

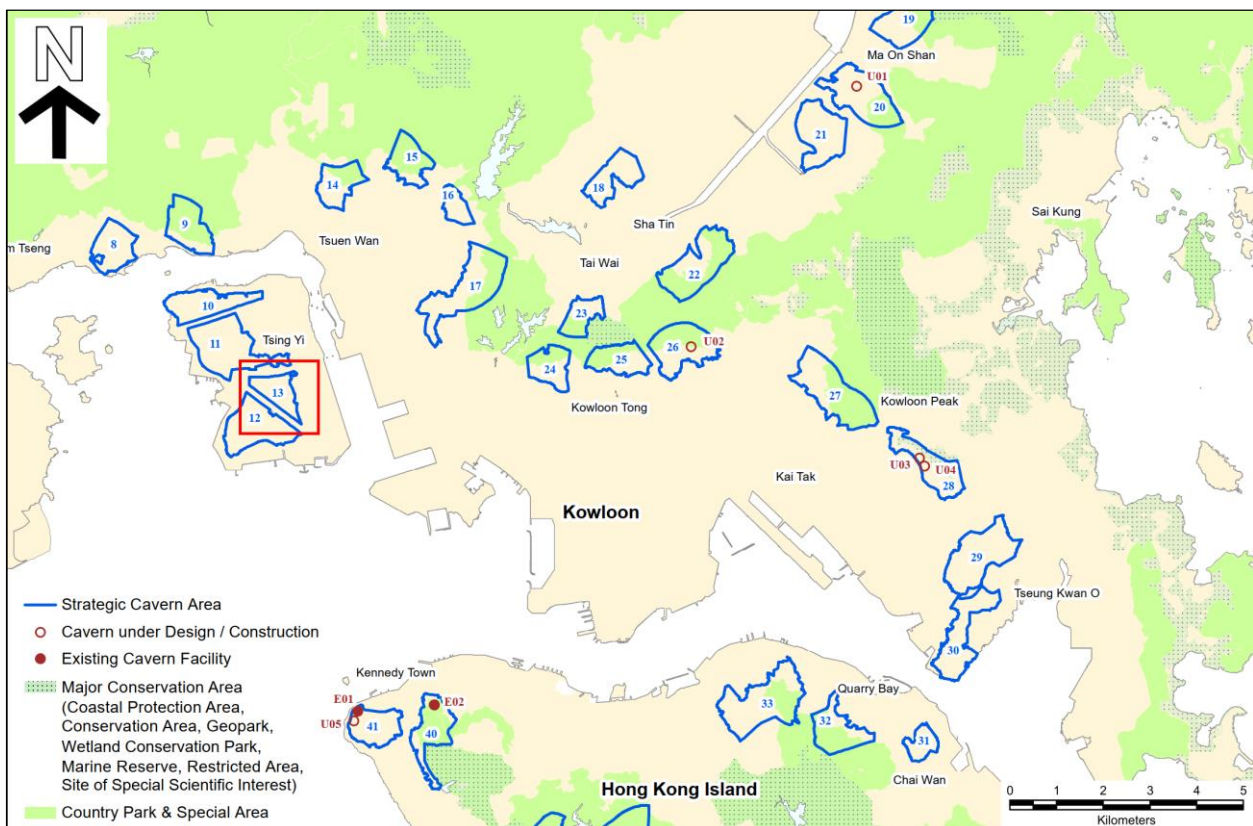
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 13 – TSING YI CENTRAL

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 13 - Tsing Yi Central (the SCVA). It also denotes the extent of potential portal locations. The spatial context of the SCVA is illustrated in the Reference Drawing appended to this Information Note.

Reference should be made to the Explanatory Statement of the Cavern Master Plan for its background and purposes, as well as the definition and delineation criteria of SCVAs.

1. Location Plan



2. Strategic Cavern Area Details

Outline Zoning Plan (OZP) ¹ :	Tsing Yi OZP
Area:	55.2 ha
Maximum elevation in the SCVA:	+279 mPD
Minimum elevation in the SCVA:	+12 mPD

3. District Context

Location

The SCVA is located at the southern portion of Tsing Yi Island, which is situated to the west of Kwai Chung and Tsuen Wan. It occupies the areas of Sai Shan and Chun Fa Lok. Sheung Ko Tan is to the north of the SCVA, Sai Tso Wan is to the west, Nam Wan is to the south, and the coastal area facing Rambler Channel is to the east.

The SCVA is generally hilly with a maximum elevation of about +279 mPD. To the north and northeast of the SCVA, there are residential areas of Tsing Yi which consists of a number of medium- to high-rise residential developments and local village settlements, including Mayfair Gardens and the Grand Marine (at the northeast boundary of the SCVA), Ching Fu Court (about 250 m to the east of the SCVA), Rambler Crest (about 400 m to the east of the SCVA), Cheung Ching Estate (about 480 m to the northeast of the SCVA), Ching Wah Court (about 500 m to the north of the SCVA) and Tsing Yu New Village (about 1,200 m to the north of the SCVA). To the east of the SCVA along the southeastern coast of Tsing Yi, there is focused development of industrial undertakings including the Kwai Chung Container Terminal 9 and other container related uses. To the south and west of the SCVA, there are also focused industrial developments including oil depots, dockyards, chemical waste treatment and container related uses along the southern and western coasts of Tsing Yi.

¹ For details of the latest land use zonings on the OZPs, please refer to the Town Planning Board Statutory Planning Portal 3 (<https://www.ozp.tpb.gov.hk/>).

In the proximity of the SCVA, the Hong Kong Institute of Vocational Education (Tsing Yi) (HKIVE) is located adjoining the eastern boundary of the SCVA. There are also other key Government, Institution or Community (GIC) facilities supporting the development of Tsing Yi, including Tsing Yi East Salt Water Service Reservoir (about 250 m to the northeast of the SCVA), Tsing Yi East Fresh Water Service Reservoir (about 200 m to the northeast of the SCVA) and Tsing Yi East No. 2 Fresh Water Service Reservoir (about 250 m to the northeast of the SCVA).

Access

The SCVA is accessible from its western and eastern edges via Tsing Yi Road West and an access road of the HKIVE which connects to Sai Shan Road respectively. Regional connections could be routed through the nearby Cheung Tsing Highway and Tsing Kwai Highway.

The MTR Airport Express/Tung Chung Line runs through Tsing Yi with Tsing Yi Station located about 1.5 km to the north of the SCVA.

Existing / Planned Facility in SCVA

There is no existing or planned cavern facility within the SCVA. Nevertheless, the SCVA might be selected as the relocation site of Tsing Yi East Group Service Reservoirs. The western portion of the SCVA may form part of the released site for housing and other developments including GIC facilities. Project proponents should take due consideration on the findings of the study.

4. Summary of Characteristics of Strategic Cavern Area

4.1. Boundary

The northern boundary of the SCVA is defined by the Cheung Tsing Tunnel. The eastern boundary of the SCVA is defined by Tsing Sha Highway, the HKIVE, Mayfair Gardens and the Grand Marine. The western boundary of the SCVA is defined by Tsing Yi Road West. The southern boundary of the SCVA is defined by the Nam Wan Tunnel.

4.2. Geology

The solid geology of the SCVA is primarily fine-grained granite and medium-grained granite within the eastern portion, which belong to Sha Tin Granite; and coarse ash crystal tuff within the western portion, which belongs to Yim Tin Tsai Formation. The SCVA is with the rock types that are suitable for the uses of rock caverns. A number of geological features, such as faults, photolineaments and isolated dykes, are identified within and in the areas surrounding the SCVA. The excavated fine-grained granite and medium-grained granite within the SCVA are suitable for reuse as construction aggregate. Other excavated rock within the SCVA can be used as road base materials and for asphalt production, etc.

Further geological information of the SCVA can be found in the 1:20,000-scale Geological Map Sheet 10 (Silver Mine Bay) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

4.3. Planning

The SCVA is sandwiched between the existing residential area and industrial area in Tsing Yi and is well connected to the rest of the territory by various major highways.

On the northern and northeastern sides of the SCVA, there are major residential areas in Tsing Yi. These consist of various medium- to high-rise residential developments (e.g. Cheung Ching Estate, Ching Wah Court, Mayfair Gardens, the Grand Marine, Ching Fu Court and a proposed public housing site at Ching Hong Road North) and local village settlements (e.g. Tsing Yu New Village) supported by a number of GIC facilities (e.g. sports ground, sewage treatment plants, service reservoirs, etc.).

The southeastern, southern and western coasts of Tsing Yi, which are located to the east, south and west of the SCVA respectively, have been developed as hubs of various industrial uses that require direct marine access and extensive land, including oil depots, dockyards, chemical waste treatment and container related uses.

The SCVA is strategically located in the urban fringe with easy access to the rest of the territory, including Ma Wan and Lantau via the Lantau Link, Ting Kau and Northwest New Territories via Tsing Long Highway, Tsuen Wan via Tsing Tsuen Bridge (please refer to Reference Drawing of SCVA No. 11 for the location of the bridge), Kwai Chung and the Kowloon mainland via Cheung Tsing Bridge, Tsing Yi Bridge and Kwai Tsing Bridge, and Stonecutters Island and the west Kowloon area via Stonecutters Bridge (please refer to Reference Drawing of SCVA No. 12 for the location of the bridge).

The land above +150 mPD is designated as 'No Borrow Area' by the Coordinating Committee on Land-use Planning and Control relating to Potentially Hazardous Installations (CCPHI) in 1988, where borrowing and alternation of landforms are prohibited. Any alteration of the ridge below 150 mPD has to be agreed with concerned departments including the Gas Standards Office of Electrical and Mechanical Services Department. Project proponents shall consult relevant departments if the proposed uses and portals involve alternation of the ridge below 150 mPD.

4.4. Environmental

Environmental sensitive receivers to the potential caverns in the SCVA are the nearby existing residential developments (e.g. Mayfair Gardens, the Grand Marine and Ching Fu Court) and education institution (i.e. HKIVE). The South Tsing Yi Site of Special Scientific Interest is located to the south of the SCVA. Additionally, the existing LPG/Oil terminals of Exxon Mobil Hong Kong Ltd. (East Terminal & West Terminal), Sinopec Hong Kong Ltd., Chevron Hong Kong Ltd. and Shell Hong Kong Ltd. are in proximity to the SCVA. The SCVA is also in close proximity to the planned Advanced Construction Industrial Building (ACIB) under "Agreement No. WQ/216/22 (CE) Hazard Assessment and Traffic Impact Assessment for Proposed Development in Tsing Yi". Blasting assessment shall take these LPG/Oil terminals and planned Government facilities including the ACIB in the vicinity into account. Also, some natural water courses and streams are located within the SCVA and close to the extent of potential portal locations. There are wooded areas within the SCVA.

All potential environmental constraints, which may impose restrictions on the potential caverns, should be identified and taken into account under the Environmental Impact Assessment Ordinance (EIAO) and other relevant ordinances. Project proponents are required to take into account the potential environmental constraints when planning each project and undertaking the environmental impact assessment under the EIAO to determine its environmental acceptability, potential environmental impacts and environmental mitigation measures required.

4.5. Traffic

The SCVA can be accessed from its western and eastern edges via Tsing Yi Road West and an access road of the HKIVE which connects to Sai Shan Road. Regional connections could be routed through the nearby Cheung Tsing Highway and Tsing Kwai Highway.

Tsing Yi Road West may become oversaturated in terms of capacity subject to further detailed traffic assessment to be carried out by the project proponent of the cavern project. The usage of the access road of the HKIVE would require further liaison with the institute and relevant stakeholders. The project proponent shall also assess the combined traffic impact due to the proposed Tsing Yi – Lantau Link. Further advice on the scope of Traffic Impact Assessment shall be sought by the project proponent.

4.6. Other Key Issues / Constraints on Cavern Development

There are two existing vehicle tunnels in the vicinity of the SCVA. Cheung Tsing Tunnel is located 50 m away from the northern boundary of the SCVA while Nam Wan Tunnel is located 50 m away from the southern boundary of the SCVA. Two Harbour Area Treatment Scheme Stage 1 tunnels of the Drainage Services Department are located approximately 300 m to the northeastern portion of the SCVA. Due to the horizontal separations, these underground facilities will not pose any insurmountable constraint to the potential uses of rock caverns within the SCVA.

In addition, the SCVA may have interface issue with the preliminary alignment of Tsing Yi – Lantau Link. The potential uses of the SCVA shall consider the proposed link once its alignment is confirmed.

5. Extent of Potential Portal Locations

The extent of the potential portal locations is shown on the Reference Drawing.

The SCVA can be accessed from Tsing Yi Road West and a cut slope at Sai Tso Wan Road to the west, and from the access road of the HKIVE which connects to Sai Shan Road to the east.

The potential portal location on Tsing Yi Road West is located at the slope alongside the south-bound lane of the carriageway. There is a cut slope at Sai Tso Wan Road which is also identified as a potential portal location. It is noted that, adjoining that cut slope, a Vehicle Examination Centre is located at Sai Tso Wan Road to the west of the SCVA and to the south of Cheung Tsing Tunnel portal. Project proponents should take this into consideration when formulating cavern options in any development proposals using that slope as the portal and should consult relevant Government departments, including but not limited to Development Bureau, Energizing Kowloon East Office and Transport Department, where appropriate.

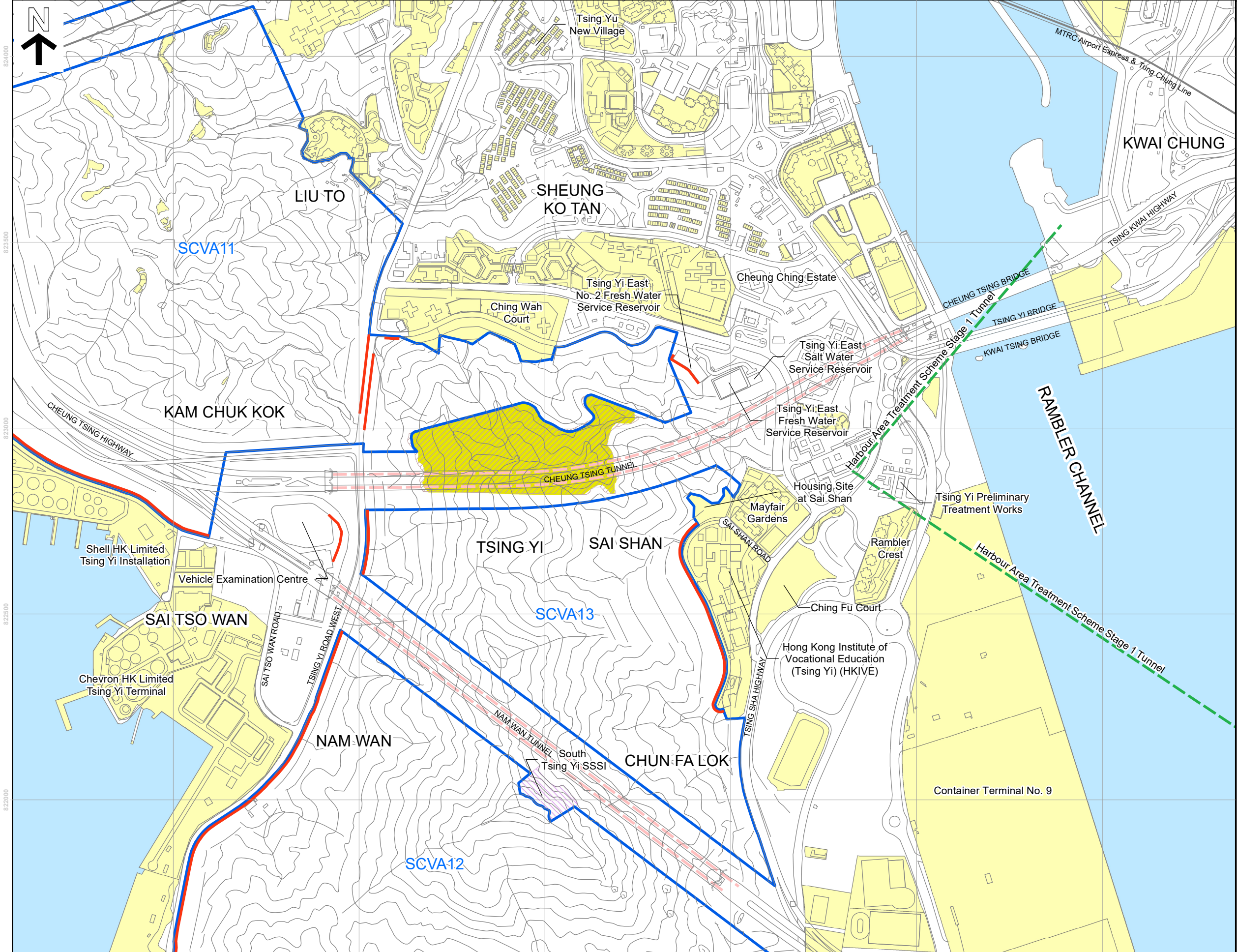
Another extent of potential portal location is on the access road of the HKIVE. The access road is currently a restricted road connected to Sai Shan Road. It would be suitable for low traffic-generating uses. Widening and upgrading of the access road would be required in order to support moderate to high traffic-generating activities. The usage of the access road of the HKIVE would require further liaison with the institute and relevant stakeholders.

The potential portal locations of the SCVA are located at cut slopes with natural terrain above. There may be potential natural terrain hazards in the vicinity of the potential portal locations which will require further study by project proponents.

Project proponents should carry out further studies on identifying specific locations of portals for projects considering cavern options.

6. Remarks to Information Note

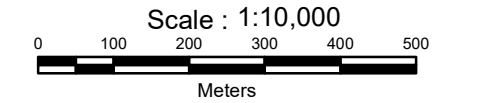
The Cavern Master Plan and all supporting documents do not exempt project proponents for cavern projects from following the relevant statutory procedures. Information including the extent of potential portal locations indicated in this Information Note should serve as reference materials only. In formulation of development proposals, project proponents should conduct the necessary studies and assessments relevant to each project stage. Reference should be made to the “Implementation” section of the Explanatory Statement of the Cavern Master Plan for further details.



Legend

- Strategic Cavern Area
- Extent of Potential Portal Locations
- Existing Railway Line / Light Rail / Tram
- Vehicle Tunnel
- Drainage Services Department Tunnel
- Sea
- Private Lot
- Burial Ground
- Site of Special Scientific Interest
- "Other Specified Uses" annotated
- "Traditional Burial Area for Tsing Yi Villager" Zone

Note: All private lots located inside the boundary of the Strategic Cavern Area have been excised. Project proponents shall check the latest land status with the Lands Department. Reference should be made to the Explanatory Statement of the Cavern Master Plan for the delineation criteria of Strategic Cavern Area.



REFERENCE DRAWING OF STRATEGIC CAVERN AREA NO. 13 - TSING YI CENTRAL

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
PLANNING DEPARTMENT



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