Appendix A of TPB Paper No. 10992

行政長官會同行政會議於２０１５年7月２１日
根據道路（工程、使用及補償）條例（第３７０章）
批准的將軍澳進一步發展的
將軍澳第一期堆填區基礎設施工程 － 餘下工程，
有關方案所述的行人天橋顯示在這份圖則上只供參考之用
THE FOOTBRIDGE AS DESCRIBED IN THE ROAD SCHEME
OF THE TSEUNG KWAN O FURTHER DEVELOPMENT
INFRASTRUCTURE WORKS FOR THE TSEUNG KWAN O
STAGE I LANDFILL SITE – REMAINING WORKS
AUTHORIZED BY THE CHIEF EXECUTIVE IN COUNCIL
UNDER THE ROADS (WORKS, USE AND COMPENSATION)
ORDINANCE (CHAPTER 370) ON 21.7.2015
IS SHOWN ON THIS PLAN FOR INFORMATION ONLY

圖例
NOTATION

ZONES		地帶
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
COMMERCIAL / RESIDENTIAL	C/R	商業 / 住宅
RESIDENTIAL (GROUP A)	R(A)	住宅（甲類）
RESIDENTIAL (GROUP B)	R(B)	住宅（乙類）
RESIDENTIAL (GROUP C)	R(C)	住宅（丙類）
RESIDENTIAL (GROUP E)	R(E)	住宅（戊類）
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	G/IC	政府、機構或社區
OPEN SPACE	O	休憩用地
RECREATION	REC	康樂
OTHER SPECIFIED USES	OU	其他指定用途
GREEN BELT	GB	綠化地帶

COMMUNICATIONS		交通
RAILWAY AND STATION	車站 STATION	鐵路及車站
RAILWAY AND STATION (UNDERGROUND)	車站 STATION	鐵路及車站（地下）
MAJOR ROAD AND JUNCTION		主要道路及路口
ELEVATED ROAD	▨	高架道路

MISCELLANEOUS		其他
BOUNDARY OF PLANNING SCHEME	━ ◆ ━	規劃範圍界線
PLANNING AREA NUMBER	①	規劃區編號
BOUNDARY OF COUNTRY PARK	─ • ─	郊野公園界線
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)	△210	最高建築物高度（在主水平基準上若干米）
PETROL FILLING STATION	P F S	加油站

土地用途及面積一覽表
SCHEDULE OF USES AND AREAS

USES	大約面積及百分率 APPROXIMATE AREA & %		用途
	公頃 HECTARES	% 百分率	
COMPREHENSIVE DEVELOPMENT AREA	34.45	2.00	綜合發展區
COMMERCIAL / RESIDENTIAL	20.07	1.17	商業 / 住宅
RESIDENTIAL (GROUP A)	152.68	8.88	住宅（甲類）
RESIDENTIAL (GROUP B)	4.49	0.26	住宅（乙類）
RESIDENTIAL (GROUP C)	0.66	0.04	住宅（丙類）
RESIDENTIAL (GROUP E)	4.00	0.23	住宅（戊類）
VILLAGE TYPE DEVELOPMENT	22.03	1.28	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	142.56	8.30	政府、機構或社區
OPEN SPACE	190.80	11.10	休憩用地
RECREATION	65.85	3.83	康樂
OTHER SPECIFIED USES	229.96	13.38	其他指定用途
GREEN BELT	752.93	43.81	綠化地帶
RAILWAY	4.54	0.26	鐵路
MAJOR ROAD ETC.	93.56	5.46	主要道路等
TOTAL PLANNING SCHEME AREA	1718.58	100.00	規劃範圍總面積

夾附的《註釋》屬這份圖則的一部分
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN

行政長官會同行政會議於２０２４年９月１７日　根據城市規劃條例第９（１）（ａ）條核准的圖則
APPROVED BY THE CHIEF EXECUTIVE IN COUNCIL UNDER SECTION 9(1)(a) OF THE TOWN PLANNING ORDINANCE ON 17 SEPTEMBER 2024

Ms Carmen KONG　江嘉敏女士
CLERK TO THE EXECUTIVE COUNCIL　行政會議秘書

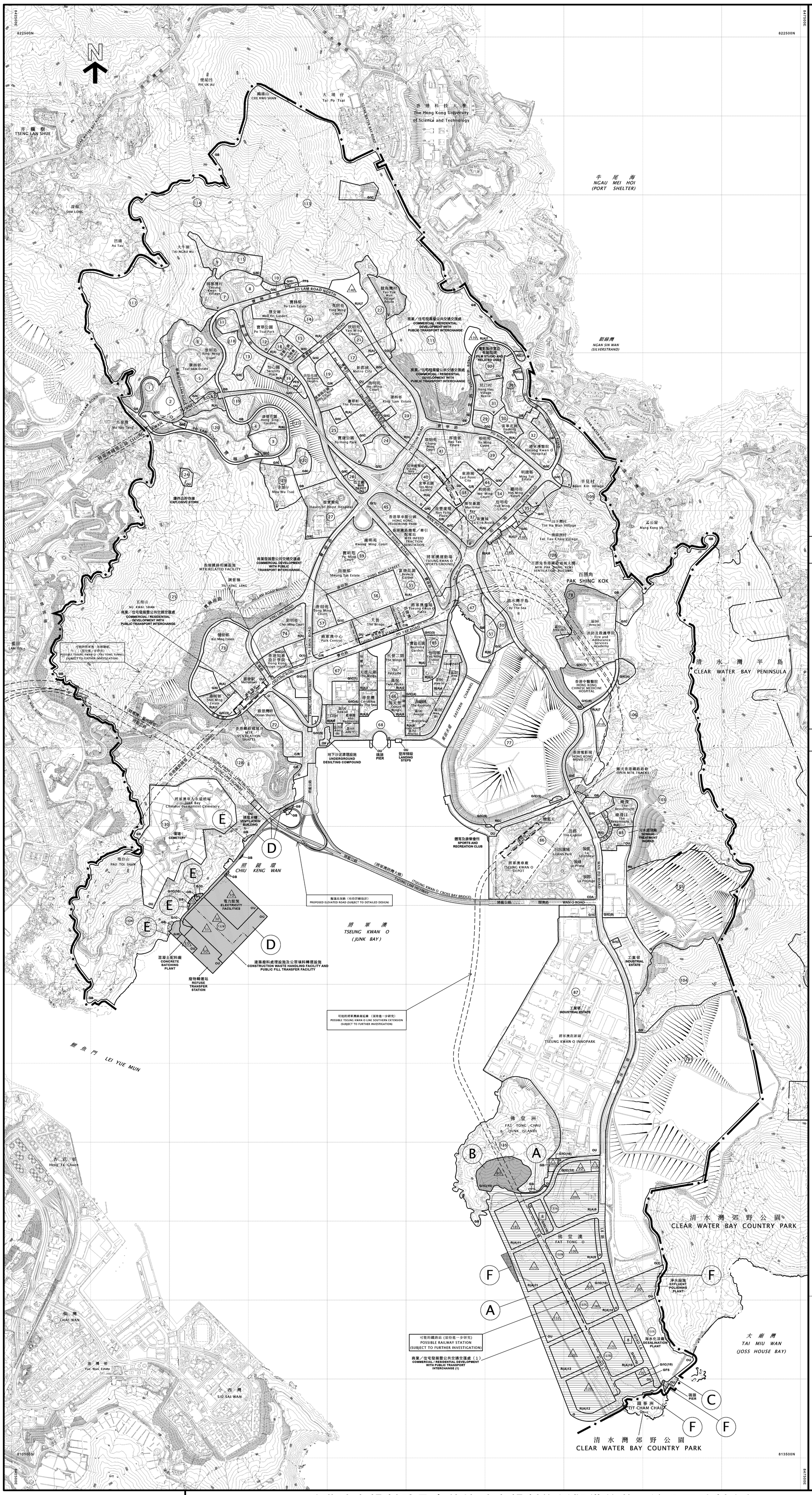
香港城市規劃委員會依據城市規劃條例擬備的將軍澳分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
TSEUNG KWAN O - OUTLINE ZONING PLAN

SCALE 1:10 000 比例尺

米 METRES 250　0　500　1 000　1 500 METRES 米

規劃署遵照城市規劃委員會指示擬備
PREPARED BY THE PLANNING DEPARTMENT UNDER THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號
PLAN No. S/TKO/30



圖例
NOTATION

ZONES		地帶
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
COMMERCIAL / RESIDENTIAL	C/R	商業 / 住宅
RESIDENTIAL (GROUP A)	R(A)	住宅（甲類）
RESIDENTIAL (GROUP B)	R(B)	住宅（乙類）
RESIDENTIAL (GROUP C)	R(C)	住宅（丙類）
RESIDENTIAL (GROUP E)	R(E)	住宅（戊類）
VILLAGE TYPE DEVELOPMENT	V	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	G/IC	政府、機構或社區
OPEN SPACE	O	休憩用地
RECREATION	REC	康樂
OTHER SPECIFIED USES	OU	其他指定用途
GREEN BELT	GB	綠化地帶

COMMUNICATIONS		交通
RAILWAY AND STATION	車站 STATION	鐵路及車站
RAILWAY AND STATION (UNDERGROUND)	車站 STATION	鐵路及車站（地下）
ELEVATED ROAD	▨	高架道路

MISCELLANEOUS		其他
BOUNDARY OF PLANNING SCHEME	━ ◆ ━	規劃範圍界線
PLANNING AREA NUMBER	①	規劃區編號
BOUNDARY OF COUNTRY PARK	— • —	郊野公園界線
BUILDING HEIGHT CONTROL ZONE BOUNDARY	—··—··—	建築物高度管制區界線
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)	△180	最高建築物高度（在主水平基準上若干米）
MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)	8	最高建築物高度（樓層數目）
PETROL FILLING STATION	P F S	加油站
GREEN FUEL STATION	G F S	潔淨能源站

土地用途及面積一覽表
SCHEDULE OF USES AND AREAS

USES	大約面積及百分率 APPROXIMATE AREA & %		用途
	公頃 HECTARES	% 百分率	
COMPREHENSIVE DEVELOPMENT AREA	34.45	1.96	綜合發展區
COMMERCIAL / RESIDENTIAL	20.07	1.14	商業 / 住宅
RESIDENTIAL (GROUP A)	199.08	11.30	住宅（甲類）
RESIDENTIAL (GROUP B)	4.49	0.25	住宅（乙類）
RESIDENTIAL (GROUP C)	0.66	0.04	住宅（丙類）
RESIDENTIAL (GROUP E)	4.00	0.23	住宅（戊類）
VILLAGE TYPE DEVELOPMENT	22.03	1.25	鄉村式發展
GOVERNMENT, INSTITUTION OR COMMUNITY	157.67	8.95	政府、機構或社區
OPEN SPACE	209.84	11.92	休憩用地
RECREATION	66.28	3.76	康樂
OTHER SPECIFIED USES	177.92	10.10	其他指定用途
GREEN BELT	746.83	42.41	綠化地帶
RAILWAY	4.54	0.26	鐵路
MAJOR ROAD ETC.	113.15	6.43	主要道路等
TOTAL PLANNING SCHEME AREA	1761.01	100.00	規劃範圍總面積

夾附的《註釋》屬這份圖則的一部分，
現經修訂並按照城市規劃條例第５條展示。
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN
AND HAVE BEEN AMENDED FOR EXHIBITION UNDER
SECTION 5 OF THE TOWN PLANNING ORDINANCE

核准圖編號 S/TKO/30 的修訂
AMENDMENTS TO APPROVED PLAN No. S/TKO/30

AMENDMENTS EXHIBITED UNDER SECTION 5 OF THE TOWN PLANNING ORDINANCE		按照城市規劃條例第５條展示的修訂
AMENDMENT ITEM A	☰	修訂項目 A 項
AMENDMENT ITEM B	▓	修訂項目 B 項
AMENDMENT ITEM C	≋	修訂項目 C 項
AMENDMENT ITEM D	▨	修訂項目 D 項
AMENDMENT ITEM E	░	修訂項目 E 項
AMENDMENT ITEM F	▦	修訂項目 F 項

（參看附表）
(SEE ATTACHED SCHEDULE)

香港城市規劃委員會依據城市規劃條例擬備的將軍澳分區計劃大綱圖
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD
TSEUNG KWAN O - OUTLINE ZONING PLAN

SCALE 1:10 000 比例尺

米 METRES 250 0 500 1 000 1 500 METRES 米

規劃署遵照城市規劃委員會指示擬備
PREPARED BY THE PLANNING DEPARTMENT UNDER
THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號
PLAN No. **S/TKO/30A**

~~APPROVED~~ *DRAFT* TSEUNG KWAN O OUTLINE ZONING PLAN NO. S/TKO/30*A*

(Being ~~an Approved~~ ***a Draft*** Plan for the Purposes of the Town Planning Ordinance)

NOTES

(N.B. These form part of the Plan)

(1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board, with or without conditions, on application. Where permission from the Town Planning Board for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the Town Planning Board, from whom the prescribed application form may be obtained.

(2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.

(3) (a) No action is required to make the existing use of any land or building conform to this Plan until there is a material change of use or the building is redeveloped.

(b) Any material change of use or any other development (except minor alteration and/or modification to the development of the land or building in respect of the existing use which is always permitted) or redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the Town Planning Board.

(c) For the purposes of subparagraph (a) above, "existing use of any land or building" means –

(i) before the publication in the Gazette of the notice of the first statutory plan covering the land or building (hereafter referred as 'the first plan'),

- a use in existence before the publication of the first plan which has continued since it came into existence; or

- a use or a change of use approved under the Buildings Ordinance which relates to an existing building; and

(ii) after the publication of the first plan,

- a use permitted under a plan which was effected during the effective period of that plan and has continued since it was effected; or

- a use or a change of use approved under the Buildings Ordinance which relates to an existing building and permitted under a plan prevailing at the time when the use or change of use was approved.

(4) Except as otherwise specified by the Town Planning Board, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board, all permissions granted by the Town Planning Board in respect of the site of the use or material change of use or development or redevelopment shall lapse.

(5) Road junctions, alignments of roads and railway tracks, and boundaries between zones may be subject to minor adjustments as detailed planning proceeds.

(6) Temporary uses (expected to be 5 years or less) of any land or building are always permitted as long as they comply with any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, and there is no need for these to conform to the zoned use or these Notes. For temporary uses expected to be over 5 years, the uses must conform to the zoned use or these Notes.

(7) The following uses or developments are always permitted on land falling within the boundaries of the Plan except where the uses or developments are specified in Column 2 of the Notes of individual zones:

(a) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, road, bus/public light bus stop or lay-by, cycle track, taxi rank, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;

(b) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and

(c) maintenance or repair of watercourse and grave.

(8) In any area shown as 'Road', all uses or developments except those specified in paragraph (7) above and those specified below require permission from the Town Planning Board:

toll plaza, on-street vehicle park and railway track.

(9) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate planning permission is required.

(10) In these Notes,

"existing building" means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.

"New Territories Exempted House" means a domestic building other than a guesthouse or a hotel; or a building primarily used for habitation, other than a guesthouse or a hotel, the ground floor of which may be used as 'Shop and Services' or 'Eating Place', the building works in respect of which are exempted by a certificate of exemption under Part III of the Buildings Ordinance (Application to the New Territories) Ordinance (Cap. 121).

~~APPROVED~~ *DRAFT* TSEUNG KWAN O OUTLINE ZONING PLAN NO. S/TKO/30*A*

Schedule of Uses

COMPREHENSIVE DEVELOPMENT AREA

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	Ambulance Depot Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Flat Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Hotel House Information Technology and Telecommunications Industries Institutional Use (not elsewhere specified) Library Off-course Betting Centre Office Petrol Filling Station Pier 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) Recyclable Collection Centre Religious Institution Research, Design and Development Centre Residential Institution School Shop and Services Social Welfare Facility Training Centre Utility Installation for Private Project

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (cont'd)

Planning Intention

This zone is intended for comprehensive development/redevelopment of the area for residential and/or commercial uses with the provision of open space and other supporting facilities. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.

Remarks

(a) Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated "Comprehensive Development Area" shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information:

(i) the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;

(ii) the proposed total site area and gross floor area for various uses, total number of flats and flat size, where applicable;

(iii) the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;

(iv) the alignment, widths and levels of any roads proposed to be constructed within the area;

(v) the landscape and urban design proposals within the area;

(vi) programmes of development in detail;

(vii) an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;

(viii) a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;

(ix) a traffic impact assessment report to examine any possible traffic problems that may be caused by the proposed development and the proposed mitigation measures to tackle them; and

(x) such other information as may be required by the Town Planning Board.

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (cont'd)

Remarks (cont'd)

(b) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.

(c) 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 domestic gross floor area of 1,612,800m^2 and a maximum non-domestic gross floor area of 40,000m^2.

(d) In determining the maximum gross floor area for the purposes of paragraph (c) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded. Any floor space that is constructed or intended for use solely as public transport facilities or GIC facilities, as required by the Government, may also be disregarded.

(e) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the gross floor area restrictions stated in paragraph (c) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

COMMERCIAL / RESIDENTIAL

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Eating Place Educational Institution (in a commercial building or in the purpose-designed non-residential portion@ of an existing building only) Exhibition or Convention Hall Flat Government Use (not elsewhere specified) Hotel House Information Technology and Telecommunications Industries Library Off-course Betting Centre Office Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Residential Institution School (in free-standing purpose-designed school building, in a commercial building or in the purpose-designed non-residential portion@ of an existing building only) Shop and Services (not elsewhere specified) Social Welfare Facility Training Centre Utility Installation for Private Project Wholesale Trade	Broadcasting, Television and/or Film Studio Commercial Bathhouse/Massage Establishment Educational Institution (not elsewhere specified) Government Refuse Collection Point Hospital Institutional Use (not elsewhere specified) Petrol Filling Station Public Convenience Recyclable Collection Centre Religious Institution School (not elsewhere specified) Shop and Services (Motor Vehicle Showroom only)

@ Excluding floors containing wholly or mainly car parking, loading/unloading bay and/or plant room

Planning Intention

This zone is intended primarily for commercial and/or residential development. Commercial, residential and mixed commercial/residential uses are always permitted.

RESIDENTIAL (GROUP A)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Flat Government Use (not elsewhere specified) House Library Market Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances (on land designated "R(A)8" only) Place of Recreation, Sports or Culture Public Clinic Public Transport Terminus or Station (excluding open-air terminus or station) Residential Institution School (in free-standing purpose-designed building only) Social Welfare Facility Utility Installation for Private Project	Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point Hospital Hotel Institutional Use (not elsewhere specified) Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances (except on land designated "R(A)8") Office Petrol Filling Station Place of Entertainment Private Club Public Convenience Public Transport Terminus or Station (not elsewhere specified) Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution School (not elsewhere specified) Shop and Services (not elsewhere specified) Training Centre

(Please see next page)

RESIDENTIAL (GROUP A) (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
In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading/unloading bays and/or plant room: Eating Place Educational Institution Institutional Use (not elsewhere specified) Off-course Betting Centre Office Place of Entertainment Private Club Public Convenience Recyclable Collection Centre School Shop and Services Training Centre	

Planning Intention

This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

(Please see next page)

RESIDENTIAL (GROUP A) (cont'd)

Remarks

(a) ***On land designated "R(A)1" to "(R(A)12", no*** ~~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 plot ratio, site coverage and building height specified below, or the plot ratio, site coverage and height of the existing building, whichever is the greater:

Sub-area		Maximum Domestic Plot Ratio	Maximum Non- Domestic Plot Ratio	Maximum Site Coverage (excluding basement(s))	Maximum Building Height (metres above Principal Datum)
R(A)1		5.5	0.5	-	138
R(A)2		5	0.5	50%	100
R(A)3		4	0.5	50%	100
R(A)4	Area (a)	3	0.5	50%	65
	Area (b)	3	0.5	50%	35
R(A)5		3	0.5	50%	65
R(A)6	Area (a)	2	0.5	50%	50
	Area (b)	2	0.5	50%	35
	Area (c)	2	0.5	50%	60
R(A)9		***7.5***	***0.3***	***-***	***As stipulated on the Plan***
R(A)10		***7***	***0.3***	***-***	***As stipulated on the Plan***
R(A)11		***6***	***0.3***	***-***	***As stipulated on the Plan***
R(A)12		***4***	***0.3***	***-***	***As stipulated on the Plan***

(Please see next page)

RESIDENTIAL (GROUP A) (cont'd)

Remarks (cont'd)

(b) On land designated "R(A)7", 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 plot ratio of 6.5 and a maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the existing building, whichever is the greater.

(c) On land designated "R(A)8", 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 plot ratio of 6 and a maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the existing building, whichever is the greater.

(d) On land designated "R(A)3" in Area 65, a public open space of not less than 4,600m^2 shall be provided in the southern portion and at the street level.

(e) In determining the maximum plot ratio for the purposes of paragraphs (a) to (c) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.

(f) In determining the maximum plot ratio for the purpose of paragraph (c) above, any floor space that is constructed or intended for use solely as railway facilities, as required by the Government, may be disregarded.

(g) ***On land designated "R(A)9", "R(A)10", "R(A)11" and "R(A)12", in determining the maximum plot ratio for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or Government, institution or community facilities, as required by the Government, may be disregarded.***

(~~g~~***h***) In determining the maximum site coverage for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room, caretaker's office and caretaker's quarters, or recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, shall be included for calculation.

(~~h~~***i***) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/site coverage/building height restrictions stated in paragraphs (a) to (c) above and minor adjustment to the boundaries of Areas (a)/(b) of "R(A)4" and/or Areas (a)/(b)/(c) of "R(A)6" as shown on the Plan may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

RESIDENTIAL (GROUP B)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Flat Government Use (Police Reporting Centre, Post Office only) House Library Residential Institution School (in free-standing purpose-designed building only) Utility Installation for Private Project	Ambulance Depot Eating Place Educational Institution Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Hotel Institutional Use (not elsewhere specified) Off-course Betting Centre Office Petrol Filling Station 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) Recyclable Collection Centre Religious Institution School (not elsewhere specified) Shop and Services Social Welfare Facility Training Centre

Planning Intention

This zone is intended primarily for medium-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Town Planning Board.

RESIDENTIAL (GROUP C)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Flat Government Use (Police Reporting Centre, Post Office only) House Utility Installation for Private Project	Ambulance Depot Eating Place Educational Institution Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Hotel Institutional Use (not elsewhere specified) Library Petrol Filling Station 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) Recyclable Collection Centre Religious Institution Residential Institution School Shop and Services Social Welfare Facility Training Centre

Planning Intention

This zone is intended primarily for low-rise, low-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Town Planning Board.

(Please see next page)

RESIDENTIAL (GROUP C) (cont'd)

Remarks

(a) 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 plot ratio, site coverage and building height specified below, or the plot ratio, site coverage and height of the existing building, whichever is the greater:

Sub-area	Maximum Plot Ratio	Maximum Site Coverage	Maximum Building Height
R(C)1	0.6	30%	2 storeys over one level of carport
R(C)2	1	-	4 storeys over one level of carport

(b) In determining the maximum plot ratio and site coverage for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.

(c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/site coverage/building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

RESIDENTIAL (GROUP E)

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

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

Ambulance Depot
Government Use (not elsewhere specified)
Public Transport Terminus or Station (excluding open-air terminus or station)
Utility Installation for Private Project

Commercial Bathhouse/Massage Establishment
Eating Place
Educational Institution
Exhibition or Convention Hall
Flat
Government Refuse Collection Point
Hospital
Hotel
House
Institutional Use (not elsewhere specified)
Library
Office
Petrol Filling Station
Place of Entertainment
Place of Recreation, Sports or Culture
Private Club
Public Clinic
Public Convenience
Public Transport Terminus or Station (not elsewhere specified)
Public Utility Installation
Public Vehicle Park (excluding container vehicle)
Religious Institution
Residential Institution
School
Shop and Services
Social Welfare Facility
Training Centre

(Please see next page)

RESIDENTIAL (GROUP E) (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
In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading/unloading bays and/or plant room: Eating Place Educational Institution Institutional Use (not elsewhere specified) Library Off-course Betting Centre Office Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Recyclable Collection Centre School Shop and Services Social Welfare Facility Training Centre	

(Please see next page)

RESIDENTIAL (GROUP E) (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

Schedule II : for existing industrial or industrial-office building[@]

Ambulance Depot
Art Studio (excluding those involving direct provision of services or goods)
Cargo Handling and Forwarding Facility (not elsewhere specified)
Eating Place (Canteen only)
Government Refuse Collection Point
Government Use (not elsewhere specified)
Information Technology and Telecommunications Industries
Non-polluting Industrial Use (excluding industrial undertakings involving the use/storage of Dangerous Goods[△])
Office (Audio-visual Recording Studio, Design and Media Production, Office Related to Industrial Use only)
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
Research, Design and Development Centre
Shop and Services (Motor Vehicle Showroom on ground floor, Service Trades only)
Utility Installation for Private Project
Warehouse (excluding Dangerous Goods Godown)
Cargo Handling and Forwarding Facility (Container Freight Station, free-standing purpose-designed Logistics Centre only)
Industrial Use (not elsewhere specified)
Off-course Betting Centre
Office (not elsewhere specified)
Petrol Filling Station
Place of Recreation, Sports or Culture (not elsewhere specified)
Private Club
Shop and Services (not elsewhere specified) (ground floor only except Ancillary Showroom[#] which may be permitted on any floor)
Vehicle Repair Workshop
Wholesale Trade

(Please see next page)

RESIDENTIAL (GROUP E) (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
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:
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 used by industrial or industrial-office purpose respectively as approved by the Building Authority.

[△] 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.

(Please see next page)

RESIDENTIAL (GROUP E) (cont'd)

Planning Intention

This zone is intended primarily for phasing out of existing industrial uses through redevelopment (or conversion) for residential use on application to the Town Planning Board. Whilst existing industrial uses will be tolerated, new industrial developments are not permitted in order to avoid perpetuation of industrial/residential interface problem.

Remarks

(a) 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 plot ratio of 5.0 and a maximum building height of 130m.

(b) In determining the maximum plot ratio for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded. Any floor space that is constructed or intended for use solely as public vehicle park and public transport facilities, as required by the Government, may also be disregarded.

(c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by Town Planning Board on application under section 16 of the Town Planning Ordinance.

VILLAGE TYPE DEVELOPMENT

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use ***Government Refuse Collection Point*** Government Use (Police Reporting Centre, Post Office only) House (New Territories Exempted House only) On-Farm Domestic Structure ***Public Convenience*** Religious Institution (Ancestral Hall only) Rural Committee/Village Office	Eating Place ***Field Study/Education/Visitor Centre*** ~~Government Refuse Collection Point~~ Government Use (not elsewhere specified)# House (not elsewhere specified) Institutional Use (not elsewhere specified)# Petrol Filling Station Place of Recreation, Sports or Culture Public Clinic ~~Public Convenience~~ Public Transport Terminus or Station Public Utility Installation# Public Vehicle Park (excluding container vehicle) Religious Institution (not elsewhere specified)# Residential Institution# School# Shop and Services Social Welfare Facility# Utility Installation for Private Project
In addition, the following uses are always permitted on the ground floor of a New Territories Exempted House:	
Eating Place Library School Shop and Services	

(Please see next page)

VILLAGE TYPE DEVELOPMENT (cont'd)

Planning Intention

The planning intention of this zone is to reflect existing recognized and other villages, and to provide land considered suitable for village expansion and reprovisioning of village houses affected by Government projects. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Town Planning Board.

Remarks

(a) No new development, or addition, alteration and/or modification to or redevelopment of an existing building (except development or redevelopment to those annotated with #) shall result in a total development and/or redevelopment in excess of a maximum building height of 3 storeys (8.23m) or the height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

GOVERNMENT, INSTITUTION OR COMMUNITY

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Animal Quarantine Centre (in Government building only) Broadcasting, Television and/or Film Studio Cable Car Route and Terminal Building Eating Place (Canteen, Cooked Food Centre only) Educational Institution Exhibition or Convention Hall Field Study/Education/Visitor Centre Government Refuse Collection Point Government Use (not elsewhere specified) Hospital Information Technology and Telecommunications Industries (***on land designated*** ~~within~~ "G/IC(9)" only) Institutional Use (not elsewhere specified) Library Market Pier Place of Recreation, Sports or Culture Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution Research, Design and Development Centre Rural Committee/Village Office School Service Reservoir Social Welfare Facility Training Centre Wholesale Trade	Animal Boarding Establishment Animal Quarantine Centre (not elsewhere specified) Columbarium Correctional Institution Crematorium Driving School Eating Place (not elsewhere specified) Flat Funeral Facility Holiday Camp Hotel House Marine Fuelling Station Off-course Betting Centre Office Petrol Filling Station Place of Entertainment Private Club Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation Refuse Disposal Installation (Refuse Transfer Station only) Residential Institution Sewage Treatment/Screening Plant Shop and Services (not elsewhere specified) Utility Installation for Private Project Zoo

(Please see next page)

GOVERNMENT, INSTITUTION OR COMMUNITY (cont'd)

Planning Intention

This zone is intended primarily for the provision of Government, institution or community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

Remarks

(a) ***On land designated "G/IC(1)" to "G/IC(10)", no*** ~~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 height specified below, or the height of the existing building, whichever is the greater:

Sub-area		Maximum Building Height
G/IC(1)		75m
G/IC(2)		55m
G/IC(3)		45m
G/IC(4)		40m
G/IC(5)		10m
G/IC(6)		5m
G/IC(7)	Area (a)	100mPD, except a fire services rescue training tower up to 114mPD
	Area (b)	120mPD
G/IC(8)		106mPD
G/IC(9)		60mPD, except a communications tower up to 76mPD
G/IC(10)		***As stipulated on the Plan***

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

OPEN SPACE

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Aviary Barbecue Spot Field Study/Education/Visitor Centre Library (***on land designated***~~within~~ "O(1)" only) Park and Garden Pavilion Pedestrian Area Place of Recreation, Sports or Culture (***on land designated***~~within~~ "O(1)" only) Picnic Area Playground/Playing Field Promenade Public Convenience Sitting Out Area Zoo	Cable Car Route and Terminal Building Eating Place Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp Pier Place of Entertainment Place of Recreation, Sports or Culture (not elsewhere specified) Private Club Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution Service Reservoir Shop and Services Tent Camping Ground Utility Installation for Private Project

Planning Intention

This zone is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

OPEN SPACE (2)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Aviary Barbecue Spot Field Study/Education/Visitor Centre Landfill Park and Garden Pavilion Pedestrian Area Picnic Area Playground/Playing Field Promenade Public Convenience Sitting Out Area Zoo	Cable Car Route and Terminal Building Eating Place Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution Service Reservoir Shop and Services Tent Camping Ground Utility Installation for Private Project

Planning Intention

This zone is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public after the decommissioning and restoration of the landfill site, while permitting landfill use in the interim.

RECREATION

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Field Study/Education/Visitor Centre Government Use (Police Reporting Centre only) Holiday Camp Picnic Area Place of Recreation, Sports or Culture Public Convenience Tent Camping Ground	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Eating Place Golf Course Government Refuse Collection Point Government Use (not elsewhere specified) Marina Pier Place of Entertainment Private Club Public Utility Installation Public Vehicle Park (excluding container vehicle) Residential Institution Shop and Services Theme Park Utility Installation for Private Project Zoo

Planning Intention

This zone is intended primarily for recreational developments for the use of the general public. It encourages the development of active and/or passive recreation and tourism/eco-tourism. Uses in support of the recreational developments may be permitted on application to the Town Planning Board.

Remarks

(a) 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 plot ratio of 0.1 and a maximum building height of 1 storey, or the plot ratio and height of the existing building, whichever is the greater.

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

OTHER SPECIFIED USES

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

For "Commercial Development with Public Transport Interchange" Only

Ambulance Depot
Commercial Bathhouse/Massage Establishment
Eating Place
Educational Institution
Exhibition or Convention Hall
Government Use (not elsewhere specified)
Hotel
Information Technology and Telecommunications Industries
Institutional Use (not elsewhere specified)
Library
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)
Recyclable Collection Centre
Religious Institution
School
Shop and Services
Social Welfare Facility
Training Centre
Utility Installation for Private Project
Wholesale Trade
Broadcasting, Television and/or Film Studio
Flat
Government Refuse Collection Point
Hospital
Petrol Filling Station
Residential Institution

Planning Intention

This zone is intended primarily for commercial developments, which may include uses such as office, shop and services, place of entertainment, eating place and hotel, with public transport interchange facilities serving as a major employment node and a commercial**,** retail and entertainment centre for the New Town as well as for Sai Kung hinterland.

(Please see next page)

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 "Commercial/Residential Development with Public Transport Interchange" Only

Ambulance Depot
Eating Place
Educational Institution
(in a commercial building or in the purpose-designed non-residential portion[@] of an existing building only)
Exhibition or Convention Hall
Flat
Government Use (not elsewhere specified)
Hotel
House
Information Technology and Telecommunications Industries
Library
Off-course Betting Centre
Office
Place of Entertainment
Place of Recreation, Sports or Culture
Private Club
Public Clinic
Public Transport Terminus or Station
Public Utility Installation
Public Vehicle Park (excluding container vehicle)
Residential Institution
School (in free-standing purpose-designed school building, in a commercial building or in the purpose-designed non-residential portion[@] of an existing building only)
Shop and Services (not elsewhere specified)
Social Welfare Facility
Training Centre
Utility Installation for Private Project
Wholesale Trade

Broadcasting, Television and/or Film Studio
Commercial Bathhouse/Massage Establishment
Educational Institution (not elsewhere specified)
Government Refuse Collection Point
Hospital
Institutional Use (not elsewhere specified)
Petrol Filling Station
Public Convenience
Recyclable Collection Centre
Religious Institution
School (not elsewhere specified)
Shop and Services (Motor Vehicle Showroom only)

[@] Excluding floors containing wholly or mainly car parking, loading/unloading bay and/or plant room

(Please see next page)

OTHER SPECIFIED USES (cont'd)

For "Commercial/Residential Development with Public Transport Interchange" Only (cont'd)

Planning Intention

This zone is intended primarily for commercial and/or residential development with public transport interchange facilities. Commercial, residential and mixed commercial/residential uses are always permitted.

Remarks

(a) On land designated "Other Specified Uses" annotated "Commercial/Residential Development with Public Transport Interchange (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 domestic plot ratio of 5, a maximum non-domestic plot ratio of 1 and the maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the existing building, whichever is the greater.

(b) In determining the maximum plot ratio for the purposes of paragraphs (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded. Any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or Government, institution or community facilities, as required by the Government, may also be disregarded.

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

(Please see next page)

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 "Sports and Recreation Club" Only

Place of Recreation, Sports or Culture Private Club	Eating Place Government Refuse Collection Point Government Use (not elsewhere specified) Public Vehicle Park (excluding container vehicle) Shop and Services Social Welfare Facility Utility Installation for Private Project

Planning Intention

This zone is intended primarily to reserve land for water sports and recreation facilities.

Remarks

(a) 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 plot ratio of 0.5, a maximum site coverage of 50% and a maximum building height of 1 storey, or the plot ratio, site coverage and height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/site coverage/building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(Please see next page)

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 "Industrial Estate" Only

Ambulance Depot
Broadcasting, Television and/or Film Studio
Cargo Handling and Forwarding Facility
Dangerous Goods Godown
Eating Place
Gas Works
Government Refuse Collection Point
Government Use (not elsewhere specified)
Industrial Use
Information Technology and Telecommunications Industries
Marine Fuelling Station
Office
Petrol Filling Station
Pier
Private Club
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
Refuse Disposal Installation
Research, Design and Development Centre
Shop and Services
Social Welfare Facility (excluding those involving residential care)
Training Centre
Utility Installation for Private Project
Warehouse (excluding Dangerous Goods Godown)
Wholesale Trade
Electric Power Station
Off-course Betting Centre
Offensive Trades
Oil Depot, Oil Refinery and Petro-chemical Plant
Place of Recreation, Sports or Culture
Service Industries (not elsewhere specified)

Planning Intention

This zone is intended primarily to provide/reserve land for the development of an industrial estate for industries to be admitted by the Hong Kong Science and Technology Parks Corporation according to the criteria set by the Corporation. Industries to be included would normally not be accommodated in conventional industrial buildings because of their specific requirements.

(Please see next page)

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 "Deep Waterfront Industry" Only

Ambulance Depot
Cargo Handling and Forwarding Facility
Eating Place (Canteen, Cooked Food Centre only)
Government Refuse Collection Point
Government Use (not elsewhere specified)
Industrial Use (Motor-vehicle-Assembly Plant, Paint Manufacturing, Service Trades, Steel Works only)
Information Technology and Telecommunications Industries
Marine Fuelling Station
Open Storage of Construction Materials
Open Storage of Cement/Sand
Petrol Filling Station
Pier
Public Convenience
Public Transport Terminus or Station
Public Utility Installation
Public Vehicle Park (excluding container vehicle)
Recyclable Collection Centre
Research, Design and Development Centre
Refuse Disposal Installation
Ship-building, Ship-breaking and Ship-repairing Yard
Utility Installation for Private Project
Warehouse (excluding Dangerous Goods Godown)
Asphalt Plant/Concrete Batching Plant
Container Storage/Repair Yard
Container Vehicle Park/Container Vehicle Repair Yard
Dangerous Goods Godown
Eating Place (not elsewhere specified)
Electric Power Station
Gas Works
Industrial Use (not elsewhere specified)
Off-course Betting Centre
Office
Oil Depot, Oil Refinery and Petro-chemical Plant
Place of Recreation, Sports or Culture
Private Club
Shop and Services
Social Welfare Facility
Training Centre
Wholesale Trade

Planning Intention

This zone is intended primarily for special industries which require marine access, access to deep water berths or water frontage. Industries to be accommodated within this zone are usually capital intensive, land-intensive and cannot be accommodated in conventional industrial buildings.

(Please see next page)

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 "Film Studio and Related Uses" Only	
As Specified on the Plan	Creative Industries (not elsewhere specified) Eating Place Exhibition or Convention Hall Flat Hotel House Institutional Use (not elsewhere specified) Office Place of Entertainment Place of Recreation, Sports or Culture Public Utility Installation Public Vehicle Park (excluding container vehicle) Residential Institution Shop and Services Training Centre

Planning Intention

This zone is intended primarily for the provision of a film studio and related uses to facilitate film production, distribution and other related functions.

Remarks

(a) 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 building height of 7 storeys, or height of the existing building, whichever is the greater.

(b) In determining the maximum number of storeys for the purposes of paragraph (a) above, any basement floor(s) may be disregarded.

(c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(Please see next page)

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 "Electricity Facilities" Only

Electricity Facilities	***Government Use (not elsewhere specified)*** ***Public Utility Installation***

Planning Intention

This zone is primarily intended for the provision of electricity facilities.

Remarks

(a) 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 height, in terms of metres above Principal Datum, as stipulated on the Plan, or height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

(Please see next page)

***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 "Construction Waste Handling Facility and Public Fill Transfer Facility" Only

Construction Waste Handling Facility	*Government Use (not elsewhere specified)*
Public Fill Transfer Facility	*Public Utility Installation*

Planning Intention

This zone is primarily intended for the provision of construction waste handling facility and public fill transfer facility.

Remarks

(a) ***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 height, in terms of metres above Principal Datum, as stipulated on the Plan, or height of the existing building, whichever is the greater.***

(b) ***Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.***

(Please see next page)

***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 "Refuse Transfer Station" Only

Refuse Transfer Station	*Government Use (not elsewhere specified)* *Public Utility Installation*

Planning Intention

This zone is primarily intended for the provision of refuse transfer station.

Remarks

(a) ***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 height, in terms of metres above Principal Datum, as stipulated on the Plan, or height of the existing building, whichever is the greater.***

(b) ***Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.***

(Please see next page)

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 "Concrete Batching Plant" Only	
Concrete Batching Plant	*Government Use* *Public Utility Installation*

Planning Intention

This zone is primarily intended for the provision of concrete batching plant.

Remarks

(a) 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 height, in terms of metres above Principal Datum, as stipulated on the Plan, or height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

For "Desalination Plant" Only	
Desalination Plant	Government Use
Pier	Utility Installation not ancillary to the Specified Use

Planning Intention

This zone is intended primarily for the development of a desalination plant to provide fresh water serving the needs of the community.

(Please see next page)

***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 "Cemetery" Only

Columbarium	Place of Recreation, Sports or Culture
Crematorium	Public Transport Terminus or Station
Funeral Facility	Public Utility Installation
Government Use (not elsewhere specified)	Religious Institution
Grave	Shop and Services (Retail Shop only)
Public Convenience	Utility Installation for Private Project

Planning Intention

This zone is intended primarily for the provision of land for cemetery use serving the needs of the community.

For "Petrol Filling Station" Only

Petrol Filling Station	Government Use Public Utility Installation Workshop (Vehicle Repair Workshop only)

Planning Intention

This zone is intended primarily for the provision of petrol filling station serving the needs of the community.

For "Green Fuel Station" Only

Green Fuel Station	***Government Use*** ***Public Utility Installation***

Planning Intention

This zone is intended primarily for the provision of green fuel station for vehicles serving the needs of the community.

(Please see next page)

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 "Pier" Only

Government Use Pier	Eating Place Marine Fuelling Station Shop and Services Utility Installation for Private Project

Planning Intention

This zone is primarily intended for the provision of pier for recreation and pleasure vessels and tourism to serve the needs of the community and to enhance the recreation and tourism potential of the area.

Remarks

Kiosks ***or premises*** not ***in excess of a maximum total non-domestic gross floor area of 100m^2*** ~~greater than 10m^2 each in area and not more than 10 in number~~ for uses as ***eating place and*** shop and services are considered as ancillary to "~~pier~~***Pier***" use.

For "Ventilation Building" only

Ventilation Building	Government Use Utility Installation not ancillary to the Specified Use

Planning Intention

This zone is intended primarily for the development of ventilation building.

(Please see next page)

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 "Effluent Polishing Plant" Only	
Effluent Polishing Plant	***Government Use (not elsewhere specified)*** ***Public Utility Installation***

Planning Intention

This zone is intended primarily for the development of an effluent polishing plant serving the needs of the community.

Remarks

(a) 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 height, in terms of metres above Principal Datum, as stipulated on the Plan, or height of the existing building, whichever is the greater.

(b) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restriction stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

For All Other Sites (Not Listed Above)

As Specified on the Plan	Government Use ***Public Utility Installation*** ~~Utility Installation not ancillary to the Specified Use~~

Planning Intention

These zones are intended primarily to provide land for the specified use serving the specific needs of the community.

GREEN BELT

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use Barbecue Spot Government Use (Police Reporting Centre only) Nature Reserve Nature Trail On-Farm Domestic Structure Picnic Area Public Convenience Tent Camping Ground Wild Animals Protection Area	Animal Boarding Establishment Broadcasting, Television and/or Film Studio Cable Car Route and Terminal Building Columbarium (within a Religious Institution or extension of existing Columbarium only) Crematorium (within a Religious Institution or extension of existing Crematorium only) Field Study/Education/Visitor Centre Flat Government Refuse Collection Point Government Use (not elsewhere specified) Helicopter Landing Pad Holiday Camp House Marine Fuelling Station Petrol Filling Station Pier Place of Recreation, Sports or Culture 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 Religious Institution Residential Institution Rural Committee/Village Office School Service Reservoir Social Welfare Facility Utility Installation for Private Project Zoo

Planning Intention

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone.

~~APPROVED~~ *DRAFT* TSEUNG KWAN O OUTLINE ZONING PLAN NO. S/TKO/30*A*

EXPLANATORY STATEMENT

EXPLANATORY STATEMENT

~~APPROVED~~ *DRAFT* TSEUNG KWAN O OUTLINE ZONING PLAN NO. S/TKO/30*A*

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~~APPROVED~~ *DRAFT* TSEUNG KWAN O OUTLINE ZONING PLAN NO. S/TKO/30 ***A***

(Being an ~~Approved~~ ***Draft*** Plan for the Purposes of the Town Planning Ordinance)

EXPLANATORY STATEMENT

Note: For the purposes of the Town Planning Ordinance, this Statement shall not be deemed to constitute a part of the Plan.

1. INTRODUCTION

This Explanatory Statement is intended to assist an understanding of the ~~approved~~ ***draft*** Tseung Kwan O Outline Zoning Plan (OZP) No. S/TKO/30***A***. It reflects the planning intention and objectives of the Town Planning Board (the Board) for various land-use zonings of the Plan.

2. AUTHORITY FOR THE PLAN AND PROCEDURE

2.1 On 11 December 1992, the draft Tseung Kwan O OZP No. S/TKO/1, the first statutory plan covering the Tseung Kwan O area, was gazetted under section 5 of the Town Planning Ordinance (the Ordinance). The OZP was subsequently amended twice ***and exhibited for public inspection under section 5 of the Ordinance***.

2.2 On 16 July 1996, the then Governor in Council, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/4. On 4 November 1997, the Chief Executive in Council (CE in C) referred the approved OZP No. S/TKO/4 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.

2.3 On 9 February 1999, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/6. On 20 July 1999, the CE in C referred the approved OZP No. S/TKO/6 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended three times and exhibited for public inspection under section 7 or 12(3) of the Ordinance.

2.4 On 15 May 2001, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/10. On 25 September 2001, the CE in C referred the approved OZP No. S/TKO/10 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended twice and exhibited for public inspection under section 5 or 7 of the Ordinance.

2.5 On 17 December 2002, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/13. On 8 July 2003, the CE in C referred the approved OZP No. S/TKO/13 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.

2.6 On 2 November 2004, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/15. On 30 May 2006, the CE in C referred the approved OZP No. S/TKO/15 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance~~ to reflect the relevant recommendations of the Feasibility Study for Further Development of Tseung Kwan O (the Study)~~.

2.7 On 2 June 2009, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/17. On 1 December 2009, the Secretary for Development (SDEV), under the delegated authority of the Chief Executive (CE), directed the Board under section 3(1)(a) of the Ordinance to extend the planning scheme boundary of the Tseung Kwan O OZP to cover a piece of land proposed to be excised from the Clear Water Bay Country Park~~ (CWBCP)~~ for the proposed South East New Territories Landfill Extension. On 2 February 2010, the CE in C referred the approved OZP No. S/TKO/17 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended twice, including ~~the~~ exclusion of ~~about 5 ha of CWBCP~~ ***the piece of*** land ***in Clear Water Bay Country Park*** from the planning scheme boundary~~ of the Tseung Kwan O OZP~~, and was exhibited for public inspection under section 5 or 7 of the Ordinance.

2.8 On 17 April 2012, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/20. On 29 April 2014, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/20 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. ~~On 16 May 2014, the reference was notified in the Gazette under section 12(2) of the Ordinance.~~ ***The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.***

~~2.9 On 27 February 2015, the draft Tseung Kwan O OZP No. S/TKO/21 incorporating amendments mainly to rezone a site in Area 85 from "Other Specified Uses" annotated "Sewage Treatment Works" to "Government, Institution or Community (9)" to facilitate a proposed data centre development was exhibited for public inspection under section 5 of the Ordinance. In addition, the road schemes of the Tseung Kwan O – Lam Tin Tunnel and the Cross Bay Link, Tseung Kwan O authorized by the CE in C under the Roads (Works, Use and Compensation) Ordinance are shown on the Plan for information.~~

2.~~10~~***9*** On 1 December 2015, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered

as S/TKO/22. On 11 December 2015, the approved Tseung Kwan O OZP No. S/TKO/22 was exhibited for public inspection under section 9(5) of the Ordinance. ~~On 5 April 2016, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/22 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference was notified in the Gazette on 15 April 2016 under section 12(2) of the Ordinance.~~

2.~~11~~***10 On 5 April 2016, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/22 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.*** ~~On 24 June 2016, the draft Tseung Kwan O OZP No. S/TKO/23, incorporating an amendment to rezone a site in the south-eastern part of Tseung Kwan O Area 137 for desalination plant use, was exhibited for public inspection under section 5 of the Ordinance. In addition, the footbridge as described in the road scheme of the Tseung Kwan O further development infrastructure works for Tseung Kwan O Stage 1 Landfill Site as authorized by the CE in C under the Roads (Works, Use and Compensation) Ordinance is shown on the Plan for information.~~

2.~~12~~***11*** On 14 March 2017, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/24. On 24 March 2017, the approved Tseung Kwan O OZP No. S/TKO/24 was exhibited for public inspection under section 9(5) of the Ordinance. ~~On 27 June 2017, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/24 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference was notified in the Gazette on 7 July 2017 under section 12(2) of the Ordinance.~~

2.~~13~~***12 On 27 June 2017, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/24 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.*** ~~On 11 August 2017, the draft Tseung Kwan O OZP No. S/TKO/25, incorporating amendments to rezone five sites from "Green Belt" ("GB") to "Residential (Group A)7" ("R(A)7") to facilitate public housing development, including one in Area 114 to the north of Tseung Kwan O Village, one in Area 111 to the northwest of Ying Yip Road, one in Areas 35 and 108 to the south of Chiu Shun Road, one in Area 113 to the west of Yau Yue Wan Village and one in Area 106 to the east of Hong Kong Movie City, was exhibited for public inspection under section 5 of the Ordinance.~~

~~2.14 After consideration of the representations and comments under section 6B(1) of the Ordinance on 10 May and 21 June 2018, the Board decided to propose amendment to the draft Tseung Kwan O OZP No. S/TKO/25 by rezoning the site north of Tseung Kwan O Village from "R(A)7" to "GB". On 13 July 2018, the proposed amendment to the draft OZP was exhibited for public inspection under section 6C(2) of the Ordinance.~~

2.~~15~~***13*** On 16 October 2018, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/26. On 26 October 2018, the approved Tseung Kwan O OZP No.

S/TKO/26 was exhibited for public inspection under section 9(5) of the Ordinance. ~~On 17 December 2019, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/26 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference was notified in the Gazette on 27 December 2019 under section 12(2) of the Ordinance.~~

2.~~16~~***14*** ***On 17 December 2019, the CE in C referred the approved Tseung Kwan O OZP No. S/TKO/26 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.*** ~~On 19 June 2020, the draft Tseung Kwan O OZP No. S/TKO/27, incorporating amendments including mainly the rezoning of Pak Shing Kok Ventilation Building and its adjoining land from an area shown as 'MTR Pak Shing Kok Ventilation Building' and "GB" to "Residential (Group A)8", was exhibited for public inspection under section 5 of the Ordinance.~~

2.~~17~~***15*** On 1 June 2021, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/28. On 18 June 2021, the approved Tseung Kwan O OZP No. S/TKO/28 was exhibited for public inspection under section 9(5) of the Ordinance.

2.~~18~~***16*** On 8 September 2023, the Secretary for Development referred the approved Tseung Kwan O OZP No. S/TKO/28 to the Board for amendment under section 12(1A)(a)(ii) of the Ordinance~~. The reference back of the OZP was notified in the Gazette on 15 September 2023 under section 12(2) of the Ordinance~~. ***The OZP was subsequently amended and exhibited for public inspection under section 5 of the Ordinance.***

~~2.19 On 29 December 2023, the draft Tseung Kwan O OZP No. S/TKO/29, incorporating amendments to rezone a site at Ying Yip Road from "Comprehensive Development Area" to "Other Specified Uses" annotated "Film Studio and Related Uses" and another site at Hang Hau Road from "Residential (Group C)1" to "Residential (Group C)2", was exhibited for public inspection under section 5 of the Ordinance. During the two-month exhibition period, one representation was received. After giving consideration to the representation on 17 May 2024, the Board decided not to uphold the representation and not to amend the draft OZP to meet the representation.~~

2.~~20~~***17*** On 17 September 2024, the CE in C, under Section 9(1)(a) of the Ordinance, approved the draft Tseung Kwan O OZP, which was subsequently renumbered as S/TKO/30. On 27 September 2024, the approved Tseung Kwan O OZP No. S/TKO/30 ~~(the Plan)~~ was exhibited for public inspection under section 9D(2) of the Ordinance.

2.18 On 3 January 2025, the Secretary for Development referred the approved Tseung Kwan O OZP No. S/TKO/30 to the Board for amendment under section 12(1A)(a)(ii) of the Ordinance. The reference was notified in the Gazette on 10 January 2025 under section 12(2) of the Ordinance.

2.19 On 3 January 2025, the Secretary for Development, under the delegated authority of CE, directed the Board under section 3(1)(a) of the Ordinance to amend the planning scheme boundary of the Tseung Kwan O OZP to include three sea areas for reclamation in Fat Tong O and Chiu Keng Wan and include/excise various minor areas along the boundary of Clear Water Bay Country Park and existing shorelines of Tseung Kwan O into/from the planning scheme boundary.

2.20 On XX XXXX XXXX, the draft Tseung Kwan O OZP No. S/TKO/31 (the Plan), incorporating amendments mainly include the incorporation of two sea areas in Fat Tong O into the planning scheme boundary and zoning/rezoning of these sea areas and adjoining Tseung Kwan O Area 137 for primarily residential and Government, institution or community (GIC) developments, and incorporation of another sea area in Chiu Keng Wan into the planning scheme boundary and zoning it primarily for public facility developments, was exhibited for public inspection under section 5 of the Ordinance.

3. OBJECT OF THE PLAN

3.1 The object of the Plan is to indicate the broad land use zones and major transport networks for the Tseung Kwan O area so that development and redevelopment in the area can be subject to statutory planning control. Such control is necessary to develop Tseung Kwan O New Town into a balanced community.

3.2 The Plan is to illustrate the broad principles of development within the Planning Scheme Area. As it is a small-scale plan, the alignment of roads and the Mass Transit Railway (MTR) line as well as boundaries between the land use zones may be subject to minor alterations as detailed planning and development proceed.

3.3 Since the Plan is to show broad land use zonings, there would be situations in which small strips of land not intended for building development purposes and carry no development right under the lease, such as the areas restricted as non-building area or for garden, slope maintenance and access road purposes, are included in the zones. The general principle is that such areas should not be taken into account in plot ratio (PR) and site coverage (SC) calculation. Development within zones should be restricted to building lots carrying development right in order to maintain the character and amenity of the Tseung Kwan O area and not to overload the road network in this area.

4. NOTES OF THE PLAN

4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the Planning Scheme Area and in particular zones and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning

permission under section 16 of the Ordinance allows greater flexibility in land use planning and control of development to meet changing needs.

4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at http://www.tpb.gov.hk.

5. THE PLANNING SCHEME AREA

5.1 The Planning Scheme Area (the Area), which covers an area of about ~~1,718~~***1,761*** hectares (ha), is located at the southern part of Sai Kung District in the South East New Territories. It is bounded by Clear Water Bay Peninsula to the east, Junk Bay to the south, Lam Tin and Sau Mau Ping areas to the west, and Tseng Lan Shue and the Hong Kong University of Science and Technology to the north. The Area is surrounded by steep sloping hills in the north, east and west, and is physically segregated from East Kowloon and Clear Water Bay Peninsula.

5.2 ***In 2022, the Government announced that Tseung Kwan O Area 137 in Fat Tong O will be developed into a new community primarily for residential purpose. Moreover, a piece of land to be created in Chiu Keng Wan off Tseung Kwan O Area 132 will accommodate some public facilities serving the region which require marine frontage for their operation. These two new development areas of Tseung Kwan O New Town fall within the Area.***

5.~~2~~***3*** The boundary of the Area is shown in a heavy broken line on the Plan. For planning and reference purposes, the Area has been divided into a number of smaller planning areas as shown on the Plan.

6. POPULATION

Based on the 2021 Population Census, the population of the Area was estimated by the Planning Department as about 417,700 persons. It is estimated that the planned population of the Area would be about ~~473,900~~ ***608,900*** persons.

7. URBAN DESIGN FRAMEWORK

7.1 Tseung Kwan O is a third generation new town. Capitalizing on the enhanced accessibility brought about by ***MTR*** Tseung Kwan O ~~MTR~~ Line, high-density developments are located close to MTR stations at Po Lam, Hang Hau, Tseung Kwan O, Tiu Keng Leng and ***LOHAS Park***~~Tseung Kwan O South~~, each forming a district centre with its own retail and supporting facilities. ***Town Centre is located in Areas 56 and 66 in a central location served by MTR Tseung Kwan O Station and close to the civic square and the waterfront.*** The southeastern ***and southwestern*** part***s*** of the New Town ~~is~~ ***are*** reserved for specific uses to meet territorial needs, such as Tseung Kwan O InnoPark in Area 87~~, deep waterfront industries~~ ~~and~~ a desalination plant in Area 137***E***, landfills

and landfill extension in Areas 77, 101~~,~~ ***and*** 105~~ and 137~~***, and electricity facilities, a construction waste handling facility, a public fill transfer facility, a refuse transfer station and a concrete batching plant proposed in Area 132B***.

7.2 ***The higher intensity of the development sites close to MTR stations is balanced by the provision of ample open spaces and breezeways in different parts of the New Town. For better ventilation and air circulation, a comprehensive breezeway system is planned to channel valley winds, off-slope and sea breezes and seasonal prevailing winds into the urban core with two major 100m-wide breezeways, one along Po Shun Road, Tseung Lam Highway and Po Hong Road and another along Eastern Channel and the town park in Area 45, and three 75m-wide breezeways running through Town Centre South along Tong Chun Street and Tong Yin Street and Po Lam along MTR tracks. These breezeway systems are provided by suitably aligned open spaces, low-rise GIC facilities and major transport corridors. Developments within the breezeway corridors are subject to a maximum building height restriction of 30m above ground.***

Town Centre South

7.~~2~~***3*** As recommended under the ***Feasibility Study for Further Development of Tseung Kwan O***~~Study~~ completed in 2005, an urban design framework has been formulated mainly for the new development areas in Town Centre South, Tiu Keng Leng and Pak Shing Kok areas to direct the development of a coherent and legible structure of land uses, urban form and open spaces that is appropriate to the unique development context of a waterfront and valley setting of the New Town.

7.~~3~~***4*** The framework seeks to optimize opportunities afforded by the new development areas in Town Centre South to create a new and distinctive waterfront district that capitalizes on the dramatic visual and physical relationship of the natural landscape of the surrounding country parks and Junk Bay, with the objective of fostering a unique district identity. It also seeks to maximize the development potential of the existing Eastern Channel and Junk Bay by promoting water sports and recreation. The primary objective is to provide a high quality vibrant leisure and recreational area for the enjoyment of the Tseung Kwan O residents and visitors. The new development areas in the Town Centre South, Tiu Keng Leng and Pak Shing Kok areas are intended to be highly integrated with the hinterland through the provision of a comprehensive pedestrian circulation and open space framework and to incorporate architectural designs and landscape treatments that promote a positive public image of the New Town.

7.~~4~~***5*** The key features of the new development areas proposed under the urban design framework include the following:

(a) reduction in the population density within Town Centre South and Tiu Keng Leng from that formerly proposed for the area;

(b) diminution in building height towards the waterfront with modulation in building height at the waterfront to enhance variety in the height and

massing of new development;

(c) elimination of waterfront roads to promote a more pedestrian friendly and attractive waterfront district;

(d) provision of a "Central Avenue" which is a landscaped pedestrian retail corridor in the form of open space that links the commercial and entertainment node adjacent to MTR Tseung Kwan O Station with the waterfront;

(e) provision of a high quality waterfront park and promenade with related leisure and commercial uses;

(f) provision of a new riverine park along a landscaped corridor adjacent to the Eastern Channel that provides connections to the waterfront and opportunities for active and passive recreation;

(g) provision for water sports activity and recreation in the Eastern Channel and Junk Bay;

(h) continual provision of a comprehensive breezeway system by suitably aligned open space, low-rise ***GIC***~~Government, institution or community (GIC)~~ facilities and major road corridors to promote better ventilation ***and air circulation*** within the New Town;

(i) provision of a signature Civic Node and GIC cluster at the western gateway to the New Town at the intersection of Po Yap Road and Tseung Lam Highway;

(j) provision of 'breathing spaces' for the more densely populated areas such as Tiu Keng Leng, by the introduction of district parks and local open spaces;

(k) promotion of lively streetscapes and activities and avoidance of podium developments which may create 'dead' development edges; and

(l) development of Tseung Kwan O Cross Bay Bridge (formerly known as Tseung Kwan O Cross Bay Link) in the form of a landmark feature bridge.

Fat Tong O (Tseung Kwan O Area 137)

7.6 According to the "Planning and Engineering Study for Re-planning of Tseung Kwan O Area 137" and the "Development of Tseung Kwan O Area 137 and Associated Reclamation Sites - Investigation, Design and Construction", Area 137 is positioned as a new waterfront residential community with a strong sense of place and distinctive identity. An urban design framework has been formulated with the design concepts in the ensuring paragraphs.

7.7 Located in the southeastern end of the New Town, Area 137 is planned for

predominantly high-density residential development supported by a wide range of retail, community facilities, recreational and open space. Taking into account its prominent waterfront location, developments within the area will follow a stepping-down building height profile in two directions, from northeast hillside towards southwest waterfront, and from the north towards southern waterfront which opens to a long vista to South China Sea through Tathong Channel. Variation of building heights within development sites is also recommended to create a dynamic overall skyline.

7.8 ***A new railway station of Tseung Kwan O Line Southern Extension is proposed in the centre of Fat Tong O in Area 137C. Public transport interchanges will also be provided at selected sites close to future railway station and major residential sites. A comprehensive all-weather pedestrian network comprising footbridges, covered walkways at ground level and internal walkways at podium level of residential and commercial developments, will be provided to facilitate convenient pedestrian circulation between future railway station, individual residential sites and major activity nodes. The exact alignment of the pedestrian network is subject to further study, and will be stipulated in the Outline Development Plan (ODP) to be prepared.***

7.9 ***The presence of blue-green natural resources around Fat Tong O (Clear Water Bay Country Park and Junk Bay) allows close interaction of the developments with the natural environment. A network of linked open spaces in Area 137 connecting the waterfront and other green networks in Tseung Kwan O such as Clear Water Bay Country Park at the backdrop will be provided. A Gateway Plaza is proposed in the centre of Fat Tong O in Area 137C next to future railway station. Together with the signature joint-user government complex immediate next to the Gateway Plaza, this open space cum GIC cluster will be the civic space and main arrival node of the area. The future waterfront area will feature recreation-oriented quality public realms with good connectivity which would positively relate to the adjoining built environments. To facilitate diverse activities and organic growth of the community, and enhance vibrancy in the waterfront and major pedestrian corridor, retail frontage comprising shop and services and eating place are to be provided on the ground floor along the selected frontage of residential sites facing the waterfront and open space.***

7.10 ***Breezeways and visual corridors are intrinsically integrated with the land use layout of Area 137. Major roads and linear open spaces are arranged in alignment with prevailing winds and visually connecting the hillside of the Clear Water Bay Country Park and the waterfront.***

Reclamation in Chiu Keng Wan (Tseung Kwan O Area 132B)

7.11 ***Away from the population centre of the New Town of about 1km while close to the Tseung Kwan O-side portal of Tseung Kwan O – Lam Tin Tunnel, the proposed reclamation in Chiu Keng Wan in Area 132B is identified to house five region-specific public facilities that require marine frontages for operation. All developments on the reclaimed land should be low-rise development with the maximum building heights ranging from 15mPD to***

70mPD. The building height profile is a response to the adjacent natural hillside, respecting the location of existing cemetery and to minimise visual impact to Junk Bay area while facilitating the operational needs of the planned public facilities.

7.12 To minimise visual impact, vertical greening, special architectural feature on facades, green roofs and variety of building heights within individual sites will be encouraged at the public facilities. Breezeways that align with the prevailing winds are also introduced across various sites with a view to creating well-ventilated microclimate and increasing permeability between building masses.

8. LAND USE ZONINGS

8.1 "Comprehensive Development Area" ("CDA") : Total Area 34.45 ha

8.1.1 This zone is intended for comprehensive development/redevelopment of the area for residential and/or commercial uses with the provision of open space and other supporting facilities. It is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking into account of various environmental, traffic, infrastructure and other constraints. It is also intended for developing or redeveloping relatively large sites in a comprehensive manner and maintaining planning control within the zone through the submission of a Master Layout Plan (MLP). Development within this zone is subject to gross floor area (GFA) restrictions. To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of these restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

8.1.2 ***The comprehensive development, LOHAS Park, in Area 86 falls within this zone.*** The "CDA" site is intended to facilitate comprehensive development including a MTR depot, a MTR station, associated property development and supporting community facilities. Development/redevelopment within this "CDA" site is restricted to a maximum domestic GFA of 1,612,800m^2 and a maximum non-domestic GFA of 40,000m^2 (mainly for retail purpose).

8.1.3 Pursuant to section 4A(1) of the Ordinance, any development proposal under this zoning will require the approval of the Board by way of a planning application under section 16 of the Ordinance. Unless otherwise specified, a MLP should be submitted together with environmental, traffic and other relevant assessment reports as well as other materials as specified in the Notes of the Plan for the approval of the Board under section 4A(2) of the Ordinance. A copy of the approved MLP will be made available for public inspection pursuant to section 4A(3) of the Ordinance.

8.2 "Commercial/Residential" ("C/R") : Total Area 20.07 ha

8.2.1 This zone is intended primarily for commercial and/or residential development. Commercial, residential and mixed commercial/ residential uses are always permitted.

8.2.2 The areas within this zoning are primarily planned and concentrated in the town centre and district centres where accessibility is enhanced by MTR Tseung Kwan O Line.

8.3 "Residential (Group A)" ("R(A)") : Total Area ~~152.68~~ ***199.08*** ha

8.3.1 This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

8.3.2 This zoning constitutes the major type of residential land uses in the Area. It covers public rental housing estates (PRH), Home Ownership Schemes (HOS), Private Sector Participation Schemes (PSPS), Sandwich Class Housing (SCH), Flat for Sale Schemes (FFSS), Subsidized Sales Flats (SSF) as well as private residential developments. Commercial uses such as eating places, offices, shops and services are permitted as of right on the lowest three floors of the buildings, including basement(s), and in the purpose-designed non-residential portion of the existing buildings.

8.3.3 Existing PRH estates ***in the "R(A)" zones*** include Tsui Lam Estate in Area 5, Po Lam Estate in Area 14, King Lam Estate in Area 23, Ming Tak Estate in Area 34, Hau Tak Estate in Areas 39 & 41, Sheung Tak Estate in Area 59~~, Yee Ming Estate in Area 65~~, Kin Ming Estate in Area 73 and part of Choi Ming Court in Area 74. In addition, thirteen HOS developments namely King Ming Court in Area 6, Ying Ming Court in Area 14, Yan Ming Court in Area 21, Ho Ming Court in Area 23, Hin Ming Court and Yuk Ming Court in Area 34, Yu Ming Court in Area 39, Chung Ming Court in Area 41, Wo Ming Court in Area 34/44, Tong Ming Court in Area 57, Kwong Ming Court and Po Ming Court in Area 59, and part of Choi Ming Court in Area 74, as well as four PSPS developments namely Fu Ning Garden in Area 30, On Ning Garden in Area 40, Beverly Garden in Area 55 and Bauhinia Garden in Area 65 ***zoned "R(A)"*** have also been completed.

8.3.4 Existing SCH developments ***in the "R(A)" zones*** comprise Serenity Place in Area 13, Radiant Towers in Area 18 and The Pinnacle in Area 24. Verbena Heights in Area 19 is an existing mixed public rental and FFSS development developed by the Hong Kong Housing Society. Mount Verdant in Area 73 is an existing SSF development.

~~8.3.5 The ex-Tiu Keng Leng cottage area in Areas 73 and 74 has been cleared and developed primarily for the development of PRH estates, SSF and private residential developments.~~

~~8.3.6~~***8.3.5*** There are eight sub-areas within this zone, each with its own specific development restrictions:

(a) "Residential (Group A)1" ("R(A)1") : 1.49 ha

Shin Ming Estate~~A site to the southwest of Kin Ming Estate~~ in Area 73 is zoned "R(A)1". Development within this sub-area is restricted to maximum domestic and non-domestic PRs of 5.5 and 0.5 respectively and a maximum building height of 138m above Principal Datum (mPD). A stepped building height profile should be adopted for developments within the site thereby reducing its visual impact on the surrounding low-rise GIC developments.

(b) "Residential (Group A)2" ("R(A)2") : 6.60 ha

Two sites in Area 66 to the south of Po Yap Road are zoned "R(A)2". Development within this sub-area is subject to maximum domestic and non-domestic PRs of 5 and 0.5 respectively, a maximum SC of 50% and a maximum building height of 100mPD. Podium development within these sites should be avoided as far as possible, but may be used within these sites to act as noise mitigation measure against Po Yap Road. Besides, built form and heights should be articulated to create a varied and interesting built form and activity/development edge. Retail and commercial facilities should be promoted along the boundaries fronting directly onto the pedestrianized Central Avenue. The Wings II, The Wings IIIA, ~~the~~ ***The*** Wings IIIB, The Parkside and Twin Peaks fall within this sub-area.

(c) "Residential (Group A)3" ("R(A)3") : 3.04 ha

A site in Area 65 to the east of Bauhinia Garden is zoned "R(A)3". Development within this sub-area is restricted to maximum domestic and non-domestic PRs of 4 and 0.5 respectively, a maximum SC of 50% and a maximum building height of 100mPD. A public open space with a site area of 4,600m^2 at the southern portion of this sub-area has been provided at street level to serve as a transitional buffer with the adjacent non-residential developments as well as serving the needs of the surrounding neighbourhoods. To be compatible with the overall urban design concept of the Town Centre South area, the use of podium and wall-like development within this sub-area is avoided. Yee Ming Estate, a PRH estate, falls within this sub-area.

(d) "Residential (Group A)4" ("R(A)4") : 3.54 ha

A site in Area 65 to the west of the Eastern Channel is zoned "R(A)4". Development within this sub-area is restricted to

maximum domestic and non-domestic PRs of 3 and 0.5 respectively, and a maximum SC of 50%. To achieve a gradation in height towards the waterfront, this sub-area has different building height restrictions, i.e. 65mPD for Area (a) and 35mPD for Area (b). To create a varied and interesting activity edge along the waterfront promenade, publicly accessible outdoor spaces in the form of 'urban courtyards' are encouraged to be provided adjoining the promenade within the site. It is proposed that recreational and entertainment uses such as alfresco dining, sitting out areas, gardens could be provided within these outdoor spaces. A private residential development, Savanah, and a HOS development, Yung Ming Court, fall within this sub-area.

(e) "Residential (Group A)5" ("R(A)5") : 3.67 ha

Two sites in Area 66 abutting the town plaza and the waterfront park along Tong Chun Street and along Tong Yin Street respectively are zoned "R(A)5". They are subject to maximum domestic and non-domestic PRs of 3 and 0.5 respectively, a maximum SC of 50% and a maximum building height of 65mPD. Retail and commercial activities should be developed along the edge that fronts onto the town plaza and the waterfront park. Corinthia By The Sea and Ocean Wings fall within this sub-area.

(f) "Residential (Group A)6" ("R(A)6") : 9.36 ha

Two sites in Area 68, one along Tong Chun Street to the west of the Eastern Channel and one along Tong Yin Street to the south of the Civic Node are zoned "R(A)6". They are subject to maximum domestic and non-domestic PRs of 2 and 0.5 respectively, and a maximum SC of 50%. To achieve a gradation in height towards the waterfront, this sub-area also has different building height restrictions, i.e. 50mPD for Area (a), 35mPD for Area (b) and 60mPD for Area (c). The building height restriction for Area (c) of both sites is intended to allow the development of a feature tower to provide height variation at the waterfront. Similar to the "R(A)4" site, 'urban courtyards' are encouraged to be provided along the promenade. Capri**,** Alto Residences, The Papillons and Monterey fall within this sub-area.

(g) "Residential (Group A)7" ("R(A)7") : 7.26 ha

Four sites, including one in Area 111 to the northwest of Ying Yip Road, ~~one in Areas 35 and 108 to the south of Chiu Shun Road,~~ one in Area 113 to the west of Yau Yue Wan Village**,** ~~and~~ one in Area 106 to the east of Hong Kong Movie City and ***Chiu Ming Court, a HOS development, in Areas 35 and 108***, are zoned "R(A)7". Development within this sub-area is subject to a

maximum PR of 6.5 and maximum building heights in mPD as stipulated on the Plan.

(h) "Residential (Group A)8" ("R(A)8") : 0.45 ha

A site in Area 108 to the south of Chiu Shun Road is zoned "R(A)8". It is intended for residential development on top of the existing Pak Shing Kok Ventilation Building. Development within this sub-area is subject to a maximum PR of 6 and a maximum building height of 130mPD. Any floor space that is constructed or intended for use solely as railway facilities, as required by the Government, may be disregarded in the PR calculation.

(i) "Residential (Group A)9" ("R(A)9") : 16.76 ha

Two inland sites in Areas 137A and 137B respectively are zoned "R(A)9". Development within this sub-area is subject to maximum domestic and non-domestic PRs of 7.5 and 0.3 respectively and maximum building heights of 200mPD and 190mPD as stipulated on the Plan. Any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or GIC facilities, as required by the Government, may be disregarded in the PR calculation.

(j) "Residential (Group A)10" ("R(A)10") : 9.09 ha

Two inland sites in Areas 137C and 137D respectively are zoned "R(A)10". Development within this sub-area is subject to maximum domestic and non-domestic PRs of 7 and 0.3 respectively and maximum building heights of 180mPD and 175mPD as stipulated on the Plan. Any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or GIC facilities, as required by the Government, may be disregarded in the PR calculation.

(k) "Residential (Group A)11" ("R(A)11") : 9.43 ha

Two waterfront sites in Areas 137A and 137B respectively are zoned "R(A)11". Development within this sub-area is subject to maximum domestic and non-domestic PRs of 6 and 0.3 respectively and maximum building heights of 185mPD and 175mPD as stipulated on the Plan. A public transport interchange shall be provided in the "R(A)11" zone in Area 137A. Any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or GIC facilities as required by the Government may be disregarded in the PR calculation.

(l) "Residential (Group A)12" ("R(A)12") : 11.12 ha

Two waterfront sites in Area 137D are zoned "R(A)12". Development within this sub-area is subject to maximum domestic and non-domestic PRs of 4 and 0.3 respectively and a maximum building height of 120mPD as stipulated on the Plan. Any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or GIC facilities as required by the Government may be disregarded in the PR calculation.

~~8.3.7~~***8.3.6*** The five sites in the "R(A)4", "R(A)5" and "R(A)6" sub-areas are intended for the development of waterfront-related commercial and residential uses. These sites will provide a mix of high quality residential development with the provision of retail and other commercial, leisure and entertainment activities to enhance activity and to create a unique, interesting and vibrant waterfront for use by local residents and visitors. The different building height restrictions within these sub-areas are intended to introduce a height variation for each site.

~~8.3.8~~***8.3.7*** Several 24 hour-dedicated pedestrian passageways have been provided within the "R(A)5" sub-area at Tong Yin Street and Tong Chun Street. These passageways are generally non-building areas which follow the major pedestrian desire lines and guide pedestrians to the Central Avenue and waterfront promenade.

~~8.3.9~~***8.3.8*** The use of podium and wall-like development within the "R(A)2", "R(A)3", "R(A)4", "R(A)5" and "R(A)6" sub-areas are avoided to ensure compatibility with the overall urban design concept of the Town Centre South area, particularly the promotion of lively streetscapes and activities. This objective is attained by ensuring the inclusion of car parking facilities, loading/unloading facilities, plant room, caretaker's office and quarters and recreational facilities in SC calculation, if provided above ground. The developments are encouraged to adopt suitable design measures to minimize any possible adverse air ventilation impacts. These include lower podium height, greater permeability of podium, wider gap between buildings, non-building area to create air path for better ventilation and minimize the blocking of air flow through positioning of building towers and podiums to align with the prevailing wind directions, as appropriate.

8.3.9 Under the urban design framework of Area 137, varied building height profile within the development sites should be adopted for developments in the "R(A)9", "R(A)10", "R(A)11" and "R(A)12" sub-areas thereby create dynamic skyline in the area. In addition to aligning major roads and linear open spaces with prevailing winds and visually connecting the hillside and the waterfront, a non-building area with a width of about 15m with a northeast to southwest orientation aligning with the "Open Space" zone extending from the waterfront should be provided in the "R(A)10" sub-area in Area 137D

to maintain a network of continuous visual corridors and breezeways from the waterfront towards Clear Water Bay Country Park. Retail frontage comprising shop and services and eating place are to be provided in the ground floor along the selected frontage of these sites facing the waterfront promenade and open space. The residential developments in the "R(A)9", "R(A)10", "R(A)11" and "R(A)12" sub-areas will be connected with future railway station and major activity nodes through a comprehensive all-weather pedestrian network subject to further study. Detailed requirements will be stipulated on the ODP to be prepared.

~~8.3.10 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of PR/SC/building height restrictions of the sub-areas and/or minor adjustment to the boundaries of Areas (a)/(b) of "R(A)4" and/or Areas (a)/(b)/(c) of "R(A)6" may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.~~

~~8.3.11~~***8.3.10*** An Air Ventilation Assessment Expert Evaluation (AVA EE) (2017) has been carried out for the sites within "R(A)7" sub-area. For all the sites excluding the one in Areas 35 and 108 to the south of Chiu Shun Road, it is found that design measures including building separations and open space at designated areas would alleviate the potential air ventilation impacts on the surrounding wind environment. Quantitative AVAs should be carried out at the detailed design stage. Requirements of the design measures and quantitative AVAs have been incorporated in the planning brief for implementation.

~~8.3.12~~***8.3.11*** A quantitative AVA has been carried out in 2019 for the site within "R(A)8" sub-area and several mitigation measures have been proposed in the assessment, including setback at podium level and setback of tower blocks from Chiu Shun Road; permeable elements underneath the podium and above the Pak Shing Kok Ventilation Building; and 15m-wide building separation between the two residential blocks. In finalizing future development scheme at detailed design stage, the future developer should take into account these proposed mitigation measures in the AVA to alleviate the potential impact of the development.

8.3.12 The PR controls under the "R(A)9", "R(A)10", "R(A)11" and "R(A)12" sub-areas are regarded as being stipulated in a "new or amended statutory plan" according to the Joint Practice Note No. 4 "Development Control Parameters Plot Ratio/Gross Floor Area", and shall be subject to the streamlining arrangements stated therein.

8.4 "Residential (Group B)" ("R(B)") : Total Area 4.49 ha

8.4.1 This zone is intended primarily for medium-density residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board.

8.4.2 Two sites are under this zoning, one is Hong Sing Garden in Area 4 and the other is Oscar by the Sea (the ex-Hong Kong Oxygen site) in Area 51.

8.5 "Residential (Group C)" ("R(C)") : Total Area 0.66 ha

8.5.1 This zone is intended primarily for high quality, low-rise residential developments where commercial uses serving the residential neighbourhood may be permitted on application to the Board.

8.5.2 There are two sub-areas within this zone, each is subject to PR, building height and/or SC controls to ensure that any development or redevelopment of this sub-area will be in line with the general character of the adjoining environment.

(a) "Residential (Group C)1" ("R(C)1") : 0.32 ha

Development within this sub-area is restricted to a maximum PR of 0.6, a maximum SC of 30%, and a maximum building height of 2 storeys over one level of carport, or the PR, SC and height of the existing building(s), whichever is the greater. A site in Area 92 falls within this sub-area.

(b) "Residential (Group C)2" ("R(C)2") : 0.34 ha

Development within this sub-area is restricted to a maximum PR of 1 and a maximum building height of 4 storeys over one level of carport, or the PR and height of the existing building(s), whichever is the greater. A site in Area 36 falls within this sub-area. ***The PR control is regarded as being stipulated in a "new or amended statutory plan" according to the Joint Practice Note No. 4 "Development Control Parameters Plot Ratio/Gross Floor Area", and shall be subject to the streamlining arrangements stated therein.***

~~8.5.3 Application for minor relaxation of the PR/SC/building height restrictions may be considered by the Board under section 16 of the Ordinance. The purpose of this provision is to allow the Board to consider building layout and design proposals which, whilst not strictly complying with the stated restrictions, will meet the planning objectives for the area and provide some additional benefits, such as the conservation of environmentally important natural features or mature vegetation. Each application will be considered on its own merits.~~

8.6 "Residential (Group E)" ("R(E)") : Total Area 4.00 ha

8.6.1 This zone is intended primarily for phasing out of existing industrial uses through redevelopment (or conversion) for residential use on application to the Board.

8.6.2 Two sites abutting Shek Kok Road in Area 85 are under this zoning. Development within the zone is subject to a maximum PR of 5 and a maximum building height of 130m. ~~To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restriction may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.~~ The Beaumount, The Beaumount II and the Manor Hill fall within this zone.

8.6.3 The developers are required to submit adequate information to demonstrate that new residential developments are environmentally acceptable, and suitable mitigation measures, if required, will be implemented to address the potential industrial/residential interface problems, the potential land contamination issue, and the noise impact of the MTR open track section nearby. One footbridge across Wan Po Road and one across Shek Kok Road to link up the sites with the "CDA" in Area 86 are ~~required~~ ***provided*** in the ~~new~~ residential developments.

8.6.4 Under this zoning, existing industrial uses will be tolerated but new industrial development will not be permitted upon redevelopment in order to avoid the perpetuation or aggravation of the industrial/ residential interface problems with the new residential development during the redevelopment process. In existing industrial buildings, new developments involving offensive trades will not be permitted. Any modification of use from non-industrial to industrial uses (other than non-polluting industrial uses) within existing industrial buildings will require the permission of the Board. In addition, commercial uses, other than those permitted in the purpose-designed non-industrial portion of the existing industrial buildings, would require the permission of the Board. Upon redevelopment of the industrial buildings to non-industrial buildings, commercial uses will be permitted as of right on the lowest three floors, including basement(s), and in the purpose-designed non-residential portion of the existing buildings.

8.7 "Village Type Development" ("V") : Total Area 22.03 ha

8.7.1 The planning intention of this zone is to reflect existing recognized and other villages, and to provide land considered suitable for village expansion and reprovisioning of village houses affected by government projects. Land within this zone is primarily intended for development of Small Houses by indigenous villagers. It is also intended to concentrate village type development within this zone for a more orderly development pattern, efficient use of land and provision of infrastructures and services. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a New Territories Exempted House. Other commercial, community and recreational uses may be permitted on application to the Board.

8.7.2 In order to retain the village character, any future development or redevelopment within this zone, except otherwise specified, is subject to

a maximum building height of 3 storeys (8.23m) or the height of the existing building(s), whichever is the greater. ~~To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restriction may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.~~

8.7.3 This zoning covers the existing villages including Tseung Kwan O Village in Area 7, Mau Wu Tsai Village in Area 123 and Boon Kin Village in Area 109. It also includes the Yau Yue Wan Village resite area in Area 22, the Hang Hau Village resite area in Area 31, the Fat Tau Chau and Tin Ha Wan Village resite areas in Area 35. Besides, a site in Area 8 is reserved for the future expansion of Tseung Kwan O Village.

8.8 "Government, Institution or Community" ("G/IC") : Total Area ~~142.56~~ ***157.67*** ha

8.8.1 This zone is intended primarily for the provision of GIC facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

8.8.2 There are a number of sub-areas under this zone, each with its own specific building height restriction to ensure that developments within these sub-areas are in line with the overall urban design concept of the New Town:

(a) "Government, Institution or Community (1)" ("G/IC(1)") : 5.16 ha

Development within this sub-area is restricted to a maximum building height of 75m. A piece of land in Area 67 which is reserved for the development of a Civic Node falls within this sub-area. The Civic Node will comprise a cultural complex/town hall, Immigration Headquarters, joint-user government office building, a joint-user complex with market and public vehicle parking facilities. Landmark buildings should be developed within this site to create a symbolic 'gateway' at this prominent location. This site, together with the proposed GIC cluster to the west of Tseung Lam Highway in Area 72, will form the western gateway of the New Town. ***Development within the breezeway corridor along Tong Yin Street and Po Shun Street/Tseung Lam Highway should not exceed 30m above ground.***

(b) "Government, Institution or Community (2)" ("G/IC(2)") : 2.42 ha

Development within this sub-area is restricted to a maximum building height of 55m. The campus of Hong Kong Design Institute and Hong Kong Institute of Vocational Education (Lee

Wai Lee) of the Vocational Training Council to the south of Choi Ming Court in Area 74 fall within this sub-area.

(c) "Government, Institution or Community (3)" ("G/IC(3)") : 2.50 ha

Development within this sub-area is restricted to a maximum building height of 45m. Two sites are within this sub-area. A site located immediately to the northwest of MTR Tiu Keng Leng Station in Area 73 consists of two post-secondary colleges operated by Caritas Bianchi College of Careers and Caritas Institute of Higher Education. Another site in Area 65 is reserved for the development of a government complex, possibly for recreational and other uses.

(d) "Government, Institution or Community (4)" ("G/IC(4)") : 8.08 ha

Development within this sub-area is restricted to a maximum building height of 40m. There are four sites within this sub-area. One of them is located to the west of Tseung Lam Highway in Area 72, which is reserved for the development of a GIC cluster comprising a social welfare complex, a police station, departmental quarters with fire station cum ambulance depot and a refuse collection point. The architecture of buildings within this GIC cluster should be distinctive and compatible with the Civic Node in Area 67 to create a landmark gateway at this location. Another site, which is located in Area 106 and to the east of "G/IC(8)" sub-area in Area 78, is for the development of departmental quarters for Fire Services Department. The remaining two sites are located at Town Centre South comprising two existing schools in Area 65; the French International School and a planned secondary school in Area 67. ***Development within the breezeway corridor along Tong Yin Street and Po Shun Road/Tseung Lam Highway at the "G/IC(4)" zone in Areas 67 and 72 should not exceed 30m above ground.***

(e) "Government, Institution or Community (5)" ("G/IC(5)") : 0.33 ha

Development within this sub-area is restricted to a maximum building height of 10m. A piece of land in Area 68, which is reserved for the development of a telephone exchange, is within this sub-area. Another site at the south-eastern portion of Area 77 is within this sub-area. It accommodates an existing gas and leachate management compound which serves to extract the gas and leachate in the Tseung Kwan O Stage I Landfill thereby keeping these substances down to acceptable levels.

(f) "Government, Institution or Community (6)" ("G/IC(6)") : 0.05 ha

Development within this sub-area is restricted to a maximum building height of 5m. A site in Area 77, which is reserved for the development of a sewage pumping station, is within this sub-area. This pumping station serves to convey the collected sewage from the Tseung Kwan O Stage I Landfill to the existing trunk sewer under Wan Po Road.

(g) "Government, Institution or Community (7)" ("G/IC(7)") : 16.11 ha

A site in Pak Shing Kok (Area 78) occupied by the Fire and Ambulance Services Academy is within this sub-area. Development in Area (a) of this sub-area is restricted to a maximum building height of 100mPD, except a fire services rescue training tower up to 114mPD. Development in Area (b) of this sub-area is restricted to a maximum building height of 120mPD.

(h) "Government, Institution or Community (8)" ("G/IC(8)") : 6.05 ha

Development within this sub-area is restricted to a maximum building height of 106mPD. A site in Pak Shing Kok (Area 78) planned for a Chinese Medicine Hospital and a Government Chinese Medicines Testing Institute is within this sub-area.

(i) "Government, Institution or Community (9)" ("G/IC(9)") : 6.87 ha

Development within this sub-area is restricted to a maximum building height of 60mPD, except a communications tower up to 76mPD. A site in Area 85 reserved for a new Radio Television Hong Kong broadcasting house and two data centres are within this sub-area. To create a clustering effect of this sub-area with areas for broadcasting, innovation and technology industries in Tseung Kwan O, information technology and telecommunications related uses are permitted in this sub-area.

(j) "Government, Institution or Community (10)" ("G/IC(10)") : 14.35 ha

Development within this sub-area is restricted to the maximum building heights as stipulated on the Plan. There are 8 sites within this sub-area. A site located at Area 137C is reserved for a signature joint-user government complex with a swimming pool complex, a sport centre, a public market, a community hall, a health centre and other GIC facilities which will be the major activity node of Fat Tong O. Given its location, a landmark building in both form and function may be considered to create a visual and place identity of the area. Two sites located at the north of Area 137A near Tseung Kwan O InnoPark are reserved for an electricity substation, a divisional police station, a sub-divisional fire station cum ambulance depot and a sport centre respectively while another

site in Area 137A is reserved for a primary school and a secondary school. One site located at Area 137D is reserved for two primary schools and one secondary school while another site is reserved for an electricity substation. Moreover, two sites at the southern foothill of Fat Tong Chau in Areas 135 and 132B are reserved for the development of a fresh water and a salt water service reservoirs as well as a sewage pumping station respectively. Under the urban design framework of Area 137, a non-building area with a width of about 15m with a northeast to southwest orientation aligning with the "Open Space" zone extending from the waterfront should be provided in the "G/IC(10)" sub-area in Area 137D to maintain a network of continuous visual corridors and breezeways from the waterfront towards Clear Water Bay Country Park. Detailed requirements will be stipulated on the ODP to be prepared.

8.8.3 Specific building height restrictions for the "G/IC" sub-areas in terms of m or mPD, which mainly reflect the planned building heights of developments, have been incorporated into the Plan to provide visual and spatial relief to the Area.

~~8.8.4 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restriction of the sub-areas may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.~~

~~8.8.5~~***8.8.4*** Apart from the above, other major GIC facilities provided or planned in the Area include:

(a) existing and proposed primary and secondary schools distributed in various areas;

(b) a wide range of community facilities such as town hall, libraries, indoor recreation centres, community centres, care and attention homes and religious institutions in various areas;

(c) hospitals in Areas 27 and 32;

(d) clinics in Areas 22, 44, 56 and 67;

(e) police stations in Areas 21 and 72;

(f) fire stations and/or ambulance depots in Areas 10, 72 and 87;

(g) government staff quarters in Areas 22, 72, 106 and 123;

(h) YMCA youth camp in Area 122;

(i) electricity substations in Areas 11, 24, 39, 56, 72 and 115;

(j) telephone exchanges in Areas 26 and 68;

(k) water pumping stations in Areas 5 and 120;

(l) service reservoirs in various areas; ~~and~~

(m) film studio for pre-production and post-production of films in Area 106~~.~~***; and***

(n) three sites in Area 132B designated as government reserve purpose. Any development in these "G/IC" sites should be low-rise and compatible with the adjoining public facilities and surrounding nature environment.

8.8.5 When detailed planning and development for the Area proceeds, local community facilities not requiring free-standing sites such as social welfare facilities and kindergartens will also be provided within the public housing estates and private residential development as proposed by concerned bureaux/departments subject to feasibility and detailed design. Detailed requirements will be stipulated on the ODP, and Planning Brief of public housing estate and land lease of private residential site to be prepared for each individual site.

8.9 "Open Space" ("O") : Total Area ~~190.80~~***209.84*** ha

8.9.1 This zone is intended primarily for the provision of outdoor public open-air space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

8.9.2 Two sites in Areas 72 along Tseung Lam Highway are proposed for the development of Tiu Keng Leng Park***, where the southern part has been developed as*** ~~which includes~~ landscaped pedestrian decks spanning across the depressed Tseung Lam Highway. This open space will provide some visual relief to the adjacent high density developments and will link up with the waterfront park in Area 68 via a waterfront promenade.

8.9.3 The central part of Area 68 fronting Junk Bay is ***being developed as*** ~~proposed for~~ a waterfront park which will link up with a town plaza proposed to its north in Area 66. The ~~proposed~~ waterfront park is intended predominantly for passive recreation with a high quality landscaping design to promote a unique identity for the New Town. The proposed town plaza is to serve primarily as an urban civic space with provision for public gatherings and other activities.

8.9.4 A semi-circular area in Area 66 south of Po Yap Road and MTR Tseung Kwan O Station is proposed to be developed as an open/green plaza serving as a recreational space for nearby residents and visitors and a buffer between MTR Tseung Kwan O Station and the ~~future~~ residential developments in Area 66.

8.9.5 A Central Avenue at Area 66 is proposed between the open/green plaza south of Po Yap Road and the town plaza which will form a major linkage between Town Centre North and the waterfront area. The proposed Central Avenue is intended primarily for the provision of a landscaped corridor in the form of open space, which would be flanked by retail development edges on both sides of the adjacent **"**R(A)**"** zones and landscaped to a high quality. Shops and services, and eating places including alfresco dining may be considered by the Board through the planning permission system.

8.9.6 A riverine park is proposed along the Eastern Channel in Area 65 and a waterfront promenade is provided along Junk Bay in Area 68. The sites will provide a range of passive recreational facilities and opportunities. Alfresco dining may be considered by the Board through the planning permission system.

8.9.7 The landfill sites in Areas 77 and 105 have been decommissioned and restored. The landfill site~~s~~ in Area~~s~~ 101~~ and 137~~ will be developed into major open spaces upon completion of the landfill and restoration works. However, any development proposals within the 250m Consultation Zone of these landfills will need to include a Landfill Gas Hazard Assessment to the satisfaction of the Environmental Protection Department (EPD).

8.9.8 A Gateway Plaza comprising two sites separated by road is proposed at the central northeast-southwest direction corridor of Area 137 connecting the proposed waterfront promenade to the proposed extension of Wan Po Road. Retail frontages at the neighbouring developments will be provided in selected locations facing the Gateway Plaza. With its close proximity to the planned joint-user government complex at Area 137C, and direct connection with the planned railway station and a public transport interchange, the Gateway Plaza will be the main green corridor, civic space and arrival point of Area 137. With a width of above 100m and an orientation that align with prevailing wind, it will also function as a major visual and wind corridor of the area.

8.9.9 An about 1.5 km-long waterfront promenade is proposed along the shoreline of Area 137. While the promenade is primarily for passive recreational facilities, it is aimed to create an attractive, vibrant and accessible waterfront area by providing opportunities for retail frontages at the neighbouring developments, cycling tracks, viewing decks and steps towards the water, as well as attractive landscape features.

8.9.10 Two other major open spaces are proposed in both southern and northern ends of Fat Tong O in Areas 137A and 137D which will serve as a leisure and active recreational outlet for the area.

~~8.9.8~~***8.9.11*** Other open spaces are also provided in Areas 12, 24, 25, 37, 40, 73 and 74 and another site in Area 51 is reserved to provide recreational outlets for the nearby residential neighbourhood.

"Open Space (1)" ("O(1)") : 16.79 ha

~~8.9.9~~***8.9.12*** In "O(1)", 'Place of Recreation, Sports or Culture' and 'Library' uses are always permitted. A town park in Area 45 provides a variety of active and passive recreational facilities, a sports ground and an indoor velodrome cum sports centre (IVSC). A sports centre together with a library (SCL) is provided in the open space in Area 74. The zoning of this sub-area allows locational and design flexibility for the provision of IVSC in Area 45 and SCL in Area 74. The building height of IVSC in Area 45 and SCL in Area 74 have not exceeded 30m above ground.

"Open Space (2)" ("O(2)") : ~~100.54~~ ***100.65*** ha

~~8.9.10~~***8.9.13*** The landfill site~~s~~ in Area~~s~~ 101~~ and 137~~ fall***s*** within the "O(2)" sub-area. The "O(2)" zoning is to reflect the long-term planning intention of open space use of the landfill sites after the decommissioning and restoration of the landfill, while permitting landfill use in the interim.

~~8.9.11~~***8.9.14*** Upon detailed planning, additional local open spaces will be provided in the residential zones. These open spaces are however not shown on this Plan.

8.10 "Recreation" ("REC") : Total Area ~~65.85~~***66.28*** ha

8.10.1 The planning intention of this zone is primarily for recreational developments for the use of the general public. It encourages the development of active and/or passive recreation and tourism/ eco-tourism. Uses in support of the recreational developments may be permitted subject to planning permission. Part of the Tseung Kwan O Stage I Landfill in Area 77 within this zone has been developed for recreational uses including the Wan Po Road Pet Garden and Jockey Club HKFA Football Training Centre.

8.10.2 Given the development constraints associated with landfill sites, development within this zone is restricted to a maximum PR of 0.1 and a maximum building height of 1 storey. ~~To provide design flexibility, minor relaxation of the PR/building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.~~ Moreover, similar to other landfill sites, any development proposals within the 250m Consultation Zone of the landfill will need to include a Landfill Gas Hazard Assessment to the satisfaction of EPD.

8.11 "Other Specified Uses" ("OU") : Total Area ~~229.96~~***177.92*** ha

8.11.1 This zone denotes land allocated or reserved for specific uses, including the following:

(a) a waterfront site at the toe of the Tseung Kwan O Stage I Landfill in Area 77 is reserved for the development of a water sports centre. Given the prominent location of this site and the constraints associated with landfill sites, development within this zone is restricted to a maximum PR of 0.5, a maximum SC of 50% and a maximum building height of 1 storey~~. To provide design flexibility, minor relaxation of the PR/SC/building height restrictions may be considered by the Board through the planning permission system~~;

(b) a pair of finger piers at the waterfront of Area 68 is proposed to cater for the berthing of recreational/pleasure vessels and kaidos thereby serving the needs of the community and to enhance the water-borne recreation and tourism potential of Junk Bay as well as the New Town. Structures to be accommodated are intended for low-intensity low-rise developments generally of one storey high, depending on the design. Dining, including alfresco dining, and recreation and tourism related commercial facilities may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits. In addition, special and/or atypical design of these piers is encouraged to allow the creation of a place of attraction, resting and recreation and/or focal and vantage point for visitors;

(c) a commercial development with public transport interchange in Area 56. This site is intended for an entertainment node within the New Town and comprises a range of entertainment, leisure and commercial uses. Some residential elements within the site has been allowed through planning permission from the Board and the development is known as The Wings;

(d) commercial/residential developments with public transport interchange ~~on sites~~ in Areas 17, 38***,*** ~~and~~ 73 ***and 137C***;

(e) Tseung Kwan O InnoPark in Area 87, which enjoys the advantage of marine frontage as well as proximity to the Hong Kong University of Science and Technology;

~~(f) the deep-waterfront industry in Area 137 for industries which require marine access;~~

(f) an effluent polishing plant in Area 137E. Any development in this zone should not exceed 30mPD;

(g) the ~~proposed~~ desalination plant in the southeastern part of Area 137***E*** which is intended to provide fresh water serving the needs of the community;

(h) a bus depot in Area 26***. Located in the breezeway corridor, any development in this zone should not exceed 30m above ground***;

(i) an explosive store in Area 124;

(j) petrol filling stations in Areas 10 and 16 which may include vehicle repair workshops subject to planning permission from the Board;

(k) a green fuel station in Area 137D;

(l) a pier near Tit Cham Chau in Area 137E;

~~(k)~~***(m)*** the landing steps in Area 68;

~~(l)~~***(m)*** the sewage treatment works in Area 85;

~~(m)~~***(o)*** a cemetery in Area 130 with ***vehicular*** access from Ko Chiu Road in East Kowloon;

~~(n)~~***(p)*** an underground desilting compound in Area 68;

~~(o)~~***(q)*** the ~~proposed~~ ventilation building for Tseung Kwan O – Lam Tin Tunnel in Area 128; ~~and~~

~~(p)~~***(r)*** a site in Area 92 is intended primarily for the provision of a film studio and related uses to facilitate film production, distribution and other related functions. It will be redeveloped into a film production park which may include facilities for film shooting and post-production, research and design of film related product and technology, training for film profession, products and copyright trading, and exchange for film industry, as well as associated workshop cum dormitories. Development within this zone is restricted to a maximum building height of 7 storeys. In determining the maximum number of storeys, any basement floor(s) may be disregarded. To provide design flexibility, minor relaxation of the building height restriction may be considered by the Board through the planning permission system. Consideration of such application for minor relaxation would be based on individual merits, taking into account site constraints, tree preservation, innovative architectural design, and planning merits that would enhance the landscape quality of the site and the amenity of the locality. To enhance landscape quality of the site, the future developer will be required to make a landscape submission under lease~~.~~***; and***

(s) electricity facilities, a construction waste handling facility, a public fill transfer facility, a refuse transfer station and a concrete batching plant in Area 132B.

8.11.2 A waterfront site in Fat Tong O in Area 137C is zoned "OU" annotated "Commercial/Residential Developments with Public Transport Interchange (1)" intended for commercial/residential developments with public transport interchange. Development within this zone is subject to maximum domestic and non-domestic PRs of 5 and 1 respectively and a maximum building height in 155mPD as stipulated on the Plan. Given its close location to the future railway station, a public transport interchange shall be provided to serve the future residents of Fat Tong O. Any floor space that is constructed or intended for use solely as railway facilities, public transport facilities, public pedestrian passageway or GIC facilities, as required by the Government, may be disregarded in the PR calculation.

8.11.3 Under the urban design framework of Area 137, varied building height profile within the "OU" annotated "Commercial/Residential Developments with Public Transport Interchange (1)" zone should be adopted thereby create dynamic skyline in the area. Retail frontage comprising shop and services and eating place are to be provided in the ground floor along the frontage facing the waterfront and open space. The site will be connected with future railway station, other residential sites and major activity nodes through a comprehensive all-weather pedestrian network subject to further study. Detailed requirements will be stipulated on the ODP to be prepared. The PR control is regarded as being stipulated in a "new or amended statutory plan" according to the Joint Practice Note No. 4 "Development Control Parameters Plot Ratio/Gross Floor Area", and shall be subject to the streamlining arrangements stated therein.

8.11.4 Four "OU" zones on the proposed reclamation in Chiu Keng Wan in Area 132B are reserved for low-rise public facilities serving the region which require marine frontage for their operation. The "OU" annotated "Electricity Facilities" zone in the northern part of Area 132B housing power infrastructures to receive zero-carbon energy from the Mainland is subject to a maximum building height of 70mPD. The other three "OU" zones in Area 132B are reserved for construction waste handling facility and public fill transfer facility, refuse transfer station and concrete batching plant which are subject to maximum building heights of 30mPD and 35mPD, 50mPD and 35mPD respectively. The maximum building heights does not apply to crane structures serving these public facilities. Vertical greening, special architectural feature on facades, green roofs and variety of building heights within individual sites will be encouraged to minimise the possible visual impact at this waterfront site.

8.12 "Green Belt" ("GB") : Total Area ~~752.93~~***746.83*** ha

The planning intention of this zone is primarily for defining the limits of urban and sub-urban development areas by natural features and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone. Development within this zone will be strictly controlled and development proposals will be considered on individual merits taking into account the relevant Town Planning Board Guidelines.

8.13 For the zones where minor relaxation of relevant restrictions are applicable, based on the individual merits of a development or redevelopment proposal, minor relaxation of the PR/GFA/building height/SC restrictions and minor adjustment to the boundaries of Areas within sub-area as stated in the relevant paragraphs above may be considered by the Board on application under section 16 of the Ordinance. Each application will be considered on its own merits.

9 COMMUNICATIONS

9.1 Roads

9.1.1 Only major road networks, which comprise trunk roads, primary and district distributors, are shown on the Plan. As the Plan is drawn at a small scale, design details of major road junctions and local access roads are not indicated.

9.1.2 External access to and from the Area will be mainly via Tseung Kwan O Tunnel and Tseung Kwan O – Lam Tin Tunnel, supplemented by Po Lam Road as well as Ying Yip Road and Hang Hau Road connecting to Clear Water Bay Road. Tseung Lam Highway comprising Tseung Kwan O – Lam Tin Tunnel and Tseung Kwan O Cross Bay Bridge was commissioned on 11 December 2022. Cross Bay Bridge is designed as a feature bridge and provides direct access from Tseung Kwan O – Lam Tin Tunnel to Area 86, Tseung Kwan O InnoPark in Area 87 and ~~the special industrial area~~***Fat Tong O*** in Area 137.

9.1.3 According to the Hong Kong Major Transport Infrastructure Development Blueprint, another new external access namely Tseung Kwan O – Yau Tong Tunnel is planned to link up the central part of Tseung Kwan O and Yau Tong.

9.2 Mass Transit Railway

Apart from Tseung Kwan O Tunnel and Tseung Kwan O – Lam Tin Tunnel, external access is supported by ~~an extension of the~~ MTR ~~line from Lam Tin to~~Tseung Kwan O ***Line***. Phase I of MTR Tseung Kwan O Extension project comprising four stations in Tseung Kwan O, namely Tiu Keng Leng, Tseung Kwan O, Hang Hau and Po Lam, commenced operation in August 2002. The MTR tracks are primarily underground, except for the section between Ho Ming

Court and Po Shun Road, which are at grade and enclosed by structures with a landscaped bund on top to eliminate any noise impact caused by the MTR operation on the adjacent residential areas. Phase II of the project includes a spur line to Tseung Kwan O South with a depot and LOHAS Park Station in Area 86. The depot has been completed and the station commenced operation in July 2009. ***The Hong Kong Major Transport Infrastructure Development Blueprint recommended the Tseung Kwan O Line Southern Extension running from LOHAS Park Station southwards to the planned station at Area 137 via tunnels through the seabed outside the Tseung Kwan O InnoPark.***

9.3 Public Transport

Franchised buses, taxis, green mini-buses and ferries will be the main modes of public transport in addition to MTR. Public transport interchange facilities are/will be provided at strategic locations.

9.4 Pedestrian and Cycle Networks

The cycle track and pedestrian walkway networks will be designed to facilitate convenient cycle and pedestrian movements within the Area. Grade-separated pedestrian and cycle crossings will be provided at major pedestrian and cycle crossing points. A cycle track with associated facilities along the waterfront at Town Centre South has been completed. ***A comprehensive cycling network connecting key developments with adequate parking and supporting facilities is also planned in Area 137 which will connect to the existing cycle track of the New Town at Wan Po Road.***

10 UTILITY SERVICES

10.1 Water Supply

10.1.1 A water supply and distribution system has been implemented to meet the demand arising from the development in Tseung Kwan O.

10.1.2 Apart from the existing fresh water service reservoirs in Areas 1, 2, 3, 106, 113 and 125, an extension of fresh water service reservoir is proposed in Area 113 ***and an additional fresh water service reservoir is proposed in Area 135*** to cater for further development of the Area. Moreover, there is an existing fresh water pumping station in Area 120.

10.1.3 Apart from the existing salt water service reservoirs in Areas 1 and 5 and the existing salt water pumping stations in Areas 5 and 86, additional salt water service reservoir ***in Area 135*** and pumping station will be reserved to cater for supply of flushing water.

10.2 Drainage and Sewage Collection

Surface water will be channeled into two main culverts for discharge into the sea. An overland drainage and flood path system will cater for very heavy rain and possible blockage of culverts. Sewage will be conveyed via a network of

sewers and a sewer tunnel through Areas 108 and 78 to the sewage treatment works in Area 85 for treatment before being discharged into the Harbour Area Treatment Scheme Stage I deep tunnel conveyance system. ***To cater for the population growth, an effluent polishing plant is proposed at Area 137E. A new sewerage network with associated gravity sewer for influent collection and outfall of plant will be laid underneath the public roads in Area 137. For Area 132B, a local sewerage network and a sewage pumping station with the associated rising main in Area 132B will convey the sewage to the existing sewer network in Area 72.*** There will be sufficient capacity to serve the currently planned developments.

10.3 Electricity

10.3.1 Electricity will be supplied to the Area through a new distribution network. Sites in Areas 11, 24, 39, 56, 72, 86, 87 and 115 have been developed into electricity substations. ***Two*** ~~Adequate~~ sites have been reserved in Area***s*** 137***A and 137D*** for future electricity substations to meet the demand in short and long terms.

10.3.2 The facility at the site in Area 115 is a 400kV electricity substation. Stringent pollution control measures have been imposed in order to ensure that the adjacent residential neighbourhood will not be adversely affected.

10.4 Town Gas

The network for supplying town gas to the developments in the Area has been extended from Kowloon via Po Lam Road North, Tseung Kwan O Tunnel and Clear Water Bay Road.

10.5 Telephone

Telephone service is available through the telephone exchanges in Areas 26 and 87. An additional telephone exchange is reserved in Area 68 to cater for future demand.

11 CULTURAL HERITAGE

11.1 Several buildings/structures/sites which are of historical significance and archaeological interest are located within the Area. They include Site of the Chinese Customs Station on Fat Tau Chau (Junk Island) (Fat Tau Chau is now known as Fat Tong Chau) in Area 135, which is a Declared Monument under the Antiquities and Monuments Ordinance, Fat Tau Chau Site of Archaeological Interest, Fat Tau Chau Qing Dynasty Grave Stone and Fat Tau Chau House Ruin also in Area 135, Yau Yue Wan Kiln in Area 22, Tin Hau Temple at Hang Hau in Area 35 which is a Grade 3 historic building, Observation Post at Mau Wu Shan in Area 125 which is a Grade 1 historic structure as well as Fortifications at Devil's Peak in Area 132***A*** which is a Grade 2 historic structure.

11.2 On 19 March 2009, the Antiquities Advisory Board (AAB) released the list of 1,444 historic buildings, in which some buildings/structures within the Area have been accorded gradings. AAB also released a number of new items in addition to the list of 1,444 historic buildings. These items are subject to the grading assessment by AAB. Details of the list of 1,444 historic buildings and its new items have been uploaded onto the official website of AAB at http://www.aab.gov.hk.

11.3 Prior consultation with the Antiquities and Monuments Office (AMO) ***of Development Bureau*** should be made if any development, redevelopment or rezoning proposals that might affect the above sites of archaeological interest, graded/proposed graded historic buildings/structures, declared monuments, new items pending grading assessment and their immediate environs. If disturbance of the site of archaeological interest or other areas of archaeological potential is unavoidable, a detailed Archaeological Impact Assessment (AIA) conducted by a qualified archaeologist is required. The archaeologist shall apply for a licence to conduct AIA under the Antiquities and Monuments Ordinance (Cap. 53). A proposal for AIA shall be submitted to AMO for agreement prior to applying for a licence.

12 IMPLEMENTATION

12.1 Although existing uses non-conforming to the statutory zonings are tolerated, any material change of use and any other development/redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the Board. The Board has published a set of guidelines for the interpretation of existing use in the urban and new town areas. Any person who intends to claim an "existing use right" should refer to the guidelines and will need to provide sufficient evidence to support his claim. The enforcement of the zonings mainly rests with the Buildings Department, the Lands Department and the various licensing authorities.

12.2 The Plan provides a broad land use framework within which more detailed non-statutory plans ***such as ODP*** for the Area are prepared by the Planning Department. These detailed plans are used as the basis for public works planning and site reservation within the Government. ***It may include information on detailed land uses, development parameters and boundaries of individual sites, non-building areas, green coverage, waterworks and drainage reserves, site formation levels, road alignment and dimensions, location of pedestrian facilities, public utility facilities as well as other urban design, environmental, building and engineering requirements. These should generally be followed in land transactions and allocations. In particular, these detailed plans, when available and where appropriate, will serve as the basis for processing the lease modification applications and land sales.*** Disposal of sites is undertaken by the Lands Department. Public works projects are co-ordinated by the Civil Engineering and Development Department in conjunction with the client departments and the works departments, such as the Highways Department and the Architectural Services Department. Implementation of these public works projects will be subject to

the availability of resources. In the course of implementation of the Plan, the Sai Kung District Council will also be consulted as appropriate.

12.3 Planning applications to the Board will be assessed on individual merits. In general, the Board, in considering planning applications, will take into account all relevant planning considerations which may include the departmental ***ODPs*** ~~outline development plans~~/layout plans and the Guidelines published by the Board. The ***ODPs*** ~~outline development plans~~ and the layout plans are available for public inspection at the Planning Department. Guidelines published by the Board are available from the Board's website, the Secretariat of the Board and the Planning Department. Application forms and Guidance Notes for planning applications can be downloaded from the Board's website and are available from the Secretariat of the Board, and the Technical Services Division and the relevant District Planning Office of the Planning Department. Applications should be supported by such materials as the Board thinks appropriate to enable it to consider the applications.

TOWN PLANNING BOARD
~~SEPTEMBER 2024~~ ***JANUARY 2025***

土木工程拓展署
Civil Engineering and Development Department

Appendix E of
TPB Paper No. 10992

Agreement No. CE40/2023 (CE)

Development of Tseung Kwan O Area 137 and Associated Reclamation Sites - Investigation, Design and Construction

Consolidated Planning and Engineering Assessment Report and Executive Summary (Final) (Ref. B29-03)

January 2025

AECOM binnies

土木工程拓展署

Civil Engineering and Development Department

East Development Office

Agreement No. CE 40/2023 (CE)

Development of Tseung Kwan O Area 137 and Associated Reclamation Sites – Investigation, Design and Construction

Consolidated Planning and Engineering Assessment Report and Executive Summary (Final)

(Ref. B29-03)

Jan 2025

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Reviewed:	Au, Loretta AECOM	Stephanus Shou Binnies	14 January 2025
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AECOM BINNIES (TKO137) JV

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1. INTRODUCTION

1.1 Background

1.1.1.1 With the growing concern on making the best use of the limited land resource, in the 2016 Policy Address (PA), the Government announced to carry out the re-planning for the development of the land at Tseung Kwan O Area (TKO) 137 (TKO 137) and examine the feasibility of using the site for residential, commercial and other development purposes.

1.1.1.2 To take forward the re-planning process, Civil Engineering and Development Department (CEDD) and Planning Department (PlanD) jointly commissioned the "Planning and Engineering Study for Re-planning of TKO 137" (the P&E Study) in December 2016, with a view to ascertaining and optimising the development potential of the available land in TKO 137.

1.1.1.3 The Government has announced in the 2022 PA that TKO 137 would be developed into a new community primarily for housing purpose providing about 50,000 residential units, to be served by the existing road network, as well as the TKO Line Southern Extension (TKLSE) and the Tseung Kwan O – Yau Tong Tunnel (TKO-YTT) recommended under the Strategic Studies on Railways and Major Roads beyond 2030 (RMR 2030+) and later under the Hong Kong Major Transport Infrastructure Development Blueprint (the Major Transport Blueprint) promulgated in 2023 by Transport and Logistics Bureau. At the same time, to make way for the housing development at TKO 137, a review has been conducted to identify suitable locations for accommodating existing facilities in TKO 137 and other location-specific facilities. Based on the findings of the P&E Study, a Preliminary Outline Development Plan (PODP) was formulated for TKO 137 and the land to be created off TKO 132 (TKO 132) in January 2023.

1.1.1.4 The Legislative Council Panel on Development was briefed on the PODP on 31 January 2023. Besides, during the period from February to March 2023, two Sai Kung District Council Meetings were held to brief the DC and the public on the PODP and solicit participants' views on the plan. The project team also made pro-active efforts in reaching out to the local community to collect their views on the development proposal. In the course of the exercise, the project team organised twelve meetings with local stakeholders and attended two residents' forums, meeting representatives from over 30 organisations such as the owners' committees of the residential estates in TKO, estates' representatives, local personalities, villagers and concern groups, etc.

1.1.1.5 In November 2023, CEDD engaged AECOM Binnies (TKO137) Joint Venture (hereafter referred to "the Consultants") to undertake Agreement No. CE 40/2023 (CE) – Development of Tseung Kwan O Area 137 and Associated Reclamation Sites – Investigation, Design and Construction (hereafter referred to "the Project"). Taking into account comments received from LegCo members, the public and key stakeholders on the PODP, and on-going liaison with relevant Government B/Ds, a Recommended Outline Development Plan (RODP) was formulated.

1.2 The Project

1.2.1.1 The proposed scope of the Project includes reclamation, slope-cutting, site formation and engineering infrastructure works for the development at TKO 137 and formed land off TKO 132 as shown on **Figure 1.1**, comprises the following principal works elements:

1.2.1.2 Engineering Infrastructure Works in TKO 137

(i) Formation of about 20 hectare (ha) of land through reclamation and associated site formation works at TKO 137.

(ii) Site formation works of the existing land area at TKO 137.

(iii) Engineering infrastructure works including roads, drainage, sewerage including sewage pumping station and waterworks including service reservoirs and the associated water mains, access roads and other facilities to support the proposed developments.

(iv) An Effluent Polishing Plant (EPP) at TKO 137 and the associated sewage pumping station and effluent pipeline (*The Consultants* carry out preliminary design and conducts statutory EIA for the EPP under this Designated Project under Schedule 2 in the Investigation Phase. The subsequent design and construction of EPP would be implemented by Drainage Services Department (DSD) tentatively).

(v) Landscaping, streetscaping and ancillary works.

(vi) Provision of environmental mitigation measures for the works mentioned above.

1.2.1.3 Engineering Infrastructure Works in TKO 132

(i) Formation of about 20 ha of land off TKO 132 though reclamation off the existing shoreline and slope-cutting and associated site formation works for the proposed developments.

(ii) Construction of marine viaducts to connect the land to be created off TKO 132 to existing Tseung Lam Highway.

(iii) Engineering infrastructure works including roads, drainage, sewerage including sewage pumping station and waterworks to support the development.

1.2.1.4 An overview of the key planning elements and land uses of the RODP are shown on **Figure 1.1** for TKO 137 and **Figure 1.2** for TKO 132.

1.3 Scope of this Report

1.3.1.1 Clause 6.2.32 of the Scope of the Agreement identifies that the essential requirements of this Report are to provide the following:

(a) Confirm the technical feasibility of the RODP and the proposed Smart, Green and Resilient (SGR) initiatives; and

(b) Summarise findings of the Investigation Phase Study.

1.4 Structure of this Report

1.4.1.1 This Report is prepared in line with Clause 6.2.32 of the Brief of the Agreement. The basic purpose of this Report is to present the summary findings, proposals, recommendations and conclusions during the Project process of the RODP Stage, and confirm the proposed SGR initiatives. Apart from this introductory section, there will be other sections as follows:

- **Section 2** – Key Issues, Project Constraint and Special Requirements
- **Section 3** – RODP
- **Section 4** – Traffic and Transport Impact Assessment
- **Section 5** – Environmental Impact Assessment
- **Section 6** – Air Ventilation Assessment
- **Section 7** – Hydraulic Impact Assessment
- **Section 8** – Marine Traffic Impact Assessment
- **Section 9** – Geotechnical Appraisal, Site Formation and Reclamation Assessment
- **Section 10** – Drainage Impact Assessment
- **Section 11** – Sewerage Impact Assessment
- **Section 12** – Water Supply Impact Assessment
- **Section 13** – Utilities Impact Assessment
- **Section 14** – Socio-economic Impact Assessment
- **Section 15** – Land Requirement and Implementation Strategy
- **Section 16** – Application Of Smart, Green and Resilient Initiatives and Carbon Appraisal
- **Section 17** - Sustainability Assessment

1.5 Abbreviations

1.5.1.1 The following table lists the abbreviated titles of Government bureaux, departments, offices, statutory bodies, public organisations and expressions mentioned in this Report:

Abbreviation	Full title
AFCD	Agriculture, Fisheries and Conservation Department
AIS	Automatic Identification System
AR6	Sixth Assessment Report (IPCC)
AtoN	Aids to Navigation
CBL	Cross Bay Link
CBP	Concrete Batching Plant
CEDD	Civil Engineering and Development Department
CLP	CLP Power Hong Kong Limited
CWHF	Construction Waste Handling Facility
C&D Material	Construction & Demolition Material
C&DMMP	Construction & Demolition Material Management Plan
CIs	Critical Infrastructures
CWBCP	Clear Water Bay Country Park
DCM	Deep Cement Mixing
DH	Department of Health
DREs	Dedicated Rehousing Estates
DSD	Drainage Services Department
D&B	Design & Build
EDB	Education Bureau
EEAD	Estimated Earliest Available Date
EEB	Environment and Ecology Bureau
EFs	Electricity Facilities
EGAs	Ex-gratia Allowances
EIAO	Environmental Impact Assessment Ordinance
EP	Environmental Permit
EPD	Environmental Protection Department
EPP	Effluent Polishing Plant
FEHD	Food and Environmental Hygiene Department
FSD	Fire Services Department
FTC	Fat Tong Chau
FWSR	Fresh Water Service Reservoir
GB	Green Belt
GFS	Green Fuel Station
GHG	Greenhouse Gas
GI	Ground Investigation
GIC	Government, Institution and Community
GPA	Government Property Agency
HA	The Hong Kong Housing Authority
HKIQEP	The Hong Kong Institute of Qualified Environmental Professionals Limited
HKPF	Hong Kong Police Force
Hong Kong 2030+	Hong Kong 2030+ Towards a Planning Vision and Strategy Transcending 2030
IWMF	Integrated Waste Management Facilities
IWRAP	The IALA Waterway Risk Assessment Program
IPCC	Intergovernmental Panel on Climate Change
JBDGA	Junk Bay Dangerous Good Anchorage
LandsD	Lands Department
LCSD	Leisure and Cultural Services Department
MD	Marine Department

Abbreviation	Full title
MTIA	Marine Traffic Impact Assessment
MTR	Mass Transit Railway
ND	Natural Terrain Defence Measures
NSRs	Noise Sensitive Receiver
NTHS	Natural Terrain Hazard Study
O&M	Operation and Maintenance
PA	Policy Address
PFTF	Public Fill Transfer Facility
PPF	Person Per Flat
PT	Public Transport
PTI	Public Transport Interchanges
PVD	Prefabricated Vertical Drain
PWDM	Port Works Design Manual
PW WTW	Pak Kong Water Treatment Works
P&E	Planning and Engineering
QRAs	Quantitative Risk Assessments
RSc	Special Residential
RMR 2030+	Strategic Studies on Railways and Major Roads beyond 2030
RTS	Refuse Transfer Station
SAI	Sites of Archaeological Interest
SC	Stone Columns
SCP	Sand Compaction Piles
SENT Landfill	South East New Territories Landfill
SDM	Stormwater Drainage Manual
SENTX	South East New Territories Landfill Extension
SFDF	Sustainable Fisheries Development Fund
SGR	Smart-Green-Resilient
SNG	Synthetic Natural Gas
SS	Suspended Solid
SSP	Shared Socioeconomic Pathways
SPS	Sewage Pumping Station
STM	Strategic Transport Model
SWD	Social Welfare Department
SWPS	Salt Water Pumping Station
SWSR	Salt Water Service Reservoir
TKL FWSR	Tiu Keng Leng Fresh Water Service Reservoir
TKLSE	Tseung Kwan O Line Southern Extension
TKO FWPSR	Tseung Kwan O Fresh Water Primary Service Reservoir
TKO 132	Tseung Kwan O Area 132
TKO 137	Tseung Kwan O Area 137
TKOCWSF	Tseung Kwan O Temporary Construction Waste Sorting Facilities
TKODP	Tseung Kwan O Desalination Plant
TKO ELL FWSR	Tseung Kwan O East Low Level Fresh Water Service Reservoir
TKOFB	Tseung Kwan O Fill Bank
TKOIP	Tseung Kwan O InnoPark
TKOL	TKO Line
TKO-LTT	Tseung Kwan O – Lam Tin Tunnel
TKOPTW	Tseung Kwan O Preliminary Treatment Works
TKO SWPS	Tseung Kwan O Salt Water Pumping Station
TKO WLL SWSR	Tseung Kwan O West Low Level Salt Water Service Reservoir
TKO-YTT	Tseung Kwan O – Yau Tong Tunnel
TLB	Transport and Logistics Bureau
TMTM	Temporary Marine Traffic Management Plan
TPU	Tertiary Planning Unit

Abbreviation	Full title
TSS	Traffic Separation Scheme
TSE	Treated Sewage Effluent
VPs	Viewpoints
WSD	Water Supplies Department

2. KEY ISSUES, PROJECT CONSTRAINTS AND SPECIAL REQUIREMENTS

2.1 Appreciation of Existing Environment

2.1.1 TKO 137

2.1.1.1 TKO 137 falls mainly within an area currently zoned “Other Specified Uses” annotated “Deep Waterfront Industry” on the approved TKO Outline Zoning Plan (OZP) No. S/TKO/30. It is located at the southern end of Wan Po Road and majority of development area is now a temporary fill bank. To the north of the TKO 137 is Tseung Kwan O InnoPark (TKOIP), while the hill slope areas to the northeast and the east of TKO 137 are the South East New Territories Landfill (SENT) Landfill and its extension (SENTX) area and Clear Water Bay Country Park (CWBCP) respectively. The land to the southeast of the TKO 137 is zoned “Other Specified Uses” annotated “Desalination Plant” on the OZP, which is a desalination plant (EP No. FEP-01/503/2015/B). There is an explosive off-loading pier operated by Mines Division, Geotechnical Engineering Office of CEDD located on the southeast corner of TKO 137 and it will be relocated outside TKO 137 before the population intake of TKO 137. To the northwest of TKO 137 is the knoll of Fat Tong Chau is zoned “Green Belt” on the OZP. To the southeast of TKO 137 is the Tit Cham Chau which is part of the CWBCP.

2.1.2 TKO 132

2.1.2.1 The Project Boundary of TKO 132 covers mainly the sea areas of Chiu Keng Wan, and Junk Bay with inclusion of limited areas along the natural seashore which are zone “Green Belt” on the OZP. To the west of the TKO 132 and further are vegetated hill slope areas, On Luen Village and Junk Bay Chinese Permanent Cemetery (JBCPC). The nearest residential development is Ocean Shores which is located at around 1 km at the northeast of the TKO 132.

2.1.2.2 While the proposed development area of TKO 132 currently is not covered by any statutory town plan, it is proposed to include the reclaimed land area off TKO 132 in the planning scheme area of the TKO OZP.

2.2 Development Opportunities for Project Development

2.2.1 TKO 137

Housing and Job Opportunities

2.2.1.1 Being a rare, sizable waterfront formed land available in the metro area across the Harbour with existing and planned infrastructure and road, TKO 137 can be developed as a major source of housing supply to capitalise the assets of TKO 137 in meeting public aspirations and housing needs.

2.2.1.2 Under the policy direction of “Re-industrialisation” and the physical proximity to the TKOIP of where the Data Technology Hub and Advanced Manufacturing Centre based, TKO 137 may house the knowledge-based population and offer local job opportunities to reduce the need for cross-district trips.

Good Accessibility

2.2.1.3 The future TKLSE to be undertaken by other project proponent will facilitate Transit-Oriented Development. It hence enables high density mixed commercial and residential sites around the proposed railway infrastructure. Major population, economic activities and community facilities would be concentrated within walking distance (i.e. 800m) of mass transit and public transport nodes. A convenient and fast mass transportation system would facilitate the residents of TKO 137 and the nearby employment population in using the transport network.

2.2.1.4 Furthermore, the TKO-YTT recommended under the Major Transport Blueprint connecting TKO Town Centre and Yau Tong area will strengthen the connection between TKO, Kowloon East and Hong Kong Island East. It also provides alternative route to Yau Tong and the urban area to benefit nearby residents as well as to meet the traffic demand arising from the development at TKO 137.

Urban-Nature Synergy

2.2.1.5 The CWBCP located to the immediate east of the site spans ana area of about 615 ha and is an ecologically sensitive area. The boundary of CWBCP also includes Tit Cham Chau to the south of TKO 137. Development initiatives should minimise any direct/indirect impact to the ecological resources and system.

2.2.1.6 The interconnection between and accessibility to the nearby natural resources will be further reviewed to achieve synergistic development. TKO 137 aims to leverage the waterfront location to create a vibrant and sustainable community. This includes promoting people-oriented design and exploring the possibility of a green/open space network that integrates blue-green resources.

2.2.1.7 Fat Tong Chau, located between TKOIP and TKO 137, will be considered as a potential green node to enhance natural interest points and create a green connection between the two areas. Existing declared monument and three Sites of Archaeological Interest shall be well respected while planning the future uses.

2.2.2 TKO 132

Obscure Locations

2.2.2.1 TKO 132 is considered suitable for accommodating the Public Facilities as it is at a relatively obscure location, away from existing and planned residential developments around 1km. This is to minimise any possible environmental impact on the local residents. Land use incompatibility will be much reduced.

Near Tseung Lam Highway

2.2.2.2 TKO 132 being close to Tseung Lam Highway enables the induced traffic to use Tseung Lam Highway to go to Kowloon East, thereby avoiding routing through the existing district road network in TKO. This would reduce the air and noise impact to the residents of TKO.

2.3 Development Constraints for Project Development

TKO 137

2.3.1 Infrastructure Constraints

Need for Optimization of Valuable Land Resources

2.3.1.1 The total development area of TKO 137 is approximately 103 ha including about 83 ha of existing land and area available in Fat Tong Chau after site formation as well as 20 ha of proposed reclamation area. As an expansion of TKO New Town, it is anticipated that TKO 137 will be a compact high-density community with a planned population of about 135,000. To match with the policy direction of enhancing liveability, latest benchmark on open space provision and home space enhancement as advocated in the Hong Kong 2030+ Towards a Planning Vision and Strategy Transcending 2030" ("Hong Kong 2030+") would be adopted to further enhance the living environment of TKO 137.

Tathong Channel Traffic Separation Scheme (Tathong Channel TSS)

2.3.1.2 Eastern Sea water channel designated with TSS including inshore traffic zones on its northern and southern edge is located in the vicinity of TKO 137. A clearance of about 250 m from the boundary of the Tathong Channel TSS is required for in-shore marine traffic. This limits the use of wave-like configuration of ecological enhanced seawall if developable reclaimed is to be maximised.

Avoidance and Minimisation of Industrial and Residential Interface Problems

2.3.1.3 TKOIP is located directly to the north of TKO 137 development. Potential air pollution and noise sources from TKOIP are expected to impact the northern side of TKO 137. Considerations had been made in land use planning to minimise the adverse impact to future development (e.g. separate proposed residential sites with TKOIP by open space and Government Institution and Community (G/IC) sites.)

Consideration of Permitted Burial Ground during planning

2.3.1.4 A permitted burial ground (PBG Site No. SK/1) is located at the west of Fat Tong Chau. The future development should avoid encroachment into the permitted burial ground.

2.3.2 Environmental Constraints

Existing Ecological, Natural and Landscape Features

2.3.2.1 TKO 137 is surrounded by areas of natural value. Various coral communities were recorded in the spot-check dive survey and REA surveys along the shoreline of eastern Junk Bay. A coral recipient site for translocated corals was identified in the southwest coast of Fat Tong Chau. TKO 137 also interfaces with natural hills to the east, along Clear Water Bay Country Park where there are species of conservation importance. Due considerations should be given to avoid/ minimise adverse impacts of the future developments on the existing ecological, natural and landscape features.

Declared Monument/ Site of Archaeological Interest

2.3.2.2 A declared monument, Site of Chinese Customs Station, Fat Tau Chau (also known as Old Chinese Customs Station on Fat Tau Chau) and three Sites of Archaeological Interest (SAIs) are located outside the Project Boundary. These SAIs include Fat Tau Chau (SAI184), Fat Tau Chau House Ruin (SAI185), and Fat Tau Chau Qing Dynasty Gravestone (SAI186). Avoidance of encroachment on the declared monument or site of archaeological interest should be considered.

TKO 132

2.3.3 Infrastructure Constraints

Surrouding Existing Land Uses

2.3.3.1 There are existing government land licences with a few domestic settlements, which is known as On Luen Village, scattered uphill at TKO 132. Along the shoreline where land formation by means of reclamation and slope cutting would be carried out to house the Public Facilities. This would limit the design and extent of site formation at TKO 132 in order not to affect the existing government land licences.

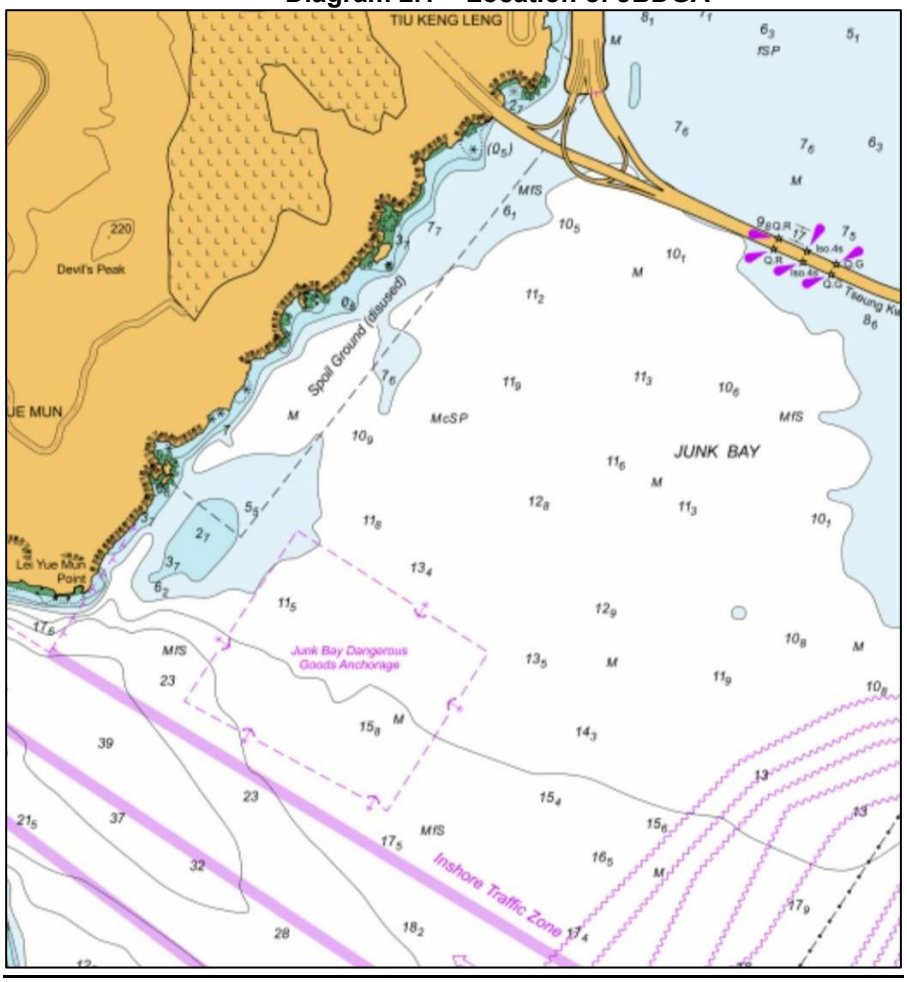
Junk Bay Chinese Permanent Cemetery

2.3.3.2 JBCPC lies on the slopes of Chiu Keng Wan Shan, eastwards of Devil's Peak. Future development of TKO 132 should avoid encroachment into the JBCPC.

Junk Bay Dangerous Goods Anchorage (JBDGA)

2.3.3.3 The JBDGA is located southeast to land to be created off TKO 132 as shown in **Diagram 2.1** below. Reclamation within the JBDGA boundary should be avoided as far as practicable.

Diagram 2.1 – Location of JBDGA[1]



Requirements for Public Facilities

2.3.3.4 The Public Facilities each has its own requirements on site area and length of marine frontages. The planning of TKO 132 needs to take into account the planning requirements as advised by relevant bureaux departments of the Public Facilities which are set out in **Table 2.2** below. Straight seawall is required as marine frontage for berthing operation of the Public Facilities. Wave-like configuration eco-engineering seawalls will not be considered at TKO 132 to suit the operation of the vessels.

Table 2.1 Planning Requirements for Public Facilities in PODP stage

Public Facilities	Required Footprint	Maximum Building Height	Minimum Marine Frontage Required
EFs	5.9 ha	60 m	200m for sloping seawall for cable landing
RTS	3.0 ha	40 m (50 m for on-shore crane)	170 m
CWHF	4.5 ha	20 m	18 0 m
PFTF	4.0 ha	25 m	230 m
CBP	0.6 ha	28 m	80 m

[1] Location of JBDGA is extracted from Marine Chart by Marine Department's "eSeaGo"

2.3.4 Environmental Constraints

Existing Ecological, Natural and Landscape Features

2.3.4.1 TKO 132 sites are surrounded by areas of natural value. Coral communities were recorded along the shoreline of western Junk Bay. A coral recipient site for translocated corals is identified in the southwestern coast of Junk Bay. Due considerations should be given to avoid/ minimise adverse impacts of the future developments on the existing ecological, natural and landscape features.

Graded Historic Buildings

2.3.4.2 One grade 2 historic building (Fortifications at Devils' Peak (HB463)) and one grade 3 historic building (Old Quarry Site Structures, Lei Yue Mun) are identified in the vicinity of the TKO 132. Avoidance of encroachment on the graded historic buildings should be considered.

3. RODP

3.1 TKO 137

3.1.1 Planning Vision, Objectives and Guiding Principles for TKO 137

Vision

3.1.1.1 TKO 137 is a rare, sizable waterfront formed land available in the metro area across the harbour with infrastructure and road existing. Moreover, TKO 137 will be one of the major sources of housing supply. The development potential should be maximised within the infrastructural capacity limits without compromising urban design principles, while minimising impacts on existing communities, cultural heritage as well as the natural environment.

Guiding Principles

3.1.1.2 Based on the above overall vision as well as development opportunities and constraints, the following guiding principles are formulated to guide the development of TKO 137:

(a) Support Short to Medium Term Housing Need

- Optimise development potential of TKO 137 to provide additional land supply to meeting short to medium term housing, and other needs.

(b) Build Liveable New Community

- To enhance liveability in a compact high-density setting, TKO 137 development will strive to promote healthier lifestyle, provide more quality open spaces and community facilities, bring people closer to blue-green assets as well as to create opportunities for larger homes.

(c) Create a “Waterfront District” Community

- Utilise the waterfront resources to establish a community with strong sense of place and distinctive identity. The future waterfront area will be recreation-oriented with good connectivity, which would be a quality public realm with positive inter-relationship with the adjoining built environments;
- The presence of blue-green natural resources (country park and the waterfront) allows the future development of the area to be optimised by close interaction with the natural setting. An integrated network of linked open space should be created to connect the open space with the waterfront and other green networks in TKO; and
- Activate lively streetscape through potential commercial and leisure uses (i.e. waterfront retail and leisure activities), promoting diverse programmes and activities in the future waterfront community.

(d) Minimise Land Use Interface

- Explore planning and design initiatives to minimise potential nuisance caused by infrastructural facilities and the nearby industrial uses in TKOIP.

(e) Avoid Overtaxing Traffic Capacity and Reserve Land for Heavy Railway Extension

- Propose appropriate development parameters for TKO 137 taking into account the existing and planned developments and the capacity of the existing road network in TKO as well as new rail and road links, including the TKLSE and the TKO-YTT; and
- Reserve land for railway extension and railway facilities.

3.1.1.3 Smart, Low Carbon, Eco-City and Walkable City Concept

- Promote comprehensive mixed-use developments and the principle of “single site, multiple use” to optimise use of land resources;

- Foster smart and green mobility supported by a comprehensive, convenient and attractive pedestrian and cycling network, which also connects to the existing/planned district-wide system;
- Develop an integrated smart and green infrastructure system; and
- Encourage sustainable, low carbon, and eco-city development.

3.1.2 Overall Planning & Urban Design Framework for TKO 137

3.1.2.1 The Planning and Urban Design Framework is illustrated in **Figure 1.3**. The key elements are as follows:

(a) Green corridors

- the Waterfront Promenade is proposed as a major green corridor. The Gateway Plaza is proposed as another major green corridor of about 100m wide, stretching east-west, as a key activity space and an arrival node from the proposed railway station. Several other narrow linear open spaces between residential developments in east-west directions are proposed to supplement the network as secondary green corridors and function as view corridors and breezeways.

(b) Central Urban Corridor

- A central urban corridor along the Road L1 is proposed in parallel with the Waterfront Promenade in the north-south way to serve the community along both sides.

(c) View Corridors

- The proposed linear green corridors will also serve as view corridors to strengthen the visual permeability.

(d) Breezeways

- Breezeways are introduced through sites, major roads and green corridors linking the waterfront and mountains to foster a well-ventilated microclimate within TKO 137.

3.1.2.2 Based on the above design structural framework, key nodes focal points, and landmarks are carefully placed to create an identifiable urban fabric and character.

(a) Open Space Nodes

- Three open space nodes are proposed to be integrated into the open space network. A Gateway Plaza adjacent to the proposed railway station will be the core community and visitor node. Two other open space nodes, one at the northern tip with the mountain foothill of Fat Tong Chau as backdrop and the other one at the southern end adjacent to the existing woodland Tit Cham Chau.

(b) Landmark

- A Government Complex is proposed as a landmark next to the Gateway Plaza and as a visual marker that identifies the future TKO 137 community.

(c) Focal Points

- Several focal points will be anchored at suitable locations of the green nodes or along the green corridors to serve as iconic features of the waterfront.

3.1.2.3 To further diversify urban activity programs and people movement for an efficient, lively, and healthy lifestyle, the following design and development elements are incorporated:

(a) Transit-oriented Development and 15-minute Neighbourhood

- Rail transport will be the backbone to serve future transport needs with support of other means of road transport to facilitate movement between TKO 137, TKO, and other urban

nodes. Almost all of the future population, economic activities and community facilities would be reached within 15-minute walking distance (i.e 800m) from the proposed railway station and the two proposed public transport interchanges.

(b) Green Mobility

- Green mobility is promoted within TKO 137 through the introduction of a comprehensive cycling and pedestrian network to enhance connectivity and walkability.

(c) Active Frontage

- A 5-meter building frontage setback at ground floor level facing the Gateway Plaza and Waterfront Promenade is proposed within the development sites to ensure active spaces for potential service areas.

3.1.3 Connectivity/ Pedestrian and Cycling Network for TKO 137

Pedestrian Network

3.1.3.1 The recommended pedestrian network of TKO 137 will be comprehensive where pedestrian footpaths are provided along the both sides of each roadway and around major development areas with at-grade crossings at road junctions to secure safe and convenient daily commute.

Road and Cycling Network

3.1.3.2 To provide pedestrian connections to the key public transport nodes (proposed railway station and two proposed Public Transport Interchanges (PTIs) and major activity nodes, a hybrid approach of all-weather pedestrian connection would be provided to facilitate a seamless, safe pedestrian connection even under bad weather. A continuous sheltered area will be proposed along the private housing sites fronting Road L1 for daily commuters to travel between the transport nodes and residential areas. Elevated pedestrian linkage in the form of footbridges (subject to detailed design) connecting housing sites and the Government Complex (Sites PU3&4 and PR2, PR3 and G4, PR4 and PU6) are also proposed. The elevated pedestrian linkage is proposed to provide a safe connection across Road L1 of higher vehicular flow and secure an all-weather walking environment to/from major transport and activity nodes.

3.1.3.3 A comprehensive cycling network has been planned for TKO 137 to promote cycling as an environmentally friendly transport mode for first and last-mile commuting trips purposes. The proposed cycle track network will integrate with the existing cycle track that currently terminate at Wan Po Road. The proposed loop design of artery cycleway could provide direct and seamless cycling connectivity throughout the Area, particularly from key transport nodes, such PTIs, railway station and cycle parking facilities, to facilitate intra-district travel. In addition, branched local cycle tracks will be strategically placed to connect various housing developments and other active nodes, ensuring comprehensive coverage of the surrounding land parcels.

3.1.4 Open Space Strategy

3.1.4.1 In view of the target flat production of around 50,000 units and target population of around 135,000, the open space requirement is shown below:

Table 3.1 - Open Space Requirement based on Population of 135,000

Population Target	~135,000
HK 2030+ Latest Recommendation	~3.5 sqm/person
Open Space Requirement	~47.2 ha

3.1.4.2 Due to limited land available within TKO 137, a major portion (about 19 ha) of the required 47.2 ha of open space could be accommodated within TKO 137. The remaining provision of open space shall look beyond TKO 137 for opportunity spaces. Initial review shows that Fat Tong Chau (FTC), SENT, and SENTX etc. present potential as open space. Their sloping topography as well as the aftercare period requirement for SENT and SENTX will affect the area of usable open space as well as the timeline for delivery.

3.1.4.3 Moreover, the provision of outdoor core activities (e.g. courts for tennis, basketball, mini-soccer etc.) for the future 135,000 population to meet HKPSG requirements will take up major space within the future open space. Alternative solutions to accommodate the required facilities (e.g. within multi-storey indoor complex) shall be examined under the Assignment with relevant Government departments.

3.1.4.4 In order to meet the provision target of an average of 3.5 sqm per person in accordance with the recommendations in the HK 2030+ Final Report, about 29.4 ha of open space provision outside TKO 137 is identified, including the proposed service reservoirs at Fat Tong Chau (1.7 ha), SENT and SENTX (27.7 ha). With the additional open space outside TKO 137, the total open space provision is about 48.1 ha, hence able to achieve an average of 3.5 sqm per person of open space.

3.1.5 GIC Strategy

3.1.5.1 Three lists of facilities to be accommodated within TKO 137 are provided in the below:

Table 3.2 - Provision and Estimated Earliest Site Available Date (EEAD) of GIC Facilities and Infrastructural Services

GIC Facilities / Infrastructural Services	Provision	Site	Site Area (ha)
Divisional Police Station	1	G1	0.39
Sub-divisional Fire Station cum Ambulance Depot	1	G2	0.52
Sports Centre and Government Reserve	1	G3	0.83
Government Complex • Swimming Pool • Sports Centre • Public Market • Community Hall • Health Centre • Refuse Collection Point • Recycling Store • Post Office	1	G4	2.00
Primary Schools	3	E2, E3, E4	0.69 0.67 0.68
Secondary Schools	2	E1, E5	0.71 0.85
132kV Electricity Substation	2	OU1, OU2	0.37 0.38
Green Fuel Station	1	OU3	0.44
Effluent Polishing Plant	1	OU4	4.51
Fresh Water Service Reservoir	1	OU5	1.00
Salt Water Service Reservoir	1	OU6	0.62

Table 3.3 - Preliminary List of Provision of Social Welfare Facilities by Social Welfare Department (SWD)

Site Ref No.	Land Use	Social Welfare Facilities	Capacity	Net Operational Floor Area (NOFA) (sqm)	Gross Floor Area (GFA) (sqm) [1]
PU1&2	RSc	Hostel for Moderately Mentally Handicapped Persons	50	617	1357.4
		Hostel for Moderately Mentally Handicapped Persons	62	765	1,683
		Integrated Vocational Rehabilitation Services Centre	120	653	1436.6
		Supported Hostel for Mentally Handicapped Persons	40	443	974.6
		An Office Base of On-site Pre-school Rehabilitation Services	100	166	365.2
		Child Care Centre	100	530	1166
		District Elderly Community Centre	N/A	522	1148.4
		Home Care Services for Frail Elderly Persons	280	256.9	565.2
		Integrated Children and Youth Services Centres	N/A	631	1388.2
		Integrated Family Service Centre (departmental facility)	N/A	551.1	1212.42
		Residential Care Home for the Elderly	200	2,475	5,445
		Small Group Home for Mildly Mentally Handicapped Children	30	536	1179.2
		Special Child Care Centre	60	409.4	900.68
		Day Activity Centre	100	638	1,403.6
		Day Activity Centre	80	510	1,122
		Hostel for Severely Mentally Handicapped Persons	100	1,382	3,040.4
		Hostel for Severely Mentally Handicapped Persons	82	1,133	2,492.6
		Hostel for Severely Physically Handicapped Persons	21	292	642.4
		Integrated Vocational Rehabilitation Services Centre	160	855	1,881
		Supported Hostel for Persons in Mental Recovery	40	487	1,071.4
		Supported Hostel for Physically Handicapped Persons	20	265	583
PU3&4	RSc	Child Care Centre	100	530	1,166
		Hostel for Moderately Mentally Handicapped Persons	50	617	1,357.4
		Integrated Vocational Rehabilitation Services Centre	80	447	983.4

		Supported Hostel for Persons in Mental Recovery	40	487	1,071.4
		Halfway House	40	483	1,062.6
		Hostel for Severely Mentally Handicapped Persons	100	1,382	3,040.4
		Day Activity Centre	100	638	1,403.6
		Supported Hostel for Mentally Handicapped Persons	40	443	974.6
		Other welfare facilities for meeting 5% GFA policy initiative	To be confirmed	8,121	17,866.2
PU5	RSc	Child Care Centre	100	530	1166
		Integrated Children and Youth Services Centres	N/A	631	1388.2
		Residential Care Home for the Elderly	100	1,354	2,978.8
		Long Stay Care Home	200	2,866	6,305.2
PU6	RSc	Hostel for Moderately Mentally Handicapped Persons	50	617	1,357.4
		Integrated Vocational Rehabilitation Services Centre	80	447	983.4
		Supported Hostel for Mentally/Physically Handicapped Persons	30	355	781
		Supported Hostel for Mentally Handicapped Persons	30	345	759
		Supported Hostel for Persons in Mental Recovery	40	487	1,071.4
		Long Stay Care Home	200	2,866	6,305.2
		Halfway House	40	483	1,062.6
		Integrated Community Centre for Mental Wellness	N/A	510	1,122
		Other welfare facilities for meeting 5% GFA policy initiative	To be confirmed	2,707	5,955.4
PR3	R1	Child Care Centre	100	530	1,166
PR4	R2	Child Care Centre	100	530	1,166

Notes:

(1) As advised by SWD, assumption of NOFA to GFA ratio for SWF as 1:2.2 is adopted.

(2) The list of provision is based on the latest wish-list of social welfare facilities received from SWD on 5 June 2024.

(3) Provision of welfare facilities will be subject to further review and confirmation of the development parameters and schedule.

3.1.6 Infrastructure Provision Strategy

PTIs

3.1.6.1 Two permanent PTIs with terminus for buses, minibuses and taxis are proposed within TKO 137. The proposed PTIs will be adequately sized to accommodate future passenger demand and facilitate convenient interchanges between different modes of transportation. In addition, two temporary PT facilities will also be provided to serve as the interim measures to meet the required passenger demand before two permanent PTIs are fully commissioned.

TKLSE

3.1.6.2 Based on the recommendation of the Hong Kong Major Transport Infrastructure Development Blueprint in 2023 (the Development Blueprint), TKLSE would be extended from the at-grade TKO Line LOHAS Park Station in the form of a tunnel to the underground station at TKO 137.

Waterworks

3.1.6.3 New fresh water service reservoir (FWSR) and salt water service reservoir (SWSR) are proposed at the Green Belt south facing slope of Fat Tong Chau.

Sewerage

3.1.6.4 An EPP is proposed at the east of the Project Area. A new sewerage network with associated gravity sewer for influent and outfall will be laid underneath new access roads / footways within TKO 137. Interim advance works involve diverting sewage from TKO 137 to Tseung Kwan O Preliminary. Treatment Works (TKOPTW) via an advance pumping station to manage sewage flow before the commissioning of TKO 137 EPP.

Drainage

3.1.6.5 Surface runoff from each parcel of the sub-catchments at TKO 137 and the adjacent hillside areas at the northeast is collected by local branch drains and box culverts for gravity discharge to the outfalls along the coastline of TKO 137.

Utility Services

3.1.6.6 The utility services to be provided at TKO 137 and land to be created off TKO 132 to support the project development and future operation, including but not limited to below:

- Power supply network;
- Gas supply network;
- Telephone and telecommunication services;
- Cable TV service; and
- Street lighting and Traffic signals system

3.1.7 Key Landscape Design Concepts

Landscape Vision

3.1.7.1 To create an identity drawn from Hong Kong's natural context and culture, the landscape design for the project maximises the urban ecological potential of the sites while contributing to local placemaking.

Key Landscape design Concept and Principles

3.1.7.2 In view of the climate change and the decline of our world's wildlife population, a nature-positive development mode is achieved when maximising biodiversity potential becomes the cornerstone for development. To create liveable environments for all (both human and wildlife), the landscape framework should work hand in hand with the natural environment. The Landscape Master Plan is shown in **Figure 1.4**.

Landscape Framework and Character Zoning

3.1.7.3 TKO 137 is supported by an open space network braced by the intersection of a waterfront corridor and a central urban green corridor. Besides facilitating movement and walkability, the secondary corridors help formulate a comprehensive landscape network between the development and adjacent natural context, both marine and terrestrial. The Landscape Framework is shown in **Figure 1.5.**

3.1.8 SGR Initiatives

3.1.8.1 Drawing upon the insights gained from the Hong Kong 2030+ topical paper on SGR City Strategy and HK2050 Publication, Post-COP27 Building a more climate-resilient Asia. The guiding principles are generally described below:

- Low carbon – reduction of carbon footprint without compromising economic development and liveability;
- Resource efficient - maximize the efficiency for the utilization of resources in a sustainable way;
- Natural - Imitate natural system, land use and infrastructure planning incorporated with the ecological system, minimize the impact to nature;
- Robust and Reliable - Well-constructed infrastructure system able to withstand hazard event without significant damage;
- Optimized and Redundance - Achieve the balance among different urban infrastructure systems without missing appropriate spare capacity to meet surges in demand;
- Flexible - The ability to evolve and adapt in response to changing circumstances and urban development;
- Intelligent - Use of technology incorporated in the planning, design, management and operation of different initiatives, services and systems; and
- Integrative - Various systems within a city should be consistent in decision making and are mutually supportive to each other.

3.1.9 Proposed Land Uses for TKO 137

3.1.9.1 The land use proposal recommended under the RODP is shown in **Figure 1.1**. Various land use zoning and major development parameters of each site are listed below.

Major Residential Uses – Total Area about 51.9 ha

”Special Residential” (“RSc”): Total Area about 25.9 ha

3.1.9.2 The planning intention of “Special Residential (RSc)” zone is primarily for high density subsidised housing developments and with compatible non-domestic uses, such as retail, commercial, social and community uses, on the podium of the buildings above ground excluding floors containing wholly or mainly car parking, loading / unloading bays and/or plant room; or in the purpose-designed non-residential buildings.

3.1.9.3 To improve air ventilation and visual permeability, a non-building area (NBA) of 15m wide running in west-southwest to east-northeast direction is designated in Site PU6 to elongate the formed air path by the open space (O6) and direct prevailing Southwest and West-southwest onshore wind from waterfront promenade towards the proposed school sites (Site E3, E4, E5).

Table 3.4 - Special Residential ("RSc") Sites

Site Ref No.	Land Use	Site Area (ha) (about)	Domestic PR	Domestic GFA (sqm) (about)	Non-domestic PR	Non-domestic GFA (sqm) (about)	Flat No. (about)	Population (about)	Maximum Building Height (mPD)
PU1&2	RSc	9.2	7.5	686,310	0.3	27,450	12,480	33,690	200
PU3&4	RSc	7.6	7.5	571,550	0.3	22,860	10,390	28,060	190
PU5	RSc	3.5	7	241,700	0.3	10,360	4,400	11,850	180
PU6	RSc	5.6	7	394,770	0.3	16,920	7,180	19,380	175

Remarks

1. The domestic/non-domestic GFA may slightly differ from the multiplication of site area and domestic/non-domestic PR as shown in the table due to rounding of the site area.

"Residential Zone 1" ("R1"): Total Area about 14.9 ha

3.1.9.4 The planning intention of "R1" is primarily for high-density private residential developments with provision for compatible non-domestic uses, footbridge, cover walkways and internal all-weather access are proposed to connect different sites.

Table 3.5 - Residential Zone 1 ("R1") Sites

Site Ref No.	Land Use	Site Area (ha) (about)	Domestic Plot Rario (DPR)	Domestic GFA (sqm) (about)	Non-domestic PR	Non-domestic GFA (sqm) (about)	Flat No. (about)	Population (about)	Maximum Building Height (mPD)
PR1	R1	4.5	6	272,170	0.3	13,610	3,300	8,910	185
PR2	R1	4.9	6	293,240	0.3	14,660	3,550	9,600	175
PR3	R1	5.5	5	274,310	1	54,860	3,330	8,980	155

Remarks

1. The domestic/non-domestic GFA may slightly differ from the multiplication of site area and domestic/non-domestic PR as shown in the table due to rounding of the site area.

Residential Zone 2 ("R2"): Total Area about 11.1 ha

3.1.9.5 The planning intention of "R2" is primarily for medium-density private residential developments and may be with compatible non-domestic uses to provide local needs and services, social welfare and community facilities and/or nursery and kindergarten are proposed on these sites.

Table 3.6 - Residential Zone 2 ("R2") Sites

Site Ref No.	Land Use	Site Area (ha) (about)	Domestic Plot Ratio	Domestic GFA (sqm) (about)	Non-domestic PR	Non-domestic GFA (sqm) (about)	Flat No. (about)	Population (about)	Maximum Building Height (mPD)
PR4	R2	5.2	4	205,990	0.3	15,450	2,500	6,740	120
PR5	R2	6.0	4	238,740	0.3	17,910	2,890	7,810	120

Remarks

1. The domestic/non-domestic GFA may slightly differ from the multiplication of site area and domestic/non-domestic PR as shown in the table due to rounding of the site area.

Government, Institution or Community (GIC) Uses – Total Area about 3.7 ha

3.1.9.6 The zone is intended primarily for the provision of Government, institution or community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishment.

Table 3.7 - Government, Institution or Community ("GIC") Sites

Site Ref No.	Designated Use	Site Area (ha) (about)	Maximum Building Height
G1	Divisional Police Station	0.4	110 mPD [1]
G2	Sub-divisional Fire Station cum Ambulance Depot	0.5	40 mPD [1,3]
G3	Sports Centre and Government Reserve	0.8	50 mPD [1,3]
G4	Government Complex (Includes Swimming Pool, Sports Centre, Public Market, Community Hall, Health Centre, Refuse Collection Point, Recycling Store, Post Office)	2.0	60 mPD [2,3]

Remarks

1. The maximum building height is based on a formation level of +6.5mPD.
2. The maximum building height is based on a formation level of +6.75mPD.
3. The maximum building height is based on the floor-to-floor height assumptions of facilities and proposed building heights from the notional scheme in massing model, subject to further review by relevant government departments.

Education ("E") – Total Area about 3.6 ha

3.1.9.7 The planning intention of this zone is to reserve sites for provision of primary and secondary schools.

3.1.9.8 A NBA of 15m wide running in west-southwest to east-northeast direction is designated in Site E5 to elongate the formed air path by the open space (O6) and the NBA in Site PU6. It is expected to direct prevailing Southwest and West-southwest onshore wind from waterfront promenade towards the inland area of TKO 137.

Table 3.8 - Education ("E") Sites

Site Ref No.	Designated Use	Site Area (ha) (about)	Maximum Building Height
E1	Secondary School	0.7	8 storeys
E2	Primary School	0.7	8 storeys
E3	Primary School	0.7	8 storeys
E4	Primary School	0.7	8 storeys
E5	Secondary School	0.9	8 storeys

Other Specified Uses ("OU") – Total Area about 7.4 ha

3.1.9.9 The planning for other specified used sites is listed below.

Table 3.9 - Other Specified Uses ("OU") Sites

Site Ref No.	Designated Use	Site Area (ha) (about)	Maximum Building Height
OU1	Electricity Sub-station (132kV Bulk)	0.4	40 mPD [1]
OU2	Electricity Sub-station (132kV Primary)	0.4	20 mPD [3]
OU3	Green Fuel Station	0.4	1 storey
OU4	Effluent Polishing Plant	4.5	30 mPD
OU5	Fresh Water Service Reservoir	1.1	80 mPD [2]
OU6	Salt Water Service Reservoir	0.6	80 mPD [2]

Remarks

1. The maximum building height is based on a formation level of +6.5mPD.
2. Site formation level subject to confirmation with WSD and the absolute building height shall not exceed 20m.
3. The maximum building height is based on the on the floor-to-floor height assumptions of facilities and proposed building heights from the notional scheme in massing model, subject to further review by relevant government departments.

Open Space – Total Area about 18.7 ha

3.1.9.10 The planning intention of this zone is primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

Table 3.10 - Open Space ("O") Sites

Site Ref No.	Designated Use	Site Area (ha) (about)
O1	Open Space - The Proposed Hillside Park under the backdrop mountain of Fat Tong O	2.3
O2	Open Space - Open space along Road L1 adjacent to the proposed primary and secondary schools	0.4
O3	Open Space - Open space along Road L8 adjacent to the proposed public housing site	0.7
O4	Open Space - Proposed Gateway Plaza adjacent to the proposed railway station	1.8
O5	Open Space - Proposed Gateway Plaza adjacent to the proposed railway station	1.7
O6	Open Space - Proposed Bay Promenade facing Junk Bay & linear open space gaps between residential developments in east-west way	5.5
O7	Open Space - Open space along Road L8 in between the proposed public housing site and the proposed Effluent Polishing Plant	0.5
O8	Open Space - The Proposed Southpoint adjacent to Tit Cham Chau	5.2
O9	Open Space – Open space to the east of Site OU1 in parallel to Road L2	0.2
O10	Open Space – Open space to the south of Site OU1 fronting Road L2	0.3

Green Belt – Total Area about 0.15 ha

3.1.9.11 The planning intention of this zone is primarily to define the limits of urban and sub-urban development areas by natural features, and to contain urban sprawl as well as to provide passive recreational outlets. There is a general presumption against development within this zone. Development within this zone will be strictly controlled and development proposals will be considered on individual merits taking into account the relevant Town Planning Board Guidelines.

3.1.9.12 A NBA running in north to south direction of about 3 to 11m wide is designated at Site GB1, and another NBA running in east to west direction of about 5 to 20m wide is designated at Site GB2. Both are no-build zones subject to natural terrain hazards. It is zoned as “Green Belt” to be merged with the existing “GB” zone at Fat Tong Chau.

3.1.10 Land Use Budget for TKO 137

3.1.10.1 Based on the RODP, the land use budget is tabulated as follow:

Table 3.11 - Land Use Budget of RODP

Land Uses	**Approx. Area (ha) (% of total)**
Residential - Public - Private	51.9 (50.4%) 25.9 26.0
Government, Institution and Community Facilities - Primary Schools - Secondary Schools - Sports Centre and Government Reserve - Divisional Police Station - Sub-divisional Frie Station cum Ambulance Depot - Government Complex (Swimming Pool, Sports Centre, Public Market, Community Hall, Health Centre, Recycling Store, Refuse Collection Point , Post Office)	7.3 (7.1%) 2.0 1.6 0.8 0.4 0.5 2.0
Open Space	18.7 (18.2%)
Other Specified Uses - Effluent Polishing Plant - Green Fuel Station - Electricity substation - Fresh Water Service Reservoir / Salt Water Service Reservoir	7.4 (7.2%) 4.5 0.4 0.8 1.7
Green Belt	**0.15 (0.1%)**
Roads	17.5 (17.1%)
TOTAL (about) *(*excluding existing section of Wan Po Road with proposed road works)*	102.9 (100%)

3.2 TKO 132

3.2.1 Planning Vision, Objectives and Guiding Principles for TKO 132

Vision

3.2.1.1 TKO 132 will undergo a transformation, becoming a well-connected plot of land designed to accommodate public facilities. The vision includes creating a diverse woodland habitat and an eco-shoreline, strategically contributing to carbon neutrality goals and enhancing ecological value.

Objectives

3.2.1.2 The main objective of TKO 132 is to house the five Public Facilities (EFs, CWHF, PFTF, CWHF and CBP). Land-in-take and layout design should be optimised to minimise the reclamation extent. Vertical greening should be considered for buildings to harmonise with the surrounding environment whenever possible.

Guiding Principles

3.2.1.3 Based on the above overall vision as well as development opportunities and constraints, the following guiding principles are formulated to guide the development of TKO 132:

(a) Accommodate five Public Facilities

i. House five Public Facilities that all require marine frontage for daily operation.

(b) Meeting the Decarbonisation Target

i. Enhance Hong Kong's capability to import zero-carbon energy through regional cooperation and meeting the decarbonisation target of reducing Hong Kong's carbon emissions by 50% before 2035 as compared to the 2005 level, with a view to achieving carbon neutrality before 2050.

(c) Smart, Low Carbon and Eco-City Concept

i. Develop an integrated smart and green infrastructure system; and

ii. Encourage sustainable, low carbon, and eco-city development.

3.2.2 Overall Planning & Urban Design Framework for TKO 132

3.2.2.1 The Planning and Urban Design Framework is illustrated in **Figure 1.6**. The adjacent natural elements including Junk Bay and mountains, enhances accessibility and secures the fundamental structure of views and air ventilations. The key elements are as follows:

(a) Breezeways

i. Breezeways are introduced through sites to foster a well-ventilated microclimate within TKO 132. Any breezeways proposed in the future development should align with the prevailing wind (annual prevailing winds coming from ENE and E, and summer prevailing winds coming from SW and E). Disposition of public roads would align with the prevailing wind directions from NNE to SSW and from ENE to WSW. Furthermore, the proposed seperation between buildings mass provide sufficient spaces to facilitate air ventilation in width of minimum 15m for breezeways.

(b) Building Height Profile

ii. A building height strategy is applied to respond to the adjacent mountains and uses (Cemetery) to minimize visual impacts towards the Junck Bay Areas. Proposed maximum building heights of the five Public Facilities will range from 30 to 70 mPD.

3.2.3 Connectivity/ Pedestrian and Transport Network for TKO 132

Pedestrian Network

3.2.3.1 A continuous footpath will be provided along kerbside of the carriageway to ensure connectivity within the Area. The footpath will seamlessly connect to the pedestrian network near Tseung Lam Highway via the proposed viaduct, ensuring pedestrian connectivity to/from TKO 132 and TKO New Town.

Road Network– External Connectivity

3.2.3.2 TKO 132 will be connected to the existing TKO Interchange viaduct near Tseung Kwan O – Lam Tin Tunnel (TKO-LTT) through at-grade carriageway and viaducts, aiming at providing a direct and convenient connection to the proposed Public Facilities at TKO 132.

3.2.3.3 Considering the nature of these facilities, those heavy vehicles generated from the Public Facilities should be diverted away from TKO New Town to minimise disturbance to local residents. With the planned direct access to the TKO-LTT, the traffic to/from Kowloon induced by the Public Facilities in TKO 132 will not need to route through the existing road network in TKO New Town, thus minimising any possible nuisance to residents. Given the anticipated low traffic demand routing between TKO 132 and the area covering LOHAS Park, TKO InnoPark and TKO 137, it is proposed that other than the slip roads to/from TKO-LTT, only one further pair of slip roads for connection to/from Tseung Lam Highway (Road P2) will be constructed. Furthermore, minimising the scale of the access road could expedite the reprovision of the two existing public facilities in TKO 137 to TKO 132 as early as possible, thereby making way for the subsequent housing development in TKO 137. By omitting the slip roads to/from Cross Bay Link (CBL), traffic to/from those areas can make use of Tseung Lam Highway and Wan Po Road.

3.2.4 Infrastructure Provision Strategy for TKO 132

Road Works and Construction of Marine Viaduct

3.2.4.1 A single 2-carriageway (the main road) will be provided for the land to be created off TKO 132 to house the Public Facilities. The vehicular access in the form of run-in/out is proposed to be sited at the frontage of each public facility facing the main road.

3.2.4.2 The single 2-carriageway to/from TKO 132 includes viaduct construction works, precast construction method will be adopted on the components from pile cap, hollow columns to segmental deck.

3.2.4.3 To facilitate vehicle manoeuvrability on the main road, it will be terminated at a cul-de-sac located at the southern end of TKO 132, ensuring heavy vehicles to safely turn around on the main road when necessary.

Building Works

3.2.4.4 Building works of each Public Facilities will be carried out by respective Project Proponent or B/Ds after site formation works and site handover.

Waterworks

3.2.4.5 New fresh water and saltwater distribution mains extended from existing distribution networks in Tiu Keng Leng will be constructed, running along the proposed marine viaduct and at-grade roads at TKO 132, to provide water supply for fresh water, flushing water and fire-service.

Sewerage

3.2.4.6 TKO 132 is currently unsewered. Local sewage networks and a sewage pumping station (SPS) with associated twin rising main are proposed at TKO 132 to cater for the sewage from the infrastructures and conveyed to the existing sewerage network at TKO via the proposed viaduct and roads at TKO 132.

Drainage

3.2.4.7 Surface runoff from land to be created off TKO 132 and the adjacent hillside areas at the northwest will be collected by proposed drains and box culverts for discharge via outfall to the sea. The total catchment area contributing to the proposed drainage network is approximately 47 ha.

Utility Services

3.2.4.8 Utility services are the fundamental support to a new development area. Similar to other urban areas, the utility services to be provided at TKO 132 to support the project development and future operation, including but not limited to power supply network, telephone and telecommunication services, and street lighting and traffic signal system.

3.2.5 Key Landscape Design Concepts for TKO 132

3.2.5.1 TKO 132 is mainly composed of Public Facilities with amenity areas serving as interface between the development and the proposed road connecting to Tseung Lam Highway. This amenity area may serve not only as a buffer but as a green interface for the site and immediate context which comprises hillsides with burial grounds and a village. It will aim to create a diverse mix of woodland habitat to achieve seamless transition from TKO 132 to adjacent vegetated hillside. The Landscape Master Plan is shown in **Figure 1.7**.

3.2.5.2 The seawall treatment of TKO 132 such as vertical eco-shoreline will be part of the design consideration to accommodate the functional requirement of the piers for adjacent land use while to create ecological linkage to adjacent shoreline habitat. The Landscape Framework is shown in **Figure 1.8**.

3.2.6 SGR Initiatives

3.2.6.1 Effective Smart-Green-Resilient Development requires a principle-based approach. A collection of well-defined guiding principles is essential for directing the technical evaluation, the development of various alternatives, and the future planning and design processes. These principles ensure that decisions are in line with the overall vision. Drawing upon the insights gained from the Hong Kong 2030+ topical paper on SGR City Strategy and HK2050 Publication, Post-COP27 Building a more climate-resilient Asia. The guiding principles are generally described below:

- Low carbon – reduction of carbon footprint without compromising economic development and liveability;
- Resource efficient - maximise the efficiency for the utilisation of resources in a sustainable way;
- Natural - Imitate natural system, land use and infrastructure planning incorporated with the ecological system, minimize the impact to nature;
- Robust and Reliable - Well-constructed infrastructure system able to withstand hazard events without significant damage;
- Optimized and Redundance - Achieve the balance among different urban infrastructure systems without missing appropriate spare capacity to meet surges in demand;
- Flexible - The ability to evolve and adapt in response to changing circumstances and urban development;
- Intelligent - Use of technology incorporated in the planning, design, management and operation of different initiatives, services and systems; and
- Integrative - Various systems within a city should be consistent in decision making and are mutually supportive to each other

3.2.7 Proposed Land Uses for TKO 132

3.2.7.1 The land use proposal recommended under the RODP is shown in **Figure 1.2**.

3.2.7.2 The planning intention of "Other Specified Uses (OU)" zone is to house the five Public Facilities (EFs, CWHF, PFTF, CWHF, and CBP) and a sewage pumping station (SPS).

Concrete Batching Plant (CBP)

3.2.7.3 A permanent site for CBP in the vicinity is required to serve construction sites in East Kowloon and New Territories East (including TKO), as freshly mixed concrete must be delivered within a reasonably short time to construction sites to maintain the quality of concrete.

Public Fill Transfer Facility (PFTF)

3.2.7.4 Public fill generated in the territory east is currently received and stockpiled at the TKO 137 temporary fill bank pending transfer to appropriate projects for reuse. With the plan to develop TKO 137, and while the upcoming reclamation projects in Hong Kong would significantly reduce the need for stockpiling public fill, there is still a need to retain a smaller-scale facility to receive and transfer public fill generated in the territory east (including TKO), at a location with marine frontage.

Construction Waste Handling Facility (CWHF)

3.2.7.5 There is a need to set up a CWHF to receive, handle and bulk transfer construction waste primarily generated from the territory east (including TKO) to the landfill for disposal upon closure of SENTX prior to population intake at TKO 137.

Electricity Facilities (EFs)

3.2.7.6 EFs, comprising power receiving and conversion facilities, are important strategic infrastructure for enhancing Hong Kong's capability to import zero-carbon energy through regional cooperation and meeting the decarbonisation target of reducing Hong Kong's carbon emissions by 50% before 2035 as compared to the 2005 level, with a view to achieving carbon neutrality before 2050. TKO 132 is considered as the optimal location as it is situated near the potential connection points at TKO and Island East of the two power companies' existing power grids, and their power systems can be interconnected through submarine cables with a shorter distance.

Refuse Transfer Station (RTS)

3.2.7.7 There is currently no dedicated RTS in the territory east area (including TKO). Temporary arrangement is put in place to transfer municipal solid waste generated in this area to RTSs in Island East, West Kowloon and Shatin for handling. As these three RTSs have reached their capacity limits, there is a need to set up a RTS for serving existing and future developments in the territory's east area (including TKO).

Sewage Pumping Station (SPS)

3.2.7.8 Site OU6 is the proposed SPS at TKO 132 to convey the sewage from the Public Facilities to the existing sewerage system at Tiu Keng Leng along the proposed viaduct.

3.2.8 Land Use Budget for TKO 132

3.2.8.1 Based on the RODP, the land use budget is tabulated as follow:

Table 3.12 - Land Use Budget of RODP

Land Uses	Approx. Area (ha) (% of total)
Electricity Facilities (EFs)	5.6 (28.3%)
Refuse Transfer Station (RTS)	3.0 (15.3%)
Construction Waste Handling Facility (CWHF)	4.5 (22.6%)
Public Fill Transfer Facility (PFTF)	4.0 (20.4%)
Concrete Batching Plant (CBP)	0.6 (3%)
Sewage Pumping Station (SPS)	0.07 (0.4%)
Road	1.0 (5%)
Amenity	1.0 (5%)
TOTAL (about)	**~19.8 (100%)**

4. TRAFFIC AND TRANSPORT IMPACT ASSESSMENT

4.1 Traffic Survey

4.1.1.1 To establish a robust base year model for forecasting purpose, classified vehicular link and turning movement count surveys are required to collect essential traffic data.

4.1.1.2 The traffic surveys were conducted during typical weekdays in late November 2023, between the hours of 07:00-09:30 and 17:00-19:30, during the AM and PM peak periods. The project AOI and key plan of the assessed junctions and road links and the existing layouts of the concerned junctions are illustrated in **Figure 4.1 - 4.10**.

4.2 Existing Junction Performance

4.2.1.1 Junction capacity analysis has been carried out for the key junction in the AOI. The results reveal that all the key junctions within AOI, except junction of Po Ning Road/ Sheung Ning Road/ Ying Yip Road (J19) and junction of Clear Water Bay Road/ Ying Yip Road/ Hang Hau Road/ Silverstrand Beach Road (J21), are currently operating within their capacities. It is identified that J19 and J21 are currently operating in marginal performance.

4.3 Road Network

4.3.1.1 TKO 137 is located at the southeastern end to TKO New Town and is connected to the TKO New Town by Wan Po Road. External road traffic to and from TKO New Town and TKO 137 relies primarily on TKO tunnel and TKO-LTT and to a lesser extent Po Lam Road and Clear Water Bay Road. Currently, the vast majority of the existing traffic on Wan Po Road south of LOHAS Park is generated by TKOCWSF, WSD Desalination Plant, the Concrete Batching Plant, SENT landfill site and Public Fill Bank.

4.3.1.2 In future, as recommended in the Major Transport Blueprint, the planned Tseung Kwan O – Yau Tong Tunnel (TKO-YTT) will become the third external major connection in TKO. Once completed, the TKO-YTT will help meet the increasing traffic demand in TKO by diverting traffic from the two existing TKO tunnels to unleash the overall development potential of TKO and enhance the connectivity between TKO and Kowloon East.

4.3.1.3 Regarding off TKO 132, the Area will be connected to the existing TKO Interchange viaduct near Tseung Kwan O – Lam Tin Tunnel (TKO-LTT) through at-grade carriageway and viaducts, aiming at providing a direct and convenient connection to the proposed public facilities in the Area.

4.3.1.4 Considering the nature of these facilities, those heavy vehicles generated from the public facilities should be diverted away from TKO New Town to minimise disturbance to local residents. With the planned direct access to the TKO-LTT, traffic to/from Kowloon induced by the public facilities in off TKO 132 will not need to route through the existing road network in TKO New Town, thus minimising any possible nuisance to residents. Given the anticipated low traffic demand routing between off TKO 132 and the area covering LOHAS Park, TKO InnoPark and TKO 137, it is proposed that other than the slip roads to/from TKO-LTT, only one further pair of slip roads for connection to/from Tseung Lam Highway (Road P2) will be constructed. Furthermore, minimising the scale of the access road could expedite the reprovision of the two existing public facilities in TKO 137 to off TKO 132 as early as possible, thereby making way for the subsequent housing development in TKO137. By omitting the slip roads to/from CBL, traffic to/from those areas can make use of Tseung Lam Highway and Wan Po Road.

4.4 Internal Road Layout

4.4.1 TKO 137

4.4.1.1 The section of Wan Po Road south of Po Yap Road and Chiu Shun Road is currently classified as a Local Distributor. With this in mind, the extended section of Wan Po Road within TKO 137, namely Road L8, is designed as a local distributor road with a continuous dual 2-lane configuration connecting the northern and southern ends of the Area.

4.4.1.2 Another dual 2-lane carriageway, namely Road L1, will be aligned to the west of TKO 137 in a north-south direction. Road L1 will serve as a local distributor road running through the centre area of TKO 137. The northern end of Road L1 connects to Road L2, while its southern end connects to Road L7. Road L1 will be the main access road to the proposed railway station, PTIs and open spaces and GIC / recreational facilities in the Area.

4.4.1.3 Other local distributor roads, namely Road L2, Road L4, Road L5, Road L6 and Road L7, will branch off between Road L1 and Road L8 in the form of single 2-carrigeway to provide access to the proposed housing and GIC developments in the Area. A southbound access road, namely Road L3, will connect Road L2 and Road L4, providing connectivity to the two school sites near Site PU2.

4.4.1.4 Considerations have been given to minimise the use of cul-de-sacs in the Area. Nevertheless, cul-de-sacs will be introduced at the southern end of both Road L1 and Road L8 to enhance road network connectivity in the Area. Traffic travelling on Road L1 and Road L8 southbound will be able to make U-turn to access the developments alongside the northbound carriageway (i.e. PR4, PR5 and the three school sites), avoiding unnecessary detours within the internal road network. The cul-de-sac at Road L8 also allows the heavy vehicles of effluent polishing plant and desalination plant to leave TKO 137 without diverting to the centre area of TKO 137.

4.4.1.5 In order to accommodate the pick-up/drop-off (PU/DO) and loading/unloading (L/UL) demands for the three school sites near Site PU6, a roadside layby will be provided alongside the northbound carriageway of Road L8. At the same time, roadside laybys will be provided on one side of selected east-west roads (i.e. Roads L4, L5, L6 and L7) to cater for the PU/DO and L/UL activities in the Area.

4.4.2 TKO 132

4.4.2.1 A single 2-carraigeway road (the main road) will be provided for the land to be created off TKO 132 to house the public facilities. The vehicular access in the form of run-in/out is proposed to be sited at the frontage of each public facility facing the main road. The location and spacing of these proposed run-in/outs will adhere to the design standards stipulated in Transport Planning and Design Manual (TPDM) subject to detailed design. To facilitate vehicle manoeuvrability on the main road, it will be terminated at a cul-de-sac located at the southern end of off TKO 132, ensuring heavy vehicles to safely turn around on the main road when necessary.

4.5 Internal Parking Facilities

4.5.1.1 The provision of car parking spaces, good vehicles loading / unloading (L/UL) facilities and pick-up / drop off (PU/DO) facilities would be provided with reference to the high side of HKPSG parking standards (January 2024 Edition) for the developments in TKO 137. Since the development is still in its early planning stages, the parking and L/UL provision at public facilities in the land to be created off TKO 132 and developments in TKO 137 should be confirmed in future subject to the discussion between project proponents and TD.

4.5.1.2 Considering each public facility should provide sufficient ancillary parking to cater for their parking demand, and the remote location of the land to be created off TKO 132, it is anticipated that the demand for public parking would be minimal to the extent that additional parking spaces and STT car parks are not considered necessary.

4.6 Public Transport (PT) Provision

4.6.1.1 The PT demand of TKO 137 for the various transport modes was estimated by adopting the STM to forecast the number of pedestrian trips in each direction during the travel peaks for various origins and destinations in relation to TKO 137.

4.6.1.2 Although the current utilisation reveals that the existing franchised bus services may have spare capacity on some routes to also serve the demand in TKO 137, any future considerations for extension of existing bus routes to serve TKO 137 should take note of the potential prolonged journey time and adjustments may be required to the existing services to increase the attractiveness of the routes. For assessment purposes of the TTIA, new franchised bus services in TKO 137 are assumed.

4.6.1.3 According to the modal split information extracted from the STM, the daily passenger demand on bus routes to different destinations has been estimated. And the number of bus trips required in the peak hour along with their peak vehicle requirement for each bus route has been further projected for each design year.

4.6.1.4 Thirteen to twenty-two service routes are proposed to support the external demand arising from the Project for road-based public transport to cater for the progressive intake programme.

4.7 Public Transport Facilities Provision

4.7.1 TKO 137

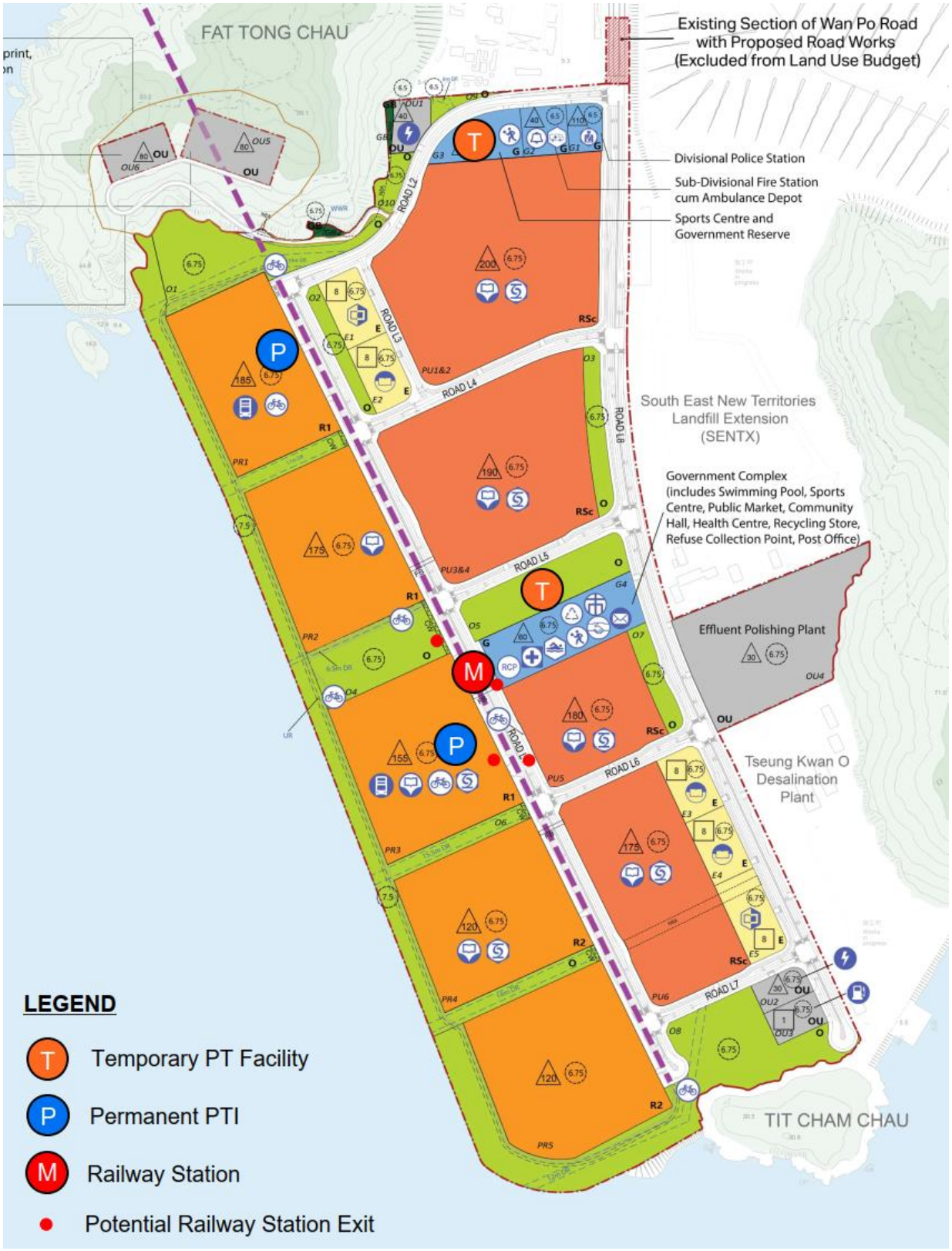
4.7.1.1 With new public transport routes proposed for TKO 137, public transport facilities will require to be provided to serve the anticipated public transport demand.

4.7.1.2 Permanent PTIs are proposed to be located at the private development Sites PR1 and PR3. While the PTI located at Site PR3 is adjacent to the planned railway station, the site also houses residential and retail use. In order to enhance passenger travel experience, the design of this district PTI at Site PR3 subject to the ultimate design and arrangements of the PTI and its associated connections to the planned railway station and topside retail etc.

4.7.1.3 The proposed PTI located at Site PR1 intends to support the intended routeings of the PT services to maximise their catchment coverage, it can also reduce the walking time for development cluster located between Road L2 and Road L4, including residential developments at Sites PU1 and PU2, Sport Centre and two school sites, where the generated and attracted PT demands are anticipated to be relatively high.

4.7.1.4 The design of the PTIs also need to take into account of the completion dates of various land parcels and the adjacent section of the road network. For instance, the PTIs at Sites PR1 and PR3 will not be commissioned until years 2035 and 2041 respectively when initial population intake of some of the land parcels have already taken place. Therefore, temporary PT facilities are proposed to serve the required demand. Further to initial coordination between various Government Departments, two sites, namely the G/IC site G3 to the north of Site PU1 and the open space site O5 north of the Integrated Government Complex, are proposed to be used as temporary PT facilities until the permanent PTIs are fully commissioned. The proposed public transport facilities provision in TKO 137 is illustrated in **Diagram 4.1**.

Diagram 4.1 – Proposed Public Transport Facilities Provision in TKO Area 137



4.7.2 Off TKO 132

4.7.2.1 For off TKO 132, the transport demand arising from the development off TKO 132 should be addressed by employee's service (to be arranged by the public facilities), given the total number of employment for all of the services are somewhat small and even lower if considering only the employment number in the same shift. Therefore, PT services are not considered necessary given the anticipated number of staff and visitors for the facilities.

4.7.2.2 Nevertheless, to ensure any potential future demands are catered for in the event that demands will change, space has been reserved at Site A6 of off TKO 132 along the westbound direction of the carriageway to provide a roadside lay-by of 28 m in length to suit the need for loading / unloading activities of GMB or Bus services, if needed in the future.

4.8 Traffic Forecasting

4.8.1.1 To produce robust traffic forecasts that would be responsive to dynamic changes in future land use and infrastructure development, a two-tier modelling approach has been proposed for this Study. The two-tier model structure comprises a Strategic Transport Model (STM) in the upper tier and a Local Area Traffic Model (LATM) in the lower tier. The STM follows a 4-stage multi-modal modelling process to produce the vehicular cordoned matrices input to the lower tier LATM.

4.8.1.2 Based on the survey results, 2023 weekday morning (AM) and afternoon (PM) peak hour traffic flows have been identified and adopted for traffic model validation. The LATM has been reviewed and refined to better replicate the local traffic movements and to improve the accuracy of the modelled results within the AOI.

4.8.1.3 The 2019-based TPEDM has been adopted as the territorial planning data assumptions in the STM for forecast years up to 2041.

4.8.1.4 For future traffic forecasting, the planning data and highway & railway network assumptions have been incorporated into the STM in order to reflect the traffic and transport conditions of the design years.

4.9 Key Road Links Assessment (Design Scenario)

4.9.1.1 The performances of the key road links under each of the forecasting years are assessed. The results illustrated that most of the key road links would be operating under v/c ratio of 1.0 in all design years. Nevertheless, the v/c ratio of TKO Tunnel (L9) would be over 1.0 starting from the design year 2031, particularly during AM peak in the WB direction and is expected to continue deteriorating in the design year 2036. Meanwhile, for design year 2036, the v/c ratio of TKO-LTT (L5) in WB direction would also exceed the 1.0 during AM peak. The congestion in TKO Tunnel and TKO-LTT would be relieved after the completion of TKO-YTT in 2039 and beyond.

4.10 Key Junction Assessment (Design Scenario)

4.10.1.1 While it is revealed that local road improvement works might be necessary for 3 junctions (i.e. J1, J5 and J6) in design year 2036 to accommodate the additional traffic demand of the population intake for the subsequent batches of housing development at TKO 137, it is also recognized that there are subsequent roadworks projects such as TKO-YTT for the TKO area to be implemented later-on for target completion in 2039 and beyond. To better cater for changing circumstances including the population and traffic demand, the Government would adopt a pragmatic and progressive adaptive approach by conducting a holistic study under these roadworks projects regarding the actual traffic demand of the subsequent phases of TKO 137 development and determine the most cost-effective solution to address the demand holistically. All necessary local road improvement works as determined from the holistic study would be formulated and completed on time to support the subsequent development in TKO 137 in a timely manner without impairing the existing local road networks.

4.10.1.2 The performances of the key junction under each of the forecasting years are assessed. Among all the assessed key junctions, only the junction of Wan Po Road/ Chun Wang Street (J1), junction of Wan Po Road/ Chun Yat Street (J5) and junction of Wan Po Road/ Wan O Road (J6) would not be operating within capacity in the design years.

4.10.1.3 Nevertheless, it was identified that the junction of Po Lam Road/ Tsui Lam Road/ Ma Yau Tong Road (J29) would operate approaching its capacity due to the population intake of nearby developments in design year 2036. It is anticipated that the congested situation at J29 would be relieved after the completion of TKO-YTT.

4.10.1.4 In addition, it is recommended the improvement measures at the junction of Po Shun Road/ King Ling Road/ Tong Ming Street (J13) should be reviewed collaboratively under the TKO-YTT project to ensure any junction improvements at J13 be suited to the TKO-YTT project.

4.10.1.5 Regarding the junction of Clear Water Bay Road/ Ying Yip Road/ Hang Hau Road/ Silverstrand Beach Road (J21), it is considered the traffic impact induced by the development at J21 is insignificant since the change of DFC are minimal at J21 (i.e. at most 0.04 of DFC increase) when compared with the reference scenario.

4.11 Internal Road Network

4.11.1.1 To evaluate the performance of the internal road network within TKO 137 and off TKO 132, all key internal road links and junctions have been assessed. The results indicated that all key internal road link and junctions within TKO 137 and off TKO 132 will operate with RC $\geqslant$ 25% or DFC $\leqslant$ 0.75 in all design years. It is considered that ample capacities have been reserved in the design for the internal road network.

4.12 Pedestrian Network

4.12.1 Pedestrian Network for TKO 137

4.12.1.1 A connected pedestrian walkway system will be provided within TKO 137, linking up the major planned and proposed activity nodes, including the proposed railway stations, PTIs, housing development, open spaces and GIC / recreational facilities.

4.12.1.2 As a preliminary allocation of footpath width, subject to the requirement, a width of 1m to 3.3m are allocated for street furniture and greening zones, 0.5m or 1m is reserved for building frontage zones, and through zone widths of 4.5m shall address land uses such as residential area adjoining pedestrian generators, mixed-use and I&T uses, while through zone widths of 3.5m are proposed along other residential area and land uses.

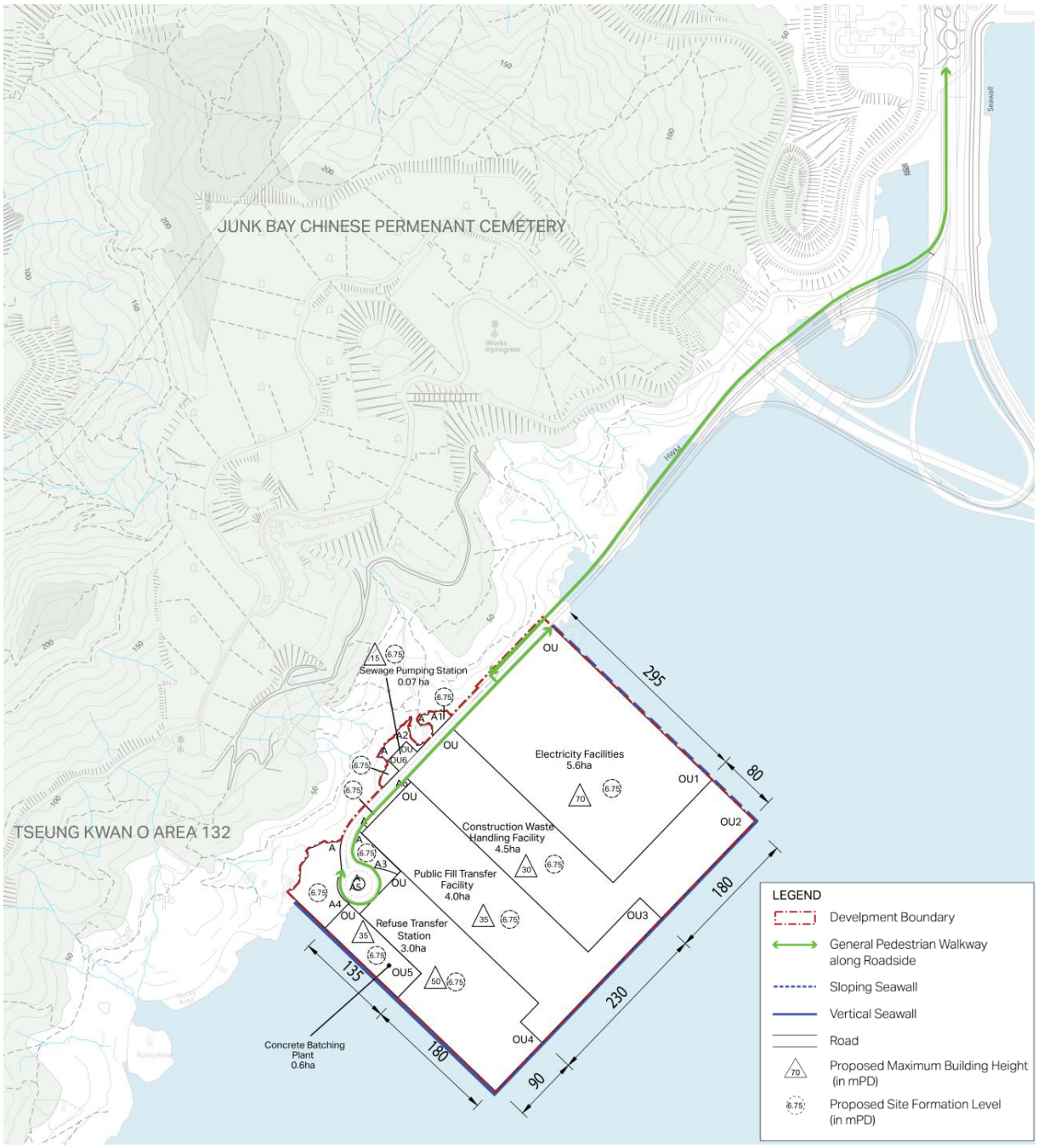
4.12.1.3 Based on the standards for footpath width in Pedestrian Planning Framework (PPF), proposed link and place significance for TKO 137 and TKO 132, the footpath widths in TKO 137 and off TKO 132 are reviewed. The results illustrate that all footpath widths of TKO 137 and off TKO 132 meet the PPF standards. The proposed pedestrian network in TKO 137 is illustrated in **Diagram 4.2**.

Diagram 4.2 – Proposed Pedestrian Network in TKO 137

4.12.2 Pedestrian Network for off TKO 132

4.12.2.1 For off TKO 132, a continuous 3.5m at-grade footpath will be provided along kerbside of the carriageway to ensure the connectivity within the Area. The footpath will seamlessly connect to the pedestrian network near Tseung Lam Highway via the proposed marine viaduct and footpath converted from the existing HyD's maintenance access, ensuring pedestrian connectivity to/from off TKO 132 and TKO New Town. The proposed pedestrian network in off TKO 132 is illustrated in **Diagram 4.3**.

Diagram 4.3 – Proposed Pedestrian Network in off TKO 132



4.13 Cycling Network

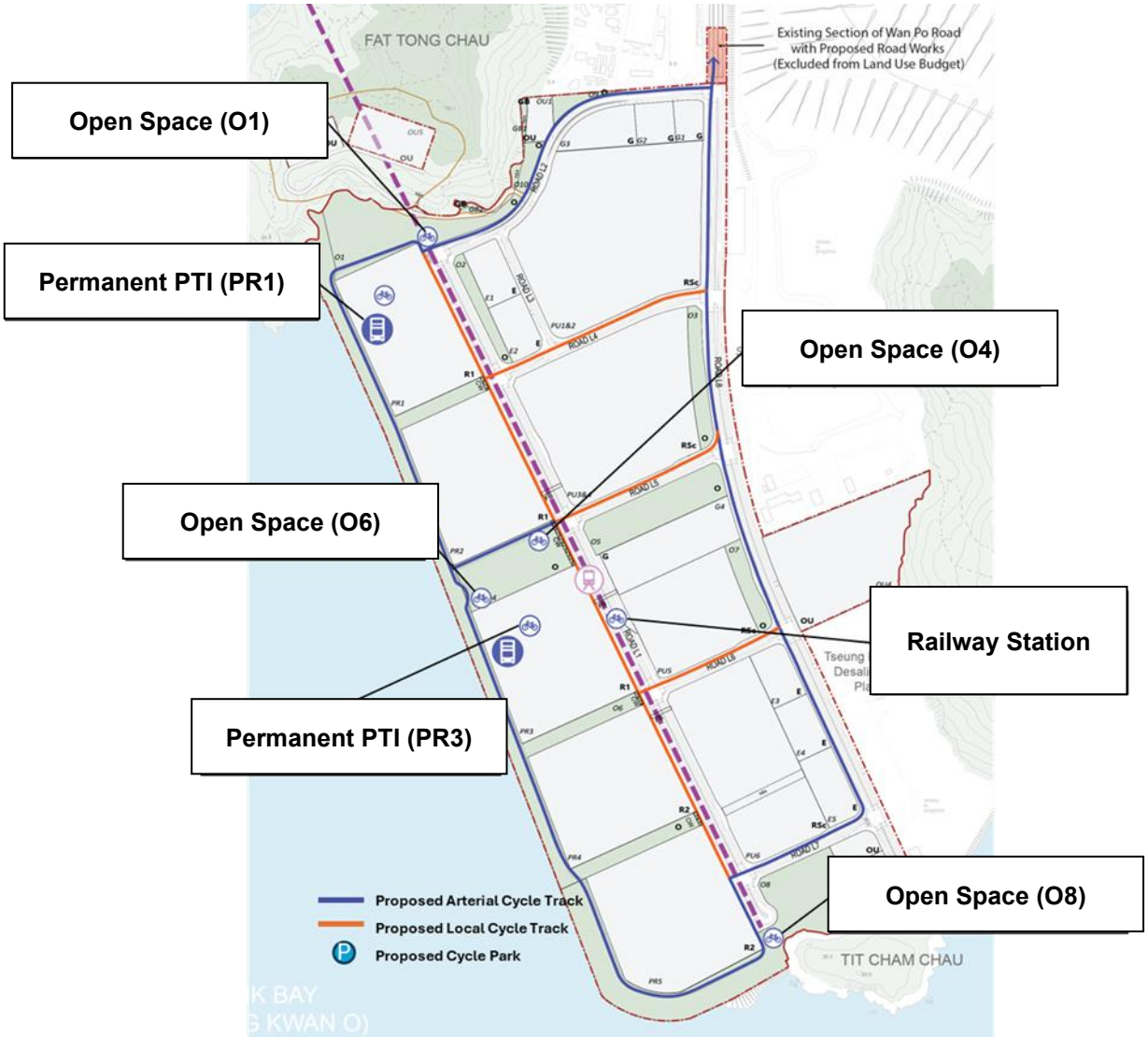
4.13.1 Cycling Network for TKO 137

4.13.1.1 A comprehensive cycling network has been planned for the Area to promote cycling as an environmentally friendly transport mode for first and last-mile commuting trips purposes. The cycling network will be provided alongside all roads (except Road L3) in TKO 137 to link up the major planned and proposed activity nodes and transport nodes same as the pedestrian network. Cycle tracks are designed in accordance with the TPDM Volume 2, Chapter 3.8 with the standard width from 3.5m to 4m to allow 2-way cycling movements (catering 14,00-1,600 cycles per hour).

4.13.1.2 The proposed cycle track network will integrate with the existing cycle track that currently terminate at Wan Po Road. The proposed loop design of artery cycleway could provide direct and seamless cycling connectivity throughout the Area, particularly from key transport nodes, such PTIs, railway station and cycle parking facilities, to facilitate intra-district travel. In addition, branched local cycle tracks will be strategically placed to connect various housing developments and other active nodes, ensuring comprehensive coverage of the surrounding land parcels.

4.13.1.3 Sufficient horizontal clearance between cycle track and fixed objects should be provided to enhance cyclist's travel experience. The horizontal clearance ranging from 200mm to 500mm shall be provided alongside the cycle track subject to detailed design. The proposed cycle network in TKO 137 is illustrated in **Diagram 4.4**.

Diagram 4.4 – Proposed Cycle Network in TKO 137



4.13.2 Cycling Network for off TKO 132

4.13.2.1 As for off TKO 132, it is anticipated that the staff and visitors of these public facilities would be served by employee's services (to be arranged by the public facilities) and the public will not be attracted to cycle to the area in view of the nature of development off TKO 132. Therefore, provision of cycling track in off TKO 132 is not considered necessary.

4.13.2.2 Adequate supporting facilities including cycle parking spaces will be provided to encourage cycling. The provision of cycle parking spaces has reference to the provision rates suggested in Agreement No. CE 86/2017 (CE) Fostering a Pedestrian and Bicycle-friendly Environment in Hung Shui Kiu New Development Area and Yuen Long South Development – Feasibility Study.

4.14 Construction Traffic Impact Assessment

4.14.1.1 Under the construction traffic impact assessment, the peak traffic forecasts were prepared for the years 2031 and 2036, revealing that the traffic impact from construction vehicles is insignificant for the assessed road links. It is anticipated that the capacity issues at junctions J1, J5 and J6 in the design year 2036 would be addressed through the implementation of local road improvement works.

4.15 Railway Assessment

4.15.1.1 Currently, rail demand to and from TKO New Town is only served by the MTR TKO Line (TKL) which bifurcates east of TKO Station into two branches, one northward to Po Lam and one southward to LOHAS Park. Since December 2014, the “2+1” train service arrangement with a maximum 24 trains per hour per direction, with 15 of the 24 trains departing from Po Lam, while 9 of the 24 trains departing from LOHAS Park, has increased the overall carrying capacity of the TKL during peak hours. Under this arrangement, for every group of three trains to North Point, the first two trains will depart from Po Lam Station and the third from LOHAS Park.

4.15.1.2 According to the Development Blueprint, TKL would be extended southward from the at-grade TKL LOHAS Park Station in the form of a tunnel to the underground station at TKO 137 via the waters in the vicinity of TKOIP. The TKLSE is approximately 4 km in length and is aimed to support the development and new population of TKO 137.

4.15.1.3 With the increase in population and employment for the southern branch of the TKL upon full completion of TKO 137, it is anticipated and hence assumed in this TTIA that the train service would be redistributed to become the “1+1” train service arrangement, where for every group of two trains to North Point, a train will depart from Po Lam Station and TKO 137 alternatively.

4.15.1.4 The patronage forecasts for the railway assessment are based on the existing railway network plus the railway project assumptions based on the latest passenger throughput data and as specified in the above sections to form the assessment railway network for this Study. The impact of the TKO 137 to the railway network is assessed by investigating the contribution of the developments to the most critical section of TKL, i.e. Yau Tong to Quarry Bay, and the key impacted section of Kwun Tong Line (KTL) by TKL, upon full completion of TKO 137 in year 2041, with the scenario of AM peak in the year 2041 with TKLSE considered to be most critical of all study scenarios.

4.15.1.5 Given the varying population intake of TKO train service arrangement of TKL may differ prior and after the commissioning of TKLSE, assessments were also carried out to determine the effects of TKO 137 on the abovementioned sections of the existing railway network prior to the commissioning of TKLSE at the assessment years of 2031 and 2036. The assessments have taken into account of additional capacity due to the Urban Lines signalling system upgrading project.

4.15.1.6 The assessment results illustrated that the TKL would be operating within capacity (i.e. v/c ratio under 1.0) in years 2031 and 2036 even with population intake of TKO 137, and upon commissioning of the TKLSE and train service arrangement of TKL switching to “1+1” in year 2036, the critical section of TKL would be relieved with v/c ratio under 1.0. However, the sensitivity test of “2+1” train service arrangement in year 2041 would cause the critical section of TKL to be over capacity with v/c ratio reaching 1.07 upon full population intake of TKO 137. Therefore, it is vital to implement the “1+1” train service arrangement at TKL so that the railway demands generated by TKO 137 are well met.

4.16 Conclusion

4.16.1.1 Based on the assessment, the proposed development in TKO 137 and off TKO 132 will have acceptable traffic impact on the nearby road and public transport networks provided that the implementation of any necessary local road improvement works and public transport provisions will be in place according to relevant population intake years. Considerations regarding providing adequate widths for footpath and cycle network have also been incorporated in the road network design to promote green transport modes. Therefore, it is concluded that the proposed development in TKO 137 and off TKO 132 are acceptable from the traffic point of view.

5. ENVIRONMENTAL IMPACT ASSESSMENT

5.1 Air Quality Impact

5.1.1 Construction Phase

5.1.1.1 Potential air quality impact from the construction works of the Project would mainly be related to construction dust from excavation, material handling, spoil removal and wind erosion. Construction activities of the concurrent projects within 500m assessment area would also pose cumulative dust impact. With the implementation of mitigation measures specified in Air Pollution Control (Construction Dust) Regulation together with the recommended dust suppression measures including frequent watering on active works areas, exposed areas and unpaved haul roads and other site management measures such as good site practices, and environmental monitoring and audit (EM&A) programme, no adverse air quality impact on air sensitive receivers (ASRs) in the vicinity of the work sites would be anticipated during the construction stage.

5.1.2 Operation Phase

5.1.2.1 Cumulative air quality impacts arising from the proposed EPP, CWHF, PFTF, and CBP and the traffic emissions associated with the development at TKO 132 and TKO 137, as well as existing industrial emission sources, existing portal, vehicular emission and marine emission within 500 m assessment area, and flares and LFG generator of SENTX has been evaluated. The predicted results concluded that the cumulative hourly and annual average Nitrogen Dioxide (NO2), daily and annual average Respirable Suspended Particulates (RSP) and Fine Suspended Particulates (FSP), 10-minute and daily average Sulphur Dioxide (SO2) and hourly and 8-hour average Carbon Monoxide (CO) concentrations at all existing and planned ASRs would comply with AQOs. The predicted Methane, Hydrogen Chloride (HCl), Hydrogen Fluoride (HF), Formaldehyde, Vinyl Chloride, Acetaldehyde and Benzene concentrations would be well below the respective international standards.

5.1.2.2 Cumulative odour impact arising from proposed EPP, RTS, SPS, and existing ASB Biodiesel (Hong Kong) Limited and SENTX (aftercare phase) within 500 m assessment area have been evaluated. The predicted odour impact on existing and planned ASRs would comply with the criterion stipulated in EIAO-TM.

5.2 Noise Impact

5.2.1 Construction Noise Impact

5.2.1.1 Qualitative assessment on potential construction noise impact arising from the Project has been conducted. Mitigation measures including good site practices, adoption of quieter construction methods and use of quality PME (such as use of press-in method for sheet piling; large diameter bored piling to replace percussive piling; use of hydraulic splitter / hydraulic crusher / bursting system / quieter type saw / chemical expansion agent for demolition, concrete breaking, site formation, filling and slope cutting works and removal activities; use of fully enclosed conveyor for material handling; use of mini-breaker for small boulder removal and infrastructural works; pipe jacking using tunnel boring machine for large diameter pipe laying; use of quiet type saw, robot-type hydraulic crusher or handheld concrete crusher for building works; use of pre-casting and prefabrication technology for building superstructure works; and use of self-compacting concrete or rubber head poker vibrator), use of movable noise barriers and full enclosures, grouping of PMEs and careful schedule of use of PME among nearby construction work site have been reviewed and are considered feasible and practicable. With the implementation of these mitigation measures, no adverse construction noise impact arising from the Project would be anticipated. Regular site environmental audit during construction phase is recommended to ensure proper implementation of mitigation measures and good site practices.

5.2.1.2 Construction Noise Management Plan containing a quantitative construction noise impact assessment should be prepared and submitted to EPD based on the best available information before the tender invitation and commencement of the construction works, with details on the construction method, plant inventory, recommended noise mitigation measures and implementation details of the mitigation measures in order to minimise the construction noise impact to comply with the EIAO-TM criteria.

5.2.2 Operational Fixed Noise Sources Impact

5.2.2.1 Assessment on the potential fixed noise impact from proposed facilities at TKO 132 and existing facilities in the vicinity of TKO 137 and proposed facilities at TKO 137 during operation phase was conducted. A review has been considered on the design of these fixed noise sources. It is considered that no adverse operational phase fixed noise impact from these proposed facilities with the implementation of good design and mitigation measures such as quieter plant, locating/enclosing the plant inside reinforced concrete building/enclosure/acoustic plant room with openings directed away from noise sensitive uses, provision of designated area for fixed noise sources, installation of high speed roller shutter doors at openings, installation of silencer and/or acoustic louvre, and use of acoustic mat, erecting noise barriers and enclosures, etc. For various DPs within the assessment area, Fixed Noise Source Management Plan containing the quantitative fixed noise sources impact assessment, recommended noise mitigation measures, implementation details of the noise mitigation measures, commissioning test requirements and fixed noise sources impact monitoring and audit programme will be submitted by the proponent of the DP to EPD with reference to the updated plant inventories and utilisation schedule once available and in any case before tendering and commencement of implementation of the DP. For planned/proposed fixed noise sources of non-DPs within the Project area and existing noise sources within the assessment area affecting the planned/proposed NSRs under this Project, separate quantitative fixed noise impact assessment would be carried out via various planning/funding/land lease mechanism in accordance with the requirements of the Hong Kong Planning Standards and Guidelines (HKPSG).

5.2.2.2 In particular, the temporary PTFs located near Sites PU1&2 and PU3&4 should be erected with noise barrier to block line-of sight from residential uses to the vehicles at the Public Transfer Facilities (PTF) to minimise any potential fixed noise impact.

5.2.3 Operational Rail Noise Impact

5.2.3.1 Rail noise impact assessment has been conducted. No airborne rail noise impact would be anticipated as the planned TKLSE would be located underground. Given insufficient design and operational information of TKLSE at the time of this EIA, ground-borne rail noise impact assessment was conducted qualitatively, having regard to other existing railway systems with similarities based on best available information. As TKLSE would be extension of existing Tseung Kwan O Line, assessment was conducted with reference to operational information of TKL. The assessment results indicated that no adverse ground-borne railway noise would be anticipated. Nevertheless, the project proponent of TKLSE would conduct a separate Environmental Impact Assessment study for the TKLSE.

5.2.4 Operational Road Traffic Noise Impact

5.2.4.1 Road traffic noise impact assessment has been conducted. The predicted overall road traffic noise level at all representative existing noise sensitive receivers (NSRs) would comply with relevant noise criteria under unmitigated scenario in year 2041 that no further mitigation measures would be required.

5.2.4.2 For planned residential sites, the predicted overall road traffic noise levels at the representative NSRs at TKO 137 would be up to 72 A-weighted decibel (dB(A)) which would exceed the respective noise criteria by up to 2 dB(A) in the unmitigated scenario during the assessment year 2041. Direct noise mitigation at-source measures, low noise road surfacing (LNRS) has been considered to alleviate the potential road traffic noise impact. At-receiver noise mitigation measures such as acoustic window are recommended for those planned NSRs with noise exceedances under the scenario with the proposed direct noise mitigation at-source measures. With the proposed noise mitigation measures as shown in **Figure 5.1 – 5.3** in place, predicted noise levels of all planned residential NSRs proposed in this Project would comply with noise criteria stipulated in the EIAO-TM and no adverse road traffic noise impact would be anticipated.

5.2.4.3 Noise impact assessment for the planned residential sites is proposed to be conducted by future developers / proponents to review the detailed design of the development with a view to avoid and reduce the potential exposure to road traffic noise so as to minimise the scale/extent of the proposed noise mitigation measures. The requirement of noise impact assessment would be included in the lease condition or planning briefs of the sites.

5.2.4.4 Besides, for planned schools at TKO 137, the predicted overall road traffic noise levels under unmitigated scenario in 2041 would be up to 73 dB(A) that would exceed the noise criterion by 8 dB(A) in maximum. Noise insulation with suitable window type and air-conditioning is recommended for the affected noise sensitive rooms. The project proponent of planned schools shall conduct and submit their Class Assessment Documents for agreement by DEP.

5.2.4.5 With implementation of above recommended mitigation measures, no adverse road traffic noise impact would be anticipated.

5.2.5 Operational Marine Traffic Noise Impact

5.2.5.1 Quantitative marine traffic noise assessment has been conducted. Since there are no statutory marine traffic noise criteria, the criteria was agreed with EPD as the prevailing noise level during the peak marine traffic hour. Based on measured marine vessel noise level and standard acoustic principle, it is predicted that the marine traffic noise level at the proposed noise sensitive uses at TKO 137 and at the existing noise sensitive uses in the vicinity of the Project would comply with the criteria. No adverse marine traffic noise impact would be anticipated.

5.3 Water Quality Impact

5.3.1 Construction Phase

Land-based Construction

5.3.1.1 The key sources of water quality impact arising during the land-based construction of the Project include the construction site runoff, wastewater generated from general construction activities, accidental chemical spillage, general refuse and sewage from the workforce. The impacts could be mitigated and controlled by implementing the recommended mitigation measures. No adverse water quality impact is expected. Regular site inspections should be undertaken to inspect the construction activities and works area to ensure the recommended mitigation measures are properly implemented.

Marine-based Impact

5.3.1.2 Marine-based water quality impact may arise from the proposed marine construction works at TKO 137 and TKO 132. Non-dredged DCM treatment method is proposed for construction of the foundation of the reclamation to minimise the potential water quality impact.

5.3.1.3 Water quality impact due to marine construction activities (such as the underwater filling works for reclamation and dredging works for new berthing facility) have been quantitatively assessed by mathematical modelling. Suspended solid and sediment depositions are identified as the key parameters of concern. Mitigation measures including the deployment of silt curtains and undertaking the underwater filling works behind the leading seawall are recommended to mitigate the water quality impact. With the recommended mitigation measures in place, full compliances with assessment criteria were predicted at all representative Water Sensitive Receivers during the marine construction works. A water quality monitoring and audit programme will be implemented for the marine construction work.

5.3.2 Operational Phase

5.3.2.1 Sewage and wastewater generated from the Project development would be either diverted to the existing public sewerage system in TKO or to the proposed EPP for proper treatment and disposal.

5.3.2.2 The proposed reclamations at TKO 137 and TKO 132 together with the EPP discharges at TKO 137 are predicted to cause no significant change in the hydrodynamics and water quality regime in the assessment area. Emergency discharges from the EPP are also predicted to cause no significant water quality effect except only for the E.coli levels at the closest WSR (i.e. coral recipient site at Fat Tong Chau), which would be temporarily elevated. The E.coli elevations caused by the emergency discharge are predicted to be transient and reversible.

5.3.2.3 Preventive design measures and an Emergency Contingency Plan would be implemented to avoid emergency discharge from the EPP and SPS of the Project and to prevent accidental marine spillage from operation of the TKO 132 development. Storm pollution control measures and best management practices for storm water management should be implemented to minimise the water quality impact due to non-point source surface runoff. With proper implementation of all the recommended water quality mitigation measures, no adverse water quality impact would arise from the Project operation.

5.4 Sewage and Sewerage Treatment Implications

5.4.1.1 As the spare capacity of the existing sewerage system is unable to cater for the full intake for TKO 137 development, it is proposed to construct new sewerage network and an EPP in TKO 137 to cater for the sewage discharge from the new development. To strike for a balance between population intake programme and the implementation programme of the EPP, an advance sewerage provision is provided prior to the commissioning of the EPP to temporarily facilitate the 1st and 2nd population intake of TKO 137 development.

5.4.1.2 For the development at TKO 132, the existing sewerage system in Tiu Keng Leng has been assessed to have sufficient capacity to cater for the sewage discharge from the new Public Facilities at TKO 132, and thus a SPS with twin rising mains is proposed at TKO 132 to convey the sewage to the existing sewerage system in Tiu Keng Leng.

5.4.1.3 Based on the sewerage impact assessment, it can be concluded that the proposed development is sustainable from sewage collection, treatment and disposal prospective. There is no identified insurmountable sewerage and sewage treatment implications arising from the Project.

5.5 Waste Management Implications

5.5.1.1 The main waste types to be generated during the construction phase of the Project will include C&D materials, chemical waste, general refuse, sediment and floating refuse. Reduction measures have been recommended to minimise the amount of materials generated by the Project by reusing C&D materials before off-site disposal. Provided that the waste is handled, transported and disposed of using approved methods, adverse waste management implications, including potential hazards, air and odour emissions, noise, wastewater discharge, ecology and public transport, associated with handling, storage and disposal of wastes during the construction phase of the Project are not expected.

5.5.1.2 The main waste types to be generated during the operation phase of the Project will include MSW, chemical waste, concrete waste, floating refuse, screenings, grits and sewage sludge. A new RTS will be included in preparation for the increased quantity of waste in the district. The proposed waste infrastructure will provide convenient collection of recyclables from the local community, and to provide synergy to achieve better operational efficiency and environmental sustainability. Provided that the waste is handled, transported and disposed of according to recommended mitigation measures, adverse waste management implications, including potential hazards, air and odour emissions, noise, wastewater discharge, ecology and public transport, associated with handling, storage and disposal of wastes during the operation phase of the Project are not expected.

5.6 Land Contamination

5.6.1.1 A site appraisal, in the form of desktop review and site walkover, was conducted from November 2023 to October 2024 to identify the past and current potentially contaminating land uses within the Project Area. Based on the site appraisal, a total of 2 areas with potential land contamination concerns (i.e. an oil stain at the skips storage and skip lorries parking area (Site S1) and the future concrete batching plant and transformer room (Site S2)) were identified at TKO 137 within the Project Area. Their locations are shown in **Figure 5.4.** No potentially contaminating land uses / activities were identified in TKO 132.

5.6.1.2 A sampling and testing programme, targeting the hotspot identified within Site S1 had been proposed. A total of 1 location was proposed for soil and groundwater sample collection. The collected samples will be tested for the chemicals of concern (COCs) including metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and petroleum carbon ranges (PCRs).

5.6.1.3 As Site S1 is still in operation and Site S2 is still under construction, and that site clearance will not commence until 2029 based on the tentative construction programme, there could be changes in the operation or changes in land use within these areas which may cause further contamination issues. Further site appraisal should be carried out for these two sites when site operation has ceased / after site handover in order to assess the latest site conditions / to identify the presence of any potential land contamination sources, and to address any new contamination issues caused by any changes in site operation and/or land use within these two sites. Any necessary site investigation works and remediation action are recommended to be carried out after the site operation has ceased / decommissioning of the facility but prior to the commencement of construction works at the concerned sites / areas.

5.6.1.4 The recommended further assessment and remediation works, including the submission of Contamination Assessment Plan(s), Contamination Assessment Report(s) / Remediation Action Plan(s) and Remediation Report(s) would follow relevant Guidance Manual, Guidance Note and Practice Guide.

5.6.1.5 With the implementation of the recommended follow up works for the Project, any soil/groundwater contamination would be identified and properly treated prior to the construction works. No insurmountable land contamination impacts to the Project are therefore anticipated.

5.7 Ecological Impact

5.7.1.1 The terrestrial and marine ecological impacts associated with the construction and operation of the Project in TKO 137 and 132 were assessed according to the EIA Study Brief requirement. The ecological impact assessment is to assess the acceptability of predicted impacts on terrestrial and marine ecological resources and sensitive receivers. The findings from literature reviews and dedicated baseline field surveys have provided information for evaluating species of conservation interest and the ecological importance of various habitats within the assessment area and the Project area.

5.7.1.2 The CWBCP, Coastal Protection Area and coral recipient sites are recognised as sites of conservation importance / ecologically sensitive sites which fall within the assessment area. A total of nine terrestrial and three marine habitat types were identified within the assessment area, including mixed woodland, plantation, shrubby grassland / grassland, shrubland, developed area, natural watercourse, modified watercourse, rocky shore and soft shore, water column and subtidal hard substrata and soft substrata. All habitats within the assessment area were considered as having low or low to moderate ecological value, except for shrubby grassland / grassland within CWBCP, which was considered as having moderate ecological value.

5.7.1.3 The flora and fauna communities recorded within the assessment area were mostly in low or low to moderate diversity and abundance, and generally consisted of locally common and widespread species and/or generalist species. Some species of conservation importance were also recorded within the assessment area, including three floral species, 20 bird species, 13 mammal species, seven butterfly species and two reptile species from the terrestrial survey, and 32 hard coral species, three black coral species and one amphioxus species from the marine survey.

5.7.1.4 Based on the Project design, it is estimated that there would be a total of about 90 ha of permanent loss and 5 ha of temporary loss of terrestrial habitats arising from the Project (**Figure 5.5 and 5.6**), primarily affecting urbanised habitats (about 90%) such as developed area and modified watercourses. Amongst the permanent loss, there would be about 7 ha and 2 ha of natural habitat loss in TKO 137 (shrubland and shrubby grassland/grassland) and TKO 132 (mixed woodland, rocky shore and soft shore), respectively. Temporary loss of natural terrestrial habitats would be about 1 ha in TKO 137 (shrubland) and about 4 ha in TKO 132 (mixed woodland, rocky shore and soft shore). Given the low to moderate ecological values of the affected natural terrestrial habitats, the direct impact is expected to be low. As the affected artificial habitats (developed area, plantation and modified watercourses) only supported limited floral and faunal diversity and abundance and having low ecological value, the direct impact on these habitats is also expected to be low. With the current project design, one floral species of conservation importance, Diospyros vaccinioides, was recorded with low abundance in shrubland habitats within the Project boundary of TKO 137 (in Fat Tong Chau), and identified from previous studies near the shoreline within the Project boundary of TKO 132 (at a location currently considered as mixed woodland). These individuals would be potentially directly affected by the construction works. The direct impact on this floral species of conservation importance would be moderate, if unmitigated.

5.7.1.5 For marine habitats, the marine works of the Project would result in the permanent loss of about 0.1 ha of artificial seawall (developed area), about 20 ha of sea surface (water column), and with about 25 ha of subtidal habitats (hard and soft substrata) in TKO 137(**Figure 5.5**). Temporary loss of about 0.4 ha of subtidal soft substrata would also anticipate in TKO 137. In TKO 132, it is estimated that it would result in the permanent loss of about 0.3 ha of intertidal habitats (rocky shore), about 20 ha of sea surface (water column), and with about 22 ha of subtidal habitats (hard and soft substrata). Temporary loss of about 8 ha of sea area (soft substrata and water column) would also anticipated (**Figure 5.6**). Low to moderate coverage of hard coral communities and low coverage of sparse black corals were recorded within the footprint of marine works in TKO 132. Nonetheless, these recorded coral species were generally common and abundant in Hong Kong waters, with no rare coral species or species with restricted distribution recorded. Thus, the ecological impact of the loss of this subtidal hard substrata habitat in TKO 132 is expected to be low to moderate if unmitigated. For other affected marine habitats, given the low and low to moderate ecological value and the commonness of these habitats and associated wildlife, the ecological impact of the loss of these marine habitats is expected to be low.

5.7.1.6 Indirect impact including disturbance (e.g. noise, human disturbance, light and glare, etc.) and water quality impact, especially on marine water, are also expected. These impacts were assessed to have magnitude ranged between low and low to moderate.

5.7.1.7 Mitigation measures were recommended to avoid and minimise for any identified ecological impacts rated with an impact severity of low to moderate and above. For instance, transplantation / translocation of floral / coral species of conservation importance was proposed. Translocation / transplantation proposal shall be prepared which includes pre-construction survey, detailed methodologies of transplantation / translocation, identification of suitable receptor site, implementation programme and post-transplantation / translocation monitoring and maintenance programme. Other mitigation measures to further minimise the indirect ecological impacts include adopting good site practices to minimise noise and dust impact, restricting excessive lighting, utilising non-dredged reclamation methods like Deep Cement Mixing (DCM), and implementing adequate water quality mitigation measures such as installing silt curtains and conducting water quality monitoring. Some recommendations of precautionary measures (e.g. pre-construction survey on floral and faunal species of conservation importance) and enhancement opportunities (e.g. establishment of eco-shoreline and green planting within the development) were also provided to further alleviate any potential ecological impacts, and promote the urban biodiversity upon completion of the Project.

5.7.1.8 With full implementation of the recommended mitigation measures along with the environmental monitoring and audit activities, the level of the ecological impacts from the Project would be low. No unacceptable residual ecological impacts are expected to arise from the Project.

5.8 Fisheries Impact

5.8.1.1 The fisheries impact assessment has been conducted based on the information gathered from literature review and the field surveys. Fisheries sensitive receivers identified include Fish Culture Zones in Tung Lung Chau and Po Toi O, spawning grounds of commercial fisheries resources at eastern waters, nursery area of commercial fisheries resources at Port Shelter, and Artificial Reefs (ARs) at Outer Port Shelter. These sensitive sites were situated within the assessment area, yet away from the Project site of TKO 137 and TKO 132.

5.8.1.2 As suggested by the results from literature review and the field surveys, fishing activities within the assessment area, in particular the Junk Bay area, is utilised by moderate number of fishing vessels, predominantly sampans, with a fisheries production of low to moderate level. The production mainly comprises non-commercially targeted and low-valued species, including Mugil cephalus, Charybdis (Charybdis) helleri and Podophthalmus vigil.

5.8.1.3 During the construction phase of the Project, the proposed works for the Project would result in permanent loss (about 47 ha) and temporary loss (about 82 ha) of fishing ground and fisheries habitats. Since the loss only constitute an insignificant proportion of fishing ground and fisheries habitats in Hong Kong, impacts to capture fisheries due to loss of fishing ground and disruption of fisheries operation are expected to be minor. Changes in water quality associated with construction activities are not expected to result in unacceptable impacts on fisheries resources and habitats. Potential impacts of elevated level of underwater sound as a result of construction activities are also not expected to be unacceptable.

5.8.1.4 During the operational phase, about 47 ha of fishing ground and fisheries habitat would be lost upon the completion of the proposed land formation and marine viaducts. No further loss would be expected during the operational phase. Indirect impacts related to changes in water quality from sewage / wastewater generation, effluent discharge, surface runoff, accidental marine spillage from barges, and maintenance sediment removal are expected to be of minor significance. The Project would not significantly alter the local hydrodynamics regime and hence impact of the change in hydrodynamics on fisheries is considered minor. Potential impacts of underwater sound due to vessel operation are not expected to be unacceptable.

5.8.1.5 Furthermore, through the adoption of non-dredged reclamation such as DCM as far as practicable, and the implementation of adequate water quality mitigation measures such as installation of silt curtain, good site practices and best management practice (BMP), alongside ecological enhancement measures such as eco-shoreline, as well as implementation of water quality monitoring during construction and operational phase, no unacceptable fisheries impacts are expected to occur and hence no fisheries-specific mitigation measures and monitoring is necessary.

5.9 Landscape and Visual Impact

5.9.1.1 The Project will inevitably result in some landscape and visual impacts during construction and operational phases. These impacts were minimised through the consideration on minimization of works areas, incorporation of aesthetic external designs and landscape treatments in the proposed infrastructures.

5.9.1.2 Due to the proposed works, a portion of vegetation areas would be affected inevitably. Based on the broad-brush tree survey information, approximately 1,250 existing trees, out of total 5,497 trees surveyed would be directly affected by the proposed works which would be proposed to be removed or transplanted as far as practicable. The trees surveyed within the assessment boundary that would not be affected by the proposed development would be retained in-situ. None of these are Registered Old and Valuable Trees, rare or endangered tree species and no trees with DBH over 1m which are considered as Tree of Particular Interest were identified.

5.9.1.3 Within the Project boundary, as far as practicable, compensation tree planting would be provided at a 1:1 ratio where appropriate and applicable to compensate for tree loss due to the proposed development. Compensatory planting would be implemented following the prevailing mechanism (e.g. DEVB TC(W) No. 4/2020), with due regard to the planting guidelines promulgated by the Greening, Landscape and Tree Management Section of DEVB and other relevant greenery and tree planting guidelines. No off-site compensatory tree planting is proposed. Exact number of trees to be retained, transplanted and felled and associated compensation proposal would therefore be further explored with the consideration of available areas for tree planting and operation constraints during the preparation of detailed Tree Preservation and Removal Proposals in accordance with DEVB TC(W) No. 4/2020.

5.9.1.4 Among the identified landscape resources (LRs) as shown in **Figure 5.7**, vegetation within TKO 137 (LR1), hillside vegetation at Devil's Peak (LR2), shrubland at Tit Cham Chau and Fat Tong Chau (LR3), coastal water (LR6), rocky shore along western coastline of Junk Bay (LR9), hillside vegetation at Chiu Keng Wan Shan (LR11) and sandy shore along western coastline of Junk Bay (LR13) would have moderate impact significance. With appropriate mitigation measures, it is considered that the residual impacts on most of these LRs would be reduced to moderate to sight in Day 1, and slight to negligible in Year 10 of operation. However, the loss of water body of coastal water (LR6) is irreversible and the residual impacts would maintain as moderate in Year 10 of the operation. Meanwhile, vegetation along drainage channel (LR4), roadside planting (LR8) and orchard/ vegetation near rural settlement (LR12) would have slight impact significance due to the proposed development. Considered that impacts caused by the proposed development to these LRs would be considered as slight, hence it is assumed that residual impacts on these LRs would be slight in Day 1 and reduced to negligible in Year 10 of operation after the implementation of mitigation measures.

5.9.1.5 For the landscape character area (LCA) as shown in **Figure 5.8**, the most permanent works such as reclamation and building of the Public Facilities and roadworks would be located within Fat Tong O Reclamation (LCA1), Fat Tong Chau and Tin Ha Au upland and hillside landscape (LCA2), Chiu Keng Wan upland and hillside landscape (LCA3), water body of Tathong Channel and Joss House Bay (LCA4) and Junk Bay (LCA5). Hence, it is anticipated that the impact significance before mitigation would be moderate. With the implementation of mitigation measures, the residual impact of most of these LCAs would be reduced from moderate to slight in Day 1 and negligible in Year 10 of operational phase. However, the loss of water body of Tathong Channel and Joss House Bay (LCA4) and Junk Bay (LCA5) are irreversible and the residual impacts would maintain as moderate in Year 10 of the operation. Some proposed works such as constructing EPP within Fat Tong O industrial urban landscape (LCA8) and provision of marine viaduct connecting to the existing TKO transportation corridor (LCA9) would slightly alter the existing landscape character. It is assumed that there would be slight impact significance to these LCAs. With the implementation of mitigation measures, the residual impact would be slight in Day 1 and reduced to negligible in Year 10 of operational phase. The present barren reclamation landscape character in Fat Tong O (LCA1) would be substantially changed and replaced by a new residential urban landscape character of TKO 137, while a portion of western coastline of Junk Bay bay landscape character (LCA5) would be altered to TKO transportation corridor landscape character (LCA9) and a new reclamation landscape character of TKO 132 to accommodate Public Facilities away from existing and planned residential developments. The resultant new landscape character would provide a community incorporating environmental and biodiversity initiatives which enhancing the overall quality of life for residents.

5.9.1.6 In terms of the visual impact, considered that the proposed development of TKO 132 and TKO 137 are relatively extensive in terms of development scale, it is anticipated that the existing visual context of the selected VPs would be affected inevitably in various levels. The photomontages of the corresponding viewpoints are shown in **Figure 5.10** to **Figure 5.23** with the corresponding visual envelopes and locations shown in **Figure 5.9**.

5.9.1.7 For VPs that viewing to TKO 137, the impact significance would be substantial to VP8 (view from Tin Ha Shan) and VP10 (view from traveller along the ferry route of Tathong Channel) due to the close proximity to the proposed development while alternating the existing visual context in a substantial degree. The impact significance would be moderate to slight to VP1, VP3 and VP9 due to far viewing distance and slight degree of change in the existing visual context and character. With implementation of the mitigation measures, the residual impact of VP1, VP3 and VP9 would be reduced from sight to moderate in Day 1 and negligible to slight in Year 10 of operational phase, while VP8 and VP10 would be substantial in Day 1 and still be moderate residual impact in Year 10 of operational phase.

5.9.1.8 For VPs that viewing proposed development of TKO 132, the impact significance would generally be slight to moderate for VP4, VP5, VP6 and VP12 due to its relatively small in scale development and low in building profile. Existing visual context such as ridgeline of Devil hill or Chiu Keng Wan Shan could still be maintained. Hence, the residual impact would reduce from slight in Day 1 to negligible in Year 10 of operational phase after the implementation of mitigation measures.

5.9.1.9 For VPs that viewing both the proposed development of TKO 132 and TKO 137, the impact significance would be ranging from moderate to substantial to VP2, VP7 and VP11 due to its extensive development scale and visual blockage to existing natural elements such as foothill of Chiu Keng Wan Shan and ridgeline of Tin Ha Shan. Since the nature of development is similar to existing urbanised area of Tiu Keng Leng, TKO and LOHAS Park, the proposed developments of both TKO 132 and TKO 137 would consider as an extension of existing urbanised area. With implementation of the mitigation measures, it is anticipated that the residual impact of VP2 and VP11 would be moderate in Day 1 and reduced to slight in Year 10 of operational phase, while VP7 (View from Lookout of the Devil's Peak) would be substantial in Day 1 and still be moderate residual impact in Year 10 of operational phase.

5.9.1.10 With the aims to improve the overall quality of development within the Project, mitigation against adverse impacts would be adopted as far as practicable. Key planning, urban design and landscape design framework would be developed and proposed in RODP, Master Urban Design Plan and Landscape Master plan. With this guiding principle set out in early stage, these mitigation measures during construction stage could optimise their effect by avoidance of significant change in the existing landscape and visual context, creating visual outlook and landscape characters of the proposed development, ensuring ample green space and initiative are considered during the design stage and together with the preservation, protection and compensatory planting of trees / vegetation.

5.9.1.11 Considering the scale and nature of the Project, it would inevitably result in certain levels of residual landscape and visual impacts in relation to the loss of water body, loss of natural shorelines and the views from hilltop and from sea level. Nevertheless, the residual landscape impacts are localized and limited to the reclamation extent only without affecting existing community, while the residual visual impacts are confined within the visual envelope either involving few numbers of public viewers along hiking trail and ferry route, or relatively large numbers of public viewers along promenade but viewing at long distance. With the implementation of the proposed landscape and visual mitigation measures, the overall landscape residual impacts would be from negligible to moderate in Day 1 and Year 10 of operational phase, and the overall visual residual impacts would be from slight to substantial in Day 1 and from negligible to moderate in Year 10 of operational phase. With full implementation of the recommended mitigation measures, unacceptable adverse residual landscape and visual impacts are not expected.

5.10 Cultural Heritage Impact

5.10.1 Built Heritage Impact Assessment

5.10.1.1 No declared monument, proposed monument, graded historic building or government historic sites were identified within the Project boundary of TKO 137 or TKO 132. No direct impact on built heritage would therefore be anticipated during both the construction and operational phases.

5.10.1.2 No declared monument, proposed monument, graded historic building or government historic sites were identified outside the Project boundary but within the 300 m assessment area of TKO 137. For TKO 132, there are two (2) graded historic buildings (i.e. Fortifications at Devil's Peak (grade 2 historic building, HB463) and Old Quarry Site Structures, Lei Yue Mun (grade 3 historic building, HBN86) identified within the 300 m assessment area but outside the Project boundary of TKO 132. Their locations are shown in **Figure 5.24**. Given the considerable distance between the identified graded historic buildings and the Project boundary, no adverse impact on these graded historic buildings would be anticipated during the construction and operational phases.

5.10.1.3 Four (4) other identified items with no status are located within the 300 m assessment area but outside the Project boundary of TKO 132. Due to the considerable distance between these other identified items and the Project boundary of TKO 132, no direct or indirect impact would be anticipated during the construction and operational phases.

5.10.2 Archaeological Impact Assessment

5.10.2.1 There is no Site of Archaeological Interest (SAI) identified within the Project boundary of TKO 132 or the corresponding 300 m assessment area. For TKO 137, there are one (1) declared monument, namely Site of Chinese Customs Station, Fat Tau Chau (DM18) and three (3) Sites of Archaeological Interest (SAIs) identified within the 300 m assessment area but outside the Project boundary, including Fat Tau Chau SAI (SAI184), Fat Tau Chau House Ruin SAI (SAI185), and Fat Tau Chau Qing Dynasty Gravestone SAI (SAI186). Their locations are shown in **Figure 5.25**.

5.10.2.2 The coastal lowlands at the Fat Tau Chau SAI, located to the northwest of the island but outside the Project boundary of TKO 137, may hold archaeological potential for having environment settings that are favourable to prehistoric settlements. For areas of Fat Tau Chau within the Project boundary of TKO 137, are considered to have low archaeological potential based on desktop review while site visits were hindered by lack of safe access and thick vegetation coverage over the steep slopes. However, while it is unlikely to have any prominent and noticeable remains located within the Project boundary of TKO 137, it is not possible to confirm whether archaeological remains or features of the Fat Tau Chau Customs Station and other facilities below ground, would exist within the Project boundary of TKO 137 at the time of the writing of this report.

5.10.2.3 Since no declared monument and SAI within the Project boundary of TKO 137 and TKO 132, no direct impact on them is anticipated during the construction phase or operational phase.

5.10.2.4 Also, no works under this Project are in close proximity to the Site of Chinese Customs Station, Fat Tau Chau (DM18), Fat Tau Chau SAI (SAI184) and Fat Tau Chau Qing Dynasty Gravestone SAI (SAI186), no impact is anticipated on these three heritage sites during construction phase or operational phase. Hence no mitigation measure is required.

5.10.2.5 For the areas within the Project boundary of TKO 132, they are considered to have no terrestrial archaeological potential based on both desktop review and site visits results. Therefore, no direct or indirect impact is anticipated on terrestrial archaeology during the construction phase or operational phase.

5.10.2.6 For the areas within the Project boundary of TKO 137, they possess low terrestrial archaeological potential. Due to the importance of Fat Tau Chau in relation to the history of Customs Station, but the detailed design on the proposed development within the Project boundary of TKO 137 on Fat Tau Chau has not been available, the extent of impact to the areas of low archaeological potential could not be assessed. To ensure the preservation of archaeological heritage within the Project boundary of TKO 137 on Fat Tau Chau, this assessment would consider there would possibly be potential impact during the construction phase from the archaeological preservation perspective.

5.10.2.7 To ensure no archaeological resources related to the Customs Station on Fat Tau Chau would be affected by the Project, an Archaeological Impact Assessment should be undertaken during the detailed design phase when the details of the proposed works on Fat Tau Chau are available. This Archaeological Impact Assessment at the detailed design phase shall assess the archaeological potential concerning the existence of remains or features in relations to the Customs Stations or other facilities within the Project boundary of TKO 137 on Fat Tau Chau, particularly in areas that would be affected by the proposed works. Based on the details and extent of proposed works to be carried out on Fat Tau Chau, the Archaeological Impact Assessment at the detailed design phase would propose appropriate measures if any impact on archaeological heritage is identified, for consideration and agreement by AMO. The Archaeological Impact Assessment at the detailed design phase shall be conducted by an archaeologist. It shall incorporate desktop information, site inspection results and recommendation of appropriate mitigation measures if necessary, namely change of work design, preservation of archaeological heritage in-situ, preservation by relocation, archaeological survey cum excavation or rescue excavation, archaeological watching brief or preservation by record subject to the level of potential impacts to be confirmed in the Archaeological Impact Assessment upon availability of the details and extent of the proposed works to be carried out on Fat Tau Chau, as necessary for consideration and agreement by AMO. This Archaeological Impact Assessment at the detailed design phase should be conducted by the project proponent. In the light of the above considerations, no adverse impact would be anticipated with mitigation measures agreed by AMO and implemented to the satisfaction of AMO to ensure preservation of the archaeological heritage within the Project boundary of TKO 137 on Fat Tau Chau.

5.10.2.8 Furthermore, if antiquities or supposed antiquities under the Antiquities and Monuments Ordinance (Cap. 53) are discovered during the construction works within the Project boundary of TKO 137 and TKO 132, the project proponent is required to inform Antiquities and Monuments Office (AMO) immediately for discussion of appropriate mitigation measures to be agreed by AMO before implementation by the project proponent to the satisfaction of AMO.

5.10.2.9 In addition, Fat Tau Chau House Ruin SAI (SAI185) is an above-ground structures situated in close proximity to the Project boundary of TKO 137. While no direct impact is anticipated to the site, indirect impacts of ground borne vibration, tilting and settlement would be anticipated for during the construction phase, subject to the details of the construction works of future development in the proximity.

5.10.2.10 Condition and structural survey should be carried out for Fat Tau Chau House Ruin SAI (SAI185) both before and after all construction works to inspect its physical condition and structural integrity. The baseline vibration review before the construction phase shall evaluate if monitoring of ground-borne vibration, tilting, and ground settlement is required for Fat Tau Chau House Ruin SAI during construction phase based on the pre-construction condition and structural survey results and construction details. The baseline vibration review should be submitted to AMO for comment and agreement before implementation. If affirmative, monitoring of ground-borne vibration, tilting and ground settlement should be conducted during the construction phase. Also, a buffer zone shall be set up for Fat Tau Chau House Ruin SAI (SAI185) during the proposed construction works to separate the works areas from the structure. No works shall be allowed within the protective zone. No worker or any construction related equipment(s) and material(s) should trespass the protective zone. Meanwhile, Air Pollution Control (Construction Dust) Regulation shall be followed. Dust suppression measures and good site practice should be observed by the project proponent during the construction phase in order to avoid dust accumulation on Fat Tau Chau House Ruin SAI (SAI185).

5.10.3 Marine Archaeological Investigation

5.10.3.1 A Marine Archaeological Investigation (MAI) has been conducted for the Project. The baseline conditions have been established by reviewing the previous geophysical surveys and MAI studies, available archaeological and historical sources. The baseline review shows that while the Project would be undertaken in an area with high marine archaeological potential due to the considerable maritime activity in the past, the area has undergone significant modification in the more recent time due to land reclamation, dredging and construction activities that might have a significant negative effect on any marine archaeological resources, if present. The previous MAIs have also highlighted that the chance of finding well-preserved archaeological material on the seabed has been reduced due to the extensive seabed disturbance within Junk Bay caused by activities such as anchoring and construction.

5.10.3.2 The marine archaeological assessment of project-specific geophysical survey data identified a total of 57 anomalies, comprising 38 sidescan sonar and 19 magnetic contacts, for further inspection by diver survey. The diver survey results showed that none of the targets were considered to be of archaeological or historical significance, and no further investigations are required. No impact on marine archaeology is anticipated from the Project during both the construction and operational phases. Therefore, no mitigation measures are required.

5.10.3.3 Following the geophysical and diver surveys, adjustments to the Project boundary have resulted in minor data gaps and one uninvestigated anomaly within the assessment area. Given that the areas with data gaps and the uninvestigated anomaly are located at least approximately 225 m outside the marine works boundary of the Project, no marine archaeological impact is anticipated. No mitigation measures are therefore considered necessary. Nevertheless, as a precautionary measure, it is recommended to designate the areas with data gaps and the uninvestigated anomaly as archaeological exclusion zones during the marine works of the Project to ensure no impact on the seabed from anchoring of work vessels during the marine works of the Project in these locations.

5.11 Hazard to Life

5.11.1.1 The risks associated with the planned desalination plant, existing SNG production plant, proposed EPP, existing explosives off-loading pier and proposed green fuel station (assumed as liquified petroleum gas station) during both construction and operation phases of the Project have been assessed. The results showed that both the individual risks and societal risks, taking into account the population induced by the Project, would be in compliance with the risk criteria stipulated in Annex 4 of the EIAO-TM. Risk mitigation measures are therefore not required.

5.11.1.2 Regarding the potential risk impact associated with the explosives delivery from the pier during construction of the Project, it is recommended that the contractors to keep close liaison with CEDD on the schedule and routing of explosives delivery, and maintain the buffer distances (i.e. 90 m for indoor population and 35 m for outdoor population) from the delivery route accordingly. With the provision of sufficient buffer distance, negligible risk impact on the construction workers is expected.

5.12 Landfill Gas Hazard

5.12.1.1 A review of the Development Areas indicates landfill gas hazard assessment for TKO 132 is not required as the development resides beyond 250m of any landfill.

5.12.1.2 The northeastern quadrant of TKO 137 lies within the Consultation Zone for the SENT and SENTX , as shown in **Figure 5.26**, therefore landfill gas hazard assessment is required for those development areas of TKO 137 situated within the 250m landfill Consultation Zone.

5.12.1.3 The overall risk for the construction phase for the Development ranges from Low to Medium. Safety requirements stated in Chapter 8 of the Landfill Gas Hazard Assessment Guidance Note should be implemented properly during construction phase.

5.12.1.4 For the operational phase, dependent upon the actual design and usage of buildings, the overall risk levels for the operational phase in Open Spaces ranges from “Very Low” to “Low”. For developments where landfill gas risk is categorised as “Low”, some precautionary measures may be required to ensure that the planned development is safe, however the measures which depend on the actual design of indoor facilities if any (such as toilets).

5.12.1.5 The overall risk levels for the operational phase for Government, Institution or Community, Public Housing Sites, Education and Other Specified Uses ranges such as the EPP from “Low” to “High”. “Passive” or “Active” control measures should be considered for development areas categorised as “Medium” or “High” Risk respectively.

5.12.1.6 Detailed landfill gas hazard assessment (LFGHA), shall be conducted in accordance with the Landfill Gas Hazard Assessment Guidance Note, during the detailed design stage of the Development with appropriate control measures recommended based on the type of buildings/structures proposed, however potential hazard(s) posed by landfill gas are considered to be surmountable and numerous feasible engineering options exists to mitigate any unacceptable risk identified to acceptable levels.

5.12.1.7 EM&A requirements during construction within the consultation zone should be carried out in the form of regular site inspection to ensure the recommended mitigation measures are properly implemented. The overall monitoring programme for construction and operation phases and detailed actions should be submitted to EPD for approval in a detailed LFGHA during the detailed design stage.

5.12.1.8 Monitoring for landfill gases shall be conducted during operation phases of the Project. The monitoring programme (e.g. proposed parameters, locations and frequency of landfill gas monitoring) should be submitted in the detailed LFGHA to EPD for approval in the detailed design stage.

5.12.1.9 Provided that the construction and operational phase protection controls are appropriately designed and properly implemented, safety will be safeguarded and risk associated with landfill gas migration and potential hazard will be adequately controlled.

5.13 Impact from Electric and Magnetic Fields

5.13.1.1 According to the RODP, 132kV ESSs are proposed at TKO 137. The proposed 132 kV ESSs at TKO 137 would be of the similar nature and design as existing 132 kV substations. The Electro-Magnetic Field (EMF) due to the proposed ESSs would be expected similar to existing 132 kV substations. With reference to EMF measurement inside the existing Tuen Mun 132 kV Substation, the electric field strength and the magnetic flux density were respectively measured at 10 V/m and 4.7 μT, which complied with the ICNIRP limit by huge margin of over 99% and over 95%, respectively. EMF outside the proposed ESSs would be lower than that inside the ESSs, since EMF would decrease rapidly with increasing distance. Hence, it is expected that the EMF from the proposed ESSs at sensitive receivers would comply to the ICNIRP limit. No adverse EMF impact would be anticipated from the proposed ESSs.

5.13.1.2 The proposed 400 kV EFs at TKO 132 would be of the similar nature and design of existing 400 kV substations. The EMF due to the proposed EFs would be expected similar to existing 400 kV substations. With reference to EMF measurement inside the existing Tsz Wan Shan 400 kV Substation, the electric field strength and the magnetic flux density were respectively measured at 10 V/m and 59 μT, which complied with the ICNIRP limit by large margin of over 99% and over 40%, respectively. With reference to EMF measurement in the vicinity of the existing Shatin 400 kV Substation, the electric field strength and the magnetic flux density were respectively measured up to 7 V/m and 6.52 μT, which complied with the ICNIRP limit by huge margin of over 99% and over 90%, respectively. Hence, it is expected that the EMF from the proposed EFs at sensitive receivers would comply to the ICNIRP limit. No adverse EMF impact would be anticipated from the proposed EFs, based on latest available information.

5.13.1.3 Cumulative EMF impact would be expected from concurrent projects, i.e. underground and submarine power cables connecting to the proposed EFs and the proposed ESSs. With reference to previous EMF measurement result at existing underground power cables, measured electric field strength and magnetic flux complied with the ICNIRP limit by huge margin of over 99% and over 90%, respectively. For submarine power cables, referenced literature indicated electric field should be well contained within the submarine power cable as an industrial standard, while magnetic field generated from a submarine power cable at 2 m from the cable could be up to 72 μT, which complied with the ICNIRP limit by large margin of over 25%. Sensitive receivers would be expected to be located on land which are well beyond 2 m separation from a submarine power cable, and EMF would decrease rapidly with increasing distance, the EMF due to a submarine cable at any sensitive receivers on land would be expected much lower than that under water within 2m from a submarine cable. EMF compliance to ICNIRP limit at the sensitive receivers would be expected. Hence, it is expected that no adverse EMF impact to sensitive receivers from submarine power cables.

5.13.1.4 Nevertheless, the design of the EFs would be subject to further review by the proponent of the EFs. Therefore, in view of the uncertainty, the operator would apply for an EP separately when the design information is available, following the EIAO mechanism for the construction and operation of the proposed EFs to ensure that no adverse impact from the exposure of EMF generated from the proposed EFs would be anticipated.

5.14 Summary of Environmental Outcomes

5.14.1.1 The EIA has provided an assessment of the potential environmental impacts associated with the construction and operation of the Project, based on the engineering design information available at this stage. This has also included specific assessment for the three Schedule 2 DPs subject to environmental permit application under this EIA Study. The key outcomes are summarised in **Table 5.1**.

Table 5.1 - Summary of Key Environmental Problems Avoided and Sensitive Areas Protected

Design Approaches	Environmental Problems Avoided and Environmental Options
Avoidance of encroachment into CWBCP	• The proposed natural terrain mitigation works (i.e. flexible barrier) has been re-located to be within the EPP site to avoid any works encroaching into CWBCP
Preservation of natural shoreline	• Reclamation extent of TKO 132 has been optimised to minimise the impact to the natural shoreline. Approximately 1 km of natural shoreline can be maintained
Minimise direct impact to hard and black corals colonies and coral recipient site at western Junk Bay	• Reclamation extent of TKO 132 has been optimised to avoid encroachment into the coral recipient sites at Junk Bay and minimise direct impact to hard and black corals colonies and coral recipient site at western Junk Bay
Minimise direct impact to subtidal habitats and associated coral colonies in Western Junk Bay	• Reclamation extent of TKO 132 has been optimised to minimise direct impact to subtidal habitats and associated coral colonies in Western Junk Bay
Avoidance of encroachment on the existing government land licences at On Luen Village	• Site formation at TKO 132 has been designed to avoid encroachment into the existing government land licences at On Luen Village.
Avoidance of direct impacts on natural water course	• Pier locations of the marine viaduct has been designed to avoid direct impact on the natural watercourse near TKO 132.
Minimise impact to the terrestrial ecology at Devil's Peak	• The natural terrain mitigation works have been optimised to ensure that the works area is limited to the toe of Devil's Peak as far as possible in order to minimise the terrestrial ecology impact.
Minimise potential odour impact	• The EPP emission points are designed to be located away from the sensitive receivers to minimise the potential odour impact
Providing sustainable transport infrastructure to promote low-carbon living	• Pedestrian-friendly environment and robust cycling network are proposed to promote walkability and cycling for low-carbon living
Appropriate Planning of Building Configuration and Setback, and application of acoustic windows and/or enhanced acoustic balcony	• With appropriate planning on building configuration and setback from roads, potential road traffic noise impact on future noise sensitive uses within the development would be minimised. The potential noise impacts could be alleviated by the use of low-noise road surfacing, acoustic windows and / enhanced acoustic balcony, blank wall, fixed window, architectural fin, etc., thereby avoiding the use of roadside noise barriers or enclosures. Without roadside noise barriers or enclosures, the associated

Design Approaches	Environmental Problems Avoided and Environmental Options
	visual impacts and bird collisions would also be avoided / minimised.
Create buffer distance between TKOIP and sensitive receivers/uses in TKO 137	• To minimise the impact from the TKOIP to the sensitive receivers/uses in TKO 137, G/IC and open spaces have been positioned between TKOIP and residential sites to sufficient buffer distance
Adoption of Non-dredged Reclamation	• Non-dredged reclamation with in-situ ground treatment methods (including marine-based deep cement mixing and land-based jet grouting) would be adopted to minimise the associated water quality impacts, the waste management implications from sediment disposal and the secondary environmental impacts from induced marine traffic.
Adoption of Environmentally Friendly Construction Method	• The precast method would be adopted for the construction of the proposed marine viaduct to reduce the overall C&D materials to be generated on-site, shorten construction duration and minimise on-site environmental impacts (e.g. dust and noise) on nearby sensitive receivers.

5.15 Conclusion

5.15.1.1 The findings of this EIA have provided information on the nature and extent of environmental impacts arising from the construction and operation of the Project. The EIA has, where appropriate, identified mitigation measures to ensure compliance with environmental legislation and standards.

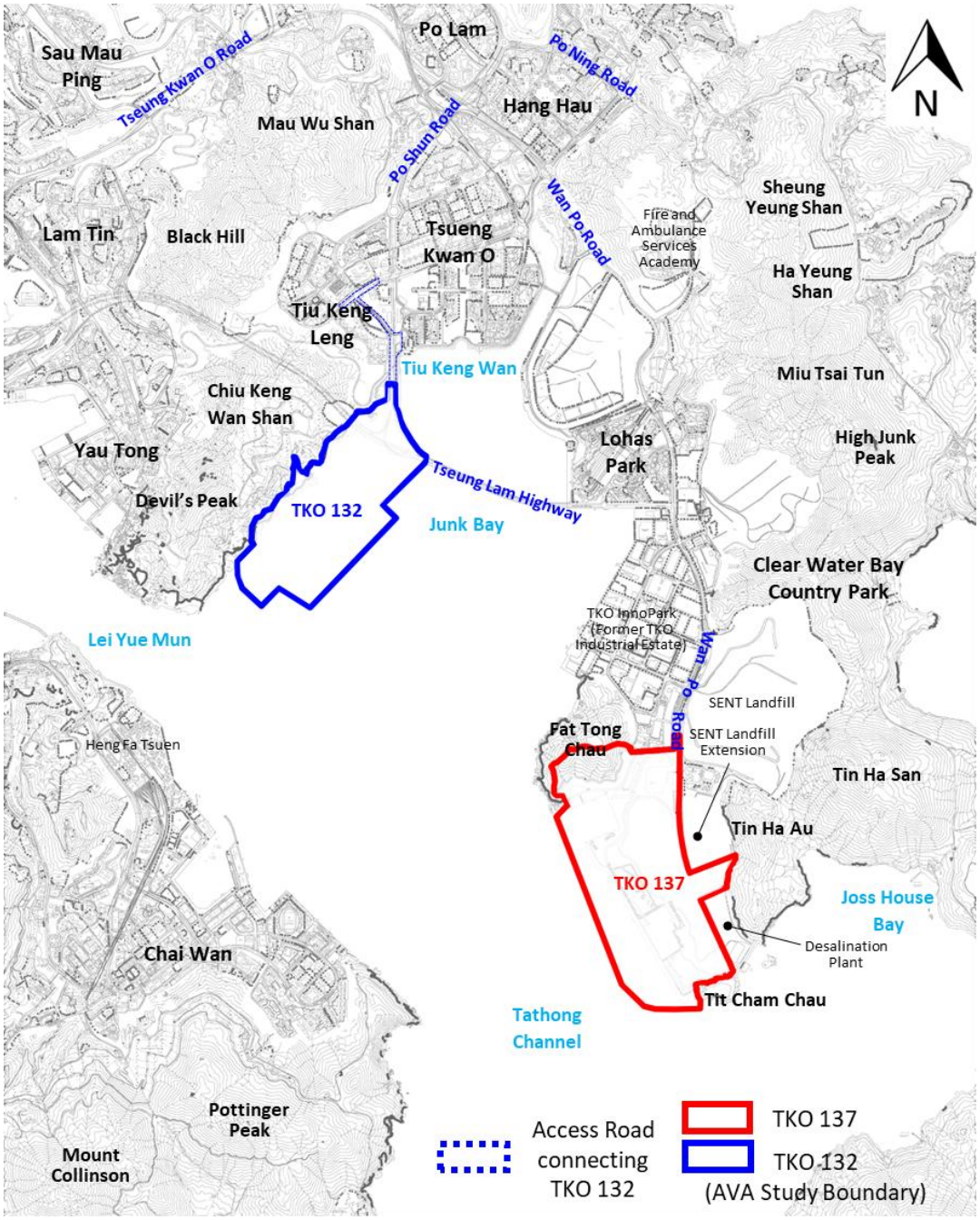
5.15.1.2 Overall, the EIA Report has predicted that the Project would be environmentally acceptable with the implementation of the proposed mitigation measures for construction and operation phases. An environmental monitoring and audit programme has been recommended to ensure the effectiveness of recommended mitigation measures.

6. AIR VENTILATION ASSESSMENT

6.1 Air Ventilation Assessment – Detailed Study

6.1.1.1 The AVA Detailed Study has adopted CFD model simulation approach to quantitatively assess the air ventilation performance of the Revised Outline Development Plan (RODP) with the indicative proposed development layout plans for both TKO 137 and TKO 132. This section of the consolidation report summarizes the major findings of the AVA – Detailed Study, in which the details can be referred to the AVA – Detailed Study Report for TKO 137 and TKO 132. It should be noted for TKO 132, the Project Boundary include access roads linking and extending to Tiu Keng Leng/Tseung Kwan O areas to the north (see blue dotted lines in **Diagram 6.1**). However, as there is a lack of proposed major structures that would affect the air ventilation performance along these access roads, the AVA Detailed Study for TKO 132 has adopted the Study Boundary as indicated by blue solid line in **Diagram 6.1**.

Diagram 6.1 – Locations of TKO 137 and TKO 132



6.2 TKO 137

6.2.1 Site Wind Availability

6.2.1.1 Computed wind data from the Regional Atmospheric Modelling System (RAMS), covering Development Area of TKO 137, has been analysed to identify the annual and summer prevailing wind directions.

6.2.1.2 The wind data representing the predicted wind availability is extracted from a total of ten grids based on the coverage of TKO 137 and the identified grids with respect to the Development Area are schematically shown in **Diagram 6.1**. The wind data of the identified ten RAMS grids covering the AVA Development Area all display a similar trend. It is considered that the wind data from the RAMS grid (100,032) located at the approximate central position appropriately represents the wind environment of TKO 137. Therefore, the wind data from this RAMS grid (i.e., (100,032)) would be used for driving the CFD simulations for the AVA Detailed Study on the RODP of TKO 137.

6.2.1.3 Based on the wind data from the RAMS grid (100,032), among the 16 simulated wind directions, the highest frequency occurrence annual prevailing winds towards the Development Area are coming from E (19.4%) , ENE (14.5%), and NE (9.8%) directions. Meanwhile, the highest percentage occurred summer prevailing wind is mainly from SW (15.6%), SSW (14.7%) and S (9.9%) directions. The annual and summer wind roses of grid (100,032) are illustrated in **Diagram 6.3**.

Diagram 6.2 – Locations of RAMS grids covering TKO 137

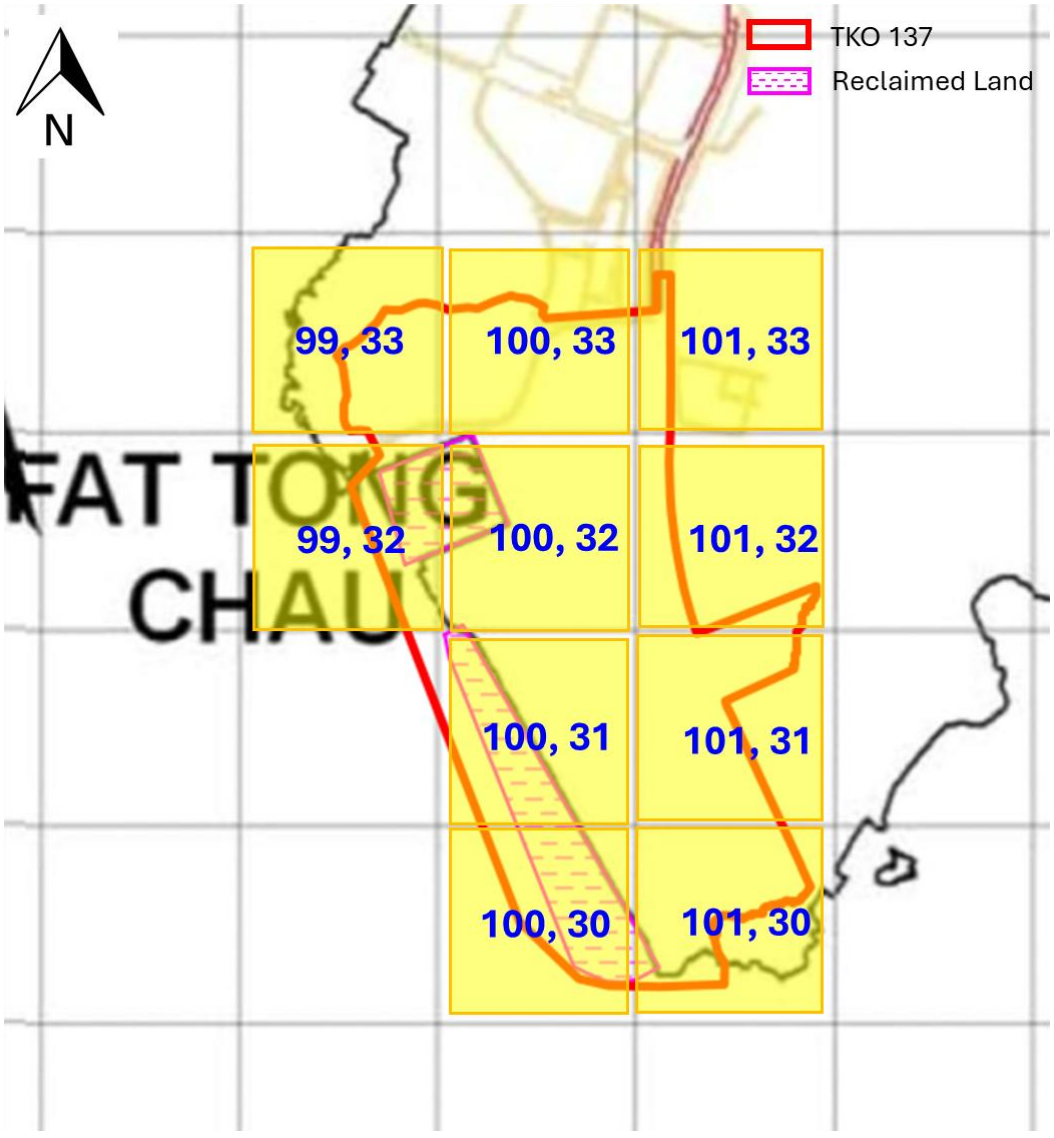
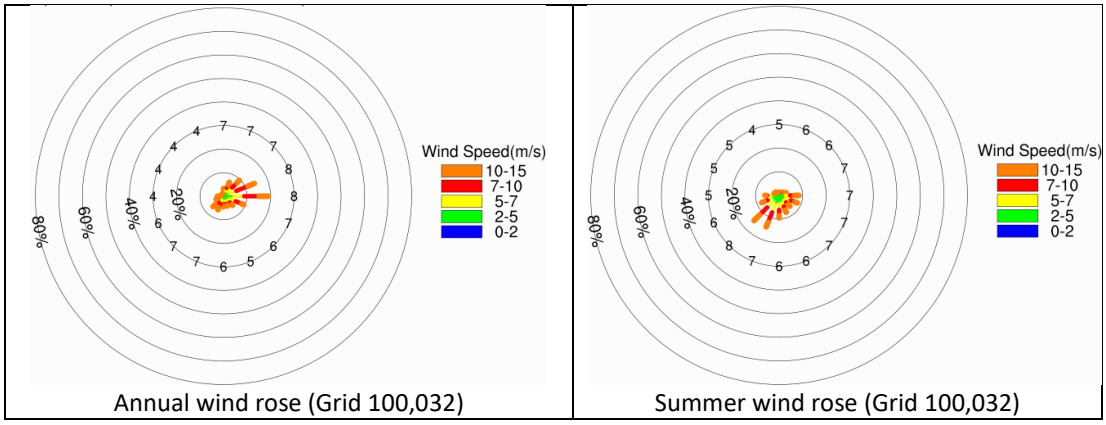


Diagram 6.3 – Annual and Summer Wind Roses for Grid (100,032)

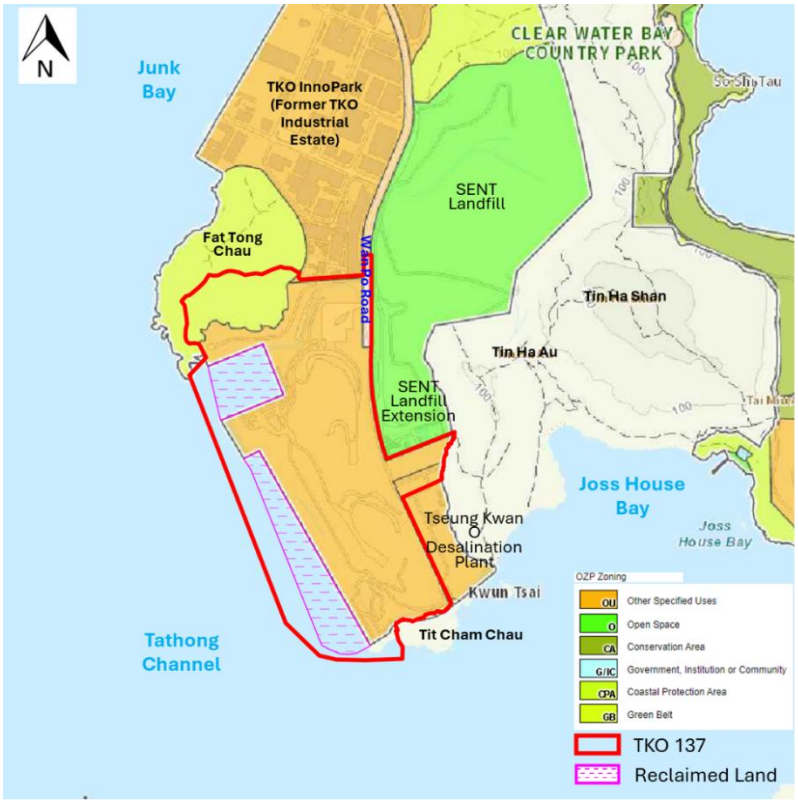


6.2.2 Land Use Zonings

6.2.2.1 The current land use zonings of TKO 137 and its surroundings are dictated by the approved Tseung Kwan O Outline Zoning Plan No. S/TKO/30. The land uses and types near the TKO 137 are shown in **Diagram 6.4** below. TKO 137 along with the immediate vicinity regions to its north (TKO InnoPark (the former Tseung Kwan O Industrial Estate)) are zoned "Other Specified Uses" ("OU") annotated "Industrial Estate", while the hill slope areas to the northeast of TKO 137 are zoned as "Open Space (2)" ("O(2)") belonging to the SENT Landfill and its extension area. The land to the near southeast of the TKO 137 is zoned "Other Specified Uses" ("OU") annotated "Desalination Plant", in which there would be a proposed desalination plant. The knoll of Fat Tong Chau is zoned "Green Belt" ("GB").

6.2.2.2 To the northeast direction of the TKO 137 are the terrains of Tin Ha Au and Tin Ha San, in which to the north of Tin Ha San are some Conservation Areas along Clear Water Bay while to the south of Tin Ha San exist Coastal Protection Areas along the Joss House Bay with a small parcel of GIC land and Open Space mixed within. It is noted that there are reclaimed lands within the TKO 137 and the Development Area can be accessed via the Wan Po Road.

Diagram 6.4 – Land Use Zonings at TKO 137



6.2.3 Identified Potential Wind Sensitive Areas

6.2.3.1 Potential wind sensitive areas near TKO 137 have been identified and are illustrated in **Diagram 6.5**. Potential wind sensitive areas are places among the nearby existing developments with frequent pedestrian access in which the wind environment might be influenced upon full developments within the TKO 137. The potential wind sensitive areas are usually situated at the near downwind regions of proposed developments in which the wind environment is likely to be covered and influenced by wind wakes induced by these proposed developments within the TKO 137.

6.2.3.2 The wind environment at the existing TVB City, the Green Valley Landfill Limited may be affected by the potential cumulative effect generated by the proposed developments within the TKO 137 under the southerly and south-westerly summer prevailing wind. Therefore, these two places are identified as potential wind sensitive areas. Other existing nearby developments within the TKO InnoPark are located far away from the TKO 137 as compared to the TVB City, as a result, these frequent access areas are anticipated to experience less potential air ventilation impacts. Apart from the above-mentioned areas, surround the TKO 137 mostly are open sea areas of Tathong Channel and Joss House Bay as well as the Tseung Kwan O Desalination Plant and SENT Landfill Extension with limited frequent pedestrian access, therefore, these areas are not categorized as potential wind sensitive areas.

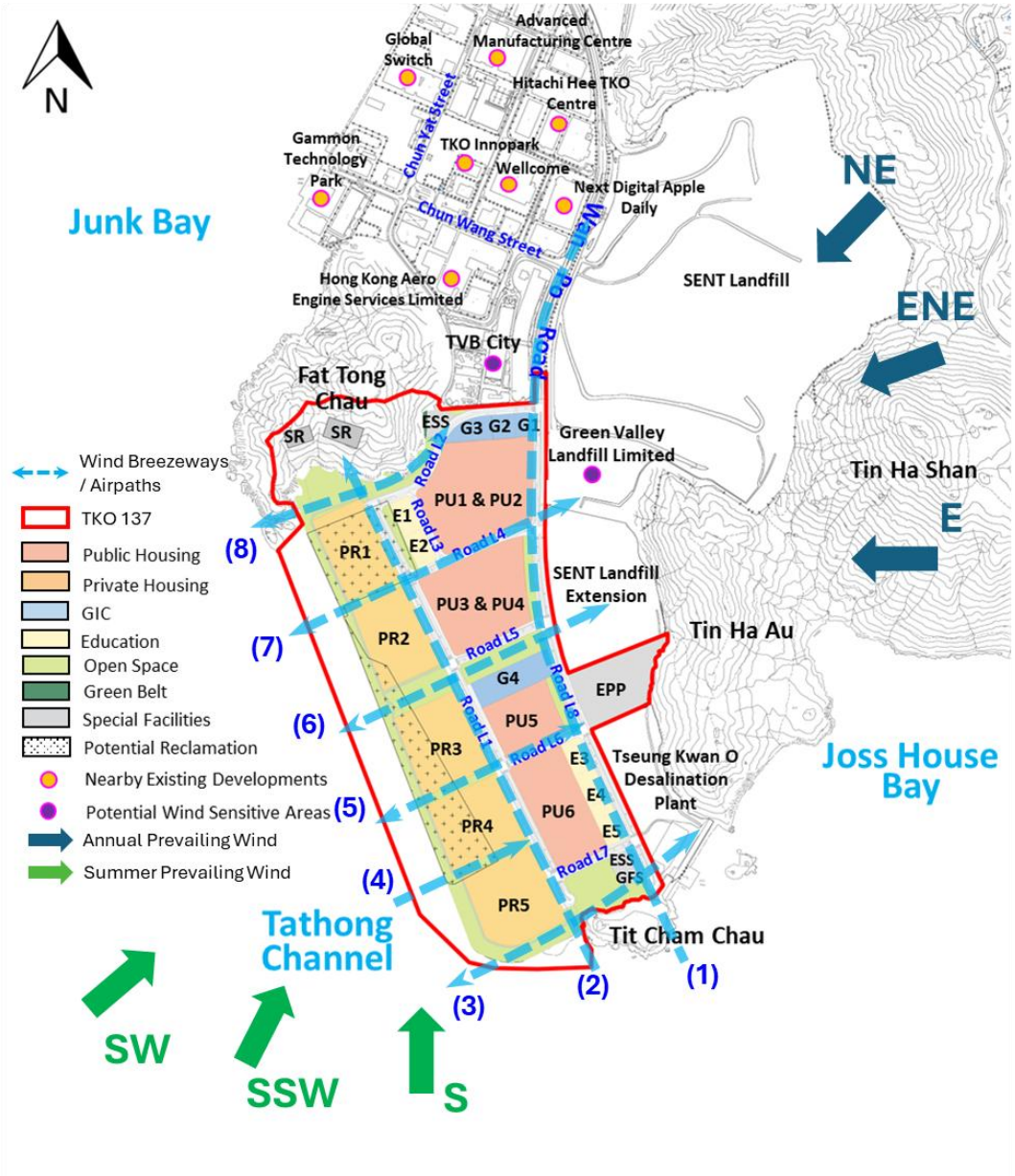
6.2.3.3 Apart from the above, local roads and streets are also frequently accessed by pedestrians. The local roads and streets within TKO 137 include Roads L1 to L8, while the roads/paths surround TKO 137 include Wan Po Road, Chun Wang Road, Chun Yat Street and Chun Choi Street. These mentioned roads and streets are also potential wind sensitive areas but are not hatched/highlighted in **Diagram 6.5** for the sake of brevity.

6.2.4 Identified Major Breezeways/Air Paths

6.2.4.1 The RODP at TKO 137 has incorporated open spaces and separations in between the land parcels, forming wind breezeways and air paths that would facilitate the flow of prevailing wind and maintain the wind environment at the vicinity of the TKO 137. The major formed wind breezeways/airpaths within the TKO 137 under the RODP are illustrated in **Diagram 6.5**.

6.2.4.2 The major wind breezeways/airpaths that are identified within TKO 137 presented in **Diagram 6.5** have been discussed in detail in the AVA – Detailed Study report and the discussions would not be repeated here for the sake of brevity. However, it should be noted that these identified wind breezeways/airpaths take up the role to allow the prevailing wind to penetrate the Development Area to reach the identified potential wind sensitive areas. The eight identified wind breezeways/airpaths (i.e., Markers (1) to (8) in **Diagram 6.5**) are all important and effective in maintaining the wind environment within the Development Area upon the full developments under both the annual and summer seasons.

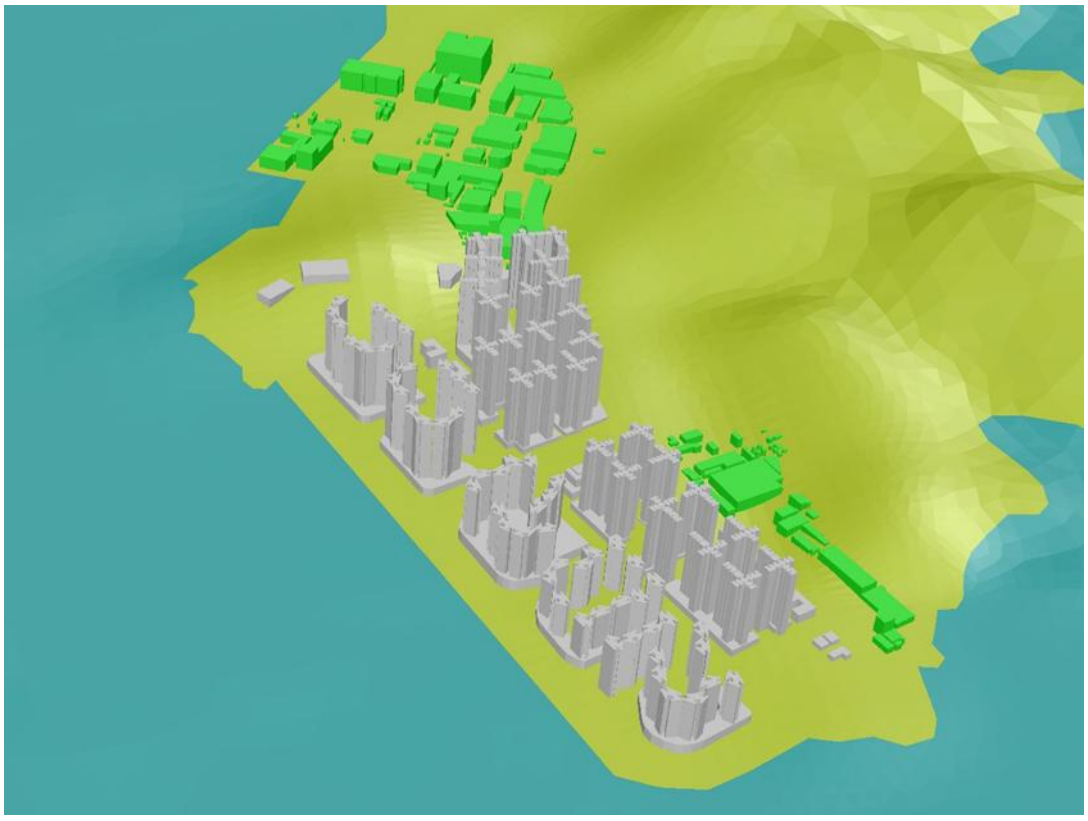
Diagram 6.5 – Potential Wind Sensitive Areas, Nearby Existing Developments and Identified Major Wind Breezeways/Airpaths within TKO 137



6.2.5 AVA – Detailed Study on RODP

6.2.5.1 An AVA – DS for RODP has been carried out in accordance with the guidelines stipulated in the Technical Guide for AVA for Developments in Hong Kong with regards to CFD modelling. A 3-dimensional CFD model including topographical features covering the whole ground of the computational domain with building morphologies, noise barriers, elevated highways and walkways (if any), which would likely affect the wind flow has been constructed (see **Diagram 6.6**). The detailed assessment methodology and assumptions have been presented in the AVA – Detailed Study Report. Summary of the wind velocity ratios and detailed analysis are also presented in the AVA – Detailed Study Report, while below summarizes the major findings.

Diagram 6.6 – Model of Simulated Scenario (TKO 137)



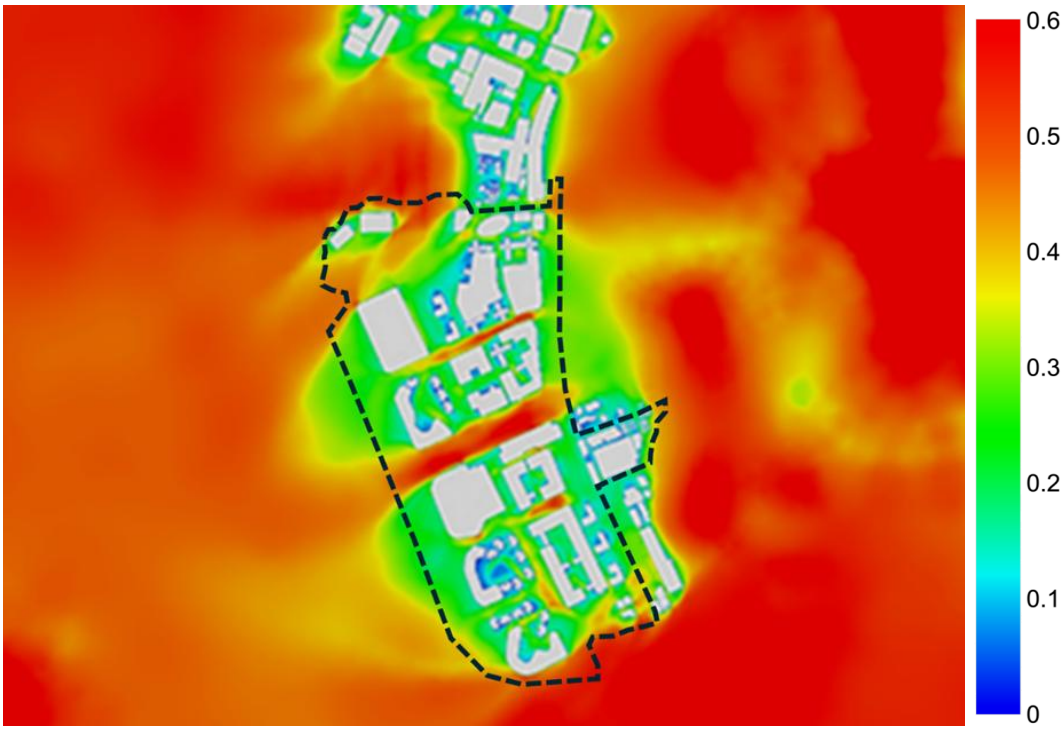
6.2.5.2 From the findings of this AVA Detailed Study, the SVRw for the Simulated Scenario according to the RODP is maintained at 0.33 under the both the annual and summer wind. Thus, a comparable wind environment along the AVA Study boundary of TKO 137 can be experienced during the annual and summer seasons.

6.2.5.3 The predicted averaged LVR_w for Simulated Scenario in accordance with the RODP under annual wind has a wind VR value of 0.30. During summer season, the predicted LVR_w for the Simulated Scenario is 0.28, which is lower than that under the annual season. The predicted results show that the proposed developments within TKO 137 would have greater influence on the overall air ventilation performance at the surroundings of the TKO 137 during the summer seasons as compared to the annual seasons.

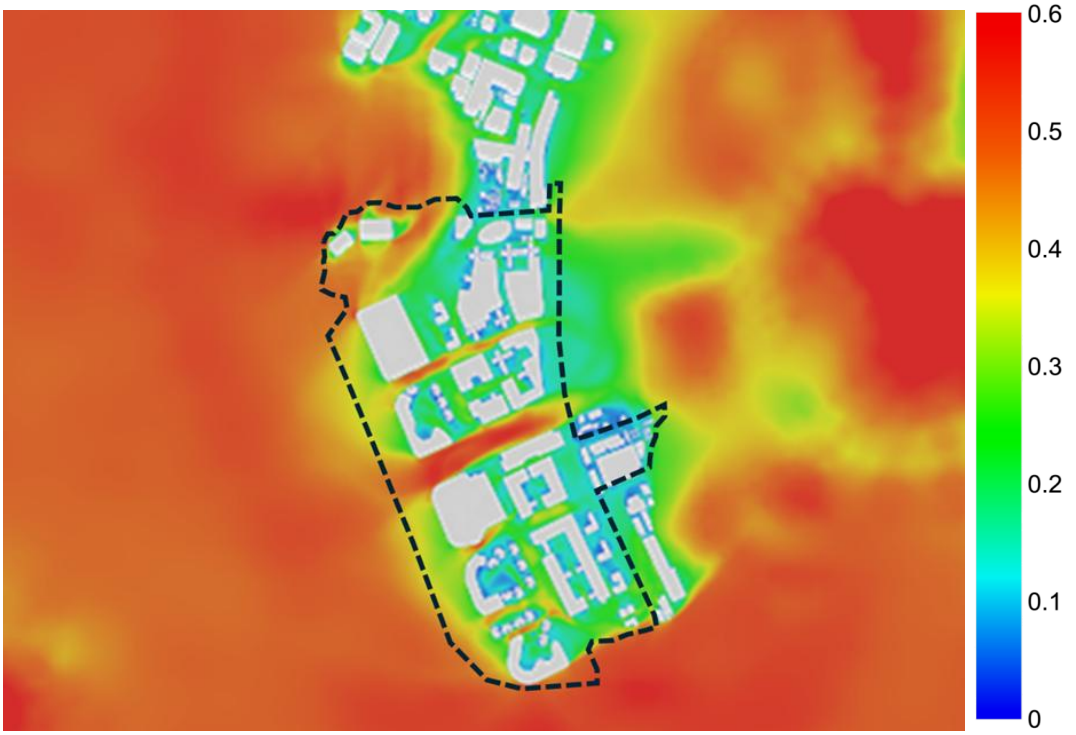
6.2.5.4 Special Test Points have also been placed to assess the wind environment within the TKO 137. Through investigating the extracted wind data from the simulation model, a comparable wind environment within the TKO 137 is achieved under both the annual and summer seasons with an averaged wind velocity ratio of 0.24. Within TKO 137, relatively good air ventilation performance can be seen along majority of the formed local roads and the open space areas, but lower averaged VR values are seen within regions at/near the GIC land parcels G1 – G3 and Education land parcels E1 – E2 and E3 – E5.

6.2.5.5 The annual and summer frequency weighted average contour plots at 2m pedestrian level for TKO 137 have been presented in In **Diagram 6.7**.

Diagram 6.7 – Frequency Weighted Average Contour Plots at 2m Pedestrian Level (TKO 137)



Annual



Summer

6.2.6 Good Air Ventilation Features to be Retained

6.2.6.1 North-eastern quadrant wind is anticipated to be dominant during annual seasons and southwestern quadrant wind is the prevailing wind in summer seasons. In addition, easterly wind is a major wind for both annual and summer seasons. It is observed that the proposed building layouts are aligned according to the urban grid, with the alignments of the land parcels and the road networks roughly follows the prevailing wind directions, is one of the good features that should be retained from the perspective of air ventilation.

6.2.6.2 The seafront land parcels of the RODP for TKO 137 are setback away from the waterfront areas creating a promenade. In addition, land parcels with Private Residential Developments of comparatively lower building heights are placed near the seafront areas while with Public Residential Development land parcels placed at inner areas. This would form a stepping building height profile that is advantageous in terms of air ventilation. In addition, the proposed residential developments are situated on low-rise podiums with some of the proposed building blocks adopting podium free designs, these good air ventilation features should be retained in the future confirmed layouts.

6.2.6.3 Open spaces are essential good features that would help in promoting the wind environment and facilitating the prevailing wind to penetrate the TKO 137. There is observable number of open spaces incorporated interconnecting the formed local roads within TKO 137 with the proposed development layout under the RODP. These open spaces/green elements that integrate key GIC facilities to create core walkable destinations for the community as well as serve as breathing spaces within TKO 137 should be retained.

6.2.7 Recommendations and Conclusions

6.2.7.1 The proposed developments within the TKO 137 would inevitably impose a certain magnitude of blockage in wind flow upon the proposed developments under the current layout of the RODP.

6.2.7.2 However, the proposed developments under the RODP do not obstruct the major wind breezeway formed from linking up the open spaces between PR2/PU3/PU4 and PR3/G4, which divided TKO 137 into the northern and southern portions. Local Road L1 and Local Road L8 elongating Wan Po Road which are responsible for the wind permeability through TKO 137 in the north-south direction also remain non-obstructed. There are observable open spaces incorporated within TKO 137 with the proposed development layouts under the RODP. These open spaces/green elements connecting the formed local roads are intertwined in between Residential Developments, GIC facilities and proposed schools to create core walkable destinations for the community as well as serve as breathing spaces/major airpaths within TKO 137.

6.2.7.3 With the proposed building design layouts with the RODP adopted for numerical simulation, majority of the areas within TKO 137 still can achieve a relatively good wind environment. However, disturbances in air ventilation performance can be observed at the proposed Divisional Police Station, Sub-Divisional Fire Station cum Ambulance Depot as well as Sports Centre within GIC land parcels G1 – G3 as well as regions near the proposed schools within Education land parcels E1 and E2 under the southern and southwestern quadrant wind, Future proposed buildings within land parcels PU1&PU2 can consider either to set back from the GIC facilities or explore air ventilation design measures such as incorporating permeable elements to alleviate the potential air ventilation impacts induced.

6.2.7.4 The proposed Public Residential Developments within land parcel PU6, although adopted a low-rise podium design, still is anticipated to shelter the southwestern wind from the open sea to reach the proposed schools within Education land parcels E3 – E5. Therefore, the future layout for the Public Residential Developments within land parcel PU6 should be finetuned to allow elongation of the wind breezeway along the strip of open space in between land parcels PR4 and PR5, to direct the sea wind towards the proposed schools located inland. If feasible, an NBA is suggested to be included within land parcel PU6 to elongate the wind breezeway.

6.2.7.5 Large clusters of accumulated residential land use parcels planned for high-rise developments should be avoided to reduce the induced cumulative wind impacts. Strengthened site permeability and air ventilation design measures should be incorporated into the proposed

building designs to sustain the wind availability and maintain the wind environment within TKO 137 and nearby potential wind sensitive areas.

6.2.7.6 The further finetuning in designs of the proposed building morphologies and layouts within the TKO 137 in the RODP stage should consider the suggestions in the Urban Design Guidelines in the HKPSG as well as the SBDG for the future Development Option to be adopted. These suggestions include but not limited to the avoidance of long continuous façades and face shorter frontages of proposed buildings to the prevailing wind directions; minimization/break down of podium bulk with small ground coverage or adoption of podium-free design; enhance site and building permeabilities; adopt terraced podium designs and varying building height profiles as well as incorporate building setbacks. All the above-mentioned design strategies would ensure the wind environment within TKO 137 to be maintained and resulting in a minimal negative air ventilation impacts on its surroundings.

6.3 TKO 132

6.3.1 Site Wind Availability

6.3.1.1 Computed wind data from the Regional Atmospheric Modelling System (RAMS), covering Development Area of TKO 132, has been analysed to identify the annual and summer prevailing wind directions.

6.3.1.2 The wind data representing the predicted wind availability is extracted from a total of four grids based on the coverage of the land creation off at TKO 132 and the identified grids with respect to the Development Area are schematically shown in **Diagram 6.8**. The wind data of the identified ten RAMS grids covering the AVA Development Area all display a similar trend. It is considered that the wind data from the RAMS grid (096,036) located at the approximate central position appropriately represents the wind environment of land creation off TKO 132. Therefore, the wind data from this RAMS grid (i.e., (096,036)) would be used for driving the CFD simulations for the AVA Detailed Study on the RODP of TKO 132.

6.3.1.3 Based on the wind data from the RAMS grid (096,036), among the 16 simulated wind directions, the highest frequency occurrence annual prevailing winds towards the Development Area are coming from E (20.3%), ENE (14.4%), and NE (10.6%) directions. Meanwhile, the highest percentage occurred summer prevailing wind is mainly from SSW (14.4%), SW (14.2%) and S (10.0%) directions. The annual and summer wind roses of grid (096,036) are illustrated in **Diagram 6.9**.

Diagram 6.8 – Locations of RAMS grids covering TKO 132

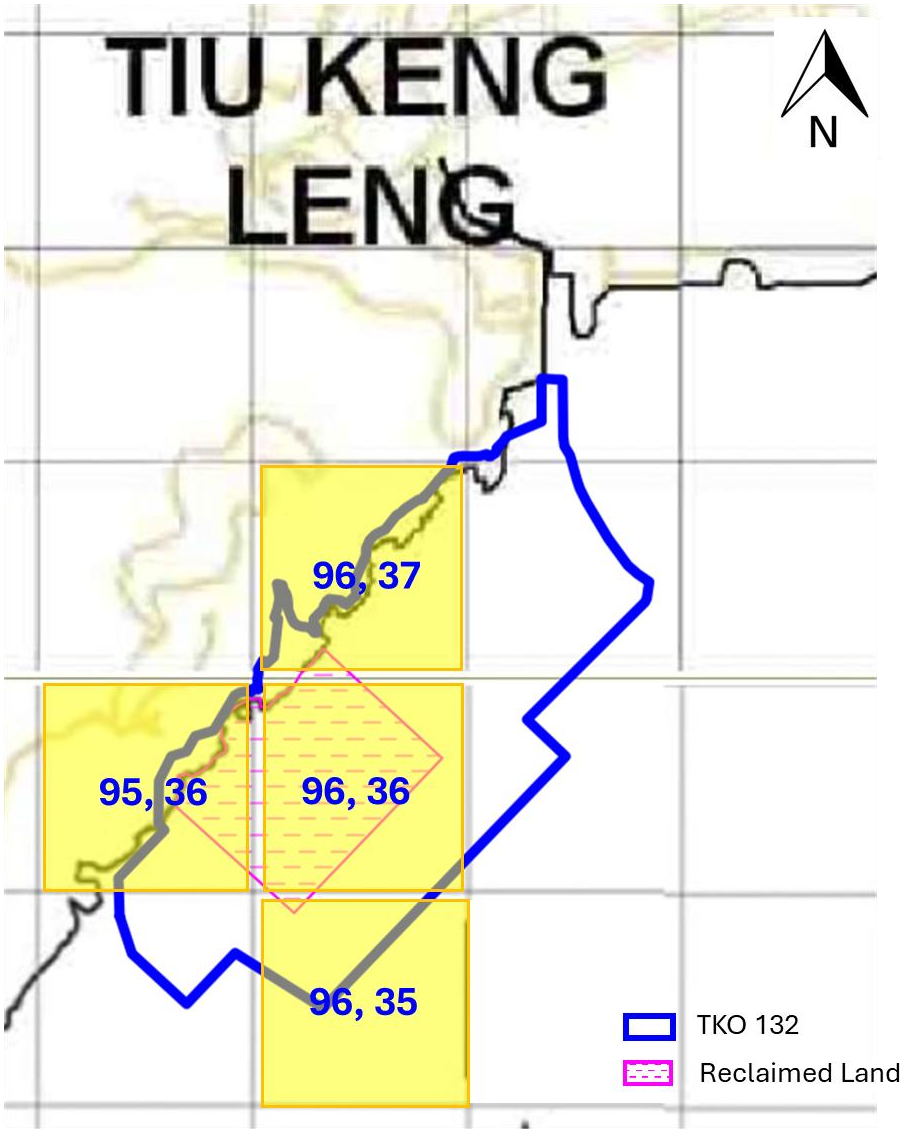
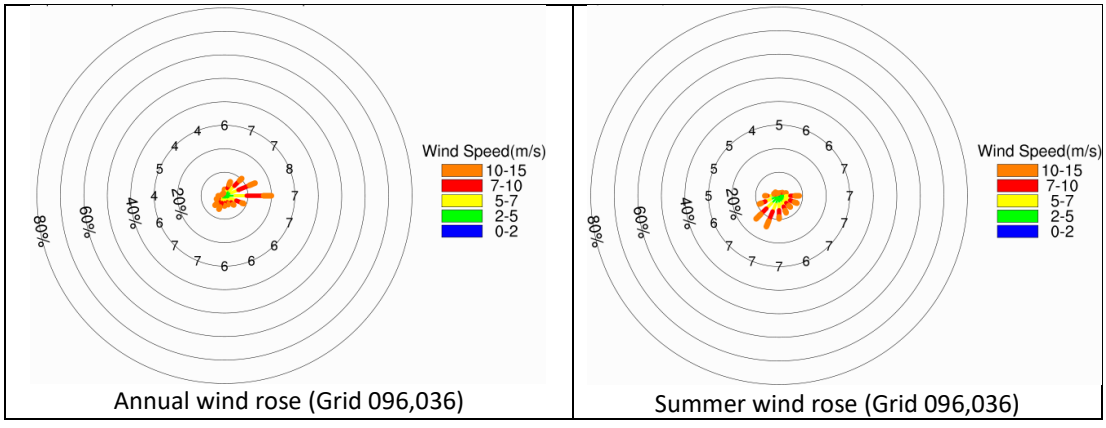


Diagram 6.9 – Annual and Summer Wind Roses for Grid (096,036)



6.3.2 Land Use Zonings

6.3.2.1 TKO 132 covers mainly the open sea areas of Chiu Keng Wan, Junk Bay and Lei Yue Mun with inclusion of limited areas of Green Belts along the seashore. Lands hatched with magenta patterns in **Diagram 6.10** below are obtained through reclamation and proposed for settlement of Public Facilities and the associated berthing facilities.

6.3.2.2 Currently the proposed reclaimed land off TKO 132 is not covered by any statutory town plan. The current land use zonings for the surroundings of the TKO 132 and the Tseung Kwan O region to the northeast directions fall within the boundaries of the approved Tseung Kwan O Outline Zoning Plan No. S/TKO/30, while the land zonings for the Yau Tong region across the terrains of Devil's Peak fall within the approved Cha Kwo Ling, Yau Tong, Lei Yue Mun Outline Zoning Plan No. S/K15/27. The land uses and types near the TKO 132 are shown in **Diagram 6.10** below.

Diagram 6.10 – Land Use Zonings near land creation off TKO 132

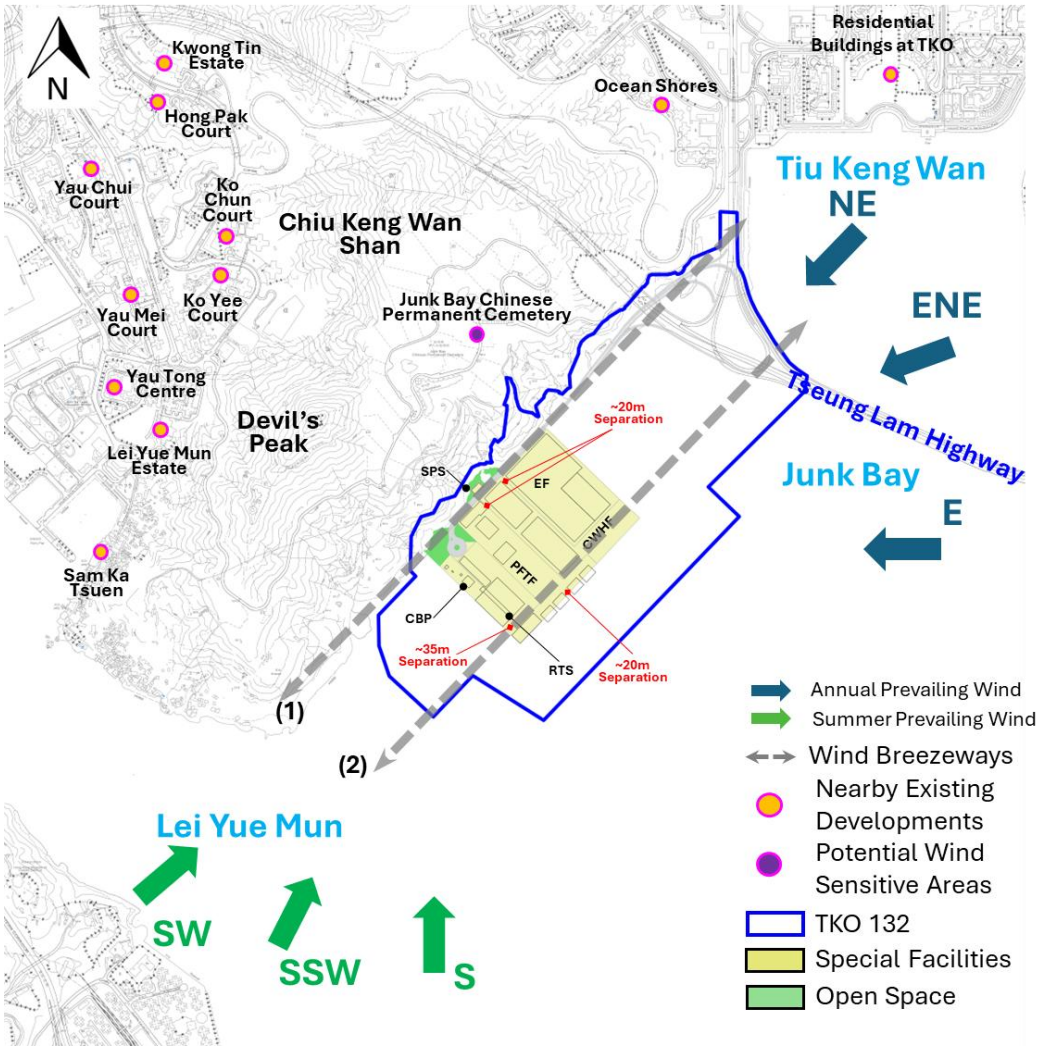
6.3.3 Identified Potential Wind Sensitive Areas

6.3.3.1 Potential wind sensitive areas near TKO 132 have been identified and are illustrated in **Diagram 6.11**. Potential wind sensitive areas are places among the nearby existing developments with frequent pedestrian access in which the wind environment would be influenced upon full development within the TKO 132. The potential wind sensitive areas are usually situated at the near downwind regions of proposed developments in which the wind environment is likely to be covered and influenced by wind wakes induced by these proposed developments within the land creation off TKO 132.

6.3.3.2 As revealed in **Diagram 6.11**, the nearest pedestrian frequent area is the Junk Bay Chinese Permanent Cemetery and there may be potential air ventilation impacts due to the proposed developments under the southerly prevailing wind. Therefore, the Junk Bay Chinese Permanent Cemetery is identified as one of the potential wind sensitive areas.

6.3.3.3 Other pedestrian frequent areas near the TKO 132 include the villages of Sam Ka Tsuen, as well as residential developments belonging to Yau Tong separated from the TKO 132 by the terrains of Devil's Peak and Chiu Keng Wan Shan. The wind environment at these mentioned places is more likely to be under the influence of the surrounding topographies rather than the proposed developments within the land creation off TKO 132. Ocean Shores and Residential Buildings at TKO are located to the far northeast. Owing to the relatively far distance of these existing developments from TKO 132, the wind environment at these places is not likely to be affected upon the proposed developments within TKO 132.

Diagram 6.11 – Potential Wind Sensitive Areas, Nearby Existing Developments and Identified Major Wind Breezeways/Airpaths within TKO 132



6.3.4 Identified Major Wind Breezeways/Airpaths

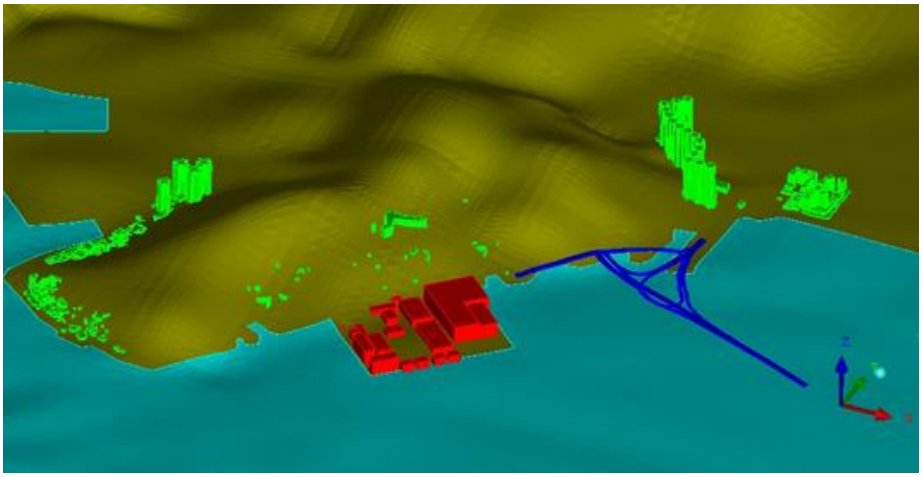
6.3.4.1 With the placements and arrangements of the structure morphologies within the land parcels for proposed Special Facilities as shown in **Diagram 6.11**, several observable wind breezeways can be observed.

6.3.4.2 One of the major wind breezeways abuts the northwestern boundary of the TKO 132 along the formed local road as annotated by Marker (1) in **Diagram 6.11**. The incorporated wind breezeway would mainly facilitate the flow of the southwestern quadrant summer wind from the open sea areas of Lei Yue Mun to reach the Tseung Lam Highway as well as the flow of northeastern quadrant wind in an opposite direction. Another NE-SW directional wind breezeways is formed in between the proposed buildings within the RTS land parcel with a separation of ~35m as indicated by Marker (2) in **Diagram 6.11**. This wind breezeway would direct the southwestern quadrant wind to penetrate the RTS, PFTF and CWHF land parcels towards the Tseung Lam Highway and the flow of the northeastern quadrant wind in a vice versa direction.

6.3.5 AVA – Detailed Study on RODP

6.3.5.1 An AVA Detailed Study for RODP has been carried out in accordance with the guidelines stipulated in the Technical Guide for AVA for Developments in Hong Kong with regards to CFD modelling. A 3-dimensional CFD model including topographical features covering the whole ground of the computational domain with building morphologies, noise barriers, elevated highways and walkways (if any) which would likely affect the wind flow has been constructed (see **Diagram 6.12**). The detailed assessment methodology and assumptions have been presented in the AVA – Detailed Study Report. Summary of the wind velocity ratios and detailed analysis are also presented in the AVA – Detailed Study Report, while below summarizes the major findings.

Diagram 6.12 – Model of Simulated Scenario (TKO 132)



6.3.5.2 The AVA Detailed Study was conducted to assess the characteristics of the wind availability of the land creation off TKO 132, provide a general wind pattern and a quantitative estimate of wind performance at the pedestrian level under the full quantum of annual and summer wind directions and investigate the effectiveness of ventilation for the Simulated Scenario with proposed Special Facilities at the reclaimed land off TKO 132.

6.3.5.3 From the finding of this AVA Detailed Study, the Site Spatial Average Wind Velocity Ratio (SVR_w) for the Simulated Scenario is maintained at 0.44 under the annual seasons, while that of under the summer seasons is maintained at 0.46. Thus, non-observable differences in wind environment along the boundary of the TKO 132 can be experienced during the annual seasons when compared to the summer seasons.

6.3.5.4 The predicted averaged Local Spatial Average Wind Velocity Ratio (LVR_w) for Simulated Scenario under annual wind has a wind Velocity Ratio (VR) value of 0.43. During summer season, the predicted LVR_w for the Simulated Scenario is 0.45, which is slightly higher than that under the annual season. The predicted results show that the upon the construction of the

proposed Special Facilities within the land creation off TKO 132, a surrounding environment with strong wind availability can still be achieved. The construction of the proposed developments would have greater influence on the overall air ventilation performance at the surroundings of TKO 132 during the annual seasons as compared to the summer seasons.

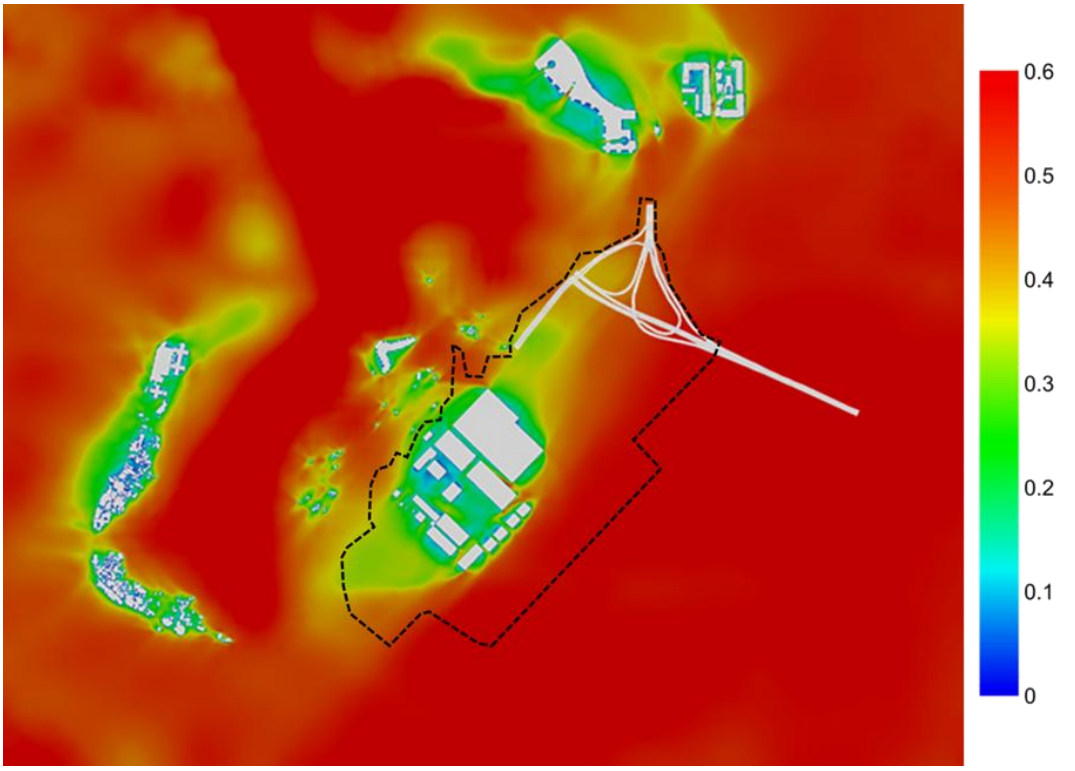
6.3.5.5 Special Test Points have also been placed to assess the wind environment within the TKO 132. Through investigating the extracted wind data from the simulation model, a similar wind environment within the TKO 132 is achieved under the annual prevailing wind with an averaged wind velocity ratio of 0.23 as compared to the summer prevailing wind with an averaged wind velocity ratio of 0.24. Within the TKO 132, relatively good air ventilation performance can be at majority land parcels expect for the wind environment within the land parcel for Electricity Facilities (Annual: 0.19, Summer: 0.16) and the PFTF land parcel (Annual: 0.18, Summer: 0.19), which display comparatively lower wind velocity ratio values.

6.3.5.6 As the proposed Electricity Facilities have the tallest development heights and the largest building footprints among other proposed Special Facilities, the nearby wind environment would be affected by the induced wind wakes and resulting in weaker wind environment under both the annual and summer seasons. On the other hand, the wind environment at the PFTF land parcel is also comparatively weak as this land parcel is surrounded by proposed structures of Special Facilities at other land parcels within TKO 132.

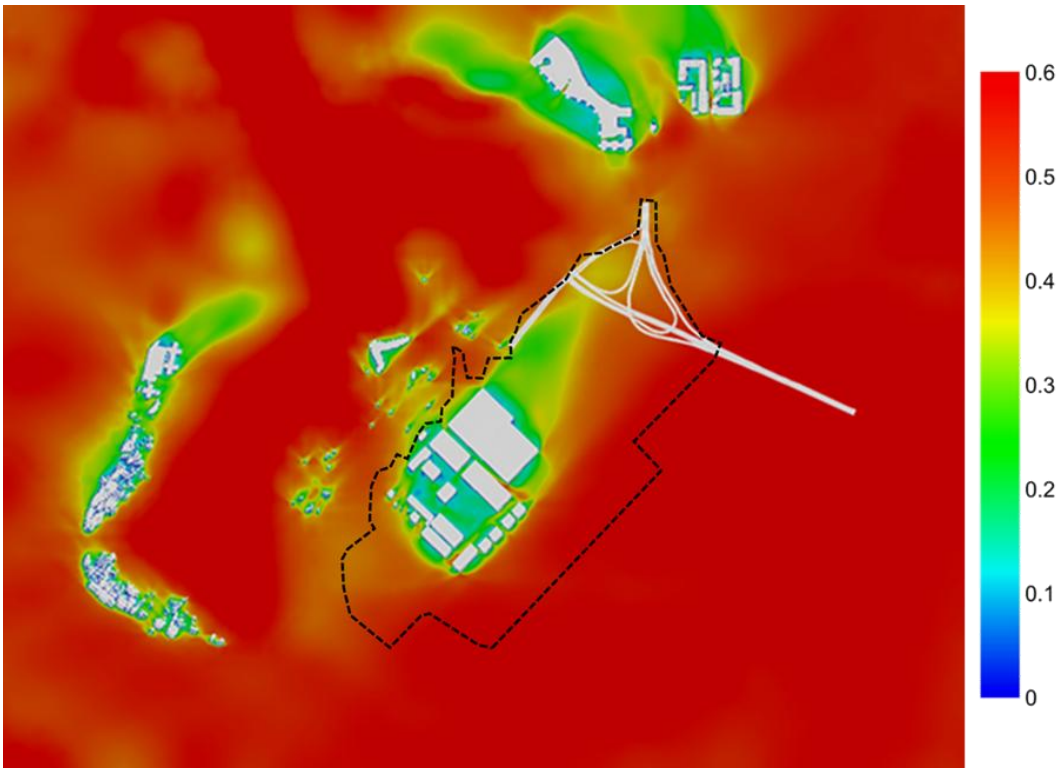
6.3.5.7 Other regions within TKO 132 including the open spaces near the reclaimed land, the Junk Bay Chinese Permanent Cemetery as well as the regions with scattered structures/houses upon the terrains of Devil's Peak, are all experiencing a strong wind availability. Since these places are relatively open in nature and located at lands with higher elevation, there may be potential strong wind issues and may need warrant attention.

6.3.5.8 The annual and summer frequency weighted average contour plots at 2m pedestrian level for TKO 132 have been presented in **Diagram 6.13**.

Diagram 6.13 – Frequency Weighted Average Contour Plots at 2m Pedestrian Level (TKO 132)



Annual



Summer

6.3.6 Good Air Ventilation Features to be Retained

6.3.6.1 The reclaimed land within the TKO 132 for proposed Special Facilities have been controlled to be as minimal in size as possible to avoid the disturbance to the current wind environment at the same time satisfying the needs in placement of Special Facilities. In addition, the structures of Special Facilities have moderate building footprints and arranged in a scattered manner to maximize the wind permeability. Apart from that, the proposed Special Facilities are generally low rise in nature with lower structures placed near the seafront areas. These are all good air ventilation features that need to be retained.

6.3.6.2 North-eastern quadrant wind is anticipated to be dominant during annual seasons and southwestern quadrant wind has a high percentage of occurrence in summer seasons. In addition, easterly wind is a major wind for both annual and summer seasons. It is observed that the proposed building layouts of the Special Facilities are aligned in the NE- SW directions, with the alignments of the proposed building structures within land parcels at the land creation off TKO Area 132 generally follows the prevailing wind directions.

6.3.6.3 Apart from the above, there are material handling areas as well as vehicle and wheel washing areas within the land creation off TKO 132 which are open in nature and can serve as breathing spaces to ensure the air ventilation performance at the reclaimed land with proposed Special Facilities.

6.3.7 Recommendations and Conclusions

6.3.7.1 The structures of Special Facilities have moderate building footprints and arranged in a scattered manner to maximize the wind permeability in order to avoid the disturbance to the current wind environment at the same time satisfying the needs in placement of Special Facilities. In addition, the proposed Special Facilities are generally low rise in nature with lower structures placed near the seafront areas, aligned roughly with the prevailing wind directions. In addition, there are material handling areas as well as vehicle and wheel washing areas within the TKO 132 which are open in nature and can serve as breathing spaces to ensure the air ventilation performance at the reclaimed land with proposed Special Facilities.

6.3.7.2 However, the building footprints of the Special Facilities, if feasible, can be consider to undergo further reduction in size. This would indirectly increase the separation distances between structures and widen the wind breezeways to enhance their effectiveness. This would further promote the flow and penetration of wind through the land creation off TKO 132.

6.3.7.3 Large structures of Special Facilities taking the proposed Electricity Facilities as an example should be further break down aiming to minimize the induced cumulative wind impacts. Although there are no specific recommendations on the sizes and footprints of the blocks of Special Facility, strengthened site permeability should be the priority to sustain the wind availability at the land creation off TKO 132.

6.3.7.4 If the structure layouts of the proposed Special Facilities within the reclaimed land would undergo further finetuning and optimization, the proposed structures should avoid long continuous façades and face shorter frontages to the prevailing wind directions. Open areas such as materials handling areas and vehicle/wheel washing facilities should be placed near the open sea areas.

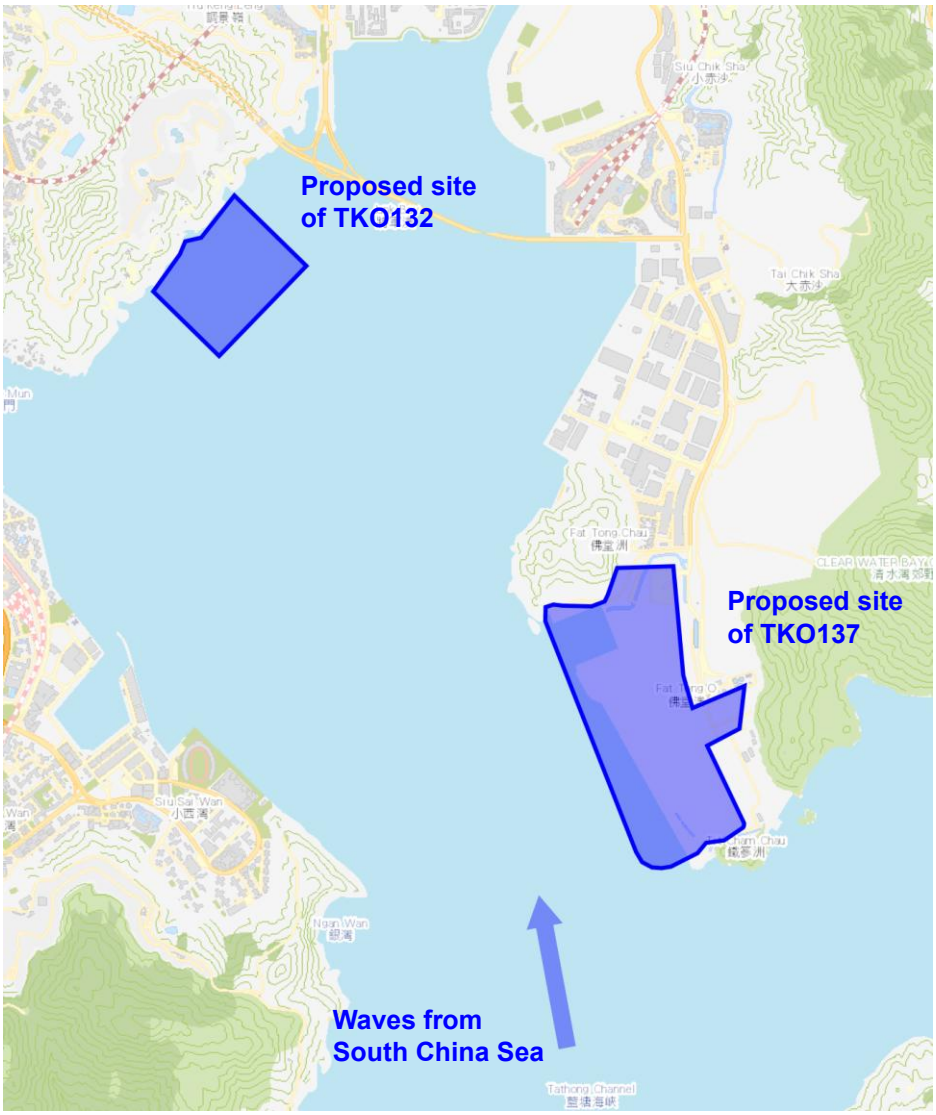
6.3.7.5 TKO 132 would experience good wind availability due to its geographical location fronting the open sea areas of the Junk Bay and Lei Yue Mun. In addition, considering the low building heights as well as the building morphologies of the proposed Special Facilities at the reclaimed land within the TKO 132, adverse air ventilation impacts arising upon the proposed developments of the Special Facilities would be minimal, which has been supported by the simulation results from the AVA Detailed Study.

7. HYDRAULIC IMPACT ASSESSMENT

7.1 Design Wave Analysis

7.1.1.1 The proposed TKO 132 and TKO 137 Sites are majorly exposed to wind generated waves propagating from the South China Sea in south and/or southeast directions. Design wave analysis have been performed by DELFT3D D-WAVE computer model simulation for both normal and extreme environmental condition with due consideration of climate change impacts at and beyond the end of this century to facilitate subsequent design works. The tentative layouts of TKO 132 and TKO 137 Sites are presented at **Diagram 7.1.**

Diagram 7.1 – Tentative layouts of TKO 132 and TKO 137 Sites



7.2 Hydrodynamics and Water Quality Assessment

7.2.1.1 With reference to the modelling results using the refined HK-DFM Model, the proposed reclamations at TKO 137 and TKO 132 would not diminish the tidal flow flushing through the key marine channels in the assessment areas. The reclamations would cause no obvious changes in the flow regime (including the tidal flow rate, direction and velocity) and the water quality patterns (including the sedimentation pattern) as compared to the baseline “without Project” conditions. The degrees of water quality compliances are the same with or without this Project. No adverse hydrodynamics and water quality effect is predicted.

8. MARINE TRAFFIC IMPACT ASSESSMENT

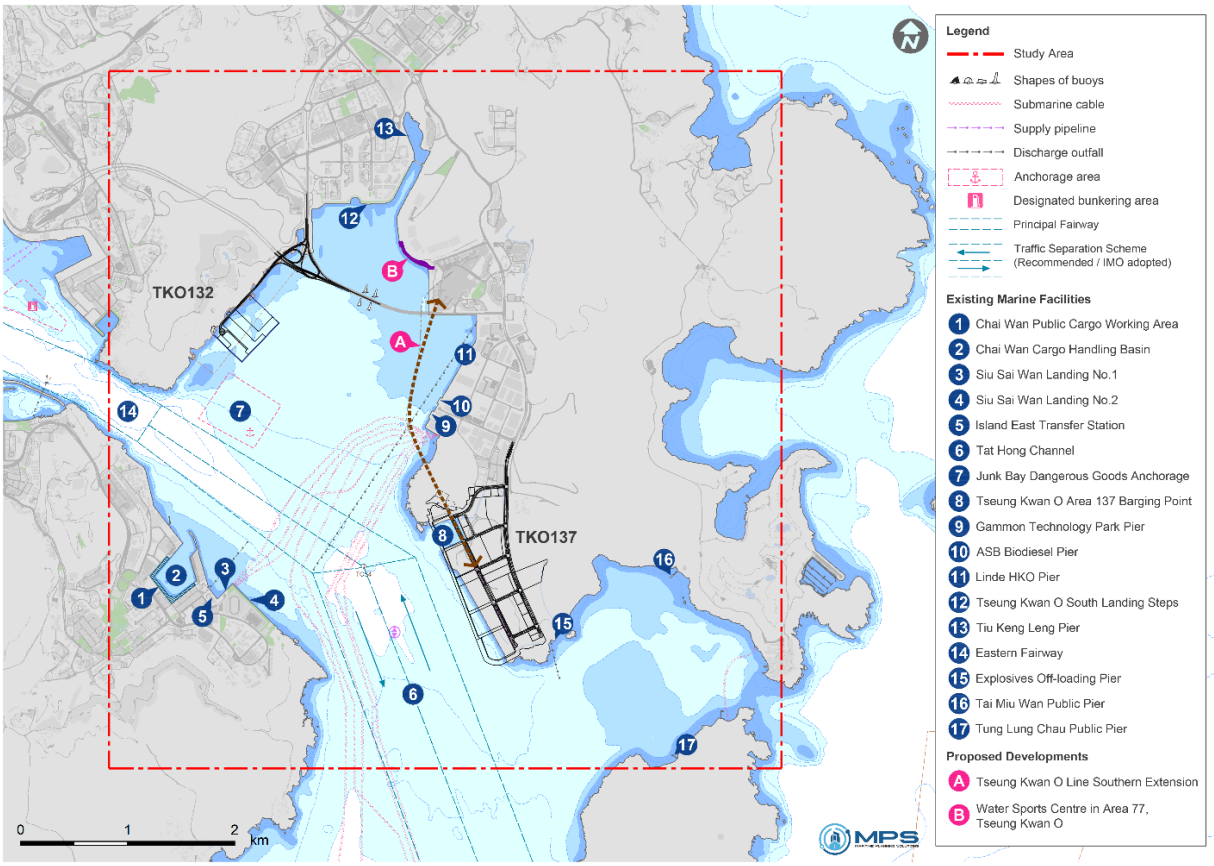
8.1 Existing Marine Environment

A review of the marine environment in the Marine Traffic Impact Assessment (MTIA) Study Area has been conducted to identify existing marine facilities and metocean conditions in the vicinity.

8.1.1 Existing Marine Based Facilities

8.1.1.1 The existing marine-based facilities and proposed developments within the MTIA Study Area are illustrated in **Diagram 8.1** below.

Diagram 8.1 – Existing Marine Facilities and Proposed Developments



8.1.2 Existing Water Depth

8.1.2.1 The water depths around TKO 137 and TKO132 varies from -2.0mCD close to the shoreline to approximately -17.0mCD in the inshore traffic zone at TKO 137, and from -0.6mCD at the shoreline to -11.9mCD offshore at TKO 132.

8.1.3 Existing Aids to Navigation (AtoNs)

The existing AtoNs in the vicinity of TKO 137 and TKO 132 are shown in **Diagram 8.2** and **Diagram 8.3.**

Diagram 8.2 – Existing Aids to Navigation in the Vicinity of TKO 137

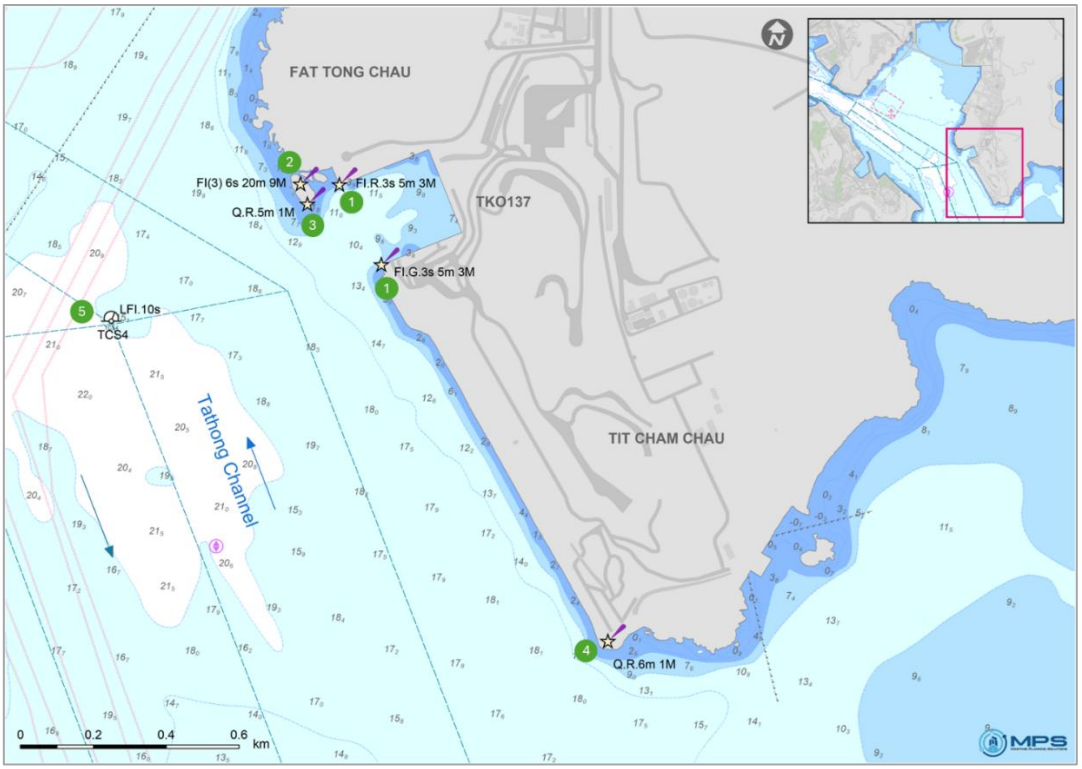
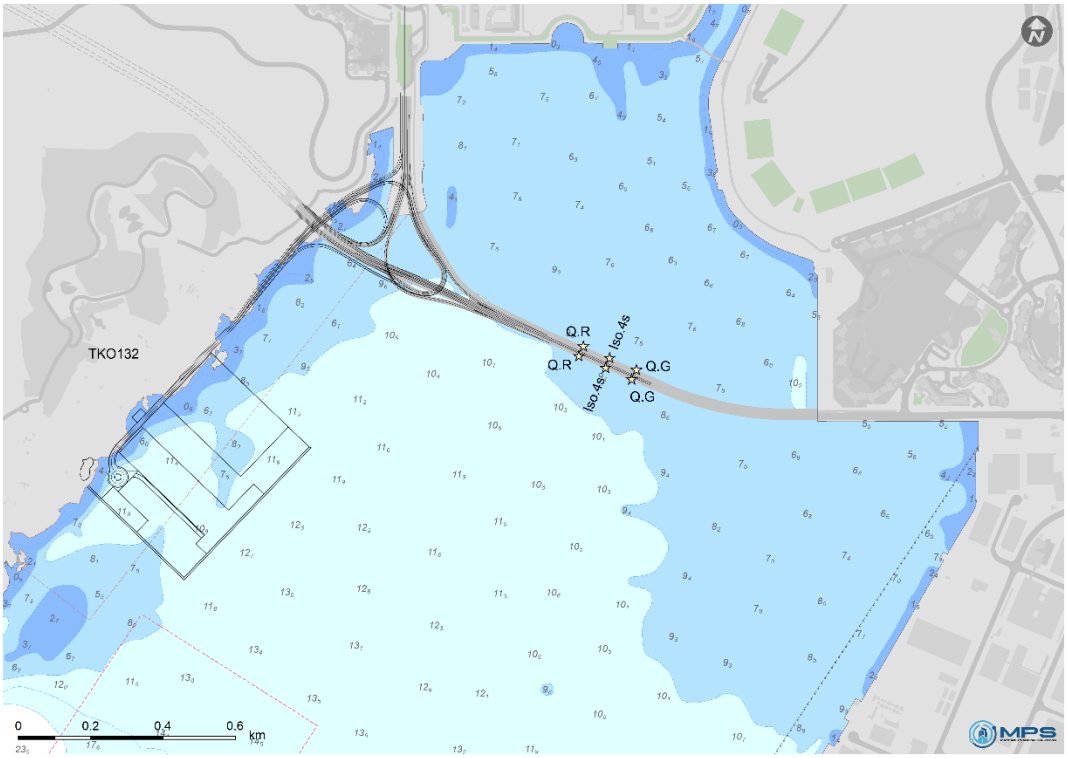


Diagram 8.3 – Existing Aids to Navigation in the Vicinity of TKO 132



8.1.3.1 The aids to navigation at the Cross Bay Link bridge were recently established following the completion of the marine viaduct across Junk Bay, it is not anticipated the project will pose any impact to the lights.

8.1.3.2 However, the light beacons and buoys serve as important references for vessels during navigation, guiding them to ensure safe passage at TKO 137 will be affected. The relocation/reprovisioning of the beacons is considered necessary due to their overlap with the reclamation area of TKO 137

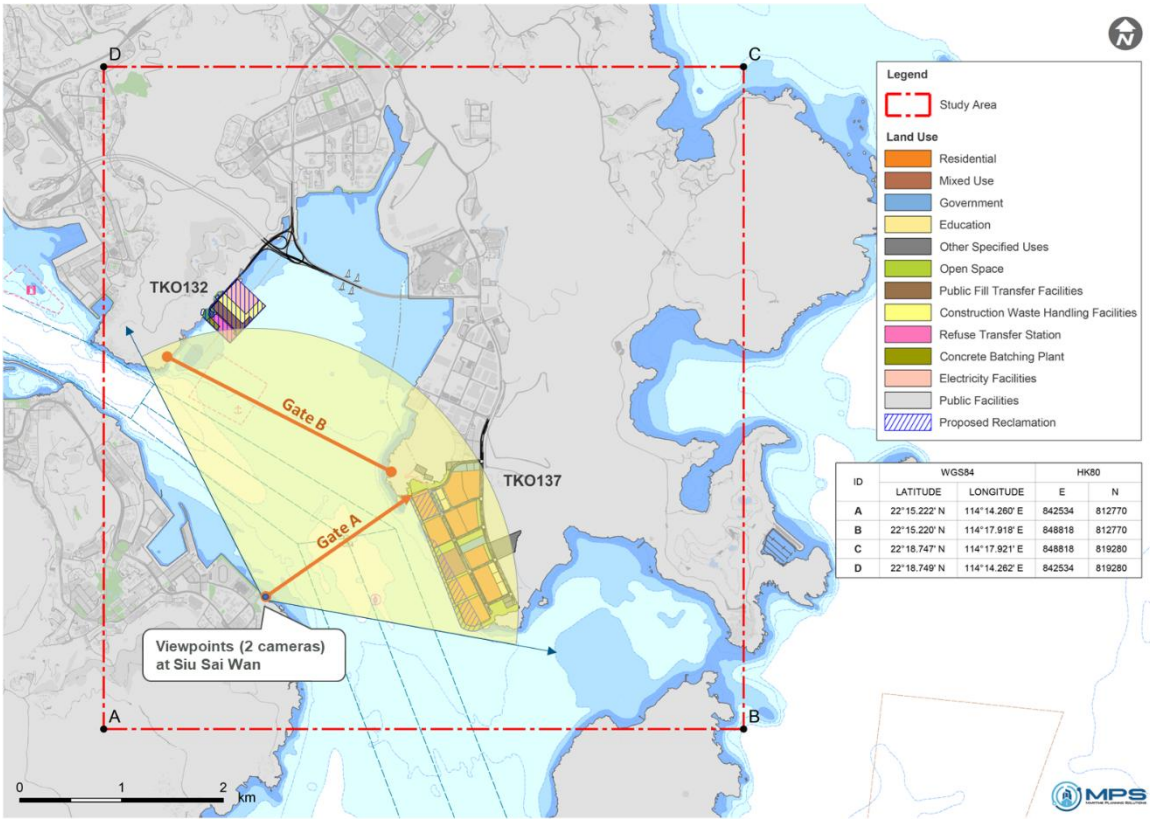
8.2 Marine Traffic Activities Review

8.2.1.1 The baseline traffic activities within the MTIA Study Area were identified based on AIS and radar data. To evaluate the primary traffic patterns within the MTIA Study Area, the following marine traffic gates and proposed viewpoints, as presented in **Diagram 8.4,** have been adopted for assessment:

8.2.1.2 Gate A: A camera set up at Siu Sai Wan captures the vessel movements passing along Tathong Channel Traffic Separation Scheme (TSS).

8.2.1.3 Gate B: A camera set up at the same place captures the marine traffic activity at Junk Bay.

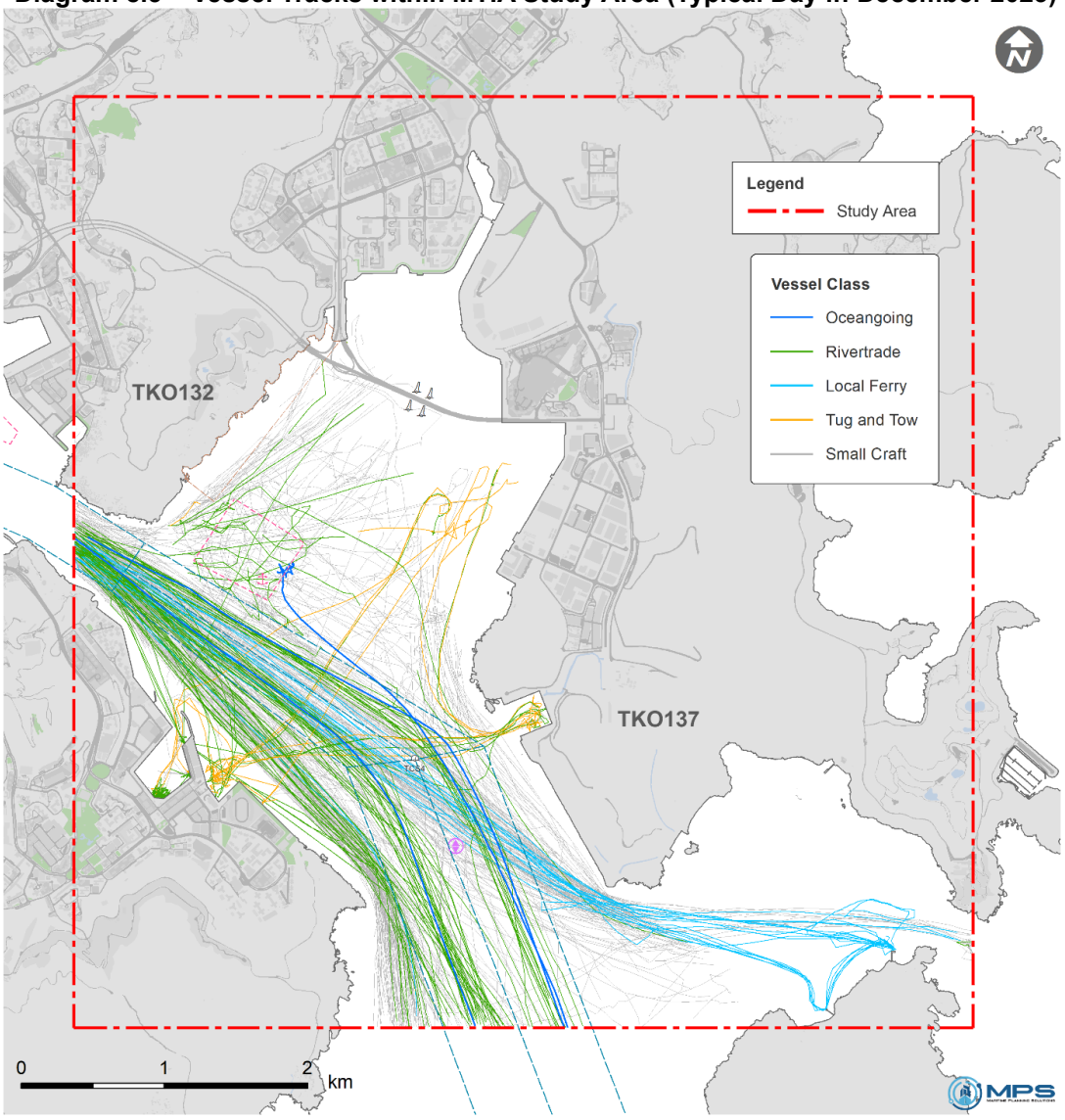
Diagram 8.4 – Marine Traffic Gates



ID	WGS84		HK80	
	LATITUDE	LONGITUDE	E	N
A	22°15.222' N	114°14.260' E	842534	812770
B	22°15.220' N	114°17.918' E	848818	812770
C	22°18.747' N	114°17.921' E	848818	819280
D	22°18.749' N	114°14.262' E	842534	819280

8.2.1.4 It was found that marine traffic activity within and in the vicinity of TKO 137 and TKO 132 predominantly consists of river trade vessels, local ferries, and small craft. Vessel tracks for one day (24 hours) of AIS and radar data of typical vessel activity within the Study Area are presented in **Diagram 8.5**.

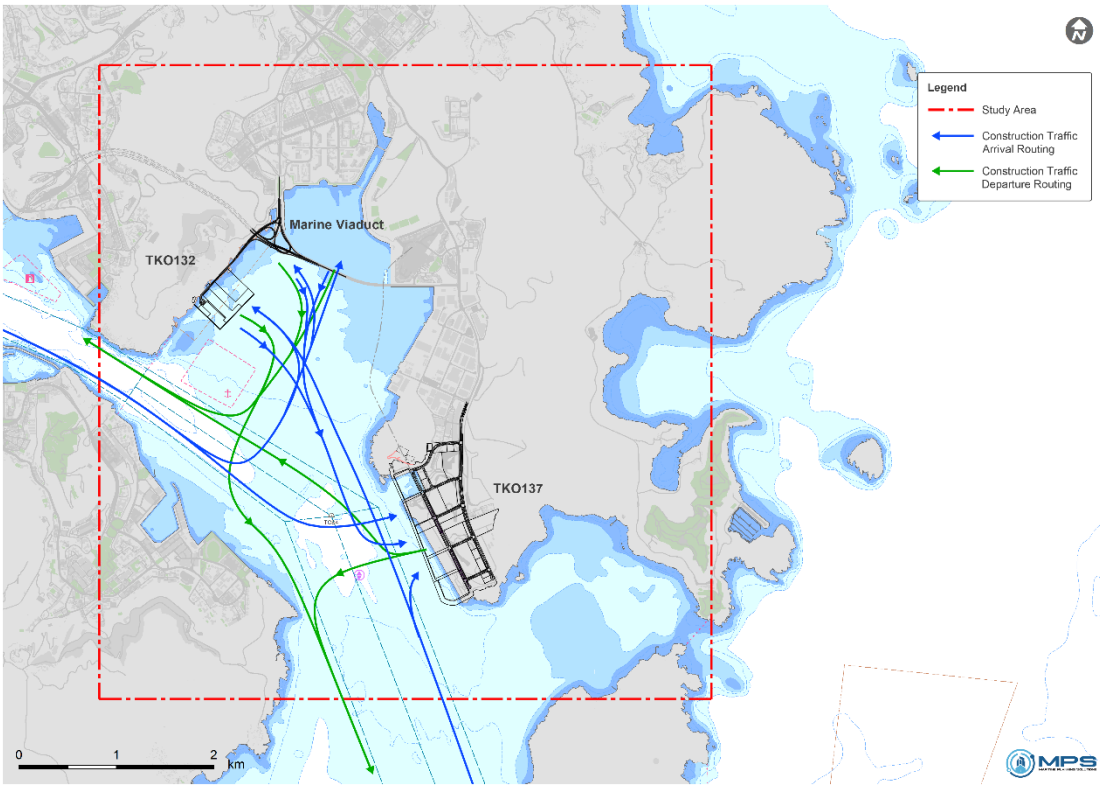
Diagram 8.5 – Vessel Tracks within MTIA Study Area (Typical Day in December 2023)



8.2.1.5 The key marine works for the construction of TKO 137 and TKO 132 primarily involve reclamation activities and site formation work. After the completion of the reclamation works at TKO 132, the development of the five Public Facilities will depend on marine delivery for transporting construction equipment and materials to and from TKO 132. The marine traffic generated by the development of these Public Facilities will not be as significant as that generated by the reclamation and site formation work.

8.2.1.6 The indicative routes for construction traffic brought by TKO 137 and TKO 132 marine works are presented in **Diagram 8.6**.

Diagram 8.6 – Indicative Construction Traffic Routes from TKO 137 and TKO 132



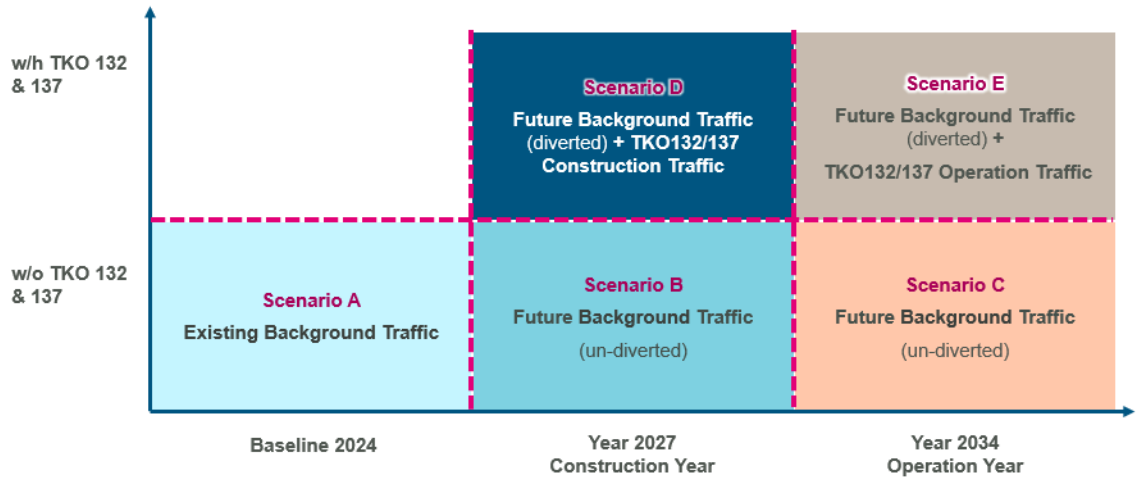
8.2.1.7 Notably, traffic activity within and adjacent to TKO 132 is relatively lower than in areas further inshore and along the Tathong Channel TSS. The TKO 137 site avoids the majority of key traffic routes within the Tathong Channel TSS but does impose significant diversions on the local ferry routes passing adjacent to the site.

8.3 Marine Traffic Risk Assessment

8.3.1.1 Marine traffic risk assessment considering the existing and future marine traffic environment with and without the implementation of this Project was carried out.

8.3.1.2 The following marine traffic risk modelling scenarios have been developed to compare the baseline traffic risk levels with the cumulative risk levels arising from both the construction and operation stages of the Project, as well as future traffic growth.

Diagram 8.7 – Marine Traffic Risk Modelling Scenarios



8.3.1.3 It was identified that the presence of this Project has significant impacts on vessel-to-vessel collision risk levels when compared to the increase in risk levels due to future traffic growth. **Table 8.1** presents a summary of the IWRAP collision risk assessment results and a comparison of the impact on risk levels anticipated within the MTIA Study Area in the existing and future traffic environments, with and without the implementation of this Project.

Table 8.1 - IWRAP Collision Risk Assessment Summary

Scenario	Descriptions	Average Annual Collision Frequency	Percentage Increase in Risk Level
A	2024 Baseline Traffic	1.90	-
B	2027 Future Traffic (background traffic growth only)	2.18	15% up compared to A
C	2034 Future Traffic (background traffic growth only)	2.94	55% up compared to A
D	2027 Future Traffic + Peak Construction Traffic of TKO 137 and TKO 132	3.55	63% up compared to B; 87% up compared to A
E	2034 Future Traffic + Operation Traffic of TKO 137 and TKO 132	3.30	12% up compared to C; 74% up compared to A

8.3.1.4 However, incidents related to grounding and allision have shown a decrease due to the rerouting of traffic, taking into account the presence of the reclamation area associated with this Project. **Table 8.2** presents a summary of the IWRAP grounding and allision risk assessment results and a comparison of the impact on risk levels anticipated within the MTIA Study Area and Focus Area in the existing and future traffic environments, with and without the implementation of this Project.

Table 8.2 - IWRAP Grounding and Allision Risk Assessment Summary

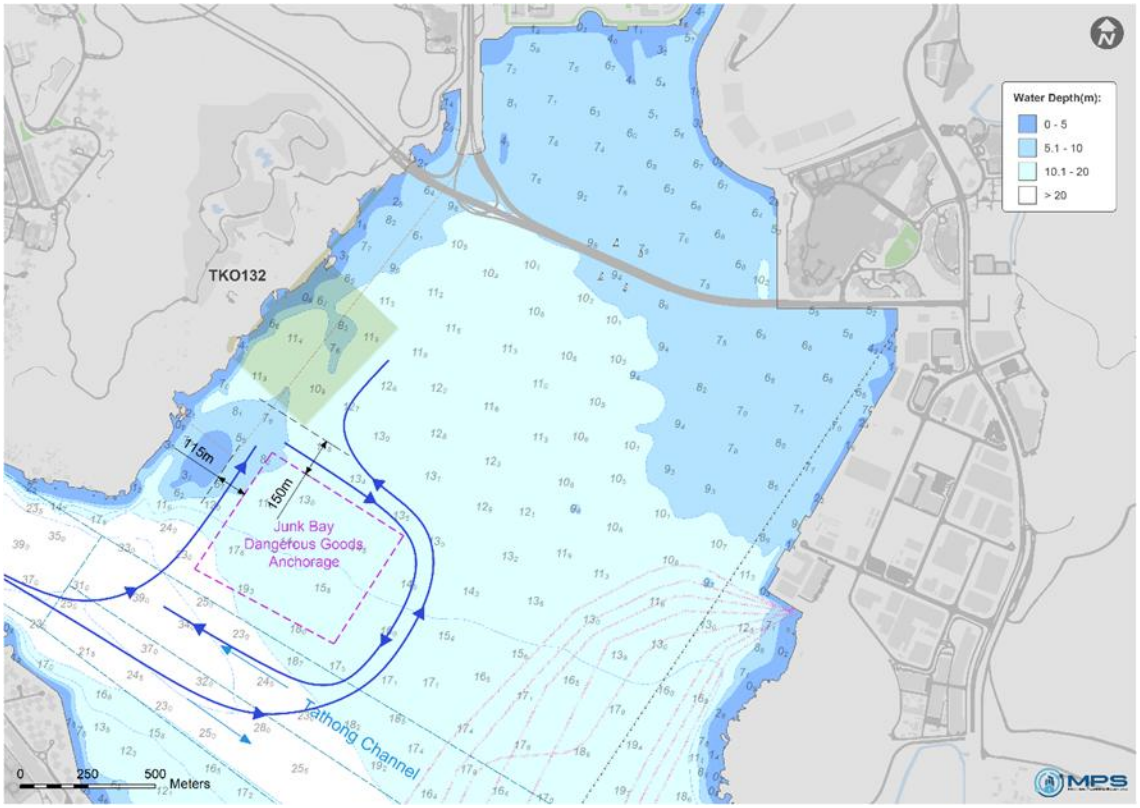
Scenario	Descriptions	Average Annual Grounding & Allision Frequency	Percentage Increase in Risk Level
A	2024 Baseline Traffic	1.20	-
B	2027 Future Traffic (background traffic growth only)	1.25	5% up compared to A
C	2034 Future Traffic (background traffic growth only)	1.39	17% up compared to A
D	2027 Future Traffic + Peak Construction Traffic of TKO 137 and TKO 132	1.29	3% up compared to B; 7.5% up compared to A
E	2034 Future Traffic + Operation Traffic of TKO 137 and TKO 132	1.33	-4% down compared to C; 11% up compared to A;

8.4 Operation Safety Control Measures

8.4.1.1 It has been identified that there will be some changes in vessel navigation behaviour due to the presence of the TKO 137 and increases in vessel traffic in the future traffic environment. Relocation or provision of new AtoNs is proposed to ensure the safety of navigation during the operation stage of this Project.

8.4.1.2 In addition, the proximity of TKO 132 to the JBDGA raises concerns about potential conflicts and safety risks due to marine traffic. The minimum channel width of 115m and 150m of water space are adequate for the designed vessels to transit in one direction only, but insufficient for two-way transit or turning maneuvers. To address these concerns, it is recommended to establish aids to navigation and designate arrival/departure routes for TKO 132, ensuring a safe distance from JBDGA. It is not expected that the relocation of JBDGA will be necessary. The proposed designated routes for TKO 132 are shown in **Diagram 8.8**.

Diagram 8.8 – Designated Arrival and Departure Routes from/to TKO 132



8.4.1.3 Based on the results of the risk assessment, operation risk control measures for this Project have been considered based on their feasibility in minimizing potential collision risks between vessels in the vicinity of TKO 137 and TKO 132. **Table 8.3** summarises the mitigation measures considered and the implementation methods for mitigating risks near TKO 137 and TKO 132.

Table 8.3 - Proposed Operation Risk Control Measures

Risk Control Measure	Description	Implementation Method
Aids to Navigation	Mark the turning point of TKO 137 and remove the existing AtoNs that currently marks the entrance to the TKO 137 barging point; Mark the shallow waters in the south of TKO 132	• Physical Installation • Indication on Nautical Chart
Designated Arrival and Departure Routes from/to TKO 132	Specify the arrival and departure routes from/to TKO 132 to ensure that vessels have sufficient water space and water depth for transit.	• Monitoring by users of Public Facilities

8.4.1.4 The proposed operation safety control measures will be further reviewed as the detailed design and operation arrangement of this project is developed and subject to any preliminary views received from initial consultations with relevant stakeholders.

8.5 Construction Marine Traffic Impact and Risk Control Measures

8.5.1.1 Marine traffic risk control measures have been initially proposed to mitigate the potential impact anticipated to arise from the marine works for this Project. There is no significant impact on navigation safety arising from the reclamation works of TKO 137 within Tathong Channel TSS but the inshore traffic zone of Tathong Channel TSS is expected to be affected by the construction activities associated with the reclamation works at TKO 137.

8.5.1.2 The JBDGA is a low-usage anchorage, and the reclamation works for TKO 132 ensure not intruding into the JBDGA. However, to mitigate potential risks from the construction activities associated with the reclamation works, the proposed mitigation measures include positioning the site exits and entrances away from the JBDGA, installing a tracking system for the silt curtain designed by contractor(s), and developing a maintenance plan.

8.5.1.3 Recommend positioning the exits and entrances of the site area on the east side towards the north of TKO 132 to maintain a safe distance from the JBDGA.

8.5.1.4 The proposed construction safety and risk control measures will be further reviewed when the detailed construction methodology and vessel deployment are further developed by the contractor(s) before and during construction phase and subject to any preliminary views received from the initial consultation with relevant stakeholders.

Seabed Leveling Works

8.5.1.5 To ensure safe navigation, it is recommended that the water depth near TKO 132 and TKO 137 be maintained at a minimum of 5 meters during the construction stage, which includes a 10% Under Keel Clearance (UKC) based on a maximum draft of 4.5 meters for the construction vessels. During the operation stage, the water depth should be at least 7.3 meters, including a 10% UKC based on a maximum draft of 6.6 meters for the operation vessels based on the current available vessel information.

Overall Construction Safety and Contingency Measures

8.5.1.6 The project will involve marine works requiring a Marine Department Notice (MDN) to be submitted prior to commencement. Marker buoys will be used to demarcate the works area, and all vessels involved will be properly licensed and equipped with GPS/AIS, VHF radio, and yellow marker buoys. A 24-hour marine traffic control centre will monitor vessel movements, and guard vessels will be deployed to alert vessels to construction activities and provide support in emergencies.

Emergency and Adverse Weather Risk Control Measures

8.5.1.7 Emergency and adverse weather risk control measures will be implemented during marine works. The Construction Management Team will monitor weather forecasts, ensure sufficient resources, and maintain communication with stakeholders. The person-in-charge on board vessels will plan for evacuations, report vessel movements, and maintain communication with the Construction Management Team and other stakeholders.

Temporary Marine Traffic Management Plan (TMTM)

8.5.1.8 The TMTM plan will be carried out as an updated MTIA at a later stage when details of the construction method and vessel deployment for the construction works of this Project are further developed and will be submitted for review and approval before submission for promulgation of MDN for the construction works.

8.6 Breakwater Review

8.6.1.1 In the Feasibility Stage PODP, there was a proposed offshore breakwater to provide calm water along the TKO 132 waterfront for desirable operation conditions (more operation time, higher operation efficiency, etc.) of small vessels. However, after collecting further operation requirements of all future users of TKO 132 under this Assignment, it is noted majority of the future seafront will be used by relatively large and robust work barges and transport vessels. With reference to similar existing berthing facilities across Hong Kong (i.e. Tseung Kwan O Area 137, Stonecutters Island and Tsing Yi West), breakwater would not be necessary for operation of the work barges and transport vessels required by all future users of TKO 132. Specifically, the proximity of the breakwater to the JBDGA may limit vessel maneuvering during berthing, potentially requiring the relocation of the JBDGA. Hence, the breakwater is removed from the updated layout of TKO 132

8.7 Way Forward

8.7.1.1 Consultations with relevant stakeholders will be conducted to provide an overview of the potential maritime issues arising from this project and to discuss the proposed risk control measures. Close liaison and consultation with the MD and relevant stakeholders will be maintained to continuously review the proposed risk control measures for this Project during the construction and operation stages.

8.7.1.2 A detailed construction MTIA, involving the reassessment of risk levels and the review of the recommended risk control measures, will be carried out by the appointed contractor at a later stage, before the commencement of any marine works for this project, when details of the construction method and vessel deployment are further developed.

8.8 Conclusion

8.8.1.1 Overall, it is not anticipated that the project's construction and operation will be significantly impacted by metocean conditions. The TKO 137 site avoids the majority of key traffic routes within the Tathong Channel TSS. It was identified that the presence of this Project has impacts on vessel-to-vessel collision risk levels when compared to the increase in risk levels due to future traffic growth. However, incidents related to grounding and allision have shown a decrease due to the rerouting of traffic, taking into account the presence of the reclamation area associated with this Project. To mitigate potential risks, it is recommended to establish aids to navigation and designate arrival/departure routes for TKO 132, ensuring a safe distance from JBDGA. Marine traffic risk control measures have been initially proposed to mitigate the potential impact anticipated to arise from the marine works for this Project. There is no significant impact on navigation safety arising from the proposed developments of TKO 137 and TKO 132 under Agreement No. CE 40/2023 (CE) within the Tathong Channel TSS.

9. GEOTECHNICAL APPRAISAL, SITE FORMATION AND RECLAMATION ASSESSMENT

9.1 Site Description and Seabed Bathymetry

9.1.1 Site Description

9.1.1.1 TKO 137 is currently used as a site for depositing public filling materials and is located near the SENT Landfill. The area will be partially occupied by the extension of the SENT Landfill and a new desalination plant, along with various public facilities. TKO 132 covers mainly the open sea areas of Chiu Keng Wan, Junk Bay and Lei Yue Mun with inclusion of limited areas of Green Belts along the seashore.

9.1.2 Seabed Bathymetry

TKO Area 137

9.1.2.1 For the berth box zone at the northwestern part of the proposed reclamation works site at TKO 137, the seabed bathymetry obtained from geophysical survey is generally in-line with the contours from published marine chart. The seabed at the berth box generally ranges from -8 mPD to -13.5 mPD, dipping towards southwest direction, and shoals quickly towards the existing seawall.

9.1.2.2 For the remaining proposed reclamation works site at TKO 137 along the existing seawall located to the SE of the berth box, the information from marine chart shows steeply inclined seabed adjacent to the existing seawall, and then gradually sloping seawards from approximate -10mPD down to about -16mPD. No bathymetry geophysical surveys have been undertaken at the remaining proposed reclamation areas.

TKO Area 132

9.1.2.3 The seabed level of the proposed reclamation at TKO Area 132), as measured by seabed bathymetry by geophysical survey, range from -2 mPD to over -12 mPD in general. The seabed near the shoreline descends south-eastwards down to about -10 to -12mPD at the northeastern and middle portions of the reclamation area. At the southwestern portion of the reclamation area, the seabed generally over -12mPD except for the an area near the SE corner where the seabed varies between -10 mPD and over -12mPD. Based on the bathymetry geophysical survey, rock outcrops up to about 0mPD are present at the northeastern corner of the TKO Area 132 proposed reclamation area.

9.1.2.4 The seabed is up to about -6 mPD at the area located to the southwest of the proposed reclamation area of TKO Area 132 which is part of a former dumped ground.

9.1.2.5 For the areas with proposed marine viaducts for the road connection between the TKO132 area with the road network in the NE, the seabed is inferred to be generally dipping towards southeast, with seabed level generally ranged between 0 to in places over -4mPD.

9.2 Existing and New Man-made Slopes

9.2.1.1 There are 2 registered man-made features and 2 natural terrain defence measures (ND) affected or to be affected to the proposed development in the TKO 132 and TKO 137 respectively. Geotechnical assessment of each affected geo feature will be performed when site specific GI data is available.

9.2.1.2 Slope stability analysis of the newly formed soil slopes are to be carried out. Detailed rock slope survey including rock joint mapping would be carried out after excavating the rock face. Rock slope stabilization works, e.g. installation of wire mesh, rock dowels, rock bolts, concrete buttress, dentition, etc. will be carried out if necessary. The exact rock slope stabilization works shall be determined on site during construction stage.

9.3 Potential Geotechnical Constraints and Risks

9.3.1.1 Natural terrain hazard assessment has been carried out based information available at the preparation of the report. Catchments that may poses potential hazards to the development sites are screened and natural terrain mitigation measures may be required. The necessity, types, scale and extent of mitigation measures shall be reviewed in later design stage after the completion of ground investigation works.

9.3.1.2 The extent of the natural terrain study area shall be reviewed upon confirmation of the site boundary and site formation layout in the later detailed design stage. The design approach and design requirements for each hazard models for the catchment are to be fully assessed in the Natural Terrain Hazard Assessment (NTHA) stage. Further studies of the natural terrain hazards are proposed, which shall include assessment and mitigation strategy upon additional information obtained, further analysis and design in the detailed design stage.

9.3.1.3 The offshore soil strata information in the proposed reclamation area is limited, and further site specific GIs works are necessary for the stability and settlement analyses.

9.3.1.4 The preliminary geotechnical model and the parameters is evaluated from the limited ground investigation data, and it shall be further reviewed and verified once more information is obtained from the later stage of GI works.

9.3.1.5 The presence of sand or gravel/ cobble material inferred as filled dredge trench of seawall foundation at TKO 137 and dumped materials at TKO 132 pose potential obstructions for future ground treatment works, it may be necessary to remove these materials before conducting ground treatment.

9.3.1.6 Rockhead depressions have been inferred at the site of TKO 137 and TKO 132. Published faults or photolineaments from geology maps are also observed in the vicinity of the sites. It should be noted that highly undulating / deep / steeply inclined rockhead may be present near or at the faults / rockhead depressions, which may cause difficulties in the construction and excavation of end-bearing piles and increase the risks.

9.4 Recommendation of Ground Investigation Works

9.4.1.1 For TKO 132, marine drillholes and CPT are proposed offshore in the footprint of the reclaimed area for determination of geological profile and ground conditions, carrying out insitu test, and collection of sample for laboratory test.

9.4.1.2 Drillholes and trial pits have also been proposed at the natural terrains to the northwest of the Site for Natural Terrain Hazard Study (NTHS) purposes. Detailed field mapping will be undertaken during the forthcoming GI stage to confirm/verify the natural terrain hazards in respective catchments. Detailed rock slope survey and field mapping is suggested to be undertaken during the forthcoming GI stage to confirm/verify the rock outcrops condition and natural terrain hazards in respective catchments respectively.

9.4.1.3 For TKO 137, many existing GIs are found but their termination level is not deep enough for the proven rock head. Drillholes and trial pits are proposed on the natural terrains of Fat Tong Chau, Clear Water Bay Country Park, and Tit Cham Chau for determination of geological profile, ground condition and geotechnical engineering properties for NTHS purpose.

9.4.1.4 GI including marine drillholes, CPT, marine geophysics survey are also proposed offshore at the footprint of the proposed reclamation area for TKO 137 for determination of soil profiles, ground condition, geotechnical engineering properties, as well as identifying the existing dredging slope for the construction of existing sloping seawall. GI field works also include insitu test and collecting samples for laboratory test.

9.4.1.5 Preliminary findings from the marine ground investigation works completed by the time of preparing this report at TKO 137 are that the base levels of soft clays are mostly between -25 and -35 mPD, and ground treatment techniques such as DCM are feasible to reach such levels.

9.4.1.6 Preliminary findings from the marine ground investigation works completed by the time of preparing this report at TKO 132 are that the soil stratum information from geophysical survey, BH and CPT are generally consistent, and are also in line with previous ground investigation data. The base levels of soft clays are mostly between -15 and -22 mPD and DCM treatment is feasible.

9.5 Preliminary Evaluation of Site Formation Works

9.5.1 TKO Area 137

9.5.1.1 Taking into account freeboard, the proposed site formation of TKO 137 is +6.75mPD. Noting that the existing Wan Po Road and TKOIP at the north of the site area are approximately at +5.8mPD, the site formation level is suggested to fall gradually from +6.75mPD to +5.8mPD towards the northern boundary of TKO 137 for smooth connection with the existing adjacent area.

9.5.1.2 The site formation works at Fat Tong Chau are proposed to form the platform area for future fresh water and sea water service reservoirs. As a preliminary evaluation of the site formation options, the invert level of fresh water and sea water service reservoirs are assumed at +45mPD and +29mPD to assess the extent of the site formation works.

9.5.2 TKO Area 132

9.5.2.1 The reclamation works for TKO Area 132 are proposed to form about 20 ha of platform area. The drainage design has taken into account the proposed off TKO 132 and existing northwest hillside area. Based on the proposed drainage network, the highest flood level is approximately +6.2mPD. Taking into account freeboard, the recommended site formation level of the entire off TKO 132 is +6.75mPD.

9.5.2.2 Slope cutting is proposed to minimize the volume and extent of reclamation, preserve the existing profile of natural terrain, avoid disturbance to the adjacent facilities and minimize the environmental impacts to the public during construction and operation phases.

9.5.2.3 The typical scheme of slope cutting profile may comprise of steep rock slope cutting up to 70°, if there is any, and the slope cutting angles at the higher portions are gradually reduced according to the geology and finally match with the existing profile at the slope crest. Slope stabilization works, associated slope drainage, maintenance access and landscaping will be provided for the newly formed permanent slopes. Selection of retaining structures in order to reduce the extent of cut slopes will be studied when site formation extent and level are confirmed and when site specific ground investigation data is available to determine the rockhead levels.

9.6 Natural Terrain Hazard Assessment

9.6.1.1 Following the review of the background information, detailed API and observations from site reconnaissance, it is considered that the catchments FTC-6, CWB-C1, CWB-C2, TCC-C1 and TCC-C2 may poses potential OHL, BF/RF hazards to the TKO 137 and natural terrain mitigation measures may be required. For TKO 132, catchments CKW-C6 to CKW-C10, CKW-C12 to CKW-C16 may poses potential CDF, TDF, OHL, BF/RF hazards to the site and natural terrain mitigation measures may be required.

9.6.1.2 Preventive and protective mitigation strategies are plausible for the proposed developments. The necessity, types, scale and extent of mitigation measures shall be reviewed in later design stage after the completion of ground investigation works.

9.6.1.3 For TKO 132, as some of the toe boundary of Study Area is the crest of proposed cut slope of site formation works, the presence of boulders and localized oversteepened slope is recommended to be reviewed in later stage if the site formation boundary confirmed.

9.6.1.4 The design approach and design requirements for each hazard models for the catchment are to be fully assessed in the Natural Terrain Hazard Assessment (NTHA) stage. Further studies of the natural terrain hazards are proposed, which shall include assessment and mitigation strategy upon additional information obtained, further analysis and design in the detailed design stage. Based on preliminary assessment, it is considered that the proposed development(s) is geotechnically feasible as the natural terrain hazards can be mitigated by mitiation measures.

9.7 Preliminary Design on Reclamation works and Ground Treatment Works

9.7.1.1 The development of TKO 137 will be phased. Permanent seawalls will be primarily sloping seawalls formed by a rockfill core with rock or concrete armour, requiring ground treatment to ensure stability.

9.7.1.2 A hybrid scheme with reduced reclamation size is recommended for TKO 132 to reduce the reclamation extent. The tentative layout, which is subject to review, shows a square-shaped reclaimed area enclosed by a sloping seawall at the north and vertical seawalls on the east and south. The ground treatment extent will be determined based on seawall stability requirements.

9.7.1.3 Based on the site constraints, programme and particular considerations on environmental impacts, DCM is suggested as the primary ground treatment method for seawalls. The method would be applied in areas with a sizeable thickness of marine clay and soft alluvial clay without the presence of extensive obstructions.

9.7.1.4 For main reclamation areas, DCM may be adopted in areas where only a relatively short programme is assigned. DCM is considered a time saving method, in comparison to other drained reclamation methods, such as PVD with surcharging.

9.7.1.5 Preliminary findings from the marine ground investigation works completed by the time of preparing this report at off TKO 132 are that the soil stratum information from geophysical survey, marine GI works are generally consistent, and are also in line with previous ground investigation data. The base levels of soft clays are mostly between -15 and -22 mPD and DCM treatment is feasible.

9.7.1.6 For local areas in the southern part of TKO 137 development, a soft alluvial clay are likely encountered below a firm alluvial layer. According to the borehole and CPT results in the area, the extent of soft alluvial clay is shallower as compared with available historical GI. The soft alluvial could be detected to about -36mPD and is able to be improved by DCM if necessary.

9.7.1.7 Jet Grouting is expected to treat the soft soils below the hard soil layer. This method is applicable to areas with dredging trenches of the existing seawalls. Since the DCM rig is unable to penetrate through hard strata, Jet Grouting comes in handy in treating the dredging trench areas. Jet Grouting is also applicable to local areas where the DCM is obstructed due to the presence of soft clay below the dumped materials, thick gravel layers and cobbles.

9.7.1.8 In cases where non-dredge methods are incapable of treating the soft soils, local removal of the sediment may be necessary. This applies to areas with relatively thin marine deposits and/or dumped materials consisting of cobbles/boulders/debris, cases where a soft marine clay is overlying a stiff to hard soil stratum (e.g. Grade V soils) or rocks, and areas with shallow bedrock and rock outcrops, where the DCM embedment quality cannot be ensured.

9.7.1.9 The phased reclamation of TKO 137 necessitates the construction of temporary seawalls at the interfaces between phases to ensure timely completion. These temporary seawalls require ground treatment and rock fill to ensure stability.

9.8 Preliminary Design of Marine Structure

9.8.1.1 The major design criteria including design return periods of 100-year and for a design life of 50 years for typical marine structures, and design return period of 200-year and with a design life of 50 years for marine Critical Infrastructures (CIs) and coastal protection works for Cis are adopted.

9.8.1.2 Under the progressive adaptive approach as stipulated in the PWDM, all marine structures shall be designed to cater for climate change effect up to the end of design life with climate change projections based on SSP2-4.5 (median). In response to the uncertainties of future climate change impacts particularly towards the end of century and beyond, design allowance to cater for SSP5-8.5 (median) will be considered in the design. In addition, sensitivity test has been conducted to assess the potential risk due to climate change uncertainty beyond the end century. The sensitivity test provides insight on potential future seawall upgrades to cater for possible further increase of extreme sea level and wave height beyond the seawall design life / end of this century and to a time horizon of Year 2150. Where appropriate, such potential upgrades will be considered as a future allowance in the seawall design accordingly.

TKO 137

9.8.1.3 The existing sloping armour seawall of TKO 137 have a clearance of 200~400m approximately to Tathong Channel, and a minimum clearance of ~200m to Tathong Channel will generally be maintained after construction of proposed seawall. The future seawall shall also have a wave reflection characteristic similar to the existing sloping armour seawall to avoid adverse impact on marine vessels. Except at its edge adjoining to the existing seawall, the seabed level generally varies between -10 to -18mPD.

9.8.1.4 The seawall structure shall be structurally robust against wave attack and have adequate performance against wave run-up / overtopping to protect the future development of TKO 137 from damages or flooding (i.e. residential, commercial, etc.). Extents and details of the topside of the seawall which has to incorporate the future promenade will be subjected to the promenade design.

9.8.1.5 Sloping armour seawall is generally recommended along the TKO 137 reclamation against strong wave attack. In addition, topside of the seawall may designed as concrete structures to suit different promenade design with potential eco-shoreline features such as rocky shoreline, tidal pools. Notwithstanding the above general sloping seawall arrangement, vertical seawall structures will also be incorporated at some locations to provide a waterfront viewing platform to facilitate the landscape design plan.

9.8.1.6 According to as-built records, existing concrete armour comprises ~6t and ~10t tetrapod, which may be reused for the proposed sloping seawall where appropriate, the reuse of these armour units should be limited to those non-damaged units after removal.

9.8.1.7 To cater for the climate change impact of Year 2100 under SSP2-4.5 (median), the tentative seawall crest level is ~+8.0mPD at trunk location and ~+8.5mPD at round head location to achieve the criteria of "*damage to paved surface*" under a 100-year return period extreme condition. In addition to this crest level, the design shall consider an additional design allowance (i.e. in term of additional structural capacity) of ~0.42m to cater for SSP5-8.5 (median) at the same time horizon. The flood wall shall have a crest level of not lower than the seawall crest level (i.e. ~+8.1mPD at trunk location and ~+8.6mPD at round head location).

TKO 132

9.8.1.8 The seawall at reclamation off TKO 132 shall be designed to satisfy the waterfront operation requirements of future users. These waterfront operations require berthing and mooring of vessels, boarding of personnels, loading / unloading operations, etc. The TKO 132 waterfront will be majorly used by various types of work barges and transport vessels with vessel length of 40~110m. According to the bathymetric record, the seawall will be constructed on a relatively shallower seabed with seabed levels varying between -5 to -13mPD generally.

9.8.1.9 The seawall faces to open sea in the southeast direction and may be exposed to severe wave under extreme environmental conditions. It shall be structurally robust against wave attack.

9.8.1.10 To satisfy the above user requirements, a total of ~850m approximately long vertical seawall is proposed for providing a vertical berth face for vessel operations, while a sloping seawall is proposed for the remaining ~375m approximately long shoreline at the reclamation off TKO 132.

9.8.1.11 To cater for the climate change impact of Year 2100 under SSP2-4.5 (median), the preliminary crest level of precast concrete block is ~+8.0mPD to achieve the criteria of "*damage to paved surface*" under a 100-year return period extreme condition. In addition to this crest level, the design shall consider an additional design allowance (i.e. in term of additional structural capacity) of ~0.42m to cater for SSP5-8.5 (median) at the same time horizon.

9.8.1.12 A tentative seawall toe level of -8mPD is recommended accordingly to accommodate the largest operation vessel of all TKO 132 users in terms of vessel draft (~6.6m).

9.8.1.13 The design of seawall may allow provisions for a wide range of eco-shoreline features along the seawall of the reclamation of TKO 137 and potentially for the seawall at the reclamation off TKO 132 to promote bio-diversities, including special armour units with tidal pool, rocky shoreline, refugia for birds, and eco-tile at vertical seawall face.

9.9 Conclusion

9.9.1.1 Given the site constraints, programme, and environmental considerations, DCM is proposed as the primary ground treatment method for seawalls, particularly in areas with significant marine clay and soft alluvial clay that lack extensive obstructions. DCM is advantageous for short programme durations, offering time savings over other methods like PVD with surcharging. Jet grouting is also recommended for treating soft soils beneath hard strata, especially in dredging trenches of existing seawalls in TKO137, and in locations where DCM is obstructed by soft clay, gravel layers, or cobbles. In situations where non-dredge methods are ineffective, local sediment removal may be necessary, particularly in areas with thin marine deposits, cobbles, or shallow bedrock.

9.9.1.2 Further reviews shall be conducted in detailed-design stage if necessary to locate potential obstructions in the area. The geotechnical design parameters adopted shall be subject to review and re-assessment upon completion of the SI works planned for the detailed design.

9.9.1.3 Overall, DCM and jet grouting are deemed suitable for the majority of the reclamation area both in TKO132 and TKO137 based on a comprehensive review of geotechnical and geological conditions.

9.9.1.4 Moreover, based on preliminary assessment, it is considered that the proposed development(s) is geotechnically feasible as the natural terrain hazards can be mitigated by mitiation measures.

10. DRAINAGE IMPACT ASSESSMENT

10.1 Existing Drainage Features

10.1.1.1 TKO 137, spanning approximately 99 ha, is situated to the southeast of Fat Tong Chau. This area is mainly utilized by Civil Engineering and Development Department (CEDD) as temporary land allocations for a fill bank. On the eastern side of the TKO 137 a portion is encompassed by natural terrain that forms part of Clear Water Bay Country Park (CWBCP). There are other existing temporary uses, including a Dangerous Goods (DG) pier maintained by CEDD GEO/Mines Division, Tseung Kwan O Desalination Plant (TKODP), site office of SENT and SENTX. Currently, majority of site is un-paved. According to the findings from Broad DIA report in Feasibility Stage, surface runoff within the existing TKO 137 fill bank is managed through their own temporary open channels. These channels facilitate the conveyance of runoff, which is then discharged into the sea through existing 7 nos. of box culverts .

10.1.1.2 The reclamation area of TKO 132 is approximate 20 ha locating to the southeast of Chiu Keng Wan. According to DSD drainage record plan, there are no drainage system in existing TKO 132.

10.2 Proposed Drainage Scheme

10.2.1.1 New drainage systems have been proposed for TKO 137 and TKO 132 to mitigate the drainage impact due to the proposed development.

10.2.1.2 Surface runoff from TKO 137 and the upland catchments will be collected by a new drainage trunk system and discharged at 5 new outfalls. The existing 7 nos. of box culverts can be abandoned.

10.2.1.3 A drainage trunk system is proposed at TKO 132 to collect surface runoff from the development area and hillside catchment. Both box culverts and trunk pipelines are proposed to mitigate the flood risk of TKO 132.

10.2.1.4 The hydraulic performance of the proposed drainage systems has been reviewed. The proposed drainage systems are able to convey surface runoff under 1 in 50-year and 1 in 200-year design event with potential climate change to the end-21st century, with 500mm freeboard allowed as required by the SDM.

10.3 Blue-Green Infrastructure

10.3.1.1 Integration of blue-green infrastructure to the sites in TKO 137 and TKO 132 can enhance flood resilience while achieving sustainability through improving the quality of surface runoff, and should be adopted as far as practicable.

Permeable Pavement

10.3.1.2 Permeable pavements allow surface runoff to flow through the pavements by infiltration and into the underlying structural layers. Apart from delaying the stormwater runoff, direct infiltration of rainwater into the subsoil through the permeable pavement could also remove silt and pollution through filtration and biodegradation. Permeable pavement may be extensively adopted for the proposed cyclic track area, as well as the recreation amenities in the district open space in TKO 137. It can also be adopted along the footpath near the carriageway in TKO 132 as well.

Rain Garden

10.3.1.3 Rain gardens are shallow landscaped depressions that can reduce runoff rates and volumes, and treat pollution through the use of engineered soils and vegetation. Runoff temporarily collected by rain gardens on the surface and then filters through the vegetation and underlying soils. The filtered runoff can be collected using an underdrain system, such as perforated pipes, or fully or partially infiltrated into the surrounding soil subject to the site condition. Part of the runoff volume will be reduced by undergoing evaporation and plant transpiration. Rain gardens can be provided at the greening areas in the district open space in TKO 137 & TKO 132 area, to reduce the amount of surface runoff collected by the proposed drainage system and improve runoff quality.

10.4 Conclusion

10.4.1.1 The drainage impact assessment was carried out in accordance with 5th edition of Stormwater Drainage Manual and its Corrigendum No. 1/2022, No. 1/2024, and No. 2/2024 published by Drainage Services Department. The drainage impact associated with the development in TKO 137 and TKO 132 is assessed under 1 in 50 years and 1 in 200 years events with consideration of the climate change impact up to the end 21st century.

10.4.1.2 New drainage systems are proposed for TKO 137 and TKO 132 to mitigate the drainage impact due to the proposed development. Hydraulic assessment showed that the proposed drainage systems are adequate to convey surface runoff under 1 in 50-year and 1 in 200-year design event with potential climate change to the end 21st century, with adequate freeboard allowed as required by SDM.

10.4.1.3 The proposed drainage system for TKO 137 has considered the site phasing of the development. Further liaison with relevant authority is required to formulate a drainage network that suits the site conditions.

10.4.1.4 Blue-green infrastructures should be adopted as far as practicable in TKO 137 and TKO 132 to enhance the resilience of the proposed drainage systems in the face of climate change.

11. SEWERAGE IMPACT ASSESSMENT

11.1 Existing and Planned Sewerage Systems

11.1.1.1 The proposed development scheme of TKO 137 and TKO 132 site are unsewered area. Assessment on sewerage impact to the existing Tseung Kwan O Preliminary Treatment Works (TKOPTW) is carried out. It is observed that except the insignificant sewage flow from TKO 132, the spare capacity of TKOPTW is unable to cater all the sewage flow from TKO 137 but only able to cater the flow of 1st and 2nd population intake from TKO 137 temporarily. In order to cater the ultimate situation of the development sites, a new TKO 137 Effluent Polishing Plant (TKO 137 EPP) has to be constructed at TKO 137 and a new sewage pumping station has to be constructed at TKO 132.

11.2 Estimation of Sewage Discharge

11.2.1.1 According to the latest RODP, TKO 137 would have a total domestic and non-domestic population of 135,011 and 23,418 respectively. The ADWF generated is estimated to be approximately 47,618 m3/day. TKO 132 would cater for the Public Facilities, the ADWF generated is estimated to be approximately 353 m3/day.

11.2.1.2 The development in TKO 137 would be implemented in phases from 2030 to 2041 whereas the development for TKO 132 would be implemented in phases from 2030 to 2035. The latest implementation programme with flow build up are summarized in below tables:

Table 11.1 - Flow Build Up for TKO 137

Intake Year	Cumulative ADWF(m^3/day)	Contribution
2030	10,436	E1, E2, G1, G2, G3, OU1, PU1&2
2033	18,899	$Flow_{2030}$ + PU3&4, OU4
2035	32,465	$Flow_{2033}$ + G4, E3, E4, E5, OU2, OU3, PU5, PU6, PR1
2038	35,404	$Flow_{2035}$ + PR4
2041	47,618	$Flow_{2038}$ + PR2, PR3, PR5

Table 11.2 - Flow Build Up for TKO 132

Intake Year	Cumulative ADWF(m^3/day)	Contribution
2030	67	PFTF, CBP
2031	348	$Flow_{2030}$ + RTS, CWHF
2035	353	$Flow_{2031}$ + EFs

11.3 Impact Assessment

11.3.1.1 To strike for a balance between population intake programme and the implementation programme of the EPP, utilization of the spare capacity of TKOPTW could be permanently used to facilitate TKO 132 development, and temporarily used to facilitate the 1st and 2nd population intake from TKO 137 and ceased to end until TKO 137 EPP is commissioned.

11.3.1.2 It is concluded that the existing TKOPTW is able to cater for the sewage flow from TKO 132 permanently, and the 1st and 2nd population intake from TKO 137 temporarily before 2034.

11.4 Proposed Sewerage Scheme

11.4.1.1 As the spare capacity of the existing Tseung Kwan O Preliminary Treatment Works (TKOPTW) is able to cater for the 1st and 2nd population intake of TKO 137 and full intake for TKO 132 before 2034, the EPP has to complete before that. An interim arrangement is thus proposed to divert the sewage flow arising from TKO 137 to TKOPTW via a proposed advance sewage pumping station and associated pipeworks.

11.4.1.2 Phased implementation is recommended for the EPP. The design capacity of the EPP phase 1 and 2 will be 39,000 m3/day and 54,000 m3/day respectively. The EPP is design for secondary plus treatment level. The Treated Sewage Effluent (TSE) and screened sewage under emergency condition is proposed to discharge to the proposed drainage network within TKO 137 and subsequently discharge to the sea..

11.4.1.3 A local sewerage system and a new Sewage Pumping Station (SPS) with associated twin rising mains are proposed at TKO 132 to convey the sewage from the public facilities to existing sewerage system at Tiu Keng Leng along the proposed viaduct. The design capacity of the SPS is proposed to be 400 m3/day.

11.5 Conclusion

11.5.1.1 The implications of potential impacts on the existing public sewerage system from the potential sewage generated by the Project was assessed.

11.5.1.2 The spare capacity of existing TKOPTW can be utilized temporarily to support the 1st and 2nd population intake of TKO 137 (excluding TKO 132), ceasing once the EPP is commissioned in 2034. The advance SPS arrangement is therefore proposed, and phased implementation of the EPP is recommended. The design capacity of the EPP phase 1 and 2 will be 39,000 m3/day and 54,000 m3/day respectively. The EPP is design for secondary plus treatment level.

11.5.1.3 A local gravity system and a SPS of 400m3/day design capacity with associated rising main are proposed at TKO 132 to convey the sewage from the public facilities to existing sewerage system at Tiu Keng Leng along the proposed viaduct.

11.5.1.4 Bypass arrangement under emergency condition is proposed to discharge to the proposed drainage system within TKO 137 and TKO 132.

11.5.1.5 Overall with the provision of the proposed sewers and sewerage facilities at TKO 132 and 137, it is anticipated that the Project would not result in adverse implications on sewerage and sewage treatment.

12. WATER SUPPLY IMPACT ASSESSMENT

12.1 Existing and Planned Water Supply System

Existing and Planned Fresh Water Supply System

12.1.1.1 The site of TKO 137 is out of any existing fresh supply zone and located next to the supply zone of existing Tseung Kwan O East Low Level Fresh Water Service Reservoir (TKO ELL FWSR), with capacity of 35,600m3 and TWL / IL at +89mPD / +82mPD, respectively. The projected mean daily demand (MDD) of TKO ELL FWSR supply zone is 44.5MLD, which is the baseline demand for the impact assessment.

12.1.1.2 The site of TKO 132 is out of any existing fresh supply zone and located next to the supply zone of existing Tiu Keng Leng Fresh Water Service Reservoir (TKL FWSR), with capacity of 40,000m3 and TWL / IL at +97.5mPD / +90mPD. The projected mean daily demand (MDD) of TKL FWSR supply zone is 53.34MLD, which is the baseline demand for the impact assessment.

12.1.1.3 Tseung Kwan O Desalination Plant - Stage 1 (TKO DP1) with water production capacity of 135,000m3/day started to operate in December 2023. After the future expansion under Stage 2 of Tseung Kwan O Desalination Plant (TKO DP2) carried out under Agreement No. CE 92/2022 (WS), the ultimate water production capacity will be up to 270,000m3/day. The TKO DP, together with the Pak Kong Water Treatment Works (PW WTW) and the Tseung Kwan O Fresh Water Primary Service Reservoir (TKO FWPSR) will supply fresh water for TKO.

12.1.1.4 No existing fresh water distribution main is identified within TKO 137 and TKO 132 areas. A DN1200 pump main conveying product water from TKO DP to TKO FWPSR runs along Wan Po Road.

Existing Salt Water Supply System

12.1.1.5 The sites of TKO 137 and TKO 132 are not within the existing salt water supply zone but located next to the supply zone of Tseung Kwan O Salt Water Pumping Station (TKO SWPS) and Tseung Kwan O West Low Level Salt Water Service Reservoir (TKO WLL SWSR).

12.1.1.6 There are existing 3-duty and 1-standby pump sets at TKO SWPS with design duty of 320L/s at 65m head per pump for pumping salt water to the customers within supply zone, the balancing tank TKO WLL SWSR (cap. 12,500m3 and TWL / IL at 61.5mPD / 52.5mPD, respectively) and Tseung Kwan O West High Level Salt Water Service Reservoir (TKO WHL SWSR) via booster pumping station. The baseline demand of the TKO SWPS supply zone is 71.17MLD.

12.1.1.7 No existing salt water distribution main is identified within TKO 137 and TKO 132 areas.

12.2 Impact Assessment

12.2.1.1 Based on the projected demand of existing supply zones and the estimated fresh water (51.1MLD) and salt water (19.1MLD) demand of TKO Area 137, the existing TKO ELL FWSR and TKO WLL SWSR would have insufficient storage capacities for catering the additional water demand from this Project. Therefore, new FWSR and SWSR are proposed, locating at Fat Tong Chau (FTC) for TKO Area 137.

12.2.1.2 TKO 132 area is not within any existing fresh water supply zone. It is proposed to provide fresh water for TKO 132 site by TKL FWSR. As the water demand arising from TKO Area 132 is relatively small, the existing TKL FWSR is capable of providing water supply to TKO Area 132.

12.2.1.3 It is proposed to provide salt water for TKO 137 and TKO 132 areas via the existing TKO SWPS. The assessment for ultimate stage salt water supply to TKO Area 137 and Area 132 takes into account the TKO SWPS uprating and associated local watermain improvement works by others.

12.3 Proposed Fresh Water and Salt Water Supply and Distribution System

Fresh Water Supply and Distribution System for TKO 137

12.3.1.1 The proposed fresh water supply system for TKO 137 contains trunk main, FTC FWSR and distribution networks. The new distribution network will be interconnected with the supply system of TKO ELL FWSR at the existing DN600 fresh water main at Wan Po Road with provision of cut-line valve.

Fresh Water Supply and Distribution System for TKO 132

12.3.1.2 A new DN400 fresh water distribution main is proposed, running along the new marine viaduct and at-grade roads at TKO 132, to provide fresh water supply (as fire-fighting) for the Public Facilities. The new fresh water main is proposed to be teed off from the existing fresh water main at Tiu Keng Leng, fed by TKL FWSR.

Salt Water Supply and Distribution System for TKO 137

12.3.1.3 The proposed salt water supply system for TKO 137 contains trunk main, FTC SWSR and distribution network. The new distribution network will be interconnected with the existing supply network of TKO SWPS and TKO WLL SWSR at the existing DN600 salt water main at Wan Po Road with provision of cut-line valve.

Salt Water Supply and Distribution System for TKO 132

12.3.1.4 A new DN150 salt water distribution main is proposed, running along the proposed marine viaduct and at-grade roads at TKO 132 area, to provide salt water supply for the Public Facilities. The new DN150 salt water main is proposed to be teed off from the existing salt water main at Tiu Keng Leng, fed by TKO SWPS.

12.4 Conclusion

12.4.1.1 As there are insufficient storage capacities of existing FWSRs of TKO Area 137 adjacent fresh water supply zone, new FTC FWSR with associated distribution network is proposed to cater the additional demand.

12.4.1.2 New FTC SWSR with associated distribution network is also proposed for TKO Area 137 salt water supply due to insufficient storage capacity of TKO WLL SWSR for the additional demand from this project.

12.4.1.3 No existing fresh water main is within TKO Area 132. Therefore, extension of existing fresh water main is proposed to provide fresh water supply. As the water demand arising from TKO Area 132 is relatively small, the existing TKL FWSR is capable of providing water supply to TKO Area 132.

12.4.1.4 Similar to fresh water supply for TKO Area 132, the existing salt water main at Tiu Keng Leng is proposed to be extended to provide salt water.

12.4.1.5 With the proposed water mains and water supply infrastructure at TKO 132 and 137, the water demand for the development can be met without negative impact to the existing water supply system.

13. UTILITIES IMPACT ASSESSMENT

13.1 Existing Utility Network

13.1.1.1 Several existing underground utilities, including power supply, gas supply, telecommunication services and water mains running along / within the future development site of TKO 137 to support the existing project development and operation of South East New Territories (SENT) Landfill Extension and Tseung Kwan O Desalination Plant (TKO DP).

13.1.1.2 The proposed Road L8 under this project involves installation of additional underground utilities to serve the future development. The existing utilities underneath the proposed Road L8, including electricity and telecommunication cables, sewer, watermains would be retained and protected as far as it does not encroach into the future development sites or has no physical interface to the proposed utilities. In case the physical interface cannot be resolved in the design, advance request will be sent to utility undertakings for early planning and relocation of utilities. The existing DN1200 pumping main from Tseung Kwan O Desalination Plant shall be maintained and protected during the construction. A 3D simulation of existing and future underground facilities will be created in BIM to facilitate design coordination and clash analysis. Liaison with utility undertakings and government departments is necessary to resolve any conflicts and confirm the need for utility diversion.

13.2 Proposed Underground Utility

13.2.1.1 In general, overlapping of different types of utilities should be avoided as far as practicable to facilitate future inspection and maintenance. The gravity sewers and drains should be installed at deeper levels if overlapping could not be avoided with those utilities in less than 1m cover depth.

13.2.1.2 In the planning of underground utilities at public road and footpath, sufficient ground cover should be provided to the utilities in order to prevent it from damage due to vertical pressure. Besides, considered the adjacent structures and the ease for future maintenance purpose that necessary setbacks and spacing should be provided. The priority utilities should be placed in more accessible areas to avoid frequent traffic interruptions in the future.

13.2.1.3 3D modelling would be adopted as the tool in the utility design and coordination to resolve utility conflicts, carry out clash analysis and design review. There are numerous existing underground utilities near the project area are identified from the records drawings, the exact location / alignment of the existing utilities could be located by utility survey of trial pit excavation as necessary. The utility information could be incorporated into the BIM model, together with the proposed roadworks and other underground infrastructures at TKO 137.

13.3 Programme of Utility Installation and Commissioning

13.3.1.1 In view that the first population intake at site would be by end of 2030, therefore, it would be critical to secure the construction and commissioning programme of utility services to facilitate the population intake. For power supply, it is confirmed that there would have sufficient capacity from the nearby substations to support the first population intake and the surrounding facilities in case the commissioning of new Fat Tong Chau 132kV substation exceeds the required schedule.

13.3.1.2 Both temporary and permanent utility services would be considered to support the phasing development of this Project. In general, power supply and telecommunication services would be required in the construction stage. The arrangement of temporary utility service would subject to the demand of the phasing development (i.e. locations of power supply point and lend-in of telecommunication service, etc.) and would be further coordinated with respective utility undertakers before commencement of construction stage.

13.3.1.3 For permanent utility services, all planned utility networks should be installed in conjunction with the works of each stage of phasing development and the utility services should make available before commissioning of the development at each land parcel. In the phasing development, particular attention should be given to the construction programme of 132 kV substation near Fat Tong Chau. Generally, the substation should be available approximately one year before the target population intake to allow time for testing and commissioning. Utility services should be provided to the substation earlier to allow early issue of the Occupation Permit of the substation.

13.4 Conclusion

13.4.1.1 Existing utility services serving the SENT Landfill Extension and Tseung Kwan O Desalination Plant would not be disturbed during the construction works under this project, in case there is the need for diversion on the existing utilities, advance coordination would be conducted with the respective utility undertakings and authorities to agree the arrangement and reprovision of the alternative services.

13.4.1.2 In overall, this project will coordinate to expand the essential utility services to cater the demand from TKO Area 137 and 132 development. The planning on new utilities would be reviewed amongst the project team and respective utility undertakings in advance to evaluate the extend and potential integration with the existing utilities networks nearby.

13.4.1.3 In all circumstances, it aims to implement all required utility services to meet the demand from the development without adverse impact to the existing utility services or disruption to the surrounding facilities and industrial activities.

14. SOCIO-ECONOMIC IMPACT ASSESSMENT

14.1 Socio-economic Context

14.1.1.1 The development of the TKO 137 lies within the boundary of Tertiary Planning Unit (TPU) 839 defined by C&SD in 2021 Population Census. The population profile of the Study Area can be presented precisely by taking references from the statistic information of the TPU 833, 838 and 839 revealed in 2021 Population Census.

14.1.1.2 The population of the TPUs was about 233, 931 with 80,389 households in 2021. Compared with the surrounding area in other levels, the TPUs had higher percentage of population below 20 years old (16.3%) and 20-64 years old (70.3%), as well as lower percentage of elder people (13.3%).

14.1.1.3 In terms of housing, the TPUs had the highest percentage of people living in private permanent housing (55.1%) compared with those of Tseung Kwan O New Town, Sai Kung District and the whole territory.

14.1.1.4 The population of Tseung Kwan O New Town was forecasted to have a continuous increase in the upcoming years, and will reach to 0.45 million in 2029 compared with Sau Kung District (0.54 million) and the whole territory (7.7 million).

14.1.1.5 The number experiences the largest increases in the upcoming 2 years, which expected to increase 21,200 population annually and peaks in 2046 with 3,076,600 domestic households. Moreover, it was estimated that the average household size would be decreased slightly from 2.7 to 2.6 from year 2026 to 2031 and remain unchanged until year 2046, which indicated a gradual decrease in average household size.

14.1.1.6 The labour force participation rate of total working population is projected to decrease from 55.9% in 2024 to 52.0% in 2044, which reflected that a shortage of labour in local market may occur in future 20 years.

14.2 Potential Impacts and Benefits

14.2.1.1 A total of 9 key indicators of impacts and benefits are potentially arising from the development of TKO 137 and associated reclamation site have been identified, which are under FOUR areas of major impacts, including (1) land uses and housing aspect, (2) transportation aspect, (3) socio-demographics aspect, and (4) economic and employment.

Table 14.1 - Summary of findings of the SEIA

Major Aspects	Proposed Issues	Findings
Land Uses and Housing (L)	1 – Maximise housing supply through effective use of idle land	• Addresses Hong Kong's housing shortage by developing idle land. • Provides about 50,030 residential units, with a mix of public and private housing to alleviate the housing crises.
Land Uses and Housing (L)	2 – Foster mixed-use development with the integration of residential, commercial, and community spaces	• Creates a self-sufficient community integrating residential, commercial, and GIC facilities. • Promotes the '15-minute neighborhood' concept for cohesive urban living.
Transportation (T)	3 – Enhance both internal and external transportation connectivity in TKO	• Enhances transportation connectivity through TKLSE and tunnel projects. • Reduces commute times and improves accessibility, making TKO 137 more desirable.

Major Aspects	Proposed Issues	Findings
Transportation (T)	4 - Optimise TKO's traffic flow by relocating facilities for improved road efficiency	• Relocation of PFTF and CBP to reduce traffic congestion and environmental pollution of TKO 137 • Improves road efficiency and community living conditions by reducing heavy vehicle traffic.
Socio-demographics (D)	5 – Create a livable community with enhanced well-being	• Provides larger living spaces and ample green/recreational areas. • Offers comprehensive ancillary facilities for a healthier, balanced lifestyle.
Socio-demographics (D)	6 - Promote sustainable lifestyles and foster smart city innovation and practices	• Encourages sustainable living and smart innovations for quality of life improvement. • Improves public transport access, and promotes cycling/walking with green spaces.
Socio-demographics (D)	7 – Examine the impact on the surrounding neighbour-hood	• Concerns about environmental, health, and visual impacts from TKO 132 Public Facilities relocation. • Exploring mitigation measures to minimize nuisance.
Socio-demographics (D)	8 – Evaluate the effects on the fishermen	• Minimal direct impacts on fisheries due to distance from major fishing zones. • Measures in place to mitigate potential indirect impacts on water quality and resources.
Economic and Employment (E)	9 – Provide employment opportunities	• Expected to generate significant employment through residential, retail, GIC, and social welfare sectors, etc. • Supports local economy and addresses employment needs in the community.

14.3 Proposal and Mitigation Measures

14.3.1.1 The Developments and Infrastructure proposals should be designated with an aim to minimize the negative impacts to the affected residents, local brownfield operators and operators of livestock farms and fishponds before implementation. As such, a range of mitigation measures are proposed for consideration of the government on alleviate the impacts properly.

Mitigation Measures for Affected Fishermen

14.3.1.2 The Hong Kong Government offers Ex-gratia Allowances (EGAs) to fishermen and mariculturists affected by marine works projects, aiming to mitigate economic impacts and facilitate relocation. Fishermen's EGAs are based on the notional value of fish catch from affected areas, with compensation periods extended to 11 years for permanent and 5 years for temporary loss. Mariculturists qualify for EGAs based on proximity to marine works or suspended solids levels impacting water quality. The government also promotes sustainable fisheries development through measures such as a trawl ban, vessel registration, the Sustainable Fisheries Development Fund (SFDF), loans, and training programs. The Agriculture, Fisheries and Conservation Department (AFCD) is working on designating new fish culture zones and promoting modern technologies like deep-sea mariculture cages to enhance the sector.

Mitigation measures for population Intake in TKO 137

14.3.1.3 The extension of the TKO railway network, including the development of the TKOLSE, is a strategic infrastructure project aimed at improving connectivity between the newly developed TKO 137 railway station and key urban areas such as Hong Kong Island and Kowloon East. However, some stakeholders have expressed concerns regarding the timing mismatch between the occupancy of TKO 137 and the completion of the TKOLSE.

14.3.1.4 From past experiences with new town developments, it has been observed that the completion of railway lines often lags behind the initial move-in dates of new residential areas (see Table 8.5). As a result, residents in these new towns were unable to immediately benefit from the transportation network upon moving in. With the estimated completion of the TKOLSE between 2034 and 2038, later than the expected first intake in TKO 137, residents may face longer travel times and transportation inconveniences.

14.3.1.5 To minimize these impacts, it is suggested that alternative transportation options, such as buses, minibuses, or shuttle buses connecting to the nearest railway station (e.g., TKO Station), be provided for residents before the completion of the TKOLSE.

Table 14.2 - Time of Flat In-take For the First Residential Site and Completion Time of Relevant Railway Line for Recent New Town Development

New Town development	Time of flat in-take for the first residential site	Completion Time of relevant railway line
Tseung Kwan O	1988 (Po Lam Estate)	2002 (Tseung Kwan O Line)
Tin Sheung Wai	1993 (Tin Shui Estate)	2003 (West Rail Line)
Tung Chung	1997 (Fu Tung Estate/ Yu Tung Court)	1998 (Tung Chung Line)
TKO 137	2030 (Estimation population in take)	2034-2038 (TKOLSE Estimated completion time)[2]

14.4 Way forward

14.4.1.1 The analysis presented in the SEIA is supported by numerous information sources, including statistical data from C&SD and the Summary of Public Opinions obtained through public engagement activities. Subject to ongoing discussion of the development proposal of TKO 137, additional suggestions and feedback from pertinent stakeholders and the public and exploration of mitigation measures will be sought to provide a further understanding of the planning process for TKO 137 and to minimise the identified negative impacts.

[2] Legco (2024, April 15). *Finance Committee of the Legislative Council Verbatim record of special meeting (Chapter 14: Transport and Logistics 123601)*.

15. LAND REQUIREMENT AND IMPLEMENTATION PROGRAMME

15.1 Land Requirement

15.1.1.1 The land use of the proposed development for TKO 137 comprises mainly the residential and the necessary infrastructure and facilities for supporting the community of TKO 137. The industrial and public facilities currently operating in TKO 137, and those planned for future demand constitute the main land use at TKO 132.

15.1.1.2 It is noted that the proposed development footprint at TKO 137 wholly locates within the GLAs which would be released for development use upon decanting of current operation. In addition, the FWSR and SWSR at Fat Tong Chau do not encroach into any private land lot. Therefore, no resumption of private land is required for the development at TKO 137.

15.1.1.3 For TKO 132, there is no adverse implication on the land requirement for land created off by reclamation. However, there are existing certain government land license and squatter structures locate uphill shoreline where the site formation would be carried out. It is anticipated that clearance of squatter and resumption of government license land would be required.

15.2 Implementation Programme

15.2.1 Development Programme for the Project

15.2.1.1 The Project would be commissioned in phases with the targeted first population intake in Year 2030. The tentative preliminary construction schedule under various phases is summarised in **Table 15.1** with reference to **Figure 15.1** and **Figure 15.2** for the tentative site development works.

Table 15.1 Preliminary Construction and Population Intake Schedule

Development Stage	Site	Major construction activities and Areas	Rationale of Phasing	Earliest Date for Commencement of infrastructure Works	Earliest Date for Availability of Land for Building Works	Anticipated First Occupation/ Population Intake Date
Initial Phase (End 2025 – End 2030)	**TKO 137**	Phase 1 Reclamation for TKO 137: reclamation, seawall works, site formation, box culvert(s) and seawall outfall(s) for the middle portion along the southwest shoreline and the existing barging basin at the north of the Project area of TKO 137 (1A, 1B and 1C referred to Figure 2.8) Site development works mainly at north of the TKO 137, targeting to achieve the first population intake in 2030 (initial phase of development of TKO 137 referred to Appendix 2.1)	- Land resumption and availability for reclamation and site formation - Land to be created to handover to Railway Development Office of Highways Department (HyD/RDO) in Sep 2028[2] for the railway construction to be completed with priority - To commence infrastructure works for targeted population intake	End 2025	End 2025	End 2030
	TKO 132	Reclamation, seawall works, box culvert(s), seawall outfall(s), slope-cutting, site formation, marine viaducts, site development works to support TKO 132 (Preliminary Development of TKO 132 referred to Appendix 2.1)	- The land to be created for relocation of Public Facilities to allow the site at TKO 137 to be vacated for residential development and accommodating other Public Facilities - To commence infrastructure works for accommodating	End 2025	End 2028	-

Development Stage	Site	Major construction activities and Areas	Rationale of Phasing	Earliest Date for Commencement of infrastructure Works	Earliest Date for Availability of Land for Building Works	Anticipated First Occupation/ Population Intake Date
			the location-specific Public Facilities			
		Marine viaducts and infrastructure works (including sewage pumping station) to support TKO 132	- To provide infrastructure to Public Facilities at TKO 132	End 2025	End 2030	End 2030
Main Phase (Feb 2027 – End 2035)	**TKO 137**	Phase 2 Reclamation for TKO 137: reclamation, seawall works, site formation, box culvert(s) and seawall outfall(s) for the southern portion along the southwest shoreline of TKO 137 (2A and 2B referred to Figure 2.8) Site development works mainly at east and north of the project area of TKO 137 (excluding the HyD/RDO reserved area) to support the targeted population intake (main phase of development of TKO 137 referred to Appendix 2.1)	- Land resumption and availability for reclamation and site formation works for targeted population intake - Interim infrastructure for meeting 1st population intake - Areas with road connection from existing road networks - Key infrastructures - To commence infrastructure works for targeted population intake	End 2028	End 2028	End 2033
	TKO 132	Construction of Public Facilities (EFs, CWHF, RTS, PFTF and CBP) – **by others**	- Upon completion of reclamation and site formation works, respective land will be handed over to the Public Facilities'	End 2028 (Building Works)	End 2028 (Building Works)	2030 (PFTF and CBP) 2031 (CWHF) 2032 (RTS) 2035 (EFs)

Development Stage	Site	Major construction activities and Areas	Rationale of Phasing	Earliest Date for Commencement of infrastructure Works	Earliest Date for Availability of Land for Building Works	Anticipated First Occupation/ Population Intake Date
			operators to construct EFs, CWHF, RTS, PFTF and CBP			
Remaining Phase (End 2033 – End 2041)	**TKO 137**	Site development works mainly for the HyD/RDO reserved area and the west of the Project area of TKO 137, and the remaining site development and interfacing works for TKO 137 to support the targeted population intake (remaining phase of development of TKO 137 referred to Appendix 2.1)	- Land availability after releasing from HyD/RDO for commencing infrastructure works for targeted population intake - Remaining works to suit the programme of other interfacing works	End 2036	End 2036	End 2038

Remarks:

1. Phasing plan is subject to further liaison with LandsD and further review at Design & Construction stage.
2. Site formation works will have interface with the construction works of TKLSE (in services by 2036 subject to RDO's later formulation of the railway construction works).
3. The lands under each phase will be available for building and infrastructure works with taking over of the sites in phases from LandsD.

15.2.2 Initial Phase Development

15.2.2.1 Initial Phase Development comprises mainly Phase 1 Reclamation for TKO 137 primarily for the land to be formed to handover to HyD/RDO by Q3 2028 for the railway construction works at TKO 137 and the site development works at the North of the project area of TKO 137 for the first population intake in Year 2030.

15.2.2.2 The major works in TKO 137 will include:

- Phase 1 Reclamation including associate seawall works, site formation, box culvert and seawall outfall works for the middle portion along the southwest shoreline and the existing barging basin at the north of TKO 137.
- Site development works for two “Public Housing” (“PU”) sites and two “Education” (“E”) sites at north of the project area, including associated local roads and the interchange/junction works connecting with Wan Po Road, pedestrian connectivity, drainage, waterworks, sewerage (including construction of advance SPS), utilities, electrical and mechanical, paving, road marking and street furniture works to support the first population intake.

15.2.2.3 Initial Phase Development also includes the reclamation, slope-cutting, site formation, construction of marine viaduct and infrastructure works at TKO 132 for development of the proposed Public Facilities, so that the phase 2 reclamation at TKO 137 can then be commenced after the facilities relocated to TKO 132.

15.2.2.4 The major works for TKO 132 will include:

- Reclamation, seawall construction, slope-cutting, site formation, box culvert(s) and seawall outfall(s) to form about 20 ha for the proposed developments.
- Construct of marine viaducts and road network to connect the land to be created off TKO 132 to existing Tseung Lam Highway.
- Other engineering infrastructure works including roads, interchange/junction, pedestrian connectivity, drainage, sewerage including construction of SPS, waterworks, landscape to support the development.

15.2.3 Main Phase Development

15.2.3.1 Main Phase Development comprises mainly Phase 2 Reclamation for TKO 137 and the development works at the east and north of the project area of TKO 137 (excluding the areas reserved by HyD/RDO for the construction of TKLSE). The development works in this phase is to support the targeted population intake in Year 2033 and the targeted mass population intake in Year 2035 respectively at TKO 137.

15.2.3.2 The remaining reclamation, major site development works to support TKO 137 in this development will include:

- Phase 2 Reclamation including associated seawall works, site formation, box culvert(s) and seawall outfall(s) for the southern portion along the southwest shoreline.
- Site development works for four “Public Housing” (“RSc”) sites at east of the Project area.
- Site development works for one ‘Private Housing” (“R1”) site at northwest of the Project area.
- Site development works for “Government, Institution or Community” (“G”) sties.
- Site development works for “Education” (“E”) sites.
- Site development works for “Other Specified Uses” (“OU”) sites for key infrastructures, including EPP, FWSR and SWSR.
- Associated local roads, interchange/junction, pedestrian connectivity, drainage, waterworks, sewerage, UU, E&M, paving, road marking and street furniture works.

15.2.3.3 The major works for TKO 132 will include:

- Upon completion of the reclamation and site formation works at TKO 132, respective formed land will be handed over to the operators of the Public Facilities for their building construction and other facilities within their sites.

15.2.4 Remaining Phase Development

15.2.4.1 Remaining Phase Development is the last phase of the development for TKO 137, mainly including development works at the land area that was occupied by HyD/RDO for the TKLSE construction at initial phase (subject to HyD/RDO's later formulation of the railway construction works), as well as any remaining infrastructure and interfacing works from the last development phase. The development works in this phase is to support the targeted population intake in Year 2038 and the targeted mass population intake in Year 2041 respectively at TKO 137.

15.2.4.2 The major development works in this development phase will include:

- Site development works for two 'Private Housing" ("R1") sites and two 'Private Housing" ("R2") sites at west of the Project area.
- Associated local roads, interchange/junction, pedestrian connectivity, drainage, waterworks, sewerage, UU, E&M, paving, road marking and street furniture.
- Interfacing works from the last development phase.

16. APPLICATION OF SMART, GREEN AND RESILIENT INITIATIVES AND CARBON APPRAISAL

16.1 Smart, Green and Resilient Framework

16.1.1.1 The Hong Kong's Climate Action Plan 2050, as well as other relevant publications related to the Smart, Green, Resilient initiatives, have been thoroughly reviewed. The SGR strategy covering the aspects of Transportation, Infrastructure, Urban Design and Planning, Energy, and Waste Management has been proposed and evaluated, taking into consideration both local and overseas experiences.

16.2 Carbon Appraisal

16.2.1.1 Greenhouse Gas (GHG) emission activity of the operation of the development will be emissions from the generation of purchased electricity and town gas for building energy use, emissions from transportation within physical boundary, electricity purchase from power companies for fresh water processing, as well as sewage treatment, and emission due to municipal waste generated by the operation of the development.

Carbon Reduction Strategies and Target

Energy

16.2.1.2 In CLP's climate blueprint, they express support for the four major decarbonization strategies and measures outlined in the Hong Kong Government's Climate Action Plan 2050. These strategies include achieving net-zero electricity generation, promoting energy efficiency and green buildings, transitioning to green transportation, and implementing waste reduction initiatives.

16.2.1.3 By the effective implementation of our SGR Initiative in Energy Aspect, which involves the diverse deployment of renewable energy and energy efficient building technologies, can support the government in attaining its target of a 30-40% and 20-30% electricity reduction in commercial buildings and residential buildings correspondingly targeted in Hong Kong's Climate Action Plan 2050.

Water Infrastructure

16.2.1.4 To reduce water consumption in the development, rainwater and greywater harvesting have been proposed as part of Initiatives I2.1 and I2.2, respectively. The strategy reduces emission of electricity purchase from power companies for fresh water processing,

Transportation

16.2.1.5 As outlined in the Hong Kong Roadmap on Popularisation of Electric Vehicles, it is mandated to install EV medium chargers in 30% of parking spaces at new government buildings. Additionally, initiatives will be undertaken to support the trial of double-deckers and other types of buses through the New Energy Transport Fund. Our SGR initiative in the Transportation domain aligns with the vision of this roadmap and aims to promote the use of electric vehicles within the development.

16.2.1.6 Improving walkability and the incorporation of cycling tracks connecting the existing TKO cycle network can also contribute to reducing the public's reliance on vehicles.

Waste Management

16.2.1.7 The Waste Blueprint for Hong Kong 2035 has put forth various targets for waste reduction. The medium-term target aims to reduce per-capita municipal solid waste (MSW) disposal by 40-45% and increase the recovery rate to 55% (with 2011 as the base year). Furthermore, the long-term target involves developing sufficient waste-to-energy facilities to reduce reliance on landfills.

16.2.1.8 To support Hong Kong's waste reduction objectives, several waste management initiatives have been proposed for the development. These initiatives include the implementation of recycling bins, the establishment of recycling facilities/stores.

16.3 Conclusion

16.3.1.1 The Hong Kong's Climiate Action Plan 2025, as well as other relevant publications related to the Smart, Green, Resilient initiatives, have been thoroughly reviewed. The SGR strategy covering the aspects of Transportation, Infrastructure, Urban Design and Planning, Energy and Waste Management has been proposed and evaluated, taking into consideration both local and overseas experiences.

16.3.1.2 Based on the carbon appraisal, it is estimated that the carbon emission could be significantly reduced by the progressive change in the fuel mix for electricity and gas generation, as well as the effectively implementation of the proposed initiatives. The remaining carbon emission will be primarily attributed to the building energy use, waste deposition in landfill and concrete batching.

16.3.1.3 The remaining carbon emission can be further reduced and the key elements of achieving carbon neutrality include:

- Net zero electricity and gas generation
- Zero landfill
- Use of Low/Zero carbon cement
- 100% electrified/ clean fuel vehicles

17. SUSTAINABILITY ASSESSMENT

17.1 Application of CASET

17.1.1.1 "Computer-Aided Sustainability Evaluation Tool" (CASET) is a software developed by Planning Department and reviewed by Environment Bureau. The latest version of CASET 5.1 is used for this sustainability assessment. The software provides a structured framework to evaluate the sustainability implications of the Project.

17.1.1.2 There are eight guiding principles to assess the sustainability of the Project, which are Economy, Health and Hygiene, Natural Resources, Society and Social Infrastructure, Biodiversity, Leisure and Cultural Vibrancy, Environmental Quality, and Mobility.

17.1.1.3 A setlist of characterization is included, which are Art / Culture / Recreation / Entertainment, Conservation, Environment and Agriculture, Demographics, Economics, Education, Energy, Health and Living Conditions, Housing, Industry, Land and Infrastructure, Transport, and Waste and Wastewater.

17.2 Key Findings

17.2.1.1 It is anticipated that the developments will have a variety of positive impacts on the economy and society. From an economic perspective, the development is expected to bring significant benefits in terms of cost-effectiveness due to the provision of additional employment opportunities, land sales revenue and the non-financial benefits of providing public and private housing. From the social perspective, the public housing provided by development projects can improve the living space of low-income groups and significantly reduce their waiting time for housing.

17.2.1.2 The new community will cater the need of medical facilities, social welfare facilities, sports facilities, cultural and recreational complexes and open spaces to encourage cultural diversity, equal access, leisure and cultural activities and opportunities, and improve the physical and mental health of residents. Besides, providing additional open space can solve the problem of insufficient open space in Sai Kung District and improve the shortage of open space in Hong Kong.

17.2.1.3 In view of the location of the developments and the connection road to TKO and other urban areas, the travel distance would be slightly increase. However, with the provision of Tseung Kwan O Line Southern Extension (TKLSE) from LOHAS Park to TKO 137, it would provide more direct travelling route to different destinations from the development area by railway, reducing the overall travelling distance and time. Considering its connectivity to Tseung Kwan O Line, the impact was expected to be small.

17.2.1.4 Due to population increase and related human activities, the development project is also expected to have adverse impacts on construction waste, municipal solid waste, carbon dioxide emissions and energy consumption generated by the development project. Relevant mitigation measures, such as the potential adoption of smart recycling system, refuse collection and transfer facilities under the development. Besides, the implementation of SGR initiatives and carbon emission reduction measures under development projects can have a positive impact on carbon emissions, as well as on mitigating climate change and building resilience in society to meeting the target set in the Hong Kong's Climate Action Plan 2050.

17.3 Conclusion

17.3.1.1 The sustainability assessment at this stge indicates that with the implementation of the Development, the main benefits would be improved in housing and living conditions, economy, leisure and society and social infrastructure. These benefits come in the form of improved health and well-being of residents, positive economic return, and enhancement to social involvement. Also, the assocaited transport and infrastructure would improve connectivity between the sites and the periphery regions to the rest of Hong Kong. On the other hand, negative impacts come mainly in the form of environmental degradation, with deterioration in natural resources.

17.3.1.2 Overall, the benefits provided by the Development outweigh the residual negative impacts especiall consideraing the long term. Therefore, with the implementation of the proposed mitigation measures to minimize the negative impacts, the Development is considered sustainable.

18. Conclusion

18.1.1.1 This report provides the summary findings, proposals and recommendations of the Revised RODP, technical assessments in respect of transport and traffic, environmental (air quality, noise, water quality, sewerage, waste, land contamination, ecology, fisheries, landscape and visual, cultural heritage, hazard to life, landfill gas hazard, and electric and magnetic fields), air ventilation, hydrology, marine traffic, reclamation, geotechnical, drainage, sewerage, water supply, utilities, socio-economic aspects, and land requirement and implementation programme.

18.1.1.2 With implementation of the proposed and planned infrastructural works, no insurmountable technical problem is anticipated for the Project. The Project is technically feasible for development without generating unacceptable adverse impacts to the surrounding area.

18.1.1.3 The feasibility of the Project has been assessed, and no insurmountable technical problem is anticipated.

Figures

ISO A3 420mm x 297mm

Approved:

Checked:

Designer:

Project Management Initials:

Proposed Site Formation Extent of Service Reservoirs (includes preliminary structure footprint, proposed service road, site formation and slope works)

Salt Water Service Reservoir (indicative structure footprint, subject to compartment sizing and structural design)

Fresh Water Service Reservoir (indicative structure footprint, subject to compartment sizing and structural design)

Proposed Service Road

Existing Section of Wan Po Road with Proposed Road Works (Excluded from Land Use Budget)

Divisional Police Station

Sub-Divisional Fire Station cum Ambulance Depot

Sports Centre and Government Reserve

Government Complex (includes Swimming Pool, Sports Centre, Public Market, Community Hall, Health Centre, Recycling Store, Refuse Collection Point, Post Office)

FAT TONG CHAU

Tseung Kwan O InnoPark

South East New Territories Landfill (SENT)

South East New Territories Landfill Extension (SENTX)

CLEAR WATER BAY COUNTRY PARK

Effluent Polishing Plant

Tseung Kwan O Desalination Plant

JOSS HOUSE BAY

KWUN TSAI

TIT CHAM CHAU

JUNK BAY (TSEUNG KWAN O)

ROAD L2

ROAD L3

ROAD L4

ROAD L5

ROAD L6

ROAD L7

ROAD L8

ROAD L1

LEGEND

- Development Boundary
- R1 — Private Housing - Zone 1 (Domestic Plot Ratio: 6/5)
- R2 — Private Housing - Zone 2 (Domestic Plot Ratio: 4)
- RSc — Public Housing Site (Domestic Plot Ratio: 7.5/7)
- G — Government, Institution or Community
- E — Education
- O — Open Space
- OU — Other Specified Uses
- GB — Green Belt
- Road
- Proposed Alignment of TKLSE (Subject to Separate Study)
- Drainage Reserve (DR)
- Water Works Reserve (WWR)
- Utility Reserve (UR)
- NBA — Non-building Area (NBA)

NOTATION

- Cycle Parking Area
- Community Hall
- Sports Centre
- Public Market
- Refuse Collection Point
- Health Centre
- Swimming Pool
- Electricity Substation
- Green Fuel Station
- Sub-Divisional Fire Station
- Recycling Store
- Post Office
- Social Welfare Facilities
- Public Transport Interchange
- Kindergarten
- Primary School
- Secondary School
- Ambulance Depot
- Divisional Police Station
- Proposed Maximum Building Height (in mPD)
- Proposed Site Formation Level (in mPD)
- Proposed Maximum Building Height (in numbers of storeys)
- FB — Proposed Footbridge Linkage (Subject to Future Study)
- CW — Proposed Covered Walkway (Subject to Future Study)

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AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例: A3 1:8000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60720423

CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱

Recommended Outline Development Plan - TKO 137
(Version dated 7 January 2025)

SHEET NUMBER
圖紙編號

FIGURE 1.1

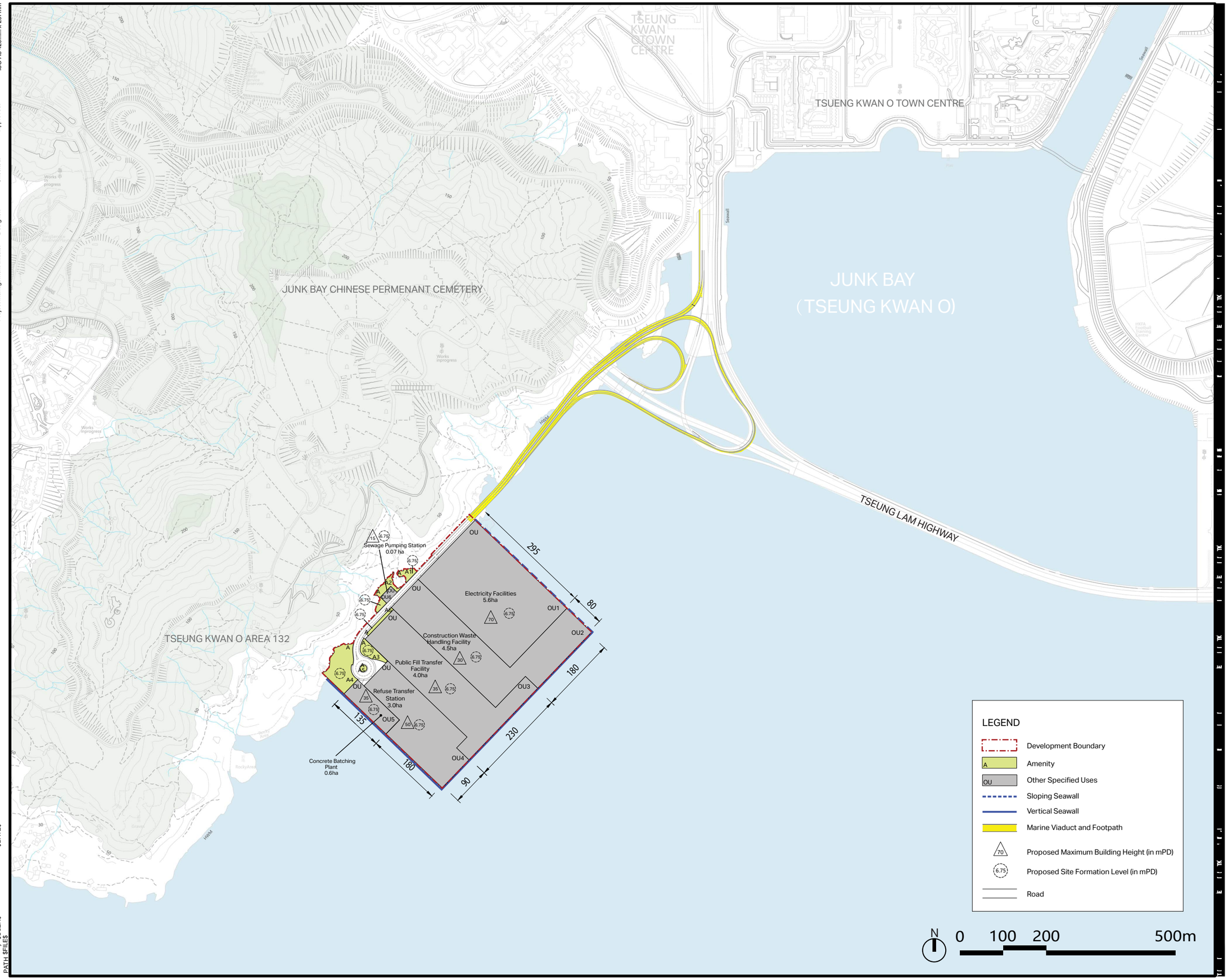
ISO A3 420mm x 297mm

Approved:

Checked:

Designer:

Project Management Initials:



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AECOM binnies

PROJECT

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE

A3 1:8000

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

60720423

CONTRACT NO.

CE 40/2023(CE)

SHEET TITLE

Recommended Outline Development Plan - TKO 132
(Version dated 16 December 2024)

SHEET NUMBER

FIGURE 1.2

ISO A3 420mm x 297mm

Approved:

Checked:

Designer:

Project Management Initials:

$DATE$

Plot File by: $USER$
PATH: $FILE$

LEGEND

- Development Boundary
- 15-minute Neighbourhood
- 400m Catchment Area
- NBA — Non-building Area (NBA)
- Coastline
- Major Green Corridor
- Secondary Green Corridor
- View Corridor
- Breezeway
- Open Space Nodes
- Landmark
- Focal Points
- Historical Building / Heritage
- Proposed Cycling Track
- Active Frontage and Terraced Podium
- Mountain Backdrop
- Public Transport Interchange
- Proposed Alignment of TKLSE (Subject to Separate Study)
- All-weather Pedestrian Connection
- Proposed Covered Walkway (Subject to Future Study)
- Proposed Footbridge Linkage (Subject to Future Study)
- Annual Prevailing Wind Directions
- Summer Prevailing Wind Directions
- Peaks of Natural Mountain
- Open Space
- Green Belt

AECOM Binnies

PROJECT 項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT 業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT 工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

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

STATUS 階段

SCALE 比例 — A3 1:8000

DIMENSION UNIT 尺寸單位 — METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號 — 60720423

CONTRACT NO. 合約編號 — CE 40/2023(CE)

SHEET TITLE 圖紙名稱

Master Urban Design Plan - TKO 137 (Version dated 7 January 2025)

SHEET NUMBER 圖紙編號

FIGURE 1.3

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

Remarks: Notional building layout is indicative only and subject to changes at detailed design stage.

AECOM Binnies

PROJECT
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE
A3 1:8000

DIMENSION UNIT
METERS

PROJECT NO.
60720423

CONTRACT NO.
CE 40/2023(CE)

SHEET TITLE
LADNSCAPE MASTER PLAN OF TKO 137

SHEET NUMBER
FIGURE 1.4

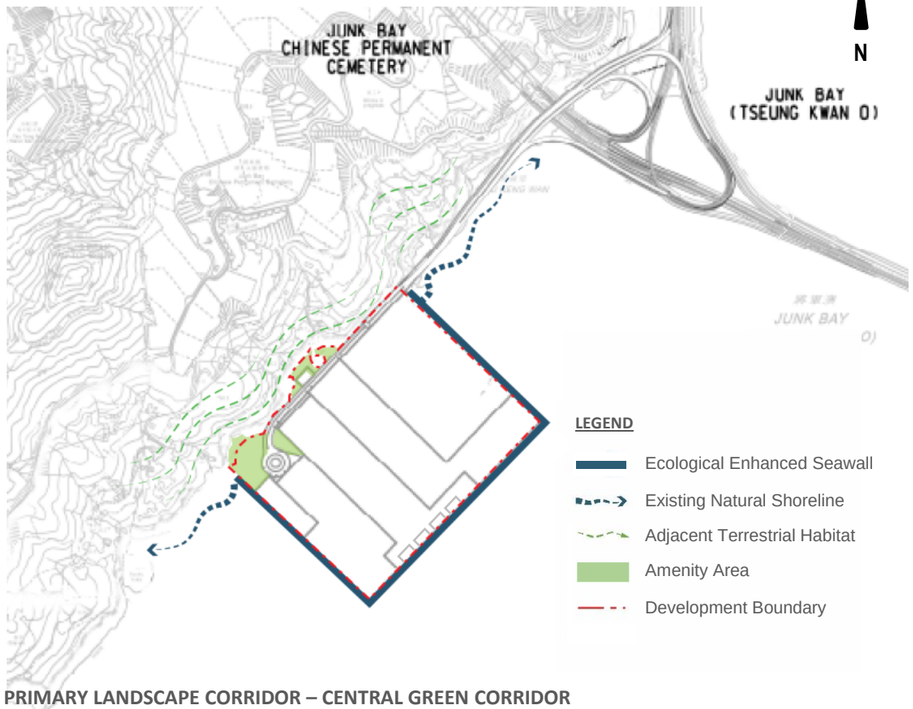
$PLTDRVL$

LANDSCAPE FRAMEWORK OF TKO137

LEGEND

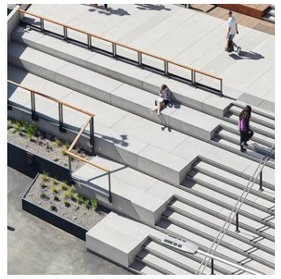
- Waterfront Key Node
- Waterfront Node
- Secondary Node
- Urban Garden
- Primary Landscape Corridor
- Secondary Landscape Corridor
- Eco-shoreline
- Existing Natural shoreline
- Central Linkage
- Adjacent Terrestrial Habitat
- Greening at Public Facilities (i.e. Service Water Reservoir)
- Open Space
- Development Boundary
- Country Park

LANDSCAPE FRAMEWORK OF TKO132



PRIMARY LANDSCAPE CORRIDOR – CENTRAL GREEN CORRIDOR

PRIMARY LANDSCAPE CORRIDOR - WATERFRONT PROMENADE



ECO-SHORELINE REFERENCE IMAGE

ISO A3 420mm x 297mm
Approved:
Checked:
Designer:
Project Management Initials:
$DATE$
Plot File by: $USER$
PATH: $FILE$

AECOM Binnies

PROJECT
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

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

STATUS

SCALE 比例: A3 1:8000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號: 60720423
CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE 圖紙名稱
Vision, Positioning and Landscape Framework - TKO 137

SHEET NUMBER 圖紙編號
FIGURE 1.5

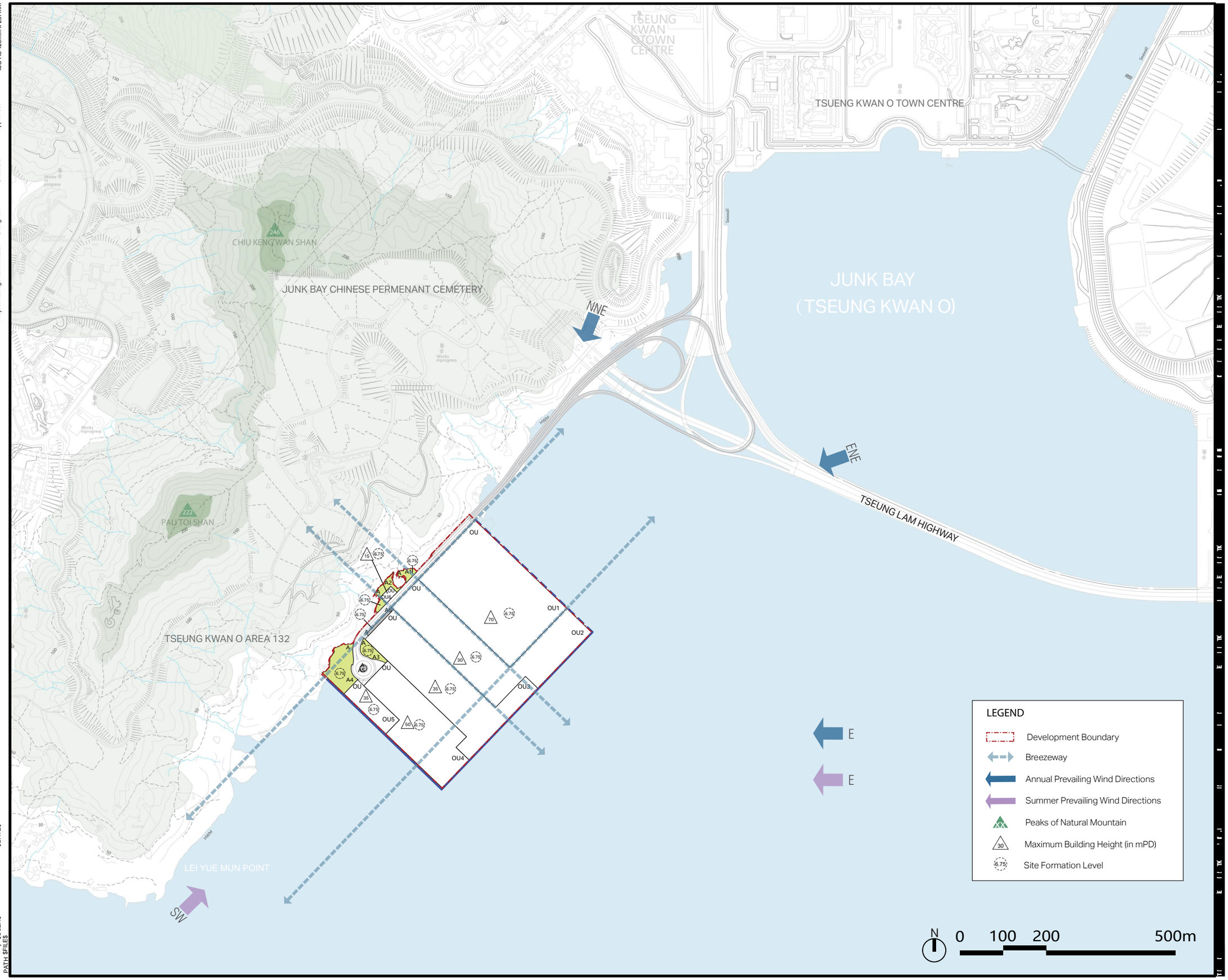
ISO A3 420mm x 297mm

Approved:

Checked:

Designer:

Project Management Initials:



Plot File by: $USER$
PATH: $FILE$

$DATE$

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE | **DIMENSION UNIT**

A3 1:8000 | METRES

KEY PLAN

PROJECT NO. | **CONTRACT NO.**

60720423 | CE 40/2023(CE)

SHEET TITLE

Master Urban Design Plan - TKO 132 (Version dated 16 December 2024)

SHEET NUMBER

FIGURE 1.6

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

Remarks: Notional building layout is indicative only and subject to changes at detailed design stage.

$PLTDRVL$

AECOM Binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

IR	DATE	DESCRIPTION	CHK.

STATUS

SCALE A3 1:8000

DIMENSION UNIT METERS

PROJECT NO. 60720423

CONTRACT NO. CE 40/2023(CE)

SHEET TITLE

LADNSCAPE MASTER PLAN OF TKO 132

SHEET NUMBER

FIGURE 1.7

ISO A1 594mm x 841mm

Approved:

Checked:

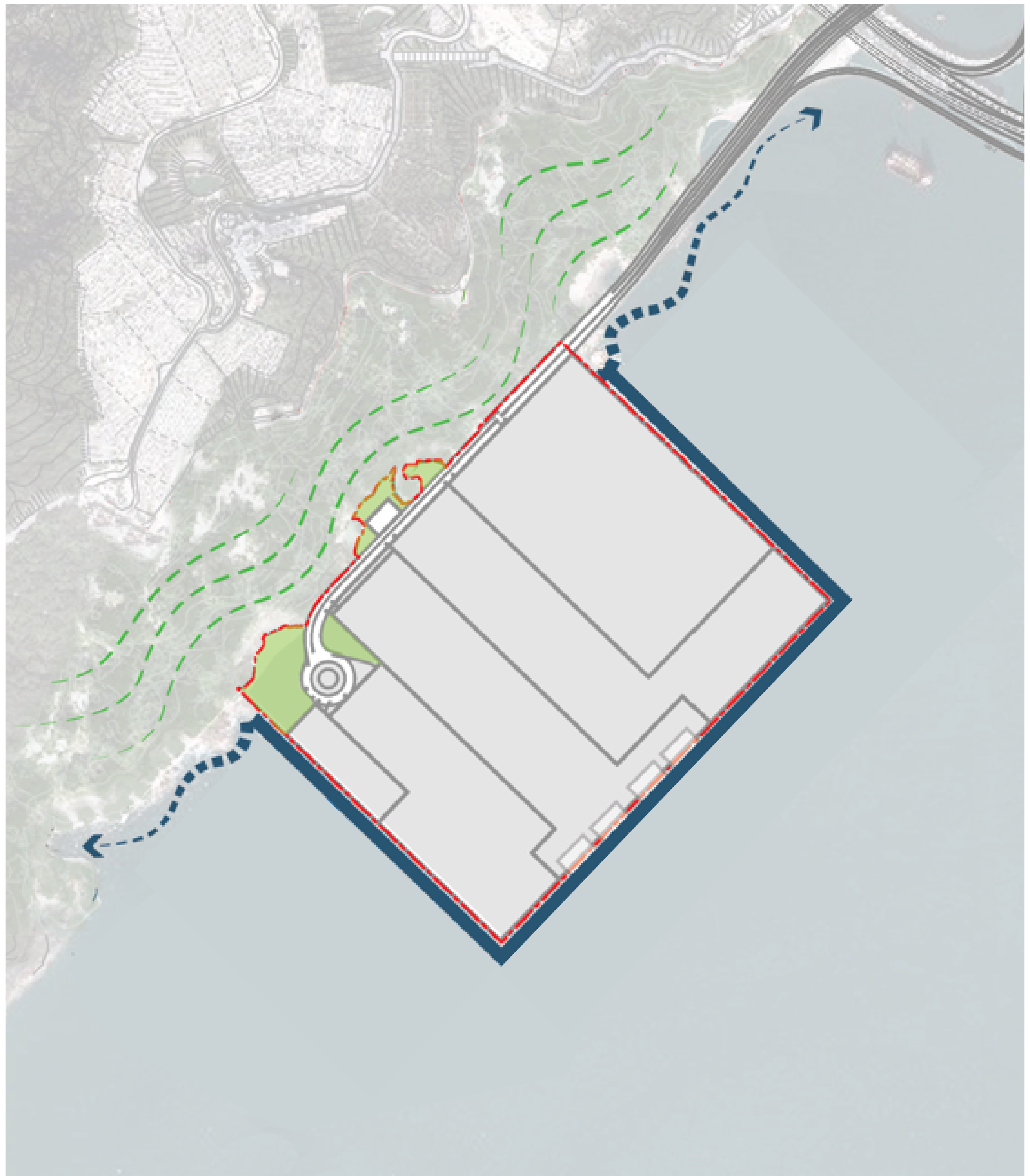
Designer:

Project Management Initials:

$PLTDRVL$

Landscape Framework & Spatial Hierarchy TKO 132

Landscape Framework



LEGEND

- Ecological Enhanced Seawall
- Existing Natural Shoreline
- Adjacent Terrestrial Habitat
- Amenity Area
- Development Boundary

LEGEND

- Development Boundary
- Natural Interface

Natural Interface

- Ecological Enhanced Seawall
- Roadside Buffer

Ecological Enhanced Seawall | Coastal Road | Greenroof

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK

STATUS

SCALE

A3 1:8000

DIMENSION UNIT

METERS

PROJECT NO.

60720423

CONTRACT NO.

CE 40/2023(CE)

SHEET TITLE

Landscape Framework & Spatial Hierarchy - TKO 132

SHEET NUMBER

FIGURE 1.8

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

841500 E

845500 E

849500 E

820500 N

816500 N

812500 N

LEGEND:

SITE BOUNDARY

AREA OF INFLUENCE

J1 KEY JUNCTION

L1 KEY ROAD LINK

J32 J23 J26 J24 J31 J25 J22 J33 J27 J28 J29 J20 J19 J21 J18 J17 J11 J13 J12 J14 J15 J16 J10 J30 J9 J8 J7 J6 J5 J4 J3 J2 J1

L17 L11 L14 L16 L15 L10 L9 L8 L7 L6 L13 L5 L4 L3 L12 L2 L1

JUNK BAY

TAIHONG CHANNEL

AECOM binnies

PROJECT 項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT 業主

土木工程拓展署 Civil Engineering and Development Department

CONSULTANT 土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

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

STATUS 狀況

SCALE 比例 A3 1 : 40000

DIMENSION UNIT 尺寸單位 METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號 60720423

CONTRACT NO. 合約編號 CE 40/2023(CE)

SHEET TITLE 圖紙名稱

ASSESSED KEY JUNCTIONS & ROAD LINKS

SHEET NUMBER 圖紙編號

FIGURE 4.1

Plot File by: LIU.H9
PATH: P:\PROJECTS\60720423\DRAWINGS\REPORT\TIATTA_503.dgn
3/12/2024

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

J1 : WAN PO ROAD / CHUN WANG STREET

J2: CHUN WANG STREET / CHUN YAT STREET

J3: WAN PO ROAD / PRIVATE ROAD

J4: CHUN CHEONG STREET / CHUN YAT STREET

3/12/2024

Plot File by: LUH9
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIA\TIA_511.dgn

AECOM binnies

PROJECT
項目

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

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土木顧問公司

AECOM Binnies (TKO137) JV

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分判工程顧問公司

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修訂

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

STATUS
階段

SCALE 比例	DIMENSION UNIT 尺寸單位
A3 1 : 1000	METRES

KEY PLAN
索引圖

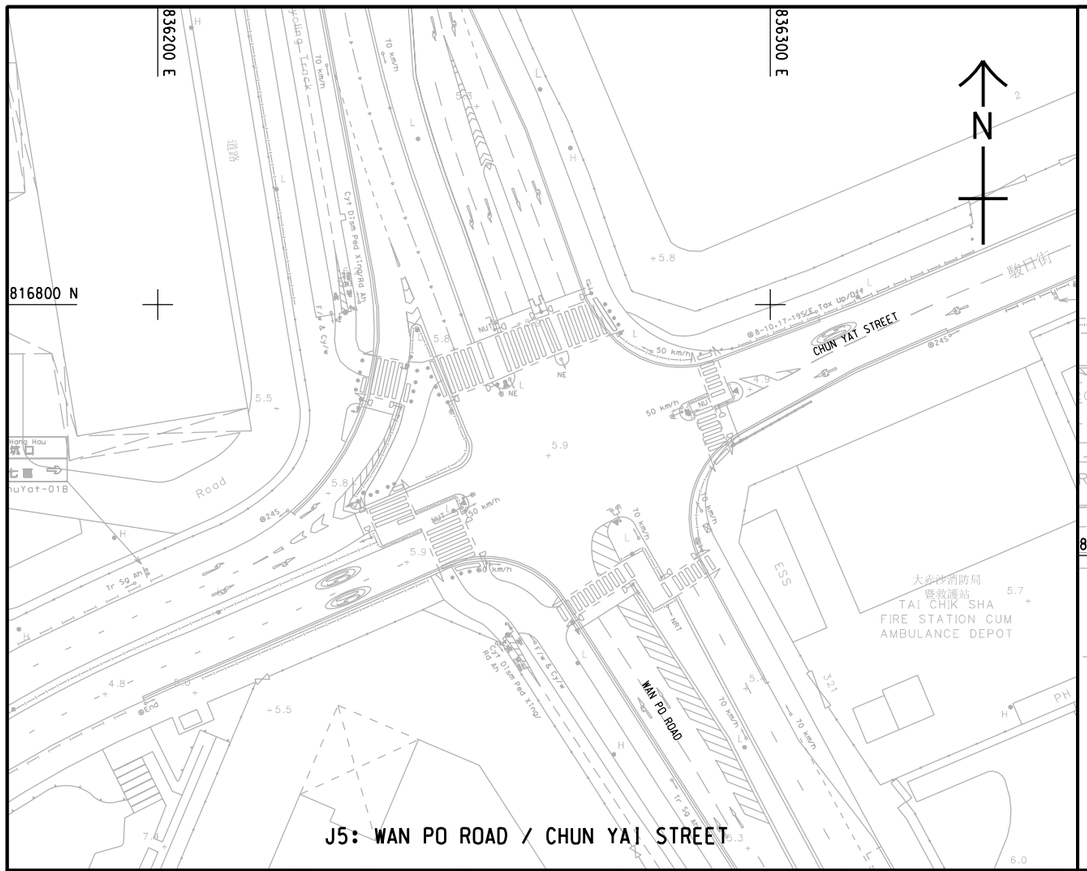
PROJECT NO. 項目編號	CONTRACT NO. 合約編號
60720423	CE 40/2023(CE)

SHEET TITLE
圖紙名稱

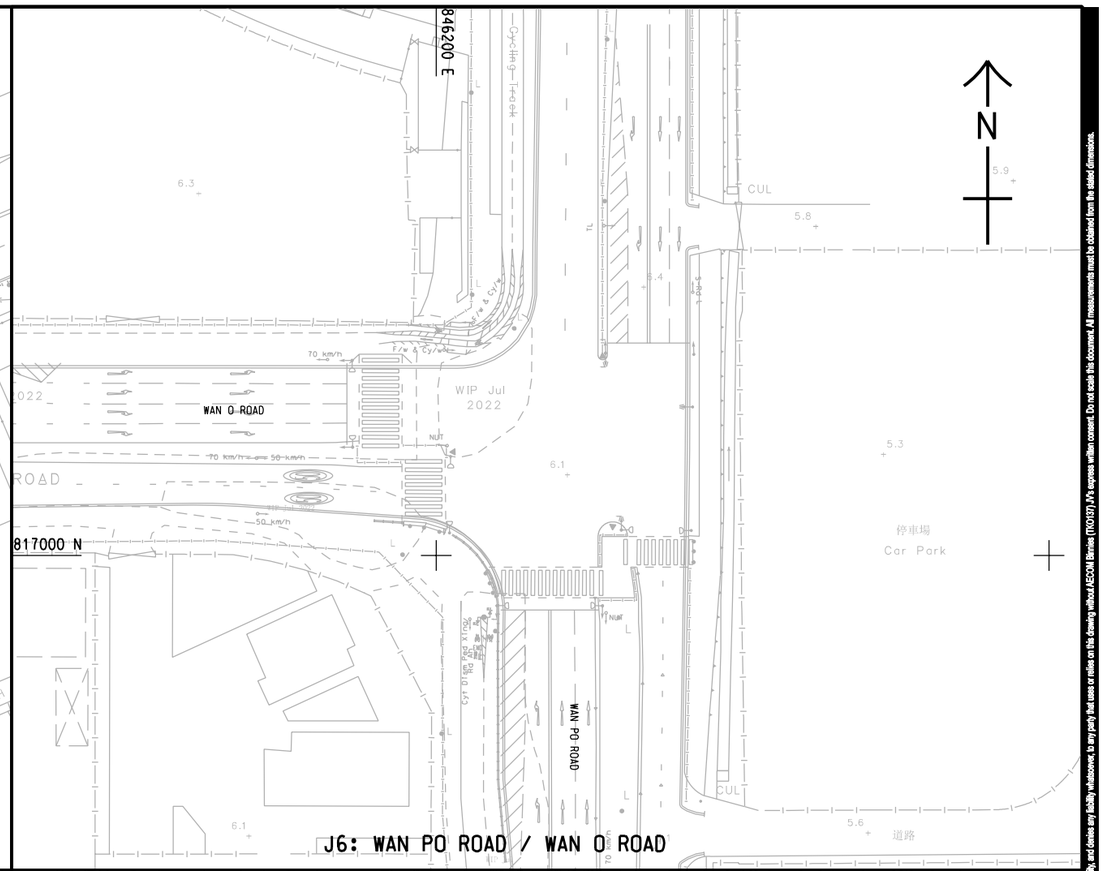
EXISTING JUNCTION LAYOUTS
(SHEET 1 OF 9)

SHEET NUMBER
圖紙編號

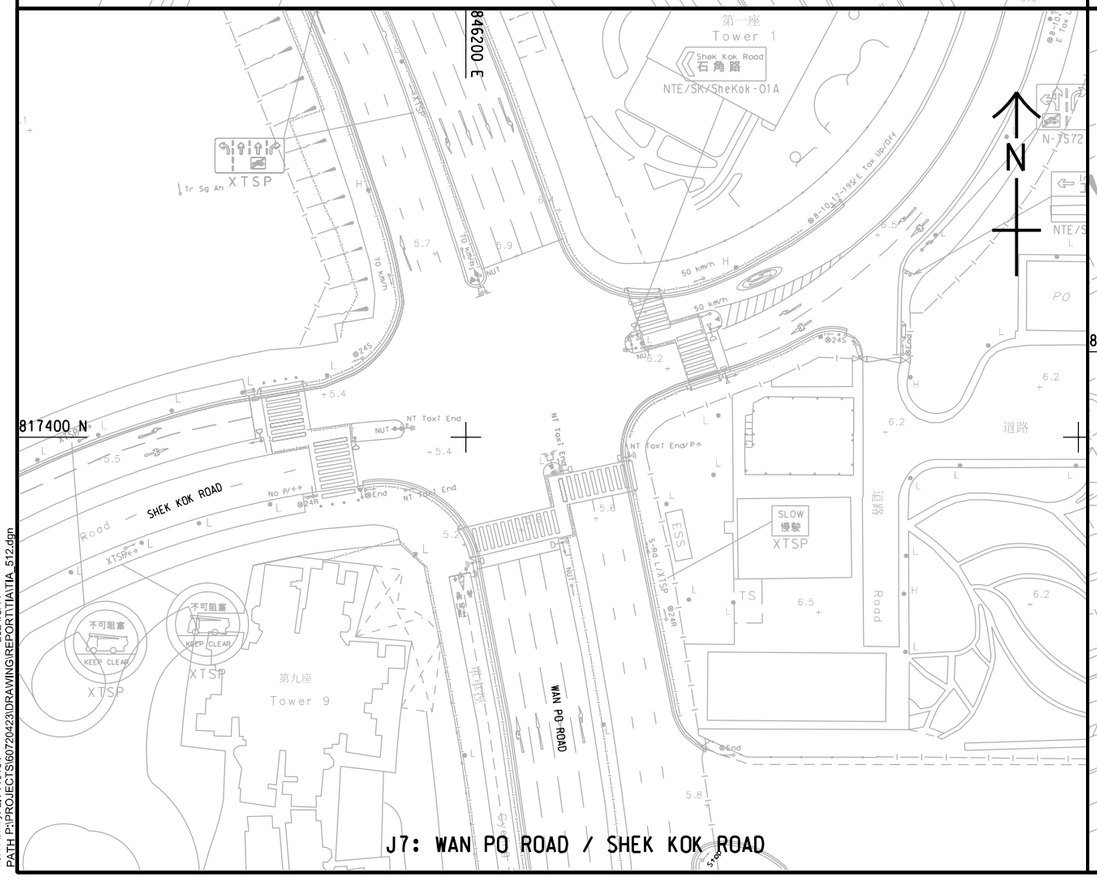
FIGURE 4.2



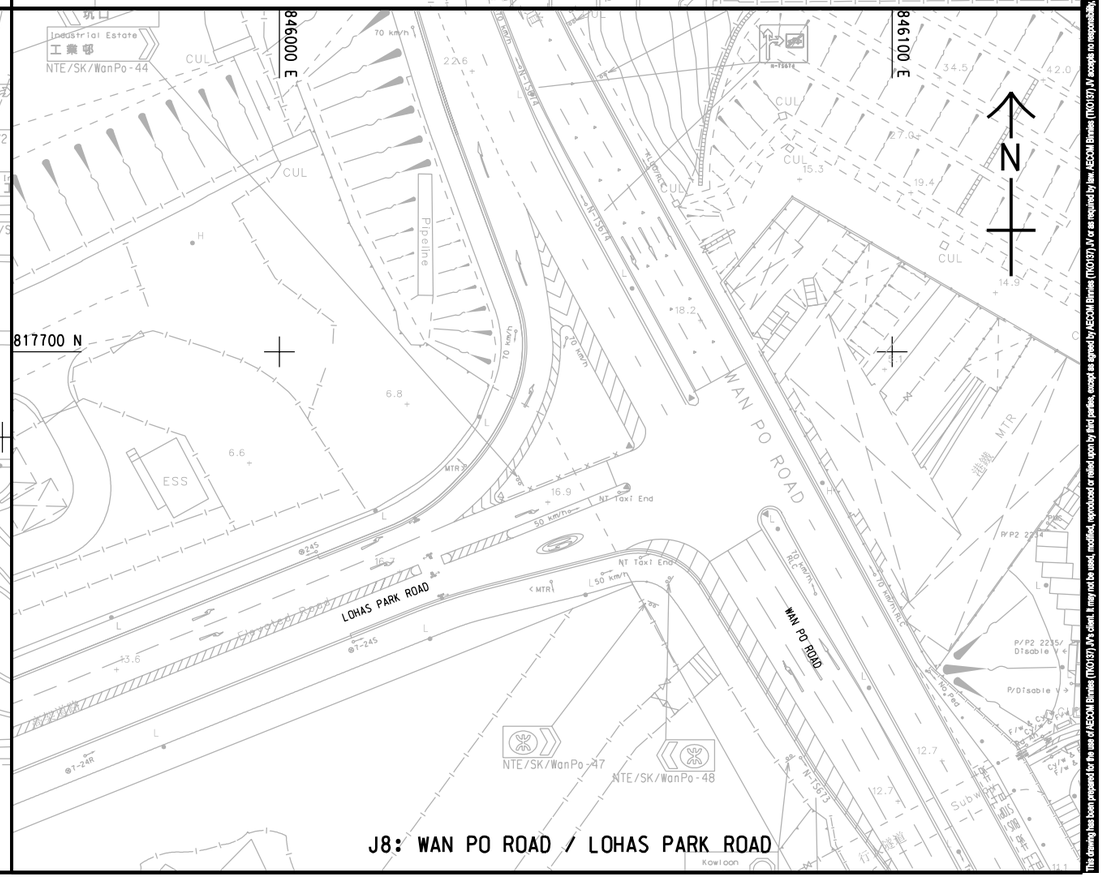
J5: WAN PO ROAD / CHUN YAI STREET



J6: WAN PO ROAD / WAN O ROAD



J7: WAN PO ROAD / SHEK KOK ROAD



J8: WAN PO ROAD / LOHAS PARK ROAD

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

Plot File by: LIY116104
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIA\TIA_512.dgn
2024/3/11

AECOM binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例	DIMENSION UNIT 尺寸單位
A3 1 : 1000	METRES

KEY PLAN
索引圖

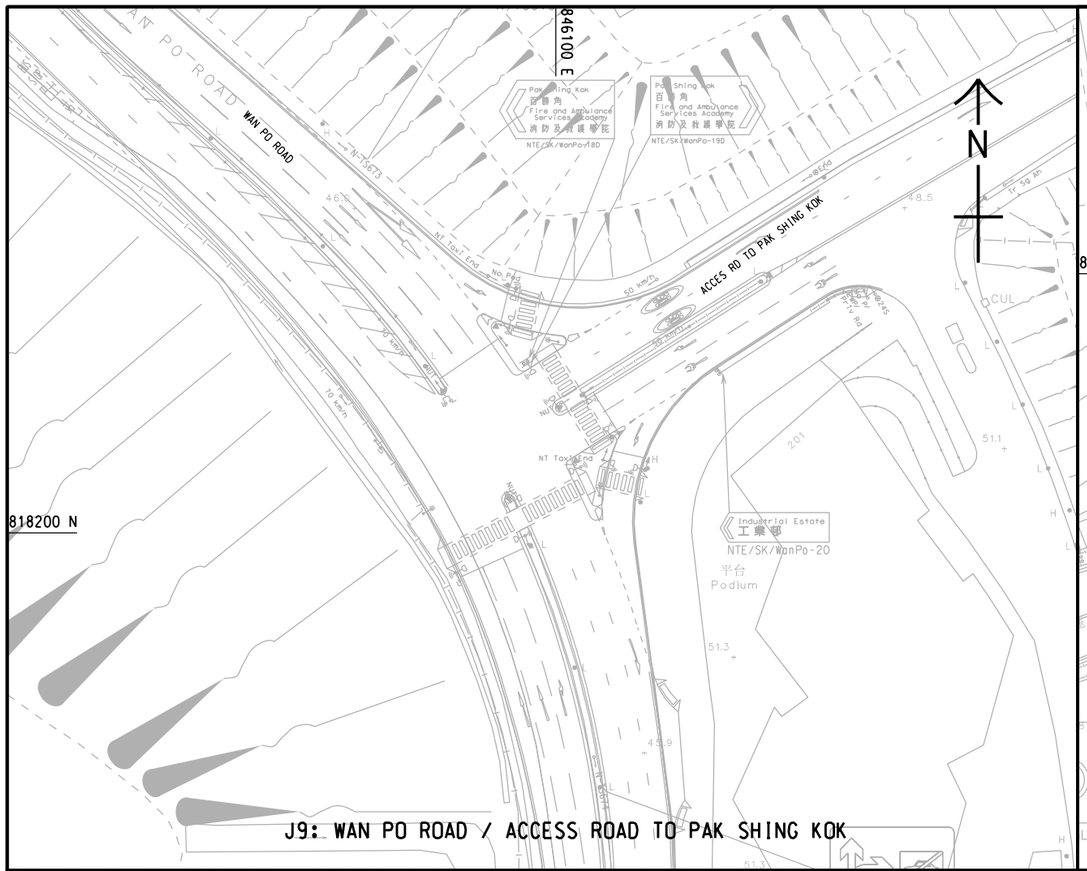
PROJECT NO. 項目編號	CONTRACT NO. 合約編號
60720423	CE 40/2023(CE)

SHEET TITLE
圖紙名稱

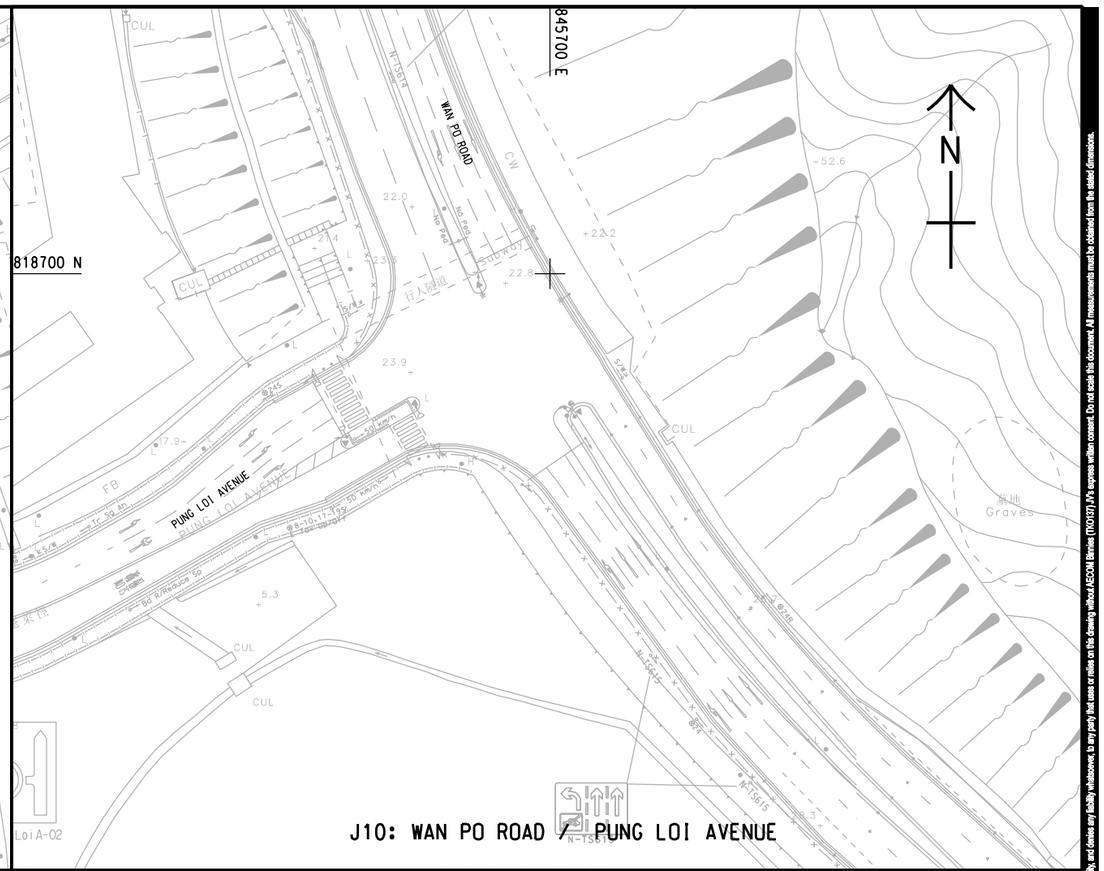
EXISTING JUNCTION LAYOUTS (SHEET 2 OF 9)

SHEET NUMBER
圖紙編號

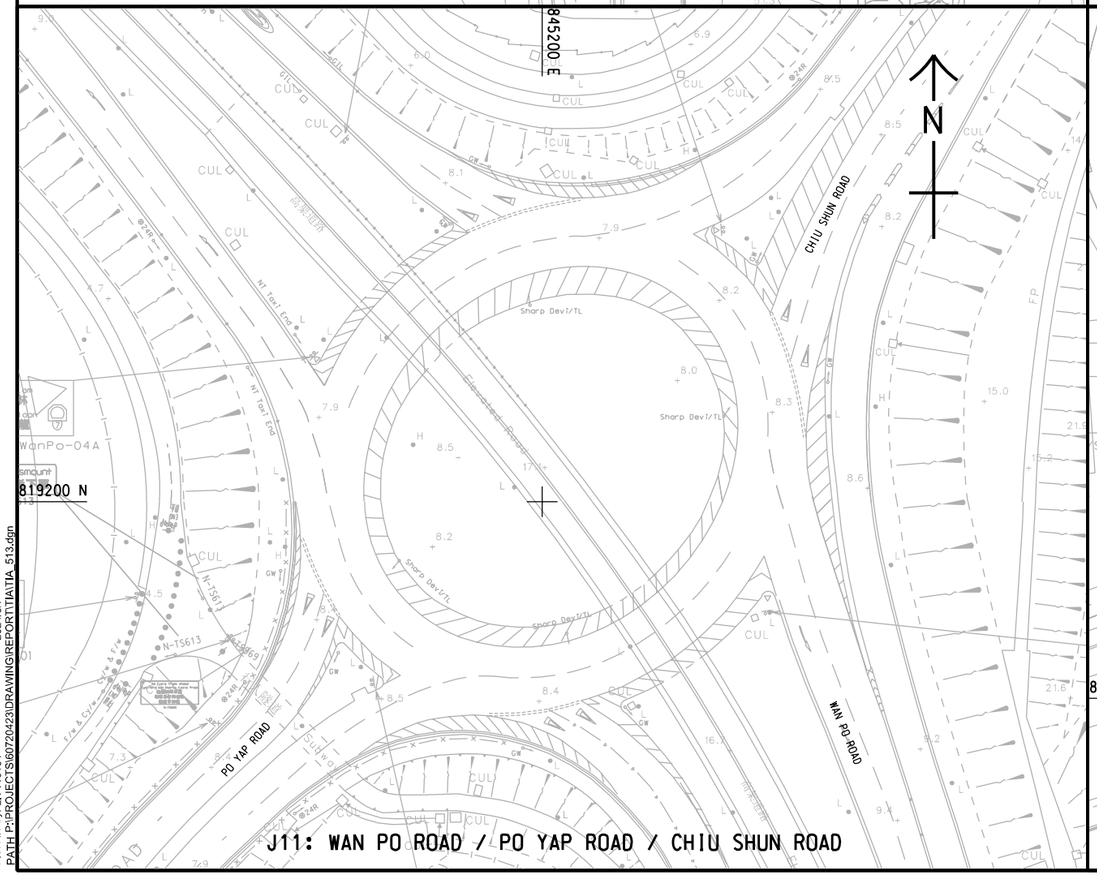
FIGURE 4.3



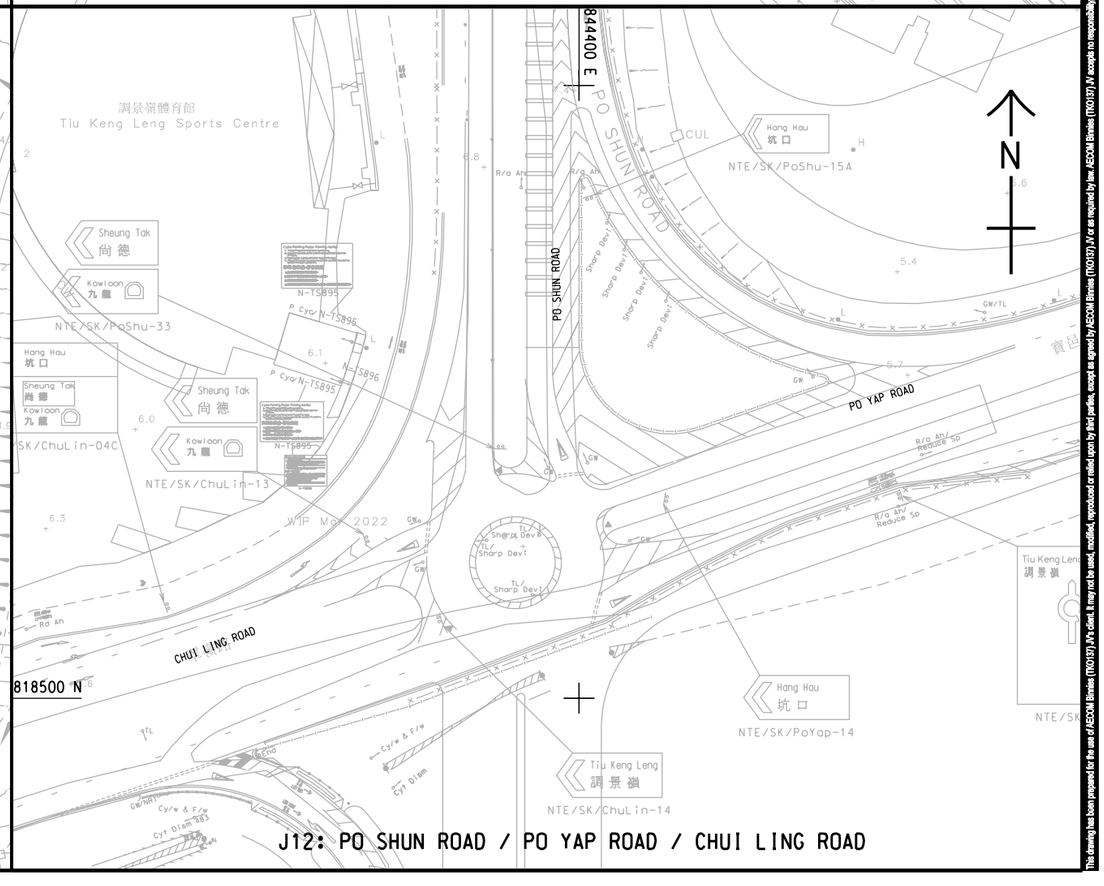
J9: WAN PO ROAD / ACCESS ROAD TO PAK SHING KOK



J10: WAN PO ROAD / PUNG LOI AVENUE



J11: WAN PO ROAD / PO YAP ROAD / CHIU SHUN ROAD



J12: PO SHUN ROAD / PO YAP ROAD / CHUI LING ROAD

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

Plot File by: LIY116104
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIATIA_513.dgn
2024/3/7

AECOM binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱

EXISTING JUNCTION LAYOUTS (SHEET 3 OF 9)

SHEET NUMBER
圖紙編號

FIGURE 4.4

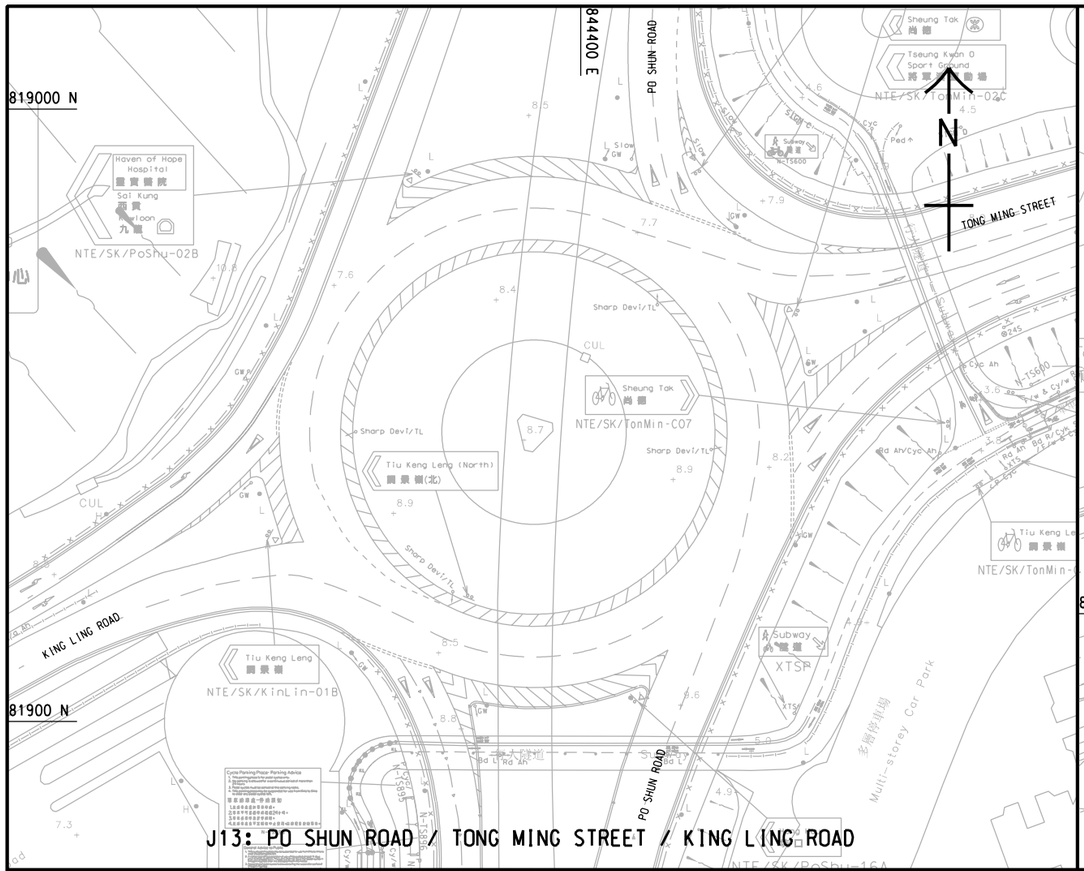
ISO A1 594mm x 841mm

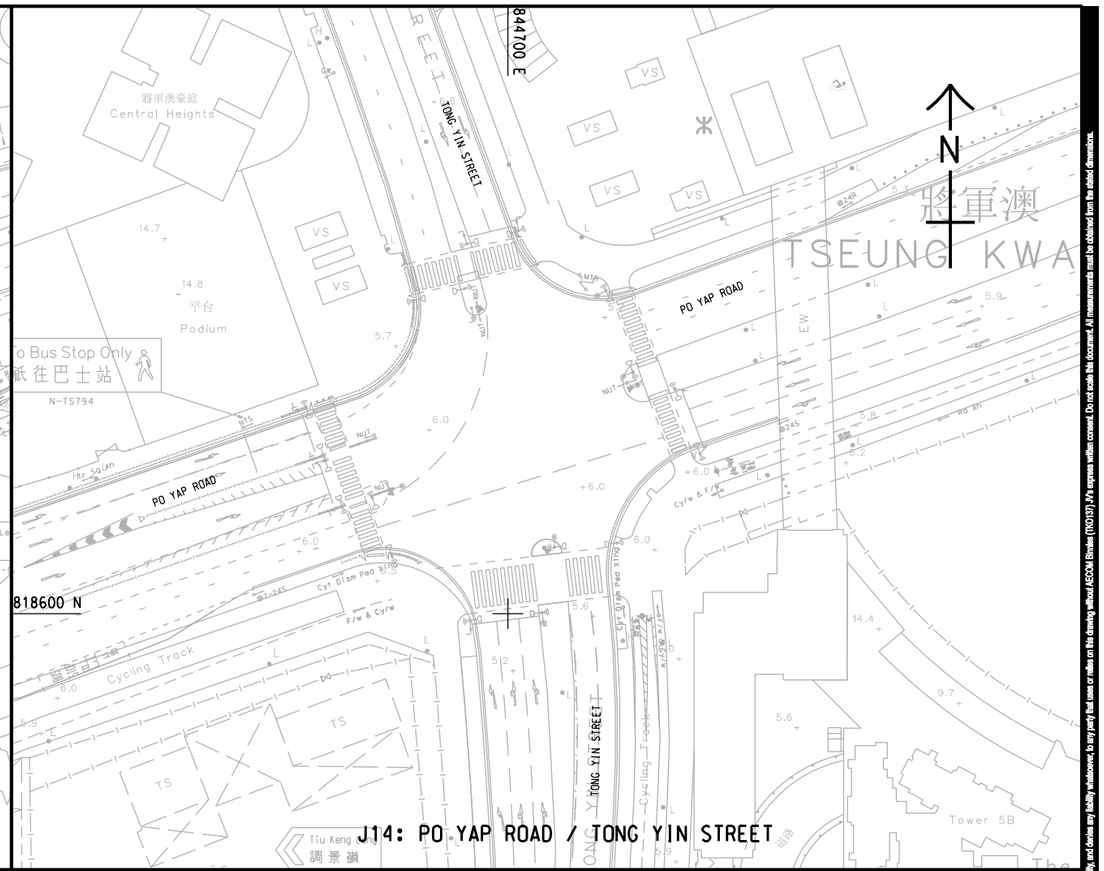
Approved:

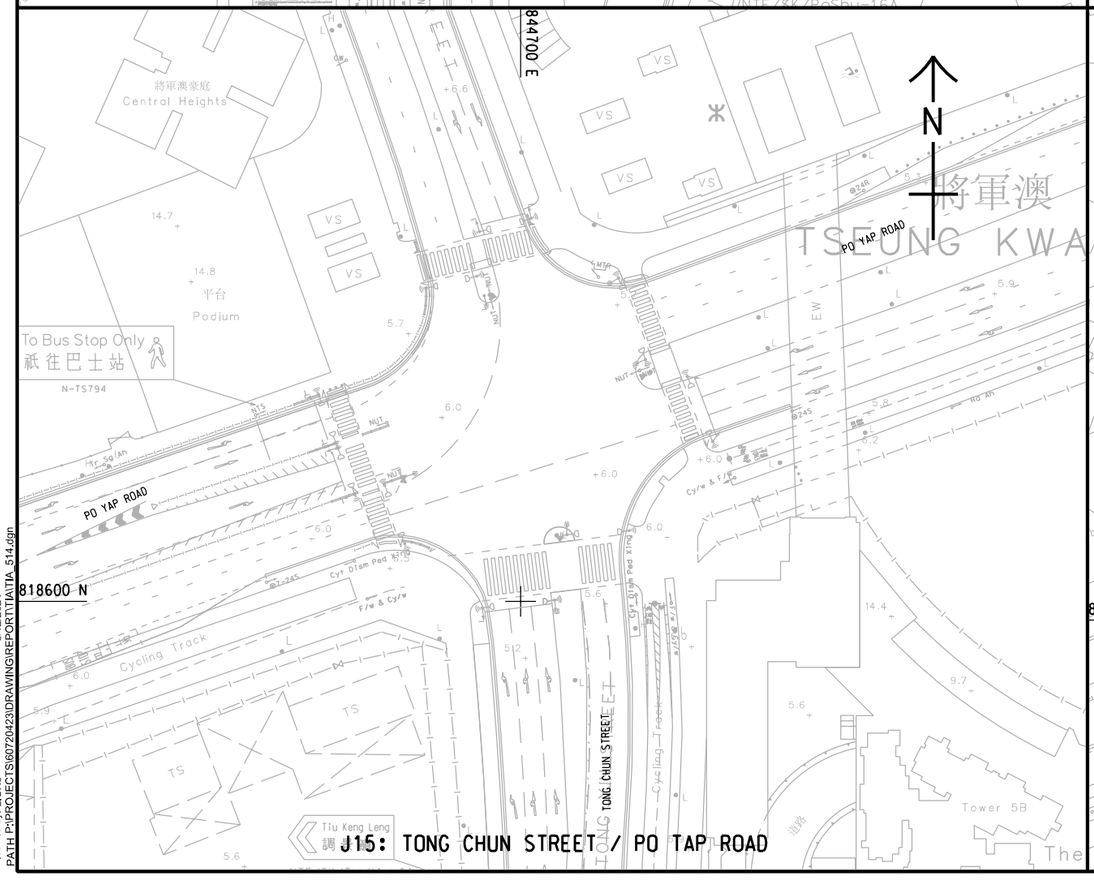
Checked:

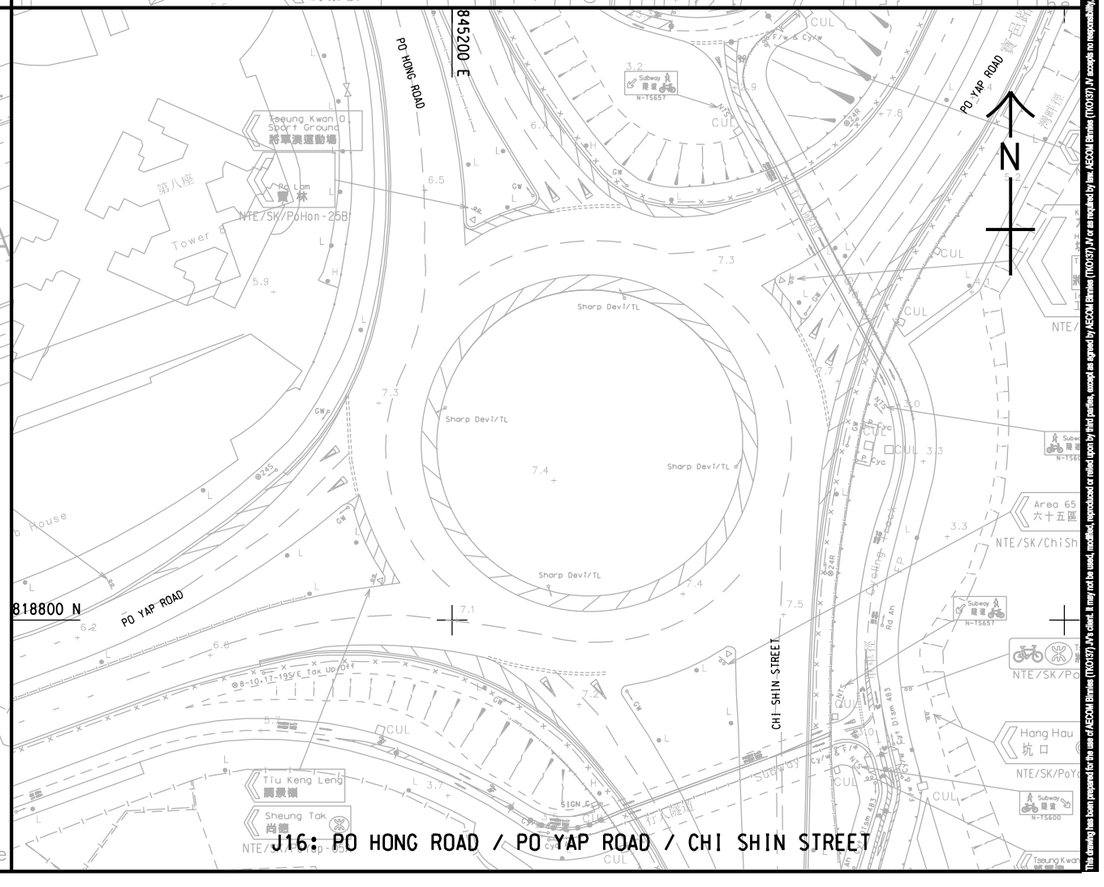
Designer:

Project Management Initials:









Plot File by: LIUH9
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIATIA_514.dgn
3/12/2024

AECOM binnies

PROJECT
項目

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱
EXISTING JUNCTION LAYOUTS
(SHEET 4 OF 9)

SHEET NUMBER
圖紙編號
FIGURE 4.5

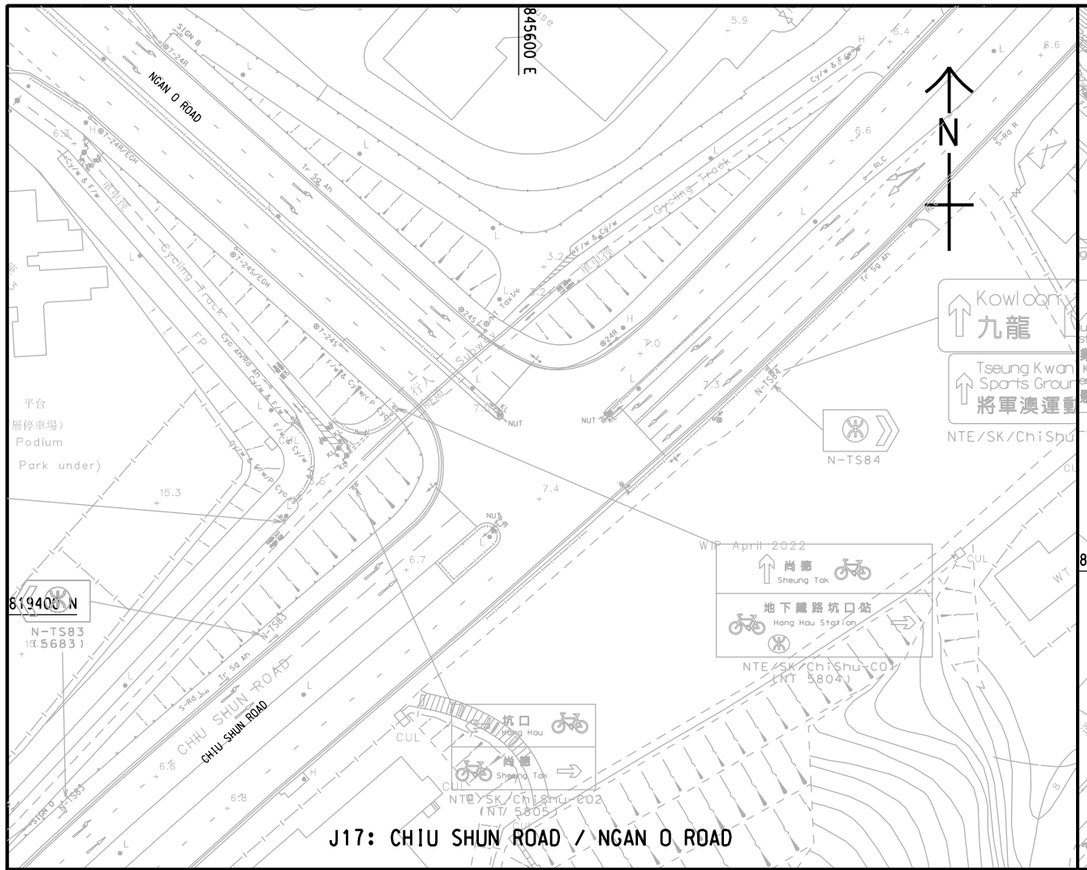
ISO A1 594mm x 841mm

Approved:

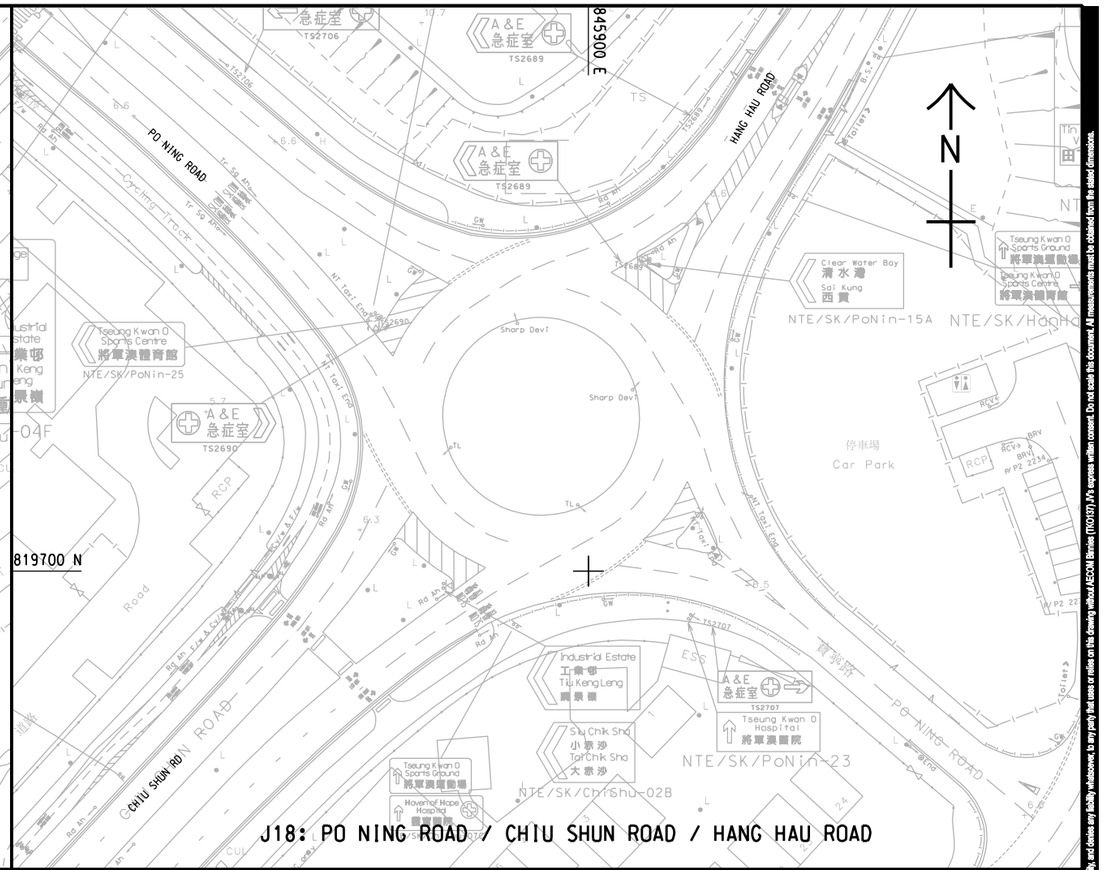
Checked:

Designer:

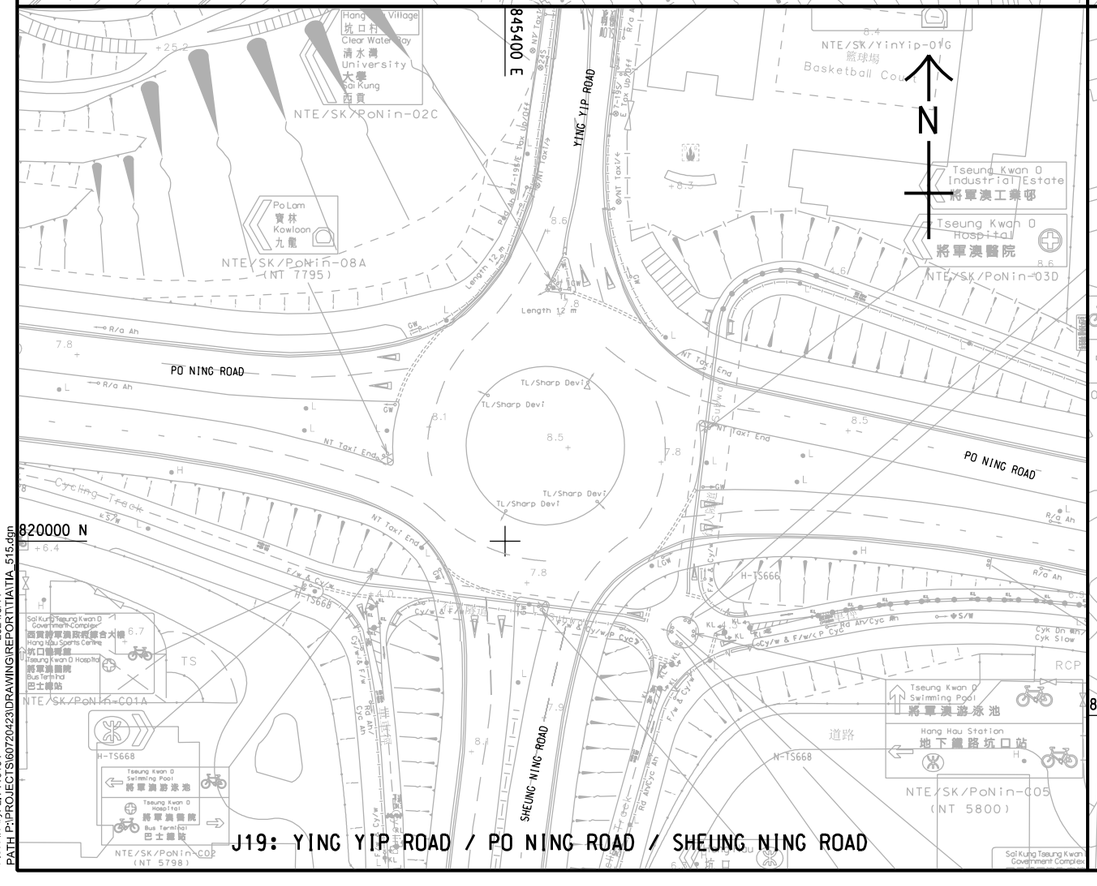
Project Management Initials:



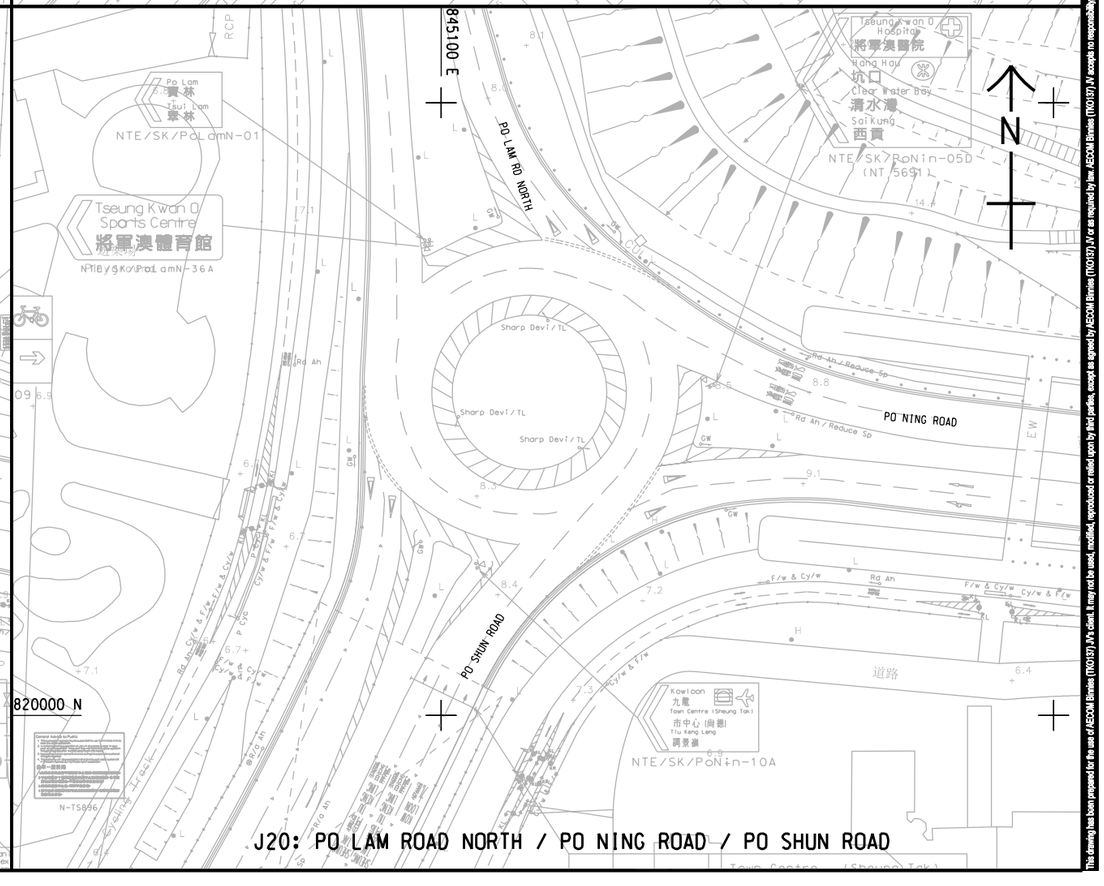
J17: CHIU SHUN ROAD / NGAN O ROAD



J18: PO NING ROAD / CHIU SHUN ROAD / HANG HAU ROAD



J19: YING YIP ROAD / PO NING ROAD / SHEUNG NING ROAD



J20: PO LAM ROAD NORTH / PO NING ROAD / PO SHUN ROAD

2024/3/11

Plot File by: LLY116104

PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIA\TIA_515.dgn

AECOM binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例: A3 1 : 1000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60720423

CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱

EXISTING JUNCTION LAYOUTS (SHEET 5 OF 9)

SHEET NUMBER
圖紙編號

FIGURE 4.6

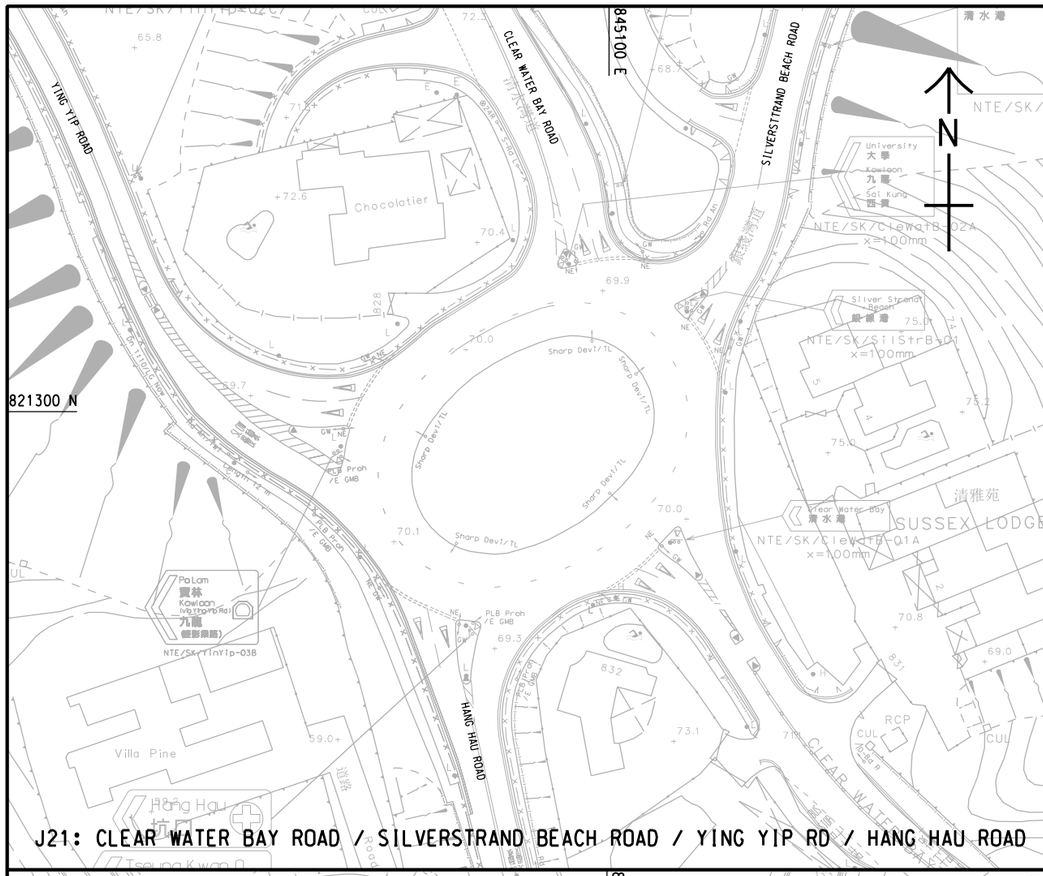
ISO A1 594mm x 841mm

Approved:

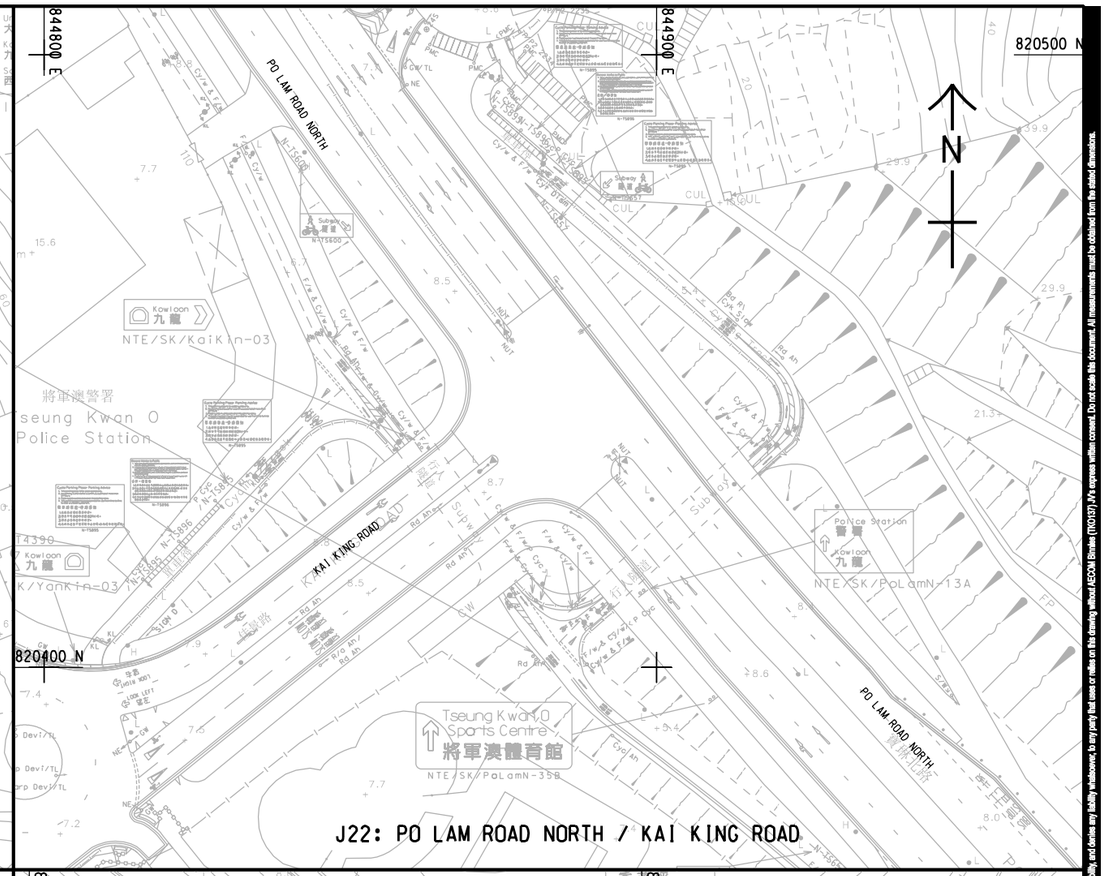
Checked:

Designer:

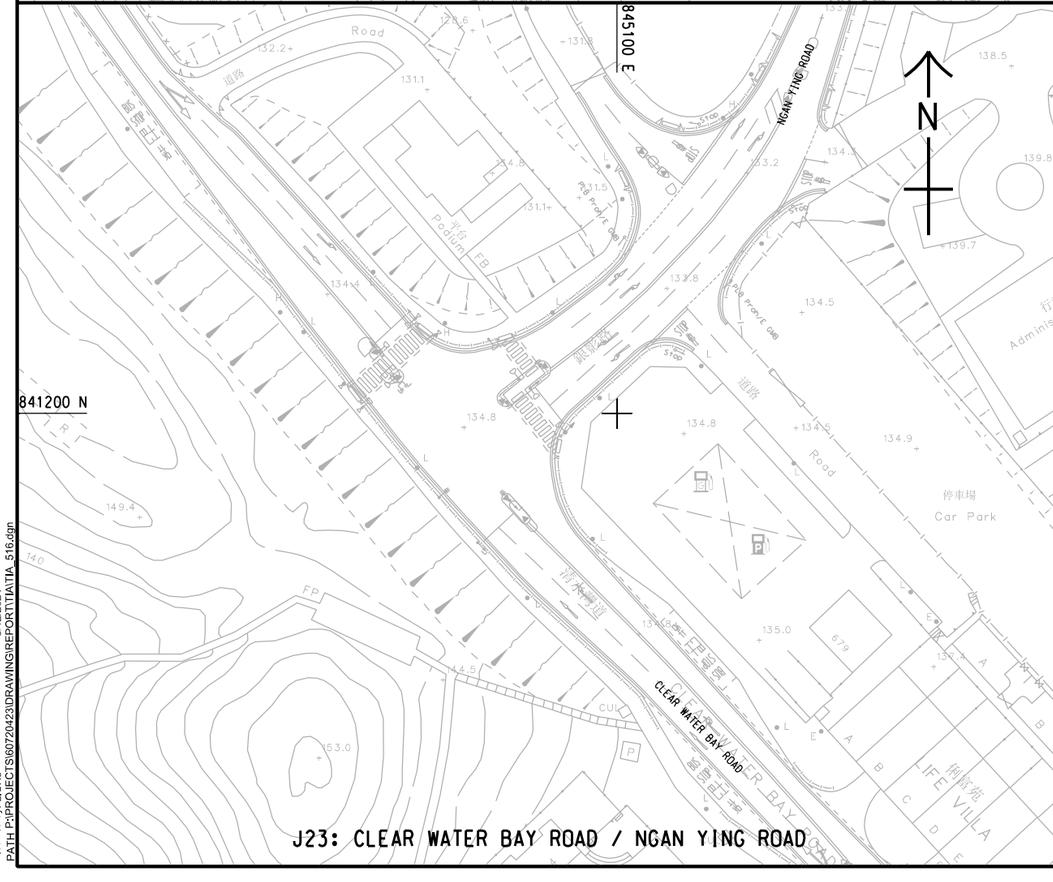
Project Management Initials:



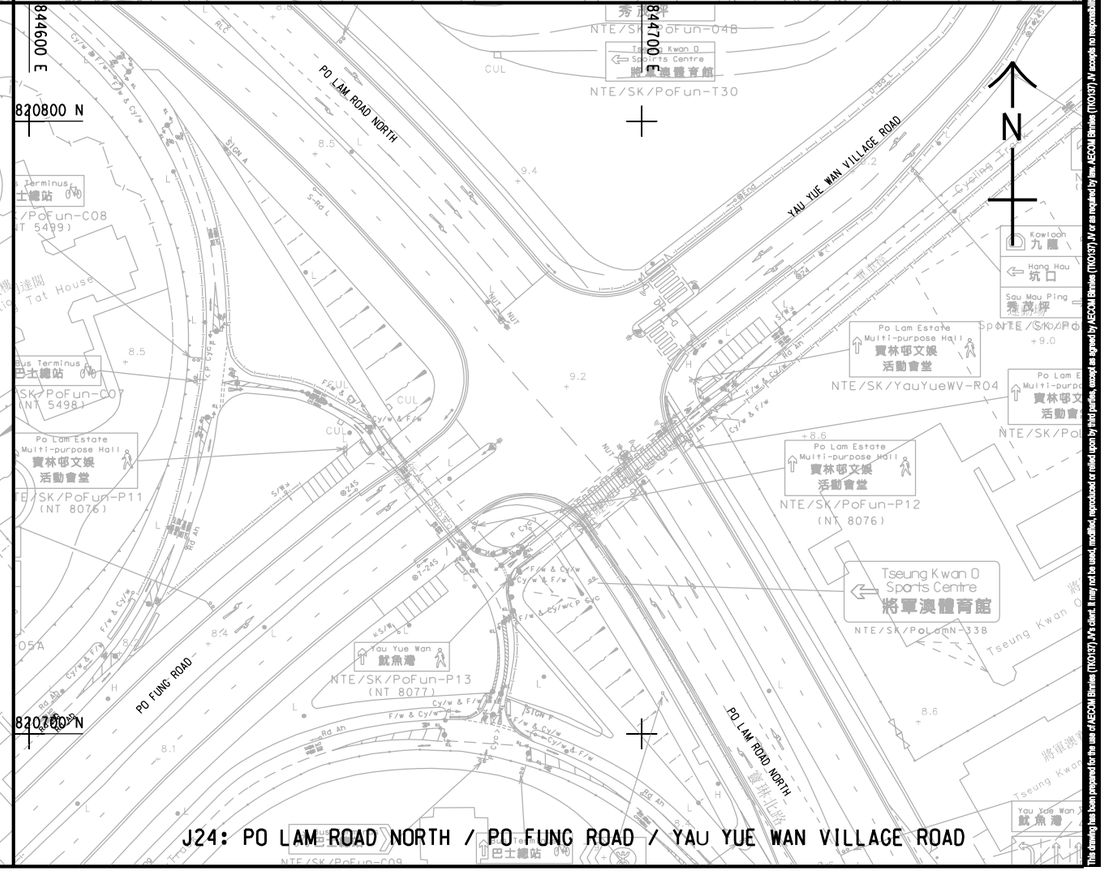
J21: CLEAR WATER BAY ROAD / SILVERSTRAND BEACH ROAD / YING YIP RD / HANG HAU ROAD



J22: PO LAM ROAD NORTH / KAI KING ROAD



J23: CLEAR WATER BAY ROAD / NGAN YING ROAD



J24: PO LAM ROAD NORTH / PO FUNG ROAD / YAU YUE WAN VILLAGE ROAD

Plot File by: LIUHB
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIATIA_516.dgn
31/2/2024

AECOM binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 有序修改	CHK. 核對

STATUS
狀況

SCALE 比例	DIMENSION UNIT 尺寸單位
A3 1 : 1000	METRES

KEY PLAN
索引圖

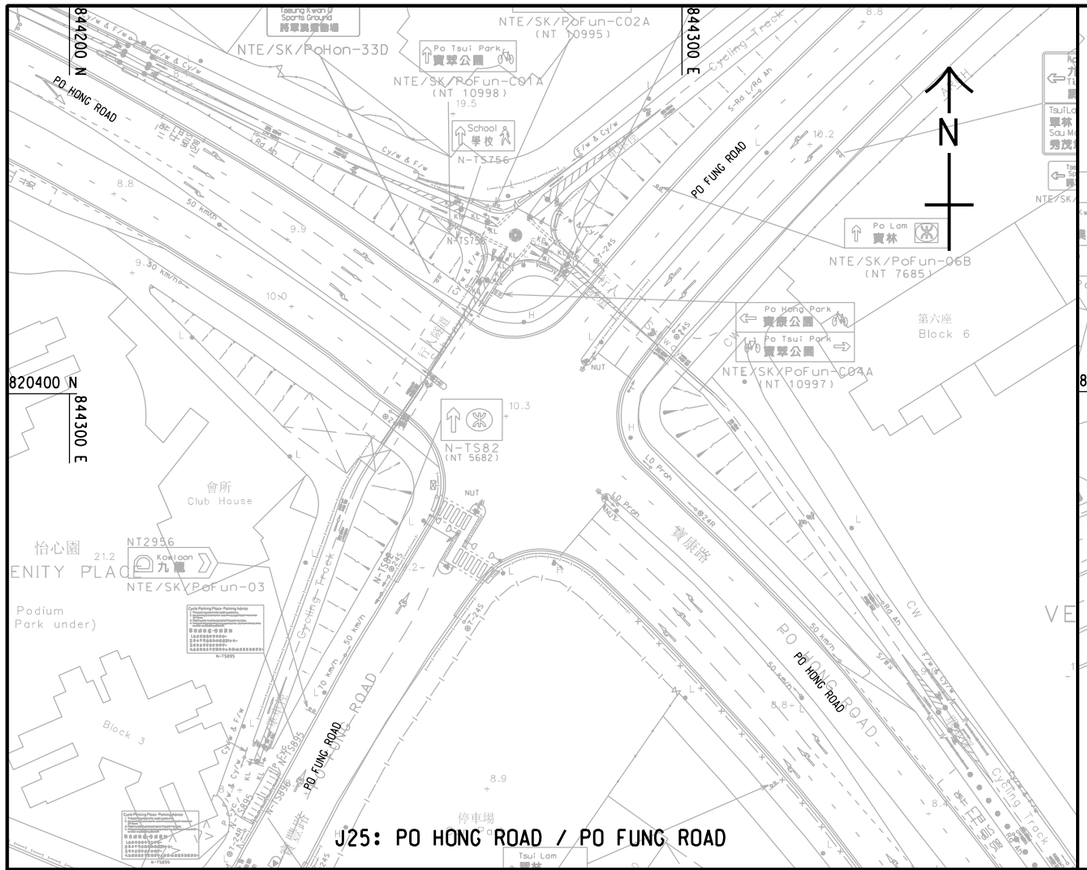
PROJECT NO. 項目編號	CONTRACT NO. 合約編號
60720423	CE 40/2023(CE)

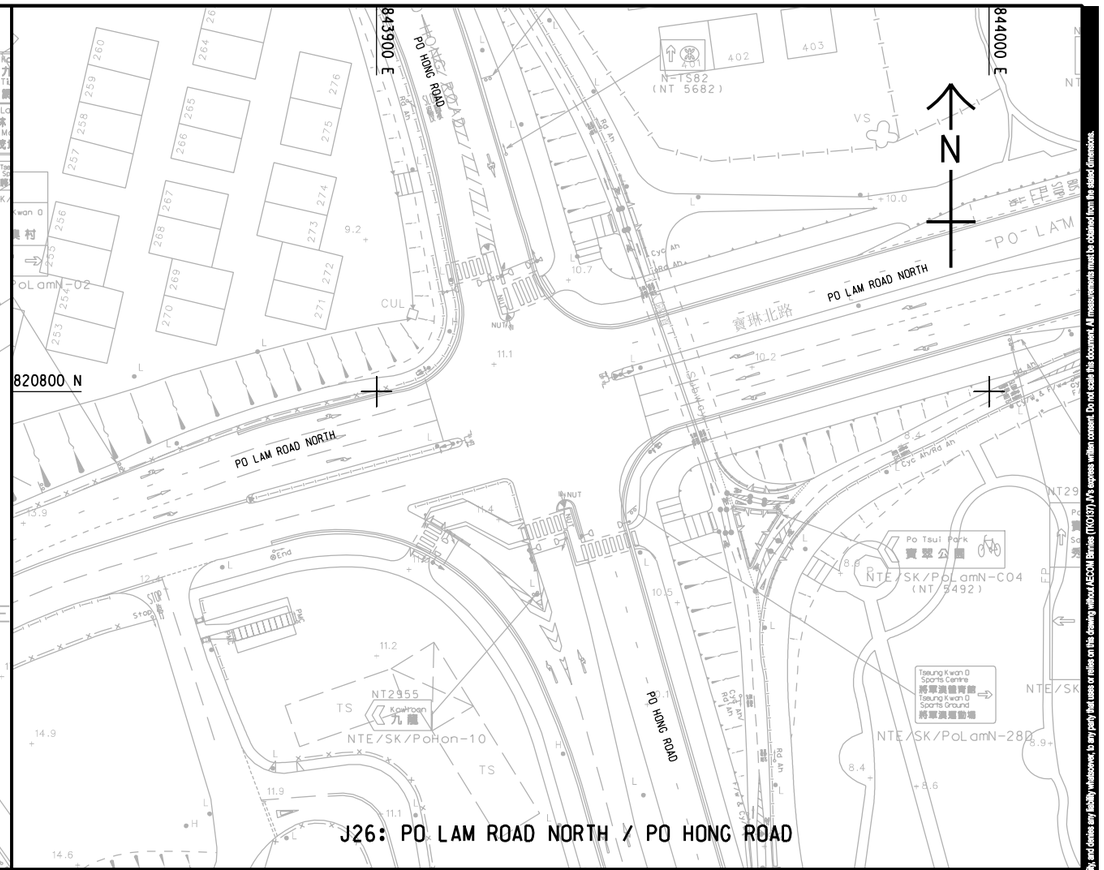
SHEET TITLE
頭紙名稱

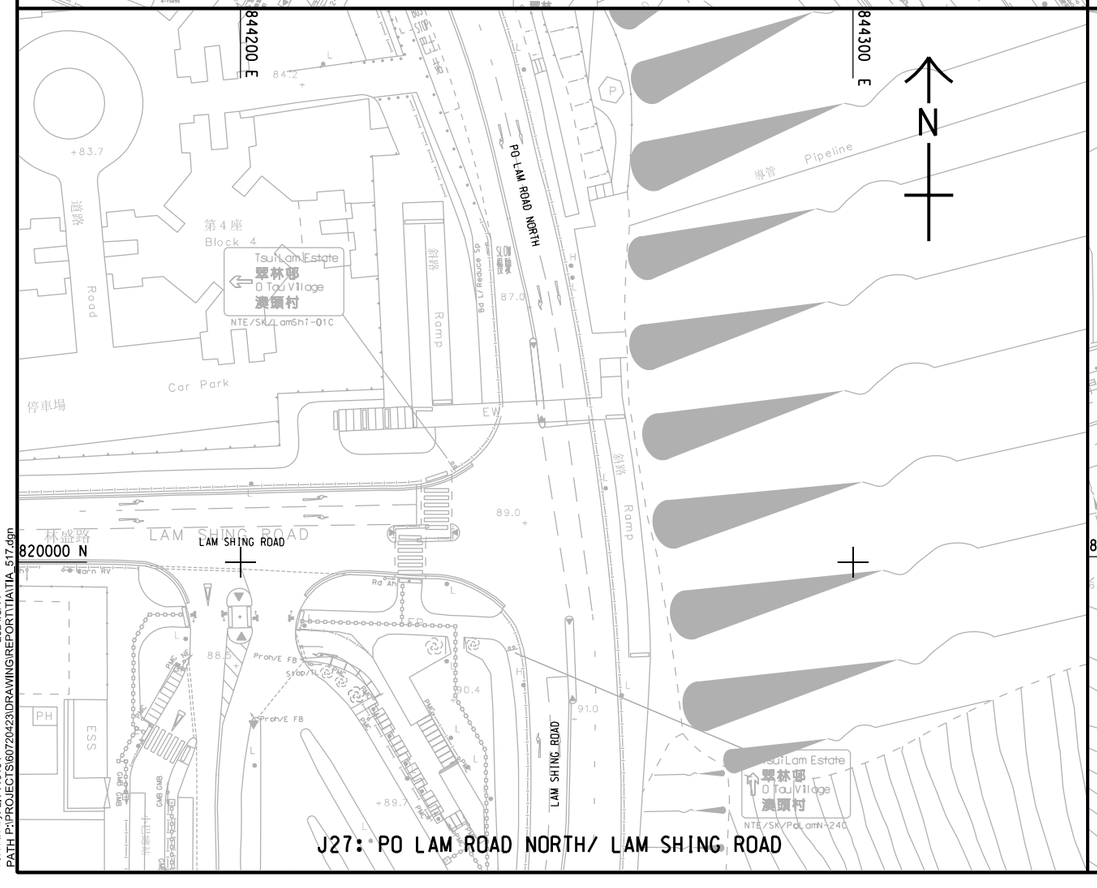
EXISTING JUNCTION LAYOUTS (SHEET 6 OF 9)

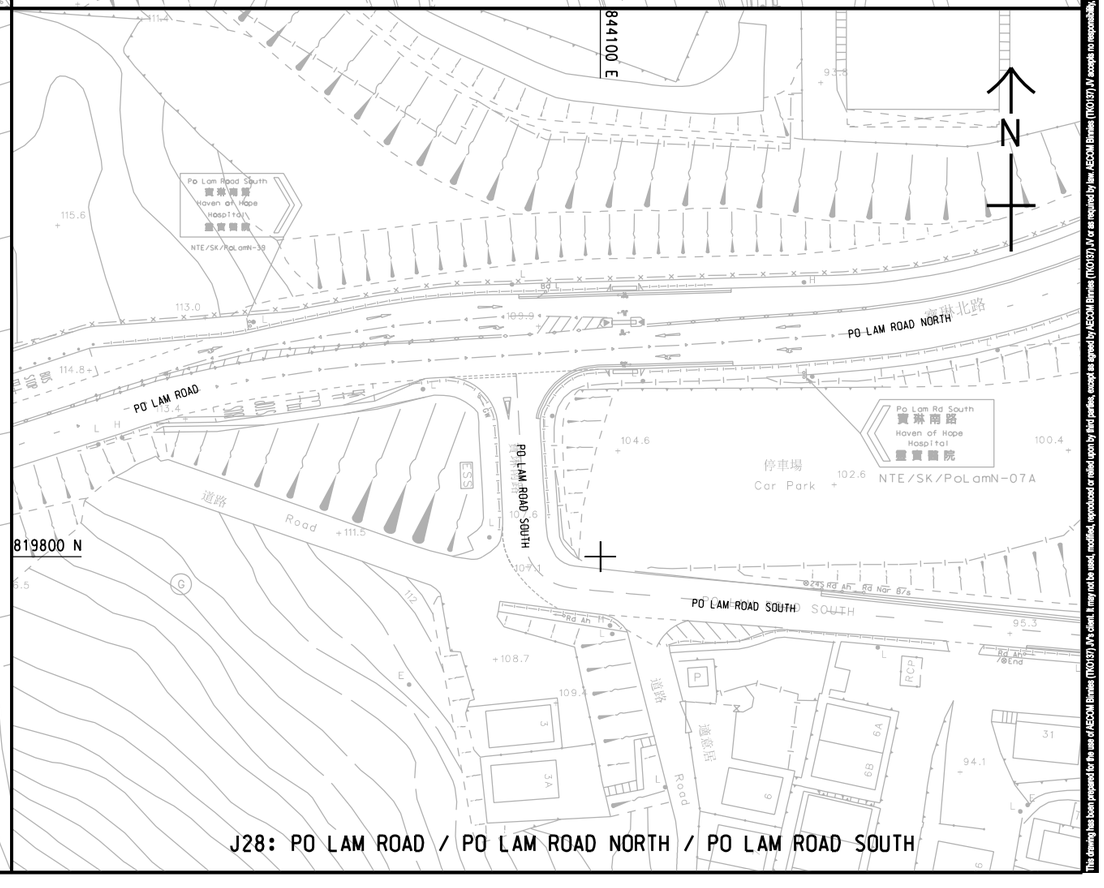
SHEET NUMBER
頭紙號碼

FIGURE 4.7









ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

2024/3/11

Plot File by: LIY116104
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIATIA_517.dgn

AECOM binnies

PROJECT
項目
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主
土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
工程顧問公司
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱
EXISTING JUNCTION LAYOUTS (SHEET 7 OF 9)

SHEET NUMBER
圖紙編號
FIGURE 4.8

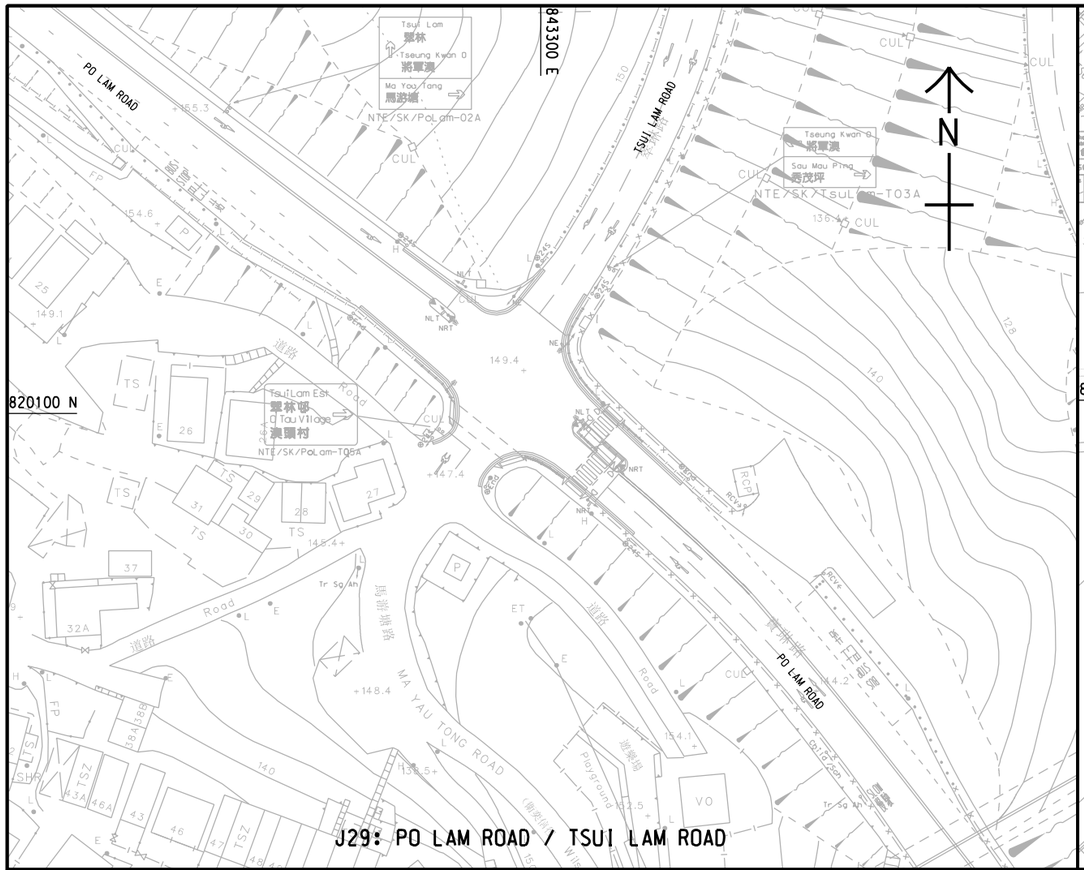
ISO A1 594mm x 841mm

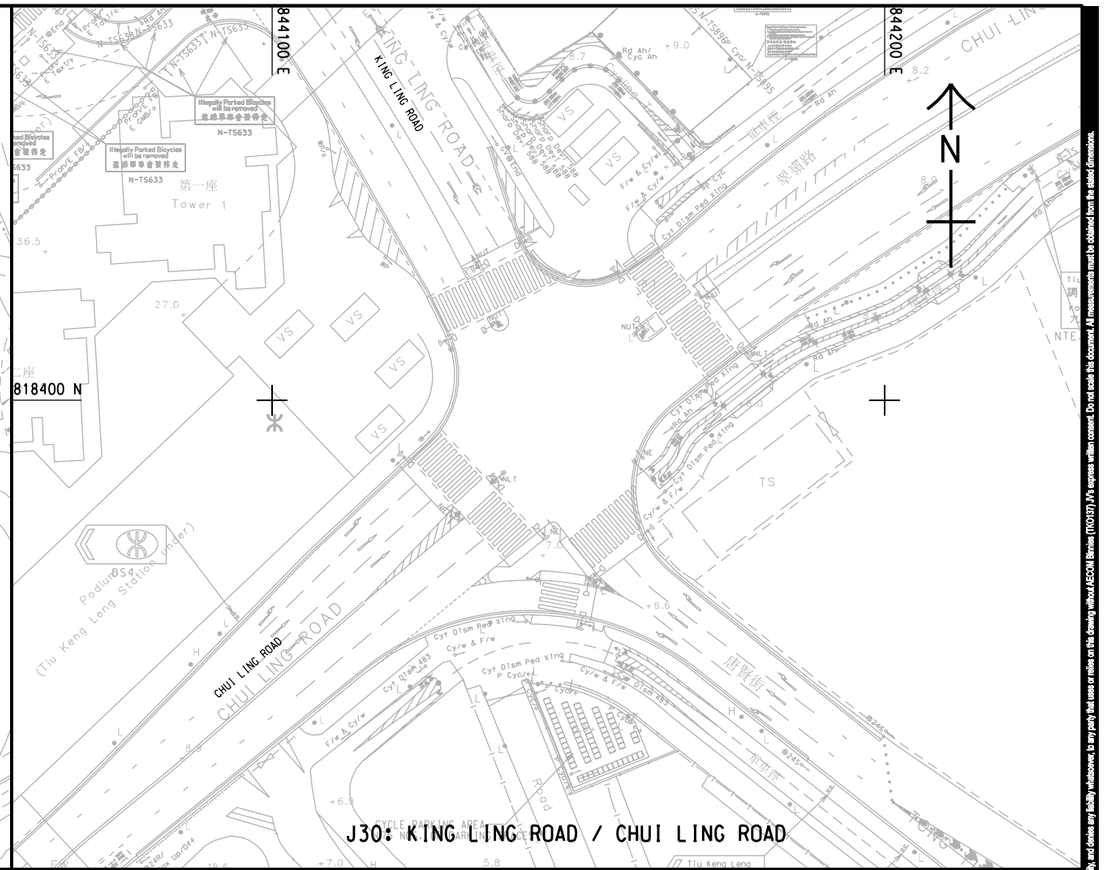
Approved:

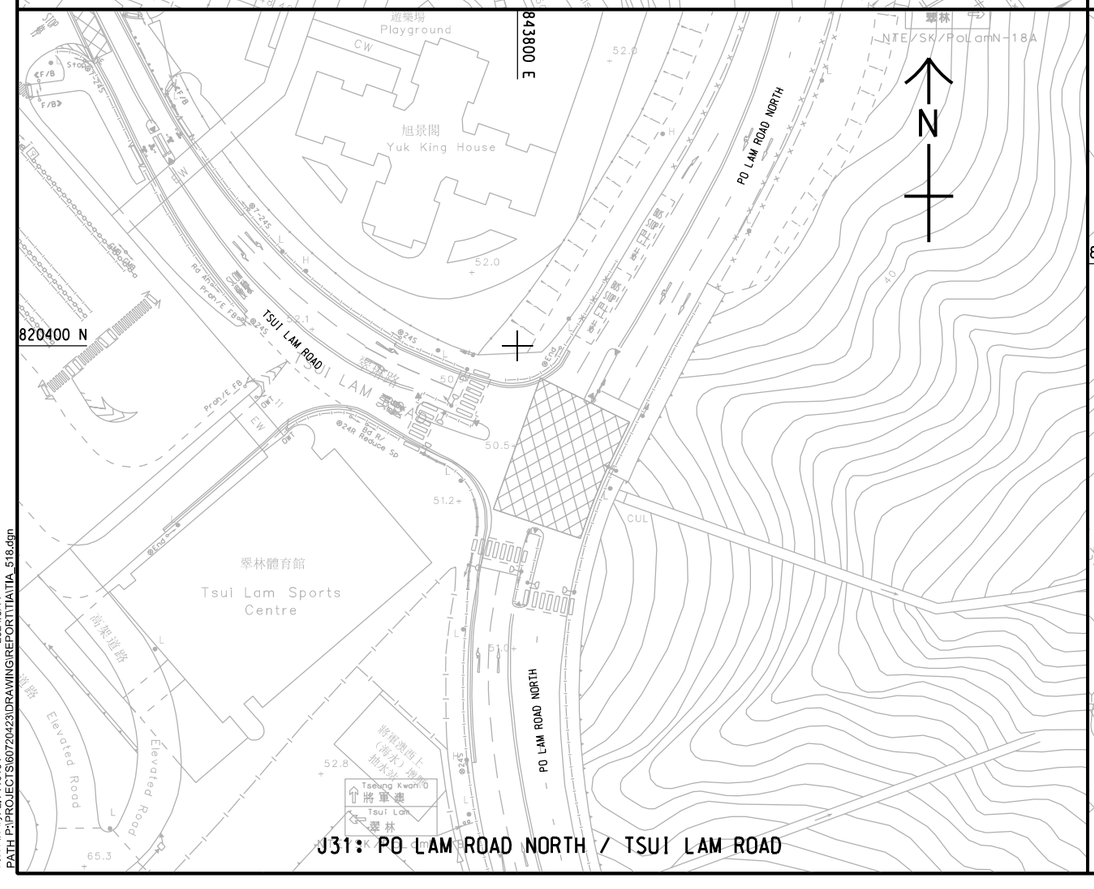
Checked:

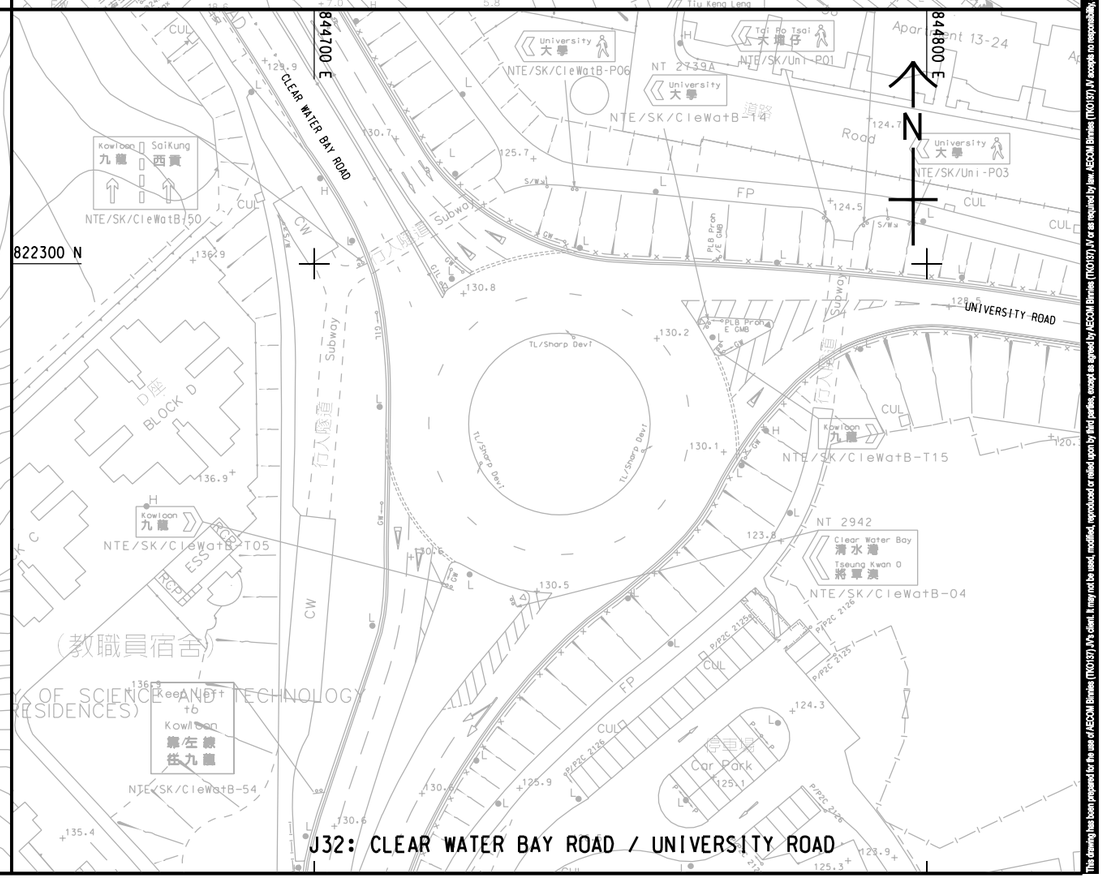
Designer:

Project Management Initials:









Plot File by: LIY116104
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\TIATIA_518.dgn
2024/3/11

AECOM binnies

PROJECT
項目
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主
土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
工程顧問公司
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例
A3 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

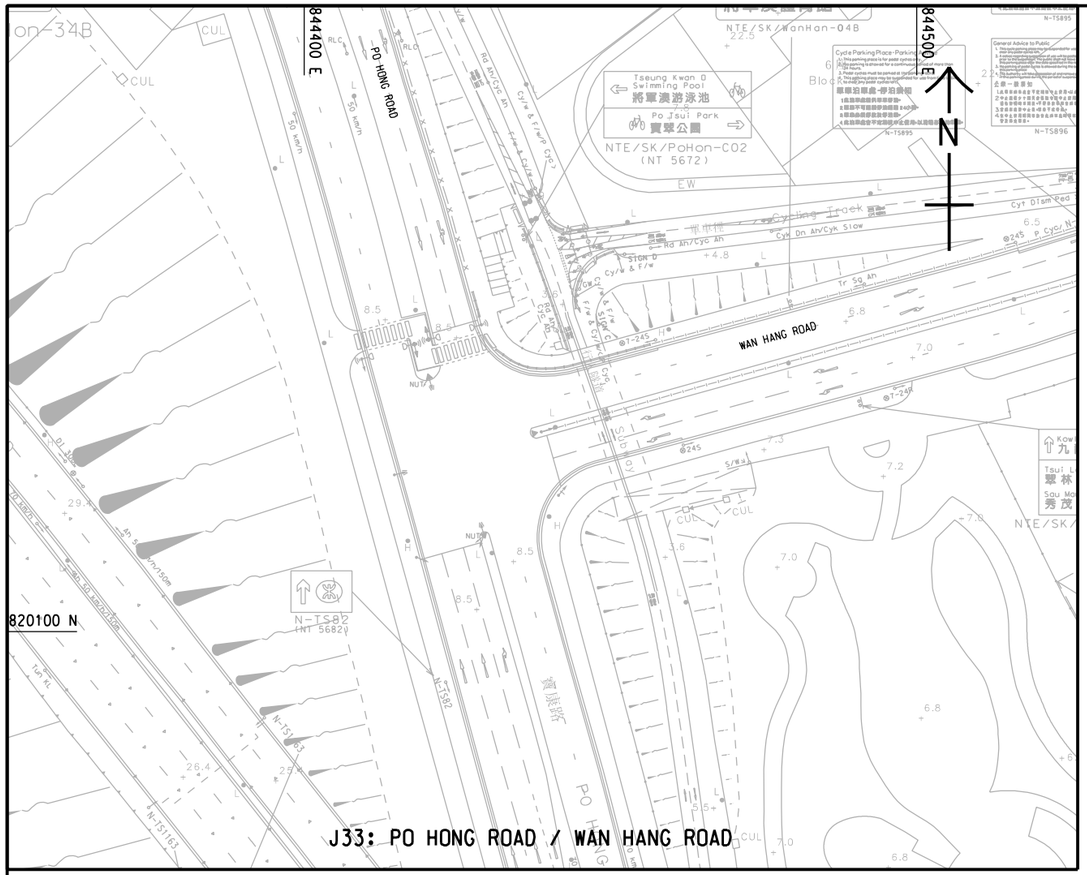
KEY PLAN
索引圖

PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱
EXISTING JUNCTION LAYOUTS (SHEET 8 OF 9)

SHEET NUMBER
圖紙編號
FIGURE 4.9



ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

Plot File by: LIY116104
PATH I:\PROJECTS\60720423\DRAWINGS\REPORT\TIA\TIA_519.dgn
2024/3/11

AECOM binnies

PROJECT
項目

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
狀況

SCALE 比例 — **DIMENSION UNIT** 尺寸單位

A3 1 : 1000

KEY PLAN
索引圖

PROJECT NO. 項目編號 — **CONTRACT NO.** 合約編號

60720423 — CE 40/2023(CE)

SHEET TITLE
圖紙名稱

EXISTING JUNCTION LAYOUTS
(SHEET 9 OF 9)

SHEET NUMBER
圖紙編號

FIGURE 4.10

816000 N
815000 N
814000 N
845000 E
846000 E
847000 E

LEGEND:
PROJECT BOUNDARY
300m ASSESSMENT AREA
ROAD

N

HA SHAN TUK

60720423/B30/FIGURE 4.9a

FAT TONG CHAU
FAT TONG CHAU

ROAD L1
ROAD L2
ROAD L3
ROAD L4
ROAD L5
ROAD L6
ROAD L7
ROAD L8

TIT CHAM CHAU
TIT CHAM CHAU

Cape Collinson
(Hak Kok Tau)
NGAN WAN

60720423/B30/FIGURE 4.9b

AECOM Binnies

PROJECT
項目
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主
土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT
土木顧問公司
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
狀況

SCALE 比例: A1 1 : 5000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60720423
CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱
OPTIMISED ROAD TRAFFIC NOISE MITIGATION MEASURES AT TKO 137 (KEY PLAN)

SHEET NUMBER
圖紙編號
FIGURE 5.1

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

845600 E

846000 E

846400 E

815600 N

815200 N

814800 N

N

NOTE:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60720423/B30/FIGURE 4.9a TO 4.9b.

LEGEND:

- PROJECT BOUNDARY
- 300m ASSESSMENT AREA
- RESIDENTIAL FACADES THAT NEED AT-RECIEVER MITIGATION MEASURES SUCH AS ACOUSTIC WINDOW
- SCHOOL FACADES THAT NEED NOISE INSULATION WITH SUITABLE WINDOW TYPE AND AIR-CONDITIONING
- LOW NOISE ROAD SURFACING MATERIALS
- REPRESENTATIVE NOISE ASSESSMENT POINT

ROAD L2
ROAD L3
ROAD L4
ROAD L8
ROAD L1
ROAD L5

P-PU1-R-T01_01
P-PU1-R-T02_01
P-PU1-R-T02_02
P-PU1-R-T02_03
P-PU1-R-T02_04
P-PU1-R-T02_05
P-PU1-R-T03_01
P-PU1-R-T04_01
P-PU1-R-T04_02
P-PU1-R-T04_03
P-PU1-R-T04_04
P-PU2-R-T01_01
P-PU2-R-T01_02
P-PU2-R-T02_01
P-PU2-R-T03_01
P-PU2-R-T04_01
P-PU2-R-T05_01
P-PU2-R-T06_01
P-PU3-R-T01_01
P-PU3-R-T02_01
P-PU3-R-T02_02
P-PU3-R-T02_03
P-PU3-R-T03_01
P-PU3-R-T03_02
P-PU3-R-T04_01
P-PU3-R-T04_02
P-PU4-R-T01_01
P-PU4-R-T01_02
P-PU4-R-T02_01
P-PU4-R-T03_01
P-PU4-R-T03_02
P-PU4-R-T04_01
P-E1-E-T01_01
P-E1-E-T01_02
P-E1-E-T01_03
P-E1-E-T01_04
P-E2-E-T01_01
P-E2-E-T01_02
P-E2-E-T01_03
P-PR1-R-T01_01
P-PR1-R-T02_01
P-PR1-R-T03_01
P-PR2-R-T01_01
P-PR2-R-T02_01
P-PR2-R-T03_01

CUT LINE A-A

SEE DRAWING NO. 60720423/B30/FIGURE 4.9b

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10/26/2024
Plot File by: haiquan.zhao
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_778.dgn

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

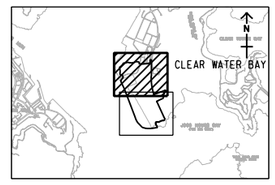
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核

STATUS
階段

SCALE 比例
A1 1 : 2000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖 A1 1 : 80000



PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE 圖紙名稱
OPTIMISED ROAD TRAFFIC NOISE MITIGATION MEASURES AT TKO 137

SHEET 1 OF 2

SHEET NUMBER 圖紙編號
FIGURE 5.2

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

CUT LINE A-A

SEE DRAWING NO.
60720423/B30/FIGURE 4.9a

845600 E

846000 E

846400 E

846800 E

814400 N

814000 N

N

P-PR3-R-T01_01
P-PR3-R-T01_02
P-PR3-R-T02_01
P-PR3-R-T02_02
P-PR3-R-T03_01
P-PR4-R-T01_01
P-PR4-R-T02_01
P-PR4-R-T03_01
P-PR5-R-T01_01
P-PR5-R-T02_01
P-PR5-R-T02_02
P-PR5-R-T03_01
P-PR5-R-T04_01
P-PR5-R-T04_02
P-PU5-R-T01_01
P-PU5-R-T01_02
P-PU5-R-T02_01
P-PU5-R-T02_02
P-PU5-R-T03_02
P-PU5-R-T04_01
P-PU5-R-T04_02
P-PU6-R-T01_01
P-PU6-R-T01_02
P-PU6-R-T02_01
P-PU6-R-T02_02
P-PU6-R-T03_01
P-PU6-R-T04_01
P-PU6-R-T05_01
P-PU6-R-T05_02
P-PU6-R-T06_01
P-PU6-R-T06_02
P-E3-E-T01_01
P-E3-E-T01_02
P-E4-E-T01_01
P-E5-E-T01_01
P-E5-E-T01_02
P-E5-E-T01_03

ROAD L6

ROAD L7

TIT CHAM CHAU

NOTE:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60720423/B30/FIGURE 4.9a TO 4.9b.

LEGEND:

- PROJECT BOUNDARY
- 300m ASSESSMENT AREA
- SCHOOL FACADES THAT NEED NOISE INSULATION WITH SUITABLE WINDOW TYPE AND AIR-CONDITIONING
- LOW NOISE ROAD SURFACING MATERIALS
- REPRESENTATIVE NOISE ASSESSMENT POINT

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10/26/2024
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PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_779.dgn

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

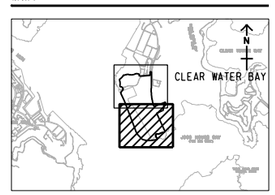
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核對

STATUS
階段

SCALE 比例 — A1 1 : 2000

DIMENSION UNIT 尺寸單位 — METRES

KEY PLAN 索引圖 A1 1 : 80000



PROJECT NO. 項目編號 — 60720423

CONTRACT NO. 合約編號 — CE 40/2023(CE)

SHEET TITLE
圖紙名稱

OPTIMISED ROAD TRAFFIC
NOISE MITIGATION MEASURES
AT TKO 137

SHEET 2 OF 2

SHEET NUMBER
圖紙編號

FIGURE 5.3

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

844800 E

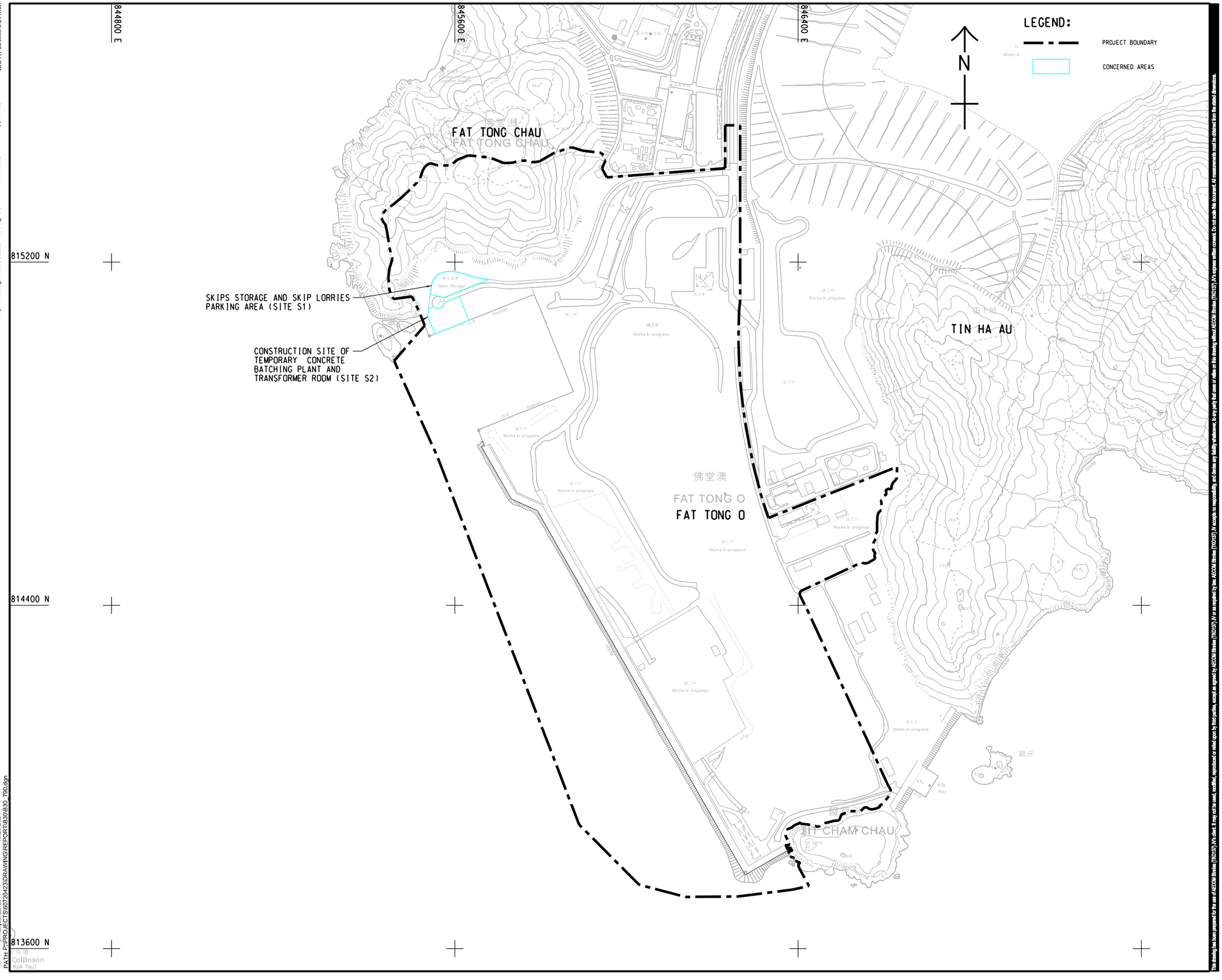
845600 E

846400 E

815200 N

814400 N

813600 N



AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 修訂摘要	CHK. 核核

STATUS
階段

SCALE 比例
A1 1 : 4000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱

AREAS WITH POTENTIAL LAND CONTAMINATION CONCERNS

SHEET NUMBER
圖紙編號

FIGURE 5.4

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Plot File by: haiquan.zhao 10/26/2024
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B3\0830_790.dgn

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND:

- PROJECT BOUNDARY
- PROPOSED SLOPING SEAWALL
- PROPSOED VERTICAL SEAWALL
- RECLAMATION
- SEDIMENT REMOVAL
- PERMANENTLY AFFECTED AREA
- TEMPORARILY AFFECTED AREA
- CLEAR WATER BAY COUNTRY PARK
- CORAL RECIPIENT SITE FOR TRANSLOCATED CORALS UNDER PREVIOUS PROJECTS

HABITAT:

- MIXED WOODLAND
- SHRUBLAND
- SHRUBBY GRASSLAND/GRASSLAND
- PLANTATION
- DEVELOPED AREA
- ROCKY SHORE
- NATURAL WATERCOURSE
- MODIFLED WATERCOURSE
- SUBTIDAL HARD SUBSTRATA (INDICATIVE)
- SUBTIDAL SOFT SUBSTRATA (INDICATIVE)
- ECOLOGICAL SURVEY RESULT ON HARD CORAL COLONIES (COVERAGE : <1-5%)
- ECOLOGICAL SURVEY RESULT ON HARD CORAL COLONIES (COVERAGE : 6-10%)

SPECIES OF CONSERVATION IMPORTANCE:

CURRENT STUDY

FLORA(GROUP):

- *MARSDENIA LACHNOSTOMA*

FLORA:

- P1 *DIOSPYROS VACCINIOIDES*

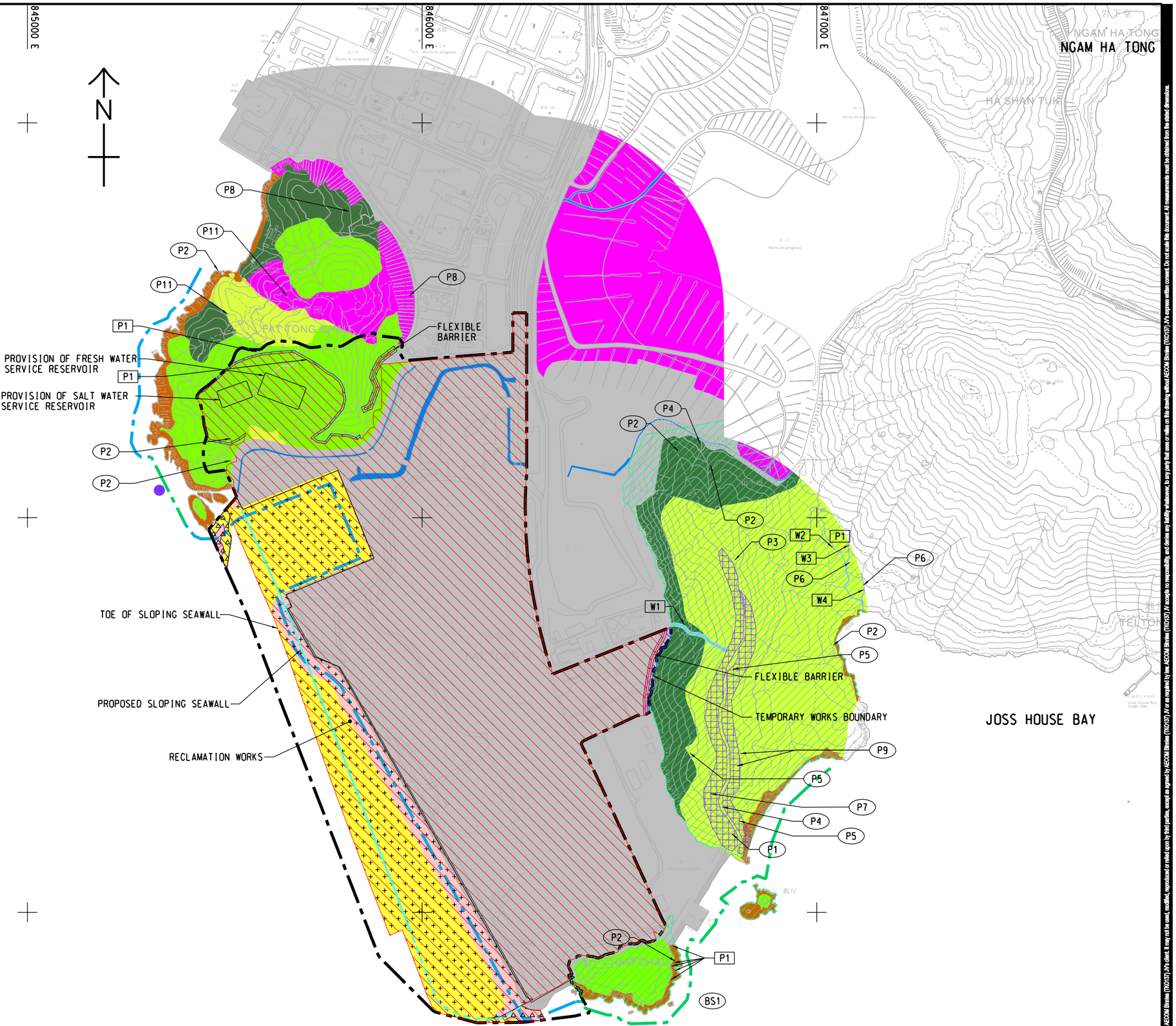
PREVIOUS STUDIES:

FLORA:

- P1 *CYNANCHUM PANICULATUM*
- P2 *DIOSPYROS VACCINIOIDES*
- P3 *HABENARIA LINGUELLA*
- P4 *LILIUM BROWNII*
- P5 *MARSDENIA LACHNOSTOMA*
- P6 *NEPENTHES MIRABILIS*
- P7 *PACHYSTOMA PUBESCENS*
- P8 *PAVETTA HONGKONGENSIS*
- P9 *PECTEILIS SUSANNAE*
- P10 *PLATYCODON GRANDIFLORUS*
- P11 *PYRENARIA SPECTABILIS*

AMPHIOXUS:

- BS1 *BRANCHIOSTOMA BELCHERI*



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12/5/2024
Plot File by: WangMB
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_823.dgn

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

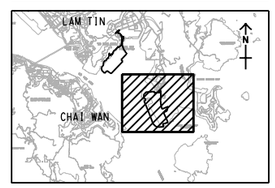
I/R 修訂	DATE 日期	DESCRIPTION 修改摘要	CHK. 核准

STATUS
狀況

SCALE 比例
A1 1 : 5000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN A1 1 : 150000
索引圖



PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱

PERMANENTLY AND TEMPORARILY AFFECTED AREA (TKO 137)

SHEET NUMBER
圖紙編號

FIGURE 5.5

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

LEGEND:

- PROJECT BOUNDARY
- PROPOSED VERTICAL SEAWALL
- PROPOSED SLOPING SEAWALL
- PROPOSED MARINE VIADUCT
- PERMANENTLY AFFECTED AREA
- TEMPORARILY AFFECTED AREA
- RECLAMATION
- SEDIMENT REMOVAL
- CORAL RECIPIENT SITE FOR TRANSLOCATED CORALS UNDER PREVIOUS PROJECTS

HABITAT:

- MIXED WOODLAND
- SHRUBLAND
- PLANTATION
- DEVELOPED AREA
- SOFT SHORE
- ROCKY SHORE
- NATURAL WATERCOURSE
- SUBTIDAL HARD SUBSTRATA (INDICATIVE)
- SUBTIDAL SOFT SUBSTRATA (INDICATIVE)
- ECOLOGICAL SURVEY RESULT ON HARD CORAL COLONIES (COVERAGE : <1-5%)
- ECOLOGICAL SURVEY RESULT ON HARD CORAL COLONIES (COVERAGE : 6-10%)
- ECOLOGICAL SURVEY RESULT ON BLACK CORAL COLONIES (COVERAGE : <1-5%)

SPECIES OF CONSERVATION IMPORTANCE:

CURRENT STUDY

FLORA:

- P1 *BRAINEA INSIGNIS*
- P2 *DIOSPYROS VACCINIOIDES*

AVIFAUNA:

- A1# BLACK KITE NESTING

PREVIOUS STUDIES

FLORA:

- P1 *DIOSPYROS VACCINIOIDES*
- P2 *ARUNDINA GRAMINIFOLIA*

843000 E

844000 E

845000 E

816000 N

N

TSEUNG KWAN O

CHIU KENG WAN SHAN

O KING ROAD

TKO CHINESE PERMANENT CEMETERY

SOIL ANCHORAGE ZONE

FLEXIBLE BARRIER

S1

S2

PROPOSED MARINE VIADUCT AND VIADUCT PIER (INDICATIVE ONLY)

CHIU KENG WAN

RIGID BARRIER

FLEXIBLE BARRIER

A1#

PROPOSED SLOPING SEAWALL

DEVIL'S PEAK

CUT SLOPE EXTENT

S3

RIGID BARRIER

RIGID BARRIER

CUT SLOPE EXTENT

RIGID BARRIER

TOE OF SEAWALL

JUNK BAY (TSEUNG KWAN O)

RECLAMATION WORKS

S4

S5

MA WAN TSUEN

PROPOSED VERTICAL SEAWALL

TOE OF SEAWALL

LEI YUE MUN POINT

P1

P2

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Plot File by: haiquan.zhao
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_824.dgn
12/12/2024

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

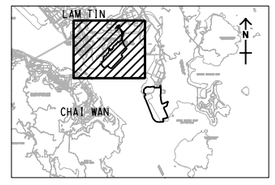
I/R 修訂	DATE 日期	DESCRIPTION 修改說明	CHK. 核對

STATUS
地位

SCALE 比例: A1 1 : 5000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖 A1 1 : 150000



PROJECT NO. 項目編號: 60720423

CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱

PERMANENTLY AND TEMPORARILY AFFECTED AREA (TKO 132)

SHEET NUMBER
圖紙號碼

FIGURE 5.6

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

842000 E

844000 E

846000 E

818000 N

816000 N

814000 N

TIU KENG LENG

LOHAS PARK

TSEUNG KWAN O INNOPARK

CLEAR WATER BAY

FAT TONG CHAU

BARGING BASIN

CLEAR WATER BAY COUNTRY PARK

SIU SAI WAN

TKO 132

TKO 137

LR14 LR6 LR8 LR10 LR6 LR10 LR11 LR13 LR6 LR12 LR6 LR13 LR9 LR9 LR12 LR6 LR2 LR9

LR14 LR8 LR3 LR4 LR7 LR8 LR4 LR1 LR4 LR5 LR1 LR4 LR4 LR6 LR3

N

LEGEND:

	PROJECT BOUNDARY
	100m ASSESSMENT AREA
LR1	VEGETATION WITHIN TKO 137
LR2	HILLSIDE VEGETATION AT DEVIL'S PEAK
LR3	SHRUBLAND AT TIT CHAM CHAU AND FAT TONG CHAU
LR4	VEGETATION ALONG DRAINAGE CHANNEL
LR5	HILLSIDE VEGETATION ALONG EASTERN BOUNDARY OF TKO 137
LR6	COASTAL WATER
LR7	SENT LANDFILL
LR8	ROADSIDE PLANTING
LR9	ROCKY SHORE ALONG WESTERN COASTLINE OF JUNK BAY
LR10	VEGETATION ON MODIFIED SLOPE AND AMENITY PLANTING
LR11	HILLSIDE VEGETATION AT CHIU KENG WAN SHAN
LR12	ORCHARD/ VEGETATION NEAR RURAL SETTLEMENT
LR13	SANDY SHORE ALONG WESTERN COASTLINE OF JUNK BAY
LR14	VEGETATION IN DEVELOPED AREA
	LAYOUT
	VIADUCT PIER

V:\BAK\US95-BAK\CSWP\plotdrv\Create Plt: file\new\CSWP-75(color).plt
2024/10/28
Plot File by: WangMS
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_795.dgn

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 修改說明	CHK. 核核

STATUS
階段

SCALE 比例: A1 1 : 10000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60720423

CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱

LANDSCAPE RESOURCES

SHEET NUMBER
圖紙編號

FIGURE 5.7

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:

842000 E
844000 E
846000 E
818000 N
816000 N
814000 N

LEGEND:

	PROJECT BOUNDARY
	100m ASSESSMENT AREA
LCA1	FAT TONG O RECLAMATION LANDSCAPE
LCA2	FAT TONG CHAU AND TIN HA AU UPLAND AND HILLSIDE LANDSCAPE
LCA3	CHIU KENG WAN UPLAND AND HILLSIDE LANDSCAPE
LCA4	TATHONG CHANNEL AND JOSS HOUSE BAY INSHORE WATER LANDSCAPE
LCA5	JUNK BAY BAY LANDSCAPE
LCA6	SENT LANDFILL AND ONGOING MAJOR DEVELOPMENT LANDSCAPE
LCA7	TSEUNG KWAN O INDUSTRIAL URBAN LANDSCAPE
LCA8	FAT TONG O INDUSTRIAL URBAN LANDSCAPE
LCA9	TSEUNG KWAN O TRANSPORTATION CORRIDOR LANDSCAPE
LCA10	JUNK BAY CEMETERY LANDSCAPE
LCA11	TIU KENG LENG URBAN RESIDENTIAL LANDSCAPE
	LAYOUT

N

LCA11
LCA9
LCA5
LCA3
LCA9
LCA10
LCA10
LCA5
LCA3
TKO 132

LOHAS PARK

TSEUNG KWAN O INNOPARK

CLEAR WATER BAY

FAT TONG CHAU
LCA2
LCA7
BARGING BASIN
LCA1
LCA6
LCA8
LCA2
TKO 137
LCA1
LCA4
LCA2
LCA4

CLEAR WATER BAY COUNTRY PARK

SIU SAI WAN

AECOM Binnies

PROJECT
項目
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主
土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
土木工程顧問公司
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容說明	CHK. 核核

STATUS
階段

SCALE 比例: A1 1 : 10000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60720423
CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱
LANDSCAPE CHARACTER AREAS

SHEET NUMBER
圖紙編號
FIGURE 5.8

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2024/10/28
Plot File by: WangMS
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_799.dgn

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

VPs	DESCRIPTION
VP1	VIEW FROM DRAGON'S BACK TRAIL
VP2	VIEW FROM SIU SAI WAN PROMENADE
VP3	VIEW FROM LOHAS PARK
VP4	VIEW FROM TSEUNG KWAN O WATERFRONT PARK
VP5	VIEW FROM WATERFRONT OF LOHAS PARK
VP6	VIEW FROM TSEUNG KWAN O INNOPARK
VP7	VIEW FROM LOOKOUT OF DEVIL'S PEAK
VP8	VIEW FROM TIN HA SHAN
VP9	VIEW FROM TUNG LUNG CHAU LOOKOUT
VP10	VIEW FROM THE TRAVELLER ALONG THE FERRY ROUTE ALONG THE TATHONG CHANNEL
VP11	VIEW FROM THE HENG FA CHUEN PROMENADE
VP12	VIEW FROM TSEUNG LAM HIGHWAY GARDEN

841500 E

845500 E

816500 N

812500 N

LEGEND:

PROJECT BOUNDARY

VISUAL ENVELOPE

VP5 PHOTOMONTAGE VIEWPOINT

LAYOUT

N

TIU KENG LENG

JUNK BAY

CLEAR WATER BAY PENINSULA

TKO 132

TSEUNG KWAN O INNOPARK

SHAU KEI WAN

FAT TONG O

TKO 137

JOSS HOUSE BAY

SIU SAI WAN

HONG KONG ISLAND

SHEK O COUNTRY PARK

TUNG LUNG CHAU

TATHONG CHANNEL

DRAGON'S BACK PENINSULA

TAI TAU CHAU

NG FAN CHAU

STEEP ISLAND (CHING CHAU)

TRIO ISLAND (TAM LAK LEI)

VP1 VP2 VP3 VP4 VP5 VP6 VP7 VP8 VP9 VP10 VP11 VP12

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE 比例: A1 1 : 20000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號: 60720423

CONTRACT NO. 合約編號: CE 40/2023(CE)

SHEET TITLE
圖紙名稱

VISUAL ENVELOPE & KEY PUBLIC VIEWPOINT

SHEET NUMBER
圖紙編號

FIGURE 5.9

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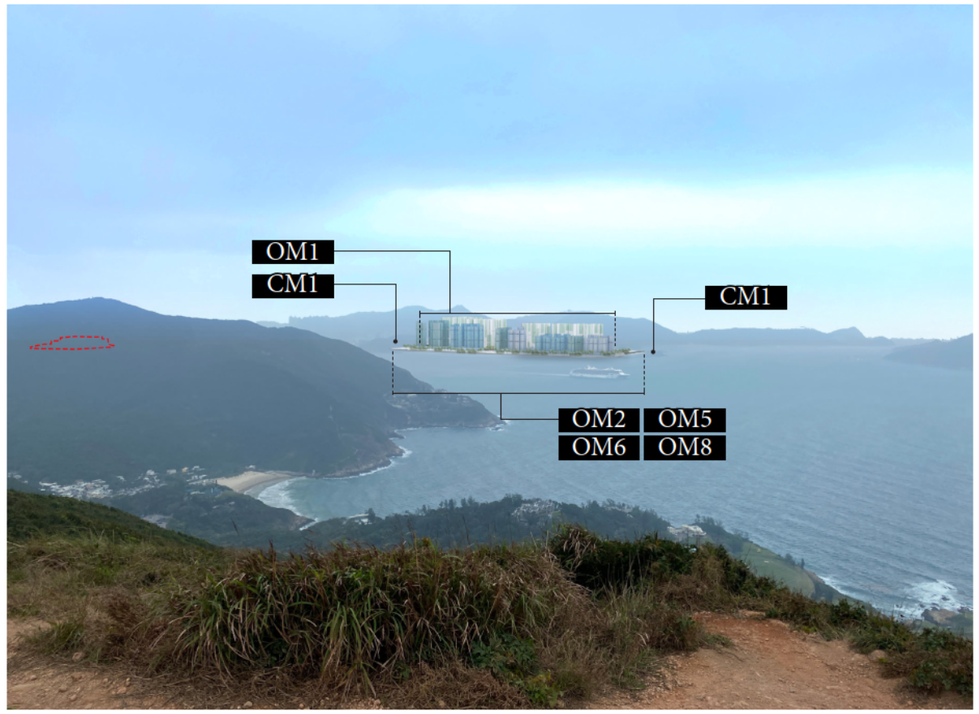
2024/10/28
Plot File by: WangM9
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_910.dgn

EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION

YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

Proposed Mitigation Measures for Operational Phase	
OM1	Aesthetically pleasing design of Aboveground Structures
OM2	Buffer Screen Planting
OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**

60720423 CE 40/2023(CE)

SHEET TITLE

VP1 PHOTOMONTAGE

SHEET NUMBER

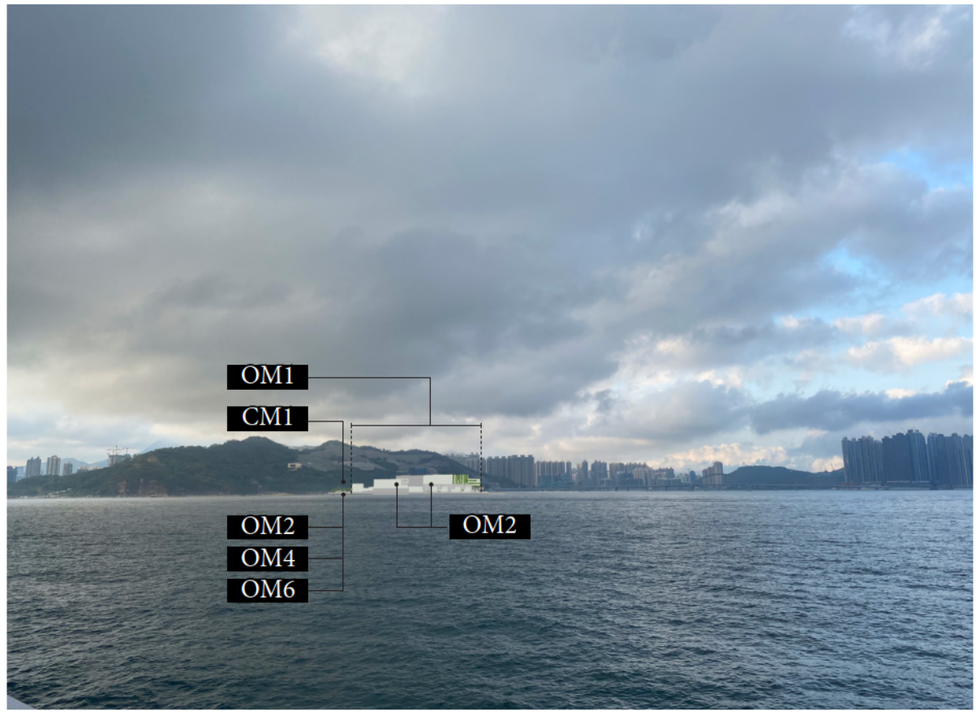
FIGURE 5.10

EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION

YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

Proposed Mitigation Measures for Operational Phase	
OM1	Aesthetically pleasing design of Aboveground Structures
OM2	Buffer Screen Planting
OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE **DIMENSION UNIT**
METRES

KEY PLAN

PROJECT NO. 60720423
CONTRACT NO. CE 40/2023(CE)

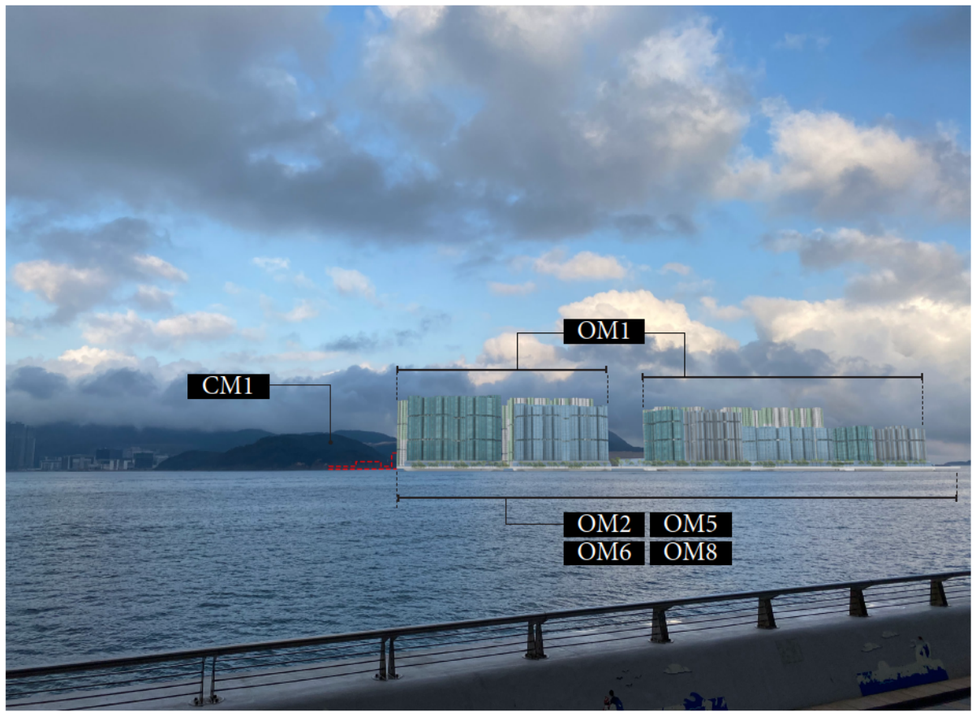
SHEET TITLE
VP2A PHOTOMONTAGE

SHEET NUMBER
FIGURE 5.11

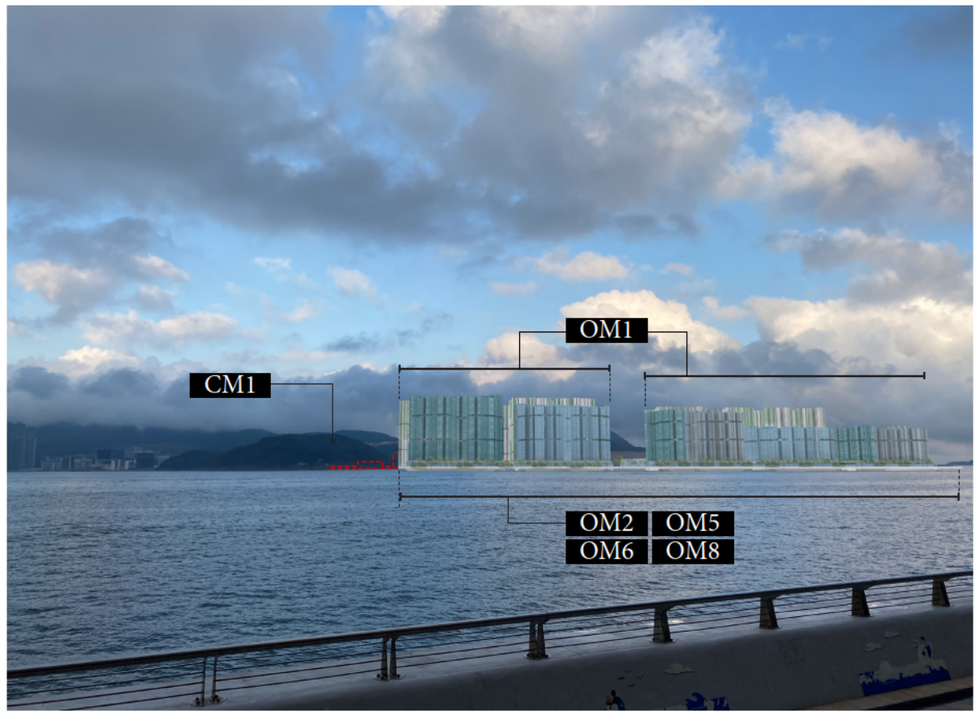
EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

AECOM binnies

PROJECT
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

Proposed Mitigation Measures for Operational Phase	
OM1	Aesthetically pleasing design of Aboveground Structures
OM2	Buffer Screen Planting
OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE | **DIMENSION UNIT**
METRES

KEY PLAN

PROJECT NO. | **CONTRACT NO.**
60720423 | CE 40/2023(CE)

SHEET TITLE
VP2B PHOTOMONTAGE

SHEET NUMBER
FIGURE 5.12

EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION

YEAR 10 WITH MITIGATION

REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

Proposed Mitigation Measures for Operational Phase	
OM1	Aesthetically pleasing design of Aboveground Structures
OM2	Buffer Screen Planting
OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**

60720423 CE 40/2023(CE)

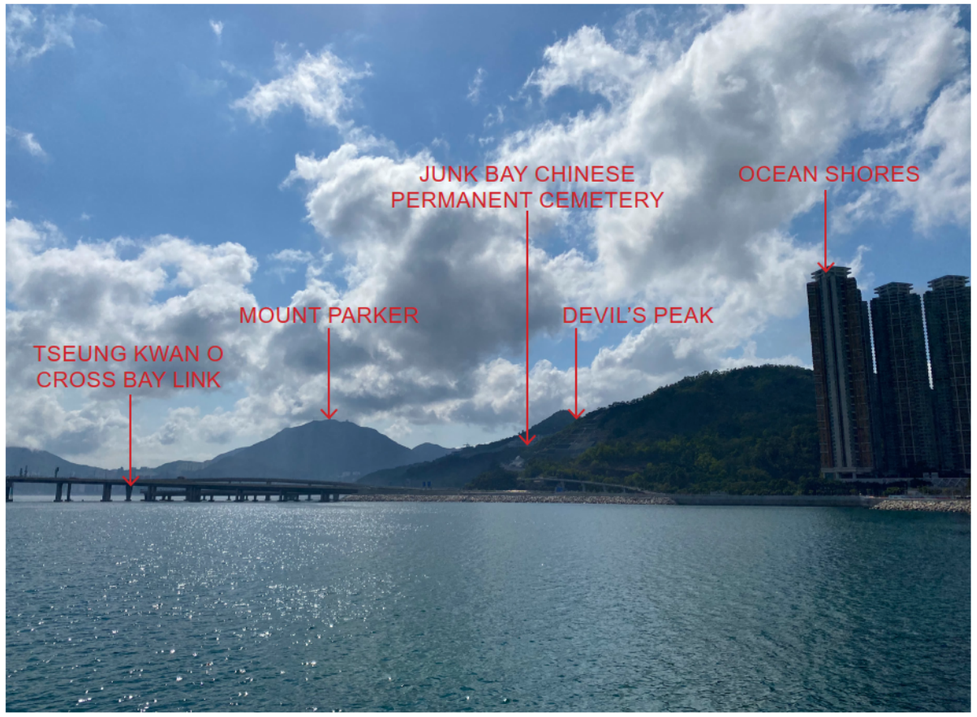
SHEET TITLE

VP3 PHOTOMONTAGE

SHEET NUMBER

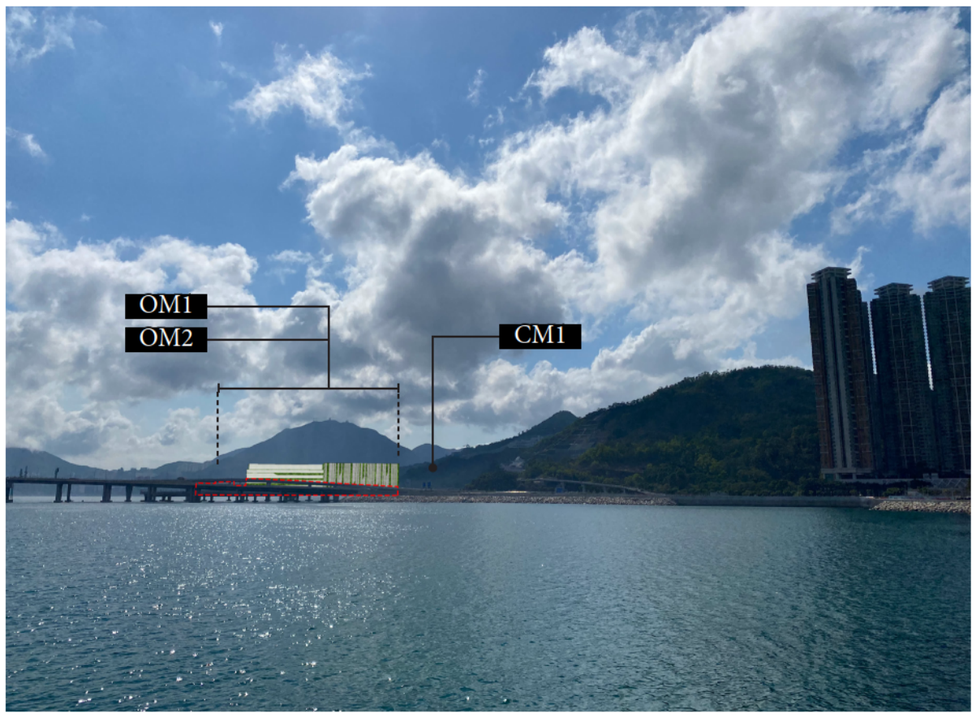
FIGURE 5.13

EXISTING CONDITION

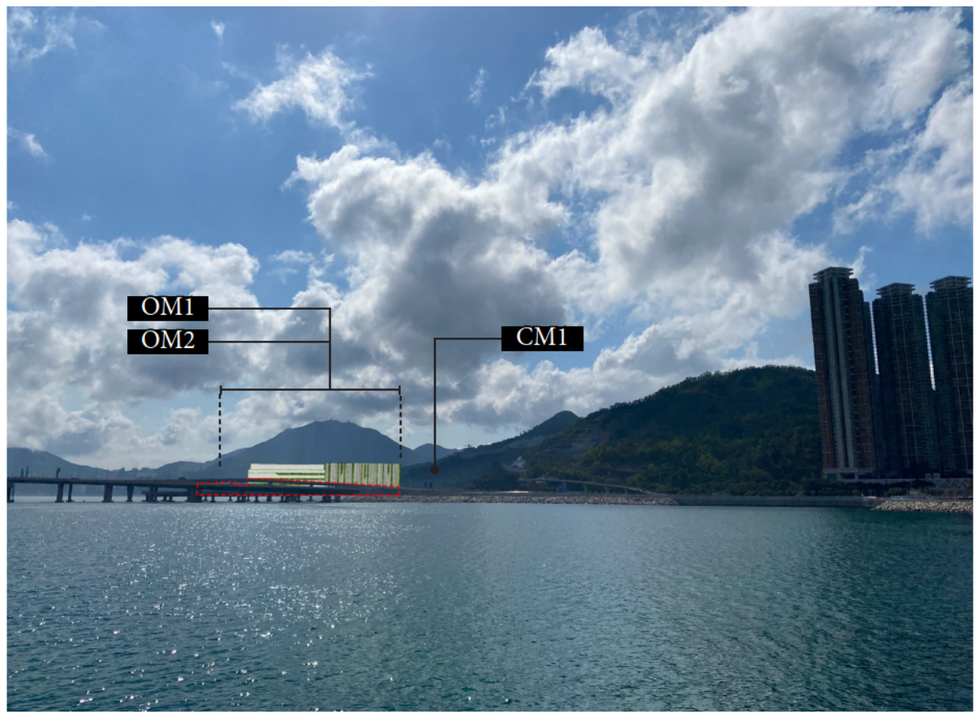


DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

Proposed Mitigation Measures for Operational Phase	
OM1	Aesthetically pleasing design of Aboveground Structures
OM2	Buffer Screen Planting
OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE — **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. — **CONTRACT NO.**

60720423 — CE 40/2023(CE)

SHEET TITLE

VP4 PHOTOMONTAGE

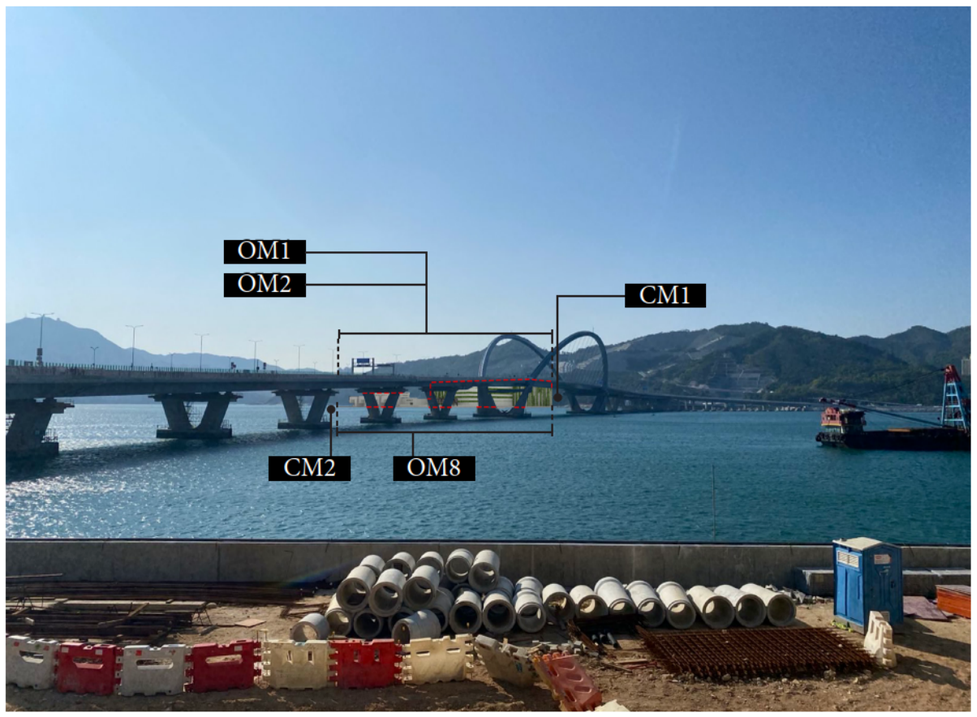
SHEET NUMBER

FIGURE 5.14

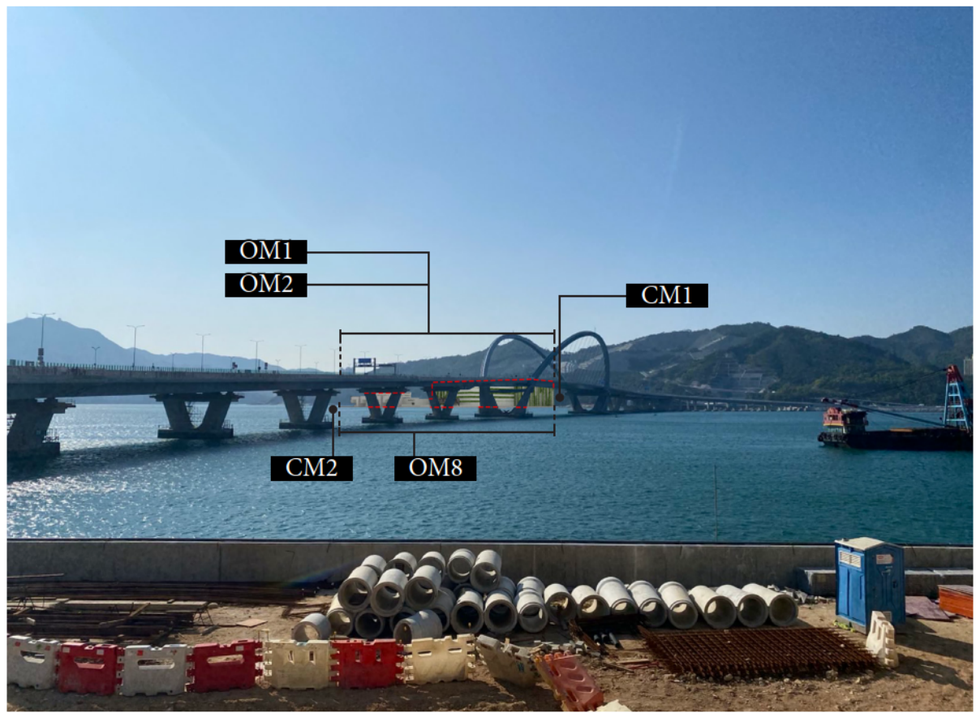
EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT
項目

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT
工程顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

Proposed Mitigation Measures for Operational Phase	
OM1	Aesthetically pleasing design of Aboveground Structures
OM2	Buffer Screen Planting
OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS
狀況

SCALE
比例

DIMENSION UNIT
尺寸單位
METRES

KEY PLAN
索引圖

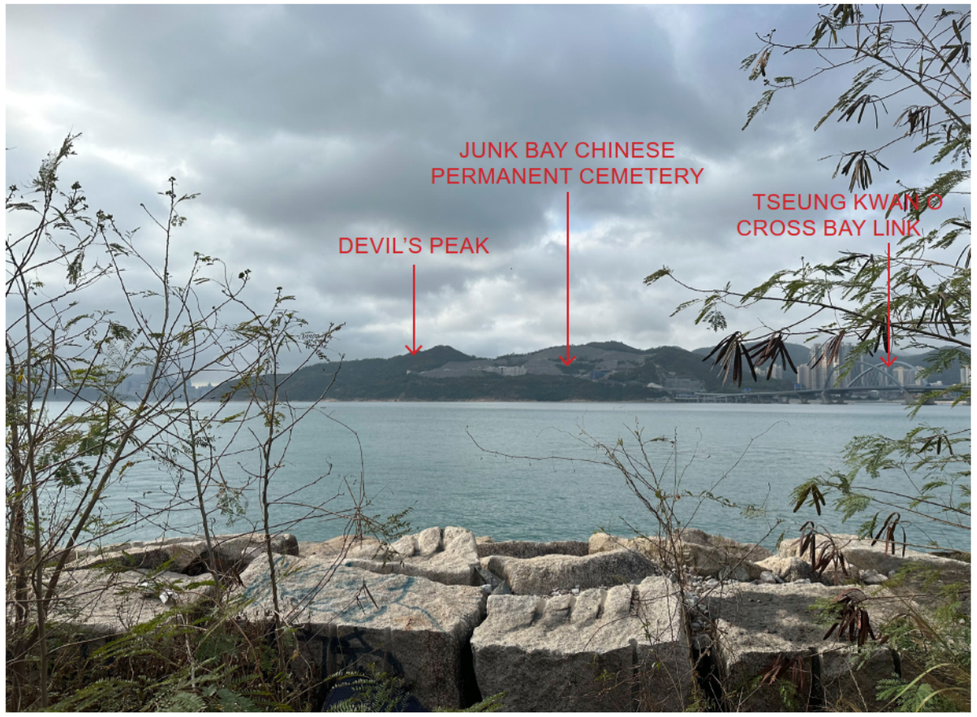
PROJECT NO.
項目編號
60720423

CONTRACT NO.
合約編號
CE 40/2023(CE)

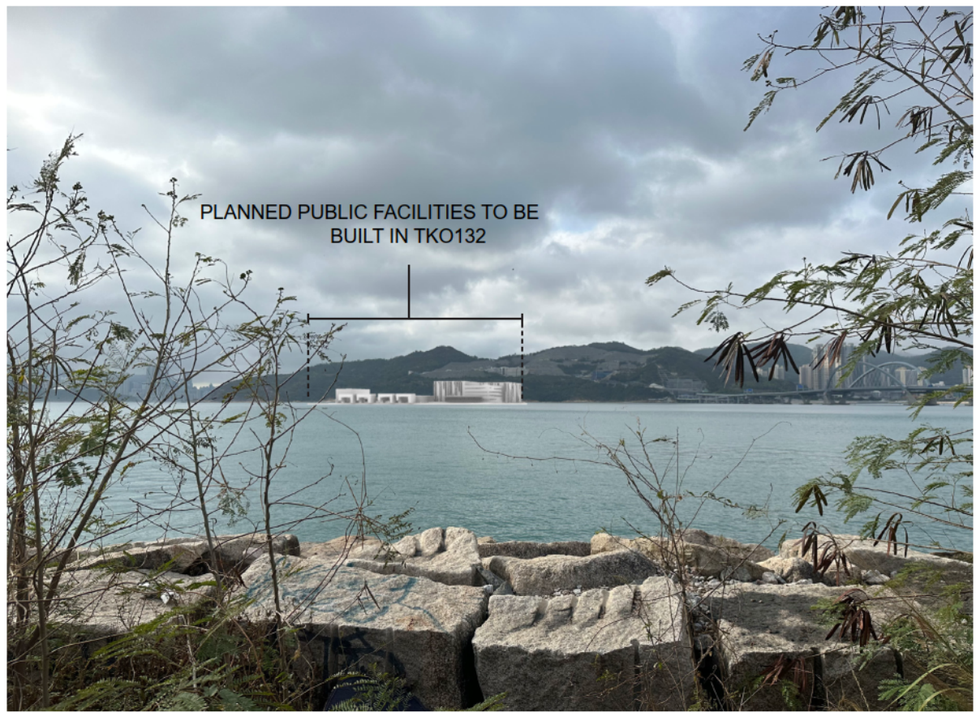
SHEET TITLE
圖紙名稱
VP5 PHOTOMONTAGE

SHEET NUMBER
圖紙編號
FIGURE 5.15

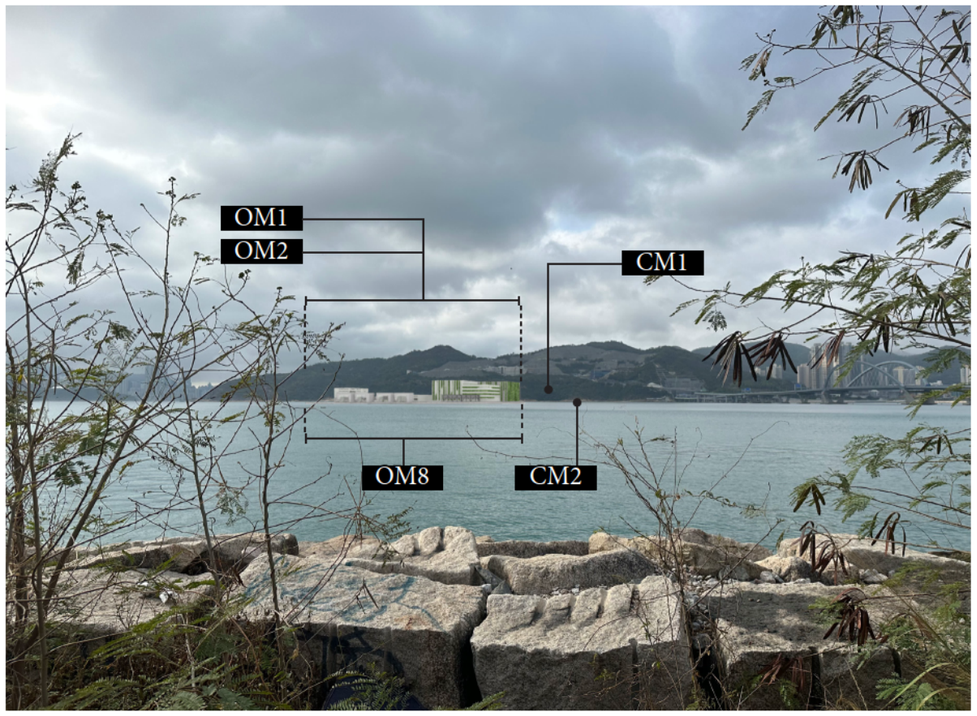
EXISTING CONDITION



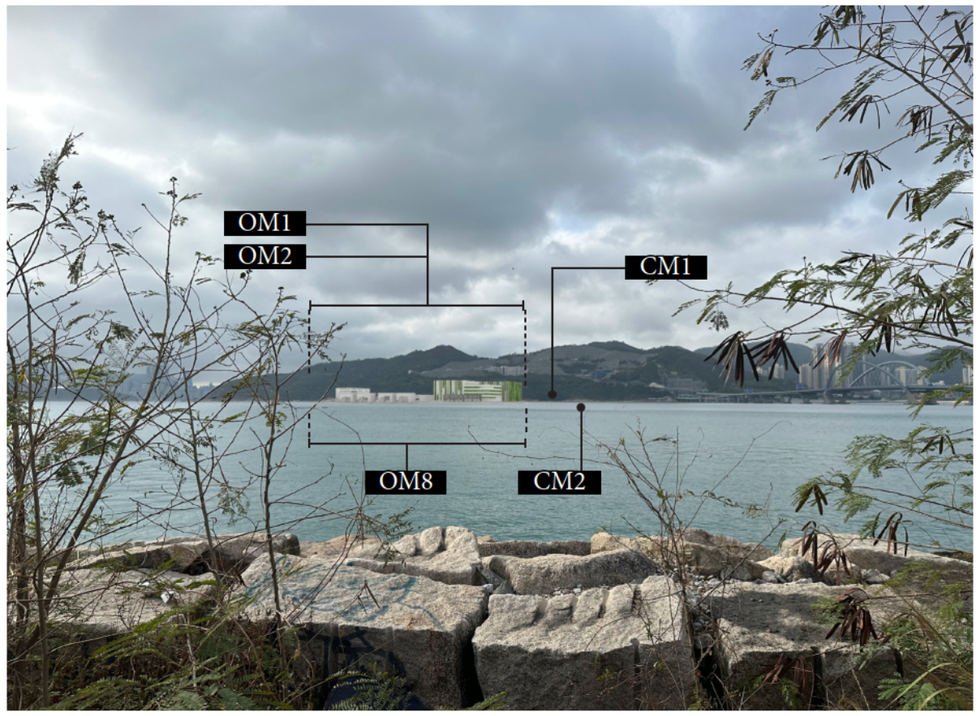
DAY 1 WITHOUT MITIGATION



DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

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OM1	Aesthetically pleasing design of Aboveground Structures
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OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE — **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. 60720423

CONTRACT NO. CE 40/2023(CE)

SHEET TITLE

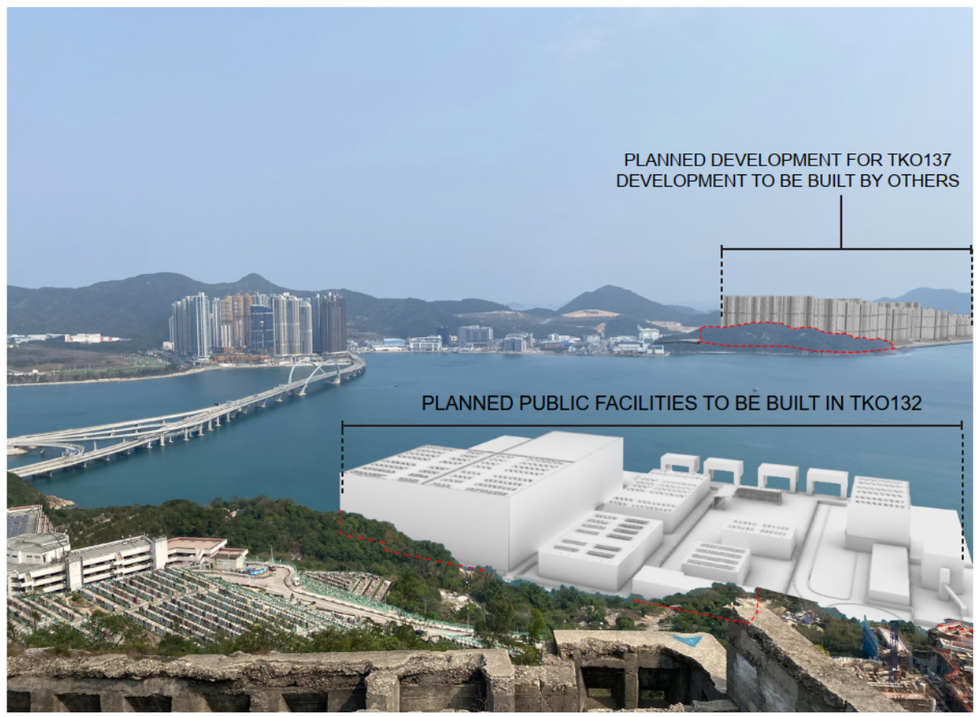
VP6 PHOTOMONTAGE

SHEET NUMBER

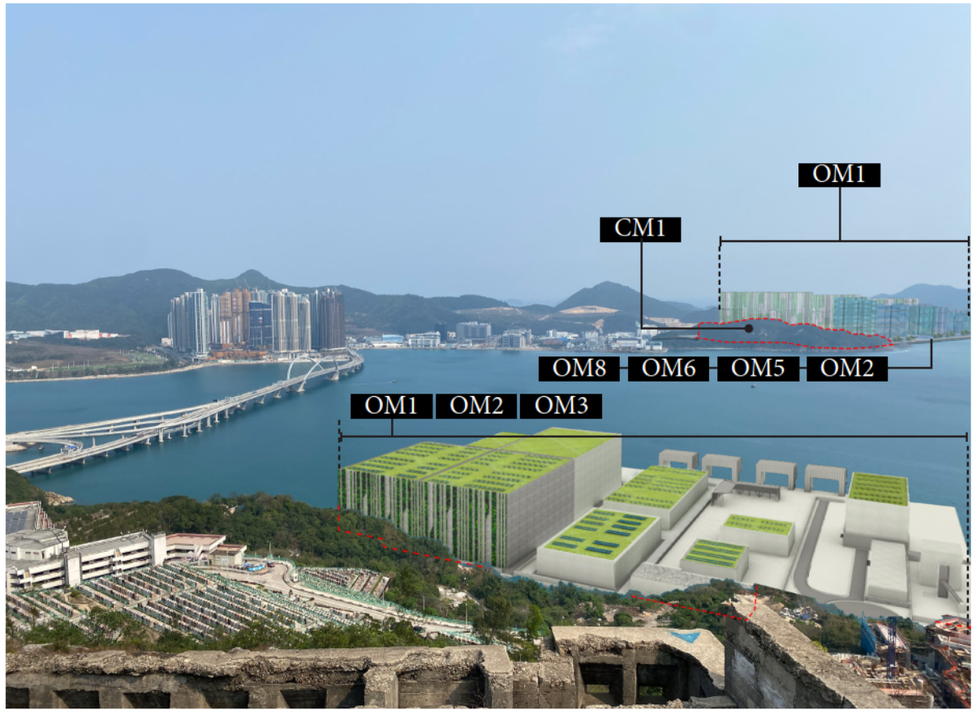
FIGURE 5.16

EXISTING CONDITION

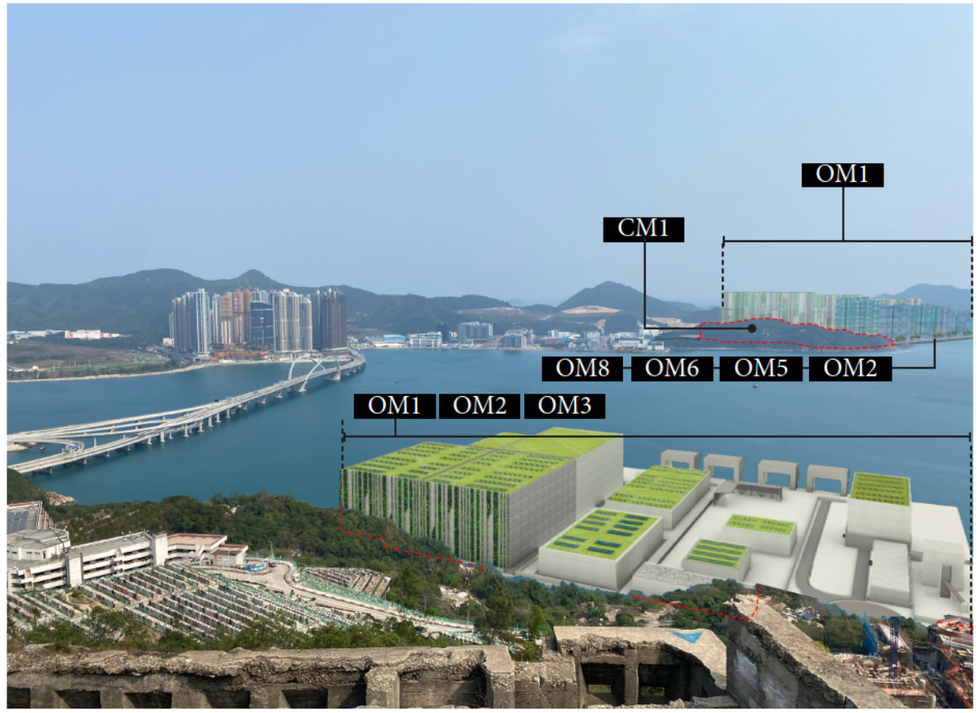
DAY 1 WITHOUT MITIGATION



DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
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OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE | **DIMENSION UNIT**
METRES

KEY PLAN

PROJECT NO. 60720423 | **CONTRACT NO.** CE 40/2023(CE)

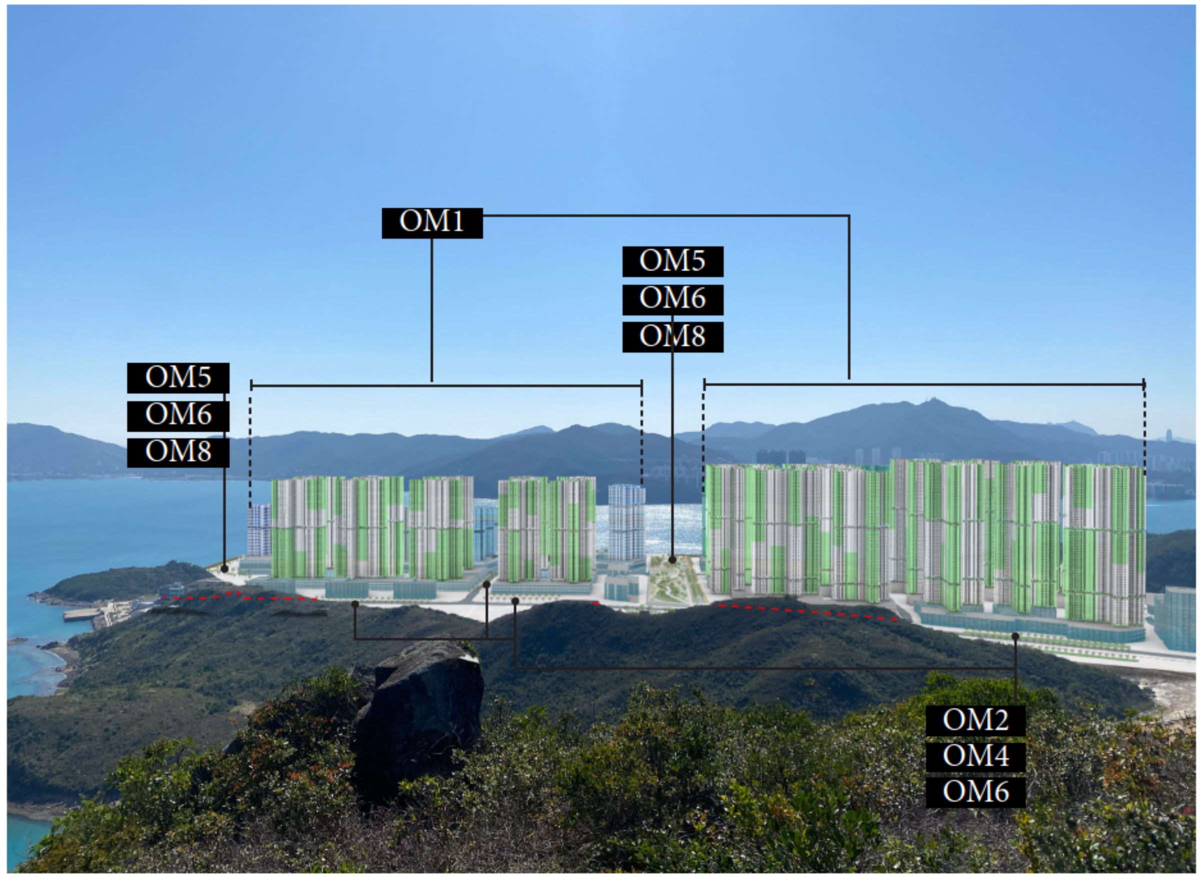
SHEET TITLE
VP7 PHOTOMONTAGE

SHEET NUMBER
FIGURE 5.17

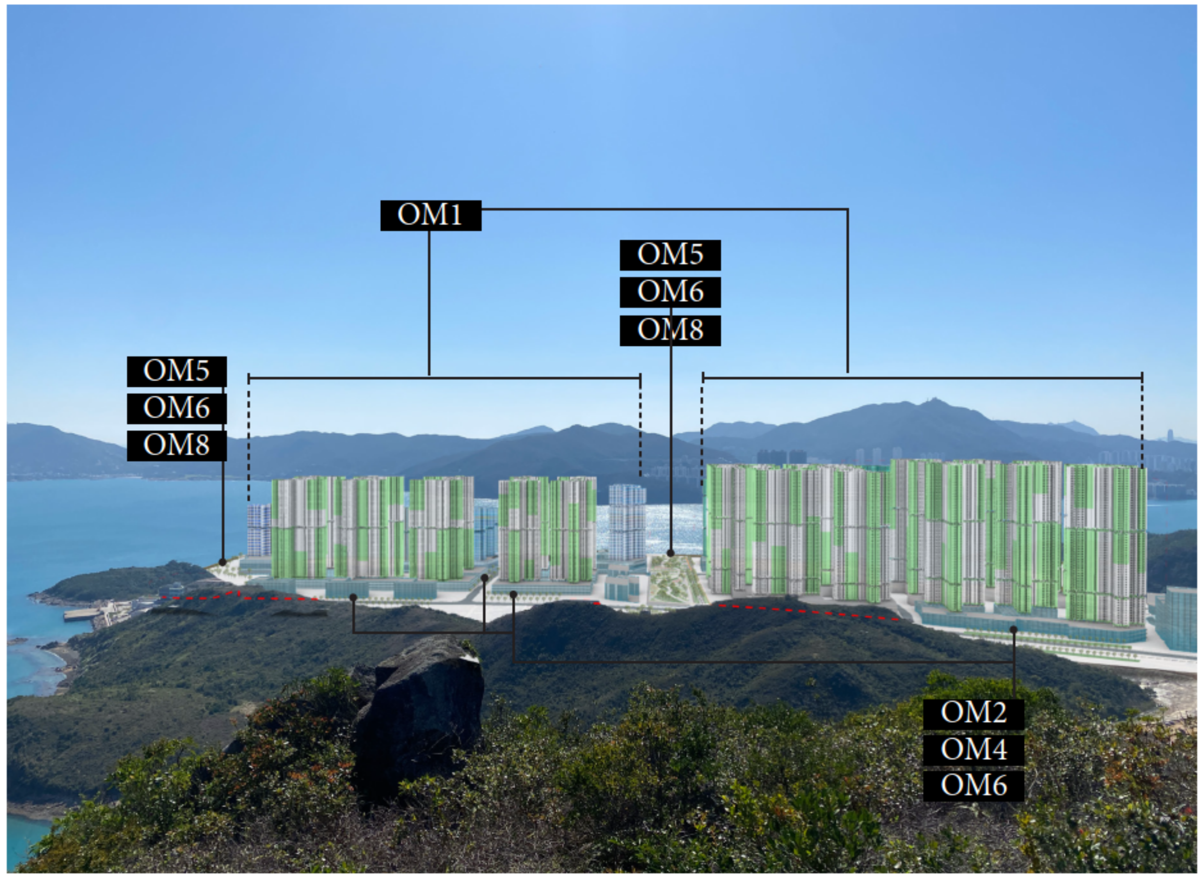
EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署 CEDD Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
CM4	Management of Construction Activities and Facilities
CM5	Reinstatement of the affected landscaped area

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OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

60720423

CONTRACT NO.

CE 40/2023(CE)

SHEET TITLE

VP8 PHOTOMONTAGE

SHEET NUMBER

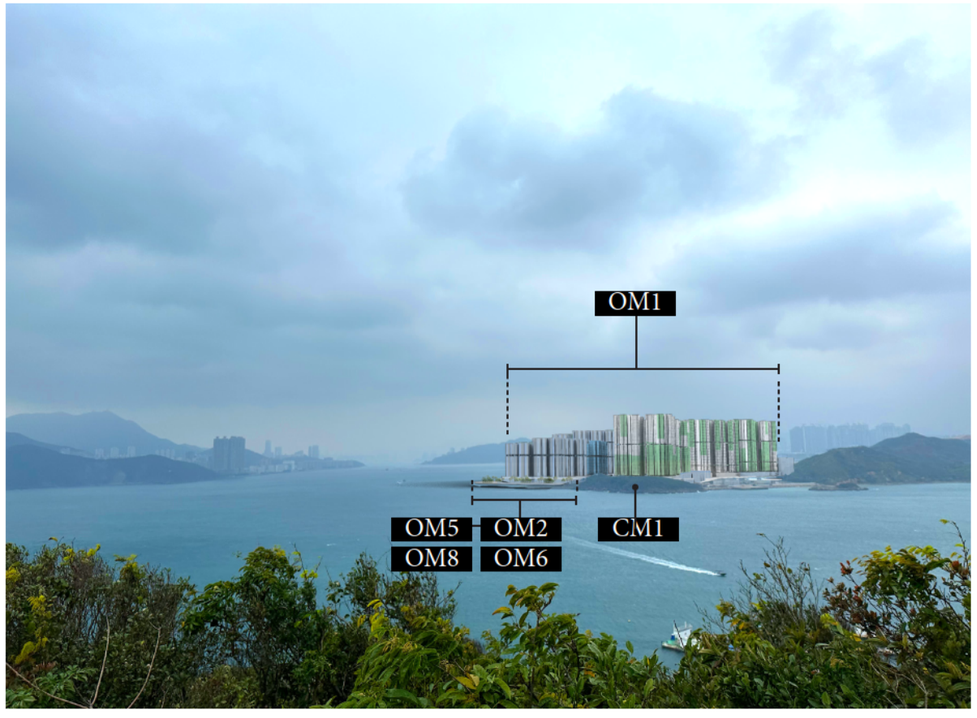
FIGURE 5.18

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:
Plot File by: vicky.xia1
PATH P:\PROJECTS\60720423\DRAWING\SKETCH\SK7013.dgn
2/6/2024

EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION

REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
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OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**

60720423 CE 40/2023(CE)

SHEET TITLE

VP9 PHOTOMONTAGE

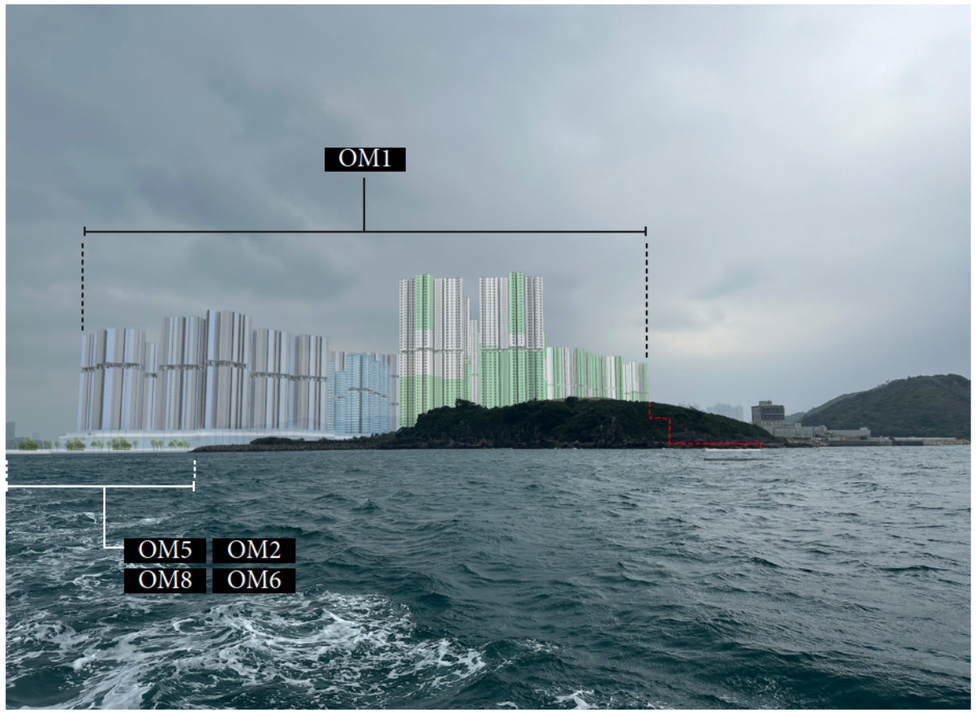
SHEET NUMBER

FIGURE 5.19

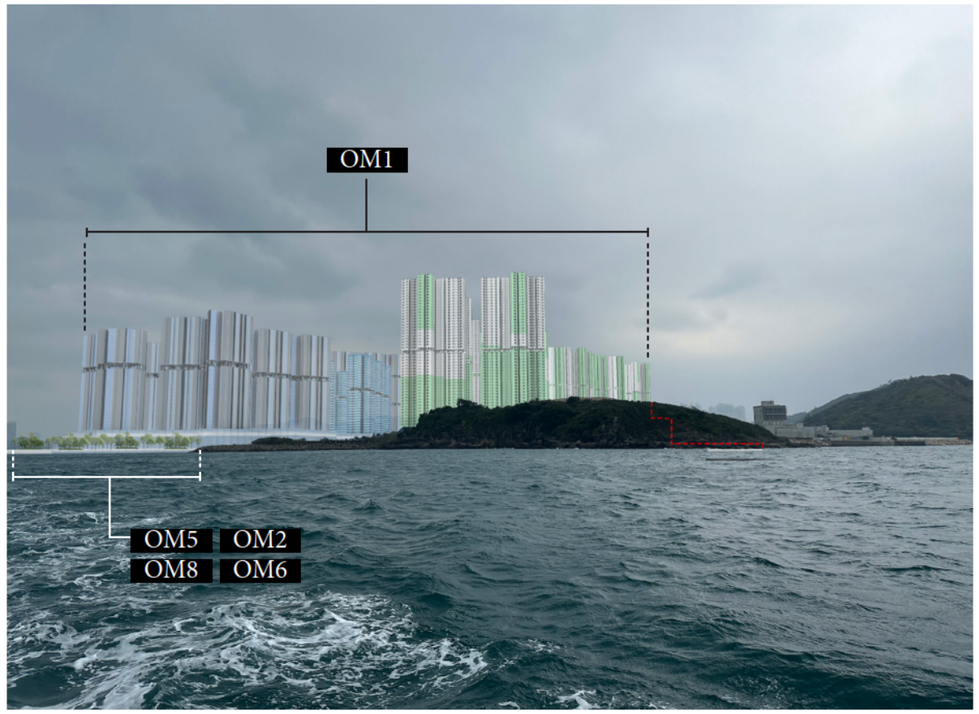
EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
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OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE | **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. | **CONTRACT NO.**

60720423 | CE 40/2023(CE)

SHEET TITLE

VP10 PHOTOMONTAGE

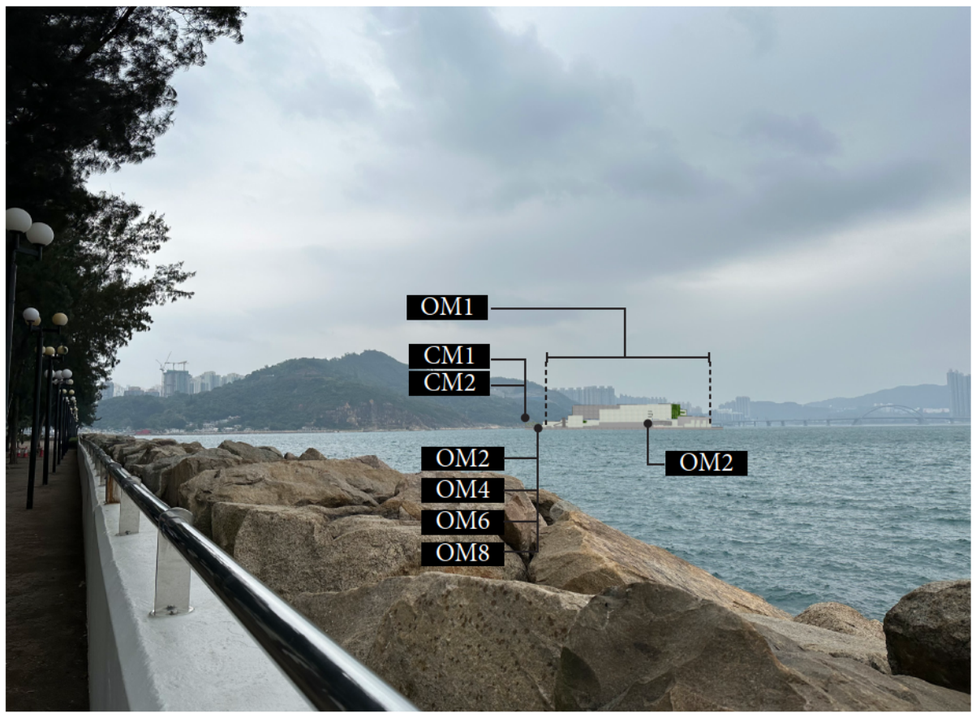
SHEET NUMBER

FIGURE 5.20

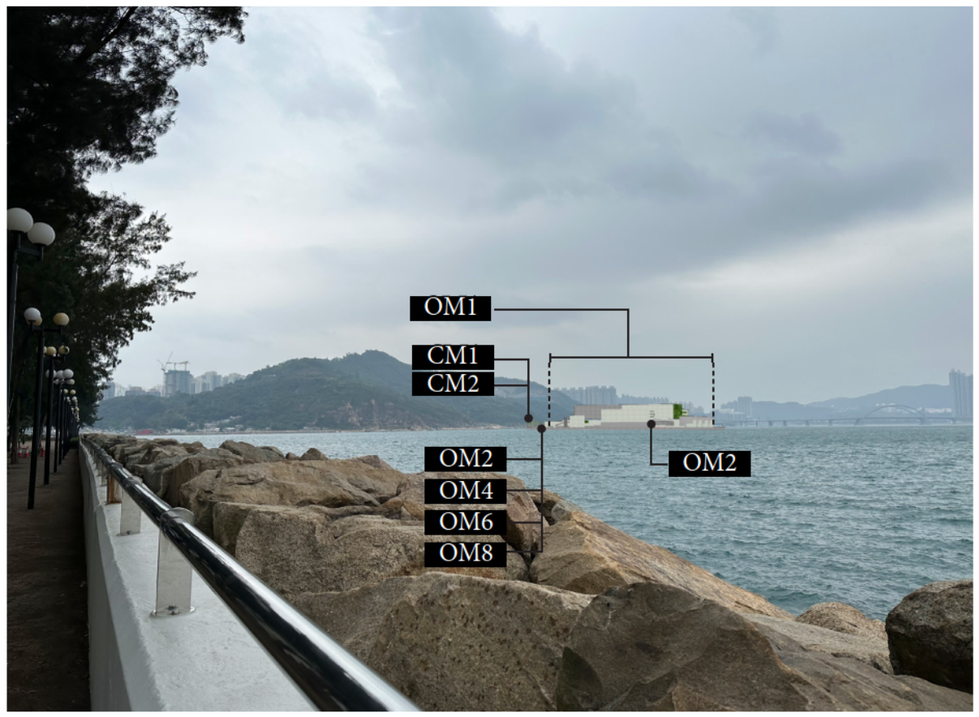
EXISTING CONDITION

DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION



YEAR 10 WITH MITIGATION



REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT
DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT
AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
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CM2	Preservation of Natural Coastline
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OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE **DIMENSION UNIT**
METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**
60720423 CE 40/2023(CE)

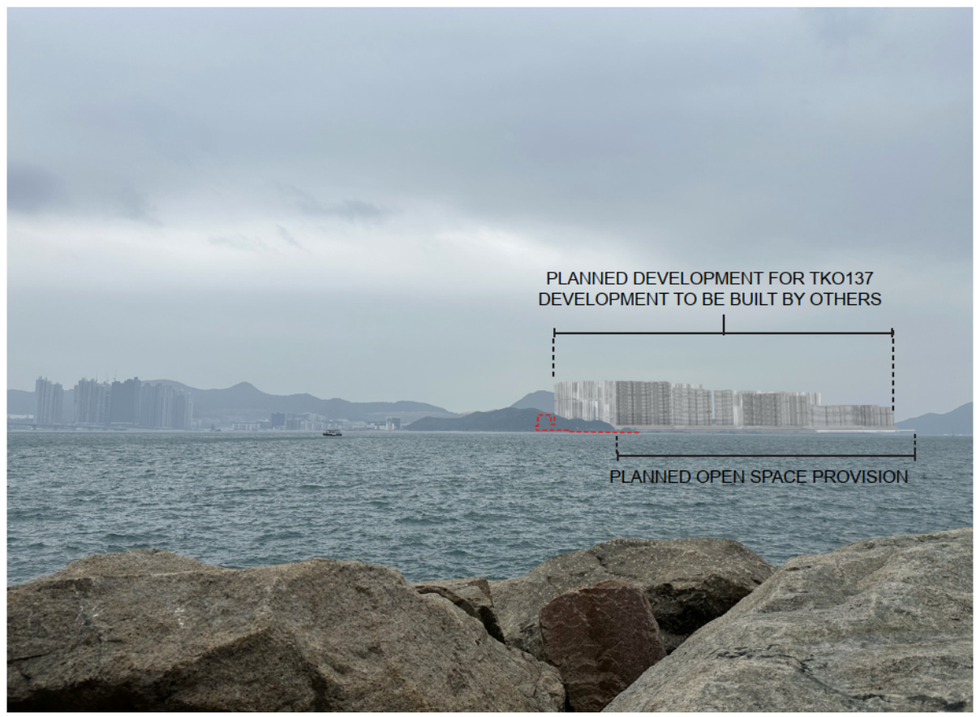
SHEET TITLE
VP11A PHOTOMONTAGE

SHEET NUMBER
FIGURE 5.21

Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

EXISTING CONDITION

DAY 1 WITHOUT MITIGATION



DAY 1 WITH MITIGATION

YEAR 10 WITH MITIGATION

REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE

Plot File by: vicky.xia1 2/6/2024
PATH: P:\PROJECTS\60720423\DRAWING\SKETCH\SK7013.dgn

AECOM binnies

PROJECT

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
CM1	Tree Preservation and Transplantation
CM2	Preservation of Natural Coastline
CM3	Erection of Decorative Screen Hoarding
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CM5	Reinstatement of the affected landscaped area

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OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE **DIMENSION UNIT**

METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**

60720423 CE 40/2023(CE)

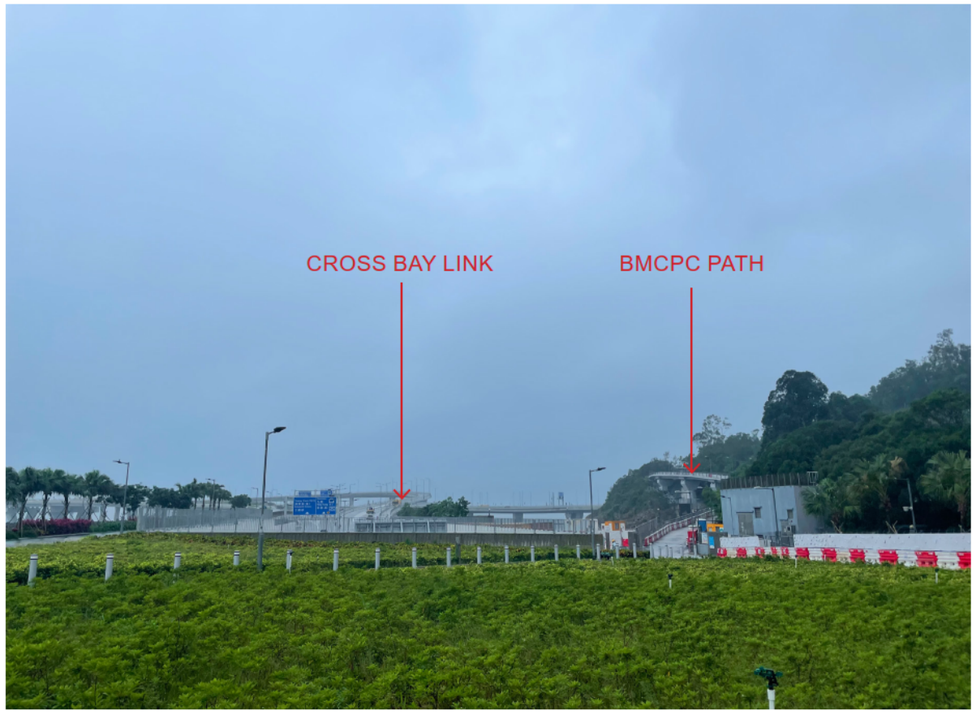
SHEET TITLE

VP11B PHOTOMONTAGE

SHEET NUMBER

FIGURE 5.22

EXISTING CONDITION



DAY 1 WITHOUT MITIGATION

DAY 1 WITH MITIGATION

YEAR 10 WITH MITIGATION

REMARK: BUILDING DESIGN IS INDICATIVE ONLY AND SUBJECT TO CHANGE AT DETAILED DESIGN STAGE. THE PROPOSED ELEVATED ROADS AND PEDESTRIAN FOOTPATHS AT TKO 132 ARE NOT ILLUSTRATED

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

CEDD 土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

Proposed Mitigation Measures for Construction Phase	
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CM2	Preservation of Natural Coastline
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OM3	Roof Greening
OM4	Roadside Greening
OM5	Open Space provision
OM6	Compensatory Tree Planting
OM7	Landscape Treatments on Slope or Retaining Structure
OM8	Shoreline Treatment

STATUS

SCALE A1 1 : 10000

DIMENSION UNIT METRES

KEY PLAN

PROJECT NO. 60720423

CONTRACT NO. CE 40/2023(CE)

SHEET TITLE

VP12 PHOTOMONTAGE

SHEET NUMBER

FIGURE 5.23

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

841800 E
843000 E
844200 E
845400 E
818000 N
816800 N
815600 N

NOTE:

1. STROKE SHAPES SHOULD BE INTERPRETED AS AN INDICATIVE AREA ONLY.

LEGEND:

- PROJECT BOUNDARY
- 300m ASSESSMENT BOUNDARY
- GRADE 2 HISTORIC BUILDING
- GRADE 3 HISTORIC BUILDING
- OTHER IDENTIFIED ITEM

N

TIU KENG LENG
AM TIN
SHUI TSO WAN
TSEUNG KWAN O TOWN CENTRE
JUNK BAY (TSEUNG KWAN O)
油塘 YAU TONG
YAU TONG
LEI YUE MUN
CHAS Park

HB463 (REDOUBT)
HB463 (GOUGH BATTERY)
HB463 (POTTINGER BATTERY)
BH01
BH02
BH03
BH04
HBN86

REF. NO.	NAME	STATUS	APPROXIMATE DISTANCE FROM THE PROJECT BOUNDARY
BUILT HERITAGE			
HB463	FORTIFICATIONS AT DEVIL'S PEAK - POTTINGER BATTERY	GRADE 2 HISTORIC BUILDING	295m
	FORTIFICATIONS AT DEVIL'S PEAK - GOUGH BATTERY		427m
	FORTIFICATIONS AT DEVIL'S PEAK - REDOUBT		385m
HBN86	OLD QUARRY SITE STRUCTURES, LEI YUE MUN	GRADE 3 HISTORIC BUILDING	269m
OTHER IDENTIFIED ITEM			
BH01	BUNKER	NO STATUS	228m
BH02	NORTHERN COASTAL SEARCHLIGHT EMPLACEMENT	NO STATUS	104m
BH03	SOUTHERN COASTAL SEARCHLIGHT EMPLACEMENT	NO STATUS	221m
BH04	PILLBOX (EAST OF POTTINGER BATTERY)	NO STATUS	185m

V:\BAK\US95-BAK\CSWP\plotdrv\Create Pit: filetnew\CSWP-75(color).pltt
12/16/2024
Plot File by: haiquan.zhao
PATH: P:\PROJECTS\60720423\DRAWING\REPORT\B30\B30_848.dgn

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
狀況

SCALE 比例
A1 1 : 6500

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60720423

CONTRACT NO. 合約編號
CE 40/2023(CE)

SHEET TITLE
圖紙名稱

LOCATION OF BUILT HERITAGE AND OTHER IDENTIFIED ITEMS (TKO 132)

SHEET NUMBER
圖紙編號

FIGURE 5.24

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

816000 N

817000 N

845000 E

846000 E

846600 E

CUT LINE A-A

SEE DRAWING NO. 60720423/B30/FIGURE 12.6

FAT TAU CHAU QING DYNASTY GRAVESTONE SAI (SAI 186)

FAT TAU CHAU SAI (SAI 184)

SITE OF CHINESE CUSTOMS STATION, FAT TAU CHAU (DM18)

DETAIL '1'

FAT TONG CHAU

FAT TONG CHAU

佛堂洲

FAT TONG O

FAT TAU CHAU HOUSE RUIN SAI (SAI 185)

HA SHAN TUK

PIT CHAM CHAU

JOSS HOUSE BAY

N

845600 E

FAT TAU CHAU SAI (SAI 184)

SITE OF CHINESE CUSTOMS STATION, FAT TAU CHAU (DM18)

AREA II

AREA III

AREA I

AREA IV

815600 N

DETAIL '1'

SCALE 1 : 1000

LEGEND:

PROJECT BOUNDARY

300m ASSESSMENT AREA

SITE OF ARCHAEOLOGICAL INTEREST (SAI)

DECLARED MONUMENT

2004 REPORT ON ARCHAEOLOGICAL SURVEY AT FAT TONG CHAU PHASE 1 (SKFTC2004/1) - TEST PIT LOCATIONS

V:\BAK\US95-BAK\CSWP\plotdrv\Create Plt file\new\CSWP-75(color).pltPlot File by: haiquan.zhaoPATH: P:\PROJECTS\60720423\DRAWINGS\REPORT\B30\B30_844.dgn10/26/2024

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
CEDD Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

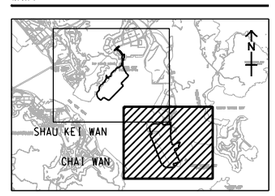
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核對

STATUS
狀況

SCALE 比例: A1 1 : 5000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖 A1 1 : 120000



PROJECT NO. 項目編號: 60720423

CONTRACT NO. 合約編號: CE 40/2023(CE)

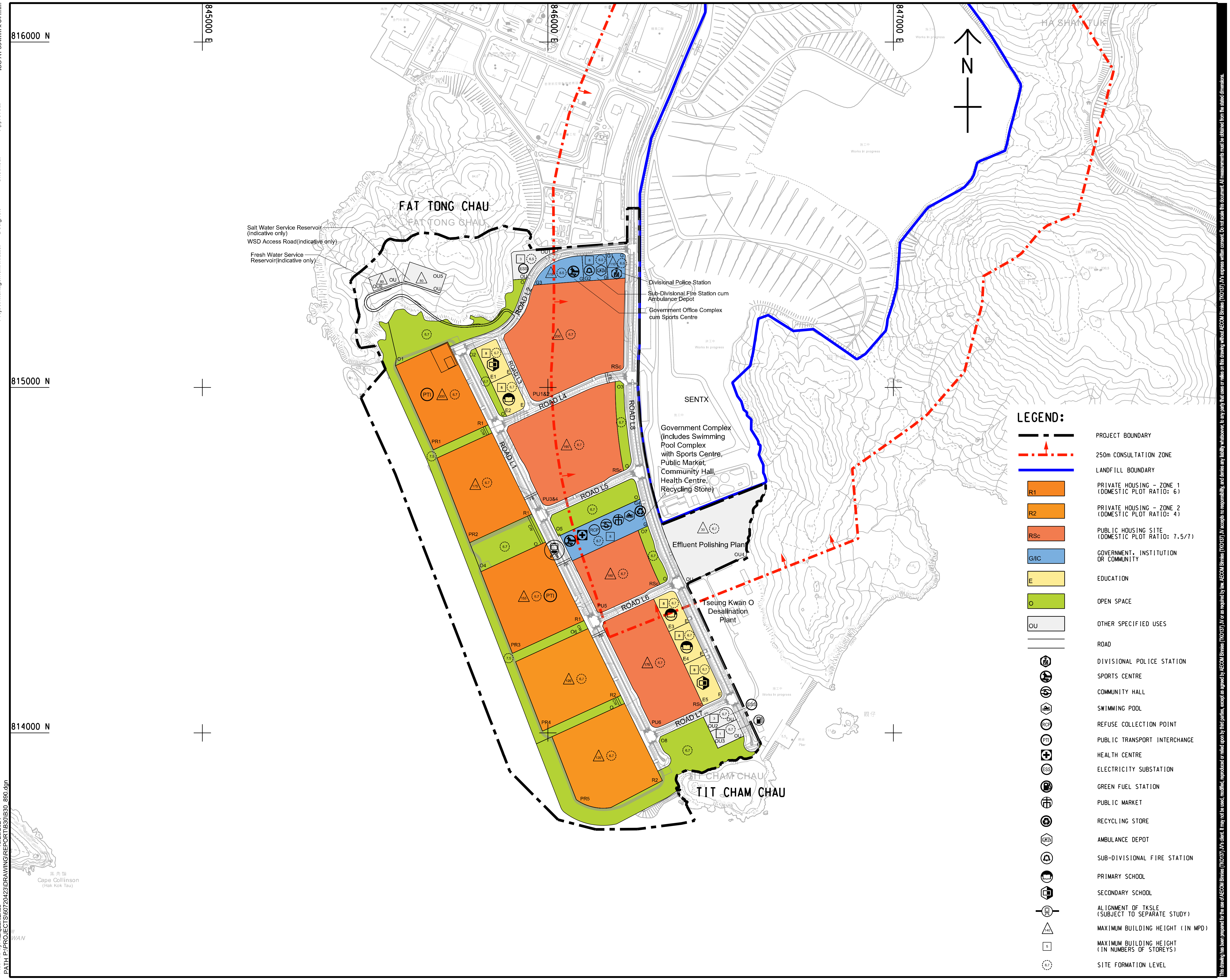
SHEET TITLE 圖紙名稱

TERRESTRIAL ARCHAEOLOGICAL BACKGROUND OF THE ASSESSMENT AREA (TKO 137)

SHEET 1 OF 2

SHEET NUMBER 圖紙編號

FIGURE 5.25


816000 N
815000 N
814000 N
845000 E
846000 E
847000 E
N
FAT TONG CHAU
TIT CHAM CHAU
HA SHAN TUK
Cape Collinson
Salt Water Service Reservoir (indicative only)
WSD Access Road(indicative only)
Fresh Water Service Reservoir(indicative only)
Divisional Police Station
Sub-Divisional Fire Station cum Ambulance Depot
Government Office Complex cum Sports Centre
SENTX
Government Complex (includes Swimming Pool Complex with Sports Centre, Public Market, Community Hall, Health Centre, Recycling Store)
Effluent Polishing Plant
Tseung Kwan O Desalination Plant
ROAD L1
ROAD L2
ROAD L3
ROAD L4
ROAD L5
ROAD L6
ROAD L7
ROAD L8
LEGEND:
PROJECT BOUNDARY
250m CONSULTATION ZONE
LANDFILL BOUNDARY
R1 PRIVATE HOUSING - ZONE 1 (DOMESTIC PLOT RATIO: 6)
R2 PRIVATE HOUSING - ZONE 2 (DOMESTIC PLOT RATIO: 4)
RSc PUBLIC HOUSING SITE (DOMESTIC PLOT RATIO: 7.5/7)
G/IC GOVERNMENT, INSTITUTION OR COMMUNITY
E EDUCATION
O OPEN SPACE
OU OTHER SPECIFIED USES
ROAD
DIVISIONAL POLICE STATION
SPORTS CENTRE
COMMUNITY HALL
SWIMMING POOL
REFUSE COLLECTION POINT
PUBLIC TRANSPORT INTERCHANGE
HEALTH CENTRE
ELECTRICITY SUBSTATION
GREEN FUEL STATION
PUBLIC MARKET
RECYCLING STORE
AMBULANCE DEPOT
SUB-DIVISIONAL FIRE STATION
PRIMARY SCHOOL
SECONDARY SCHOOL
ALIGNMENT OF TKSLE (SUBJECT TO SEPARATE STUDY)
MAXIMUM BUILDING HEIGHT (IN MPD)
MAXIMUM BUILDING HEIGHT (IN NUMBERS OF STOREYS)
SITE FORMATION LEVEL

AECOM Binnies

PROJECT 項目

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT 業主

土木工程拓展署 Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE A1 1 : 5000

DIMENSION UNIT METRES

KEY PLAN

PROJECT NO. 60720423

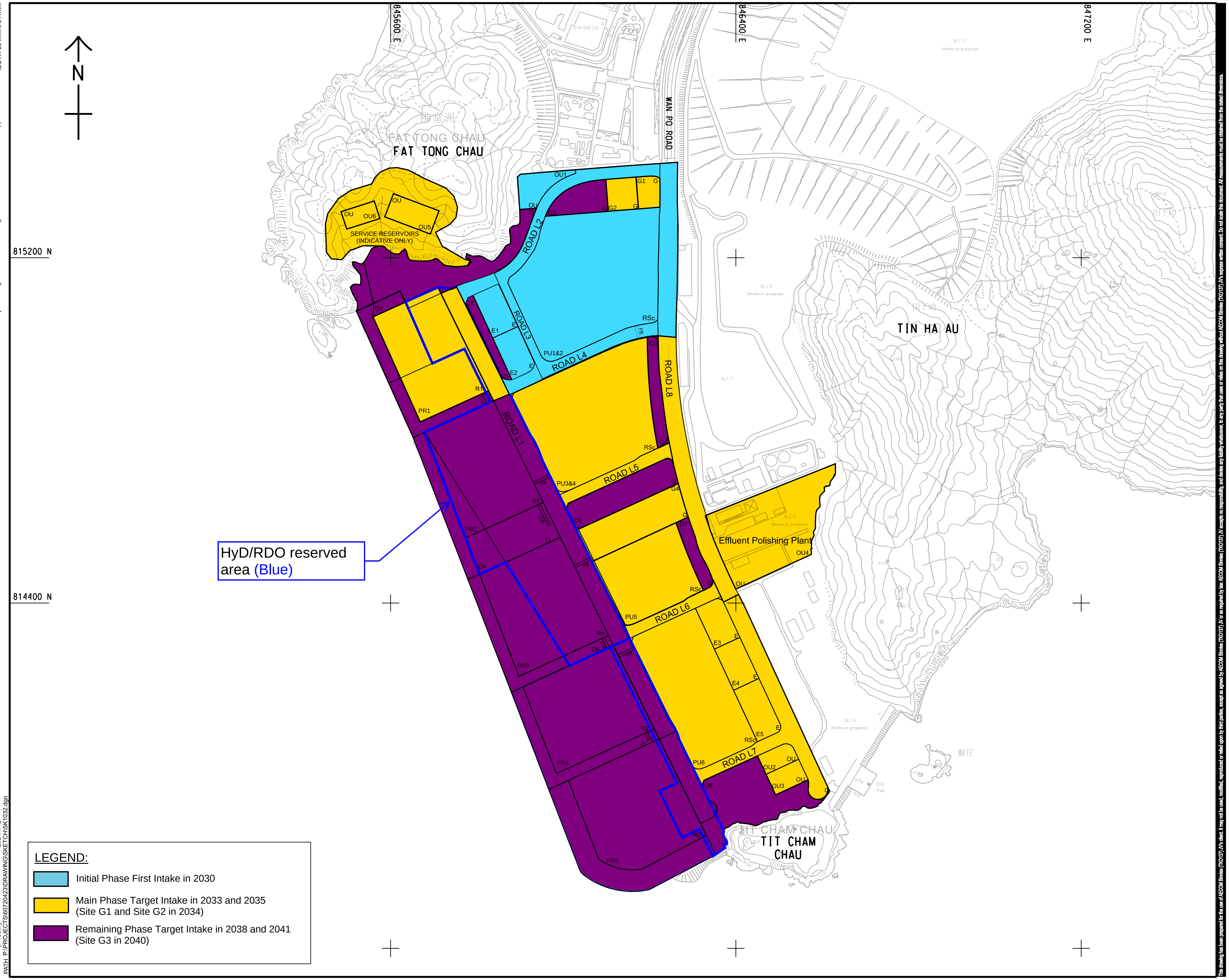
CONTRACT NO. CE 40/2023(CE)

SHEET TITLE

LOCATION PLAN OF SOUTH EAST NEW TERRITORIES LANDFILL AND ITS EXTENSION

SHEET NUMBER

FIGURE 5.26


N
845600 E
846400 E
847200 E
815200 N
814400 N
FAT TONG CHAU
WAN PO ROAD
TIN HA AU
TIT CHAM CHAU
SERVICE RESERVOIRS (INDICATIVE ONLY)
ROAD L1
ROAD L2
ROAD L3
ROAD L4
ROAD L5
ROAD L6
ROAD L7
ROAD L8
Effluent Polishing Plant
HyD/RDO reserved area (Blue)
LEGEND:
Initial Phase First Intake in 2030
Main Phase Target Intake in 2033 and 2035 (Site G1 and Site G2 in 2034)
Remaining Phase Target Intake in 2038 and 2041 (Site G3 in 2040)

AECOM binnies

PROJECT

DEVELOPMENT OF TSEUNG KWAN O AREA 137 AND ASSOCIATED RECLAMATION SITES – INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT

土木工程拓展署 CEDD Civil Engineering and Development Department

CONSULTANT

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE: A1 1 : 4000

DIMENSION UNIT: METRES

KEY PLAN

PROJECT NO.: 60720423

CONTRACT NO.: CE 40/2023(CE)

SHEET TITLE

TENTATIVE PRELIMINARY DEVELOPMENT SCHEDULE OF TKO 137

SHEET NUMBER

FIGURE 15.1

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

843000 E

844000 E

845000 E

818000 N

817000 N

816000 N

TSEUNG KWAN O
TOWN CENTRE

JUNK BAY
CHINESE PERMANENT
CEMETERY

JUNK BAY
(TSEUNG KWAN O)

TSEUNG LAM HIGHWAY

油塘
YAU TONG

N

LEGEND:

Development off TKO 132 to be Commenced

V:\BAK\US95-BAK\CSWP\plotdrv\Create Plt file\new\CSWP-75(color).plt
Plot File by: xin.miao
PATH: P:\PROJECTS\60720423\DRAWING\SKETCH\SK1034.dgn
17/10/2024

AECOM Binnies

PROJECT
項目

DEVELOPMENT OF
TSEUNG KWAN O AREA 137
AND ASSOCIATED
RECLAMATION SITES
– INVESTIGATION,
DESIGN AND CONSTRUCTION

CLIENT
業主

CEDD 土木工程拓展署
Civil Engineering and Development Department

CONSULTANT
土木顧問公司

AECOM Binnies (TKO137) JV

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

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

STATUS
階段

SCALE
比例

A1 1 : 5000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

60720423

CONTRACT NO.
合約編號

CE 40/2023(CE)

SHEET TITLE
圖紙名稱

TENTATIVE PRELIMINARY DEVELOPMENT SCHEDULE OF TKO 132

SHEET NUMBER
圖紙編號

FIGURE 15.2

Provision of Major Community Facilities and Open Space in Tseung Kwan O Outline Zoning Plan

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG)	HKPSG Requirement (based on planned population)	Provision		Surplus / Shortfall (against planned provision)
			Existing Provision	Planned Provision (including Existing Provision)	
District Open Space	10 ha per 100,000 persons[#]	59.47 ha	32.00 ha	75.48 ha	+16.01 ha
Local Open Space	10 ha per 100,000 persons[#]	59.47 ha	71.40 ha	74.66 ha	+15.19 ha
Secondary School	1 whole-day classroom for 40 persons aged 12-17[#] (assessed by Education Bureau (EDB) on a territorial-wide basis)	683 classrooms	695 classrooms	845 classrooms	+162 classrooms
Primary School	1 whole-day classroom for 25.5 persons aged 6-11[#] (assessed by EDB on a district/school network basis)	889 classrooms	713 classrooms	893 classrooms	+4 classrooms
Kindergarten/ Nursery	34 classrooms for 1,000 children aged 3 to under 6[#]	336 classrooms	346 classrooms	376 classrooms	+40 classrooms
District Police Station	1 per 200,000 to 500,000 persons (assessed on a regional basis)	1	1	1	0
Divisional Police Station	1 per 100,000 to 200,000 persons (assessed on a regional basis)	3	0	2	-1

Type of Facilities	**Hong Kong Planning Standards and Guidelines (HKPSG)**	**HKPSG Requirement (based on planned population)**	**Provision**		**Surplus / Shortfall (against planned provision)**
			Existing Provision	**Planned Provision (including Existing Provision)**	
Hospital	5.5 beds per 1,000 persons[^] (assessed by Hospital Authority on a regional/cluster basis)	3,348 beds	1,520 beds	2,070 beds	-1,278 beds
Clinic/Health Centre	1 per 100,000 persons	6	2	5	-1
Magistracy (with 8 Courtrooms)	1 per 660,000 persons (assessed on a regional basis)	0	0	0	0
Child Care Centres	100 aided places per 25,000 persons[#@]	2,378 places	882 places	1,182 places	-1,196 places
Integrated Children and Youth Services Centre	1 for 12,000 persons aged 6-24[#]	7	7	7	0
Integrated Family Services Centre	1 for 100,000 to 150,000 persons[#] (assessed by SWD on a service boundary basis)	3	3	3	0
District Elderly Community Centres	One in each new development area with a population of around 170,000 or above[#] (assessed by SWD)	N/A	2	2	N/A

Type of Facilities	**Hong Kong Planning Standards and Guidelines (HKPSG)**	**HKPSG Requirement (based on planned population)**	**Provision**		**Surplus / Shortfall (against planned provision)**
			Existing Provision	**Planned Provision (including Existing Provision)**	
Neighbourhood Elderly Centres	One in a cluster of new and redeveloped housing areas with a population of 15,000 to 20,000 persons, including both public and private housing[#] (assessed by SWD)	N/A	5	9	N/A
Community Care Services (CCS) Facilities	17.2 subsidised places per 1,000 elderly persons aged 65 or above[#*@]	2,649 places	864 places	1,112 Places	-1,537 places
Residential Care Homes for the Elderly	21.3 subsidised beds per 1,000 elderly persons aged 65 or above[#@] (assessed by SWD on a cluster basis)	3,280 beds	1,016 beds	1,586 beds	-1,694 beds
Pre-school Rehabilitation Services	23 subvented places per 1000 children aged 0-6[#]	482 places	427 places	577 places	+95 places
Day Rehabilitation Services	23 subvented places per 10,000 persons aged 15 or above[#]	1,144 places	403 places	403 places	-741 places
Residential Care Services	36 subvented places per 10,000 persons aged 15 or above[#] (assessed by SWD on a cluster basis)	1,791 places	496 places	526 places	-1,265 places
Community Rehabilitation Day Centre	1 centre per 420,000 persons[#]	1	0	1	0
District Support Centre for Persons with Disabilities	1 centre per 280,000 persons[#]	1	1	1	0

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG)	HKPSG Requirement (based on planned population)	Provision		Surplus / Shortfall (against planned provision)
			Existing Provision	Planned Provision (including Existing Provision)	
Integrated Community Centre for Mental Wellness	1 standard scale centre per 310,000 persons#	1	2	2	+1
Community Hall	No set standard	N/A	6	7	N/A
Library	1 district library for every 200,000 persons	3	2	2	-1
Sports Centre	1 per 50,000 to 65,000 persons#	9	6	10	+1
Sports Ground/Sports Complex	1 per 200,000 to 250,000 persons#	2	1	1	-1
Swimming Pool Complex– standard	1 complex per 287,000 persons#	2	1	2	0

Note:
The planned resident population including Usual Residents (UR) and Mobile Residents (MR) population is about 594,700. If including transients, the overall planned population is about 608,900. All population figures have been adjusted to the nearest hundred.

Remarks:
The requirements exclude planned population of transients.
^ The provision of hospital beds is to be assessed by the Hospital Authority on a regional basis.
* Consisting of 40% centre-based CCS and 60% home-based CCS.
@ This is a long-term goal and the actual provision would be subject to the consideration of the Social Welfare Department in the planning and development process as appropriate.

January 2025

- 消防處會詳細了解及跟進舊式樓宇及餐廳續牌上的困難，並研究方法以提高處理牌照的效率。

17. 方國珊議員讚揚消防處在救災和滅火等工作的貢獻。她建議處方與漁護署合作，協調郊野防火帶的工作安排。她希望處方能夠與民政處、關愛隊、消防應急先鋒隊等分享大數據資訊，讓他們及早了解可能發生的事故，以便採取應對措施。另外，她關注康城樓宇的大型玻璃幕牆及外置冷氣機被颱風破壞的風險，建議消防處向居民提供及時支援。

18. 邱少雄議員建議處方邀請區議會及區內學校參觀社區應急體驗學習中心。他歡迎處方於西貢區成立消防及救護青年團，並建議把此計劃擴展至區內更多學校。

19. 消防處處長楊恩健先生綜合回應如下：

- 消防處會定期與漁護署聯繫，並計劃擴展郊野防火帶的範圍。消防處利用數據分析山火黑點，今年重陽節期間主動於北區的山火黑點加強巡邏，以及向掃墓及郊遊市民宣傳防山火資訊，成效十分顯著。
- 消防處將透過中央管理委員會發放數據，並樂於與地區應急先鋒隊及名譽會長會分享有關訊息。
- 消防處以保障市民的安全為首，會在現場進行玻璃幕牆的安全評估及即時處理可能產生的危險。處方會按任務的緊急程度及受控情況調動人手及資源。
- 消防處會於工程完工後，邀請區議會參觀社區應急體驗學習中心，亦會邀請區內學校及社區團體參觀，鼓勵他們學習生活中的應急技能。
- 消防處感謝區議會對消防及救護青年團的支持，計劃逐步擴展至各區及增加名額，鼓勵更多青年參與及宣傳滅火、防火和自救等應急培訓。

20. 主席感謝消防處處長與西貢區議會詳細分享和討論。西貢鄉村道路在颱風及雨天容易積水阻塞，感謝區議員及關愛隊迅速報告現場情況，使消防處與民政處等政府部門透過緊急事故應變機制即時調配資源，盡早疏通道路去水以減少對居民的影響。主席對消防處處理緊急工作的表現表示讚賞，同時希望消防處與地區「三會」主席共享儀錶板數據及訊息，以便及時將區內水浸問題等相關消息通知受影響居民。

(二) 將軍澳第 137 區及第 132 區對出經優化的造地建議
(SKDC(M)文件第 106/24 號)

21. 主席歡迎以下政府部門代表出席會議，包括發展局、環境及生態局、運輸及物流局、土拓署、環境保護署(下稱「環保署」)、路政署及規劃署。由於人數眾多，稍後有需要發言時請部門代表自我介紹。

22. 由於下列動議與本議題相關，在沒有議員反對下，主席宣布在此調前並合併討論。

(1) 建議興建新的過海鐵路，由 137 區至港島東，並研究將康城段獨立成線，應付未來人口需要，長遠解決將軍澳交通問題(SKDC(M)文件第 103/24 號)

23. 主席表示，議案由周家樂議員動議，並由李家良議員、李天賜議員、靳彤彤議員、邱浩麟議員、張美雄議員、施彬彬議員、胡雪蓮議員、陳權軍議員、張萬添議員、莊元苳議員、陳健浚議員、林俊嘉議員、陳廣輝議員、鄭宇曦議員、黃宏滔議員、曾國家議員、温啟明議員、劉啟康議員、譚竹君議員、祁麗媚議員、張展鵬議員、黃遠康議員、及方國珊議員和議。

24. 議員備悉運輸及物流局及港鐵的書面回應(SKDC(M)文件第 107/24 及 108/24 號)。

25. 發展局首席助理秘書長(規劃及地政)2 區頴恩女士以投影片向區議會簡介將軍澳第 137 區及第 132 區對出經優化的造地建議。

26. 劉啟康議員建議發展接駁第 137 區至清水灣道的行車公路，改善釣魚翁山及周邊地區的交通。由於附近一段清水灣道為雙線雙程行車，每當進行道路維修工程便會影響居民出入。為方便村民往來市區，以及方便市民到達西貢鄉郊、布袋澳及大坳門等地方，希望政府積極考慮以上建議。他希望將第 137 區擬建碼頭移近民居，亦建議加強第 137 區碼頭附近的配套，提供接駁市區至碼頭的交通工具。他建議局方就第 137 區發展計劃及細節安排多與居民包括鄉事委員會會面解說。此外，他建議第 132 區填海區形狀由方形改為較自然的弧形。

27. 陳繼偉議員表示，上屆區議會有就發展項目進行討論，建議局方多舉辦交流會向居民講解第 132 區的整體設計及設施分佈。他認為多次搬遷混凝土廠會造成浪費，建議應在原址尋找解決方案。他亦關注未來人口增長對將軍澳交通系統的影響，特別是提升鐵路信號系統是否能容納新增人口。他認為第 132 區施工時或會造成噪音，建議要訂立暫停施工的機制。他認為第 132 區公共設施的建築有一定的高度，會影響周邊環境及居民。他曾接獲將軍澳居民反映電視訊號接收不良，認為環境影響評估報告(下稱「環評報告」)中應詳細說明電力設施是否

產生噪音和幅射等問題，並查詢城市規劃委員會(下稱「城規會」)的公眾諮詢期。他希望政府能聽取居民意見及加強溝通，以確保發展項目能真正符合市民的需求。

28. 張展鵬議員關注發展項目中連接調景嶺與鯉魚門之間的行人路。他查詢將藍公路花園的架空橋設計是否僅供行人使用。另外，他查詢運送將軍澳區內家居垃圾到第 132 區的行車路線會否經過將藍公路，擔心泥頭車和垃圾車行駛會影響調景嶺居民的生活。另外，他建議參考深圳鹽田依海岸線興建海濱棧道接鯉魚門及調景嶺，以減少行人上下坡的難度及提高暢達性。他亦強調該行人步道與行車路應完全分隔，以免影響步行體驗。

29. 莊元苳議員支持第 137 區的發展計劃，認為可短期紓緩土地和房屋問題。為應付未來第 137 區的人口增長及解決將軍澳區長遠的過海交通問題，他建議政府興建新的過海隧道，可配合港島東區及柴灣工業區的未來發展。他建議政府以第 137 區為智慧城市的試點，推行智慧出行、智慧供水及電網系統。政府爭取於 2050 年實現碳中和為目標，他支持於第 132 區引入公共設施以實施碳中和概念，認為新設施能配合第 137 區的土地發展及處理來自本區的家居廢物。

30. 發展局首席助理秘書長(規劃及地政)2 區頴恩女士回應指，在制訂建議發展大綱圖的過程中，項目團隊已為擬議發展進行詳細技術評估及環境影響評估，涵蓋運輸及交通、排水、供水、排污、環境和空氣流通等多個不同的範疇，並確立了擬議發展的技術可行性。項目團隊建議於第 132 區設置混凝土廠亦並非為了搬遷現有位於油塘的混凝土廠。將來位於第 132 區的混凝土廠的經營權會透過招標而定。政府作為招標的一方，會考慮在招標時加入條件，從源頭上排除經營欠妥善的營運商參與。政府各個相關部門亦會在未來繼續密切監察混凝土廠的運作，以確保其運作遵守由環保署在發出相關牌照時所施加的條款。在項目時間表方面，項目團隊計劃於今年內向環保署提交環評報告，以供審批及展示給公眾查閱，並會爭取在 2025 年第一季啟動包括城規等在內的相關法定程序。

31. 運輸及物流局助理秘書長 7B 柯雋銘先生綜合回應如下：

- 政府去年底公布的《香港主要運輸基建發展藍圖》中已充分考慮最新的規劃和土地用途資料，包括第 137 區的潛在新增人口。
- 該研究報告顯示，將軍澳線來往油塘至鰂魚涌的過海段為最高載客量的路段；而來往寶琳至將軍澳和康城至將軍澳路段的乘客量則相對較低。
- 未來，透過提升信號系統及增加列車數目，將軍澳線的班次和

最高載運量預計可以同時應付往來寶琳站的乘客量，以及增加往來康城站／第 137 區的班次，以滿足將軍澳長遠發展的運輸需求。

- 就於將軍澳南增設過海鐵路段的建議，研究評估顯示，於將軍澳南增設過海運輸基建未能有效縮短將軍澳區居民前往港島核心商業區的時間，而且其運輸效益及服務範圍均有限。
- 增設過海運輸基建須同時考慮港島區的運輸基建配套、工程可行性等因素，當中面臨的技術挑戰包括需要拆卸大量港島區的近岸樓宇和公共設施，以提供空間接駁至現有的高架鐵路及道路。政府全面考慮了整體的運輸及成本效益和對現有建築物及公共設施的影響，目前暫未有計劃於將軍澳南增設過海運輸基建。如日後規劃參數或實際條件出現顯著的變化，我們會適時作出檢視。
- 備悉議員對連接清水灣道與第 137 區的建議，會與運輸署繼續研究。

32. 土拓署東拓展處副處長鍾永康先生回應，由於第 132 區的公共設施的日常運作均依賴水路運輸，故平整的海堤更適合船隻停靠。若要以弧度呈現剛提及的海堤，反而會不必要地加大填海規模。相比之下，現時建議的方案不但能有效地減少填海規模，亦符合成本效益。另外，土拓署將興建新的接駁道路，連接第 132 區至現有的道路網絡。就將軍澳與鯉魚門之間的連接，土拓署會確保行人行經連接調景嶺至第 132 區的行人路時能享有安全和舒適的步行環境。

33. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士補充，作為其中一項優化措施，項目團隊會研究開放位於第 137 區東南端近鐵篆洲的現有碼頭供公眾使用，以加強新社區的水路連接。該碼頭位於未來道路的末端。在規劃第 137 區時，已預留空間供將來發展連接至該碼頭。

34. 主席請土拓署代表講解將來規劃後市區垃圾車的行車路線。

35. 土拓署東拓展處副處長鍾永康先生回應，現時由九龍東前往新界東南堆填區的車輛一般會經將軍澳—藍田隧道(下稱「將藍隧道」)、跨灣大橋及環保大道駛往新界東南堆填區，而將軍澳區內的相關車輛則經區內道路進入環保大道往新界東南堆填區。造地建議如獲落實，未來進出第 132 區的車輛可直接經將藍隧道及新建的接駁道路往返九龍，避免駛經環保大道等路段，而將軍澳區內的車輛亦會透過區內道路網絡及新建接駁道路通往第 132 區。

36. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士補充，因應各項

公共設施的運作需要，除陸路運輸外，該等設施在未來營運時亦會同時利用水路運輸，例如建築廢物處理設施會利用躉船轉運建築廢物至其他廢物處理設施、公眾填料轉運設施會通過水路轉運接收到的公眾填料到合適的項目作重用，而廢物轉運站則會將經壓縮並裝進密封貨櫃的都市固體廢物經水路轉運至廢物處理設施。上述的交通安排將有助減低對陸路交通的影響。

37. 陳志豪議員認為第137區未來公眾碼頭的位置與民居的距離較遠，查詢將碼頭移近民居的可行性。他建議於第 137 區興建新的海底隧道接駁至港島東，以紓緩現時東區海底隧道(下稱「東隧」)於上下班高峰期的擠塞情況，以及應付將來第 137 區新增人口的交通需求。他建議增設行人路及單車徑連接第 137 區及第 132 區，讓將軍澳區具備一條完整的單車徑，並在沿途設洗手間方便使用者。他亦建議於第 137 區增設私家醫院，以滿足將來人口增加帶來的醫療需求，讓居民無須前往九龍中或港島區就醫。

38. 黃遠康議員表示，發展項目報告預計第 137 區將提供約 50,000 個單位，按現時公私營房屋供應比例分配當中 35,000 個為公營房屋，但今年施政報告提及未來公共房屋和資助出售房屋的比例將有所調整，他擔心此方針會減少原先預計於第 137 區所建的公營房屋比例。他查詢第 137 區的公私營房屋供應比例是否維持不變，並建議第 137 區人均居住面積的提升比例由百分之十調低至百分之五，相應增加整體的單位數量至 52,500 個，以滿足基層市民的住屋需求。他提及政府有意設立第三間醫學院，建議預留第 137 區部分土地面積興建公營教學醫院，以支援第 137 區及康城超過二十萬居民的醫療需求。

39. 施彬彬議員表達區內居民對第 132 區公共設施建築高度的關注。她查詢發展項目報告中提及電力設施的高度限制在主水平基準以上 70 米，是否等如建築物的高度為 70 米。她建議局方提供模擬視覺效果圖向居民解說，並邀請附近擔心噪音及異味的居民參觀相關設施。她贊同連接調景嶺至鯉魚門的步道需增加單車徑設施，以便居民於距離較遠的路段使用單車代步。

40. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士綜合回應如下：

- 就議員對建築物高度及視覺景觀的關注，項目團隊會因應各項設施的需要制定合適的建築物高度限制。第 132 區的新造土地上的擬議發展主要為低矮建築物，其高度限制介乎主水平基準以上約 35 米至 70 米之間。另外，在未來為建築物進行外觀設計時，相關的政策局及部門亦會考慮採用垂直綠化等的設計，以進一步優化該區的視覺景觀。

- 為構建一個綠色宜居的海濱新社區，項目團隊已在第 137 區規劃了一個約 6.5 公里長的單車徑網絡，並計劃將該網絡通過現時沿環保大道和環澳路約 2.4 公里長的單車徑，接駁至將軍澳區內現有的單車徑網絡。

41. 運輸及物流局助理秘書長 7B 柯雋銘先生表示理解將軍澳居民，包括將來第 137 區居民，往來港島區的交通需求。因應地理位置及現有道路網絡，現時區內大部分居民主要使用將軍澳隧道或將藍隧道經東隧過海。隨著整條六號幹線，包括已於 2022 年 12 月通車的將藍隧道，以及正在興建的中九龍幹線、T2 號主幹路和茶果嶺隧道，預計於 2026 年將全線開通，在繁忙時間往來將軍澳市中心至油麻地交匯處的行車時間將從現時約 65 分鐘大幅縮減少至約 12 分鐘。局方預期新道路將有效分流將軍澳及將來第 137 區的居民使用紅磡海底隧道及西區海底隧道，並減少對東隧的依賴。長遠而言，政府亦計劃在交椅洲人工島項目中興建一條連接大嶼山東北地區至港島的主要幹道。有關道路可視作為第四條過海隧道，進一步改善目前三條過海隧道的交通情況。

42. 環境及生態局助理秘書長(可持續發展)2 周彥彤女士補充有關第 132 區電力設施的設計，該設施將採用多層設計，以放置設備在四棟不高於 60 米的建築物內，而設計將融入垂直綠化和綠化天台等元素。

43. 李家良議員反映區內缺乏文娛表演場地，建議在第 137 區發展項目計劃設立社區會堂外，亦應考慮增設文娛中心，以提供足夠表演場地及文娛康樂設施。此外，第 137 區發展項目中預留了七個幼稚園設施，但現時位於寶琳的部分幼稚園設施仍為空置，建議未來土地規劃上可考慮改為多用途功能，若幼稚園的需求不足，則可將其改為其他用途。他表示局方提供的平面設計圖與三維模擬圖中所顯示第 137 區及碼頭設施的連接位置不一致，查詢當中步行通道的位置。他建議善用人工智能並研究於第 137 區及第 132 區推行智慧城市。

44. 方國珊議員感謝政府和相關部門積極聽取民意，上屆區議會曾舉辦多次諮詢會，將軍澳南屋苑居民最為關注填海問題。她認為在發展項目同時，亦需要考慮對周邊環境的影響，故須加強監測環境以確保新設施對社區造成的影響減至最低。她反映目前區內的康體設施仍然不足，希望政府在提前落實第 72 區調景嶺公園計劃時，亦同步考慮加快第 86 區的體育館和第 77 區的水上活動中心的興建計劃。她認同新發展項目要貫徹落實基建先行的發展方向，亦要讓基建設施配合現時社區需要。她建議於第 86 區的政府聯用大樓中興建小型街市以解決康城居民的民生所需。交通方面，她強調港鐵康城站的擁擠情況嚴重，期望部門藉着興建「將軍澳線南延線」實現環迴鐵路連接計劃，並長遠規劃連接第 137 區的過海段。她建議盡快提升將軍澳線的信號系統；增

添新車及增加來往康城及第 137 區班次達到全日每 4 分鐘一班的列車服務。

45. 邱浩麟議員關注第 137 區作為大型住宅發展項目的車位數量及配套問題。他表示大型屋苑住宅對車位的供求比例有限制，建議善用政府大樓的車位以配合公眾所需，以及紓緩泊車困難的問題。由於第 137 區位於「掘頭路」，他建議使用天橋接駁第 137 區內各大型住宅。他表示第 137 區現處於規劃及開發階段，認為即使可能有技術上困難，亦應提前規劃以達至各住宅位置均能以天橋接駁。

46. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士回應指，政府致力把第 137 區發展成為一個綠色宜居、配套完善及交通便利的海濱新社區。在發展布局上，擬議的鐵路站將設置於第 137 區的中心位置，大部的住宅發展和社區設施都位於擬議鐵路站 15 分鐘步行距離，區內亦會設置全天候的行人網絡，為未來的居民提供舒適的步行體驗。項目團隊會在詳細設計階段進一步深化行人網絡的設計，並考慮於合適位置設置行人天橋或有蓋行人道。另外，項目團隊已根據《香港規劃標準與準則》，按規劃人口和社區服務的需求，在第 137 區預留足夠的樓面面積作幼稚園用途。由於已規劃的幼稚園用途屬非住用部分，因此在發展落成後，可按實際情況和社會對幼稚園的需要，適當地調整非住用部分的用途。

47. 規劃署助理署長／新界區袁承業先生回應指，文件第 106/24 號圖 3a 已標示第 137 區東南端近鐵篆洲的現有碼頭位置。規劃署在考慮修訂分區計劃大綱圖時，會把該碼頭用地納入修訂範圍內，並在大綱圖上劃為合適的用途地帶。就議員提出有關碼頭配套設施的建議，相關部門會於詳細階段仔細研究，以完善碼頭配套設施的規劃。

48. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士表示理解議員對第 137 區的發展抱有期望，並希望可以有更多不同的社區配套設施（例如文娛康體設施等）供區內居民享用。因應第 137 區未來發展所新增的人口，政府會按《香港規劃標準與準則》的要求預留適量的土地供增設各類型的社區配套設施，以服務未來居民的需要。項目團隊亦會將議員對區內其他發展項目以及社區配套設施的意見轉交相關的政策局及部門考慮。

49. 主席表示區內議員關注公共街市的位置，請政府部門講解目前的規劃及考慮。

50. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士回應指，在規劃第 137 區時，作為其中一項優化措施，項目團隊已在第 137 區擬議鐵

路站附近預留一幅土地興建政府綜合大樓，除原有建議的設施外，大樓內亦會加設公眾街市，以服務區內及將軍澳東南附近居民。此外，位處於臨海近擬議鐵路站的一幅規劃作商業／住宅發展的土地以及各幅住宅用地均會容許在低層設置商業設施（例如零售及餐飲等），以滿足居民的日常需求。

51. 莊雅婷議員表示發展局雖然將第 132 區用地的公共設施由六項減至五項，不再設置海上垃圾收集站，但仍保留了公眾填料轉運設施、混凝土廠、電力設施、建築廢物處理設施和廢物轉運站，而有關設施距離民居只有約 1 公里。她詢問發展局在計劃興建相關設施時除考慮水路運輸的因素外，會否有其他選址原因，例如興建有關設施前是否已有相關環評報告及結果。她希望發展局能提供更多減污措施的資料。她又建議設立網上實時數據顯示平台，讓市民能實時監測有關設施的營運對附近環境造成的影響。此外，她建議在第 137 區興建更多青年宿舍、年青人住房項目、青年驛站或青年創業空間等。

52. 張美雄議員支持在第 137 區設置政府綜合大樓，希望發展局能提供更多具體資訊，並提出意見如下：

- 認為現時香港住宅的供求需要有改變，建議調低第 137 區的住宅密度，以減低對將軍澳的交通影響。
- 發展項目文件中提及的 6.5 公里單車徑並不包括第 137 區擬議 1.4 公里海濱長廊，故建議發展局考慮將計劃中的 1.4 公里海濱長廊伸延至現時將軍澳工業邨，接駁將軍澳海濱長廊至鯉魚門位置，形成類似北角至中環的超級海濱長廊。
- 查詢何時會進一步提升第 137 區的鐵路信號系統和增加港鐵班次。
- 查詢興建調景嶺公園的具體詳情及時間表。
- 會否考慮將第 132 區填海範圍向鯉魚門方向遷移，令填海範圍更遠離將軍澳區。
- 認為發展項目報告中提及的調整削坡工程至 55 米及將公共設施遷入岩洞方案均可進一步減少填海面積，建議局方亦應考慮有關方案。
- 查詢第 132 區填海工程的時間表，以及工程會否對附近空氣及水質造成污染。

53. 周家樂議員表示 2014 年曾有新聞報導指港鐵將軍澳線的載客上限為 67,500 人次。他指出除了第 137 區興建住宅外，區內仍有四幅住宅用地正興建中，並預計整個第 137 區人口會增至十五萬人。他認為即使政府興建「將軍澳線南延線」；提升港鐵信號系統及列車數目以增加將軍澳綫乘客量，仍不能有效消化區內新增人口的交通需求，所以建

議發展局重新考慮將康城段獨立成線。

54. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士綜合回應如下：

- 在提出於第 132 區對出設置公共設施時，項目團隊已經考慮多個不同的因素，當中包括有需要避免因填海工程令水流過慢而造成沉澱及影響水質；避免因填海工程影響海上主要航道、海事設施、海底電纜、海底排放管及將軍澳危險品碇泊處；避免因填海工程影響生態敏感度較高的區域及魚類養殖區等。經評估後，項目團隊認為現時的方案最能平衡各項因素。若進一步往南遷移第 132 區的填海位置，將會影響生態敏感度較高的區域。
- 擬設置在第 132 區對出的建築廢物處理設施將用作接收、處理及經水路轉運建築廢物至其他廢物處理設施。此設施並沒有貯存的功能。建築廢物的處理過程將主要在建築物內進行，以減少對周邊環境的影響。
- 現時全港有七個運作中的廢物轉運站。未來設置在第 132 區對出的廢物轉運站將距離最近屋苑約 1,200 米，為本港五個現時位處市區的廢物轉運站中最為遠離民居。廢物處理過程主要會在傾卸及壓縮大堂進行，傾卸大堂的負氣壓系統會防止有氣味的氣體外滲，而抽風系統會將有氣味的氣體抽送至空氣淨化系統處理後才排放，而所有廢物收集車在離開處理設施前亦必須清洗車身。
- 在第 137 區方面，正如較早前提及，項目團隊在第 137 區規劃了一個約 6.5 公里長的單車徑網絡，當中部分會設在第 137 區的海濱長廊旁，以善用海濱，提供一個完善的行人及單車徑網絡。

55. 運輸及物流局助理秘書長 7B 柯雋銘先生綜合回應如下：

- 港鐵現正進行信號系統更新工程，以進一步提升鐵路服務的整體可靠度及效率。按現時工作計劃，整體工程預計於 2028 至 2029 年完成，屆時鐵路的服務班次和水平會進一步提升。
- 政府會繼續督促港鐵密切留意不同鐵路線的乘客量，並透過多管齊下措施，改善人流及提升乘客的出行體驗，包括靈活調配及調整列車的服務、加強客流管理措施、安排短途班次疏導乘客等。
- 有關將軍澳線的最高可載客量，是指最繁忙一小時內最頻密列車班次下的載運量。由於並非所有新增人口皆會在同一小時內出行，所以不能把將軍澳線的最高可載客量及將軍澳區預期的新增人口數量作直接比較。

56. 發展局首席助理秘書長(規劃及地政)2 區頴恩女士續回應如下：

- 若按議員的建議進一步將新造土地推入山體，相關挖掘工作及工程費用會不符比例地大幅上升。進一步擴大削坡規模亦會涉及更多的岩石挖掘及鞏固工程，令整項工程規模、施工時間及費用急劇增加，更會加深對周邊環境的影響。此外，由於第 132 區的公共設施均有臨海需求，進一步削坡會影響相關設施的運作。
- 岩洞發展雖然有很多好處，但亦有不少技術限制及考慮。岩洞並不是一大片平坦的土地，而是由多條岩洞隧道連接組合而成，當中涉及多條石柱以支撐整體岩洞空間，故岩洞空間都是較長和窄，未必適合放置體積大，但不能分拆的設施，例如需要最少 80 米直徑空間以放置組件的電力設施。另外，由於其餘四項公共設施均須設置於臨海位置，即使將設施分拆，將部分遷入岩洞，仍無可避免需要填海，以設置碼頭供船隻停泊、提供臨海作業用地或興建穿梭碼頭和岩洞之間的道路。換言之，此舉不但未能有效減少填海規模，反而會進一步擴大作業範圍，亦會牽涉較高的成本及需較長的時間推展。

57. 主席表示區議會非常關注調景嶺公園的發展，請部門代表解釋調景嶺公園會納入第 137 區及 132 區工程的原因。

58. 發展局首席助理秘書長(規劃及地政)2 區頴恩女士回應指，為回應居民期盼，作為其中一項優化措施，項目團隊會提前落實早年規劃的調景嶺公園，將該項目的建造工程納入第 137 區及第 132 區項目內，並一併申請撥款推展工程，讓居民盡早享用康體設施。

59. 陳健浚議員支持第 137 區及 132 區的發展，但擔心區內的交通規劃安排。他表示曾多次向運輸及物流局表達希望興建隧道連接第 137 區和小西灣，但未獲考慮。運輸及物流局指 T2 主幹路及茶果嶺隧道及大老山公路 T6 橋擴闊工程已有效紓緩交通擠塞問題，但他認為有關工程未能真正解決區內交通擠塞問題，並希望局方能重新考慮在第 137 區興建隧道連接小西灣的建議。此外，現時日出康城居民主要靠調景嶺站分流及轉駁至其他鐵路線，令調景嶺站月台在繁忙時間非常擠逼。他相信第 137 區急增的人口會令月台更擁擠，故建議部門考慮興建日出康城直接通往港島的鐵路線，紓緩道路交通擠塞問題。

60. 陳權軍議員表示不反對填海造地工程，但認為第 137 區興建公營房屋的比例太多。他指第 132 區的公共設施距離民居只有約 1 公里，建議局方在推展第 132 區項目時應在公共設施建築物外牆做好綠化工

程，減低對市民的滋擾。他支持劉啟康議員提出興建接駁第 137 區至清水灣道行車公路的建議，同時認為要增加第 137 區住宅密度，才能更有理據爭取興建道路貫通第 137 區至港島區。他另詢問有關第 132 區公共設施工程的造價。

61. 温啟明議員支持第 137 區發展項目。他提及政府於 2020 年公佈《香港智慧城市藍圖 2.0》，致力推動智慧城市以提升城市競爭力。他建議於第 137 區的建設中引入人工智能和城市管理系統，包括空氣質量檢測、智慧交通、綠色能源和社會安全等措施，以提高市民生活質素。他關注將軍澳長期泊車位不足的問題，查詢未來第 137 區的車位與居民的比例，期望規劃更多泊車位以滿足需求，亦建議採用智能停車場及增設充電設施。他提到現時養寵物的市民有所增加，建議於第 137 區增設人寵共融空間，如寵物公園等設施。

62. 張展鵬議員表示市民對廢物處理設施有負面印象，主要源於過去營運商的表現差劣。他認為今次發展項目報告只集中於闡釋硬體設施及填海造地方案，並未提及如何完善工程項目的標書細節，因此未能有效向市民講解改善標書措施。市民擔心於第 132 區營運公共設施會重蹈油塘工業區混凝土廠的覆轍，以及造成環保大道衞生惡劣情況。他提出以下四項改善建議，包括：

- 對於有氣味產生的設施，應使用密封方式運作以減少臭味外泄。
- 當第 132 區施工時，環保署應建立全天候 24 小時實時監察系統，即時監察空氣質量如塵粒、氣味、碼頭附近水質、噪音和路面污染等情況。
- 限制曾有不良紀錄包括其股東、董事及操作人員在內的營運商不能參與投標；不採用曾被環保署拒絕續牌的公司，以及加強監察及審核營運商。
- 希望政府提高保證金額度，以便在營運商表現不佳時扣減合約金額，以展示政府對營造綠色宜居環境的決心。

63. 主席表示，政府曾於 2023 年與上屆區議會就發展項目進行諮詢，但當時計劃仍處於初步階段而缺乏細節，而且上屆區議會人數較少。今屆區議會成立後，政府適時提供更完整的規劃諮詢區議會。主席補充，政府繼 2023 年年初諮詢上屆區議會後，亦有與超過 30 個地區團體進行會議，包括屋苑業主委員會、地區人士、村民代表、關注組等。她強調今次諮詢區議會是第一步，民政處會與相關部門及區議員商討後續的居民諮詢安排，以確保與地區居民保持緊密有效溝通。

64. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士續回應如下：

- 就議員提出綠化設施外牆的建議，在未來為建築物進行外觀設計時，相關的政策局及部門會考慮採用垂直綠化等設計，以進一步優化該區的視覺景觀。
- 理解議員對混凝土廠在未來營運方面的關注。全港現有二十多間混凝土廠，設於不同區域。雖然部分鄰近民居，但大部分營運商都能夠妥善管理及營運該等混凝土廠，確保其日常運作符合相關法例的要求。未來設置於第 132 區的混凝土廠的經營權將透過招標而定。政府作為招標的一方，會考慮加入條件，禁止於過去一段時間曾被環保署拒絕牌照續牌申請的營運商參與投標，從源頭上排除經營欠妥善的營運商參與。各工程團隊將會按環保署就相關指定工程項目發出的環境許可證要求實施環境監測及審計，並定時發布有關環境監測的數據。

65. 環境及生態局首席助理秘書長(可持續發展)張岱楨先生感謝議員的意見，並表示環保署會積極研究及考慮有關廢物處理設施的建議。他補充電力設施的主要裝置(包括變壓器、高壓電流轉換設備和其他控制及通訊輔助設備)均不涉及燃燒發電燃料或進行化學加工程序，因此不會排放污染物。

66. 運輸及物流局助理秘書長 7B 柯雋銘先生回應，隨著將軍澳線信號系統的提升和加密班次，預期乘客的等候時間將會減少，而月台擁擠的情況亦將會改善。局方將繼續督促港鐵按照計劃提升信號系統，並密切監察將軍澳線的運作安排，以進一步改善服務。

67. 陳繼偉議員表示局方未有回應環評報告的發布時間，另查詢當第 132 區設施施工時所產生空氣質素、氣味、噪音滋擾等問題，局方是否會禁止工廠於改善問題之前停止運作。

68. 主席理解議員關注規劃進展，區議會亦曾討論泥頭車進出帶來的環境衞生問題。主席向議員匯報嘉華混凝土廠自今年 10 月開始營運，設施使用新科技以減少對環境的影響。民政處將稍後安排西貢區議會實地檢視嘉華混凝土廠，視察如何利用最新科技來降低污染環境的風險。主席相信科技會隨時間進步，有信心未來的技術有助把對環境的影響減至最低。主席請發展局代表就環評報告的發布時間提供更具體資訊。

69. 發展局首席助理秘書長(規劃及地政)2 區穎恩女士回應指，項目團隊將於今年內向環保署提交環評報告。按環評條例的要求，該報告隨後會展示給公眾查閱及提供意見。

70. 主席理解陳繼偉議員的擔憂，呼籲給予時間讓政府部門和顧問完成更詳細的環評報告，稍後再向公眾公開報告。主席強調今次不是一次性的諮詢，區議會可以隨時跟進此規劃及討論細節，並鼓勵政府部門適時向民政處和區議會秘書處提供規劃的最新資訊，以便分享給區議員及區內居民。

71. 有關周家樂議員提出的動議「建議興建新的過海鐵路，由 137 區至港島東，並研究將康城段獨立成線，應付未來人口需要，長遠解決將軍澳交通問題」，主席總結大部分議員對第 137 區的鐵路連接及來往康城及港島東的交通需求均表示關注。由於沒有議員反對，主席宣布上述動議獲得通過，並會去信發展局、環境及生態局、運輸及物流局、土拓署、環保署、路政署、規劃署及港鐵，表達本會的意見，請各部門就有關意見提供書面回覆。

72. 主席表示已就議題進行充分討論，感謝各政府部門代表出席會議，請部門跟進議員提出的意見。

III. 續議事項

(一) 區議會二零二四年九月三日第五次會議的動議的跟進情況

73. 主席表示，在 2024 年第五次會議上，本會通過四項動議，並已就獲通過的動議致函相關政府部門，表達本會意見。秘書處已將收到的覆函以電郵通知議員，並上載至區議會網頁。

IV. 報告事項

(一) 西貢區議會轄下委員會工作報告
- (1) 地區設施及工程委員會
- (2) 食物環境衞生委員會
- (3) 社區參與及文化康樂委員會
- (4) 交通運輸委員會

(SKDC(M)文件第 98/24 至 101/24 號)

74. 議員通過上述各項報告。

(二) 西貢民政事務處轄下委員會工作報告
- (1) 西貢地區管理委員會

(SKDC(M)文件第 102/24 號)