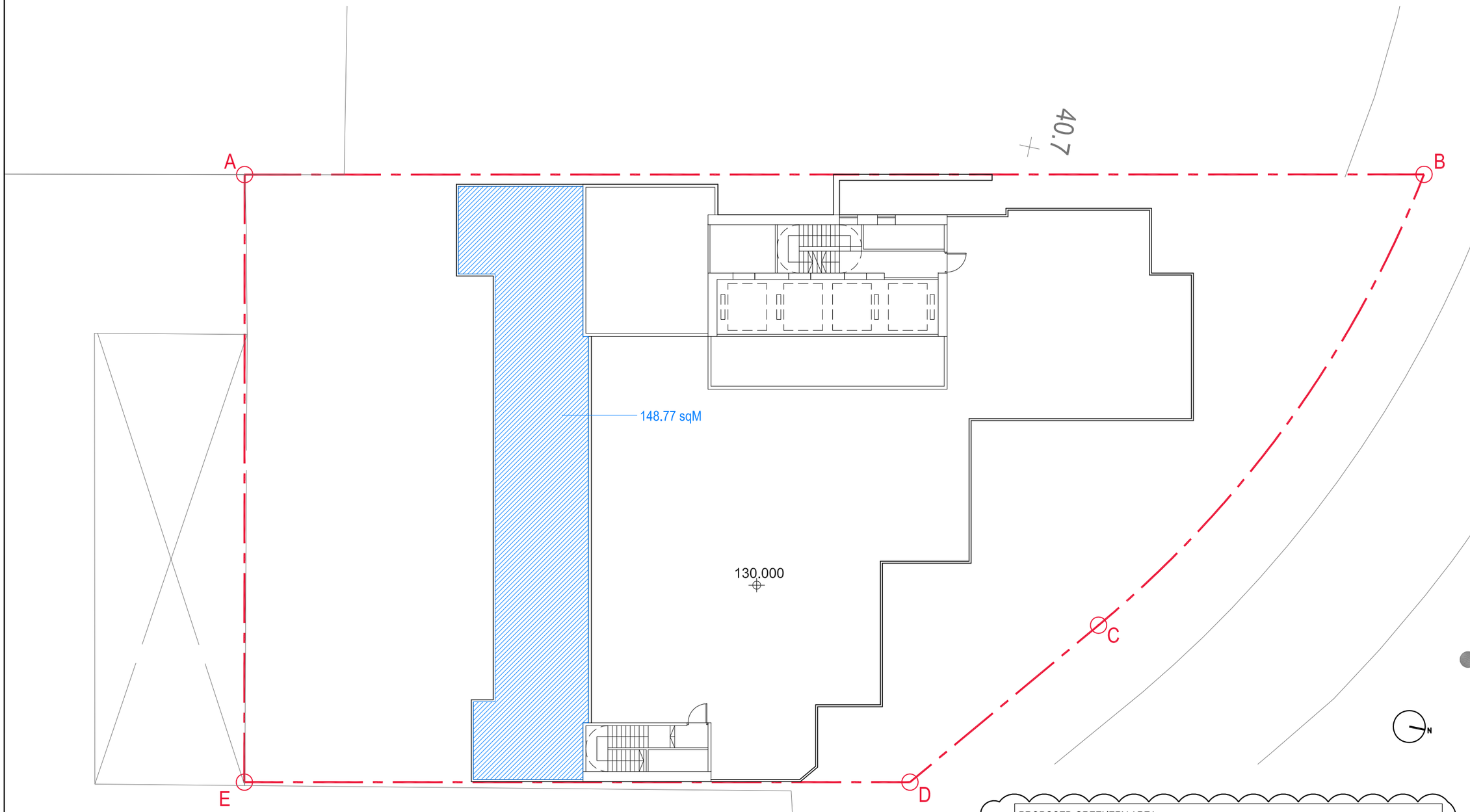
DRAWING TITLE

GREENERY AREA PROVISION - SECOND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA03

REVISION Rev3



LEGEND :

LOT BOUNDARY

ACCESSIBLE GREEN ROOF
(COUNTABLE GREENERY AREA)

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	8.03 sqM
SECOND FLOOR	52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :	
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)	
FIRST FLOOR	5.75 sqM
SECOND FLOOR	10.915 sqM
GREEN WALL 1.5m(H) x 1.25m(W) x 26 3.05m(H) x 1.25m(W) x 7	75.438 sqM
TOTAL GREENERY FOR GREENING FEATURE	92.103 sqM >89.186 (Capped)
TOTAL PRIMARY ZONE	149.236sqM >148.644
ROOF FLOOR	148.77 sqM
OVERALL GREENERY AREA	298.006 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev3	Nov 2021	GENERAL REVISION		
Rev2	Oct 2021	GENERAL REVISION		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

GREENERY AREA PROVISION - ROOF FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA04

REVISION Rev3

Annex C

PLANNING LIMITED
規劃顧問有限公司

UNIT K, 16/F, MG TOWER
133 HOI BUN ROAD, KWUN TONG
KOWLOON, HONG KONG
九龍觀塘海濱道133號
萬兆豐中心16樓K室
電話TEL (852) 3426 8451
傳真FAX (852) 3426 9737
電郵EMAIL kta@ktaplanning.com

By Hand

Our Ref: S1399/94TCPS_KC/21/010Lg

14 January 2022

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

Dear Sir/ Madam,

Proposed Minor Relaxation of Plot Ratio Restriction for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos.94- 100 Ta Chuen Ping Street, Kwai Chung
- Section 16 Planning Application No. A/KC/476 -
(Further Information No. 5)

We refer to the captioned S16 Planning Application and the departmental comments on our Further Information (FI) No. 4 submitted to the Town Planning Board dated 3 December 2021.

Having reviewed the departmental comments received, attached please find the table of response-to-departmental comments with the relevant annexes as below:

Annex A: Ground floor plan with Road Inventory and Revised rendering
Annex B: Landscape Maintenance Schedule for Kerb Planters
Annex C: Part Elevation of the Proposed Development
Annex D: Replacement Pages of Tree Survey and Landscape Proposal
Annex E: Updated Summary of Greenery Area Provision

In order to adjust the height of the canopy to 3.5m high as the minimum vertical clearance requested by Transport Department (TD), the provision of vertical greenery has been slightly adjusted and thus the greenery area provision has been revised as shown in **Annex E**.

Should you have any queries in relation to the above and attached, please do not hesitate to contact the undersigned at 3426 8841 or Mr Elden Chan at 3579 5778.

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Camille Lam

Encl. (70 hardcopies)

cc. the Applicant & Team
TW&WK DPO – Mr Robert Tsang (By Fax 2412 5435 w/oe & By Email w/e)

KT/DF/CL/EC/vy

Proposed Minor Relaxation of Plot Ratio for Permitted Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods) in "Other Specified Uses" annotated "Business" zone at Nos. 94-100 Ta Chuen Ping Street, Kwai Chung
S16 Application No. A/KC/476

Items	Comments	Response
1	**Comments from District Lands Officer/ Tsuen Wan and Kwai Tsing, Lands Department received on 23 December 2021:**	
1.1	In respect of the proposed 3.5m-wide NBA along Ta Chuen Ping Street and the proposed planter and canopy thereat which are intended to be surrendered to Government, we shall defer to the recipient departments, TD and HyD, to confirm agreement to the proposals. Our previous comments on the subject application remain valid. 2. LandsD reserves comment on the proposed schematic design which would only be examined in detail during the building plan submission stage. There is no guarantee that the schematic design presented in the subject planning application will be acceptable under the lease if it is so reflected in future building plan submission(s).	Noted.
2	**Comments from Urban Design and Landscape Section, Planning Department received on 28 December 2021:**	
2.1	a) In view of the decision from MPC on 27.8.2021, the applicant should submit the greening proposal and landscape design for further consideration of the Board. It is noted that a 2.5m-wide footpath and a series of 1m wide at-grade planters for shrubs planting within the 3.5m-wide NBA are proposed. With reference to the Landscape Master Plan-Ground Floor, it is noted that there is still potential planting areas along the boundary of Ta Chuen Ping Street. As such please further explore if tree planting opportunity can be provided at G/F by maximizing the area of at-grade planters for enjoyment of the pedestrians on existing pathway.	The current design comprises of a 2.5m-wide footpath and 4 numbers of 1m-wide at grade planters for shrubs planting. All planters are within 3.5m wide NBA and abutting the lot boundary of Ta Chuen Ping Street. A 1.5m-wide canopy also overhangs onto the 3.5m NBA, providing sun shading and rain shelter for the proposed footpath along the frontage of the development. The applicant has carried a feasibility study to plant tree planting on G/F by maximising the area of at-grade planters for enjoyment of the pedestrians on existing pathway. In order to cater for a standard size tree (4m(H) x 3m(W)), the width of the at-grade planters should increase from 1m to 1.5m, and therefore reduce the footpath to 2m wide, which is not beneficial to pedestrian in terms of circulation accessibility, comfort and safety. In addition, at-grade tree planting for standard size tree (4m(H) x 3m(W)) in the 1.5m-wide planters would also be in conflict with the canopy by 250mm. The spread of tree would further increase as the tree continues to grow.

Items	Comments	Response
		With the above concerns, at-grade planters for shrubs instead of tree planting are therefore proposed within NBA. This is to strike balance between pedestrian circulation and enjoyment of the pedestrian by maximising the greening opportunity within NBA.
2.2	b) The applicant is advised to provide continuous at-grade planting strips instead of individual planters to maximizing the greening effect.	The planters abutting Ta Chuen Ping Street are not continuous and some diagonal footpaths are introduced. All diagonal footpaths are strategically designed in front of or close to fire exit doors of the development, which the footpaths are designated as the first escape route to ultimate place of safety on Ta Chuen Ping Street. In additional, the diagonal footpaths enable pedestrians to move freely from cover walkway to Ta Chuen Ping Street. Pedestrians would be able to walk through the gaps between the diagonal planters from Ta Chuen Ping Street to the 3.5m NBA. The entire Ta Chuen Ping Street would therefore not be segregated into two parts by the continuous at-grade planting strips.
2.3	Advisory Comments: c) The applicant is reminded that approval of Section 16 Application under Town Planning Ordinance does not imply approval of the site coverage of greenery requirements under APP PNAP- 152 and/or under the lease. The site coverage of greenery calculation should be submitted separately to BD for approval. Similarly for any proposed tree preservation/removal scheme and compensatory planting proposal, the applicant should approach relevant authority direct to obtain necessary approval as appropriate.	Noted.
3	**Comments from Highways Department received on 30 December 2021:**	
3.1	1. Please clearly indicate and clarify if any road inventory would be affected by the proposed works and seek TD's approval on schematic design for the proposed modification works on road marking and street furniture modification etc. due to the development which should be subsequently carried out by the applicant to HyD's standard.	Noted. The "Ground Floor Plan" (in **Annex A**) has been updated to show the existing street furniture and traffic aids along the site frontage for reference; and it is noted that no road inventory will be affected by the proposed works.

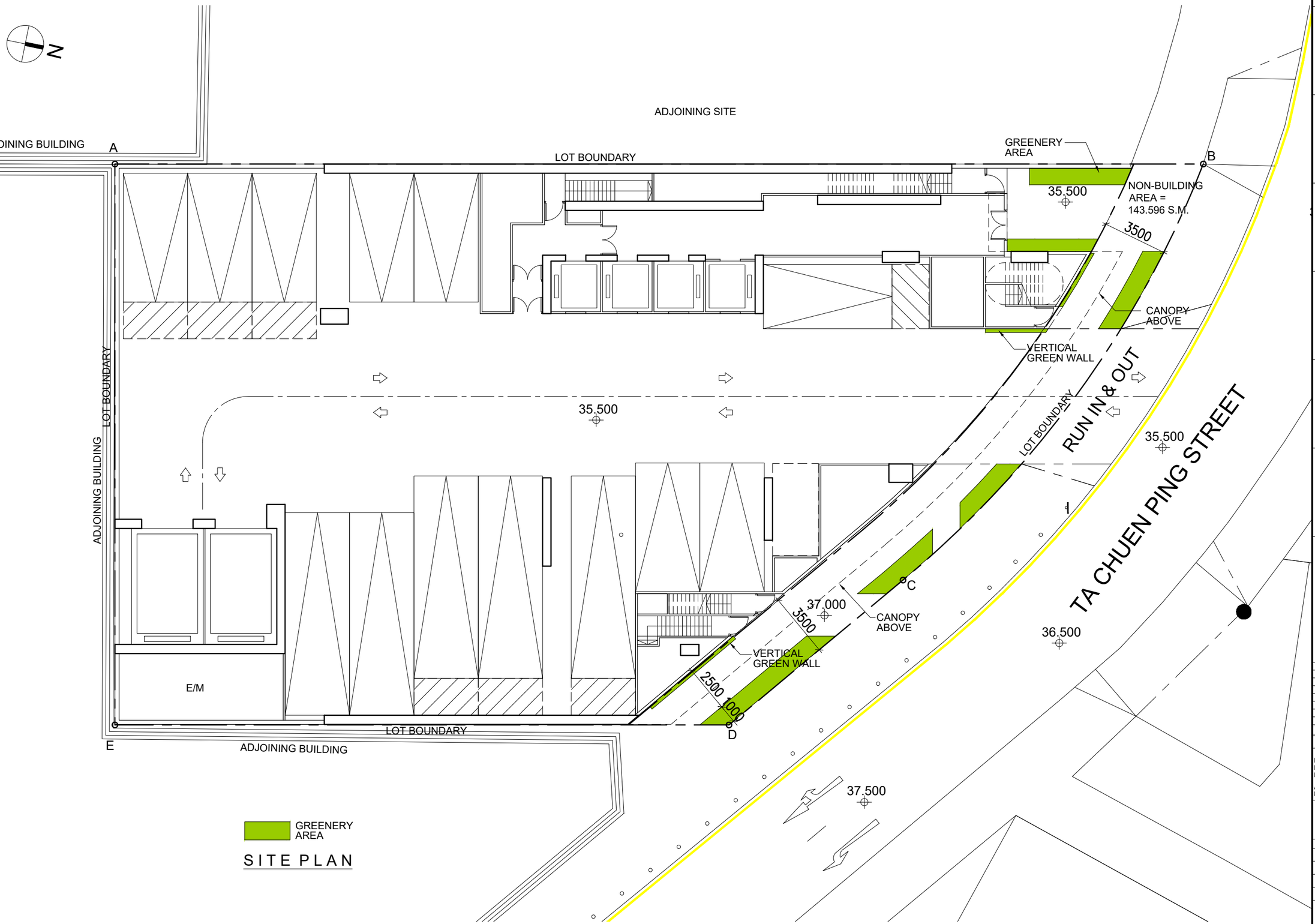
Items	Comments	Response
3.2	2. It is noted that a full-height building set-back of 3.5m would be designated as NBA and dedication area proposed to be managed and maintained by the applicant. Please clarify if there are any existing underground structures within the NBA.	There shall be no new underground structures within the NBA of the new development.
3.3	3. Canopy within NBA - Please be advised that the concerned set-back requirement is under the ambit of TD from traffic planning perspective and please seek TD's advice on the set-back requirement to serve for the purpose of a lay-by.	Noted. The Further Information No. 4 has been circulated to TD for comments. Please be clarified that there is no existing or proposed lay-by proposed along Ta Chuen Ping Street in the Application Site.
3.4	4. The greening proposal and landscape design within the NBA	
3.5	(a) There are planters proposed within the NBA along Ta Chuen Ping Street. Please check with all relevant government departments such as TD and LandsD etc. on the arrangement of interim planters accordingly and its planning conditions to be imposed with (such as requirement of reinstatement works and compensatory planting proposal due to the reinstatement works etc.)	Noted. The Applicant will check with all relevant government department(s) such as TD and LandsD on the arrangement of interim planters and its planning conditions.
3.6	(b) The proposed works would affect the road inventory, detailed information (e.g. the extent of reconstruction of footpath and any associated road marking and street furniture modification etc. due to the development) should be provided for review and comment.	Noted. The “Ground Floor Plan” has been updated to show the existing street furniture and traffic aids along the site frontage for reference; and it is noted that no road inventory will be affected by the proposed works. Please refer to **Annex A.**
3.7	(c) This Office will not take over the proposed planters for maintenance. Please indicate on the proposed works that the applicant will be responsible for the maintenance of the proposed works such as installation of name plate for easy identification. The applicant should be responsible for handling	All planters and hard paving’s maintenance within the NBA will be under the lot owner before surrendered to government department as stated in report Tree Survey and Landscape Proposal section 5.9. Please also refer to **Annex B** for maintenance schedule. Installation of name plate on plantings will be considered at later stage.

Items	Comments	Response
	the complaints associated with the proposed works.	
3.8	(d) Water ponding in the planter and seepage should be avoid. Please advise the drainage measures to prevent surface water flowing from the proposed planters to nearby public roads/ drains.	Noted. Drainage channel along site boundary will be provided to prevent water within site flowing outwards to the pedestrian paths. All planters within the NBA will be proposed with subsoil drain to prevent over flowing on pedestrian paths/ public roads.
3.9	(e) Please advise the details of proposed planters (such as planters wall and kerb to be constructed which should avoid sharp edge) and how maintenance works for the proposed planters can be carried out (watering and trimming of overgrowth of the vegetation) and also consider to select vegetation to avoid sharp and hard leave to avoid cause danger to the pedestrian.	Noted. Planters within NBA will adopt Highway's standard details (H5146 Kerb Planter), detail is provided for reference. Proposed species are provided in Section 5.3 of the Revised Tree Survey and Landscape Proposal in **Annex D**. Maintenance schedule is provided for reference.
4	**Comments from Transport Department received on 13 January 2022:**	
4.1	(1) It is noted that the vertical clearance of canopy will range from 3.3m to 6m. However, according to TPDM Vol. 2 Clause 3.5.1.3, the minimum vertical clearance over a footway but not within 600mm of a carriageway should be 3.5m. Please further review the canopy design.	Noted. Canopy design has been revised to meet the minimum vertical clearance of 3.5m accordingly. Please refer to **Annex C** for *Design Diagram - Part Elevation of the Proposed Development* and **Annex D** for *Landscape Section 01* in Revised Tree Survey and Landscape Proposal.
4.2	(2) Due to the gradient of Ta Chuen Ping Street, the headroom of the canopy varies at different location. Please provide a section / elevation with indication.	Please refer to **Annex C** for the part elevation drawing of the proposed development with canopy.

Enclosure:
Annex A: Ground floor plan with Road Inventory and Revised rendering
Annex B: Landscape Maintenance Schedule for Kerb Planters
Annex C: Part Elevation of the Proposed Development
Annex D: Replacement Pages of Tree Survey and Landscape Proposal
Annex E: Updated Summary of Greenery Area Provision

Complied by: KTA
Date: 14 January 2021
File Ref: 20210811_S1399_FI5_V02

Annex A



SITE PLAN

REF:

CLIENT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT
GAIN CHAMPION INVESTMENT LTD.
GAIN CHAMPION INVESTMENT LTD.

ARCHITECT
ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT
CKM ASIA LIMITED

TOWN PLANNER
KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT
CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.

JOB NO. A - 2102

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE
SITE PLAN

	NAME	SIGNED	DATE
DRAWN	-		-
CHECK	-		-
APPROVED	-		-
SCALE	1 : 200 @ A3		

DRAWING NO. -

REVISION -

Annex B

RECOMMENDED MAINTENANCE SCHEDULE

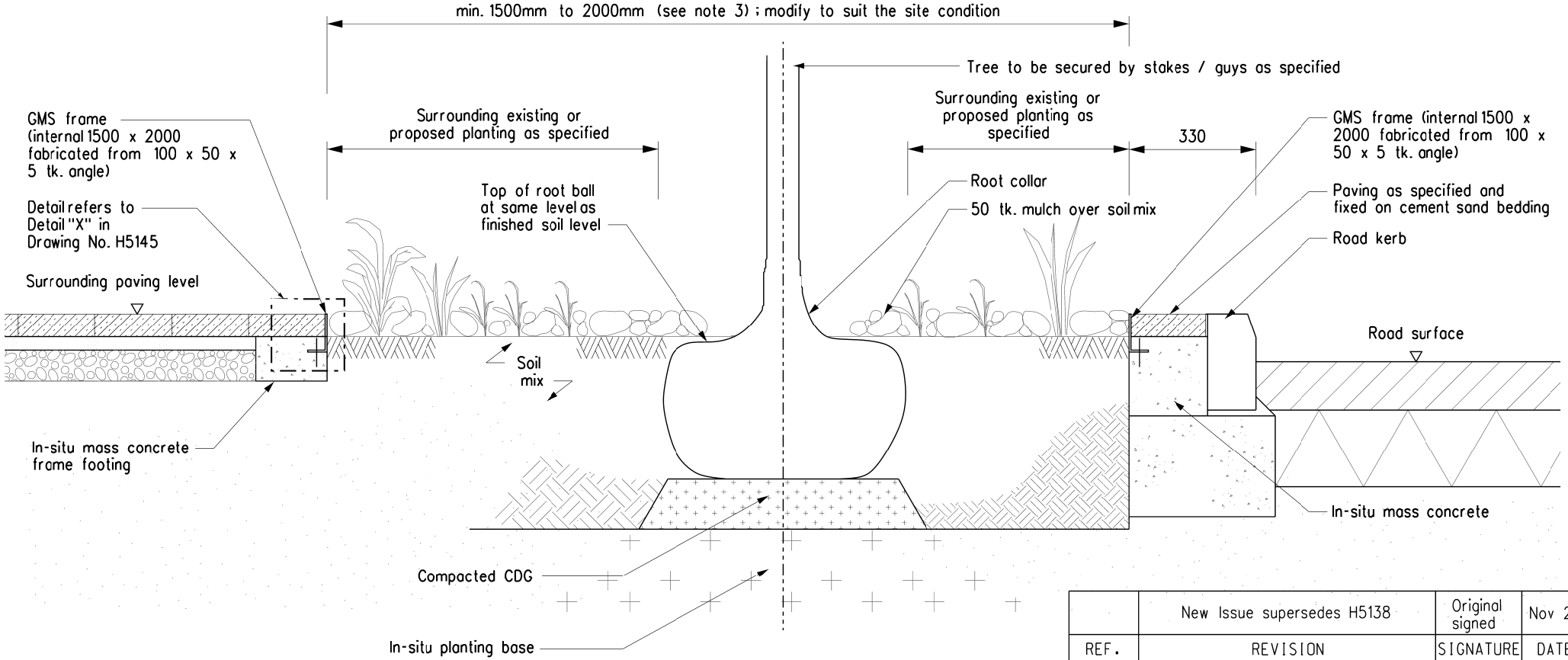
(Number of Months from the Start of Establishment Period)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	**Contractor to carry out monthly inspection**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	**Monthly establishment report to Lanscape Designer**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	**Watering**	Once per day, or as required depending on weather. In case of water supply suspension during establishment period, contractor to provide watering manually once per day until each unit area becomes soaked.																							
4	**Weeding**	Min. twice per month, or as required after inspection																							
5	**Application of post planting fertilizer**	Once in April; Once in October																							
6	**Forking over/Aeration**	Immeditaely after fertilizer application and before mulching																							
7	**Firming up**	refer to cl.25.96																							
8	**Secure and adjust stakes, ties and guys**	Once per month and as required-special attention to be paid after tropical cyclone, rainstorms, winter monsoons.																							
9	**Plant replacements re-planting**	Required when plant material is wilted, dead or disased with significant impact on health and cannot be mitigated. Replacement recommended from during planting season and should be replanted within 7 days. If replanting occurs outside planting season, report to Landscape Designer.																							
10	**Insect, disease and pest control**	As required - after monthly inspection.																							
11	**Shrub pruning**	Min. four times a year and as required - according to monthly inspection to encourage bushy growth, improve flowering and remove dead, damaged or crossed branches and dead flower heads/foliage, or as instructed by Landscape Designer																							
12	**Climbers/groundcover pruning**	Min. twice a year and as required - according to monthly inspection to encourage bushy growth, improve flowering and remove dead, damaged or crossed branches and dead flower heads/foliage, or as instructed by Landscape Designer																							
13	**Cleaning up rubbish in planting areas**	Minimum 5 days, and as required																							
14	**Mulch topping up**	Once right before the end of establishment period. After each time of application of fertilizer (ie once in April, once in October)																							
15	**Replacing dead/damaged planting**	Within 14 days of identification																							

* All horticultural operation for maintainence works during works shall follow clauses referenced in General Specifications for Building 2012 ed by ArchSD (GS).

Notes :

1. All dimensions are in millimetres.
2. For roadside tree planting, priority should be given to kerb planter. The kerb planter should be as wide and as long as practicable and as appropriate, and may be punctuated by paving.
3. Reference should be made to dimensions as stipulated in DEVB TC(W) No. 2/2012 - Allocation of Space for Quality Greening on Roads or prevailing version.
4. In general, tree pit or small isolated raised planter should be avoided for roadside tree planting in new development area.
5. Existing tree pits should be enlarged and joined together to form a kerb planter wherever practicable.
6. Minimum soil depth for tree planting should be referred to prevailing technical circulars and guidelines promulgated by DEVB.
7. Sub-soil drainage should be duly considered and liaison with the relevant maintenance department should be taken during planning and construction stages as appropriate.
8. Reference should be made to DEVB's proper planting practices and relevant planting guidelines.



	New Issue supersedes H5138	Original signed	Nov 20
REF.	REVISION	SIGNATURE	DATE

KERB PLANTER

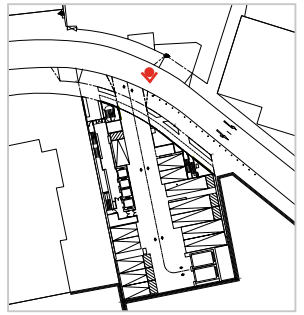
HIGHWAYS DEPARTMENT

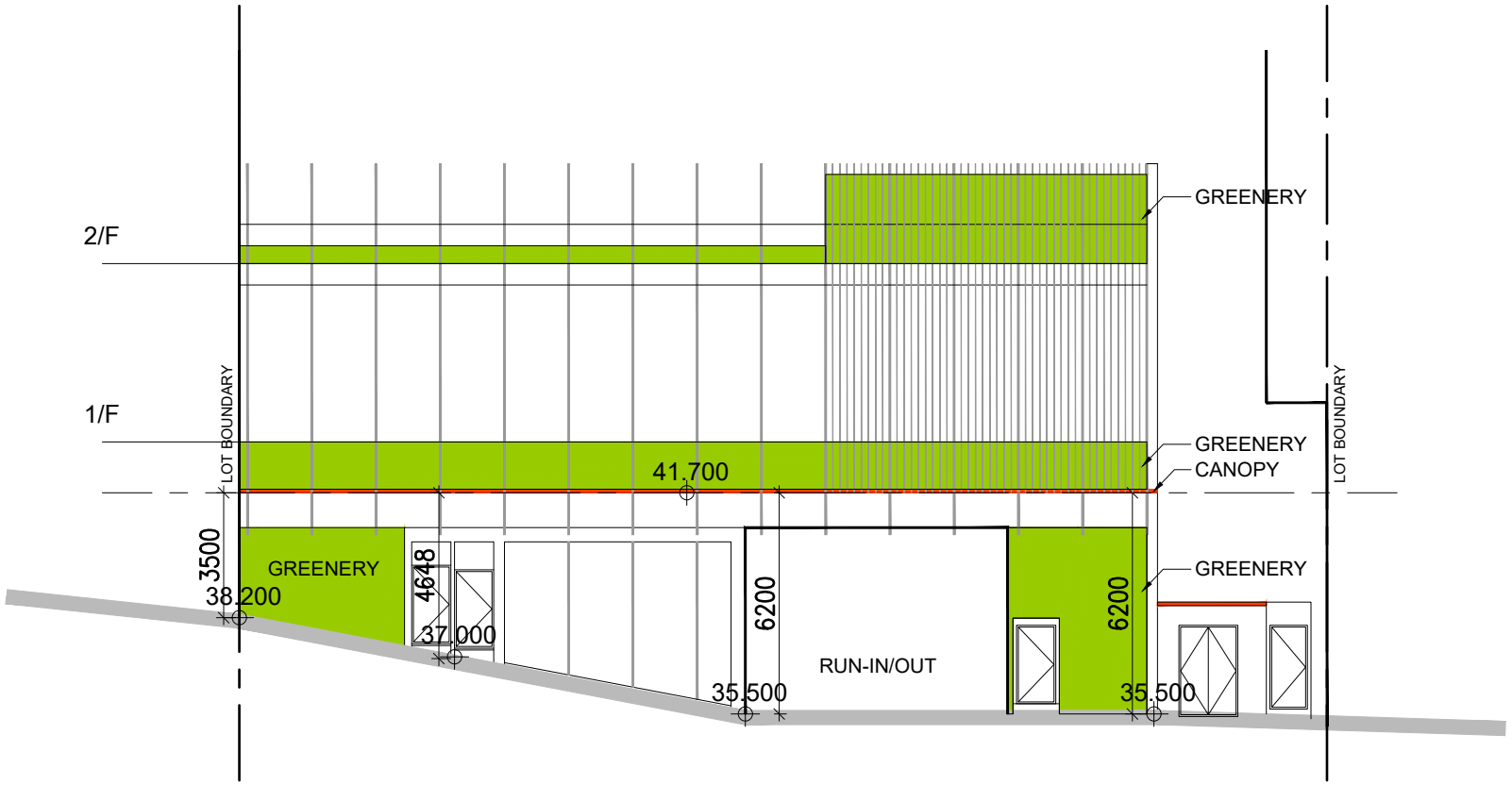
REFERENCE	DRAWING No.	CAD
SCALE 1 : 15	H 5146	

Annex C

PROPOSED NON-POLLUTING INDUSTRIAL BUILDING
NO. 94-100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DESIGN DIAGRAM -
PART ELEVATION OF THE PROPOSED DEVELOPMENT





Annex D

Proposed Minor Relaxation of Plot Ratio Restriction for a Permitted Non-Polluting Industrial Building at Nos. 94 - 100 Ta Chuen Ping Street, Kwai Chung

TREE SURVEY AND LANDSCAPE PROPOSAL

(1st Submission- Rev.3)

Submission Date: January 2022

Client: Gain Champion Investment Limited
Landscape Architect: Gain Champion Investment Limited

LIST OF CONTENTS

APPENDICES

Drawing No.:	Drawing Title:	Rev.
TCPS/TS01	Tree Survey Plan	0
TCPS/TR01	Tree Recommendation Plan	1
TCPS/SEC01	Landscape section 01	3
TCPS/VG01	Typical Vertical Green Wall Detail	1
TCPS/VG02	Typical drawing for Green Wall system (SV-8150)	0
TCPS/VG03	Automatic irrigation system for Green Wall system (SV-8150)	0
TCPS/LMP01	Landscape Master Plan - Ground Floor	4
TCPS/LMP02	Landscape Master Plan - First Floor	2
TCPS/LMP03	Landscape Master Plan - Second Floor	3
TCPS/LMP04	Landscape Master Plan - Roof Floor	3
TCPS/GA01	Greenery Area Provision - Ground Floor	4
TCPS/GA02	Greenery Area Provision - First Floor	3
TCPS/GA03	Greenery Area Provision - Second Floor	3
TCPS/GA04	Greenery Area Provision - Roof Floor	3

Climbers				
Ficus pumila	薜荔	500 x 300	300	GF
Parthenocissus dalzielii	爬牆虎	750 x 300	500	GF

5.4 Tree Planting Method

5.4.1 A minimum of 1200mm soil depth is proposed for all tree planting areas. A 500mm radius around the trunk of the trees shall remain clear of shrubs or ground covers in accordance with Guidelines promulgated by the Development Bureau, and a 50mm layer of mulch shall be applied.

5.5 Greenery provisions

5.5.1 Upon full establishment of greening measures mentioned in the landscape design proposal, visible greening at different levels of the proposed development will be about 20.04% not less than 20% of the site area. Minimum greenery ratio required within the Lot is 20% of the total site area as per PNAP APP-152. Drawing No. **TCPS/GA01 to 04** enclosed in **Appendix 4** of this report shows details of the Green Coverage. Requirement of greenery, please refer to **Table 5.5** and **Table 5.6.**

Table 5.5 – Green Area Provision requirement

Greenery Area Requirement	
Development Site	1,486.436 m^2
Primary Zone (below 15m) – 10%	148.644 m^2
Overall Greenery Area – 20%	297.287 m^2
Greening Features (not more than 30% of the total required greenery area)	89.186 m^2

Table 5.6 – Green Area Provision Calculations

Greenery Area Provision					
Location			**Area (m^2)**	**Reduction factor (%)**	**Area (m^2)**
Primary Zone (below 15m)		Ground Floor (G/F)	8.03	Nil	**8.03**
		First Floor (1/F)	-		-
		Second Floor (2/F)	52.02		**52.02**
	* Greening features	* Planters along the perimeter of an inaccessible roof	*11.50 (1F)*	50%	16.665
			21.83 (2F)		
		* Vertical Greening (VG)	*72.188*	Nil	72.188
	* maximum countable greening features area		**88.853**		
Total primary zone			**148.903 (>10%)**		
Roof Floor (R/F)			148.77		
Overall			**297.673 (20.03%>20%)**		

5.5.2 As per the general sustainable building design guidelines, a minimum greenery ratio of 10% of the total 20% (148.644 m^2) visible to pedestrians or accessible by any person or persons entering the Lot is required. A total greenery area of (148.903 m^2) at Primary Zone has been provided on G/F, 1/F and 2/F in the Development Site. Calculation of greenery area requirements is based on (PNAP) APP-152.

5.5.3 At grade plantings are also proposed on the NBA for interim greening opportunities before the future road widening works along Ta Chuen Ping Street, a total area of 20.64 m^2 are proposed, these greenery areas are not countable towards the overall greenery calculations.

5.5.4 Due to the height limit imposed on the site, the site coverage of the proposed building is up to the maximum allowable limit of 61.537% in order to achieve the allowable GFA under lease. The remaining uncovered area is only 38.463% of the site area which had to cater for the planting area, vehicular access and pedestrian access. Further set back of the building along Ta Chuen Ping Street is not feasible as 25% of the building frontage is require for the EVA coverage below 15m as statutory requirement, maximum at grade planting area has been considered.

5.5.5 Rendering the tight space for the development with building blocks situated immediate to the three sides of our site, providing greenery along the street frontage/ primary zone is difficult. Therefore, proprietary vertical wall is provided facing Ta Chuen Ping street for immediate visual enjoyment to the adjacent building occupants and public pedestrians.

5.5.6 Vertical green walls are proposed on the building façade facing Ta Chuen Ping Street for street improvement with a total of 72.188 m^2 locate right above the glass canopy with 1.4m(H) banding and the top portion of the decorative fins in front of the transformers room.

5.5.7 Besides the countable vertical green walls, there are three other green walls proposed under the glass canopy at the side of the GF shop front and on the right wall of the carpark entrance for a consistent design of vertical greens. These covered vertical green consist a total of 62.86 m^2.

5.5.8 Therefore, the overall required greenery area is fulfilled with 297.673 m^2 (>20%). Additional 100.165 m^2 is also provided for more greening opportunities and to enhance the pedestrian experience along Ta Chuen Ping Street.

5.6 Landscape Lighting

5.6.1 Lighting for the landscaped areas will be designed to contribute to the quality of the development. All accessible points and open space areas will be provided with sufficient illumination to meet the required lighting standards. Lighting designed for all open space will be carefully designed to avoid glare. The lighting strategy includes four types of lighting as follows:

- Amenity lighting provides in-ground flood lighting for feature trees and planting on roof gardens;
- Up-lighting for landscape features (e.g. walls / sculpture / feature trees);
- Area lighting on roof gardens (e.g. wall recessed lights and low level lighting) is proposed for sitting out areas and courtyard gardens to minimize the potential visual intrusion; and
- Safety lighting with minimum lux level in accordance with acceptable standards and requirements for the perimeter areas and any areas used as means of escape.

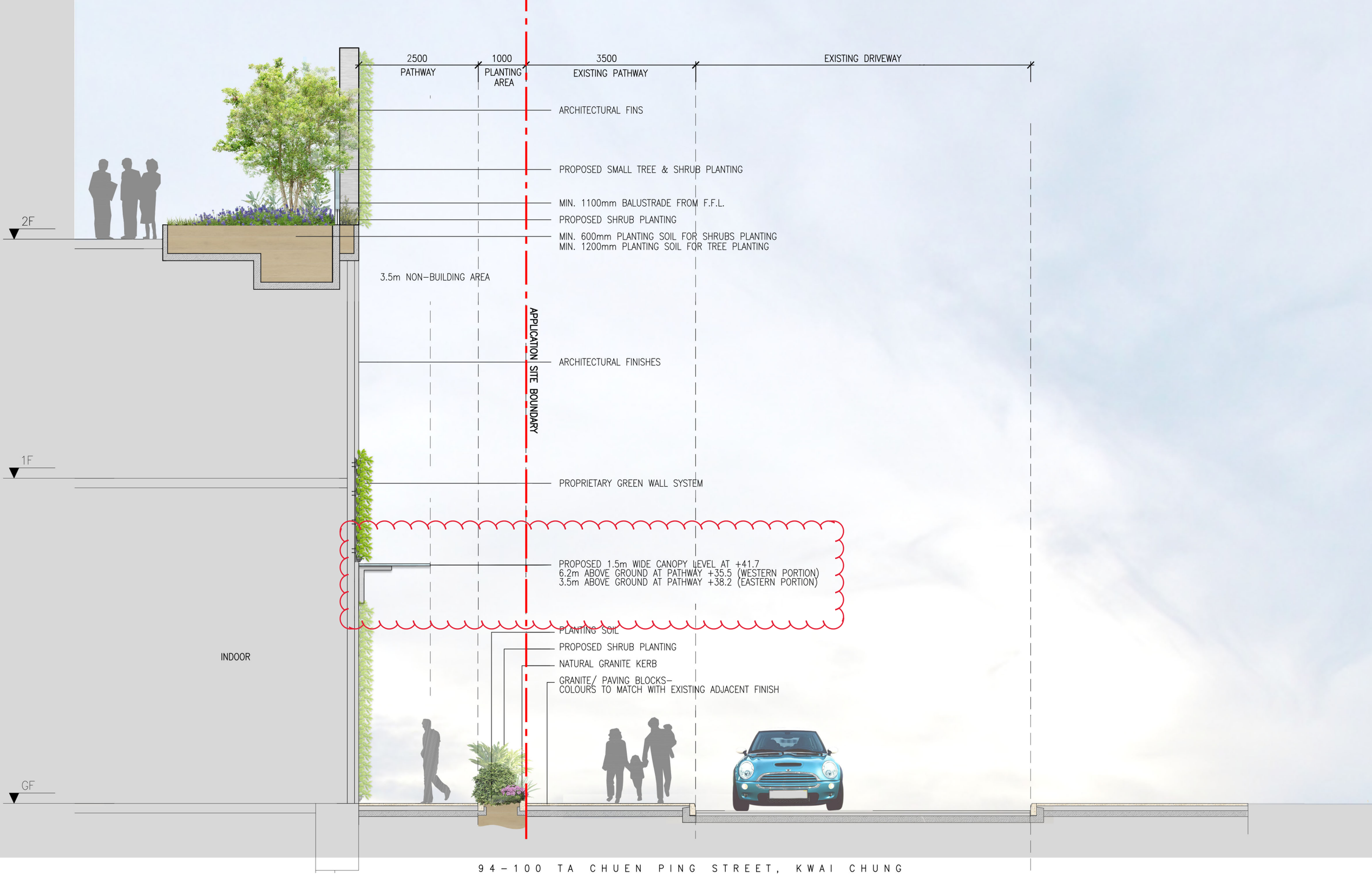
5.7 Soil Requirement

5.7.1 Provision of soil depth to all planted areas will be a minimum depth of 1200mm for trees, 600mm for shrubs and 300mm groundcover area, excluding drainage layer.

5.8 Irrigation and Drainage

5.8.1 Drainage for all planted area with the provision of adequate source of water supply will be provided. Automatic dripped irrigation will be adopted to all planting areas at accessible and inaccessible roof on GF, 1 F, 2F and RF.

5.8.2 In addition, automatic dripped irrigation will also be used on the vertical green wall for easy maintenance. Typical details of the vertical green wall irrigation system is enclosed in **Appendix 4** Drawing no. **TCPS/VG02 to 03** for reference.



94-100 TA CHUEN PING STREET, KWAI CHUNG
NEW TERRITORIES

LANDSCAPE SECTION 01- ALONG TA CHUEN PING STREET

TCPS/SEC01 (REV.3) N.T.S @ A3

REGENT CENTRE TOWER A

REGENT CENTRE TOWER B

FL +35.50

FL +35.50

FL +35.50

+35.50

FL +37.00

FL +38.20

TA CHUEN PING STREET

KONG SHENG FACTORY BUILDING

2500

1000

3500
Non-Building Area

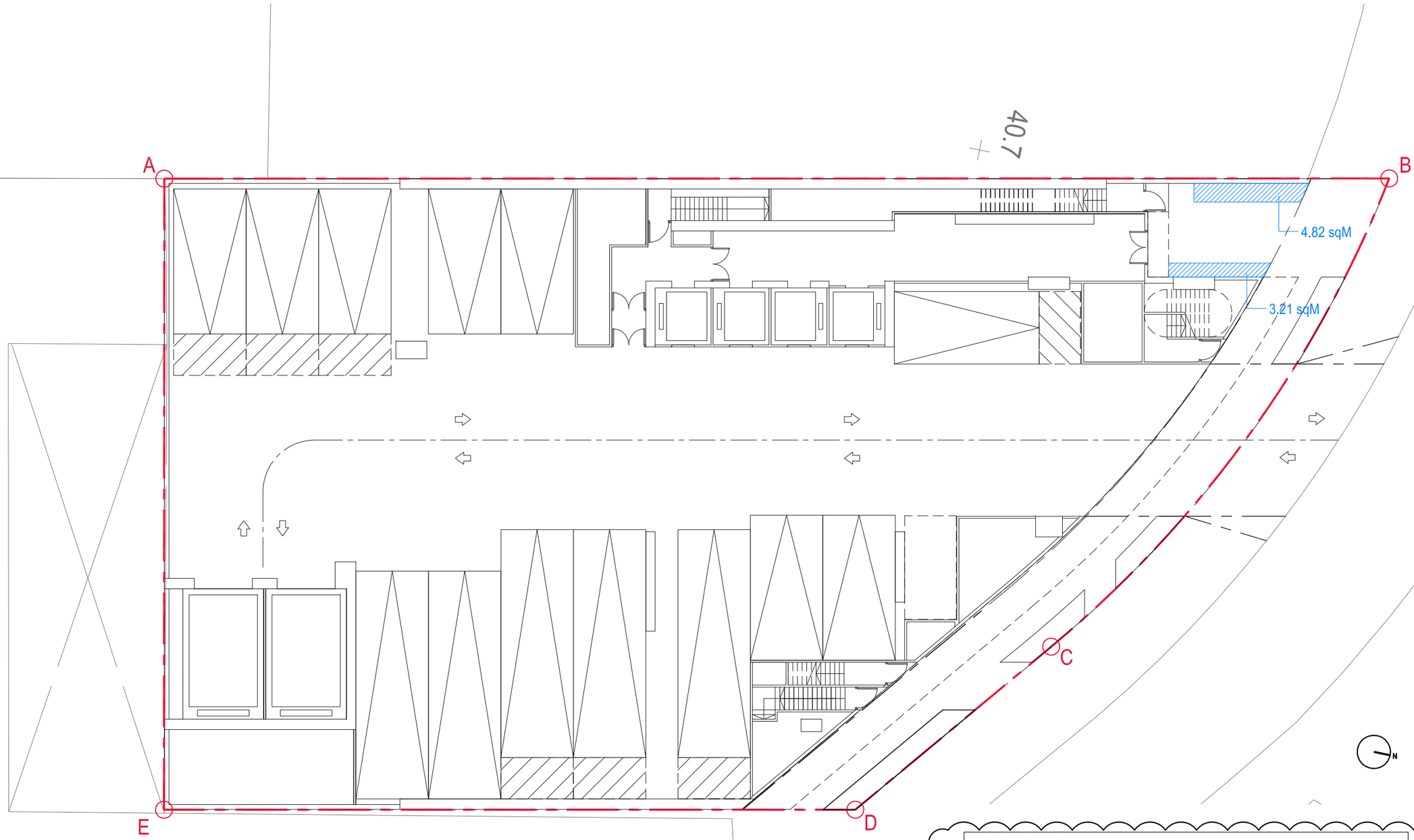
LEGEND

	Lot boundary
+35.50	Existing level
FL +35.50	Proposed finish floor level
	Pedestrian entrance
	Vehicle entrance
	Run in out
	Paving
	Planting Area with shrubs and groundcovers
	Proprietary green wall system
	Proposed 1.5m wide canopy @+41.70

0 1 2 5 10m

LANDSCAPE MASTER PLAN - GROUND FLOOR

DRAWING NO. TCPS/LMP01 (REV.4)



LEGEND :

- LOT BOUNDARY
- GREENERY AREA (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	8.03 sqM
SECOND FLOOR	52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :	
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)	
FIRST FLOOR	5.75 sqM
SECOND FLOOR	10.915 sqM
GREEN WALL 1.4m(H) x 1.25m(W) x 26 3.05m(H) x 1.25m(W) x 7	72.188 sqM
TOTAL GREENERY FOR GREENING FEATURE	88.853 sqM
TOTAL PRIMARY ZONE	148.903sqM >148.644
ROOF FLOOR	148.77 sqM
OVERALL GREENERY AREA	297.673 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev4	Jan 2022	GENERAL REVISION		
Rev3	Oct 2021	GENERAL REVISION		
Rev2	Aug 2021	G/F LAYOUT REVISED		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

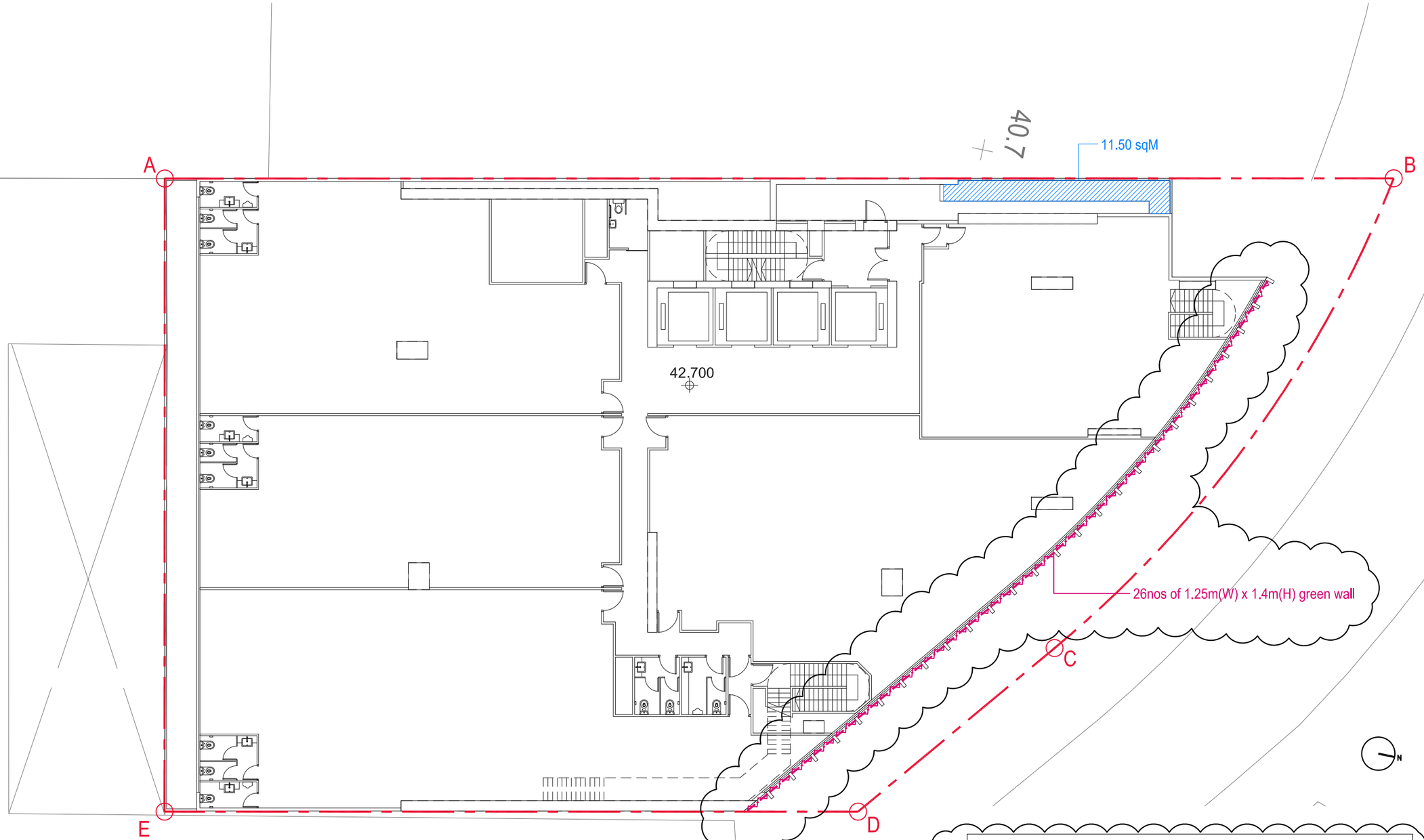
DRAWING TITLE

GREENERY AREA PROVISION - GROUND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA01

REVISION Rev4



LEGEND :

- LOT BOUNDARY
- INACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :		
GROUND FLOOR		8.03 sqM
SECOND FLOOR		52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :		
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)		
FIRST FLOOR		5.75 sqM
SECOND FLOOR		10.915 sqM
GREEN WALL	1.4m(H) x 1.25m(W) x 26	72.188 sqM
	3.05m(H) x 1.25m(W) x 7	
TOTAL GREENERY FOR GREENING FEATURE		88.853 sqM
TOTAL PRIMARY ZONE		148.903sqM >148.644
ROOF FLOOR		148.77 sqM
OVERALL GREENERY AREA		297.673 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev3	Jan 2022	GENERAL REVISION		
Rev2	Oct 2021	GENERAL REVISION		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

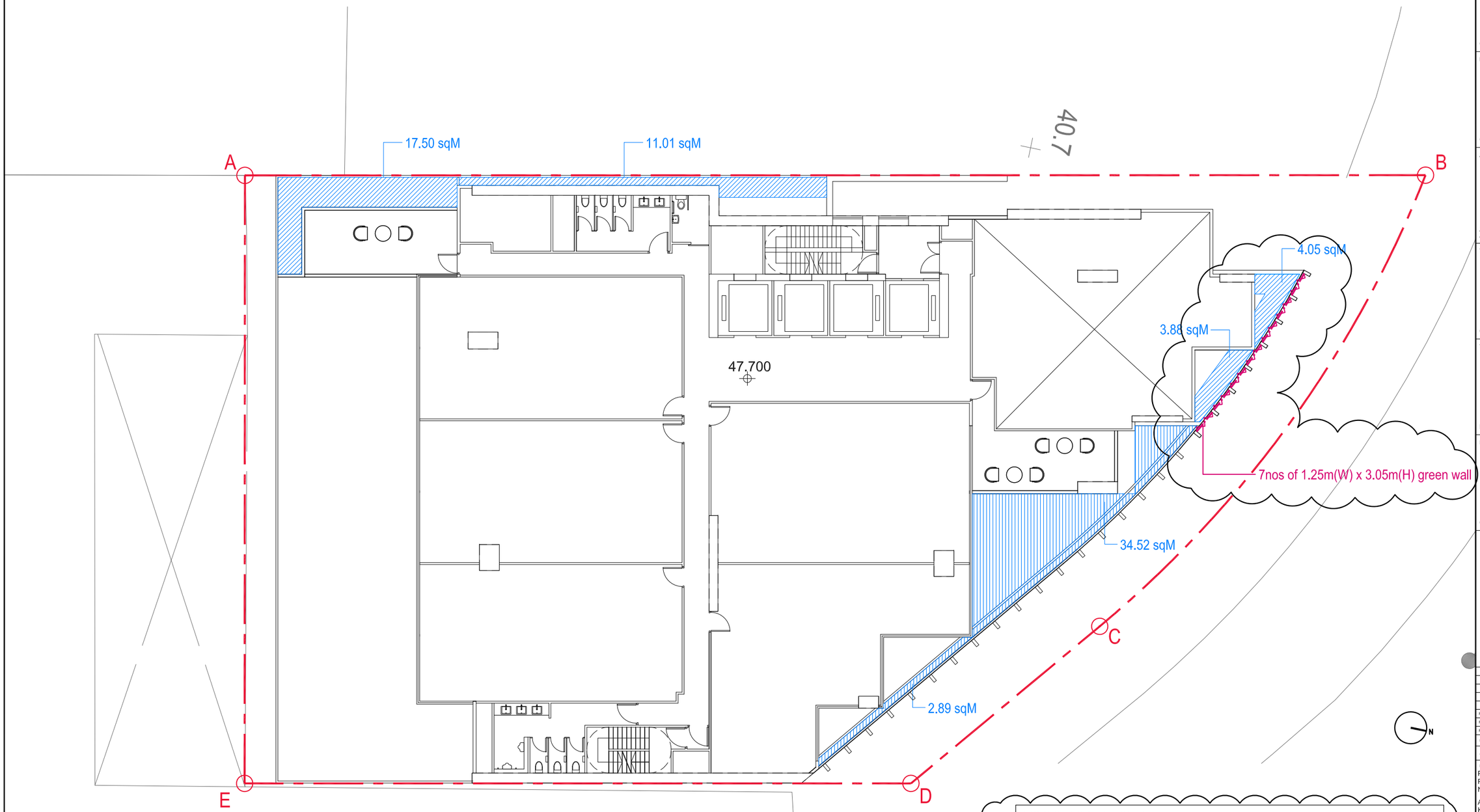
DRAWING TITLE

GREENERY AREA PROVISION - FIRST FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA02

REVISION Rev3



LEGEND :

- LOT BOUNDARY
- NON-ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA- WITHIN 1M PERIMETER)
- ACCESSIBLE GREEN ROOF (COUNTABLE GREENERY AREA)
- PROPRIETARY GREEN WALL SYSTEM

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :		
GROUND FLOOR		8.03 sqM
SECOND FLOOR		52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :		
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)		
FIRST FLOOR		5.75 sqM
SECOND FLOOR		10.915 sqM
GREEN WALL	1.4m(H) x 1.25m(W) x 26 3.05m(H) x 1.25m(W) x 7	72.188 sqM
TOTAL GREENERY FOR GREENING FEATURE		88.853 sqM
TOTAL PRIMARY ZONE		148.903sqM >148.644
ROOF FLOOR		148.77 sqM
OVERALL GREENERY AREA		297.673 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ALKF+ ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM

CKM ASIA LIMITED

TOWN PLANNER

KTA

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev3	Jan 2022	GENERAL REVISION		
Rev2	Oct 2021	GENERAL REVISION		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

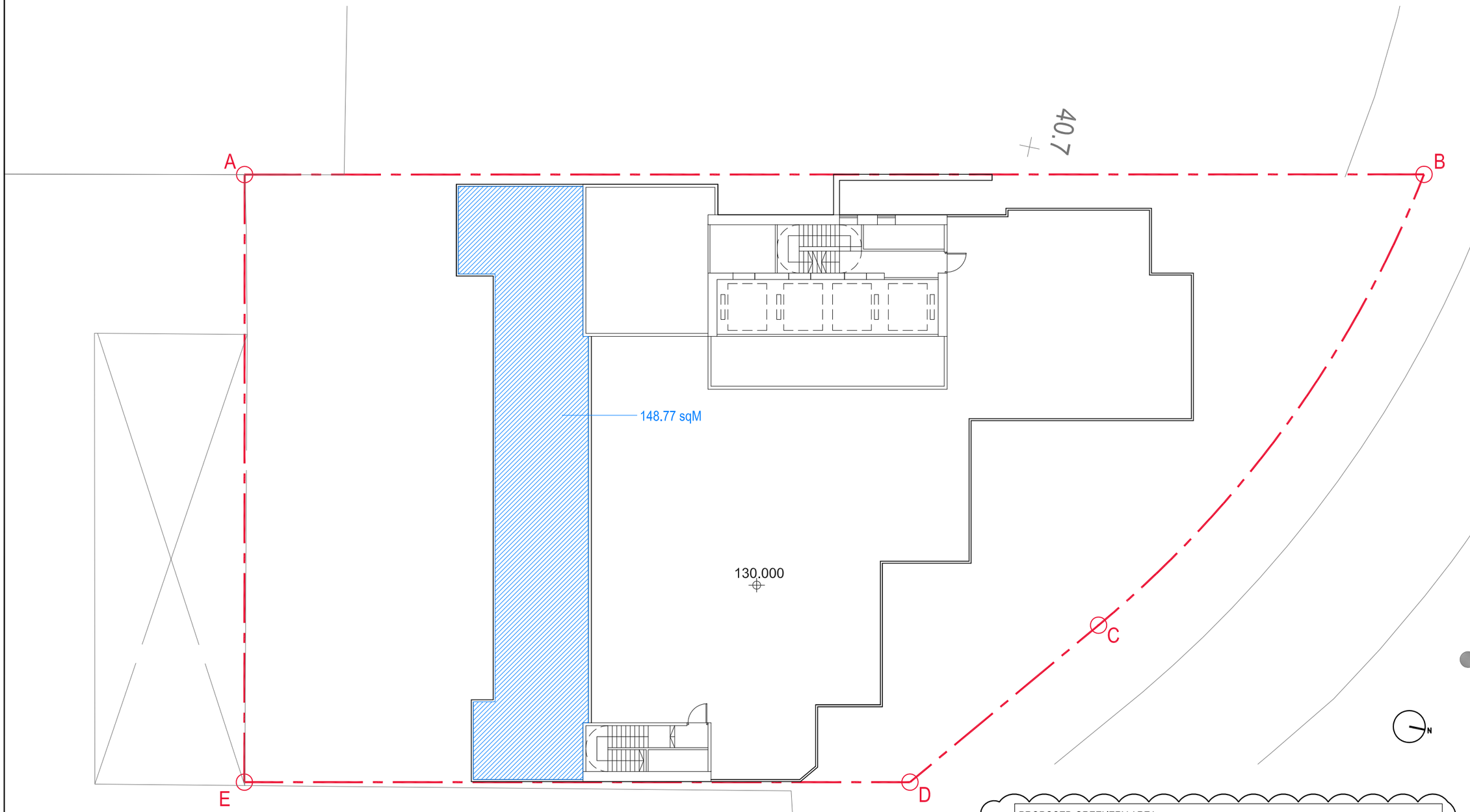
DRAWING TITLE

GREENERY AREA PROVISION - SECOND FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA03

REVISION Rev3



LEGEND :

LOT BOUNDARY

ACCESSIBLE GREEN ROOF
(COUNTABLE GREENERY AREA)

GREENERY AREA REQUIREMENT :	
SITE AREA :	1486.436 sqM
PRIMARY ZONE GREENERY AREA (BELOW 15M) 10%:	148.644 sqM
GREENERY FOR GREENING FEATURE NOT MORE THAN 6%:	89.186 sqM
OVERALL GREENERY AREA 20%:	297.287 sqM

PROPOSED GREENERY AREA :	
GROUND FLOOR	8.03 sqM
SECOND FLOOR	52.02 sqM
PROPOSED GREENERY AREA FOR GREENING FEATURE :	
PLANTERS ALONG THE PERIMETER OF AN INACCESSIBLE ROOF (50% REDUCTION)	
FIRST FLOOR	5.75 sqM
SECOND FLOOR	10.915 sqM
GREEN WALL 1.4m(H) x 1.25m(W) x 26	72.188 sqM
3.05m(H) x 1.25m(W) x 7	
TOTAL GREENERY FOR GREENING FEATURE	88.853 sqM
TOTAL PRIMARY ZONE	148.903sqM >148.644
ROOF FLOOR	148.77 sqM
OVERALL GREENERY AREA	297.673 sqM > 297.287

REF:

CLIENT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

DESIGN ARCHITECT

GAIN CHAMPION INVESTMENT LTD.

GAIN CHAMPION INVESTMENT LTD.

ARCHITECT

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD

ANDREW LEE KING FUN & ASSOCIATES ARCHITECTS LTD.

TRAFFIC CONSULTANT

CKM ASIA LIMITED

TOWN PLANNER

KTA PLANNING LIMITED

ENVIRONMENTAL CONSULTANT

CUNDALL HONG KONG LTD.

REV.	DATE	DESCRIPTION	DRAWN	APP.
Rev3	Jan 2022	GENERAL REVISION		
Rev2	Oct 2021	GENERAL REVISION		
Rev1	Jun 2021	GENERAL REVISION		

JOB NO. A - 2102

PROJECT

PROPOSED MINOR RELAXATION OF PLOT RATIO RESTRICTION FOR A PERMITTED NON - POLLUTING INDUSTRIAL BUILDING

AT NOS. 94 - 100 TA CHUEN PING STREET, KWAI CHUNG, N.T.

DRAWING TITLE

GREENERY AREA PROVISION - ROOF FLOOR

	NAME	SIGNED	DATE
DRAWN	SC		04/2021
CHECK	JC		04/2021
APPROVED	RZ		04/2021
SCALE	1 : 200 @ A3		

DRAWING NO. TCPS / GA04

REVISION Rev3

Annex E

Summary of Greenery Area Provision

	Location	Type	Previous Scheme (Aug 2021)	Current Scheme (2022)		
				Actual Area (m^2) [a + b]	Area accountable under SBDG (m^2) [a]	Extra Greenery Provision (not accountable under SBDG) (m^2) [b]
Primary Zone	G/F to 2/F	Planters	79.23	60.05	60.05	
	Green feature	Edge Planter	16.91(1)	33.33	16.66(1&2)	16.67
		Vertical Green	58.50	135.05	72.19(2)	62.86
	NBA	Planters		20.64	-	20.64
	Total			249.07	148.90	100.17
	% of Site Area			17%	10%	7%
Roof			147.51	148.77	148.77	-
Development Total			302.15	397.87	297.67	100.17
% of Site Area			20.33%	27%	20%	7%

Remarks

(1) Reduction factor of 50% applied according to Sustainable Building Design Guidelines (SBDG) Practice Notes for Authorized Persons (PNAP) APP-152.

(2) Calculation subject to a cap of 30% of the total greenery area (i.e. 88.85m^2 (30%) out of total greenery area of 297.70 m^2) provided under SBDG APP-152.

Similar Applications for minor relaxation of PR in Kwai Chung since the Committee meeting on 27.8.2021

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Typical Floor Height (Uses)	Major Planning & Design Merits
Kwai Chung							
1.	S/KC/29 "Industrial" A/KC/475 BHR: 120mPD	14-15 Yip Shing Street (1,319.1m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 15.10.2021	3.585m/4.75m (Workshop/ Warehouse)	● Voluntary full-height setbacks of 3.55m along Yip Shing Street, 0.9m along the north-western boundary and 2.5m at the rear portion of the building ● Additional voluntary setback of about 19m at the rear portion of the building above 15m ● Continuous canopy along Yip Shing Street building facade ● Landscape treatments including tree planting/planters, vertical greening, rooftop greening on R/F, and peripheral planting at the podium garden on 3/F ● Greening ratio of about 34.58% (456.15m^2) ● Installation of steel bollards along Yip Shing Street as the traffic measure to deter possible illegal parking ● Compliance with SBDG and incorporation of green building design measures
2.	S/KC/29 "I" A/KC/480 BHR: 120mPD	45-51 Tai Lin Pai Road (2,189m^2)	Information Technology and Telecommunications Industries	PR 9.5 to 11.4 (+20%) BH 120mPD to 129.35mPD (+7.8%)	**Approved** with conditions on 24.12.2021	6m (Data Centre)	● Voluntary Setback of 5.35m (full-height) along southern site boundary (not accessible to the public) ● Continuous canopies along Tai Lin Pai Road and Wah Sing Street building facades ● Landscaping in the form of trees, planters and vertical greening on LG/F to 3/F and part of the southern setback ● Greening ratio of about 23.02% (504.24m^2) ● Greywater recycling system will be adopted for irrigation of greenery ● Installation of bollards along Tai Lin Pai Road and Wah Sing Street to deter the possible carparking ● Applicant intends to apply for the BEAM plus Certification and electricity loading capacity would be sufficient for providing power supply for electric vehicle charging facilities at all parking spaces ● Compliance with SBDG and incorporation of green building design measures
3.	S/KC/29 "OU(B)" A/KC/483 BHR: 105mPD	10-16 Kwai Ting Road, Kwai Chung (1,381m^2)	Office, Shop and Services and Eating Place Uses	PR 11.75 to 14.1 (+20%) BH 105mPD to 125.3mPD (+19.3%)	**Approved** with conditions on 14.1.2022	4.1m (Office)	● According to ODP requirement, 7m full-height setback from the northern lot boundary abutting Kwai On Road for future road widening ● Voluntary 1m full-height setback from the lot boundary along the western footpath and a further 2.5m setback (up to 9m in height) along the corner of the western footpath and Kwai On Road ● Canopy along Kwai On Road and Kwai Ting Road building facade ● Landscaping in the form of planters and vertical greening within the setback areas from Kwai On Road at G/F, 3/F, 14/F (Communal sky garden with peripheral greenery) and roof level ● Greenery coverage ratio of about 20% (276.62m^2)

Notes

[1] Proposed Uses: Industrial (I), Commercial/ Office (C/O), Office (O) and Industrial-Office (I-O)

Summary of Proposals within the NBA of other Similar Approved Applications in Kwai Chung

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Non-Building Area (NBA)	Uses within NBA
Kwai Chung							
1.	S/KC/29 "OU(B)" A/KC/460 BHR: 130mPD	57 – 61 Ta Chuen Ping Street ($2,261m^2$)	I-O	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 5.7.2019	NBA under OZP requirement and voluntary setback: totalling 3.5m to 4.9m full-height from lot boundary abutting Ta Chuen Ping Street	• **Pedestrian Footpath**
2.	S/KC/29 "OU(B)" A/KC/464 BHR: 105mPD	20-24 Kwai Wing Road ($1,579m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 29.11.2019	Voluntary setback: 3.6m full-height at the northern portion of the Site; and maximum 10.5m full-height along Castle Peak Road – Kwai Chung	• **Pedestrian Footpath** • **Communal escalator** within the Site along northern boundary to improve pedestrian connectivity between Castle Peak Road and Kwai Wing Road • **Tree/shrub planting** along northern and eastern site boundaries
3.	S/KC/29 "OU(B)" A/KC/463 BHR: 105mPD	Kwai Chung Town Lot (KCTL) 49 and Ext. RP, 45-51 Kwok Shui Road, (Gross Site Area: $1,324.3m^2$ Net Site Area[2]: $1,181.727m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 17.3.2020	Voluntary setback: 2m full-height from northern boundary of the Site abutting Kwok Shui Road	• **Pedestrian Footpath** • **Landscaped area** with shrubs and climbing plants • **Weather protection canopy** along the northern and western facades
4.	S/KC/29 "OU(B)" A/KC/466 BHR: 130mPD	2-16 Lam Tin Street ($1,858m^2$)	Information Technology and Telecommunications Industries	PR 9.5 to 11.4 (+20%) BH 130mPD to 146.5mPD (+12.7%)	**Approved** with conditions on 29.5.2020	NBA under OZP requirement: 4m full-height from lot boundary abutting Lam Tin Street and 3.5m full-height from Chun Pin Street	• **Pedestrian footpath** • **Canopy** at the edge of the development facing Lam Tin Street

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Non-Building Area (NBA)	Uses within NBA
5.	S/KC/29 "OU(B)" A/KC/469 BHR: 130mPD	57-61 Ta Chuen Ping Street ($2,248m^2$)	Hotel	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 6.11.2020	NBA under OZP requirement (3.5m) and voluntary setback (0.95m): totalling 4.45m (full-height) from lot boundary abutting Ta Chuen Ping Street Voluntary setbacks: 2.3m full-height along western boundary from the lot; 2.3m full-height along northern boundary from the lot; and 3.3m full-height along eastern boundary from the lot	• **Pedestrian Footpath** • **Bollards** to be installed at 2m spacing at run-in/run-out facing Ta Chuen Ping Street • Roadside planter with ornamental trees, shrubs and groundcover **in Landscaped area** abutting Ta Chuen Ping Street and part of the **pedestrian area** accessible to the public • Setback areas along the western, northern and eastern portions will form the **service lanes** which are accessible to the public
6.	S/KC/29 "OU(B)" A/KC/471 BHR: 105mPD	10-16 Kwai Ting Road ($1,381.457m^2$)	I	PR 11.75 to 14.1 (+20%) BH 105mPD to 121.2mPD (+15.43%)	**Approved** with conditions on 14.5.2021	NBA under ODP requirement: 7m NBA (full-height) from lot boundary along Kwai On Road Voluntary setback: 1m full-height and a further 2.685m up to 15m in height above the abutted street level	• **Pedestrian Footpath** • **Weather protection canopy** along building edge on G/F facing Kwai On Road • **Planters** along Kwai On Road and western footpath
7.	S/KC/29 "OU(B)" A/KC/473 BHR: 130mPD	2-10 Tai Yuen Street ($1,865m^2$)	Information Technology and Telecommu-nications Industries	PR 9.75 to 11.7 (+20%) BH Nil	**Approved** with conditions on 11.6.2021	Voluntary setback: 2m full-height from lot boundary along Tai Yuen Street and Kwok Shui Road	• **Pedestrian Footpath** • **Canopy** above the main entrance at Tai Yuen Street
8.	S/KC/29 "Industrial" A/KC/474 BHR: 120mPD	45-51 Tai Lin Pai Road ($2,189m^2$)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 23.7.2021	NBA under ODP requirement: 3.5m full-height along Tai Lin Pai Road and 0.5m to 1.7m full-height along Wah Sing Street	• **Pedestrian Footpath** • **Tree planting** along Tai Lin Pai Road

No.	OZP Zoning Application No.	Address (Site Area)	Proposed Uses[1]	Proposed Minor Relaxation	Date of Consideration	Non-Building Area (NBA)	Uses within NBA
9.	S/KC/29 "Industrial" A/KC/475 BHR: 120mPD	14-15 Yip Shing Street (1,319.1m^2)	I	PR 9.5 to 11.4 (+20%) BH Nil	**Approved** with conditions on 15.10.2021	Voluntary full-height setbacks of 3.55m along Yip Shing Street, 0.9m along the north-western boundary and 2.5m at the rear portion of the building Additional voluntary setback of about 19m at the rear portion of the building above 15m	● **Pedestrian Footpath** ● **Canopy** along Yip Shing Street ● **Landscape treatments** including tree planting/planters, vertical greening at the setback area along Yip Shing Street
10.	S/KC/29 "I" A/KC/480 BHR: 120mPD	45-51 Tai Lin Pai Road (2,189m^2)	Information Technology and Telecommu-nications Industries	PR 9.5 to 11.4 (+20%) BH 120mPD to 129.35mPD (+7.8%)	**Approved** with conditions on 24.12.2021	NBA under ODP requirement: full-height setbacks of 3.5m along Tai Lin Pai Road and 0.5m to 1.7m along Wah Sing Street Voluntary Setback of 5.35m (full-height) along southern site boundary	● **Pedestrian Footpath** ● **Canopies** along Tai Lin Pai Road and Wah Sing Street building facades ● **Landscaping** in the form of trees and planters ● **Portable plants/greenery and benches** within voluntary setback
11.	S/KC/29 "OU(B)" A/KC/483 BHR: 105mPD	10-16 Kwai Ting Road (1,381m^2)	Office, Shop and Services and Eating Place Uses	PR 11.75 to 14.1 (+20%) BH 105mPD to 125.3mPD (+19.3%)	**Approved** with conditions on 14.1.2022	NBA under ODP requirement: 7m full-height from lot boundary along Kwai On Road Voluntary setback: 1m full-height setback and a further 2.5m setback (up to 9m in height) along the corner of the western footpath and Kwai On Road.	● **Pedestrian Footpath** ● **Canopy** along Kwai On Road building facade ● **Landscaping** in the form of planters along Kwai On Road

Notes

[1] Proposed Uses: Industrial (I), Commercial/ Office (C/O), Office (O) and Industrial-Office (I-O)

[2] The Site comprises parent lot KCTL No.49 (about 1,181.727m^2) and Ext. RP (about 142.6m^2). The extension area was granted after the building plans for the existing Toppy Tower were approved in 1974. Under the lease, no structure other than boundary walls and fences is permitted to be erected within the extension area except with prior approval of the Director of Lands, and the extension area shall not be PR/site coverage accountable. Hence, only the area of KCTL 49, i.e. about 1,181.727m^2 should be accountable for PR/GFA calculation.

Recommended Advisory Clauses

(a) the approval of the application does not imply that any proposal on building design elements to fulfil the requirements under the Sustainable Building Design Guidelines and any gross floor area (GFA) concession of the proposed development will be granted by the Building Authority (BA). The applicant should approach the Buildings Department (BD) direct to obtain the necessary approval. If the proposed building design elements and GFA concession are not approved/granted by the BA and major changes to the current scheme are required, a fresh planning application to the Town Planning Board (TPB) may be required;

(b) the planning permission is for minor relaxation of the plot ratio (PR) of the proposed development from 9.5 to 11.4. The claim for bonus PR should be dealt with under building plan submission stage and should not be taken as approved under the subject planning application;

(c) to note the comments of District Lands Officer/Tsuen Wan & Kwai Tsing (DLO/TW&KT) and Chief Estate Surveyor/Development Control (CES/DC), Lands Department (LandsD) that:

i. 'Non-polluting industrial uses' in planning terms may constitute uses in breach of the lease conditions including the user restriction of 'industrial purposes' which should involve manufacturing process as decided by court cases. The applicant, being the owner of the lot under application, should be fully aware of the user restriction of 'industrial purposes' under lease which has a different interpretation under the TPB's definition on Column 1 uses permitted under the planning regime. If the proposed industrial development is intended to be used for 'non-polluting industrial uses' that are in breach of the lease, the Lot owners shall apply to LandsD for a lease modification;

ii. if the lot owner applies for a lease modification for its redevelopment, LandsD will upon receipt of the lease modification act in the capacity as landlord, consider the application and impose such appropriate terms and conditions including user restriction, the 5-year time limit for completion of the development, payment of full premium and administrative fee, other conditions applicable to 2018 IB revitalisation measure, etc. There is no guarantee that the application will be approved by LandsD; and

iii. under the 2018 IB revitalisation measure for redevelopment, the lease modification letter/conditions of exchange shall be executed within 3 years from the date of TPB's approval letter.

(d) to note the comments of Chief Building Surveyor/New Territories West of Buildings Department that:

i. the proposed development parameter should not exceed the limitation under the First Schedule of Building (Planning) Regulations (B(P)R);

ii. the Site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with Regulations 5 and 41D of the B(P)R respectively;

iii. disregarding carparking spaces from GFA calculation under the Buildings Ordinance (BO) will be considered on the basic of the criteria set out in Practice Notes for Authorised Persons (PNAP) APP-2 during building plan submission stage;

iv. for features to be excluded from the calculation of the total GFA, it shall be subject to compliance with the requirements laid down in the relevant Joint Practice Notes and PNAPs including APP-151 as appropriate. If the applicant applies for the GFA concession, building setback, building separation and site coverage (SC) of greenery as required under PNAP APP-152 also apply;

v. in case bonus PR and site coverage claimed with reference to the Building (Planning) Regulations 22, it will be considered on the basic of the criteria set out PNAP APP-20 and will be commented at building plan submission stage;

vi. only canopies projecting not more than 2m over an entrance to a building would be disregarded from the GFA calculation according to PNAP APP-19;

vii. regarding the greenery erected within non-building area for site coverage of greenery as required under PNAP APP-152 should not be used for any other purposes without prior consent of the Building Authority; and

viii. detailed comments under the BO will be given at building plan submission stage.

(e) to note the comment of Director of Environmental Protection that the applicant is advised to minimise the generation of Construction and Demolition (C&D) materials; reuse and recycle the C&D materials on-site as far as possible; and observe and comply with the legislative requirements and prevailing guidelines on proper waste management for the proposed development;

(f) to note the comments of Chief Town Planner/Urban Design and Landscape that:

i. the applicant is reminded of the long-term commitment in providing proper maintenance to the vertical green wall for healthy and sustainable plant growth; and

ii. the applicant is reminded that approval of section 16 application under the Ordinance

does not imply approval of the SC of greenery requirements under PNAP APP-152 and/or under the lease. The SC of greenery calculation should be submitted separately to BD for approval. Similarly for any proposed tree preservation/removal scheme and compensatory planting proposal, the applicant should approach relevant authority direct to obtain necessary approval as appropriate.

(g) to note the comment of the Chief Architect/Central Management Division 2, Architectural Services Department that for toilets at 1/F, 2/F and 4/F to 19/F, natural lighting and ventilation complying relevant B(P)R shall be considered.

(h) to note the comments of the Chief Highway Engineer/New Territories West that the applicant should be responsible for management and maintenance of the proposed planters and canopy within the Non-Building Area along Ta Chuen Ping Street and reinstate the surrender area to be free from any structures/objects to facilitate the subsequent road widening works upon request from the concerned Government departments.