HERITAGE IMPACT ASSESSMENT IN RESPECT OF SITE FORMATION AND INFRASTRUCTURES FOR DEVELOPMENT AT POK FU LAM SOUTH -<u>INVESTIGATION, DESIGN AND CONSTRUCTION</u>

BACKGROUND

1. The Government has announced in the 2014 Policy Address the partially lift of the development moratorium at the south of Pok Fu Lam, i.e. the area close to Wah Fu Estate. This area will be used for public housing development and future redevelopment of Wah Fu Estate. The five sites under the Project ("the Sites") as shown on **Figure 1**, namely Wah Lok Path ("WLP"), Wah King Street ("WKS"), Wah Fu North ("WFN"), Kai Lung Wan North ("KLWN") and Kai Lung Wan South ("KLWS"), will provide about 8 920 units of Public Rental Housing ("PRH") and Home Ownership Scheme ("HOS")/Subsidised Sale Flats ("SSF") units. The Project, together with the future redevelopment of Wah Fu Estate, will provide about 11 920 additional units of PRH and HOS/SSF units. Aggregate area of the Sites is about 17.4 hectares. The Project Site Boundary is as shown on **Figure 1**.

2. The Civil Engineering and Development Department ("CEDD") is tasked with the provision of essential infrastructures and the formation of the Sites to the agreed spatial layout (including residential blocks and other facilities) and development parameters supporting the abovementioned future public housing developments by the Hong Kong Housing Authority at a later stage. Housing Department ("HD") has put forward proposals on the housing types, development parameters and planning layouts for the Sites. The housing site development boundary lies within the Project Site Boundary as shown on **Figure 1**.

3. Under CEDD's project execution of Agreement no. CE74/2015(CE) Site Formation and Infrastructures for Development at Pok Fu Lam South, during the Investigation phase, a substantial number of Old Dairy Farm remnants, including Grade 3 historic buildings such as Paddock C20, Bull Pen with Paddock, Silo, Piggeries, Stream Crossing, and other Nil Grade structures such as Paddocks C19, C31 and C38, Piggeries and Cowboys' Quarters, were found to be located within or adjacent to near Chi Fu Road site. In order to minimise impact to the remnants, it was decided to abandon this site. At about the same time, habitat of high ecological value was found near the centre of Kai Lung Wan site and the avoidance measure was adopted. The site area of Kai Lung Wan site was therefore significantly reduced, and the reduced site became Kai Lung Wan North site. In order to maintain the flat production for the public housing developments, a new site near Shek Pai Wan Road was identified and this site was named as Kai Lung Wan South site.

4. CEDD's project scope includes:

- Formation of platforms at WLP, WKS, WFN, KLWN and KLWS including the necessary geotechnical and slope stabilisation works, new slopes, earth retaining structures and natural terrain hazard mitigation works and its associated maintenance access;
- Landscaping works, including associated tree protection/preservation, felling, transplanting and compensatory works;
- Protection of existing cable tunnels, existing underground extra-high voltage cables and the future South Island Line ("SIL") (West) tunnel;
- Road works including construction of new access roads, local road widening works and junctions improvement works; and
- Ancillary infrastructural works including permanent/temporary public transport terminus, utility diversion, street lighting, traffic aids, new and improvement/ diversion to drainage, sewerage and waterworks, road drainage, roadside fence and street furniture and environmental mitigation measures.

5. Heritage Impact Assessment ("HIA") for this Project studies seven heritage structures (see **Figure 1**) identified during the Investigation Phase; they include a Grade 2 (**GB-1** Old Dairy Farm, Manure Pit), two Grade 3 (**GB-2** Old Dairy Farm, Paddock C18 and **GB-3** Paddock C17) Historic Buildings and four Nil Grade Buildings (Paddock C32, a silo, a dairy and manure pit).

HERITAGE IMPACT ASSESSMENT

A. Identified Heritage Sites

6. In accordance with the HIA Mechanism stipulated in Development Bureau Technical Circular (Works) No. 6/2009, the works agent needs to confirm with the Antiquities and Monuments Office ("AMO") whether there are any Sites of Archaeological Interest ("SAIs"), declared monuments, proposed monuments, sites and buildings graded by the Antiquities Advisory Board ("AAB"), or Government historic sites identified by AMO (hereafter together referred to as "heritage sites") within or in the vicinity of the project boundary.

B. Identified Heritage Sites for HIA

7. Under the previous consultancy Agreement No. CE62/2014(CE) 'Site Formation and Infrastructural Works for Proposed Public Housing Developments at Pokfulam South – Feasibility Study' ("FS"), the FS consultants conducted a desktop study and found that there were no "heritage sites" (including declared/proposed monuments, sites and buildings graded by the AAB, recorded sites of archaeological interest and Government historic sites identified by AMO within the project boundary or in its vicinity (i.e. not more than 50m measured from the project boundary). Subsequently, the public proposed seven items of Old Dairy Farm remnants near the project boundary for assessment of the heritage value and grading by the AAB. The grades of these items were confirmed between 7 September 2017 to 22 March 2018, with grades including Grade 2, Grade 3 and Nil Grade. Graded Built Heritage Sites

8. A summary showing the Graded Historic Buildings within the Study Area of HIA (**Figure 1**) is listed in the table below.

HIA Report Item No.	Structure	Grading	Distance to project site boundary	Distance to works
GB-1	Old Dairy Farm, Manure Pit, Pok Fu Lam, H.K. Previous new item no. N294 AMO file no. AM93-0539(32)	Grade 2	Adjacent	51m
GB-2	Old Dairy Farm, Paddock C18, Pok Fu Lam, H.K. Previous new item no. N276 AMO file no. AM93-0539(14)	Grade 3	Within boundary	Adjacent
GB-3	Old Dairy Farm, Paddock C17, Pok Fu Lam, H.K. Previous new item no. N278 AMO file no. AM93-0539(16)	Grade 3	12m	32m

Nil Grade Structures

9. Further to Graded Historic Buildings, four Nil Grade Structures of the Old Dairy Farm Co. are located within the Study Area of the HIA (**Figure 1**). A summary showing the Nil Grade Structures is listed in the table below.

HIA Report	Structures	Grading	Distance to project site	Distance to works
Item No. HB-1	Old Dairy Farm, Silo	Nil Grade	boundary 38m	60m
HB-2	Previous new item no. N289 Old Dairy Farm, Dairy	Nil Grade	35m	45m
HB-3	Previous new item no. N320 Old Dairy Farm,	Nil Grade	Overlaps with	Interferes with
110-5	Paddock C32 Previous new item no. N277	INII Orade	boundary	proposed works
HB-4	Old Dairy Farm, Manure Pit Previous new item no. N330	Nil Grade	Within boundary	Interferes with proposed works

C. Assessment of Heritage Impact

Graded Built Heritage Sites

10. KLWN site is located in hilly terrain with high level difference not only within the site but also with the adjacent public road network. In order to provide an access road to this housing site with geometry satisfying the stringent requirement of Transport Planning and Design Manual ("TPDM") published by the Transport Department of HKSAR Government, the only practical solution is to connect to the existing road junction of Pok Fu Lam Road / Victoria Road / Shek Pai Wan Road by converting the T-junction to cross-junction and from this the access road will need to make a right angle turn to reach KLWN site.

11. The Old Dairy Farm, Manure Pit (**GB-1**) is located at a distance of 51m from proposed construction of bored pile wall associated with the access road. The distance is deemed sufficient and no impacts expected.

12. The space between the proposed access road and the existing Paddock C18 of the Old Dairy Farm (**GB-2**) is limited and the level difference cannot be retained by a slope option due to space constraint as mentioned in Para. 10 above. The construction of the bored pile wall and retaining walls that are proposed adjacent to the Paddock (**Figure 2**) cannot be avoided. Local modification to the bored pile wall is designed to avoid damages to the Paddock during the course of the works (**Figure 3**). Appropriate precautionary and monitoring measures to the built heritage (**GB-2**) shall be proposed and AMO's comments shall be sought before commencement of works.

13. The Wah Fu North Site is located at approximately 32m away from the existing Paddock C17 (**GB-3**) at the opposite side of the Pok Fu Lam Road. The distance is deemed sufficient and no impact is expected.

Nil Grade Built Heritage Sites

14. Two Nil Grade Old Dairy Farm structures, a silo (**HB-1**) and dairy (**HB-2**) will not be affected by the proposed works as they are located at sufficient distance.

15. The proposed access road to KLWN Site on the hilly terrain will directly affect the Nil Grade Paddock C32 (**HB-3**) and nearby Manure Pit (**HB-4**). Part of the Paddock and the Manure Pit will have to be removed to enable the works to proceed. The condition of both Nil Grade structures is poor. The southwest corner of the Paddock C32 has already been truncated under previous slope cutting and the Paddock is heavily overgrown. Furthermore, only some remnants of the walls, largely covered by roots and wild vegetation, and a door opening on one of the side elevations remains of the Manure Pit. Photographic condition survey will be conducted before removal for record.

D. Mitigation Measures

16. Mitigation measures prior and during the construction phase are recommended for Grade 3 Paddock C18 (**GB-2**). Prior to the construction phase a condition survey of the Paddock and in particular of the buttress and enclosure wall near the proposed bored pile wall and retaining walls must be carried out by qualified building surveyor or engineer. The Condition Survey will evaluate the potential of the structure to absorb vibration, settlement and tilting, set monitoring values and recommended precautionary measures. The Condition Survey Report will be reviewed and submitted for AMO's comments prior to implementation of measures by contractor during the construction phase. Due to the close proximity of works near the buttress and enclosure wall near the proposed bored pile wall and retaining walls, additional protective measures such as covering stone structure with geotextile and sandbags plus implementing a protective buffer zone of minimum 1m is recommended. Signage identifying the heritage should also be put in place.

CONCLUSION

17. The proposed public housing development is deemed necessary. The baseline review identified seven Old Dairy Farm landscape structures, including three Graded and four Nil Grade structures within the Study Area. Works are at sufficient distance from Grade 2 Manure Pit (**GB-1**) and Paddock C17 (**GB-3**).

18. Necessary and unavoidable slope works will occur in close proximity to the Grade 3 Paddock C18 (**GB-2**) which may affect the historic building; nevertheless local modification of the bored pile wall design subject to the onsite conditions, shall be carried out to avoid damages to the historic building. A condition survey by a qualified building surveyor or engineer should be undertaken for **GB-2** such that appropriate measures can be taken to protect the structure during the construction phase from possible vibration, settlement and tilting impacts. Additional protective measures such as fencing (e.g. physical barrier), covering by geotextile and sandbags, as well as implementation of protective buffer zone (min. 1m), shall be adopted to separate works from buttress and enclosure wall of **GB-2** during the construction phase.

Civil Engineering Development Department December 2019

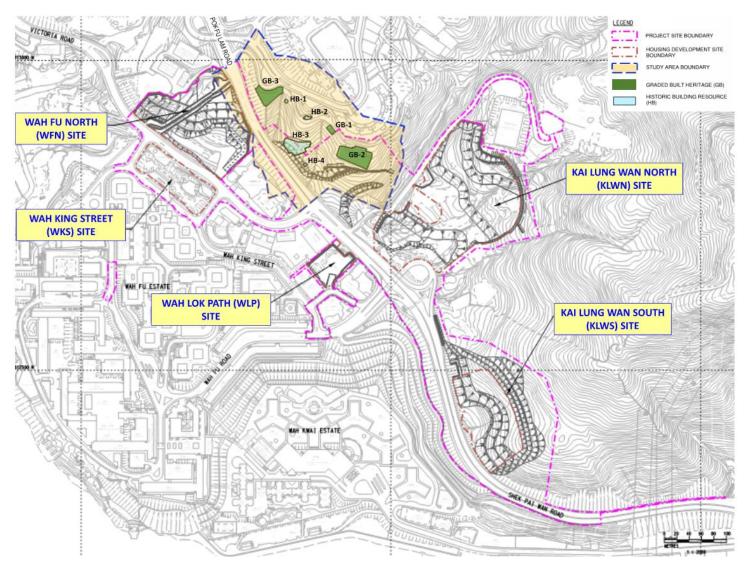
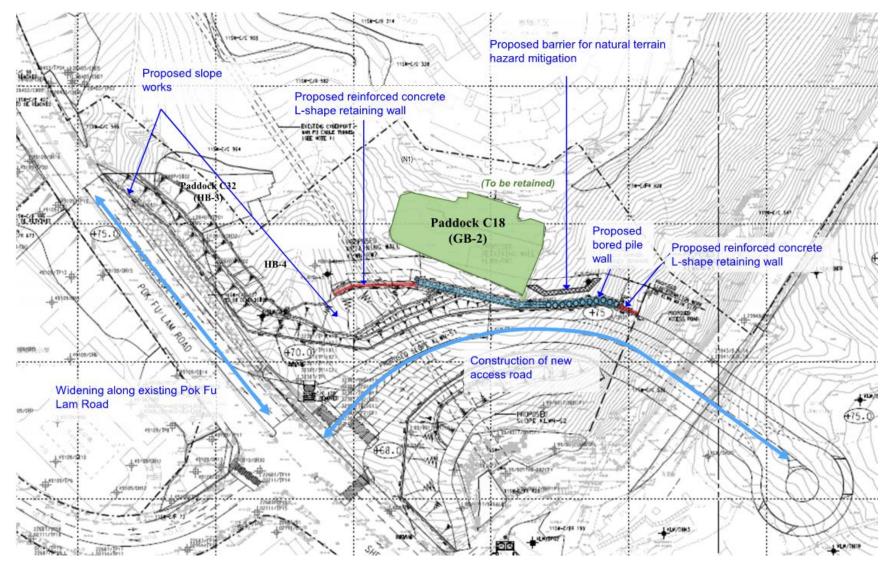


Figure 1 Location of the Heritage Sites: Graded Historic Building, and Nil Grade Structures within the Study Area of HIA

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Figure 2 Layout Plan of Proposed Works

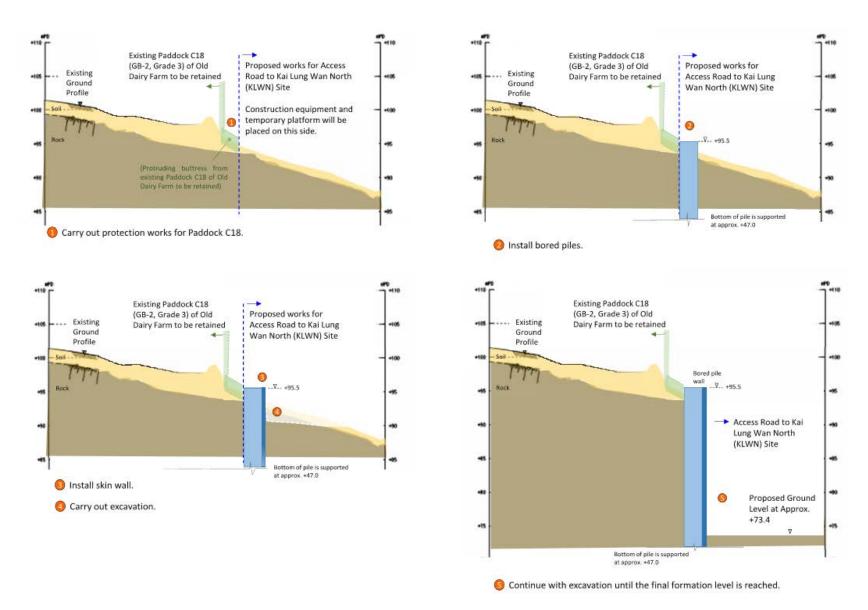


Figure 3 Construction Method of Proposed Works near Paddock C18