33/F, Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong
香港灣仔告士打道 5 號稅務大樓 33 樓

ACE-EIA Paper 4/2016
For advice on 12 September 2016

Environmental Impact Assessment Ordinance (Cap. 499)
Environmental Impact Assessment Report

Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station

PURPOSE

This paper presents the key findings and recommendations of the Environmental Impact Assessment (EIA) report on "Elevated Pedestrian Corridor in Yuen Long Town Connecting with Long Ping Station" (the Project) submitted under section 6(2) of the Environmental Impact Assessment Ordinance (EIAO) (Application No. EIA-241/2016). The Highways Department (HyD) (the applicant) and their consultants will present the EIA report at the meeting of EIA Subcommittee.

ADVICE SOUGHT

2. Members' views are sought on the findings and recommendations of the EIA report. The Director of Environmental Protection (DEP) will take into account comments from the public and the Advisory Council on the Environment (ACE) in deciding whether or not to approve the EIA report under Section 8(3) of the EIAO.

BACKGROUND

3. The Chief Executive pledged in his 2008-2009 Policy Address to improve the pedestrian environment in business districts, shopping centres and leisure areas with heavy pedestrian flows, with a view to minimizing vehicle-pedestrian conflicts and improving roadside air quality. Among other areas with heavy pedestrian flows, Yuen Long Town is selected as one of the key locations. HyD commissioned in 2011 a feasibility study on major improvement schemes, including the proposed elevated pedestrian corridor, along Yuen Long Town Nullah connecting with the West Rail Long Ping Station, and the findings of the study set out the basis for the Project.

4. The applicant submitted the EIA report for the Project for approval. The DEP, in conjunction with the relevant authorities, considered that the EIA report met the requirements in the EIA Study Brief and the Technical Memorandum on EIA Process (TM), for the purpose of exhibiting the report for public inspection, under Section 7(4) of the EIAO.

NEED FOR THE PROJECT

5. There has been rapid growth in large-scale residential and integrated developments in Yuen Long Town and its surrounding areas in recent years. These new developments and the increase in population have exacerbated the congestion problem in Yuen Long Town and resulted in surging demand for safe and convenient pedestrian facilities.

6. The elevated pedestrian corridor was proposed to improve the pedestrian environment in the area. The Project will provide a north-south pedestrian corridor within Yuen Long Town, easy access to the West Rail Long Ping Station and convenient pedestrian crossing facilities across busy roads within Yuen Long Town Centre. It will alleviate both the pedestrian congestion situation and the conflict between pedestrians and vehicles. The Yuen Long District Council and the public showed support to the Project during a public engagement exercise in 2013.

ENVIRONMENTAL BENEFITS

7. According to the EIA report, the major environmental benefits with the Project in place include:

(i) with diversion of pedestrian from the at-grade footpaths to the proposed pedestrian corridor, potential nuisance from vehicular emission and traffic noise can be minimized; and

(ii) with the provision of landscape and streetscape works under the Project, visual and landscape resources along the nullah at street level will be enhanced and this would provide beneficial visual impact to the pedestrian.

DESCRIPTION OF THE PROJECT

8. The Project is to construct and operate an elevated pedestrian corridor in the form of a covered footbridge of about 540m in length and 6m clear width along Yuen Long Town Nullah connecting the West Rail Long Ping Station and Kau Yuk Road in Yuen Long Town. Pedestrian interchanges fitted with staircases, lifts and escalators will be constructed to connect the proposed pedestrian corridor to the footways at street level on both sides of On Ling Road, Castle Peak Road and Kau Yuk Road. The Project scope also comprises landscaping and streetscape works on footpaths along both sides of the Yuen Long Town Nullah. The location and layout of the Project are shown in Figures 1, 2 and 3.

9. The Project involves construction of pile foundations for the elevated pedestrian corridor and box structures for the pedestrian interchanges within the Yuen Long Town Nullah. It is a Designated Project (DP) under Item I.1(b)(i) of Part 1 Schedule 2 of the EIAO, i.e. a drainage channel or river training and diversion works which discharges or discharge into an area which is less than 300m from the nearest boundary of an existing or planned (i) site of specific scientific interest (Mai Po Marshes).

CONSIDERATION OF ALTERNATIVE DESIGNS

10. The EIA report has considered various key design elements to optimize the development of the Project. The environmental benefits and dis-benefits of the various alternatives have been evaluated. At-grade arrangement (i.e. widening the footpaths along the nullah) and partially at-grade arrangement (i.e. three individual footbridges serving as road crossing facilities at On Ling Road, Castle Peak Road and Kau Yuk Road) had been explored as potential alternative to elevated footbridge. It was concluded that both of these two alternative arrangements could not totally resolve the prevailing congestion and connectivity issues and hence the elevated footbridge option was taken forward for further evaluation. Three alignment options were considered in the EIA study, i.e. along eastern side, western side and middle of the nullah. The alignment along the middle of the nullah was selected on ground of less environmental impacts to sensitive receivers at the construction stage and lower visual impact to sensitive receivers at the operation stage. The recommended design of the footbridge had been chosen with a view to avoiding and minimizing environmental impacts where applicable. Some of the key environmental benefits arising from the final preferred option as compared with the original preliminary design are highlighted below.

Avoidance and Minimization of Impacts

(i) Use of steel truss structure instead of a concrete footbridge design to reduce the depth of the footbridge and the size of supporting columns to minimize visual impact;

(ii) Adoption of lens-shaped footbridge column design to avoid and minimize water quality impact at the operation stage; and

(iii) Installation of temporary water tight cofferdams to isolate surrounding nullah water from construction activities within the nullah to avoid and minimize water quality and ecological impacts.

SPECIFIC ENVIRONMENTAL ASPECTS TO HIGHLIGHT

Water Quality and Ecological Impacts

11. The proposed pedestrian corridor will be constructed in a highly urbanized town area. Although there is no site of conservation importance within the 500m assessment area, the Yuen Long Town Nullah is connected to Shan Pui River, which is hydraulically linked to the ecological sensitive areas further downstream, including various habitats in the Wetland Buffer Area and Wetland Compensation Area. To prevent deterioration of water quality in the nullah and to avoid adverse impact to the ecological sensitive areas downstream, the following mitigation measures are proposed for construction works within the nullah:

(a) construction of foundation works to be carried out during dry seasons only;

(b) implementation of temporary water tight cofferdam to isolate construction activities from the nullah water; and

(c) stockpile of excavated materials on temporary platforms which will be water tight designed to prevent leakage.

Construction Noise

12. There are residential dwellings along both sides of the nullah which will be subject to construction noise impact. Some of the sensitive receivers are less than 10m from the construction activities. To ensure compliance with daytime noise criteria at all sensitive receivers, the EIA recommends the use of Quality Powered Mechanical Equipment (QPME), temporary noise barriers and enclosures with sufficient ventilation. The contractor should also liaise with the school management during the examination periods and arrange quieter work activities during these periods.

Landscape and Visual Impacts

13. About 38 trees will be affected by the Project, of which one will be transplanted and 37 will be felled. None of the affected trees is Champion Tree nor Register Old and Valuable Tree. All affected trees are common species.

14. According to the EIA, it is unavoidable for some visual sensitive receivers, including users in some low-rise residential buildings near the interchanges of the elevated footbridge as well as some leisure/recreational users along the existing footbridges crossing Yuen Long Town Nullah to experience residual visual impact. The EIA has fully explored alternatives and methods to mitigate the landscape and visual impacts at the operation stage and proposes a package of mitigation measures, including aesthetic design of the footbridge, use of visual unobtrusive and non-reflective building materials, avoidance of excessive height and bulk building structures, proper design of streetscape elements, suitable directional of lighting units, maximization of soft landscape and roadside tree planting. With all these measures in place, the assessment considers the landscape impact acceptable while the visual impact marginally acceptable.

Other Environmental Impacts

15. Other impacts including air, waste management, land contamination and cultural heritage during construction stage are relatively minor and have been addressed in the report. With the implementation of recommended mitigation measures, the Project will comply with the relevant requirements under the TM.

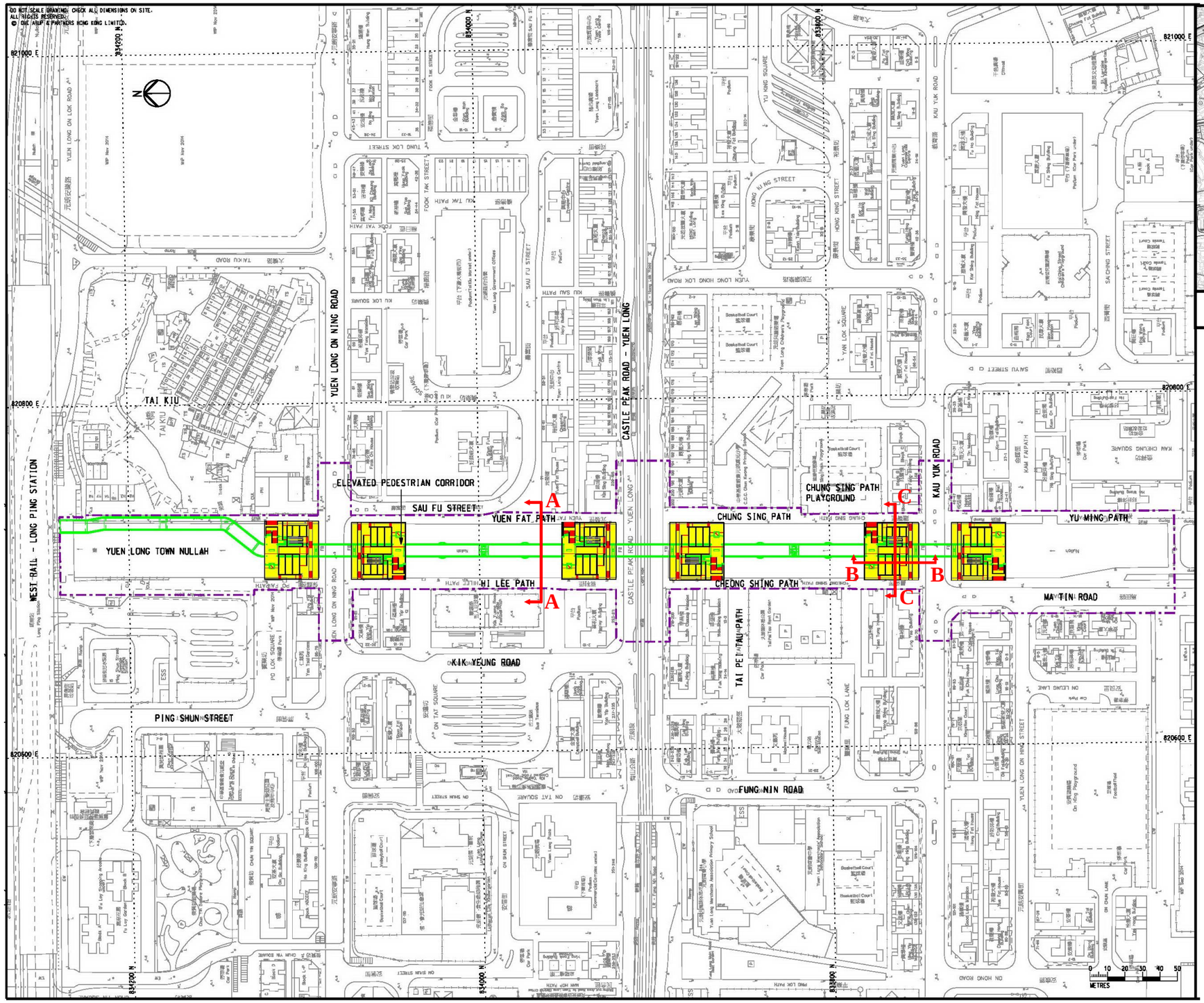
ENVIRONMENTAL MONITORING AND AUDIT

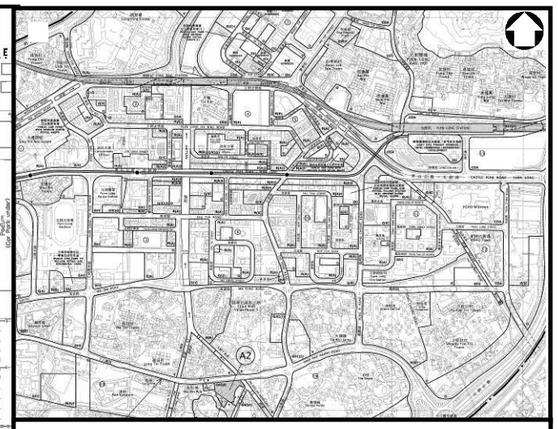
16. The EIA report includes an Environmental Monitoring and Audit (EM&A) Manual which recommends an EM&A programme during the construction and operation stages of the Project. Key recommended EM&A requirements include monitoring of noise impact and water quality, site inspections and audits on proposed landscape and visual mitigation measures during construction. During the operation stage, the EM&A Manual recommends post project monitoring on water quality and site audits on the establishment works of landscape proposals.

PUBLIC CONSULTATION

17. The applicant has made the EIA report, EM&A Manual and Executive Summary available for public inspection under the EIAO from 5 August 2016 to 3 September 2016. The public comments received will be summarized in a gist to be provided to Members separately.

September 2016
Environmental Assessment Division
Environmental Protection Department





LOCATION PLAN

LEGEND

PROPOSED SITE BOUNDARY

PROPOSED FOOTBRIDGE

PEDESTRIAN INTERCHANGE

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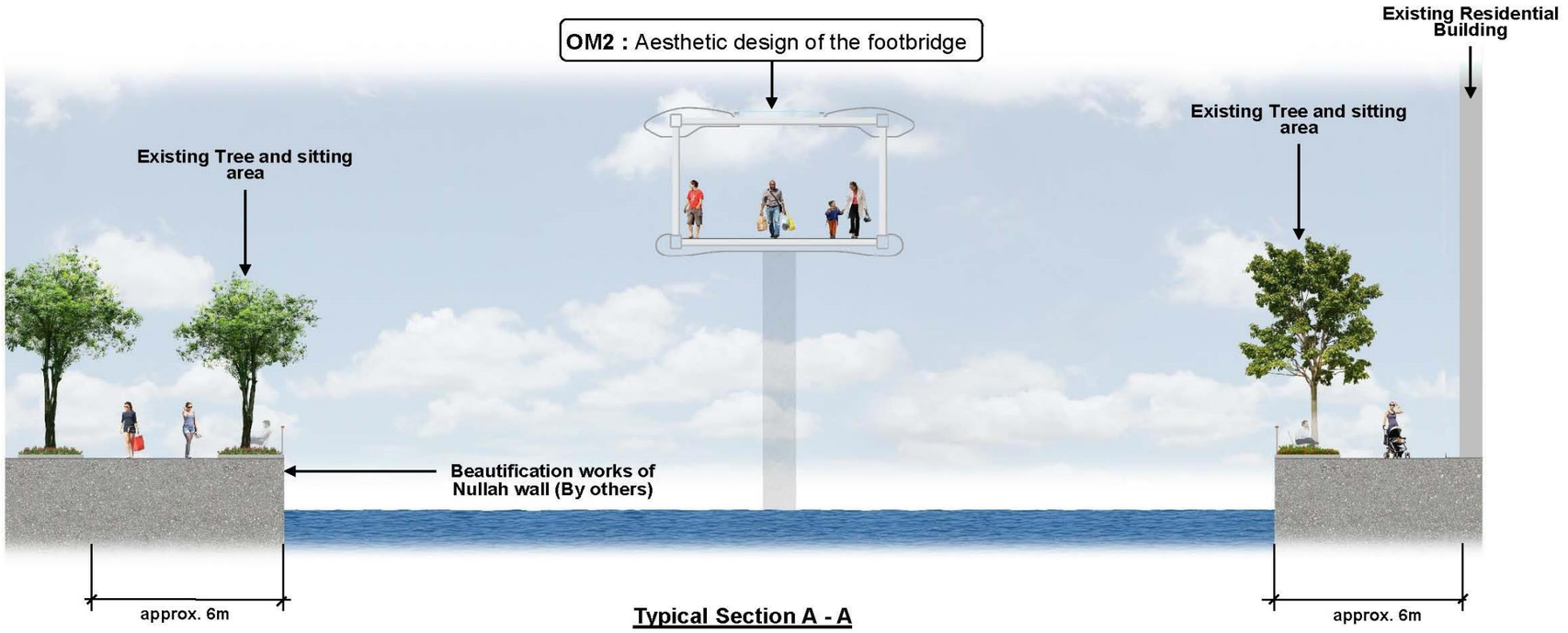
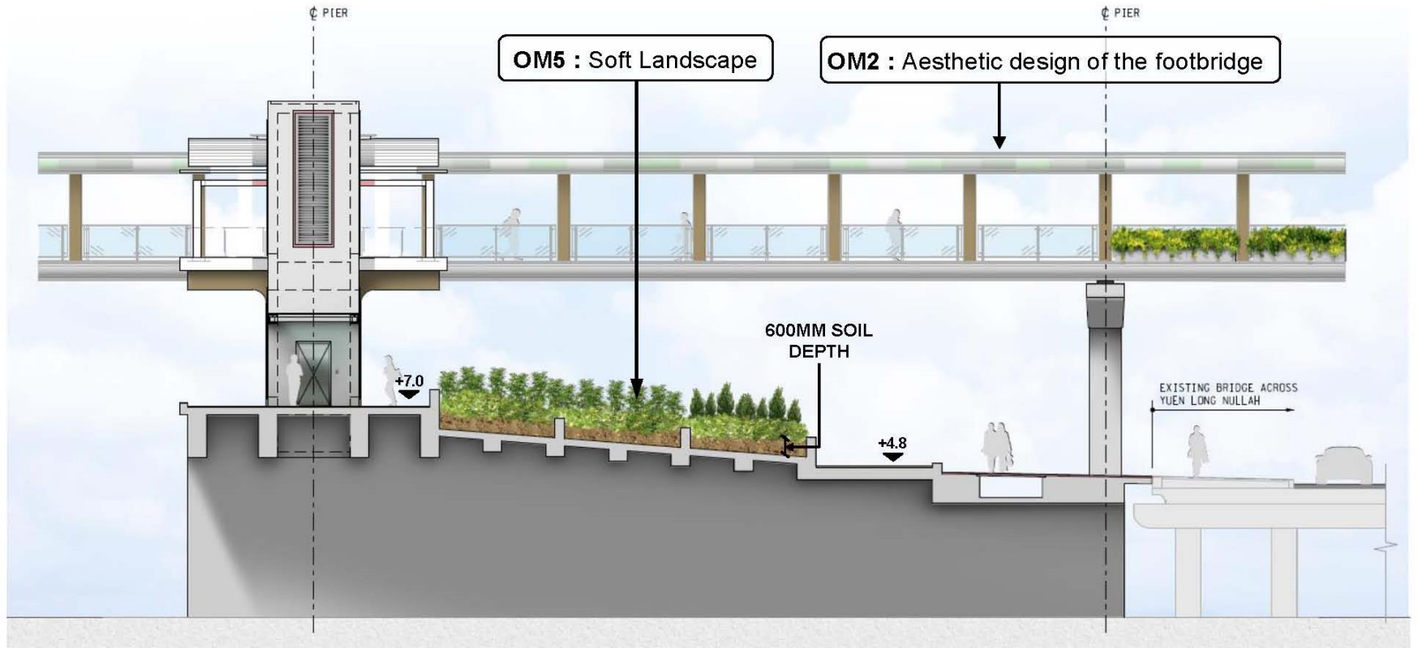
Figure 1 – Location of Project



Typical Section A - A



Typical Section B - B

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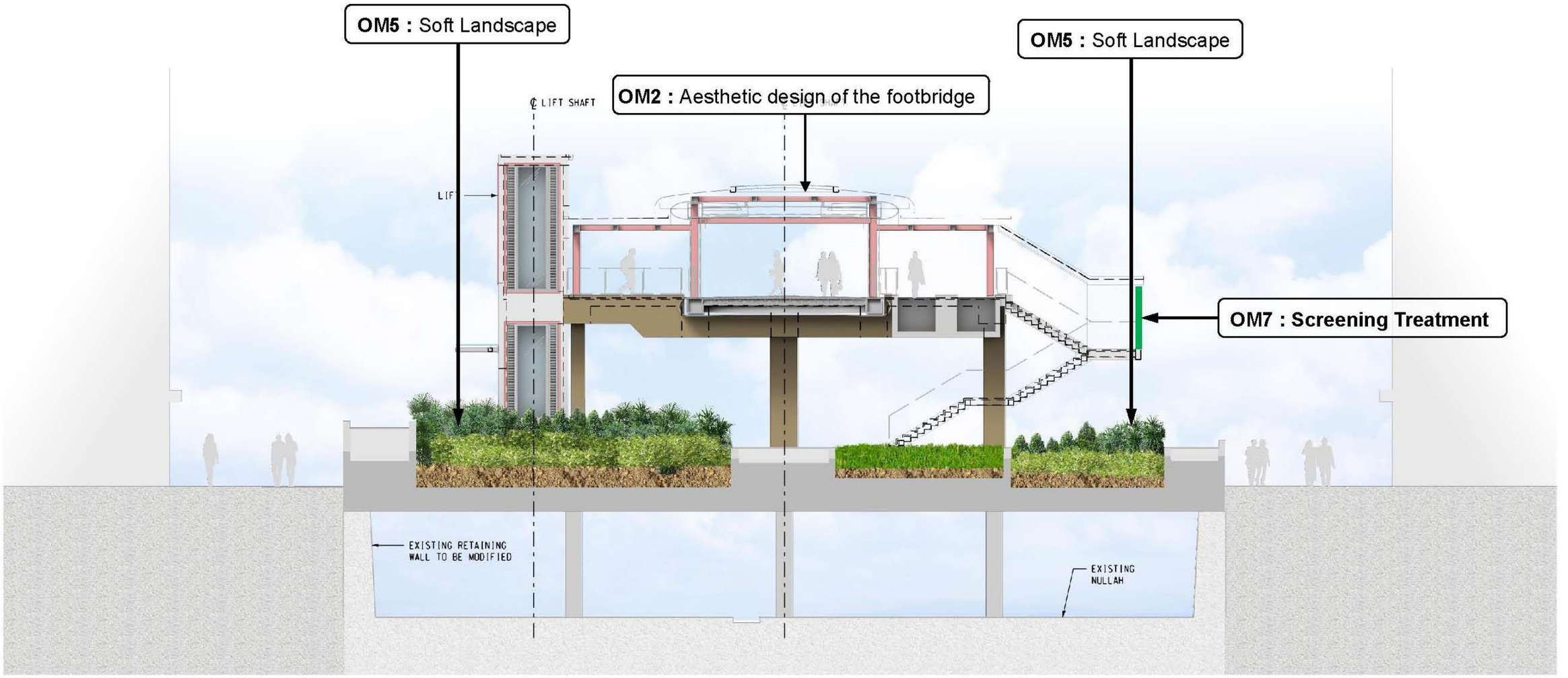
Figure 2 – Sectional View with Landscape Proposals	



Typical Section C - C

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Figure 3 – Sectional View with Landscape Proposals	