CAVERNS MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERNS AREA NO. 41 – MOUNT DAVIS

This Information Note describes the characteristics, key development opportunities and constraints of Strategic Cavern Area No. 41 - Mount Davis (the SCVA). It indicates the potential land uses suitable for cavern development within the area but would not pre-empt other possible land uses put forward by the project proponents with justifications. 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**

<table>
<thead>
<tr>
<th>Outline Zoning Plan (OZP):</th>
<th>Draft Kennedy Town &amp; Mount Davis OZP No. S/H1/20</th>
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<tbody>
<tr>
<td>Area:</td>
<td>73.3 ha</td>
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<tr>
<td>Maximum elevation in the SCVA:</td>
<td>+270 mPD</td>
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<tr>
<td>Minimum elevation in the SCVA:</td>
<td>+23 mPD</td>
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3. **District Context**

**Location**

The SCVA is located in the northwestern part of Hong Kong Island. It occupies the area of Mount Davis in Pok Fu Lam. Kennedy Town is to the north of the SCVA, Sai Wan and Lung Fu Shan are to the northeast and east, and Pok Fu Lam is to the south.

The SCVA is generally hilly with a maximum elevation of about +270 mPD. A number of features are located within the SCVA, including the Jockey Club Mt. Davis Youth Hostel near the hilltop of Mount Davis, Kennedy Town Fresh Water Service Reservoir in the northeastern portion and Mount Davis Fresh Water Service Reservoir in the southern portion.

To the north and northeast of the SCVA, the areas of Kennedy Town and Sai Wan are predominantly residential communities with high-density developments. These include Kwun Lung Lau (at the northeastern boundary of the SCVA), Sai Wan Estate (about 100 m to the north of the SCVA) and The Sail at Victoria (at the northern boundary of the SCVA). To the south of the SCVA, Pok Fu Lam is also a residential area with low- to medium-rise developments, including Villas Sorrento, Bayview Court and Mount Davis Village (all at the southern boundary of the SCVA).

These areas are supported by a number of key Government, Institution and Community (GIC) facilities and other facilities located in the vicinity which also serve the territory, including the University of Hong Kong (about 750 m to the northeast of the SCVA), Chinese Christian Cemetery (about 250 m to the southeast of the SCVA), Queen Mary Hospital (about 550 m to the southeast of the SCVA), Victoria Public Mortuary (about 300 m to the north of the SCVA), Kennedy Town Car Park (about 200 m to the northeast of the SCVA) and Sandy Bay Sewage Screening Plant (about 250 m to the south of the SCVA).
Access

The SCVA is accessed from its western, southern and northeastern edges via Victoria Road, Mount Davis Road, an access road to Mount Davis Fresh Water Primary Service Reservoir, and an access road to Kennedy Town Fresh Water Service Reservoir. 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 Wan and Kennedy Town. The nearest stations include HKU Station (about 800 m to the northeast of the SCVA) and Kennedy Town Station (about 100 m to the northeast of the SCVA). The proposed South Island Line (West), with an indicative implementation window from 2021 to 2026 recommended for planning, will serve the western and southern parts of the 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.

Land Use Zoning

Under the Draft Kennedy Town & Mount Davis OZP No. S/H1/20, the majority of the SCVA falls within an area zoned “Green Belt”, with ‘Green Belt(1)”, “Green Belt(2)”, “Government, Institution or Community” (“G/IC”) and “Open Space” zones scattered within the SCVA, and a small portion in the northeast falls within an area zoned “Residential (Group A)5”. The zoning of the surrounding areas includes “Green Belt”, “Residential (Group A)”, “Residential (Group B)”, “Residential (Group C)”, “Residential (Group C)”, “G/IC”, “Open Space”, “Other Specified Uses” annotated “Cemetery”, “Other Specified Uses” annotated “Uses Related to Underground Refuse Transfer Station”, “Other Specified Uses” annotated “Public Mortuary” and “Other Specified Uses” annotated “Commercial, Leisure and Tourism Related Uses”.

For details of the latest land use zonings on the OZP, please refer to the Town Planning Board website (http://www.tpb.gov.hk).

The Island West Transfer Station in the northwestern edge of the SCVA and the former MTRC Explosives Magazine in the western edge of the SCVA along Victoria Road are two existing facilities in caverns.
4. Summary of Characteristics of Strategic Cavern Area

4.1. Boundary

The northern boundary of the SCVA is defined by the MTR Island Line tunnel. The eastern boundary of the SCVA is defined by private lots and Chiu Yuen Cemetery. The western boundary of the SCVA is defined by Victoria Road. The southern boundary of the SCVA is defined by Mount Davis Road and private lots. A private lot within the Mount Davis Battery (a Graded Historic Building) located near the central portion of the SCVA has been excised from the SCVA. Reference should be made to the Explanatory Statement of the Cavern Master Plan for the delineation criteria of SCVAs.

4.2. Geology

The solid geology of the SCVA is primarily coarse ash crystal tuff, which belongs to Mount Davis Formation. The SCVA is with a rock type that is suitable for cavern development. A number of geological features, such as photolineaments, are identified within and in areas surrounding the SCVA. The 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 Pok Fu Lam. The SCVA is also well connected to the rest of the territory by roads and railway. There is potential for the SCVA to support the development of these areas.
The areas of Kennedy Town, Sai Wan and Pok Fu Lam are major residential communities consisted of existing low- to high-rise developments (e.g. Kwun Lung Lau, Sai Wan Estate and Mount Davis Village) and potential housing developments supported by various GIC facilities (e.g. hospital, school, sewage treatment work and service reservoir, etc.). In view of the existing compact and high density built environment and the increasing population in these areas, there is opportunity for the SCVA to provide solution space to support such expansion and to improve the provision of GIC facilities for the community, such as by relocation of existing facilities (e.g. mortuary, sewage treatment plant, etc.) to caverns to release surface land for other beneficial uses (e.g. community facilities). As the mortuary and cemeteries are located in the vicinity of the SCVA, consideration could be made to provide space for columbarium and related uses in cavern. This could enable more effective utilisation of land resources in the areas while preserving the landscape of Mount Davis as a natural backdrop to the adjacent communities. By housing ‘Not-in-My-Backyard’ (NIMBY) type of facilities, such as sewage treatment plant, nuisance to the community could also be minimised.

The SCVA is situated in a strategic location being close to the University of Hong Kong, Queen Mary Hospital and the associated facilities in Sai Wan and Pok Fu Lam. The development of these facilities should be further enhanced, for example, by housing research/testing laboratories in caverns in support of the relevant high value-added research and development. This would be in line with the six strategic industries where Hong Kong enjoys clear advantages, as outlined in the 2010/11 Policy Address, including education facilities, medical services, testing and certification services, innovation and technology, environmental industries, cultural and creative industries.

According to the Recommended Land Use Proposal under the Land Use Review on the Western Part of Kennedy Town¹ which has been reflected on the Draft Kennedy Town & Mount Davis OZP No. S/H1/20 gazetted on 11 March 2016, the existing Victoria Public Mortuary is proposed to be relocated to the former MTRC Explosives Magazine in an existing cavern on Victoria Road, which is located in the SCVA and adjoining land. This would release the surface land to facilitate provision of a waterfront promenade. Project proponents should take into account the findings of the aforementioned Land Use Review and the latest OZP in preparing cavern development proposals.

The SCVA is located in the urban fringe supported by good road network, in which road traffic conditions have been improved after the implementation of the MTR West Island Line (now being part of the MTR Island Line). There is thus potential to develop suitable land uses that require convenient transport infrastructure for serving a large catchment area, such as maintenance depot. Relocation of maintenance depots and related facilities located in the vicinity to caverns thereby releasing the surface land for other beneficial uses for integration with the future development may be considered.

It should also be noted that the SCVA falls within an area that is restricted by the Pok Fu Lam Moratorium. The Moratorium covers part of the Mount Davis and extends through the Pok Fu Lam area to Wah Fu Estate. The policy of the administrative Moratorium, imposed on traffic grounds, is to:

(i) defer sale of Government land;

(ii) defer all further lease modifications which would give rise to a greater intensity of development; and

(iii) realise any development proposed for the Mount Davis Site, approval to partially uplift the Pok Fu Lam Moratorium will be required.

Any cavern development in this area must take account of the Pok Fu Lam Moratorium, and Transport Department and Lands Department should be consulted with regards to any proposals.

It should also be noted that various potential housing sites have been identified in the vicinity of the SCVA. Besides, the proposed transport infrastructure connecting the proposed East Lantau Metropolis and Hong Kong Island and the proposed Route 4 Extension between Kennedy Town and Aberdeen which are being studied may pass through the SCVA. Progress of the above projects should be kept in close view for any new opportunities and to avoid any interface problems affecting the development of the SCVA as far as possible.
4.4. Environmental

Environmental sensitive receivers to cavern development in the SCVA are the nearby residential developments (e.g. Kwun Lung Lau, Villas Sorrento, Bayview Court and Mount Davis Village), social service centres (e.g. Chee Sing Kok Social Centre of the Humanity Love) and schools (e.g. St. Clare’s Girls’ School and proposed educational institution at the former Victoria Road Detention Centre). The SCVA comprises natural greenery and lowland forest. There are natural or modified surface water courses within the SCVA. Mount Davis Battery (Grade 2 historic building) is located within the SCVA, while Victoria Road Detention Centre (Grade 3 historic building), S.K.H. St. Luke’s Settlement Neighborhood Elderly Centre (Grade 3 historic building) and Tung Wah Coffin Home (Grade 1 historic building) are located in the vicinity of the SCVA. Four government historic sites identified by the Antiquities and Monuments Office are also in the proximity of the SCVA, including City of Victoria Boundary Stone (Victoria Road), City of Victoria Boundary Stone (Pok Fu Lam Road), Tung Wah Smallpox Hospital Arch and Foundation Stone of Tung Wah Smallpox Hospital.

All potential environmental constraints, which may impose restrictions on cavern development, should be identified and taken into account in cavern development proposals 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 cavern development 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 edge via Victoria Road; its southern edge via Mount Davis Road; and its northeastern corner via an access road to Kennedy Town Fresh Water Service Reservoir.

The level of traffic along Victoria Road is close to its capacity so a high traffic-generating activity may not be suitable for this location unless upgrades to the surrounding road network are considered.

It is noted that the SCVA falls 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 the traffic impact to the surrounding area when planning cavern development.
4.6. Other Key Issues / Constraints on Cavern Development

A Drainage Services Department’s tunnel, namely the Harbour Area Treatment Scheme Stage 2A tunnel, passes through the SCVA from the south to north. An unnamed Water Supplies Department’s tunnel is about 100 m to the east of the SCVA. Two Drainage Services Department’s tunnels, i.e. the Hong Kong West Drainage Tunnel and one of its branches, are about 100 m and 500 m to the east of the SCVA. The railway tunnel of the Island Line is about 50 m to the north of the SCVA. The proposed railway tunnel of the South Island Line (West) will be about 400 m to the east of the SCVA. Two abandoned tunnels are located approximately 30 m to the west (near the Victoria Road Detention Centre) and 100 m to the northeast (beside Kwun Lung Lau) of the SCVA respectively. Owing to 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 cavern development within the SCVA.

The Island West Transfer Station and the former MTRC Explosives Magazine (which is currently proposed for receiving the existing Victoria Public Mortuary) are located in caverns in the northwestern portion of the SCVA. There may be interfacing issues should there be any cavern development in the SCVA in the vicinity of these cavern facilities.

Project proponents are also required to consider the potential interface of the proposed transport infrastructure connecting the proposed East Lantau Metropolis and Hong Kong Island and the proposed Route 4 Extension between Kennedy Town and Aberdeen which are being studied, as they may pass through the SCVA.
5. **Potential Land Uses**

The potential land uses for the SCVA are as follows:

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<thead>
<tr>
<th>Land use</th>
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| Columbarium/Mortuary | The Land Use Review on the Western Part of Kennedy Town has proposed to relocate the existing Victoria Public Mortuary to the cavern site at Victoria Road which is the former MTRC Explosives Magazine within the boundary of the SCVA and adjoining land. The released site would be used for providing waterfront promenade to the benefit of the community.  
As mortuary and cemeteries are located in the vicinity of the SCVA, consideration could also be made to provide space for columbarium and related uses in caverns.  
The potential portal locations of the SCVA adjacent to the proposed relocation site are away from the existing and planned residential areas, which may create less nuisance to the adjacent residential neighbourhood. |
| Maintenance Depot | The SCVA is located in the urban fringe supported by good road network, in which road traffic conditions have been improved after the implementation of the MTR West Island Line (now being part of the MTR Island Line). There is thus potential to develop suitable land uses that requires convenient transport infrastructure for serving a large catchment area, such as maintenance depot. Relocation of maintenance depots and related facilities located in the vicinity to caverns thereby releasing the surface land for other beneficial uses and for integration with the future development may be considered.  
Some of the potential portal locations of the SCVA are away from existing and planned residential areas, which makes it more compatible with such land use. |
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<tr>
<td><strong>Research/Testing Laboratories</strong></td>
<td>The location of the SCVA is strategic in nature for being near the University of Hong Kong and Queen Mary Hospital. It is supported by convenient transport infrastructure which enables regional connections. These provide a favourable setting for the SCVA to house research/testing laboratories to support the high value-added research and development for the university and medical industry in the area. The development of research/testing laboratories is in line with the six strategic industries where Hong Kong enjoys clear advantages, as outlined in the 2010/11 Policy Address (i.e. education facilities, medical services, testing and certification services, innovation and technology, environmental industries, cultural and creative industries).</td>
</tr>
<tr>
<td><strong>Service Reservoir</strong></td>
<td>Given the proximity to the existing major residential communities in Kennedy Town, Sai Wan and Pok Fu Lam, there is opportunity for the SCVA to provide alternative space for relocating the existing service reservoirs in the vicinity, so as to release the surface land for other uses to support the neighbouring communities.</td>
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<tr>
<td><strong>Sewage Treatment Plant</strong></td>
<td>For the same reason as described for ‘service reservoir’, there is opportunity for the SCVA to provide alternative space for relocating the existing sewage treatment facility in the vicinity, so as to release the surface land for other uses to support the neighbouring communities. Moreover, housing the ‘NIMBY’ type of facility in caverns can help minimise the nuisance to the existing/future communities in respect of land use compatibility. Some of the potential portal locations of the SCVA are away from existing and planned residential areas, which makes it more compatible with such land use.</td>
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Note: Zoning amendment/planning application may be required to facilitate the pursuit of the above potential land uses.
6. **Extent of Potential Portal Locations**

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

The SCVA is accessed from Victoria Road to the west; Mount Davis Road and slopes adjacent to Mount Davis Fresh Water Primary Service Reservoir to the south; and slopes adjacent to Kennedy Town Fresh Water Service Reservoir to the northeast of the SCVA.

The extent of potential portal locations on Victoria Road is located on slopes adjacent to the road and portal access could be formed via provision of suitable run-in/out or priority controlled junction, depending on the proposed land use. Accessing the extent of potential portal locations on Mount Davis Road; on slopes adjacent to Mount Davis Fresh Water Primary Service Reservoir; on slopes adjacent to Kennedy Town Fresh Water Service Reservoir are restricted by the narrow carriageway of Mount Davis Road, Mount Davis Path and the access road to the service reservoirs. The current access arrangement to these potential portal locations would be suitable for low traffic-generating activities. Major upgrading works to the roads would be required in order for them to support moderate to high traffic-generating activities. Further traffic impact assessment and detailed engineering design should be carried out with respective to the proposed scale and type of land use of the cavern development.

All the extent of 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 which will require further study by the project proponents.

Project proponents should carry out further studies on identifying specific locations of portals for the proposed cavern development.

7. **Concluding Remarks**

The SCVA presents an opportunity for rock cavern developments to serve the neighbouring communities (e.g. by housing service reservoir or sewage treatment plant) and support the development of the university and hospital in the area (e.g. by housing research/testing laboratories). It has been proposed to house the existing Victoria Public Mortuary and it also has the potential to house columbarium facilities given its proximity to the related existing facilities. Moreover, maintenance depot could be considered to be developed in caverns in the SCVA. Project proponents for cavern development should take due consideration of the existing and proposed residential developments, environmental sensitive receivers, accessibility for cavern development, development constraints posed by the Pok Fu Lam Moratorium and various studies/projects in the vicinity, to minimise the interfacing issues and bring about greater synergy and opportunities.
8. Notes

The Cavern Master Plan and all supporting documents do not exempt project proponents for cavern development from following the relevant statutory and planning procedures. Information including the potential land uses and 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.