

Advisory Clauses

- (a) to note the comments of the Director of Environmental Protection that the statutory provisions of the Further Environmental Permit (FEP) No. FEP-02/429/2012/B – ‘Submarine Cable for the Development of the IWMF Phase 1’ should be duly followed;
- (b) to note the comments of the District Lands Officer/Islands, Lands Department (DLO/Is, LandsD) that if the planning application is approved by the Town Planning Board, the applicant needs to apply to his office for Excavation Permit and/or other approval (e.g. Short Term Tenancy (STT)) for (i) land excavation and (ii) laying and installation of the electricity cables, fibre optic cables and associated structures. There is no guarantee that Excavation Permit and/or other approval (e.g. STT) will be approved by LandsD. Excavation Permit and/or other approval (e.g. STT), if approved, will be subject to such terms and conditions as imposed by LandsD as appropriate;
- (c) to note the comments of the Chief Engineer/Hong Kong & Islands, Drainage Services Department (CE/HK&I, DSD) that:
 - (i) there are some stormwater drains in vicinity of the Sites, which the extent of drainage reserve for one of the stormwater drain. The information shown should be verified on site. The applicant is reminded to locate the proposed works to be well clear of the existing stormwater rains and to exercise extreme care when working in the vicinity of these drains in order not to disturb, interfere with or cause damage to them. Any damage shall be reported to his office immediately and shall be made good to his satisfaction at the project cost;
 - (ii) the Sites are in vicinity of an existing streamcourse. The applicant is required to place all the proposed works 3m away from the top of the bank of the streamcourse. All the proposed works in the vicinity of the streamcourse should not create any adverse drainage impacts, both during and after construction. Proposed flooding mitigation measures if necessary shall be provided at the resources of the applicant to his satisfaction; and
 - (iii) the applicant is reminded to minimise the possible adverse environmental impacts on the existing streamcourse in the design and during construction.
- (d) to note the comments of the Chief Engineer/Construction, Water Supplies Department that an existing water main is in the vicinity of the Sites. The proposed works should be carried out in compliance with the Conditions of Working in the Vicinity of Waterworks Installation (**Annex A**);
- (e) to note the comments of the Director of Leisure and Cultural Services (DLCS) that:
 - (i) the two locations of the proposed aboveground cable markers are not under the jurisdiction of LCSD as they are located outside the gazetted boundary of Upper Cheung Sha Beach;
 - (ii) the subject project scope involves construction of a cable joint bay and laying cable ducts under the shore area of Upper Cheung Sha Beach, the applicant is requested to present the proposal at the Islands District Facilities Management Committee to seek members’ views and support from local consultation with celebrities and residents;

- (iii) shall any tree be affected by the subject works, the applicant shall strictly comply with the Development Bureau Technical Circular (Works) No. 4/2020 ('DEVB TC(W) 4/2020') for 'Tree Preservation' and Tree Preservation and Removal Proposals (TPRP) should be submitted to his department for consideration and approval;
- (iv) to minimise the disturbance and sake of public safety to swimmers as well as beach goers, the works within the beach gazetted boundary must be conducted during the winter closure period (i.e. November to March);
- (v) to ensure the works would not affect the normal operation of the beach throughout the whole course of the works even in winter closure period;
- (vi) to critically review whether the proposed 2m depth for laying the cable ducts, cable joint bay is sufficient as the said devices may be exposed due to sand movement, wave, typhoon etc. In case of the exposure of the cable ducts and cable joint bay, the applicant is obligated to take immediate reinstatement to the satisfaction of LCSD;
- (vii) an advanced notification to LCSD for commencement of the works is required; and
- (viii) in view of some existing trees situated in the vicinity of the Sites, the applicant is reminded to take note and strict compliance with the Conditions for Excavation Works in the Vicinity of Roadside Trees for tree protection (**Annex B**).

Conditions of Working in the Vicinity of Waterworks Installations

Water Mains

1. No water mains or their support shall be interfered with or buried without the prior approval of WSD.
2. The Contractor shall check the location of water mains and cables and other services by hand dug trial holes and take precautionary measures to protect them.
3. Free access shall be maintained at all times for the staff of WSD, their contractors and vehicles to go into and/or through the site to carry out installation, inspection, operation, maintenance or repair works.
4. No additional filling material is to be deposited over a water main without the approval of WSD.
5. No structures shall be erected or materials stored within 3 metres from the centre line of mains of 900mm diameter or under, and 5 metres for mains exceeding 900mm in diameter.
6. Full details of any proposed temporary works affecting waterworks installations and of any temporary support or protective measure to mains shall be submitted to the Client Department where appropriate for approval and to WSD for information. Work shall not commence until approval is given by the Client Department.
7. Diversion of WSD mains, other than those already shown on the contract drawings, shall only be considered when all other options such as protection of the mains or modification of design have been considered and found to be impracticable.
8. The programme for laying or diversion of all WSD mains shall be agreed with WSD in advance. A 14-day notice shall be served to WSD to confirm site availability for the commencement of any agreed diversion. WSD shall also be notified of any change required in the agreed programme as soon as possible.
9. All excavation works within 1.5m of water mains exceeding 900 mm in diameter shall be carried out by hand. No excavation shall be carried out within lines 45° below the centre line of such mains or 45° below the edges of the foundation of their supports without approved ground support. If the

support is in the form of steel sheets, they shall be left in place after works. Removal of support from underneath the mains is not permitted.

10. No earth fill ramps are to be used to form temporary crossings of the large diameter mains. Temporary ramps/bridges in steel, timber, or concrete shall be used with the deck and support piers clear of the mains so that no loading is imposed on the mains.
11. All temporary works near the large diameter water mains shall be kept to at least 1 metre away from the edge of the mains and the length of mains affected shall be well protected by a temporary timber cover raised 250 mm clear of the mains to ensure no impact damage.

Blasting, Drilling and Piling near Waterworks Installations

12. No blasting, drilling, or pile driving (including sheet piling) within a distance of 60m from waterworks tunnels shall be carried out. Furthermore, blasting within 50m from any water retaining structure other than watermains; 6m from watermains of 600mm diameter and above; and 6m from any non-water-retaining structure shall not be carried out without the prior approval of WSD.
13. The maximum particle velocity and amplitude of ground movements due to blasting or pile driving as measured at the nearest waterworks tunnel or other water retaining structures shall not exceed 13mm/sec. and 0.1mm respectively.
14. The maximum particle velocity and amplitude of ground movements due to blasting or pile driving as measured at the nearest water mains shall not exceed 25mm/sec. and 0.2mm respectively.
15. The size of charge, pattern and timing of detonation etc. will be decided by the Commissioner of Mines after carrying out test firing at site.
16. The movement of mains and structures shall be monitored by surveys jointly attended by WSD, the project Department and the Contractor. One week's notice shall be given to WSD for any survey request.
17. Vibration from blasting, piling or other causing activities shall be monitored by means of agreed vibrograph readings. The vibrograph shall comply with the Specification below and shall be provided free by the Contractor.
18. The results of monitoring of the vibration and any movement of water mains and waterworks structures shall be submitted to WSD for record purpose. If

the aforementioned vibration limits are exceeded or movement in excess of 5mm is detected, works shall be suspended until approved remedial works are completed. Full details of the proposed works shall be approved by WSD before any work commences.

Specification for Vibrograph

- (a) The machine shall be a direct reading type peak particle velocity vibrograph.
- (b) It shall have 3 channels, recording in 3 mutually perpendicular directions.
- (c) It must be able to record particle velocity and amplitude, although not necessarily at the same time.
- (d) It must produce a permanent trace on paper, preferably by using ultra-violet light.
- (e) The recording paper must be easily obtainable locally.
- (f) The instrument must be portable and battery operated (or else a generator must be supplied free).
- (g) Operating instructions must be in English.

Excavation near Waterworks Installations

- 19. Excavation shall not be permitted within lines drawn at 45° downwards from a point 6m away from the foundation lines of any waterworks structures.
- 20. No excavation should be carried out within 60 metres, horizontally of any tunnel and no excavation or well driving shall be carried out above any tunnel.
- 21. No quarrying operations shall be carried out above and/or within 150 metres horizontally from any waterworks tunnel.

Prevention of Pollution of Waterworks Catchments

- 22. Site formation, construction and drainage plans shall be submitted to WSD for approval prior to commencement of work.

23. Protective measures shall be taken by the Contractor to prevent pollution or siltation to the catchment area. Any bulk excavation within the catchment shall be provided with silt traps to prevent any particular matter from entering streams or intakes. The details of silt traps shall be submitted to WSD for approval. Silt traps shall be cleared out regularly and in particular after any rainstorm.
24. The storage and discharge of pesticides, toxicant, flammable or toxic solvents, petroleum oil, diesel, tar or other toxic substances are strictly prohibited within the gathering grounds.
25. No labour lines shall be allowed within waterworks catchment area.
26. Only dry-type portable toilet facility with regular desludging schedules is allowed during the construction period. The sludge must be disposed of properly outside the gathering grounds. Portable toilets shall be kerbed on all sides, located at least 30 metres away from the streams and desludged on a regularly basis.
27. The Contractor shall be responsible for cleaning frequently any waterworks roads and associated drainage works of mud and debris.
28. Should pollution be detected in future due to the development, immediate remedial actions to clear the pollution must be taken by the Contractor.

Waterworks Installations (e.g. Treatment Works) Nearby

29. The Contractor will not be permitted access to any adjacent waterworks installations.
30. An unimpeded free vehicular access shall be maintained at all times to and from the adjacent waterworks installations in the vicinity.

Special provisions

31. WSD may impose further conditions as deemed necessary for the protection of waterworks that may be adversely affected by the proposed works including but not limited to the appointment of independent checking engineer and specialists at the expense of the project.

Conditions for Excavation Works in the Vicinity of Roadside Trees

Excavation works is permitted subject to the compliance with the following conditions:

General Conditions

1. The applicant shall arrange a joint site inspection with Mr. CHOW of this Department (Tel. 2697 7994) and provide this Department with photos showing the site condition, prior to the implementation of excavation works and after completion of work.
2. The applicant shall provide adequate safety measures (including lighting and hoarding) and erect sufficient notices/signage to warn members of the public of the possible danger.
3. Within amenity areas or root spread of trees, the applicant shall not allow
 - (a) parking/driving of vehicles/heavy equipment;
 - (b) lighting a fire; and
 - (c) storage/transport/spilling of oil, petrol, bitumen, creosote, cement, construction dust/materials/debris, contaminated water, herbicides, any toxic chemicals or pollutant and other materials likely to be injurious to plants.
4. The applicant shall carry out all excavation works in strict compliance with the relevant Ordinances (e.g. Land (Miscellaneous Provisions) Ordinance), Regulations (e.g. Construction Sites (Safety) Regulations) and Codes of Practices.
5. The applicant shall keep the affected area clean and tidy all the time and clear away all construction debris, materials, tools and equipment, refuse, etc., before the end of the approved period granted by this Department.
6. The applicant shall appoint a liaison officer with details (such as name and mobile phone no.), known to all parties so as to ensure effective communication during the course of works.
7. The applicant shall abide by the instruction given by staff of this Department.
8. The applicant shall allow staff of this Department to access to and inspect the affected amenity areas anytime.
9. The applicant shall reinstate the affected areas (including plantings, irrigation system, underground pipes and any other equipment on or below soil surface) at his/her own cost to the satisfaction of this Department upon completion of work, unless this Department agrees the reinstatement work to be compensated through other means.
10. After the completion of reinstatement work, the applicant shall be responsible for establishing the plants on the reinstated areas. Unless this Department agrees the reinstatement work to be compensated through other means, the applicant shall provide replacement planting for the death and the poor growth within the establishment period of –
 - (a) 3-month if no tree grows on the affected amenity area; or
 - (b) 12-month if one or more trees grow on the affected amenity areas.

11. The applicant shall indemnify the Government of the Hong Kong Special Administrative Region against all claims, actions and damages by any persons who suffer or sustain any loss, claim, injury or death arising from or as a result of the above mentioned work (save and except injury or death caused by negligence of the Government of the Hong Kong Special Administrative Region/any of its employees or agents).
12. This Department reserves the right to cancel this permission at any time without prior notification and shall not be liable for any loss that the applicant may sustain arising from the cancellation.

Special Conditions for Tree Protection

13. (a) All trenches should be at least 1.5 m away from any tree within 250 mm Diameter at Breast Height (DBH) or at least 6 times of the DBH of any tree if their DBH exceeds 250 mm. Except breaking open the surface concrete subject to clause 13(b) below, any excavation within 2.5 m or falls within the drip line of a tree must be done by hand and that no roots of **25 mm dia. or above may be severed.**
- (b) Electric hand held concrete breaker is allowed to use only to break open the surface concrete (but not the pavers) which no obvious sign of woody root underneath such as localized protruding surface is observed. The applicant shall inform the staff of this Department for comment as regards the details of the electric hand held concrete breaker to be used. The breaking open of the surface concrete should be done by hand if -
 - (i) it is likely to damage the exposed surface roots by using machinery; and
 - (ii) it is believed that woody roots can be traced just beneath the concrete surface; and
 - (iii) all the portions of concrete surface lined between the exposed woody roots or within the root flare.
14. If (13) above is not feasible, micro-tunneling technique (commonly adopted in many cities to avoid tree root damage) should be employed; the tunnel should begin and end outside the area as defined by the drip line of the tree and should be place 1.5 m downward from the soil surface.
15. Should roots of 50 mm diameter be exposed, effort shall be made to protect the exposed roots from weathering preferably by the use of dampened hessian or similar materials. Furthermore, they shall be immediately covered with suitable backfill material upon completion of work.
16. No excavated materials shall be stacked directly against the trunk of any tree. The type and form of hoarding to be provided must be approved by the Department.
17. Backfilling of the excavation close to trees should not cause grade change of the soil and should utilize only soil containing fine sands or stones under 25mm diameter in size and free from road metalling and other possible course of damage or pollution. Use of impact rammers close to or above tree roots must be done with care to avoid damage to the tree roots.

18. No pruning, felling, transplanting, drilling, lopping, cutting or any other forms of damaging of trees may be undertaken without prior consultation with staff of LCSD.
19. The applicant shall erect Temporary Protective Fencing/Hoarding of not less than 1500 mm high to protect the preserved tree(s) on site. All trees and group of trees should be protected by fencing around the area covered by the spread of the tree. Fences should be remaining intact for the duration of the construction period and no works should take place within the fenced area.
20. No trees shall be used as anchors for ropes/chains/cables, as temporary support for other structures, or as hanger for signs, personal belongings, equipment, etc.