

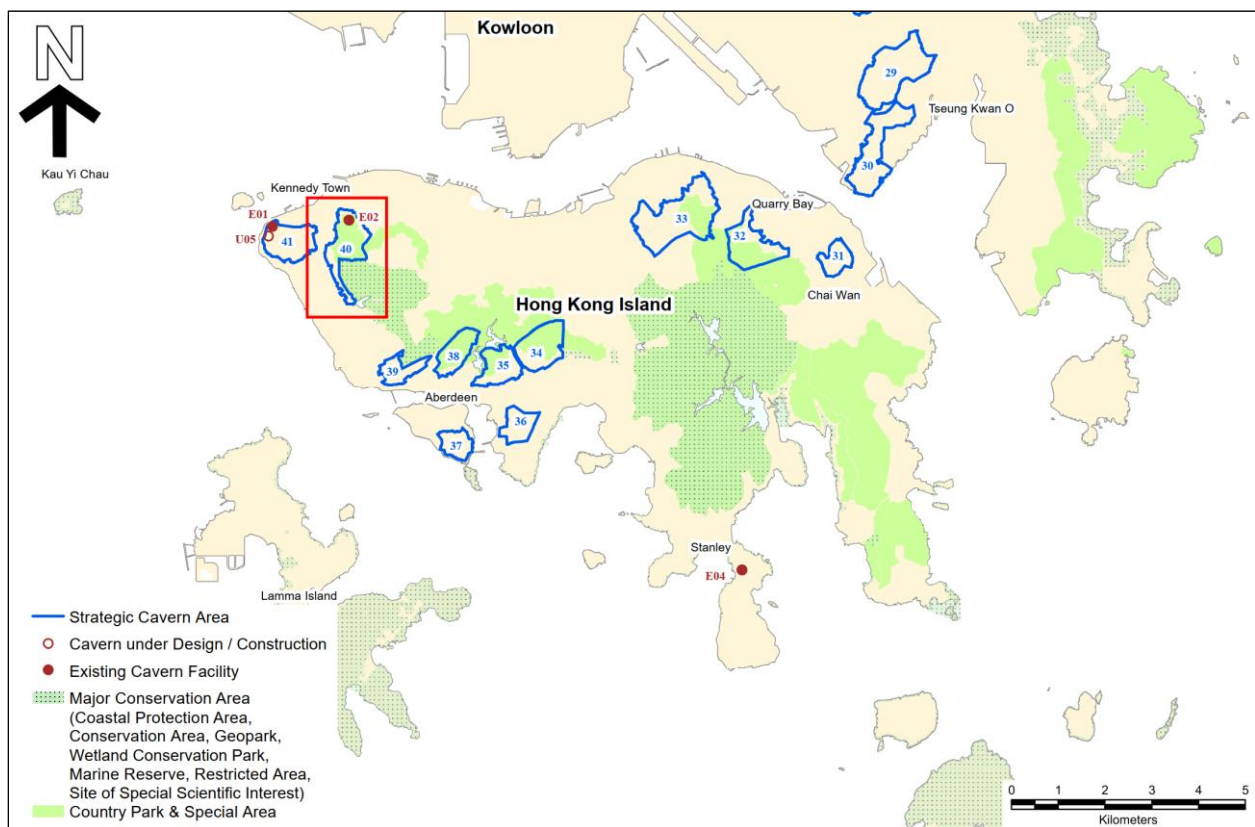
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 40 – POK FU LAM

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 40 - Pok Fu Lam (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 Plans (OZPs) ¹ :	Pok Fu Lam OZP
	Mid-Levels West OZP
	The Peak Area OZP
Area:	86.1 ha
Maximum elevation in the SCVA:	+360 mPD
Minimum elevation in the SCVA:	+75 mPD

3. District Context

Location

The SCVA is located in the northwestern part of Hong Kong Island. It occupies the area of Lung Fu Shan in Mid-Levels. Sai Wan and Sai Ying Pun are to the north and northeast of the SCVA, Victoria Peak and Pok Fu Lam Country Park are to the east and south, Pok Fu Lam is to the southwest and Kennedy Town is to the west.

The SCVA is generally hilly with a maximum elevation of about +360 mPD. A majority of the SCVA encroaches onto Lung Fu Shan Country Park and Pok Fu Lam Country Park. Besides, the SCVA abuts the Pok Fu Lam Catchment Area Site of Special Scientific Interest (SSSI) at its southeast.

To the west, north and northeast of the SCVA, the areas of Kennedy Town, Sai Wan and Sai Ying Pun are predominantly residential communities with high-density developments. These include Kwun Lung Lau (about 400 m to the west of the SCVA), Connaught Garden (about 800 m to the northeast of the SCVA) and Academic Terrace (about 100 m to the northwest of the SCVA). These areas are supported by a number of key Government, Institution or Community (GIC) facilities and other facilities which also serve the territory, including the University of Hong Kong (at the northern boundary of the SCVA), Chinese Christian Cemetery (at the western boundary of the SCVA), Queen Mary Hospital (at the western boundary of the SCVA), Kotewall Road Fresh Water Service Reservoir and Hatton Road No. 2 Fresh Water Service Reservoir (both at the northeastern boundary of the SCVA) and Victoria Road Fresh Water Service Reservoir (about 300 m to the southwest of the SCVA).

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/>).

Western Salt Water Service Reservoir and Western No. 2 Salt Water Service Reservoir beside the University of Hong Kong Centennial Campus at the northern portion of the SCVA are the existing cavern facilities.

Access

The SCVA is accessible from its northern and southwestern edges via Pok Fu Lam Road and the slope behind Queen Mary Hospital. Regional connections could be routed through Pok Fu Lam Road, Connaught Road West and Western Harbour Crossing.

The MTR Island Line serves the locality of Sai Ying Pun, Sai Wan and Kennedy Town. The nearest stations include Sai Ying Pun Station (about 600 m to the northeast of the SCVA), HKU Station (about 100 m to the north of the SCVA) and Kennedy Town Station (about 300 m to the northwest of the SCVA). The proposed South Island Line (West) will serve the western and southern parts of Hong Kong Island. This proposed railway line together with the South Island Line and the Island Line will form a railway loop covering the central and western parts of Hong Kong Island. The South Island Line (West) will comprise HKU Station and a proposed station at the Queen Mary Hospital (exact location to be determined) serving the locality of the SCVA.

Existing / Planned Facility in SCVA

Western Salt Water Service Reservoir and Western No. 2 Salt Water Service Reservoir are the existing cavern facilities located within the SCVA.

There is no planned cavern facility within the SCVA.

4. Summary of Characteristics of Strategic Cavern Area

4.1. Boundary

The northern boundary of the SCVA is defined by the University of Hong Kong. The eastern boundary of the SCVA is defined by the Pok Fu Lam Reservoir Catchment Area SSSI. The western boundary of the SCVA is defined by Queen Mary Hospital and private lots along Pok Fu Lam Road. The southern boundary of the SCVA is defined by Pok Fu Lam Reservoir Road and private lots along Pok Fu Lam Road.

4.2. Geology

The solid geology of the SCVA is primarily fine ash vitric tuff in the central and southern portions, which belongs to Ap Lei Chau Formation; coarse ash crystal tuff in the northern portion, which belongs to Mount Davis Formation; and localised medium-grained granite in the northern and southwestern portions, which belongs to Kowloon Granite. 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 folds, are identified within and in areas surrounding the SCVA. The excavated medium-grained granite in the northern and southwestern portions of the SCVA is suitable for reuse as construction aggregate. Other excavated rocks can be used as road base materials and for asphalt production, etc.

Further geological information of the SCVA can be found on the 1:20,000-scale Geological Map Sheet 11 (Hong Kong & Kowloon) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

4.3. Planning

The SCVA is adjacent to various residential areas in Kennedy Town, Sai Wan and Sai Ying Pun, as well as the University of Hong Kong, Queen Mary Hospital and the associated facilities in Sai Wan and Pok Fu Lam. The SCVA is also well connected to the rest of the territory by roads and railway.

The areas of Kennedy Town, Sai Wan and Sai Ying Pun are major residential communities consisted of high-rise developments (e.g. Kwun Lung Lau, Connaught Garden and Academic Terrace) supported by various GIC facilities (e.g. hospital, school, sewage treatment plant and service reservoir, etc.).

The western side of the SCVA is directly facing the existing Chinese Christian Cemetery with other related facilities.

4.4. Environmental

Environmental sensitive receivers to the potential caverns in the SCVA are the nearby existing residential developments (e.g. Academic Terrace), and Queen Mary Hospital and the associated facilities, etc. The SCVA comprises natural greenery and Water Gathering Ground. The northeastern part of the SCVA encroaches onto Lung Fu Shan Country Park and a minor portion in the southern part of the SCVA encroaches onto Pok Fu Lam Country Park. The southern boundary of the SCVA abuts the Pok Fu Lam Reservoir Catchment Area SSSI. There are natural or modified surface water courses within the SCVA. Several graded historic structures including Pinewood Battery (Grade 2 historic building), Air Vents at the Service Reservoir in Pok Fu Lam Reservoir (Grade 3 historic building), Treatment Works Building, Elliot Pumping Station & Filters (Grade 3 Historic Building), etc. are located within the SCVA. Bungalow, West Point Filters (Grade 1 Historic Building) and Workmen's Quarters, West Point Filters (Grade 2 Historic Buildings) are located in close vicinity of the north-eastern portion of the SCVA. Several declared monuments, including the Exterior of the Main Building, the Exterior of Hung Hing Ying Building, the Exterior of Fung Ping Shan Building, the Exterior of Tang Chi Ngong Building, the Exterior of Eliot Hall, the Exterior of May Hall of the University of Hong Kong and King's College are located in close vicinity of the north-eastern portion of SCVA. The Exterior of University Hall of the University of Hong Kong, Pok Fu Lam Reservoir, Masonry Bridge, Gauge Basin and the Former Watchmen's Cottage of Pok Fu Lam Reservoir and The Bethanie are located in the vicinity of the southern portion of the SCVA. Meanwhile, Lo Pan Temple (Declared Monument) is located in the vicinity of the northern portion of the SCVA. Other graded historic buildings, including No. 34 Lugard Road, The Peak, Pok Fu Lam Conduit, No. 128 Pok Fu Lam Road, as well as the Box Culvert, Embankment and Old Masonry Dam of Pok Fu Lam Reservoir, Stone House (No. 15 Kotewall Road), Nurses Quarters of Queen Mary Hospital (Grade 2 historic building), Queen Mary Hospital Main Block (Wing A to E) (Grade 3 historic building), and Alberose are also located in the vicinity of the SCVA. Three government historic sites identified by Antiquities and Monuments Office (AMO), namely City of Victoria Boundary Stone (Hatton Road), City of Victoria Boundary Stone (Lung Fu Shan) and City of Victoria Boundary Stone (Pok Fu Lam Road), are situated in the northern and western portion of SCVA. Meanwhile, Pok Fu Lam Conduit (other sections) (New Item Pending for Grading Assessment, N372) and Marden Wing and Leung Wing Chiu Steps of St. John's College, The University of Hong Kong (New Item Pending for Grading Assessment, N426) are situated within the SCVA and in the northwest portion of the SCVA respectively. There are wooded areas within the SCVA. Species of conservation importance including Short-legged Toad, Hong Kong Cascade Frog and Lesser Spiny Frog are recorded in Lung Fu Shan Country Park and 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, such as the Country Parks Ordinance. 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. Consultation with AMO is required for development at/near historic sites, i.e. boundary stones, etc.

4.5. Traffic

The SCVA can be accessed from its northern and southwestern edges via Pok Fu Lam Road and the slope behind Queen Mary Hospital. Regional connections could be routed through Pok Fu Lam Road, Connaught Road West and Western Harbour Crossing.

The road network surrounding the potential portals provides a good level of accessibility from other areas of Hong Kong. Access from the north can be routed via Connaught Road West and the Western Harbour Crossing and access from the south can be routed via Shek Pai Wan Road, all of which are high capacity roads.

It is noted that the SCVA falls partly within the Pok Fu Lam area which is currently restricted by the Pok Fu Lam Moratorium, project proponents are required to take special attention to any potential traffic impacts to the Pok Fu Lam area when considering cavern options. In view of the local concerns, any potential local and accumulative traffic impacts to the district as a whole should also be assessed and minimised as far as possible.

The project proponent would be required to assess the traffic impacts to the road networks and junctions in the vicinity and carry out traffic improvement measures so as to ensure that the traffic infrastructure could cope with the additional traffic flow brought by the project when considering cavern options in the SCVA. Further advice on the scope of the Traffic Impact Assessment shall be sought by the project proponents.

4.6. Other Key Issues / Constraints on Cavern Development

A Drainage Services Department's tunnel namely the Hong Kong West Drainage Tunnel and one of its adits pass through the SCVA from east to southwest. Two Water Supplies Department's tunnels are located in the vicinity of the SCVA, including (1) the Pok Fu Lam tunnel about 50 m to the south of the SCVA; and (2) an unnamed tunnel about 100 m to the west of the SCVA. The proposed railway tunnel for the South Island Line (West) will be in close proximity to the western boundary of the SCVA. The existing railway tunnel for the Island Line is about 50 m to the north of the SCVA. Several abandoned tunnels are about 500 m to the northwest, 100 m to the north, 400 m to the northeast and 500 m to the east of the SCVA respectively. Po Shan Road Drainage Tunnels of the Lands Department, are about 150 m to the east of the SCVA. Owing to the difference in elevations and/or horizontal separations with respect to the extent of potential portal locations, these tunnels would not pose any insurmountable constraint on the potential uses of rock caverns within the SCVA.

Water Supplies Department Western Salt Water Service Reservoir and Western No. 2 Salt Water Service Reservoir are located in two caverns in the northern portion of the SCVA. There will be interfacing issues should there be any potential caverns in the SCVA in the vicinity of these cavern facilities. Peak Trail (Pinewood Battery Section), Hong Kong Trail Section 1, Peak Trail (High West Section) and Pok Fu Lam Family Walk are also located within the SCVA. Project proponents shall take into account when considering cavern options.

5. Extent of Potential Portal Locations

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

The SCVA is generally accessible from the slope behind Queen Mary Hospital to the south; Pok Fu Lam Road to the west; and the slope at Pokfield Road Bus Station adjoining Pok Fu Lam Road to the northwest of the SCVA.

An extent of potential portal location is located at a natural slope behind Queen Mary Hospital. Accessing potential portal location has to be via the existing roads within the area of Queen Mary Hospital. Cavern uses related to the future development of Queen Mary Hospital could consider using this extent of potential portal location.

The potential portal locations along Pok Fu Lam Road, are located at the slopes along the carriageway. Portal access could be formed by local widening of the roads with provision of suitable run in/out traffic system or priority junction to minimise the disruption to the existing road network. The extent of potential portal locations at Pokfield Road Bus Station falls within an area zoned “Other Specified Uses” annotated “Petrol Filling Station”. The potential safety hazard implications of the petrol filling station should be fully assessed should this location be considered for cavern projects.

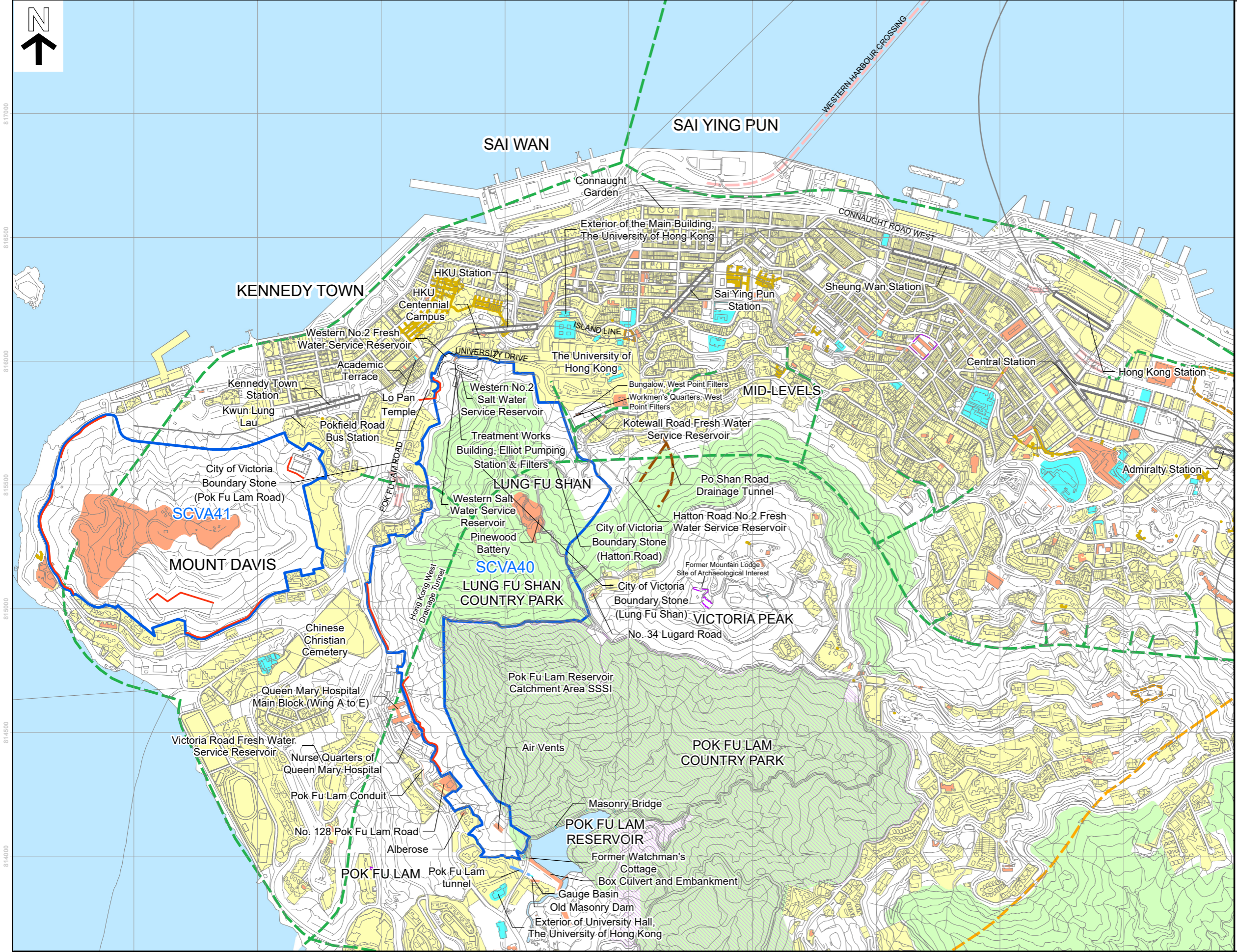
All potential portal locations of the SCVA are with natural slopes above. There may be potential natural terrain hazards in the vicinity which will require further study by the project proponents.

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

Apart from the abovementioned extent of potential portal locations, the northern boundary of the SCVA adjoining the University of Hong Kong could also be considered as potential portal location. Access to the SCVA could be provided along University Drive, which is currently a restricted road connecting Kotewall Road and Bonham Road. Cavern uses related to the future development of the University of Hong Kong could consider using this extent of potential portal location.

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
- Cable Tunnel / Gas Tunnel
- Vehicle Tunnel
- Drainage Services Department Tunnel
- Water Supplies Department Tunnel
- Lands Department Tunnel
- Reservoir / River / Sea
- Site of Archaeological Interest
- Graded Historic Building
- Declared Monument (Historic Building)
- Government Historic Site Identified by AMO
- Private Lot
- Country Park
- Abandoned Tunnel
- Site of Special Scientific Interest
- Military Installation Closed Area

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.

