

Remaining Phase Development of the New Territories North (NTN) – NTN New Town and Man Kam To Project Profile

{prepared in accordance with
the Environmental Impact Assessment Ordinance (Cap. 499)}

May 2021

Civil Engineering and Development Department

Project Profile

TABLE OF CONTENTS

1. BASIC INFORMATION	1
1.1 Project Title.....	1
1.2 Purpose and Nature of Project	1
1.3 Name of Project Proponent.....	1
1.4 Location and Scale of Project and History of Site.....	1
1.5 Number and Types of Designated Projects to be Covered by the Project.....	3
1.6 Name and Telephone Number of Contact Person.....	4
2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME.....	4
2.1 Project Implementation.....	4
2.2 Project Time Table.....	5
2.3 Interactions with Other Projects.....	5
3. POSSIBLE IMPACTS ON THE ENVIRONMENT	6
3.1 Outline of Processes Involved	6
3.2 Air Quality	7
3.3 Noise	7
3.4 Water Quality.....	8
3.5 Waste Management.....	9
3.6 Landfill Gas	9
3.7 Ecology	10
3.8 Hazards to Life.....	10
3.9 Cultural Heritage.....	11
3.10 Land Contamination.....	12
3.11 Landscape and Visual	12
3.12 Agriculture and Fisheries.....	13
3.13 Electric and Magnetic Fields	14
4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT	14
4.1 Air Quality	14
4.2 Noise	15
4.3 Water Quality.....	16
4.4 Waste Management.....	16
4.5 Landfill Gas	16
4.6 Ecology	16
4.7 Hazards to Life.....	17
4.8 Cultural Heritage.....	18
4.9 Land Contamination.....	19
4.10 Landscape and Visual	19
4.11 Agriculture and Fisheries.....	19
4.12 Electric and Magnetic Field.....	20
5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS.....	20

5.1	General.....	20
5.2	Air Quality.....	21
5.3	Noise.....	23
5.4	Water Quality.....	24
5.5	Waste Management.....	26
5.6	Landfill Gas.....	27
5.7	Ecology.....	28
5.8	Hazards to Life.....	29
5.9	Cultural Heritage.....	29
5.10	Land Contamination.....	30
5.11	Landscape and Visual.....	30
5.12	Agriculture and Fisheries.....	33
5.13	Electric and Magnetic Fields.....	33
5.14	Severity, Distribution and Duration of Environmental Effects.....	33
5.15	Further Implication.....	34
6.	USE OF PREVIOUSLY APPROVED EIA REPORT.....	34

TABLE LIST

Table 4.1	Representative Air and Noise Sensitive Receivers
Table 4.2	Water Sensitive Receivers
Table 4.3	Declared Monuments
Table 4.4	Graded Historic Buildings
Table 4.5	Historical Villages/Buildings with Potential Heritage Values

DRAWING LIST

<u>Drawing No.</u>	
CDNLMCZ0012	New Territories North New Town and Man Kam To Logistics Corridor - Location Plan

1. BASIC INFORMATION

1.1 Project Title

1.1.1 Remaining Phase Development of the New Territories North (NTN) – NTN New Town and Man Kam To

1.2 Purpose and Nature of Project

1.2.1 The NTN is one of the two Strategic Growth Areas proposed under “Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030” (Hong Kong 2030+ Study) to meet Hong Kong’s long-term housing, economic and social needs. Within the NTN, three Potential Development Areas (PDAs) including NTN New Town, Man Kam To (MKT) Logistics Corridor and San Tin/Lok Ma Chau Development Node (STLMC DN) are proposed for housing, economic and employment-generating developments.

1.2.2 In the context of Hong Kong 2030+, the Civil Engineering and Development Department (CEDD) and the Planning Department (PlanD) completed the Agreement No. CE 42/2013 (CE) “Preliminary Feasibility Study on Developing the New Territories North” (the Preliminary Study) in 2018. Various broad land uses including residential, commercial, science park, industrial, government, institution or community, agricultural, open spaces, green belt, etc. were proposed. The Project will not only boost land and housing supply and create job opportunities, but will also improve the rural environment through redevelopment of brownfield sites and promote better home-job balance.

1.2.3 The Project comprises the NTN New Town and MKT Logistics Corridor (NTN Remaining Phase Development) and the associated engineering infrastructure works to serve the development areas. The planning and engineering study shall determine the scope of the Infrastructure Works required for the development; assess various impacts due to the provision of these infrastructures and development; and recommend the mitigation measures to keep the potential impacts within the acceptable level of the current standard/regulation.

1.3 Name of Project Proponent

1.3.1 The Project Proponent is North Development Office (NDO), CEDD of the Government of the HKSAR.

1.4 Location and Scale of Project and History of Site

1.4.1 The location of the Project is shown in Drawing No. CDNLMCZ0012. The proposed

boundaries of NTN Remaining Phase Development shown in the location plan are tentative and indicative only, and it will be subject to review under the planning and engineering study taking into account the latest circumstances, the recommendations of the NTN Study, Hong Kong 2030+ and the public views on the NTN Remaining Phase Development.

- 1.4.2 The NTN Remaining Phase Development includes the proposed NTN New Town (site area of about 1100 ha)(covering Heung Yuen Wai (HYW), Ping Che (PC), Ta Kwu Ling (TKL), Hung Lung Hang (HLH) and Queen’s Hill (QH)) and the MKT Logistics Corridor (site area of about 40 ha) with the total site area of about 1140 ha and their surrounding areas including the possible locations of the proposed caverns. The NTN Remaining Phase Development directly abuts the boundary with Shenzhen and three Boundary Control Points (BCPs) at Lo Wu, Man Kam To and Heung Yuen Wai to the north; Robin’s Nest (Hung Fa Leng) to the east; Fanling and Sheung Shui new towns to the south; and Ng Tung River / Ho Sheung Heung to the west. The public housing development at Queen’s Hill will be included in the NTN New Town so that their impacts will be taken into account in the Project.
- 1.4.3 The present area of the NTN Remaining Phase Development is rural in character and comprises mostly natural landscapes, agricultural land, ponds, woodland, watercourses, open storage, informal industries, scattered villages, etc. Brownfield sites with about 160 ha are found within the NTN Remaining Phase Development. According to the final report of the Preliminary Study published in February 2018, the NTN Remaining Phase Development has potential of accommodating a minimum population of about 200,000 and providing about 134,000 job opportunities.
- 1.4.4 The works for the Project include site formation works and the associated infrastructure works, which would include the necessary slope works, roadworks, sewerage works, sewage pumping station, sewage treatment works, drainage works, waterworks, utility works, fresh water and flushing water service reservoirs, rock caverns, cycle tracks, etc. within or outside the proposed boundaries of the Project for serving the proposed development. The scope and details of the associated infrastructure works would be identified and recommended in the planning and engineering study.
- 1.4.5 The broad land use concepts identified for the Project under the Preliminary Study such as commercial, residential, industrial estate, science park, logistics industries, Government, institution and community, agriculture, open space, green belt, village, roads, cycle tracks, car parks, rivers, retention pond and rock caverns would be further reviewed under the planning and engineering study. The possible locations of the rock caverns would be reviewed and the possibility of accommodating facilities in the caverns

such as fresh water and flushing water service reservoirs and sewage treatment works would be explored under the planning and engineering study. The land uses, boundaries, scope and scale of the proposed development areas and the proposed engineering infrastructures and facilities would be further reviewed and coordinated with the relevant departments under the planning and engineering study.

1.5 Number and Types of Designated Projects to be Covered by the Project

1.5.1 The Project includes a planning and engineering (P&E) study of NTN Remaining Phase Development with an area covering of about 1,140 ha and involving a minimum population of about 200,000. Therefore, the Project falls within Item 1 under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO), i.e. "Engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100,000" and is a Designated Project requiring an Environmental Impact Assessment (EIA) report.

1.5.2 The Project also involves various Schedule 2 Designated Projects under the EIAO that may be identified during the course of the P&E study. While the engineering infrastructure works required for supporting the NTN Remaining Phase Development will be investigated and recommended under the P&E Study, the following non-exhaustive list of potential elements, which are identified as Designated Projects under Schedule 2 of the EIAO, are included in this Project Profile :-

- (i) Roads which are expressway, trunk roads, primary distributor roads or district distributor roads including new roads, and major extensions or improvements to existing road (Item A.1, Part I)
- (ii) Road bridge(s) more than 100m between abutments (Item A.8, Part I)
- (iii) Sewage treatment works (Item F.1 and/or Item F.2, Part I)
- (iv) Sewage pumping station(s) (Item F.3, Part I)
- (v) An activity for the reuse of treated sewage effluent from a treatment plant (Item F.4, Part I)
- (vi) A 400 kV electricity substation and transmission line (Item H.1, Part I)
- (vii) Drainage channel or river training and diversion works which discharges or discharge into an area which is less than 300 m from the nearest boundary of an existing or planned (i) site of special scientific interest; (ii) site of cultural heritage; (iii) marine park or marine reserve; (iv) fish culture zone; (v) wild animal protection area; (vi) coastal protection area; or (vii) conservation area (Item I.1(b), Part I)
- (viii) A flood storage pond more than 10 ha in size (Item I.2, Part I)

- (ix) Industrial estate (Item K.1, Part I)
- (x) Underground rock caverns (Item Q.2, Part I)
- (xi) Temporary explosives magazine for cavern construction (Item K.10, Part I); and decommissioning of temporary explosives magazine (Item 11, Part II)

The feasibility and requirement, including scale & scope, of the above potential Designated Projects, including the underground rock cavern, needs to be investigated and ascertained under the planning and engineering study, and their impacts will be studied in EIA.

1.6 Name and Telephone Number of Contact Person

1.6.1 All queries regarding the Project can be addressed to:

Mr CHUNG Wing Hong, John (Chief Engineer/North (Special Duties 10))

North Division 2

North Development Office

Civil Engineering and Development Department

Unit 2813, Level 28, Tower I, Metroplaza,

223 Hing Fong Road,

Kwai Fong, N.T.

Tel.: 3152 3399

Fax. 3547 1658

2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Implementation

2.1.1 The Project Proponent, NDO of CEDD, subject to the final recommendation of the P&E study, will be responsible for implementing the proposed works, together with all the environmental mitigation measures, the environmental monitoring and audit requirements as specified in the EIA Report of this Project.

2.1.2 The Consultants of the P&E study are responsible for undertaking the EIA study according to the Study Brief to be issued by the Director of Environmental Protection and responding on behalf of the Project Proponent on issues related to the EIA.

2.1.3 The construction works of the proposed site formation and engineering infrastructure to serve the NTN Remaining Phase Development will be carried out by phases by the contractors to be appointed under various works contracts.

2.2 Project Time Table

- 2.2.1 The P&E study including the EIA study is targeted to commence in latter half of 2021 for completion within a study period of about 36 months. Subject to the recommendations of the P&E study, detailed design and associated statutory procedures of the Project will follow. Outline implementation programme for the development will be formulated under the Project.

2.3 Interactions with Other Projects

- 2.3.1 Potential projects that would interface with the NTN Remaining Phase Development identified currently are listed below. As the implementation of some of these projects has yet to be approved, this list should be re-visited during the EIA study to ensure all the latest projects available from the respective stakeholders are taken into account. Any cumulative impacts from the concurrent projects during both construction and operational phase of the Project, including but not limited to the following, would need to be identified and addressed as appropriate.

- (a) Development of Kwu Tung North and Fanling North New Development Areas (First Phase and Remaining Phase);
- (b) Liantang/Heung Yuen Wai Boundary Control Point and Associated works;
- (c) First Phase Development of the New Territories North (the feasibility study of San Tin/Lok Ma Chau Development Node);
- (d) Partial Development of Fanling Golf Course Site;
- (e) Agreement No. 1/2018 (CE) - Strategic Study on Railways beyond 2030 (including the possible new North-South Railway connecting NTN New Town);
- (f) Agreement No. 7/2018 (TT) – Strategic Study on Major Roads beyond 2030 (including Possible North-South Transport Corridor)
- (g) Agreement No. CE 78/2014 (DS) - Drainage Improvement Works at North District – Package B – Investigation;
- (h) Agreement No. CE 54/2016 (DS) – Drainage Improvement Works at North District – Packages A and C – Investigation;
- (i) Agreement No. CE 89/2017 (DS) – Drainage Improvement Works at Ta Kwu Ling – Investigation, Design and Construction;
- (j) Shek Wu Hui Sewage Treatment Works – Further Expansion;
- (k) Improvement to Dongjiang Water Mains P4 at Sheung Shui and Fanling;
- (l) Improvement to So Kwun Po Interchange ;
- (m) Queen’s Hill Development (including Queen’s Hill Extension);
- (n) The Police Facilities in Kong Nga Po;
- (o) Private housing development at Oi Yuen on Castle Peak Road – Kwu Tung and Junction

of Fan Kam Road and Castle Peak Road;

- (p) Provision of Columbarium and Garden of Remembrance at Sandy Ridge Cemetery;
- (q) Organic Resources Recovery Centre Phase 2 at Sha Ling;
- (r) Drainage Improvement Works in Ta Kwu Ling;
- (s) North East New Territories Sewerage System Upgrade and North District Sewerage;
- (t) Provision of Crematorium , Funeral Parlour and Visitor Centre at Sandy Ridge Cemetery;
- (u) Agreement No. CE 51/2013 (HY) - Widening of the Western Section and Eastern Section of Lin Ma Hang Road – Design and Construction;
- (v) Proposed Northern Link;
- (w) Proposed Science Park/Innovation District/Industrial Estate Development near Heung Yuen Wai Boundary Control Point;
- (x) Northeast New Territories (NENT) Landfill Extension;
- (y) Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030;
- (z) Development of Fanling North New Development Area, Waterworks;
- (aa) Agreement No. CE 71/2018 (CE) - Study on Land Requirements for Modern Logistics, Port Back-up and Vehicle Maintenance Industries – Feasibility Study;
- (bb) Widening of Tolo Highway/Fanling Highway between Island House Interchange and Fanling;
- (cc) Proposed Fanling Bypass (Eastern and Western Sections);
- (dd) Agricultural Priority Areas Study;
- (ee) The Establishment of an Agricultural Park in Kwu Tung South; and
- (ff) Any planned/committed developments projects in Fanling/Sheung Shui area.

2.3.2 The EIA studies or relevant environmental studies for the above projects, if required, will be conducted by their respective proponents. The EIA study of this Project will consider the environmental effects of these projects (i.e. cumulative effect) on the NTN Remaining Phase Development.

3. POSSIBLE IMPACTS ON THE ENVIRONMENT

3.1 Outline of Processes Involved

3.1.1 It is anticipated that the Project would involve land based construction works including site clearance, earthworks, foundation works, construction of flyover, underpass, at-grade road, retaining structures, subway and noise barriers/enclosure, roadworks and diversion of existing drains, sewers, water mains and other utilities, cavern construction, etc. The major activities of the construction works involved above are not exhaustive and should be further reviewed, developed and studied in the EIA Study.

3.1.2 Environmental impacts or issues that may arise during the constructions, operations and decommissions of the Project are as follows:

3.2 Air Quality

Construction Impacts

3.2.1 Construction works include site clearance, site formation, building and infrastructure provision, cavern excavation and any other infrastructure activities. Air quality impacts may arise from fugitive dust emissions generated from excavation, material handling, truck movement, rock crushing and screening, drilling and other construction activities.

3.2.2 In addition to the fugitive dust emissions, exhausted emissions from the construction plants and machineries may also cause air quality impacts. The corresponding potential air quality impact shall be evaluated. Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations (i.e. use of ultra-low Sulphur diesel) should be fulfilled to minimize the exhaust emissions from construction plants and machineries.

Operational Impacts

3.2.3 The major permanent sources of air pollutants are the vehicular emissions from traffic on the existing and the future road networks, the Boundary Control Points including Lo Wu, Man Kam To and Heung Yuen Wai, industrial emissions from the surrounding industrial premises, chimney emissions associated with the industrial premises on site and in the vicinity, odour from the proposed sewage treatment works, sewage pumping station, waste management facilities, livestock farms, active landfill and refuse collection points as well as the drainage channels and nullahs. Also, the potential air quality impacts associated with the storage and workshop sites, public transport interchanges and terminus and carparks have to be addressed.

3.2.4 Depending on the future use of cavern, potential human health impacts in relation to toxic air pollutants (TAP) emissions should also be assessed in the EIA Study.

3.3 Noise

Construction Impacts

3.3.1 Noise impact during the construction phase may result from construction activities, neighbouring concurrent construction works, piling works, construction plants, traffic along site access roads, the use of powered mechanical equipment (PME), etc. Air-borne noise impact may also be generated by cavern excavation using drill-and-blast methods while ground-borne noise impact may be generated from rock breaking. The extent and significance of construction noise impacts would depend on the scale of construction

activities, number of PME in operation, duration of construction activities, number of construction vehicle movements, etc.

Operational Impacts

- 3.3.2 There are two main operational noise sources namely (i) road traffic noise, and (ii) fixed noise. The sources of traffic noise include the major roads such as the new local and link roads. The fixed noise sources include storage and workshop sites, industrial estates, logistics development, sewage treatment works, sewage pumping station, water pumping station, electricity substations, etc.

3.4 Water Quality

Construction Impacts

- 3.4.1 The construction activities, which will have likely impact on water quality, include site formation, realignment of streams and rivers, drainage improvement works, activities causing disruption of water movement / bottom sediment, site cleaning of the contaminated area, concrete washing, construction of bridge, construction of pilings, construction and upgrading of road network, site workshop or depot and sewage effluent from the workforce. The adverse impacts may comprise additional runoff, increase of suspended solids, pH value and turbidity levels, spillage of waste oils and generation of additional sewage and wastewater. The potential impacts on the nearby surface water associated with construction works will need to be addressed.

Operational Impacts

- 3.4.2 Potential water pollution sources during operational phase will include sewage generated by residents, visitors and workers, temporary sewage overflow discharge / treated effluent from sewage treatment works and sewage pumping station, as well as other activities within the proposed PDAs, such as commercial and industrial activities, etc. in the NTN Remaining Phase Development. The additional sewage flow arising from the Project may be conveyed and discharged to the proposed sewage treatment works subject to investigation under the Project. “No Net Increase in Pollution Loads Requirement in Deep Bay” will be followed for the investigation of the whole sewerage system.
- 3.4.3 The adequacy of and the interface with existing/committed/planned drainage facilities (e.g. flood storage ponds, drainage improvement works etc.), sewerage and sewage treatment facilities for the handling, treatment and/or discharge/disposal of stormwater/wastewater arising from the Project should be investigated under the EIA Study.
- 3.4.4 The potential non-potable reuse of treated effluent such as toilet flushing, irrigation, and street cleansing, if pursued, may have potential concerns for human health and the relevant impact will be studied under EIA.

3.5 Waste Management

Construction Phase

- 3.5.1 The construction activities of the NTN Remaining Phase Development would generate a variety of wastes including construction and demolition (C&D) materials arising from earthworks and demolition works, chemical waste and general refuse. The quantities of wastes will largely depend on the programme of various works packages and the need of off-site disposal.

Operational Phase

- 3.5.2 The operation of the NTN Remaining Phase Development and associated engineering infrastructure including sewage treatment works and sewage pumping station will generate a significant amount of screening waste, municipal solid waste and chemical waste. The storage and handling of this waste will have the potential to cause adverse environmental impact.

3.6 Landfill Gas

- 3.6.1 The North East New Territories (NENT) Landfill and its extension are located to the northeast of the NTN New Town and outside the boundary of the NTN Remaining Phase Development. Nevertheless, the proposed development in HYW is located within the 250m consultation zone of the NENT Landfill and its extension. There is potential impact from the landfill gas (LFG) to the proposed development above and below ground level during both construction and operational phases.

Construction Phase

- 3.6.2 During the construction phase, there will be excavation works and works in confined space such as box culverts and trenches. The workers will be exposed to a certain level of health hazard if they work in such spaces already filled with the LFG. Therefore, a qualitative assessment of landfill gas hazard on these sensitive receivers will be necessary.

Operation Phase

- 3.6.3 Although most of the proposed development areas falling within the consultation zone of NENT Landfill are green belt and agricultural zone in the broad land use plans under the Preliminary Study subject to further review under the P&E Study, the impact of the LFG from NENT Landfill and its Extension to the proposed developments will be assessed under the EIA study.

- 3.6.4 During the course of the EIA study, reference will be made to relevant legislations, standards and guidelines applicable to the assessment of Landfill gas hazard, including:

- (i) Section 1.1(f) in Annex 7 of the EIA Technical Memorandum (TM);

- (ii) Section 3.3 in Annex 19 of the EIA TM; Landfill Gas Hazard Assessment Guidance Note (1997) (EPD/TR8/97); and
- (iii) Landfill Gas Hazard Assessment for Development Adjacent to Landfills (ProPECC PN 3/96).

3.7 Ecology

3.7.1 Habitats within the 500m Assessment Area include channelised watercourse, semi-natural watercourse, pond, mitigation wetland, marsh, agricultural land, orchard, grassland, grassland/shrubland, shrubland, plantation, fung shui woodland, secondary woodland, wasteground and developed area. The ecological environment will be discussed in Section 4.6. The habitats, sites and species of conservation importance will be further reviewed, identified and assessed under the EIA Study based on the finalized boundary of the NTN Remaining Phase Development.

Construction Phase

3.7.2 During construction phase, potential ecological impacts will include:

- (i) Habitat loss and habitat fragmentation resulting from land take for development;
- (ii) Direct loss of inactive/less mobile/habitat-specific wildlife nesting/inhabiting the affected area;
- (iii) Direct loss and impacts to watercourses and ponds;
- (iv) Impacts to wildlife as a result of isolation and fragmentation of ecological habitat; and
- (v) Impacts to the surrounding habitat (including sites of conservation importance within or in vicinity of the NTN Remaining Phase Development) and associated wildlife due to physical disturbance of this habitat, increased human activity, inappropriate storage or dumping of construction material.

Operational Phase

3.7.3 The NTN Remaining Phase Development may cause impact to important habitat and ecology resources. Impacts to the surrounding habitat and associated wildlife due to increased human activities/disturbance associated with the operation of the proposed development are expected.

3.7.4 The cumulative impacts during the construction phase / operation phase arising from other interfacing projects will be considered and assessed under the EIA Study.

3.8 Hazards to Life

3.8.1 Part of the area in MKT Logistics Corridor is planned within the 1km consultation zone

of Sheung Shui Water Treatment Work (SSWTW) while part of the area of the NTN New Town near Ta Kwu Ling falls within 2km consultation zone of SSWTW, which may pose constraint and risks to the NTN Remaining Phase Development. WSD has planned to complete the on-site chlorine generation works in 2022 to replace the chlorine stores in SSWTW and de-list the SSWTW from the register of Potential Hazard Installation (PHI) afterwards. The situation will be kept in view or a hazard assessment for SSWTW is required.

3.8.2 An Organic Waste Treatment Facility Phase 2 (OWTF 2) is located in Sandy Ridge, North District. However, there would be no proposed development encroached into the worst hazard distance, which is about 150m, from the Purification Unit of OWTF 2. As the NTN Remaining Phase Development is outside the predicted hazard influence zone from OWTF 2, the potential risk to the proposed development will be minimal.

3.8.3 Explosives may be required for rock excavation such as rock cavern using drill-and-blast methods. There are hazards associated with the transportation, storage and use of explosives, and these will all be subjected to close control in accordance with the requirements of Mines Division of CEDD.

3.9 Cultural Heritage

3.9.1 There are three sites of archaeological interest (SAI) including Ping Che, Hung Leng and Queen's Hill, a number of areas/villages with archaeological interest and historic buildings within and in vicinity to the NTN Remaining Phase Development. The existing cultural heritage within/around the NTN Remaining Phase Development are discussed in more details in Section 4.8.

3.9.2 Potential impacts on identified cultural heritage resources within the NTN Remaining Phase Development and associated infrastructure may arise from the following:

- (i) Landtake for both temporary and permanent facilities which may result in damage to, or loss of, archaeological remains and deposits, culturally significant features and changes to the physical coherence of historic landscape; and
- (ii) Severance and islanding may result from permanent landtake required for the Remaining Phase Development and associated infrastructure construction; areas of historic and cultural interest may be severed, thereby altering or destroying their integrity.
- (iii) Construction works may result in damage to or loss of buried archaeological sites by:
 - Disturbance through excavation at or near an archaeological site, topsoil stripping and the passage of heavy machinery on exposed and buried deposits;

- Change in the water table due to construction and development activities;
- The burial of sites resulting in limitation on accessibility for future archaeological investigations (including surface survey and remote sensing techniques) and obscuring visible surface evidence;
- Ground compaction due to construction activities or the weight of permanent filled materials may cause damage or distortion to buried archaeological remains, especially in soft alluvial deposits; and
- Indirect impacts such as visual, vibration, settlement, titling and noise intrusion on the setting and amenity of historic and cultural resources (e.g. grave sites and monuments and culturally or historically significant landscape features).

3.10 Land Contamination

3.10.1 While there are no extensive areas of contaminated land such as landfills, etc., in the NTN Remaining Phase Development, there is potential sources from small industries including small-scale vehicle repair workshops, metal scrap yards, waste recycling yard and storage sites to create an adverse impact that will need to be cleaned up before development works.

Operational Phase

3.10.2 The land contamination issue and its impact within the NTN Remaining Phase Development will be identified and assessed under the EIA study.

3.11 Landscape and Visual

3.11.1 One of the overall planning approaches for NTN Remaining Phase Development is to foster urban-rural-nature integration. Notwithstanding this, visual impacts are likely to result from the induction of a new urban area which would change the existing visual system.

3.11.2 Besides, while the NTN Remaining Phase Development will prioritise, where possible, low quality landscape and excluded areas of high quality, natural or semi-natural landscape features, the Project will permanently change the existing landscape character of the area as a whole. This area will be transformed from a largely rural landscape to an area with high-rise urban environment in the NTN New Town, and logistic uses and/or industrial areas within the MKT Logistics Corridor, subject to review under the P&E Study. In many locations these proposals will also change the relationship between the valley landscape and the uplands. This relationship will be changed on a fundamental level by the high-rise residential and commercial towers. These factors will inevitably result in significant and adverse residual landscape impacts for the existing uplands,

which bound the development sites.

- 3.11.3 The expected sources of landscape and visual impacts arising from the NTN Remaining Phase Development are as follows.

Construction Phase

- (i) Loss of landscape elements, e.g. trees, fishponds and natural topography;
- (ii) Loss of visual amenity through removal of landscape elements e.g. trees;
- (iii) Visual appearance of any temporary use prior to full development;
- (iv) Construction activities on newly formed areas and existing available land; and
- (v) Obstruction of, or intrusion into views by the development.

Operation Phase

- (i) Incompatibility with the surrounding landscape context, in particular the interfacing area of the proposed development and surrounding non-development area;
- (ii) Permanent loss of Landscape Resources (LRs)/ Landscape Character Areas (LCAs), such as loss of topography, vegetation, underground water table, agricultural land, recreational open space, green buffer, etc.;
- (iii) Residual impacts from loss of trees and vegetation during the construction phase would generate negative landscape and visual impacts in the short term until compensation planting has established and replaced these resources;
- (iv) Visual intrusion and obstruction created by the development;
- (v) Glare from direct or reflected sunlight or man-made light source from the development; and
- (vi) Visual quality of the new development.

3.12 Agriculture and Fisheries

- 3.12.1 Fish ponds are present within 500m area from the proposed boundary of MKT Logistics Corridor. It is expected that there would be some fish ponds filled or partly filled for the proposed development subject to the detailed planning and engineering study. Though the impact of filling or partially filling of fish ponds is anticipated to be minimal with proper mitigation measures, the impact from reduction of fish ponds on existing habitats would also be considered in the EIA Study. Any fish ponds/ fisheries resources/ fisheries activities at and in the vicinity of the NTN Remaining Phase Development will be identified, and potential impacts to the fisheries will be assessed in a fisheries impact assessment (FIA) to be conducted under the EIA study.

- 3.12.2 Potential impacts from the Project may arise from the following:

Construction Phase

- (i) Temporary or permanent loss of agricultural land / fish ponds or areas for farming / fisheries operation;
- (ii) Impacts on pond bund stability, hydrology (e.g. water seepage, impact on supply of irrigation water);
- (iii) Blockage of access to farmland or fish ponds; and
- (iv) Deterioration of water quality or degradation of the environmental conditions of the farmland or fish ponds.

Operation Phase

- (i) Blockage of access, and
- (ii) Degradation/ deterioration of environmental conditions of farmland and fish ponds due to induced-water quality impacts from sewage and runoff from the Project.

3.13 Electric and Magnetic Fields

3.13.1 A section of the existing 400kV overhead power line lies along/within the southern tentative boundary of the NTN New Town near Queen's Hill while a section of the existing 400kV overhead power line lie in close vicinity of the western boundary of NTN New Town near Hung Lung Hang. The Project is also within the preferred working corridor of the concerned overhead lines as stipulated in the Hong Kong Planning Standards and Guidelines (HKPSG) published by the Planning Department. Impact of the developments due to the presence of this 400kV overhead power lines would be reviewed and assessed in the EIA Study.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

Surrounding Environment including Existing and Planned Sensitive Receivers, sensitive parts of the natural environment, major elements of the surrounding environment, existing and/or relevant past uses would be studied in EIA, including the following:

4.1 Air Quality

4.1.1 The NTN New town and MKT Logistic Corridor are situated within existing rural, village, agriculture and brownfields. Local emissions from roads are the major source affecting the air quality. The Project is also located very near the Mainland and the existing air quality in the proposed development areas is periodically affected by the industrial emissions from the Mainland.

4.1.2 The potential air sensitive receivers affected by the NTN Remaining Phase Development include domestic premises, clinics, schools, educational institutions, offices, factories, welfare facilities, the existing villages, nursery, temporary housing accommodation and place of worship. A list of representative sensitive receivers have been identified and shown in **Table 4.1**. The list of the representative sensitive receivers is not exhaustive and would be reviewed and updated under the EIA Study.

4.1.3 The major permanent sources of air pollutants are the vehicular emissions from traffic on major roads and the air pollutants emitted from the vicinity of the industrial stationary sources. Chimney emissions associated with nearby industrial premises are the stationary air pollutant sources.

4.2 Noise

4.2.1 The source of noise of the existing environment within the NTN Remaining Phase Development is dominated by the traffic on the existing major roads in the vicinity including, Heung Yuen Wai Highway, Sha Tau Kok Road and Man Kam To Road. East Rail is also running at approximately 110m to the southwest of MKT Logistics Corridor.

4.2.2 Isolated industrial operations in the brownfield sites are scattered within and in the proximity of the proposed development. The pumping operation in the Sheung Shui Raw Water Treatment Works and Raw Water Pumping Station is also considered as a fixed noise source. Other major fixed noise sources affecting the PDAs includes San Wai/Tai Leng/San Uk Ling Firing Range, San Wai Barracks, Organic Resources Recovery Centre Phase 2, provision of columbarium and garden of remembrance at Sandy Ridge Cemetery, NENT landfill & its extension, Table Hill firing range, LT/HYW Boundary Control Point; and proposed police facilities including firing range in Kong Nga Po.

4.2.3 The helipad at the proposed police facilities in Kong Nga Po, the helicopter operations at San Wai/Tai Ling Firing Range and the helipad near Man Kam To Road Immigration Control Point, among others, could be a source of noise to the proposed development within the tentative boundary of NTN New Town and MKT.

4.2.4 Potential noise sensitive receivers include domestic premises, clinics, schools, educational institutions, offices, factories, welfare facilities, the existing villages, home for the aged, places of public worship and country park. A list of representative sensitive receivers have been identified and shown in **Table 4.1**. The list of the representative sensitive receivers is not exhaustive and would be reviewed and updated under the EIA Study.

4.3 Water Quality

- 4.3.1 The proposed PDAs are comprised of open storages, scattered villages, temporary structures and warehouses. There are also local villages, industries and residential development within NTN Remaining Phase Development.
- 4.3.2 The water quality sensitive receivers (WSRs) for the proposed development include rivers, channelized nullahs, canals, wetlands, and other water courses. The major rivers within and in vicinity to the Project include Ng Tung River, Shenzhen River, Ping Yuen River, Kwan Tei River, Tan Shan River, etc. Some watercourses of potential conservation significance such as Ping Yuen River (Mid-Section), Ping Yuen River (Lower-Section), Ha Shan Kai Wat Watercourse and Kwan Tei River are located within the NTN Remaining Phase Development. A list of representative WSRs have been identified and shown in **Table 4.2**. The list of the representative WSRs is not exhaustive and would be reviewed and updated under the EIA Study.

4.4 Waste Management

- 4.4.1 The existing solid waste arising from the NTN Remaining Phase Development and vicinity area include domestic waste from village houses, agricultural waste, commercial/industrial waste generated from open storage and informal industrial uses; and chemical waste from vehicle breaking and repair operations.

4.5 Landfill Gas

- 4.5.1 As mentioned in section 3.6.1 above, NENT Landfill are located to the northeast of the proposed NTN New Town, and the proposed development in HYW is located within the consultation zone of the NENT Landfill and its extension.

4.6 Ecology

MKT Logistics Corridor

- 4.6.1 Habitats identified in MKT Logistics Corridor include agricultural land, pond, watercourse, channelized watercourse, semi-natural watercourse, grassland, grassland/shrubland, secondary woodland, plantation, development area and wasteground. MKT area was comparatively small, and mainly comprises developed areas (including villages, open storage and road infrastructure). No floral species of conservation importance were recorded in the MKT Logistics Corridor in the relevant literature.
- 4.6.2 Species of conservation importance recorded in the MKT Logistics Corridor and its adjacent areas included mammals, birds, herpetofauna, butterfly/odonate and aquatic fauna. The impact from reduction of fish ponds on existing habitats should also be

assessed.

- 4.6.3 Man Kam To Road Egrettry and Ho Sheung Heung Egrettries are located in the vicinity of the MKT Logistics Corridor. Some flight lines of Man Kam To Road and Ho Sheung Heung Egrettries may enter the MKT Logistics Corridor and the egrettries would potentially be impacted directly via loss of airspace or indirectly via disturbance. The EIA study should assess the impact of MKT development on the egrets from Man Kam To Road and Ho Sheung Heung egrettries.
- 4.6.4 The lower reaches of Ng Tung River are located to the west of MKT Logistics Corridor. This river channel is regularly used by wetland-dependent birds, especially in the intertidal downstream sections. Some breeding ardeids were foraging in Ng Tung River.

NTN New Town

- 4.6.5 Habitats of agricultural land, pond, marsh, watercourse, channelized watercourse, semi-natural watercourse, grassland, grassland/shrubland, shrubland, fung shui woodland, secondary woodland, wetland area near Heung Yuen Wai, orchard, plantation, development area and wasteground were identified within NTN New Town. Floral species of conservation importance such as fern, trees, shrub and woody climber were identified in this area.
- 4.6.6 Species of conservation importance recorded in the NTN New Town and its adjacent areas included mammals, birds, herpetofauna, butterfly, odonate and aquatic fauna. Ping Che Egrettry is located within the NTN New Town and impact on disturbance of flight path should be assessed.
- 4.6.7 Several recognized sites of conservation importance are located within the NTN New Town, including but not limited to the Ping Che Egrettry, Kan Tau Wai Fung Shui Wood and Tsung Yuen Ha Fung Shui Wood. The Ping Che Egrettry and its flight lines would potentially be impacted directly via loss of airspace or indirectly via disturbance, and the impact of the development on the egrets should be assessed under the EIA Study.
- 4.6.8 The ecological habitats, sites and species of conservation importance within NTN Remaining Phase Development mentioned above are not exhaustive and would be reviewed, identified and assessed in the EIA Study.

4.7 Hazards to Life

- 4.7.1 As mentioned in Section 3.7.1, the proposed MKT Logistics Corridor is partly within the consultation zone of SSWTW while part of the NTN New Town is within 2km assessment area of SSWTW. As WSD has planned to complete the on-site chlorine

generation works in 2022 to replace the chlorine stores in SSWTW and de-list the SSWTW from the register of PHI afterwards, the situation will be kept in view and the impact should be assessed if the replacement of the chlorine stores does not happen eventually. Should there be proposals for development that will result in an increase in the number of persons living or working in the CZ, the relevant environmental impact should be studied in the EIA Study.

4.8 Cultural Heritage

- 4.8.1 The declared monuments in the vicinity of the Project are shown in **Table 4.3**.
- 4.8.2 The graded historic buildings identified within the proposed PDAs are shown in **Table 4.4**.
- 4.8.3 The historical villages/buildings with potential heritage values lies within the proposed PDAs are shown in **Table 4.5**.

The lists in **Table 4.3** to **Table 4.5** are not exhaustive and would be reviewed and identified in the EIA study.

- 4.8.4 Built Heritage Impact Assessment should be conducted for any development or infrastructure projects proposed within 200m of built heritage resources. AMO should be alerted if any buildings / structures both at grade level and underground built on or before 1969 are identified within or in the vicinity of the PDAs.
- 4.8.5 There are three Sites of Archaeological Interest (SAI) within the proposed PDAs, namely Queen's Hill SAI, Hung Leng SAI and Ping Che SAI. Within the PDAs, there are about 17 historical villages in which 16 with archaeological potential and areas of archaeological potential. The exact number of historical villages with archaeological potential will be investigated in the Study.
- 4.8.6 An archaeological survey will be conducted under the Archaeological Impact Assessment (AIA) of Cultural Heritage Impact Assessment as part of the EIA Study to identify all the potential archaeological sites within and in vicinity to the proposed development while a field survey will be carried out in Built Heritage Impact Assessment (BHIA) to identify any declared monuments, proposed monuments, graded historic sites/buildings, Government historic sites and potential historic buildings / structures in particular built before 1969 within and in vicinity to the proposed development. The exact number of historical villages with archaeological potential will be investigated in the Study. Since the three SAIs would have significant implications on the development proposals, the archaeological impact assessment should be conducted as soon as possible once the

Project commences.

4.9 Land Contamination

- 4.9.1 The existing environment of the NTN Remaining Phase Development is rural in character and comprise village and industrial land uses intermixed with active and inactive agricultural activities. The main potential sources of contaminants from the land uses in the NDAs are from by-products from small industries, container storage yards, waste recycling yard, vehicle and equipment storage and vehicle repair workshops.
- 4.9.2 Since the locations covered under the study are generally remote and undeveloped, and contaminated soil/groundwater (if any) would be properly remediated according to the prevailing guidelines, the number of sensitive receivers likely to be impacted by the identified contamination concerns is expected to be limited to, current land users and future site workers employed during the construction phase of the Project.

4.10 Landscape and Visual

- 4.10.1 The landscape character of the present area of NTN Remaining Phase Development is defined as a broad valley area with upland and ridgelines, foothills and side valleys. The upland areas and higher foothills that are characterised by grass, shrub and woodland, generally have a high quality, while the lower foothills and lowland areas with mixed land uses in the valleys have a lower quality. The NTN Remaining Phase Development will primarily be located in lowland areas with low quality landscape used for brownfield and agriculture, while grass, shrub and woodland areas are preserved. Impacts are expected within the tentative boundary of NTN New Town and MKT Logistics Corridor due to the loss of existing agricultural areas, the formalisation of the existing disparate land uses, the change of landscape setting near existing villages and the altered relationship between the natural uplands and the valley floor. In general, after mitigation a wholesale alteration of the landscape is expected with both adverse and beneficial results.
- 4.10.2 The scale of the proposed development is of such a nature that it will alter the existing landscape character as a whole. Visual sensitive receivers will be identified for landscape and visual impact assessment during the EIA study.

4.11 Agriculture and Fisheries

- 4.11.1 Within the NTN Remaining Phase Development, a mixture of active and abandoned agricultural lands was located in Tai Po Tin, Chow Tin Tsuen, Lei Uk, Sing Ping, Sheung Shan Kai Wat and to the south of Sandy Ridge. The extent of the agricultural land will be

further investigated under the EIA Study.

- 4.11.2 There are fish ponds within 500m area from the proposed boundary of the MKT Logistics Corridor. The impact from reduction of fish ponds on existing habitats should also be assessed.

4.12 Electric and Magnetic Field

- 4.12.1 As stated in Section 3.13, sections of the existing 400kV overhead power lines lie in the southern portion of the NTN New Town near Queen's Hill and in close vicinity of the western portion of NTN New Town near Hung Lung Hang while the Project is also within the preferred working corridor of the concerned overhead lines as stipulated in the Hong Kong Planning Standards and Guidelines (HKPSG) published by the Planning Department. Mitigation measures for the impacts from the electric and magnetic fields will be discussed in Clause 5.13.

5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 General

- 5.1.1 The EIA study will investigate those environmental impacts and propose the appropriate mitigation measures with the intention that all proposals would be environmentally acceptable and cost effective. The residual impacts, if any, would be confined within the allowable limits. Environmental monitoring and auditing of potential impacts that may arise from the works of the Project would be provided for the construction and operational phases.

- 5.1.2 The measures to minimise environmental impacts as listed in Annex 1 of the EIAO-TM have been reviewed. Subject to the findings of the EIA study, the following mitigation measures will be incorporated in the design for the construction and operation of the Project, where appropriate. The mitigation measures to be considered will include but will not be limited to the measures described in the following sections.

- pollution control technology
- source control
- waste management systems and practices
- potential for waste and wastewater minimization
- acoustic barriers and insulation
- buffer zones and landscaping
- different siting of activities

- site layout and building design
- retention of natural environmental features
- control of construction work practices
- application of the Deep Bay Guidelines for dredging, reclamation & drainage works where applicable
- application of Chapters 9 and 10 of the Hong Kong Planning Standards & Guidelines (version available at the time the Ordinance comes into force) where applicable

5.2 Air Quality

Construction Phase

5.2.1 In order to prevent adverse impacts on air quality, the control measures stipulated in the Air Pollution Control (Construction Dust) Regulations should be implemented wherever applicable, to avoid or minimize air quality impacts on existing and planned ASRs. Mitigation measures, including but not limited to the following, will be put in place.

- Stockpiles of dusty material will not extend beyond site boundaries;
- In the process of material handling, any material which has the potential to create dust will be treated with water or sprayed with a wetting agent where practicable;
- Any vehicle with an open load compartment used for transferring dusty materials offsite will be properly fitted with side and tail boards and cover;
- Stockpiles of sand and aggregate will be enclosed on three sides and water sprays will be used to dampen stored materials and when receiving raw material;
- The site will be frequently cleaned and watered to minimise fugitive dust emissions;
- Motorised vehicles on site will be restricted to a maximum speed of 15 km/hr and shall be confined to designated haul roads which will be paved or surfaced with hardcore as far as possible; and
- Paving and subsequent regular sweeping of long term haul roads within the site.

Operational Phase

5.2.2 The proposed mitigation measures to improve the air quality within the NTN Remaining Phase Development are to be considered as follows :-

- (i) Vehicle Exhaust Emissions from Open Roads
 - In order to further reduce the impacts from vehicle exhaust emissions from open roads, measures like giving higher priority to the use of railway and environmental friendly vehicles to roads within the NTN Remaining Phase Development would be considered;
 - Adequate buffer distance, tree planting and shrub plantation are

recommended to separate the pedestrian and heavy trafficked road.

- (ii) Exhaust Emissions from Chimneys
 - Adequate buffer distances between the existing or planned chimneys and the proposed development areas to protect the development from emission of existing and planned chimneys; and
 - Licence would need to be applied prior to the commencement if the future industrial premises in the proposed development areas are classified as Specified Process under the Air Pollution Control (Specified Process) Regulation.
- (iii) Odour Impact from Proposed Sewage Treatment Works
 - Provision of adequate buffer distances to sensitive receivers;
 - Covering the effluent channels of primary sedimentation tanks and sludge holding tanks;
 - Addition of suitable amount of chemical or by other alternative measures such as oxygen or air injection to achieve the required reduction of odour at the inlet works; or covering the primary sedimentation tanks; and
 - Deodorization system for the sewage treatment works.
- (iv) Odour Impact from Sewage Pumping Stations
 - Provision of adequate buffer distances to sensitive receivers;
 - Design should be in accordance with DSD's Standard Design on Sewage Pumping Station, with all pumps located underground and enclosed within a structure/building; and
 - Deodorization system should be installed and good housekeeping practice would be adopted.
- (v) Odour Impact from Refuse Collection Points (RCPs)
 - Odour removal system would be provided for the RCP to reduce odour nuisance in the vicinity; and
 - The discharge of the odour removal system would be directed away from the ASRs to avoid the odour nuisance.
- (vi) Impact from Public Transport Interchanges (PTI)
 - The design of the PTI would follow the design consideration recommended in the Control of Air Pollution in Semi-Confined Public Transport Interchanges (ProPECC PN 1/98);
 - Adequate ventilation and dilution of vehicle exhaust should be provided;
 - Ventilation exhaust, if any, would be directed away from the nearest ASRs;
 - Installation of control equipment such as filter or scrubbing units at the

exhausted air outlets, if necessary, as per the ProPECC PN 1/98 Control of Air Pollution in Semi-Confined Public Transport Interchanges.

- (vii) Odour Impact from Landfill Site
 - Provision of adequate buffer distances to sensitive receivers; and
 - Other mitigation measures should be explored.
- (viii) Provision of central air conditioning system with fresh air intake at appropriate level to avoid unacceptable air quality conditions for indoor air sensitive uses in the developments when appropriate.
- (ix) Odour Impact from Livestock
 - Provision of adequate buffer distances to sensitive receivers;
 - Odour removal system would be provided to reduce odour nuisance in the vicinity; and
 - Other mitigation measures should be explored.

The list of proposed mitigation measures is not exhaustive and will be reviewed under the EIA Study.

- 5.2.3 The potential impacts from toxic air pollutants arising from the facilities within the cavern during the operation phase based on assumed reasonably worst-case scenario under normal operating conditions should also be assessed.

5.3 Noise

Construction Phase

- 5.3.1 In order to mitigate adverse noise impacts, the following general mitigation measures should be considered.
- Quiet plant will be used to reduce noise generated;
 - Movable and temporary barriers will be used to screen NSRs from particular items of plant or noisy operations;
 - Noise screening structures or purpose-built noise barriers will be provided along the site boundary to provide additional protection to NSRs nearby; and
 - Good site practices will be implemented as effective noise mitigation measures. These will include, but not limited to, locating noisy equipment and activities as far from NSRs as practical, scheduling noisy activities to minimise exposure of nearby NSRs to high levels of construction noise, proper maintenance of construction plant and devising methods of working to minimise noise impacts on the surrounding environment.

Operational Phase

- 5.3.2 For road traffic noise, adequate buffer distance between the major roads and the sensitive land uses should be provided in the planning and design of the NTN Remaining Phase Development as far as possible. A number of noise mitigation designs, including traffic management measures, environmentally friendly layout design, the consideration of the application of low noise surfacing material for appropriate road section and where necessary, noise barriers, should be incorporated in the layout plan of the proposed development. A combination of direct mitigation measures at source and at development sites would be investigated to alleviate the extent of road traffic noise impact.
- 5.3.3 Should residual impacts be identified at the existing NSRs where the use of direct mitigation measures on the roads has been exhausted, these NSRs would then be tested for eligibility for indirect technical remedies.
- 5.3.4 Environmentally friendly layout designs may include locating buildings to avoid exposure to traffic noise, providing comprehensive pedestrian and cycle track network throughout the development to minimize the generation of road traffic. Other designs may include the use of non-noise sensitive structures such as podium to shield traffic noise and adequate setback distance away from the roads.
- 5.3.5 For the fixed noise sources, including the firing ranges/barrack in the area as mentioned in Section 4.2, mitigation measures such as provision of adequate buffer distance, relocation of the sources, or environmentally friendly layout design should be incorporated in the layout plan for mitigating noise impacts from existing/planned fixed noise sources to nearby existing/planned NSRs. The details and extent of noise mitigation measures will be subject to the assessment results in the EIA study.
- 5.3.6 The noise impact associated with the operation of helipads in close vicinity of the Project Area (such as, among others, that of Police Facilities at Kong Nga Po) should be assessed in the EIA study.

5.4 Water Quality

Construction Phase

- 5.4.1 In order to prevent adverse impacts on water quality, the following general mitigation measures should be implemented.
- Surface run-off from the construction site should be reduced and directed into temporary sand traps or other silt removal facilities before discharging into the outlets;
 - Silt removal facilities should be maintained regularly;
 - Open stockpiles of materials on site should be avoided or where unavoidable,

- covered with tarpaulin or similar fabric during rainstorms;
- Silt curtains or sand bag barriers will be used to confine the disturbed area during sediment removal activities;
 - Where possible, works entailing soil excavation will be minimized during the wet season;
 - To minimize the impacts of concrete washings, infiltration/sedimentation pits will be used to settle out the washings before treatment/re-use/discharge. If necessary, treatment units with pH adjustment will be adopted;
 - Oil interceptors will be provided and properly maintained for collecting spillage or leakages from site workshops. The waste oil removed will be collected by licensed collectors;
 - A discharge license under WPCO would be obtained for discharge of effluent from the construction site, and the quantity and composition of any discharge would comply with the limits indicated in the licence;
 - For construction works with significant impact on WSRs, prior submission to / approval by DSD on Contractor's "Temporary Drainage Management Plan" (with temporary drainage arrangement illustrated and explained) should be sought;
 - Water in existing pond shall be sampled and pre-treated if required before discharge;
 - Mobile toilets or other appropriate means will be provided to store sewage before disposal through licensed collection agent or discharging to main sewerage system; and
 - For bore piling operations, the resulting suspension will be settled in sedimentation/infiltration pit until supernatant is clear and the bentonite solids will be disposed appropriately.

Operational Phase

5.4.2 The following general mitigation measures are to be considered in order to meet 'no net increase in pollution loads requirement in Deep Bay':

- provision of blue-green drainage infrastructure which facilitates the infiltration of rainfall and the process of natural filtering to reduce the quantity of and improve the quality of runoff;
- adopt on-site greywater recycling to reduce discharge of sewage;
- reuse of the treated sewage effluent generated from the proposed sewage treatment works for non-potable uses such as toilet flushing, irrigation and street cleansing;
- upgrading the sewerage system for discharge into the sewage treatment works or providing other sewage treatment/disposal facilities to ensure that there is sufficient capacity to cater for increased sewage flow from the developments; and
- provision of suitable measures to minimize the risk of emergency discharges of

untreated sewage effluent and to ensure timely repair.

- 5.4.3 Appropriate quality standards for treated effluent reuse for the potential non-potable uses such as toilet flushing, irrigation and street cleansing, if pursued, would be proposed to minimize any potential impact to human health. The quality of reuse water will be closely monitored to ensure compliance with the standards.

5.5 Waste Management

Construction Phase

- 5.5.1 Solid waste arising from construction will largely consist of spoil generated during earthworks, and general construction waste/surplus materials (such as C&D material from demolition works, chemical waste and general refuse).
- 5.5.2 As the NTN Remaining Phase Development would require the import of a large amount of fill material, the C&D waste will be stored separately and reused in the works.
- 5.5.3 Waste generated during the construction phases of the Project would be reduced and properly disposed of through proper waste management at the outset during the planning and design stages of a project and proper practices on site including:
- Waste haulers should have the necessary registration and licences under the Waste Disposal Ordinance and the Waste Disposal (Chemical Waste) (General) Regulation from the Environmental Protection Department;
 - Separation of chemical wastes for special handling and appropriate treatment at a licensed facility;
 - In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills, and control fly-tipping, a trip-ticket system shall be implemented by the Contractor, in accordance with the contract and the requirements of DEVB TCW No. 6/2010 "Trip Ticket System for Disposal of Construction and Demolition Materials";
 - compilation of waste management plan in accordance with ETWB TC(W) No. 19/2005 "Environmental Management on Construction Sites";
 - waste segregation and storage by category on site;
 - avoidance/minimization of waste generation on site;
 - reuse and recycling of C&D material and unused chemicals;
 - monitoring and record the proper disposal of waste generated;
 - proper storage and site practices to minimize the potential for damage or contamination of construction materials;

- use of reusable materials to reduce the amount of C&D material generated; and
- for handling of dredged/excavated sediment, Environment, Transport and Works Bureau Technical Circular (Works) No. 34/2002 will be followed.

Operational Phase

5.5.4 The waste management hierarchy of ‘Reduce, Replace, Reuse and Recycle’ shall be used to evaluate the waste management options to allow maximum waste reduction during the operation of the NTN Remaining Phase Development and associated engineering infrastructure.

5.5.5 The following mitigation measures should be considered:

- The containment, storage and delivery of the sewage sludge should be enclosed. Odour removal facilities should also be installed to minimise the potential air quality impacts to any sensitive receivers.
- General refuse should be collected from lidded bins and delivered to a central collection point and should be stored in enclosed containers to prevent odour, windblown litter, vermin, water pollution and visual impact.
- Removal of recyclables should be encouraged or formal systems organised, and may occur before or after the delivery of wastes to the central collection point. Collection bins for used aluminium cans, waste paper and glass bottles are recommended to be provided at strategic locations of the development site to encourage recycling by residents.
- Development of modern waste management facilities would be explored during the P&E Study.

5.6 Landfill Gas

Construction Phase

5.6.1 The landfill gas risks during the construction works within the consultation zone of the NENT Landfill and its extension should be minimised by implementing suitable precautionary measures recommended in Chapter 8 of the Landfill Gas Hazard Assessment Guidance Note.

Operational Phase

5.6.2 General precautionary measures, which mainly apply to the NTN Remaining Phase Development falling within the landfill consultation zone and should be reviewed as part of the Qualitative Landfill Gas Hazard Assessment (QLFGHA) during the detailed design stage of the future development for consideration include the following :

Utility Companies

- All utility companies should be made aware of the location and features of the site

by the developers of the sites within the Consultation Zone during the respective detailed design stage as part of the QLFCHA. The utilities companies should have a responsibility to train and ensure their staff to take appropriate precautions at all times when entering enclosed spaces or plant rooms.

Developers of Sites

- The developers will hold a special responsibility to ensure that the occupants of the building, its staff and maintenance workers are protected from landfill gas and that visitors to the site are also made aware as to the dangers and the precautions required to be taken.
- To ensure that strict procedures for maintaining control over all temporary and / or permanent works proposed at the sites are reviewed with regard to the landfill gas hazard. This needs to be accompanied by a comprehensive contingency plan in case of incidents, including liaison with EPD officers, Fire Services Department, Landfill Restoration Contractors and others, as necessary.
- All construction and maintenance (including utilities) personnel working at the site should be made aware of the hazards of landfill gas and its possible presence on site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on landfill gas hazards and the designs and procedural means by which these hazards are being minimised on site; and
- Entry to confined spaces such as refuse / store rooms, drainage manholes, etc. should be preceded by a period of “airing” the space by opening the door widely allowing fresh air to enter. Where appropriate, monitoring of gas should also precede entry.

5.7 Ecology

5.7.1 The mitigation measures that to be implemented to minimize the impacts on air, noise and water qualities will also help to minimize impacts on ecological resources.

5.7.2 As regards habitat loss, the best mitigation is avoidance and will be used wherever possible. For loss which is considered unavoidable, compensation will be provided, with the following features:-.

- a variety of habitat types;
- linkage with other wetland areas and other ecological resources; and
- an acceptable size for creation of habitats and to minimize disturbance to fauna utilizing the habitat.

5.7.3 In line with Government's enhanced policy to better protect all natural rivers and streams

from the impacts of construction works, the following design approaches, in order of priority, will be adopted:

- (i) Avoidance approach - to avoid direct impacts on natural rivers and streams.
- (ii) Minimization approach - to minimize impacts if avoidance is not possible.
- (iii) Compensation approach - to compensate for significant residual impacts/loss when there is no other alternative available.

5.8 Hazards to Life

5.8.1 WSD has planned to complete the on-site chlorine generation works in 2022 to replace the chlorine stores in SSWTW and de-list the SSWTW from the register of Potential Hazard Installation (PHI) afterwards. Potential hazard affecting the NTN Remaining Phase Development will be further identified with mitigation measures proposed under the EIA Study.

5.8.2 Potential hazards associated with the transportation, storage and use of explosives for rock excavation such as rock cavern will be assessed in detail in EIA study. Close liaison will be maintained with the Mines Division of CEDD, and all relevant requirements will be incorporated. Safety precautions and control measures will be proposed and implemented. The followings will be complied with for potential hazard associated with explosive.

- EVA provision in the captioned site shall comply with the standard as stipulated in Section 6, Part D of the Code of Practice for Fire Safety in Buildings 2011 under the Building (Planning) Regulation 41D which is administered by the Buildings Department;
- detailed information regarding any potential DG related facilities such as detailed design and type, quantity of DG would be provided and studied in the EIA;
- in regards to any potential DG related facilities in subterranean / cavern, the storage or manufacture of DG therein will generally not be considered and each case will be assessed on its individual merits. Detailed information in regard to the design and mitigation measures for all fire and life risks of any dangerous goods related facility in subterranean/ cavern, if any, should be addressed and studied in the EIA;
- the information of chemicals that may be present in the Project and their DG classification under the revamped DGO should be reviewed during the EIA study.

5.9 Cultural Heritage

5.9.1 A cultural heritage impact assessment (CHIA) (including built heritage impact assessment and archaeological impact assessment) will be carried out under the EIA study.

Since the three SAIs would have significant implications on the development proposals, the archaeological impact assessment should be conducted as soon as possible once the planning and engineering study commences. Impacts on declared monuments, proposed monuments, graded historic sites/buildings, Government historic sites and potential historic buildings / structures in particular built before 1969 should be avoided as far as practicable. If unavoidable, mitigation measures to the direct and indirect impacts on built heritage resources will be implemented. The locations of underground rock cavern will be carefully studied and assessed during the P&E Study and any potential impact on the declared monument Cheung Shan Monastery (AM91-0483) in the vicinity would be reviewed and assessed with necessary mitigation measures proposed under the CHIA.

5.9.2 Besides, the CHIA will also review and identify the sites of archaeological potential in the NTN Remaining Phase Development, assess the archaeological impact of the proposed development and propose mitigation measures, if necessary.

5.9.3 Mitigation measures such as rescue excavation prior to the commencement of construction works, archaeological watching brief during construction, etc. would be proposed and implemented if necessary according to the result of the CHIA.

5.9.4 Proper coordination with relevant stakeholders/authorities will be carried out to formulate appropriate mitigation measure plans for any affected graves and urns.

5.10 Land Contamination

5.10.1 Land contamination assessment and remediation works (if any) will be completed prior to the development of the subject site according to the prevailing guidelines.

5.10.2 Mitigation measures will also be determined with reference to EPD's documents such as "Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management (December 2007)", "Guidance Notes for Contaminated Land Assessment and Remediation (August 2007)", and "Practice Guide for Investigation and Remediation of Contaminated Land (August 2011)".

5.11 Landscape and Visual

5.11.1 The submission of landscape and visual impact assessment will make reference to EIAO's Guidance Note No. 8/2010 on "Preparation of Landscape and Visual Impact Assessment under EIAO" and relevant Annexes of the Technical Memorandum of the EIAO and relevant technical circulars and annexes (for EIAO submission). Smart, green and resilient (SGR) initiatives, environmental enhancement measures, blue-green environment, urban-rural-nature integration, smart mobility, carbon neutrality will be

explored/considered under the P&E Study.

Mitigation Measures to be Incorporated in the Design Stage of the NTN Remaining Phase Development

5.11.2 The following measures will be adopted to minimize the landscape and visual impacts during the design stage.

- The urban design principles such as appropriate scale, density and functions of the development;
- Controlling building height profiles and providing stepped building heights;
- Responsive building massing;
- Controlling the walling effect;
- Preserving and establishing visual and open space links, including provision of view and breeze corridors;
- Sustainable and quality landscape design principles and best practices;
- Careful interface design between development and non-development areas;
- Coordination on the interfaces with the proposed Science Park/Innovation District/Industrial Estate development near Heung Yuen Wai Boundary Control Point and other interfacing developments;
- Incorporating retention ponds into new open space;
- The design should take into account the location of the significant landscape resources (such as potential OVTs, large mature trees, tree of rare species, protected species or with ecological and historical significance), minimize the associated clearance zones and avoid disturbance of the soil levels around these trees; and
- Tree preservation, tree transplanting and compensatory planting to be considered to mitigate the impact on the existing tree/woodland.

Construction Phase

5.11.3 The following general mitigation measures will be implemented to alleviate the impacts for the construction phase:

- Erosion control measures should be implemented for protection of construction works and the landscape if heavy rains occur;
- Measures should be taken to store and use construction equipment and building materials where they are not visually intrusive, or easily washed away or where they produce less dust;
- Tree preservation measures, such as implementation of tree protection zone, should be adequately implemented;
- Damaged vegetation and trees, not earmarked for removal, should be rectified, repaired or replaced, using the same or complementary species, size and form, to the original condition as far as possible;

- Minimization of light pollution techniques to be implemented. This includes having more lights with focused beams rather than energy wasting, floodlighting which might impact on the nighttime character of the area;
- Exposed slopes should be appropriately vegetated as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character; and
- Haul roads should be revegetated at the earliest opportunity to be compatible with their existing surrounding landscape or planned surrounding landscape.

Operational Phase

5.11.4 The following general mitigation measures are to be considered for the operational phase of NTN Remaining Phase Development.

- Trees and shrubs should be planted as visual barriers and buffers where appropriate;
- Tree transplanting and compensatory planting will partially mitigate the impact on the existing trees/woodland;
- Roadside planting is proposed alongside all roads within the NTN Remaining Phase Development . It will enhance local identity, if thematic planting is used, and reduce visual impact through screening;
- Amenity strips will be provided to roads, wherever practicable, to mitigate their visual appearance;
- An earthy tone material for the pedestrian paths will be adopted to avoid excessive contrast with the rural context and an aesthetic paving pattern is proposed to bring visual interests and coherence to the paths;
- Road structures, such as pedestrian bridges, will be designed to improve the visual appearance of the road corridor;
- The visual impact of noise barriers will be mitigated by appropriate detailed design, including use of transparent panels, appropriate colour selection of panels and supporting design as well as landscape treatments to incorporate a high level of quality and aesthetics;
- The landscape treatment of road embankments and soil slopes will be provided to enhance their visual appearance;
- Landscape treatment will be provided to open drainage channels, where practicable, to enhance their visual appearance; and
- The visual impact of buildings will be mitigated by appropriate detailed design, including screen painting, facade treatment, colour scheme and texture of materials used.

5.12 Agriculture and Fisheries

- 5.12.1 Good site practices for the control of construction site runoff shall be fully implemented to minimise impacts on water sources for farmland and ponds in the PDAs or its vicinity.
- 5.12.2 The NTN Remaining Phase Development will adopt urban-rural-nature integration approach and preservation of good quality agricultural land will be taken into consideration in the P&E Study.
- 5.12.3 Mitigation measures, including bunds around the fish pond to retain any disturbed sediments, would be formulated and implemented if necessary according to the result of the FIA.

5.13 Electric and Magnetic Fields

- 5.13.1 The guidelines issued by the International Commission on Non-ionizing Radiation Protection (ICNIRP) in assessing the impact from the exposure to electric and magnetic fields generated from the overhead electricity cables should be followed in the EIA report.
- 5.13.2 The requirements of minimum safety clearance, minimum vertical clearance and preferred working corridor of the overhead power lines concerned as stipulated in Clause 2.3.5, 2.3.6 and 2.3.14 under Chapter 7 - Utility Services of the HKPSG published by the Planning Department should also be followed and maintained at any time during and after construction.
- 5.13.3 In any time during and after construction, CLP Power shall be allowed to get access to the working corridor area of the concerned overhead lines for carrying out any operation, maintenance and repair work including tree trimming.
- 5.13.4 The Electricity Supply Lines (Protection) Regulation and the “Code of Practice on Working near Electricity Supply Lines” established under the Regulation should be observed when carrying out works in the vicinity of the electricity supply lines.
- 5.13.5 As regards the electric and magnetic fields arising from the transmission overhead lines, possible undue interference to some electronic equipment in the vicinity should be considered, if any.

5.14 Severity, Distribution and Duration of Environmental Effects

- 5.14.1 The possible severity, distribution and duration of environmental effects such as beneficial and adverse effects; short and long term effects; secondary and induced effects;

cumulative effects and trans-boundary effects from the Project will be considered and address in the EIA, where applicable. Mitigation measures will be provided subject to the detailed assessment in the EIA study.

5.15 Further Implication

5.15.1 The Ta Kwu Ling District Rural Committee, the Fanling District Rural Committee, the Sheung Shui District Rural Committee, the Sha Tau Kok District Rural Committee (the Rural Committees) and the North District Council (NDC) were consulted on the proposed P&E Study in March and April 2021. Further consultation with the Rural Committees and the NDC on the NTN Remaining Phase Development will be conducted during the P&E Study.

6. USE OF PREVIOUSLY APPROVED EIA REPORT

6.1.1 There is no previously approved EIA report for the proposed Project. However, the following approved EIA reports are considered relevant and will be referred to in the EIA Study. Where necessary, other relevant information identified during the Study would also be considered and documented in the EIA.

EIAO Register No.	Title of Approved EIA Report	Date of Approval	Relevant to this Project
AEIAR: 175/2013	North East New Territories New Development Areas	18 Oct 2013	Kwu Tung North and Fanling North New Development Areas are in close proximity to this Project and hence the findings of this EIA report is a good reference for the environment impacts assessment of NTN New Town and Man Kam To.
AEIAR- 111/2007	North East New Territories (NENT) Landfill Extension	20 Sep 2007	The odour and landfill gas of the NENT Landfill Extension in close proximity to NTN New Town would need to be considered in the EIA.

AEIAR-180/2013	Development of Organic Waste Treatment Facilities, Phase 2	3 Dec 2013	The air emission, odour and noise of the proposed Organic Waste Treatment Facilities, Phase 2 in close proximity to the Project would need to be considered in the EIA.
AEIAR-198/2016	Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery	8 Aug 2016	The proposed works is in close proximity to the Project and hence the findings of this EIA report could be a good reference for the EIA Study of this Project.
AEIAR-201/2016	Police Facilities in Kong Nga Po	20 Oct 2016	The noise impacts arising from helipad and open firing range of the police facilities in Kong Nga Po in close proximity to the Project would need to be considered in the EIA.
AEIAR-161/2011	Liantang / Heung Yuen Wai Boundary Control Point and Associated Works	Mar 2011	The Liantang / Heung Yuen Wai Boundary Control Point and the associated works falls partly within the Project and the approved EIA report could be a good reference to the EIA study of the Project.
AEIAR-193/2015	Operation of the Existing Tai Lam Explosives Magazine at Tai Shu Ha, Yuen Long for Liantang / Heung Yuen Wai Boundary Control Point Project	Nov 2015	The EIA findings of the Tai Lam Explosives Magazine at Yuen Long could be a good reference for the temporary explosives magazine to be investigated under this Project.

- END -

Table 4.1 – Representative Air and Noise Sensitive Receivers

Sensitive Receivers	Description	Land Use ¹	Approx. Distance from nearest PDA (m)	
A1	Hung Kiu San Tsuen	R	100	
A2	San Uk Ling	R	250	
A3	San Wai	R	160	
A4	Hung Leng Tsuen	R	50	
A5	Ha Shan Kai Wat	R	50	
A6	Ko Po Tsuen	R	70	
A7	Ha Heung Yuen	R	25	
A8	Ta Kwu Ling Tsuen	R	Within NTN New Town	
A9	Tsung Yuen Ha Tsuen	R		
A10	Chuk Yuen Tsuen	R		
A11	Kan Tau Wai	R		
A12	Nga Yiu Ha	R		
A13	Wo Keng Shan	R		
A14	Chow Tin Tsuen	R		
A15	Fung Wong Wu	R		
A16	Lei Uk Tsuen	R		
A17	Tong Fong	R		
A18	Tai Po Tin Tsuen	R		
A19	Ping Che Tsuen	R		
A20	Pin Che Kat Tin	R		
A21	Ping Che Yuen Ha	R		
A22	Ping Yeung Tsuen	R		
A23	Ping Che New Village	R		
A24	Ta Kwu Ling Rural Government Offices	GIC		
A25	Ta Kwu Ling Ling Ying Public School	E		
A26	Caritas Nursery School Ta Kwu Ling	E		
A27	Caritas Fung Wong Fung Ting Home	GIC		
A28	Wun Chuen Sin Koon	W		
A29	Kwan Tei	R		
A30	Ma Liu Shui San Tsuen	R		
A31	Fu Tei Pai	R		
A32	Tin Hau Temple	W		
A33	Hung Shing Temple	W		
A34	Kau Liu Village	R		
A35	Sing Ping Village	R		
A36	Proposed developments within NTN Remaining Phase Developments	Varies		Within PDAs
A37	Planned/Committed residential developments	R		Within PDA or Assessment Area

¹ R – Residential; E – Education; GIC – Government, Institutional and Community; C – Commercial/Retail; M – Military Sites; REC – Recreational; W – Public place of worship; I – Industrial

A38	Heung Yuen Wai	R	100
A39	Leng Tsai Tsuen	R	70
A40	Pak Tin New Village	R	280
A41	Regency Court	R	30
A42	Ng Uk Tsuen	R	270
A43	San Tong Po Tsuen	R	135
A44	Tung Kok Wai	R	200
A45	Sha Ling Village	R	10
A46	Leng Tsui Tsuen	R	450
A47	Cheung Shan Monastery	W	170
A48	Precious Blood Children's Village, Sisters of the Precious Blood	GIC	500
A49	San Wai Barracks	M	30

Table 4.2 – Water Quality Sensitive Receivers

WSR	Description	Status	Approx. distance from nearest PDA (m)
WSR1	Ngam Pin Watercourse	Watercourse	450
WSR2	Ponds and wet agricultural land adjacent to the Shenzhen River	Abundant or active fishponds / agricultural land in conservation area	250
WSR3	Ng Tung River (River Indus)	Channelized nullah	0-200
WSR4	Fish ponds near MKT PDA	Active fish pond	0-500
WSR5	Fish ponds near Hung Lung Hang (HLH)	Abandoned or active fish ponds	250-450
WSR6	Fish ponds near Lo Wu Station Road	Abandoned or active fish ponds	100
WSR7	Fish ponds near Sheung Shui Water Treatment Works	Abandoned or active fish ponds	300
WSR8	Cheung Po Tau watercourse	Natural stream	450
WSR9	Fu Tei Au Watercourse	Channelized nullah	150
WSR10	River near MKT	Natural stream	With NTN New Town
WSR11	Rivers near Lo Wu Station Road	Natural stream	
WSR12	Rivers near Sha Ling Road next to Shenzhen River	Natural stream	500
WSR13	River along ER near Sheung Shui Water Treatment Works	Channelized nullah	100
WSR14	Rivers near Sheung Shui Water Treatment Works	Natural stream	With NTN New Town
WSR15	River near Kong Nga Po Road	Natural stream	200
WSR16	Heung Yuen Wai (HYW) Stream	Watercourse	With NTN New Town
WSR17	Shenzhen River	Channelized nullah	20
WSR18	Kong Yiu Channel	Channelized nullah	With NTN New Town
WSR19	River near Tung Fung Au	Channelized nullah	
WSR20	River near north of NENT landfill	Channelized nullah	100
WSR21	River near south of NENT landfill	Channelized nullah	250

WSR	Description	Status	Distance from nearest PDA (m)
WSR22	Ping Yuen River (Mid-Section)	Watercourse	With NTN New Town
WSR23	Ping Yuen River (Lower Section)	Watercourse	
WSR24	Shui Hau River	Watercourse	40
WSR25	Ha Shan Kai Wat Watercourse	Watercourse	With NTN New Town
WSR26	Sheung Shan Kai Wat Watercourse	Watercourse	
WSR27	Kwan Tei River	Watercourse	
WSR28	Siu Hang San Tsuen Watercourse	Natural stream	500
WSR29	Tan Shan River (Downstream-section)	Channelized nullah	With NTN New Town
WSR30	River starting from Hung Leng Tsuen to Man Uk Tsuen and its tributaries	Channelized nullah	
WSR31	Ping Yuen River (River Ganges) and its tributaries	Channelized nullah	
WSR32	River near Kong Nga Po	Natural stream	
WSR33	River near Chow Tin Tsuen	Natural stream	
WSR34	Rivers near Hung Lung Hang	Natural stream	40-400m
WSR35	River near Lau Shui Heung Tsuen	Channelized nullah	200
WSR36	Rivers near Tung Kok Wai and Kwan Tei	Natural stream	With NTN New Town

The conservation importance of watercourse would be studied in the EIA.

Table 4.3 – Declared Monuments

Declared Monuments	Location	Distance from nearest PDAs
Cheung Shan Monastery (AM91-0483)	Ping Che, Fanling, New Territories	~170m
Kun Lung Gate Tower (AM78-0197(01))	Lung Yeuk Tau, Fanling, New Territories	~300m
Enclosing Walls and Corner Watch Towers of Kun Lung Wai (AM78-0197(02))	Kun Lung Wai, (San Wai), Lung Yeuk Tau, Fanling, New Territories	~300m
Tang Chung Ling Ancestral Hall (AM78-0184)	Lung Yeuk Tau, Fanling, New Territories	~550m
Entrance Tower of Ma Wat Wai (AM84-0341)	Mat Wat Wai, Lung Yeuk Tau, Fanling, New Territories	~600m
Tin Hau Temple (Lung Yeuk Tau) (AM78-0185)	Lung Yeuk Tau, Fanling, New Territories	~600m
Entrance Tower and Enclosing Walls of Lo Wai (AM84-0342)	Lung Yeuk Tau, Fanling, New Territories	~650m

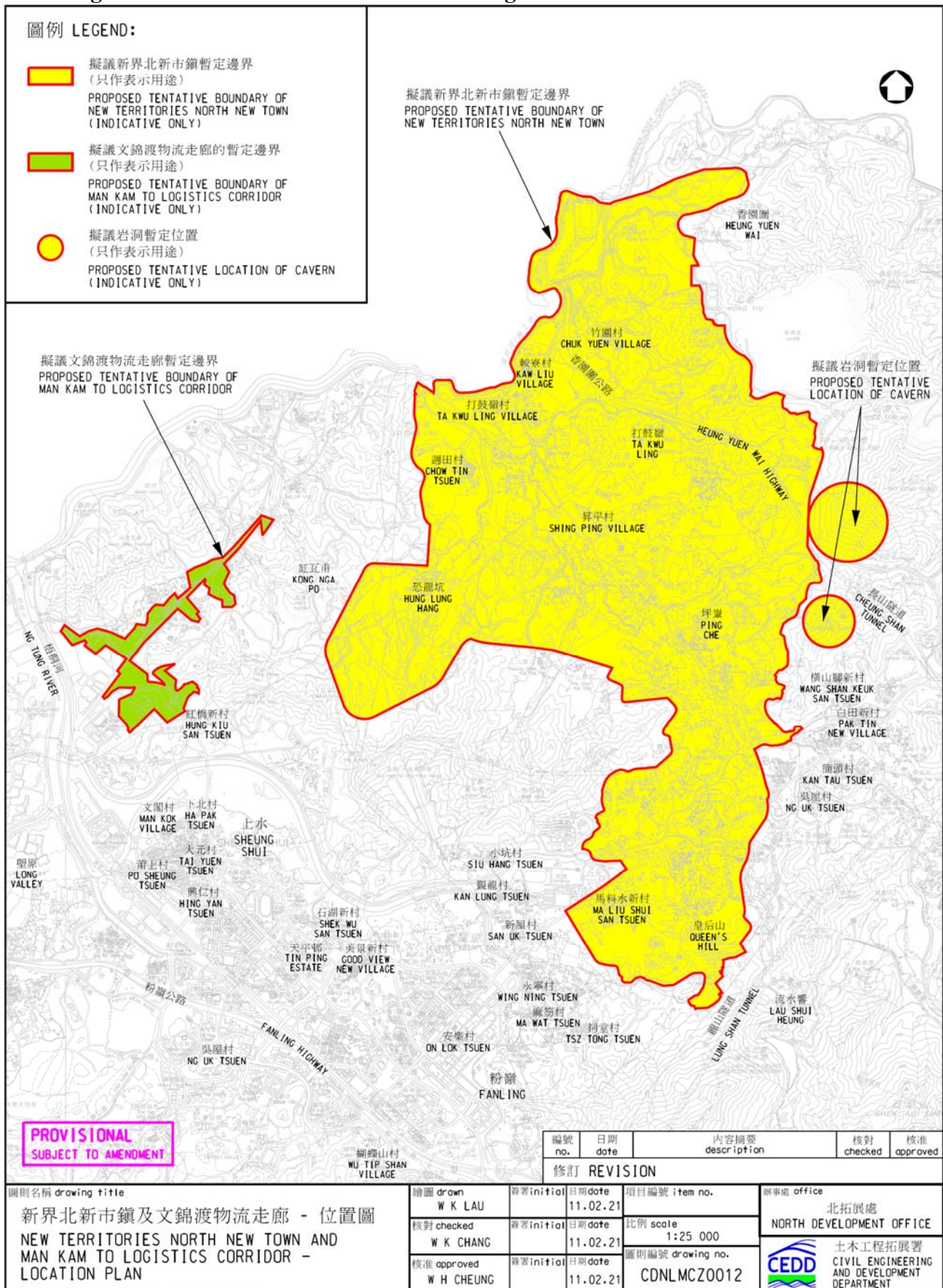
Table 4.4 – Graded Historic Buildings

Graded Historic Buildings	Location	Grading	Distance from nearest PDAs
Sam Tung Uk	Kwan Tei North Tsuen, Fanling	Grade 2	Within PDAs
Nos. 138 – 139 Ping Yeung	Nos. 138 – 139 Ping Yeung	Grade 2	
Hindu Temple	Burma Lines, Fanling, N.T.	Grade 3	
Hung Leng Station	Fanling – Sha Tau Kok Branchline	Grade 3	
Hung Shing Temple	Hung Leng	Grade 3	
Yi Kung Lok Mansion	Kwen Tei, Fanling	Grade 3	
Sit Kin Ancestral Hall	Ping Yeung, Ta Kwu Ling	Grade 3	
Chan Ancestral Hall	Sit Wan Tso, Ping Yeung	Grade 3	
Tin Hau Temple	No. 72 Ping Che, Ta Kwu Ling	Grade 3	
Ta Kwu Ling Police Station	Ping Che Rd, Ta Kwu Ling	Grade 3	
Kiu Fong Ancestral Hall	Tsung Yuen Ha, Ta Kwu Ling	Grade 3	
Nos. 57, 58 & 59 Tsung Yuen Ha	Tsung Yuen Ha, Ta Kwu Ling	Grade 3	
Wing Kit Study Hall	Nos. 12 – 13 Tong Fong	Grade 3	
Yeung Ancestral Hall	Fung Wong Wu	Grade 3	
Ng Ancestral Hall	Fung Wong Wu	Grade 3	

Table 4.5 – Historical Villages/Buildings with Potential Heritage Values

Historical Villages/Buildings with Potential Heritage Values	Location	Distance from nearest PDAs
Ping Yeung Public School	Ping Yeung Road, Ping Che	Within PDAs
Ta Ku Ling Ling Ying Public School	Chow Tin Village, Ta Ku Ling	
Muk Wu Nga Yiu Sam Wo Public School	Lin Ma Hang Road	
Lo Wu Public School	Lo Wu	
Sandy Ridge Cemetery	Sha Ling	
Baptist Assembly	Ping Che	
The Sisters Of The Precious Blood Children's Village	Kwan Tei	
Tsung Yuen Ha Village	Tsung Yuen Ha	
Heung Yuen Wai Village	Heung Yuen Wai	
Ha Heung Yuen Village	Ha Heung Yuen	
Ping Yeung Village	Ping Yeung	
Tong Fong Village	Tong Fong	
Lei Uk Village	Lei Uk (Ta Kwu Ling)	
Ta Kwu Ling Village	Ta Kwu Ling	
Fung Wong Wu Village	Fung Wong Wu	
Kan Tau Wai Village	Kan Tau Wai	
Chow Tin Tsuen Village	Chow Tin Tsuen	
Kwan Tei Village	Kwan Tei	
Hung Leng Village	Hung Leng	
Ko Po Village	Ko Po	
Tai Po Tin Village	Tai Po Tin	
Ping Che Village	Ping Che	
Sha Kai Wat Village	Sha Kai Wat	
Lo Shue Ling Village	Lo Shue Ling	
Wo Keng Shan Village	Wo Keng Shan	

Drawing – NTN New Town and Man Kam To Logistics Corridor - Location Plan



R:\Drawing\CSWP\LMC\Drawing\CDNLMC20012\CDNLMC20012.dgn

A3 291MM X 420MM