



Agreement No. CE 29/2019 (CE) Boardwalk underneath Island Eastern Corridor Design and Construction

Cogent and Convincing Materials (Final)

December 2020



Note to the CCM:

Public discussion and planning of developing a boardwalk underneath the Island Eastern Corridor (the Boardwalk) have lasted for more than a decade. The Enhanced Scheme in part 6 of the Cogent and Convincing Materials (CCM) has been derived after balancing different public views received during rounds of community engagement, as well as results of various studies and assessments conducted throughout the years. The considerations, findings and recommendations in the community engagement exercises/ studies/ assessments conducted in past years as reported in the CCM based on the scheme proposed and/or relevant information/data available at that juncture.

**COGENT AND CONVINCING MATERIALS
TO DEMONSTRATE
COMPLIANCE WITH THE OVERRIDING PUBLIC NEED TEST**

LIST OF CONTENTS

1	INTRODUCTION.....	1
1.1	Background.....	1
1.2	Boardwalk Studies	4
1.3	The PHO and the CFA Judgment	7
1.4	The Boardwalk Objective	9
1.5	Public Engagement of the Investigation Study.....	10
1.6	Approach to Demonstrating Compliance with the Overriding Public Need Test	12
1.7	Purpose of this Report.....	14
2	THE NEED FOR THE BOARDWALK.....	15
2.1	Introduction.....	15
2.2	Existing Situation.....	16
2.3	Boardwalk Concept.....	19
2.4	Public Views on the Need for the Boardwalk.....	23
2.5	Community Needs	26
2.6	Planning Assessment of Social Needs	36
2.7	Assessment of Economic Needs	47
2.8	Assessment of Environmental Needs.....	48
2.9	Conclusion on the Need for the Boardwalk.....	50
3	NO-RECLAMATION OPTIONS	53
3.1	Introduction.....	53
3.2	Option 1: Existing Inland Routing.....	54
3.3	Option 2: Inland Route along the Waterfront	55
3.4	Assessment of Inland Alignments	55
3.5	Conclusion on “No-Reclamation” Options.....	57
4	REVIEW OF BOARDWALK FEASIBLE SCHEMES.....	59
4.1	Introduction.....	59
4.2	Boardwalk Alignment Variations	60
4.3	Alternative Boardwalk Designs	61
4.4	Boardwalk Facilities	62
4.5	Reclamation in the form of New Piled Structures	63
4.6	Decked Area above the Sea	63
4.7	Affected Area of the Harbour	64
4.8	Conclusion of the Review of Feasible Schemes	64
5	PUBLIC VIEWS	65
5.1	Public Engagement Activities of the Investigation Study	65
5.2	Public Views on the Boardwalk Schemes	67
5.3	Conclusion Drawn from the Public Engagement.....	72

6	ENHANCED BOARDWALK SCHEME	74
6.1	Enhanced Boardwalk Scheme.....	74
6.2	Boardwalk Scheme Engineering Details	74
6.3	Reprovisioning of Affected IEC Protection Dolphin Structures	77
6.4	Boardwalk Scheme Aesthetic Design Proposals	77
6.5	Connectivity and Access Proposals	82
6.6	Summary of Reclamation Requirements of the Enhanced Boardwalk Scheme	82
7	MINIMUM RECLAMATION	84
7.1	Introduction.....	84
7.2	Width of Boardwalk.....	84
7.3	New Protection Dolphin Structures and New Pile Structures	85
7.4	Decked Area.....	86
7.5	Affected Water Area	87
7.6	Conclusion on Minimum Reclamation Requirements	87
8	CONCLUSION	90
8.1	Compelling and Present Need for the Boardwalk.....	90
8.2	The Need for Reclamation	91
8.3	Minimum Reclamation Required to Meet the Overriding Public Need	92
8.4	Compliance with the Overriding Public Need Test	93



ANNEXES

ANNEX A	Hong Kong Island East Harbour-front Study
ANNEX B	CFA Judgment
ANNEX C	The Missing Link
ANNEX D	Boardwalk Concept Plans
ANNEX E	Stage 1 Community Engagement Report
ANNEX F	Planning Assessment Report
ANNEX G	Pedestrian Survey Report
ANNEX H	Economic Assessment Report
ANNEX I	Environmental Assessment Report
ANNEX J	Assessment of Inland Alignment
ANNEX K	IEC Protection Structures
ANNEX L	Stage 2 Community Engagement Report
ANNEX M	Enhanced Boardwalk Scheme
ANNEX N	Stage 3 Community Engagement Report
ANNEX O	Report on Impact Assessment on Existing Structures

1 INTRODUCTION

1.1 Background

- 1.1.1 In May 2005, the then Harbour-front Enhancement Committee (“HEC”) agreed to the approach of the Harbour Plan Review to undertake review studies for areas around Victoria Harbour. After the Hung Hom District Study which was completed in early 2008, Hong Kong Island East was identified as the next district for review under the Harbour Plan Review.
- 1.1.2 The public’s vision for the Boardwalk was discussed in the Envisioning Stage (2005 to 2006) of the Wan Chai Development Phase II Review ¹. Later, the Eastern District Council (EDC) formally raised the boardwalk proposal in September 2007 ².
- 1.1.3 In May 2009, the Planning Department commissioned the Hong Kong Island East Harbour-front Study (“HKIEHS”) as part of the Harbour Plan Review. The purpose of the HKIEHS was to formulate a comprehensive plan for enhancement of the Hong Kong Island East harbour-front focussing on connectivity and pedestrian accessibility to the harbour-front. A 3-stage public engagement programme was undertaken to solicit public views on the enhancement of the Hong Kong Island East harbour-front areas and build consensus on the enhancement proposals. The HKIEHS was completed in March 2012.
- 1.1.4 Under the HKIEHS, a boardwalk of about 2km long was proposed to be constructed underneath the Island Eastern Corridor (“IEC”), from the future waterfront park recommended under the Wan Chai Development Phase II (“WDII”) project at Oil Street, to Hoi Yu Street in Quarry Bay. The proposed boardwalk was well received by the public during the public engagement exercise.
- 1.1.5 In January 2012, the Civil Engineering and Development Department (“CEDD”) commissioned a Topical Study for Boardwalk underneath Island Eastern Corridor (“Topical Study”) to establish preliminary engineering feasibility of the proposed boardwalk and, as this proposed boardwalk lies within the statutory limit of Victoria Harbour and is

¹ See para 3.4.7 and 5.2.6 of the report which can be viewed on the HEC website at:
http://www.harbourfront.org.hk/eng/content_page/doc/engagement_report/Main_Report.pdf.

² EDC PWHC Paper of 20 Sept 2007, entitled “促請當局在東區走廊下興建木板長廊連接北角至鯉魚涌的海濱”.

therefore subject to the Protection of the Harbour Ordinance (“PHO”), to assess the implications of the PHO on the proposal, to facilitate further project planning and implementation.

- 1.1.6 In March 2015, CEDD commissioned the Boardwalk underneath Island Eastern Corridor - Investigation under Agreement No. CE41/2014 (HY) (“Investigation Study”) to review the feasibility of the proposed boardwalk. Another key task of this assignment is to demonstrate compliance of the Boardwalk underneath Island Eastern Corridor (“the Boardwalk”) with the PHO before proceeding with the detailed design and construction of the project.
- 1.1.7 In December 2019, CEDD commissioned the Boardwalk underneath Island Eastern Corridor – Design and Construction under Agreement No. CE 29/2019 (CE) (“Design and Construction of Boardwalk”) to refine and finalise the proposed Boardwalk Scheme with due compliance with the PHO, for detailed design and construction.
- 1.1.8 Underlying all the boardwalk proposals and, ultimately, the decision on whether the finalized Boardwalk Scheme can be implemented, is the issue of the need for reclamation and consequently the need to follow the legal rulings on compliance with the PHO. These have been well established through the precedent judicial reviews of the WDII project.
- 1.1.9 In the judgment handed down by the Court of Final Appeal (CFA) on 9 January 2004 in respect of the judicial review on the Draft Wan Chai North OZP (No. S/H25/1) (“the CFA Judgment”), the CFA ruled that the presumption against reclamation in the PHO can only be rebutted by establishing an overriding public need for reclamation (“the Overriding Public Need Test”), and that there must be cogent and convincing materials available to enable the decision-maker to be satisfied that the test is fulfilled for rebutting the presumption against reclamation.
- 1.1.10 Beautifying the Harbour-front was highlighted in 2008-2009 and 2009-2010 Policy Address. As mentioned, all Hong Kong people cherish Victoria Harbour as our precious asset. On the basis of the proposed beautification options, the DEVB will co-ordinate the efforts of concerned bureaux and departments to gradually take forward the harbour-front beautification measures.

- 1.1.11 Harbourfront Enhancement and Development was also highlighted in 2017 Policy Address. There is a general consensus in the community for the need of a new mindset in taking forward harbourfront enhancement. However, it is premature to establish a statutory Harbourfront Authority. The Government has decided to first partner with the Harbourfront Commission and implement harbourfront enhancement initiatives through a dedicated team with dedicated funding. The aim is to further extend the waterfront promenade along both sides of the Victoria Harbour, beautify areas in the vicinity and improve accessibility of the waterfront. The Government has earmarked \$500 million for the first stage for taking forward harbour-front development.
- 1.1.12 To make our harbour-front more accessible, connected and enjoyable, the 2019-20 Budget has earmarked \$6 billion for harbour-front enhancement. The proposed Boardwalk of about 2 kilometres (km) in length connecting Causeway Bay and Quarry Bay is amongst the nine projects supported by the Harbourfront Commission (HC) for implementation with the earmarked funding. Since 2015, we have been engaging key stakeholders proactively in developing and refining the alignment of the proposed Boardwalk and supporting facilities. Three rounds of community engagement have been held.
- 1.1.13 The harbour-front from Causeway Bay to Quarry Bay are occupied by private residential and commercial developments, public facilities, operating piers and IEC, with some parts not being publicly accessible. By building a pedestrian walkway over the water area along the harbour-front, the proposed Boardwalk provides an innovative solution to overcome the existing physical constraint and to realise the vision of a joined up and easily accessible harbour-front. Its implementation is functionally important in the overall harbour-front planning for Hong Kong Island as the 2-km Boardwalk is a key piece of the jigsaw puzzle providing a continuous harbour-front promenade of some 12 km from Shek Tong Tsui of Western District to Shau Kei Wan.

1.2 Boardwalk Studies

The HKIEHS

- 1.2.1 The Boardwalk was first proposed under the HKIEHS - Feasibility Study, completed in March 2012, where its feasibility was established.
- 1.2.2 In the Final Report of the HKIEHS - Feasibility Study, March 2012 (a copy of the Final Report is attached at **Annex A**), a comprehensive plan for the enhancement of the Hong Kong Island East harbour-front areas was formulated, focussing on connectivity, and with the aim of transforming it into an attractive, accessible, vibrant and sustainable waterfront for public enjoyment. One of the specific objectives of the study was to examine the possibility of creating a continuous waterfront promenade with the provision of cycling facilities within the study area including the construction of a boardwalk underneath the IEC.
- 1.2.3 The Boardwalk was proposed to create an unimpeded pedestrian connection along the harbour-front that would be accessible to the general public. Further, the proposed Boardwalk would provide access to the waterfront which is largely absent along the North Point waterfront.
- 1.2.4 Under the HKIEHS, the preferred option of developing a continuous boardwalk underneath the IEC was generally supported by the public during the public engagement programme (“PEP”).
- 1.2.5 From the conclusions of the HKIEHS Final Report: “Taking into account the public comments received at the 3-stage PEP, the enhancement proposals of the Hong Kong Island East harbourfront have been finalised and presented in this report, which will provide a conceptual planning framework with the following public benefits:
- The creation of a continuous waterfront promenade integrated with the surrounding urban parks and waterfront developments;
 - Improvement to connectivity and accessibility to the waterfront;
 - The provision of public facilities that can be enjoyed by visitors and the population living and working in the Hong Kong Island East;
 - The introduction of new commercial uses, waterfront attractions and facilities that can reinforce a multi-faceted, diversified and vibrant neighbourhood;

- An enhancement of the character of the district through landscape and façade treatment, streetscape enhancement, planting, and improvement of pedestrian linkages; and
- Proposals directly responding to public aspirations will foster future collaboration between public and private sectors.

Upon the realisation of the recommended proposals, it is believed that a vibrant, accessible and quality waterfront for the Hong Kong Island East will be created for public enjoyment.”

The Topical Study

- 1.2.6 To further enhance the recommendation of the proposed Boardwalk in the HKIEHS and to ensure the proposal is feasible from an engineering point of view, an additional topical study was carried out to investigate the engineering feasibility of the proposed Boardwalk under the existing IEC and to assess the implications of the PHO on the proposal.
- 1.2.7 In the Topical Study, the feasibility of the boardwalk underneath the IEC from the perspectives of engineering, safety and security, maintenance, acceptability to nearby residents and stakeholders, etc, was evaluated. A number of options for the Boardwalk were proposed, at elevated and low level and with and without an accompanying cycle track. A scheme was developed that combined the advantages of both the elevated and low level schemes (low level to allow the users to be close to water level but elevated level to facilitate crossings over existing piers).
- 1.2.8 The Boardwalk would be about 2km long, with the alignment running generally underneath the IEC. In the preliminary design carried out under the engineering assessment, generally an overall width of 5m (the minimum width of 3.5m for peak pedestrian volume and 1.5m for street furniture, greening and stagnant zone) was maintained as a minimum that would be capable of providing safe and secure circulation at the waterfront. The finished level of the walkway varied from approximately +5.5mPD to +12.5mPD.
- 1.2.9 The Boardwalk was proposed as an elevated structure which would be constructed over the existing foundation pile caps and piled protection structures (called ‘dolphins’) of the IEC bridges.

- 1.2.10 Reclamation requirements for the Boardwalk were determined. Whilst the implementation of the Boardwalk would not require any reclamation in the conventional sense, there are a few areas where construction of new protective dolphins would be required; these would constitute reclamation in the context of the PHO. The majority of the boardwalk will be directly beneath the IEC deck and the consequences will not be generally observed.
- 1.2.11 Subsequent to the meeting of the Task Force on Harbourfront Developments on Hong Kong Island of the Harbourfront Commission (“TFHK”) on 24 October 2013³, the Government committed to commence construction of the Boardwalk in Q2 2018 in the TFHK meeting on 18 February 2014⁴.
- 1.2.12 As reclamation in respect of the PHO was found to be required for the Boardwalk proposals, the implications of the PHO were examined to determine whether the proposals would fully comply with the requirements of the PHO and, if not, to identify the shortfalls in the process and recommend follow-up actions to ensure full compliance with the PHO.
- 1.2.13 Further assessment and public engagement was found to be required to substantiate existing appraisals on the need for the Boardwalk, in order to provide more comprehensive cogent and convincing materials than those that are currently available and to more fully demonstrate compliance with the overriding public need test in respect of the PHO.
- 1.2.14 Recommendations of the Topical Study for further follow-up actions included further assessment studies to substantiate the overriding public need for the Boardwalk, in order to provide more comprehensive cogent and convincing materials than those currently available, together with further public engagement in this respect. These further assessments and substantiations would be included in the preparation of cogent and convincing materials to provide a more robust demonstration of compliance with the overriding public need test and thus with the PHO.

³ Para 4.18 in the Minutes of the 14th Meeting of HKTF, available at: http://www.hfc.org.hk/en/task_forces/hk_island/meeting_20131024.html, reads that “Members had generally agreed on the refined [boardwalk] scheme and remained the view that the Government should take forward the project as it would be more important to provide a continuous waterfront promenade at the eastern part of Hong Kong Island.”

⁴ Para 2.2 in the Minutes of the 15th Meeting of HKTF, available at http://www.hfc.org.hk/en/task_forces/hk_island/meeting_20140218.html

The Investigation Study

- 1.2.15 The Investigation Study has been instructed in response to the recommendations of the Topical Study for further follow-up actions including further assessment studies and public engagement to substantiate the overriding public need for the Boardwalk, and to provide the cogent and convincing materials that will need to be compiled to satisfy the overriding public need test and to rebut the presumption against reclamation of the PHO.
- 1.2.16 Under the Investigation Study, further engineering assessments, including further consideration of structural options, are carried out for the selection of an optimal scheme and confirmation that any reclamation is the minimum required to meet the overriding public need.

Design of Boardwalk

- 1.2.17 The existing available information, findings and recommendations of the Investigation Study and community engagement exercises will be reviewed to refine and finalize the Boardwalk Scheme with due compliance with the relevant statutory and technical requirement, in particular the PHO implications, for design and construction.

1.3 The PHO and the CFA Judgment

The Protection of the Harbour Ordinance (PHO)

- 1.3.1 The PHO was enacted to protect and preserve the harbour by establishing a presumption against reclamation in the harbour. Section 3 of the Ordinance provides:
- “(1) The harbour is to be protected and preserved as a special public asset and a natural heritage of Hong Kong people, and for that purpose there shall be a presumption against reclamation in the harbour.
- (2) All public officers and public bodies shall have regard to the principle stated in subsection (1) for guidance in the exercise of any powers vested in them.”

The Court of Final Appeal (CFA) Judgment

1.3.2 The CFA handed down its judgment on 9 January 2004 in respect of the judicial review on the Draft Wan Chai North OZP (No. S/H25/1). A copy of the CFA judgment is enclosed for reference at **Annex B**. The following is extracted from the summary of the judgment given by the Chief Justice as the unanimous judgment of the CFA, prepared by the Judiciary.

Overriding public need

1.3.3 In order to implement the strong and vigorous statutory principle of protection and preservation, the presumption must be interpreted in such a way that it can only be rebutted by establishing an overriding public need for reclamation (“the overriding public need test”). The statute, in conferring on the harbour a unique legal status, recognises the strong public need to protect and preserve it. The statute envisages that irreversible loss to the extent of the reclamation would only be justified where there is a much stronger public need to override the statutory principle of protection and preservation.

1.3.4 Public needs would of course be community needs. They would include the economic, environmental and social needs of the community.

1.3.5 A need should only be regarded as overriding if it is a compelling and present need.

1.3.6 A compelling and present need goes far beyond something which is “nice to have”, desirable, preferable or beneficial. But on the other hand, it would be going much too far to describe it as something in the nature of the last resort, or something which the public cannot do without. A present need takes into account the timescale of planning exercises, and that the need would arise within a definite and reasonable time frame.

1.3.7 Where there is a reasonable alternative to reclamation, an overriding need for reclamation would not be made out. All circumstances should be considered, including the economic, environmental and social implications of each alternative. The cost as well as the time and delay involved would be relevant. The extent of the proposed reclamation should not go beyond the minimum of that which is required by the overriding need. Each area proposed to be reclaimed must be justified.

- 1.3.8 The overriding public need test should be regarded as a single test and is a demanding one.

Cogent and convincing materials

- 1.3.9 To enable a public officer or body to be satisfied that the overriding public need test has been met, the materials in the case in question must be cogent and convincing.

1.4 The Boardwalk Objective

- 1.4.1 The Objective of the Boardwalk is aligned with the vision of the Harbourfront Commission - to develop the harbour as a great public asset for everyone to enjoy, and for making the waterfront a place of pride for the whole community. As to bring the public to the great public asset, the harbour, along the IEC, the boardwalk shall provide a safe means of connection.
- 1.4.2 The Boardwalk objective is to create a vibrant, accessible and quality waterfront for the Hong Kong Island East, to meet public and community aspirations and needs. The Boardwalk will enhance the harbour-front for public enjoyment, and provide access to the harbour that is important for the public to enjoy the full benefit of the harbour as a public asset.
- 1.4.3 The ultimate objective of protecting the harbour is to ensure that the general public will be able to enjoy the harbour as they wish.
- 1.4.4 The Boardwalk has been conceived as a facility that will meet a public need in respect of opening up the North Point harbour-front to the public and providing a continuous pedestrian connection along the Island East harbour-front.
- 1.4.5 The development of a continuous boardwalk underneath the IEC was first proposed in the HKIEHS, where it was well supported by the public during the public engagement programme of the HKIEHS.
- 1.4.6 The Investigation Study reviews the feasibility of the proposed Boardwalk, develop a preferred scheme (“Preferred Scheme”) through public collaboration, and demonstrate the Boardwalk’s compliance with

the PHO to enable the project to proceed to the next stage for implementation.

- 1.4.7 The Design of Boardwalk refines and finalizes the Preferred Scheme based upon the recommendations from the Investigation Study and community engagement exercises with due compliance with the PHO, for design and construction.
- 1.4.8 Key tasks are to review of the findings of the Investigation Study including assess the need for the Boardwalk and justification on the purpose and extent of the proposed reclamation by reference to the Overriding Public Need Test. Cogent and convincing materials are required to be prepared for demonstrating compliance with the PHO.

1.5 Public Engagement of the Investigation Study

- 1.5.1 A proactive approach was adopted for the public to have a better understanding of the opportunities for harbour-front enhancement and the issues associated with the proposed Boardwalk, and to encourage public involvement in the process of determining a preferred scheme for the Boardwalk whilst establishing its compliance with the PHO. The aim was to instil a sense of partnership between Government, stakeholder groups and the community. An Inclusive, Informed & Interactive (3Is) public engagement approach has been adopted.
- 1.5.2 The objectives of public engagement were three-fold:
 - (i) To gauge the views of the public in establishing the overriding public need for the proposed Boardwalk and associated minimum reclamation
 - (ii) To solicit the views of the public on the design and facilities of the Boardwalk proposals
 - (iii) To engage the public in the formulation and selection process of the Boardwalk scheme (evolution from a concept scheme to a refined scheme, to the Preferred Scheme); and gain community consensus on the Preferred Scheme.
- 1.5.3 The stakeholders involved in the public engagement activities include statutory and advisory bodies, professionals, academics, green groups, concern groups, the local community and the community-at-large. Since the proposed Boardwalk falls within three constituencies of EDC,

namely City Garden, Provident Centre and Healthy Village, close liaison with these respective stakeholders has been maintained.

1.5.4 As Victoria Harbour is considered a special public asset and a natural heritage of Hong Kong people, in addition to the local communities in Eastern District abutting the IEC and the Boardwalk beneath, the community-at-large and general public have also been engaged to seek their support on the Boardwalk.

1.5.5 A three-stage community engagement exercise was carried out:

The Stage 1 Community Engagement commenced on 1 February 2016 – Focus on the Need, Benefits and Facilities of the Boardwalk. To solicit public views, visions and concepts on the boardwalk design and facilities to be provided, and raise public awareness that the proposed Boardwalk and ancillary facilities require reclamation and thus have PHO implications. Public views on the compelling and present need for the Boardwalk contribute to the determination of whether the Boardwalk satisfies an overriding public need in the context of the PHO.

The Stage 2 Community Engagement commenced on 29 November 2016 and took place over a two month period, concluding on 28 January 2017 – Building Consensus on Reclamation Issues and the Preferred Boardwalk Scheme. To present the findings on the overriding public need for the Boardwalk and the minimum extent of reclamation, for public endorsement and support for the preparation of cogent and convincing materials demonstrating compliance with the PHO. Public to provide their views on boardwalk design options to arrive at consensus on the formulation of a preferred scheme.

The Stage 3 Community Engagement commenced on 25 February 2019, organizing various activities for a two-month period, concluding on 24 April 2019 – Latest Scheme (i.e. Preferred Scheme) of the Boardwalk. To present the Latest Scheme of the Boardwalk and demonstrate to the public that the Latest Scheme had balanced different views received during Stage 2 Community Engagement for building consensus on the alignment of the Latest Scheme. Public to provide their views on the details and facilities to be put forward for the Latest Scheme. This is also to engage the public and gain community support on the Latest Scheme.

1.5.6 The Harbourfront Commission, EDC, as well as statutory, advisory and professional bodies have been widely consulted throughout the public engagement process.

1.6 Approach to Demonstrating Compliance with the Overriding Public Need Test

1.6.1 Recognising that the PHO's primary objective is that the harbour is to be protected and preserved as a special public asset and a natural heritage of Hong Kong people, there is an emphasis on providing public access to the harbour-front, improving connectivity, and maximising utilisation and vibrancy of the harbour-front areas in order to achieve the full value of this recognised special public asset. It is the Boardwalk which forms the basis of this project and which ultimately determines the form of the waterfront along this part of the northshore of Hong Kong Island. The Boardwalk must, itself, pass the Overriding Public Need Test, such that it satisfies the CFA's ruling on compliance with the PHO.

1.6.2 A step by step approach is taken in subjecting the Boardwalk proposals to the Overriding Public Need Test to ensure that the project satisfies the CFA's judgment.

1.6.3 The first step is to confirm that there is a compelling and present need for the Boardwalk in the first place. In Section 2, this need is demonstrated through the identification of continued public demand for harbour-front access ("right of access") and a planning assessment of social needs of the community. Public views on the need for the Boardwalk are an essential component of the establishment of this compelling need. The public and social needs are supported by assessments of economic and environmental implications of the Boardwalk. Drawing all of this together, a comprehensive case is made for the compelling and present need for the Boardwalk.

1.6.4 Having established the need for the Boardwalk, the next step is to identify what reclamation is required, and if there is any reasonable alternative to reclamation (ie "no-reclamation" options) in its implementation. If there is a feasible "no-reclamation" option, then it should be pursued. Section 3 addresses this issue, including examination of alternative engineering ideas, with the emphasis on minimising, if not eliminating, the extent of reclamation, while meeting the public need for

the project, and finds that there are, in fact, no feasible “no-reclamation” options.

- 1.6.5 Having established that there is no reasonable alternative to reclamation, the third step is to ensure that reclamation is restricted to only the minimum amount necessary to meet the overriding public need. Section 4 examines in more detail feasible and reasonable schemes in respect of the degree to which they best serve to meet the overriding public need, and in terms of their extent of reclamation together with consideration of the affected area of the harbour, which is of relevance in respect of the need to preserve and protect the harbour.
- 1.6.6 Public engagement and the incorporation of public views run through all phases in the determination of overriding public need. Public views, not only on the need for the Boardwalk, but also on the Boardwalk proposals/schemes and associated reclamation requirements, are an essential part of the process of achieving consensus on the selection of the preferred scheme. Section 5 highlights the feedback from the public engagement process.
- 1.6.7 In Section 6, the scheme that meets the overriding public need and that has the minimum extent of reclamation required by the overriding public need, as well as least impacts on the harbour and other users, is developed and recommended as the Enhanced Scheme. The Enhanced Scheme incorporates public feedback and ideas from the public engagement process. Reclamation requirements arising from the implementation of the enhanced Boardwalk scheme are identified.
- 1.6.8 In Section 7, the reclamation requirements of the Enhanced Scheme are examined in detail to demonstrate that the extent of reclamation is indeed the minimum required by the overriding public need.
- 1.6.9 Finally, Section 8 summarises the conclusions of these cogent and convincing materials and confirms compliance with the Overriding Public Need Test. The Enhanced Scheme that meets the overriding public need and that has the minimum extent of reclamation required by the overriding public need is recommended to go forward to implementation.

1.7 Purpose of this Report

- 1.7.1 This report sets out the process by which the Boardwalk scheme and its associated reclamation has been derived, in response to the CFA judgment handed down on 9 January 2004 in respect of the judicial review of the Draft Wan Chai North OZP (No. S/H25/1).
- 1.7.2 The report presents cogent and convincing materials to demonstrate the compliance with the Overriding Public Need Test.
- 1.7.3 The report has been prepared with reference to the requirements of Environment, Transport and Works Bureau Technical Circular No. 1/04 on Protection of the Harbour Ordinance, for the consideration of the reclamation proposals of the Boardwalk project.

2 THE NEED FOR THE BOARDWALK

2.1 Introduction

- 2.1.1 The essential first step in complying with the CFA ruling on establishing an overriding public need for reclamation is that there must be a compelling and present need for the Boardwalk in the first place.
- 2.1.2 The Boardwalk is proposed as a pedestrian walkway with an accompanying cycleway. It aims to provide a continuous pedestrian connection along the Island East harbour-front, which is currently not accessible due to the presence of private lots immediately abutting the harbour. The IEC foundations and protection dolphins which run in front of the seawall along the waterfront also form a physical and visual barrier to the harbour.
- 2.1.3 The proposed Boardwalk will run generally under the existing alignment of IEC as a bridge structure mainly constructed on top of the existing foundations and protection dolphins of the IEC. It will be about 2km along, connected to the future open space north of Oil Street at the western end and to the promenade at Hoi Yu Street in Quarry Bay at the eastern end.
- 2.1.4 Whilst the Boardwalk does not require any land to be formed by filling the sea with soil (the more commonly perceived notion of ‘reclamation’), some new piled foundations and protection dolphin structures with pile caps are required to be constructed to support the Boardwalk. The Boardwalk project should be considered as a whole. Hence, these piled foundations and protection dolphin structures with pile caps and the decked area are regarded as reclamation in the context of the PHO. In addition, the bridge structures will cross over the sea, and while these would not physically affect the seabed or the water area of the harbour, they may restrict access to the water area beneath and behind them; any such affected area of the harbour will also have implications under the PHO.
- 2.1.5 It is acknowledged that, under the HKIEHS, there was, indeed, very clear support for the Boardwalk from all sectors of the community.

- 2.1.6 There is no doubt that the Boardwalk would meet a strong publically-supported need for unimpeded and accessible pedestrian connection along the harbour-front. And the Boardwalk proposals presented in the HKIEHS certainly addressed the increasing importance of the use of the harbour for leisure and recreational activities. There are clearly benefits to the public in providing a much-needed open space leisure and recreational facility and enabling the public to access and enjoy the harbour. There are also benefits to the harbour in that the Boardwalk proposals would allow an under-utilised part of the harbour, currently sterilised under the IEC, to become accessible and useable, and would bring the harbour back to the people of Hong Kong.
- 2.1.7 On the other hand, the need for reclamation was not recognised in the HKIEHS and the Boardwalk proposals were not presented in terms of PHO implications, for example, on whether there is a compelling and present need for the Boardwalk as the basis of establishing an overriding public need in rebuttal of the presumption against reclamation.
- 2.1.8 The burden of proof required for demonstrating compliance with the Overriding Public Need Test (i.e. the legal criteria as set out in the CFA judgment) is much higher than simply meeting a desire for a continuous pedestrian connection along the Island East harbour-front, which would have insufficient force to be considered compelling and present. As it is not certain that a sufficiently strong case for the compelling need for the Boardwalk has previously been made, additional planning, economic and environmental assessments, together with further public engagement, are required to substantiate the compelling and present need for the Boardwalk.
- 2.1.9 This section of the report presents the comprehensive and robust arguments on compelling and present need for the Boardwalk, determined in respect of public needs and the social, economic and environmental needs of the community, in line with the CFA judgment.

2.2 Existing Situation

Existing Harbour-front

- 2.2.1 Waterfront promenades are some of the most-welcomed and popular recreation facilities. At present, there are a number of existing waterfront promenades that are popular, well-received destinations/ attractions of

Victoria Harbour, whether by local communities or visitors to Hong Kong. Examples include the New Central Waterfront, the Tsim Sha Tsui Avenue of Stars and Tsim Sha Tim Promenade, the West Kowloon Waterfront Promenade, the Kai Tak Runway Park, etc. Some of the more prominent waterfront areas are able to host a diverse range of activities, events or festivals. There are also other promenades that cater towards more local community uses and purposes, including the Quarry Bay Promenade, the Heng Fa Chuen Promenade, the Hung Hom Promenade, the Kwun Tong Promenade Phases 1 & 2, the Tsing Yi Promenade, etc. These provide leisure and recreational spaces for local communities to walk, exercise and interact.

- 2.2.2 Beside the above mentioned existing waterfront facilities, various waterfront promenades or waterfront facilities have also been planned in recent years such as the Wan Chai North and North Point Harbourfront, the proposed Tsim Sha Tsui East Waterfront Revitalization Project, etc. Upon the completion of these planned waterfront facilities and together with the existing waterfront facilities, most of the harbour-front area along Victoria Harbour would be accessible by the public and visitors.
- 2.2.3 The North Point to Quarry Bay waterfront is one of the few remaining areas along the northern shoreline of Hong Kong Island that is mostly blocked-off by existing uses or fenced-off by private residential development and is therefore inaccessible to the public. Access to and use of this stretch of harbour-front is also compromised by the substantial structures and foundations of the IEC that traverses across the sea-frontage.

Existing North Point Northshore Area

- 2.2.4 The boardwalk proposal first presented 10 years ago provided material supporting that “present” public need existed. It is apparent that the present need had been already established and thus, today, the need is not only “present” but is also overdue.
- 2.2.5 The limited access to the waterfront and the present need of the public is observed with the current use of space for fishing on existing IEC pile caps. On the err of public safety, the boardwalk ensures that general public will be able to enjoy the harbour as they wish in a safe manner.



- 2.2.6 The existing walking environment within the inland area of North Point is generally perceived as crowded and congested, as road spaces are pressured by the volume of pedestrian and vehicular traffic during busy hours. Other than public transport for daily commuting, leisure walking/exercise spaces are confined to the congested, busy, noisy and dusty streets or the scattered pocket open spaces. There is a need to provide a much more convenient, accessible and healthy alternative.

The Missing Link for a Continuous Harbour-front

- 2.2.7 Upon the completion of New Central Waterfront and the Wan Chai North and North Point Harbourfront, the waterfront promenade along the northern shore of Hong Kong Island will extend all the way from the western side of Hong Kong Island, passing through Central, Admiralty, Wan Chai North and extending through Causeway Bay to the future open space north of Oil Street on the reclamation that has recently been constructed under the WDII project.
- 2.2.8 To the east, the existing Quarry Bay Promenade extends from Hoi Yu Street all the way through Quarry Bay to Sai Wan Ho Harbour Park.
- 2.2.9 The need for an accessible harbour has long been recognised, and is one of the Harbourfront Commission's core Harbourfront Planning Principles: "... unrestricted and convenient visual and physical access for pedestrians, preferably at grade, to and along the Harbour as well as the harbourfront areas". The North Point harbour-front from Oil Street in North Point to Hoi Yu Street in Quarry Bay is the gap in this vision of an accessible harbour-front, and the Boardwalk is the missing link that is needed to complete a continuous harbour-front along the northshore of Hong Kong Island (as illustrated in **Annex C**).

2.2.10 Other than providing an accessible and continuous harbour-front and a waterfront activity space for public enjoyment, the proposed Boardwalk would also provide a new linkage to encourage walking and cycling as modes of commuting to work, consequently alleviating the congested pedestrian and road environment in the North Point inland urban area. Encouraging pedestrian movement along the waterfront will also bring about positive effect in revitalizing existing local businesses/ shops and eateries. In providing a strategic linkage to the adjacent waterfront areas, ie the Wan Chai North and Quarry Bay harbour-front promenades, the Boardwalk would enable a synergy effect along the whole waterfront and unleash the full development potential of the Island East harbour-front.

2.3 Boardwalk Concept

Concept Scheme

2.3.1 A concept scheme (“Concept Scheme”) as shown in **Annex D** has been developed to put in place the missing link along the North Point harbour-front with the objective of creating a vibrant, accessible and quality waterfront, to meet public and community aspirations and needs. The Concept Scheme also provides the basis for discussion in the Stage 1 Community Engagement, to highlight the various issues and constraints associated with the Boardwalk design and implementation, in particular the PHO issues, and to invite ideas on how the Boardwalk scheme could better serve to meet its objectives.

2.3.2 The proposed Boardwalk layout of the Concept Scheme has evolved from the schemes developed in the earlier Topical Study. The Boardwalk will be an elevated bridge structure running generally under the IEC road deck and along the outside of the IEC piers, supported on the existing foundation pile caps and protective dolphins of the IEC bridges. At the western section, a 7.5m wide Boardwalk deck, accommodating a walkway and cycle track, will run at low level (+5.5mPD) from the new WDII reclamation area north of Oil Street at the western end to Tong Shui Road Pier, where the Boardwalk turns back to the existing seawall behind the North Point Ferry Piers. Along the central section, the Boardwalk will merge at-grade with the new waterfront promenade under the redevelopment of the ex-North Point Estate site. At the eastern section, the 7.5m wide Boardwalk will climb up from the promenade to cross over the North Point Vehicular Ferry Pier at a level of +9.2mPD. The Boardwalk will then rise further to +12.5mPD to provide sufficient

air draft for vessels approaching the pier of K. Wah Centre and Kodak Pier. The Boardwalk will stay at high level until it crosses over the North Point Fire Services Department (FSD) Pier at a level of +12.5mPD. The height of the Boardwalk across the FSD Pier is needed to meet minimum air draft requirements of FSD. It will then gradually ramp down to low level again and connect at-grade to the existing walkway of Hoi Yu Street at the eastern end.

- 2.3.3 Drawings showing the Concept Scheme layout and alignment details are presented in **Annex D**.
- 2.3.4 The core component of the Boardwalk would be the pedestrian walkway; if provided alone, without the accompanying cycle track, the walkway would have a width of 5m, comprising a minimum 3.5m wide walkway and 1.5m wide street furniture greening and stagnant zone in accordance with Hong Kong Planning Standards and Guidelines (HKPSG) and Transport Planning and Design Manual (TPDM). With the cycle track, the Boardwalk deck would be widened to 7.5m, comprising a minimum 3.5m wide walkway and 4.0m wide two-way cycle track. Other additional Boardwalk facilities that have been proposed, to increase the vibrancy and attractiveness of the Boardwalk, would include: viewing platforms (four are proposed, spaced out along the length of the Boardwalk); a fishing platform (near the Tong Shui Road Pier); cycle rental kiosk (proposed to be located at Hoi Yu Street); and food and beverage kiosks (located on existing land abutting the Boardwalk).
- 2.3.5 As well as becoming part of what would be a continuous harbour-front promenade along the northshore of Hong Kong Island, the Boardwalk would be accessible locally from either end (from Oil Street in North Point through the future open space planned on the new WDII reclamation, and Hoi Yu Street in Quarry Bay), and it would connect at-grade access points at Tong Shui Road and the new promenade at the ex-North Point Estate site.
- 2.3.6 The resultant Boardwalk will fulfil community needs, in essence in respect of:
- (i) Social needs – the Boardwalk will re-connect the public with the harbour along the North Point harbour-front, with easy and convenient access from the hinterland to the continuous harbour-front. The Boardwalk enables better connection and integration with

existing isolated open spaces to form a comprehensive open space network. Further, the proposed Boardwalk will attract and encourage local residents and the general public to exercise and cycle, thus helping to promote healthy lifestyle;

- (ii) Economic needs – the Boardwalk, as an iconic facility, will attract more visitors and tourists to the harbour-front, bringing about positive effects to local businesses/ shops/ eateries and thus revitalising the surrounding area of Eastern District particularly the older areas of North Point; and
- (iii) Environmental needs – the Boardwalk’s aesthetically pleasing design will uplift the landscape amenity along the North Point waterfront, with columns and piers of the IEC also being renovated to enhance the landscape and visual quality of this currently very degraded environment of the space underneath the IEC along harbour-front area.

Reclamation for the Boardwalk

- 2.3.7 The Boardwalk deck is supported by steel frame structures founded on the existing pile caps of IEC foundations and protection dolphins. The concern is the load-carrying capacity of the piled foundations and protection dolphin structures, which have been checked to ascertain if they have sufficient spare capacity to support the Boardwalk loading. Over most of the Boardwalk length, the pile capacity has been found to be marginally sufficient to carry the 7.5m wide Boardwalk structure. However, there are two areas where the dolphins will have insufficient capacity to carry the Boardwalk load while maintaining their design capability for resisting ship impact loads (their design purpose for protecting the IEC structures). New dolphins would need to be constructed immediately adjacent to the existing dolphins in order to maintain the original design capacity for ship impact protection.
- 2.3.8 Along the western section of the Boardwalk, the low level Boardwalk will restrict access to the water area between the IEC and shoreline, and a movable bridge is thus proposed to enable access (in particular for essential maintenance purposes) to this inner harbour area and seawall. This movable bridge would impose a greater structural loading on its two supporting protection dolphin structures and these two protection dolphin structures would need to be reprovisioned. Along the eastern

section of the Boardwalk, the high level Boardwalk will allow access to the water area inside the IEC for IEC foundation and seawall maintenance, so no movable bridge is required.

- 2.3.9 Also at the western section of the Boardwalk, the protection dolphins at the IEC slip road leading down to Tong Shui Road have been found to have inadequate structural capacity to support the Boardwalk in addition to ship impact loading. Preliminary assessment indicates that eight of the protection dolphins would need to be reprovisioned to maintain the protection of the existing IEC structures.
- 2.3.10 While the pile caps of these new piled foundations and protection dolphins would not be reclamation in the conventional sense (they are not land formed with soil) they are solid structures fixed rigidly and permanently to the seabed, occupying a water area of the harbour. The protection dolphin structures would form a solid platform in the water and to all intents and purposes they can be considered as ‘forming land’ (this view is reinforced if one were to look at this area of the harbour before and after construction of the new pile caps, to see first open water and then a solid mass replacing what was water), and they are therefore considered as reclamation in respect of the PHO. The Boardwalk project should be considered as a whole. Hence, the decked area is also considered as reclamation in respect of the PHO.
- 2.3.11 For the Concept Scheme, the total area of reclamation formed by the new piled foundations and protection dolphins is approximately 300m² and the total area of reclamation (i.e. footprint of the proposed Boardwalk) is about 17,500m².

Affected Area of the Harbour

- 2.3.12 The low level bridge structures would affect the usage of the harbour in respect of:
- (i) the plan area of Boardwalk deck structures above the sea, where these may obstruct or restrict harbour uses underneath them;
 - (ii) affected water areas, in addition to (i) above, that are obstructed by the Boardwalk structures, where harbour/ marine uses are restricted as a consequence.

- 2.3.13 The combined water area so affected, in this case the water area beneath the low level deck structures and the water area between the low level deck structures and the existing shoreline, where marine access is restricted to some degree, would be considered as ‘affected area of the harbour’.
- 2.3.14 When examining Boardwalk schemes, it is not only the extent of reclamation that is of concern, but also the affected area of the harbour, in respect of determining to what degree a scheme would serve best to protect and preserve the harbour in the context of the PHO.
- 2.3.15 For the Concept Scheme, the Boardwalk would result in a total affected area of the harbour of about 43,000m², along an approximate 920m length of harbour-front.

2.4 Public Views on the Need for the Boardwalk

- 2.4.1 The Stage 1 Community Engagement conducted under the Investigation Study focused on the need, benefits and facilities of the proposed Boardwalk in the context of establishing an overriding public need for the Boardwalk under the PHO. Further details of the Stage 1 Community Engagement are presented later in Section 5; public views as they relate to the need for the Boardwalk have been extracted and are summarised below. A copy of the Stage 1 Community Engagement Report, June 2016, is attached at **Annex E** for reference.
- 2.4.2 During the Stage 1 Community Engagement, which was carried out from 1 February to 31 March 2016, information on the Boardwalk proposal and issues relating to the PHO was disseminated to the public and stakeholders via project website, Facebook page, community engagement digest and pamphlet, etc. The public and stakeholders were also invited to provide their comments and opinions via the project hotline, email, fax and mail. Surveys using a structured questionnaire format were conducted on the website, as well as during the roving exhibitions and at the various community engagement activities.
- 2.4.3 Two focus group meetings (one with professionals and academics and another with green groups, cyclist groups and concerned groups), two community engagement workshops, consultation with the Planning, Works and Housing Committee of Eastern District Council and with the Harbourfront Commission were held. Comments and opinions on the

Boardwalk proposal and on the associated PHO issues were collected from the public and stakeholders, through these forums and through the returned questionnaires.

2.4.4 The questionnaire was designed to assess the level of acceptance by the public as to whether there is a compelling and present need for the Boardwalk. It assessed the needs across several aspects, including public health, environment, accessibility, economic and social development. It also examined community response to the scope of the development from a minimal walkway to one that includes a cycleway and other leisure options.

2.4.5 Feedback through the questionnaire was substantial, with 1,306 returns and the result was summarized as follows:

Table 2.1: Feedback through the questionnaire

Question	Yes		No		Don't Know / Insufficient Information		No Response	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Q1 – Providing public access along Island East harbourfront	1193	91.3%	76	5.8%	18	1.4%	19	1.5%
Q2A – Promote public access to the harbourfront from Causeway Bay to Quarry Bay through a safe and secure access which is otherwise currently dissected and hindered by private lots, roads, utilities, jetties, as well as the IEC which is both a physical and visual barrier to the harbour along the Island East harbourfront	1064	81.5%	89	6.8%	85	6.5%	68	5.2%
Q2B – Provide a better walking environment than the current pedestrian options in Eastern District	1179	90.3%	37	2.8%	27	2.1%	63	4.8%
Q2C – Attract people to walk more along the harbourfront and encourage residents to spend more time in physical activities such as jogging, and thereby help adopt a healthier lifestyle	1189	91.0%	29	2.2%	24	1.8%	64	4.9%

Question	Yes		No		Don't Know / Insufficient Information		No Response	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Q2D – Enable new leisure activities in Eastern District through better access to the harbourfront	1174	89.9%	40	3.1%	28	2.1%	64	4.9%
Q2E – Enhance positive social interaction between Hong Kong residents	1086	83.2%	60	4.6%	95	7.3%	65	5.0%
Q2F – The boardwalk will increase people flow, thus help sustain and promote the prosperity of the local economy (e.g. food and beverage facilities and water-land interface activities) in the Eastern District and Hong Kong at large	977	74.8%	121	9.3%	142	10.9%	66	5.1%
Q2G – The boardwalk will attract people using it as an event venue	1071	82.0%	83	6.4%	84	6.4%	68	5.2%
Q2H – The boardwalk as an iconic structure would enhance the image of Hong Kong as a premier tourist destination	992	76.0%	147	11.3%	100	7.7%	67	5.1%
Q2I – The boardwalk will provide an alternative route for pedestrians currently using the footpath along King's Road / Electric Road / Java Road which would relieve pedestrians from poor air quality and noise pollution en route	1075	82.3%	90	6.9%	74	5.7%	67	5.1%
Q2J – The boardwalk as an iconic structure will improve the visual quality and landscape character of the harbourfront in the district	1012	77.5%	106	8.1%	118	9.0%	70	5.4%
Q3A – Providing pedestrian walkway	1054	80.7%	93	7.1%	98	7.5%	61	4.7%
Q3B – Providing cycleway	923	70.7%	236	18.1%	95	7.3%	52	4.0%
Q3C – Providing viewing platforms	999	76.5%	160	12.3%	92	7.0%	55	4.2%
Q3D – Providing fishing platform	861	65.9%	271	20.8%	123	9.4%	51	3.9%
Q3E – Providing cycle rental kiosk	903	69.1%	249	19.1%	103	7.9%	51	3.9%

Question	Yes		No		Don't Know / Insufficient Information		No Response	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Q3F – Providing bicycle parking	865	66.2%	271	20.8%	111	8.5%	59	4.5%
Q3G – Providing food & beverage kiosks	995	76.2%	179	13.7%	78	6.0%	54	4.1%

2.4.6 Public views expressed on the compelling and present need for the Boardwalk have been taken from the Stage 1 Community Engagement feedback and in particular from the results of the questionnaire survey, and highlighted in the following section in support of the determination of a compelling need for the Boardwalk.

2.4.7 On such basis, the above feedback would satisfy the requirement that the reclamation is not more than what is required by the overriding public need.

2.5 Community Needs

2.5.1 The needs of the community are focussed on the compelling social need for harbour-front access, based on public demand as expressed through the feedback received during the Stage 1 Community Engagement, and reinforced by a planning assessment demonstrating the social needs for the Boardwalk in respect of improved connectivity, enhancement of harbour-front and improvement in quality of life.

2.5.2 In facilitating a healthy lifestyle, the Boardwalk would be a key component in Government's promotion of healthy living in Hong Kong; it is essential to ensure sufficient facilities and spaces are provided for the public to exercise or participate in other leisure activities.

2.5.3 The community needs are also supported by assessments demonstrating the economic and environmental needs in respect of benefits to the community.

Compelling Need for Harbour-front Access

2.5.4 There is currently minimal public access to the harbour along the Island East harbour-front from Causeway Bay to Quarry Bay. The PHO's primary objective is that the harbour is to be protected and preserved as a special public asset and a natural heritage of Hong Kong people. It can

be argued that access to the harbour is crucial to achieve the full value of this recognised special public asset; indeed, from feedback received during the course of the Stage 1 Community Engagement, it is considered by many that the public should have a “right of access” to the harbour-front.

Concern group demand for harbour-front access

- 2.5.5 The participants of the two focus group meetings, including professionals and academics, green groups, cyclist groups and harbour concern groups, fully supported the Boardwalk. One participant pointed out that the right to access the waterfront is a public right recognised over the world, and that providing for right of access to the harbour-front is the overriding aspect of compelling need for the Boardwalk. They considered that the Boardwalk would add value to the harbour and meet the need for public access to the harbour.
- 2.5.6 Another participant concurred and stated that if the Boardwalk is provided, then efforts should be made to ensure that it meets all public needs. The area of the Boardwalk and the possible activities to be carried out should not be bound by an imposed “minimum extent of reclamation”. The other participant agreed on the need for the Boardwalk, but noted the need of every person is different and it may be difficult to substantiate an overriding public need for all components; if the community wants this facility, then the Government should go ahead and implement it.
- 2.5.7 One participant noted that the use of the affected area of the harbour arising from the Boardwalk is already restricted by the IEC. The provision of Boardwalk will only change the type of boats/ vessels accessing the affected area. It would not further reduce the effective use of the affected area but, rather, will allow more public use of this water area, ie there would be a positive enhancement of the affected area of the harbour in respect of the PHO.
- 2.5.8 Some participants also considered that the PHO is not intended to prevent the public from using the harbour, but to safeguard it for the public’s use. The provision of the Boardwalk will allow the public to access and satisfy their need to enjoy the harbour. They also consider that the IEC has taken away the public right of enjoying the harbour and this right should be reinstated.

Public demand for harbour-front access

- 2.5.9 An overwhelming majority (91.3%) of the public who provided feedback through the questionnaire agreed that providing continuous, non-interrupted public access along the harbour-front from Causeway Bay to Quarry Bay is essential for the public to enjoy the full benefit of the harbour as a public asset. Only 5.8% disagreed, with the ratio of those in favour being 15 to 1.
- 2.5.10 The participants of the two focus group meetings, including professionals and academics, green groups, cyclist groups and harbour concern groups strongly supported the proposed Boardwalk as the means of meeting the need for a continuous public access along the harbour-front.
- 2.5.11 The vast majority in the two community workshops concurred that it is essential to provide continuous, non-interrupted public access along the harbour-front.
- 2.5.12 There was a general consensus in the community, expressed through feedback in the workshops, focus group meetings, questionnaire responses and on the website, that the proposed Boardwalk will allow different users to have convenient and easy access to the harbour-front and to enable various activities along the harbour-front. Such pedestrian connection with good harbour views and environment will encourage more people to enjoy the harbour, and the Boardwalk can satisfy the community need for more public space to carry out different sports and leisure activities, to appreciate the harbour, and to promote social solidarity. It would also attract more visitors both locally and from abroad to enhance community and tourism development.
- 2.5.13 Participants urged for early implementation of the Boardwalk, which has been under study for over 10 years, and suggested that the Government should not wait any longer, as the harbour-front access that would be provided by the Boardwalk is long overdue.

Public Views on whether there is a Compelling and Present Need for the Boardwalk

- 2.5.14 Participants of the community workshops and respondents of the questionnaire were invited to comment on the compelling and present need for the Boardwalk in respect of the following aspects:

Promote public access to the harbourfront from Causeway Bay to Quarry Bay through a safe and secure access which is otherwise currently dissected and hindered by private lots, roads, utilities, jetties, as well as the IEC which is both a physical and visual barrier to the harbour along the Island East harbour-front.

- 2.5.15 A significant majority (81.5%) of questionnaire respondents accepted that the Boardwalk meets a compelling and present need in this respect. Only 6.8% disagreed, with the ratio of those in favour being 12 to 1.

- 2.5.16 Participants in the two community workshops pointed out that the public needs a coherent connection along the harbour-front. The Boardwalk would improve the walking environment with fresh air and spacious areas to enjoy the harbour. The compelling need for the proposed Boardwalk was strongly supported.

Provide a better walking environment than the current pedestrian options in Eastern District

- 2.5.17 A significant majority (90.3%) of questionnaire respondents accepted that the Boardwalk meets a compelling and present need in this respect. Only 2.8% disagreed, with the ratio of those in favour being 32 to 1.

- 2.5.18 Participants in the two community workshops opined that the current pedestrian connections in Eastern District are indirect and unsatisfactory and it affects the accessibility and connectivity of the area. It was agreed that continuous and good pedestrian environment along the harbour-front is needed, and the proposed Boardwalk can provide this continuous connection with a car-less environment for the benefit of the community. The Boardwalk would help disperse the pedestrian flows in this congested area and provide a quicker, safer and more pleasant walking environment.

Attract people to walk more along the harbour-front and encourage residents to spend more time in physical activities such as jogging, and thereby help adopt a healthier lifestyle

- 2.5.19 A significant majority (91.0%) of questionnaire respondents accepted that the Boardwalk meets a compelling and present need in this respect. Only 2.8% disagreed, with the ratio of those in favour being 15 to 1.
- 2.5.20 Participants in the two community workshops agreed that the Boardwalk will encourage and attract more residents and local community to access to the harbour and engage in various healthy living activities. Government should develop the proposed Boardwalk and seize this opportunity to provide an important space for the public to engage in different kinds of physical activities (eg Tai Chi, jogging, cycling, etc) and adopt a healthier lifestyle.
- 2.5.21 Some participants pointed out that while there are small parks/ open spaces in North Point, they are very crowded all the time due to great demand for open space in the area. The proposed Boardwalk can meet public need for public open space.

Enable new leisure activities in Eastern District through better access to the harbour-front

- 2.5.22 A significant majority (89.9%) of questionnaire respondents accepted that the Boardwalk meets a compelling and present need in this respect. Only 3.1% disagreed, with the ratio of those in favour being 29 to 1.
- 2.5.23 Participants in the two community workshops agreed that, by providing convenient access to the harbour-front, the proposed Boardwalk would encourage more people to go out and engage in leisure and recreational activities along the harbour-front area.
- 2.5.24 There were suggestions to incorporate more much-needed facilities on the Boardwalk, such as children play areas, cycling park, tables and seating. Some participants suggested that pets should also have access to the harbour-front area, but this was controversial to others.

Enhance positive social interaction between Hong Kong residents

- 2.5.25 A significant majority (83.2%) of questionnaire respondents accepted that the Boardwalk meets a compelling and present need in this respect. Only 4.6% disagreed, with the ratio of those in favour being 18 to 1.
- 2.5.26 Participants in the two community workshops noted the social need. It was generally agreed that with the proposed Boardwalk, more people will gather at this public space and there will be more social interaction.
- 2.5.27 Other public views on compelling and present need for the boardwalk resulting from community workshops are detailed in Community Engagement Reports in **Annex E, L, and N** as follows:
- *The boardwalk will increase people flow, thus help sustain and promote the prosperity of the local economy (eg food and beverage facilities and water-land interface activities) in the Eastern District and Hong Kong at large*
 - *The boardwalk will attract people using it as an event venue*
 - *The boardwalk as an iconic structure would enhance the image of Hong Kong as a premier tourist destination*
 - *The boardwalk will provide an alternative route for pedestrians currently using the footpath along King's Road / Electric Road / Java Road which would relieve pedestrians from poor air quality and noise pollution en route*
 - *The boardwalk as an iconic structure will improve the visual quality and landscape character of the harbour-front in the District*
 - *Summary of public views on compelling and present need for the Boardwalk*
- 2.5.28 The vast majority of participants in the community workshops supported the arguments on compelling and present need for the Boardwalk.

Maximising the Public Use of Harbour-front Access

- 2.5.29 During the focus group meetings with the harbour concern groups and other stakeholder parties, there were strongly expressed views that the public use of the Boardwalk should be maximised in order to get the greatest benefit from the harbour-front access. The compelling need for the Boardwalk should not be limited to that of a minimal walkway

facility, but rather to a facility that fully enhances the harbour-front and maximises the use of the harbour-front access. While the participants of the focus group meetings in general supported the proposed facilities of the Boardwalk as presented in the Concept Scheme, there were calls for further enhancement and incorporation of more harbour-front functions and facilities.

- 2.5.30 One participant pointed out that the Boardwalk could be widened on the southward side as the changes would not further affect the harbour. The proposed minimal design of 5m width Boardwalk unnecessarily restricts the public uses of waterfront and right of access. The provision of cycle track on the southern side of the Boardwalk would not affect additional water area as the water area behind the IEC is already rendered inaccessible by the walkway of the Boardwalk. Design improvements of the Boardwalk should be made to maximize the use. More access points between land and Boardwalk should be provided to allow more people to use it. The Boardwalk should be wider so that it could be shared with different users. The gradient of the Boardwalk should be minimised to make it convenient to use for children and people with disabilities.
- 2.5.31 Some participants agree on the provision of cycle track. The gradient and safety issues should be further studied.
- 2.5.32 One participant considers that the Boardwalk is not only a route for people to walk along the harbour-front, but is also a usable space for people to perform various activities. The width of the Boardwalk should not be limited to 7.5m but should be further increased. The design and width of the Boardwalk should also be flexible. It is not necessary to strictly demarcate the walkway and cycleway but should rather allow for co-use of the Boardwalk. Another participant raised examples of co-use in Japan and near the Hong Kong Sports Institute near Shing Mun River in Sha Tin. They agree to the provision of the cycle track and that it should be used for commuting or leisure purpose but not for racing. Cycling as a commuting mode is also economically and environmentally friendly and helps reducing carbon emission and traffic congestion. This is also supported by the other participant. However, some participants consider that, as the length of the cycle track is only 2km, it should be mainly for leisure purpose rather than commuting.
- 2.5.33 One participant suggested that the function of the cycle track should be defined and the design should suit the function accordingly. If it is for

leisure purpose, co-use of cyclists and pedestrians is possible. However, if the cycle track is used for commuting, the speed of the bicycles will be rather fast and a separate cycle track from pedestrian footpath is preferred. Besides, some sections may require separation for safety purpose, and speed has to be reduced at the entrances/ exits where vehicular traffic is busy.

- 2.5.34 Some participants considered that the width and area of the Boardwalk should be increased to accommodate more seating, food and beverage kiosks and landscaping. Another participant proposed that there should be pocket design for the alignment and for different activities. Another participant agrees that since the southern side of the Boardwalk is already affected by the IEC highway structures, therefore he supports to increase the size of the Boardwalk and the corresponding decked area over water can be increased to make best use of the affected area. The other participant considers that the current proposed platforms and open spaces are too small. Since cyclists would usually wait for friends at the various platforms, it is suggested that these areas should be enlarged.
- 2.5.35 Some participants support cycle rental kiosks and the introduction of self-help smart card cycle rental system. There should be bicycles for adults and children for rent. It is considered that this will attract more visitors to this harbour-front. Another participant pointed out that the number of cycle parking can be reduced; management of cycle parking area is important to avoid abuse of these facilities.
- 2.5.36 One participant welcomes and appreciates the inclusion of more land-water interface activities to encourage people using the harbour. The provision of a fishing platform is welcomed. Another participant considers that fishing should not be confined to one fishing platform and proposes to provide more fishing platforms. More creative ideas in using the Boardwalk and the affected water area are advocated. Another participant proposes to use the inner water area for model boating, and providing pontoons for land/sea connection. The other participant suggested to provide more connection points with the hinterland and provision for various activities like busking and weekend markets should be made to make the harbour-front more vibrant.
- 2.5.37 Some participants propose to have more landscaping and vertical greening in the design.

Public View on what Scope of the Boardwalk meets the Compelling and Present Needs of the Community

2.5.38 Participants of the community workshops and respondents of the questionnaire were invited to comment on the following facilities and components of the proposed Boardwalk in the context of meeting the compelling and present needs of the community, recognising that the individual components of the Boardwalk would have PHO implication in respect of associated areas of reclamation and/or affected area of the harbour:

Pedestrian walkway

2.5.39 A significant majority (80.7%) of questionnaire respondents accepted that the core component of the Boardwalk, the pedestrian walkway, meets a compelling and present need of the community. Only 7.1% disagreed, with the ratio of those in favour being 11 to 1.

2.5.40 The majority of participants in the two community workshops considered that provision of the pedestrian walkway must be a priority as the current pedestrian environment is unacceptable. The extent of reclamation was considered to be acceptable. Indeed, some suggested to make better use of the affected water area, even increasing the extent of reclamation towards the shoreline, in the affected water area, to allow for a wider Boardwalk for more flexible design and the accommodation of more public space for different uses.

Cycleway

2.5.41 A significant majority (70.7%) of questionnaire respondents accepted that the cycleway meets a compelling and present need of the community. 18.1% disagreed, with the ratio of those in favour being 4 to 1.

2.5.42 The majority of participants in the two community workshops agree to the provision of cycleway, as currently there is no cycleway along the northshore of Hong Kong Island and implementation of the proposed cycleway will have an impetus effect on creating such a facility.

2.5.43 Some participants objected to the provision of cycleway because 2 km is too short to be meaningful. Some participants are concerned about

potential conflict with the pedestrians, and some are concerned that the cycle track will take away the space for pedestrians. Connectivity and safety issues should be carefully studied. The cycle track will be good to have, but it should not adversely affect the implementation of the Boardwalk with the primary function as a pedestrian walkway.

2.5.44 The above scope demonstrates that the public need supports the boardwalk width of 10m, with no reasonable alternative, and could meet the requirement of minimum reclamation. The increase from 7.5m to 10m would remain the minimum of what is required. Additional connection points are proposed to ensure that the Boardwalk can serve its intended purpose, it is axiomatic that reasonable sufficient access points must be provided at regular intervals along the Boardwalk.

2.5.45 Other public views on the Scope of the boardwalk resulting from community workshops are detailed in Community Engagement Reports in **Annex E, L, and N** as follows:

- *The boardwalk will increase people flow, thus help sustain and promote the prosperity of the local economy (eg food and beverage facilities and water-land interface*
- *Viewing platforms*
- *Fishing platform*
- *Cycle rental kiosk*
- *Bicycle parking*
- *Food and beverage kiosks*

Summary of public views on whether the scope of the Boardwalk meets the compelling and present needs of the community

2.5.46 In respect of the responses to the questionnaire, all the proposed Boardwalk components had the support of a clear majority of the public that accepted that these components or facilities would meet the compelling and present needs of the community. The highest level of support, over 80%, came for the core component of the Boardwalk, the pedestrian walkway, while there was significant support (over 70%) for the cycleway, viewing platforms and food and beverage kiosks. Other ancillary components (fishing platform, cycle rental kiosk and bicycle parking) all attracted over 60% support.

- 2.5.47 Even the least supported elements (fishing platform and bicycle parking) had a ratio of 3 to 1 in favour, with strongest support for the pedestrian walkway coming in at a ratio of 11 to 1 in favour.
- 2.5.48 There is thus very clear evidence of public support that the Boardwalk and its constituent components meet the compelling and present needs of the community.
- 2.5.49 Likewise, in most cases the majority of participants in the two community workshops supported the facilities and components of the proposed Boardwalk in the context of meeting the compelling and present needs of the community.
- 2.5.50 Given the public acceptance that the facilities and components of the Boardwalk do meet compelling needs of the community, effort should be made to maximise the public use of the Boardwalk in order to get the greatest benefit from the harbour-front access.

2.6 Planning Assessment of Social Needs

- 2.6.1 A planning assessment has been carried to ascertain the social needs for the Boardwalk. The establishment of benefits and needs for the Boardwalk is mainly in respect of enhancement of the harbour-front and improvement to healthy style of living. A copy of the Planning Assessment Report is attached at **Annex F** for reference.

The Basis of Harbour-front Enhancement Needs

- 2.6.2 It is noted that Government is committed to enhancing the harbour-front for public enjoyment. A number of harbour planning principles and guidelines have already been well-established in this regard. The Town Planning Board's (TPB) Vision and Goals for Victoria Harbour has as its vision statement "to make Victoria Harbour attractive, vibrant, accessible and symbolic of Hong Kong – a harbour for the people and a harbour of life". The Harbourfront Commission (then Harbourfront Enhancement Committee) promulgated the vision and mission of Victoria Harbour and a set of Harbour Planning Principles, supported by Harbour Planning Guidelines, which aim to serve as guidelines for all individuals and organisations to facilitate the sustainable planning, preservation, development and management of Victoria Harbour and its harbour-front areas.

- 2.6.3 While the proposed Boardwalk would mainly utilise the water space underneath the existing IEC, it is important to also take into consideration its surrounding land uses along the North Point waterfront in a holistic manner, particularly in terms of pedestrian connectivity and integration or interface with the existing and planned land uses.

Social Needs for the Boardwalk

Re-connecting the broken linkage between North Point and Quarry Bay

- 2.6.4 At present, the East-West pedestrian connectivity between Fortress Hill/ North Point and Quarry Bay relies solely on the existing major road corridors of Kings Road and Java Road. When looking at the wider context of the harbour-front, the waterspace underneath the IEC presents a rare and unique “opportunity” that could “re-connect” the districts and their communities, by offering a much more pleasant, healthy and enjoyable walking experience that will not only improve the living quality and lifestyle of the residents but also fill in the missing linkage between North Point and Quarry Bay. This demands the urgent provision of a new pedestrian connection that would provide access to the harbour-front, enable continuity of the harbour-front, and allow for opportunities for providing more diverse and interesting facilities and programmes that would attract people to the waterfront.

Meeting Harbour Planning Principles and Guidelines and fulfilling public aspirations for an accessible and continuous waterfront

- 2.6.5 In order to create a harbour-front that meets the needs of the public, and that is able to cater for and balance the aspirations of all sectors of the community, due respect must be paid to the harbour planning principles and guidelines as laid down by the TPB and the Harbourfront Commission (then Harbourfront Enhancement Committee). **Table 2.2** shows a performance matrix comparing the fulfilment of these harbour planning principles and guidelines for the scenario with the proposed Boardwalk underneath the IEC against the existing situation. In the table, “*” represent aspects that are considered undesirable or require further improvement at present, while “√” represent that there will be improvements in better fulfilling relevant harbour planning principles and guidelines. “-” represents there will be no change or no improvements to the fulfilment of relevant harbour planning principles and guidelines with and/or without the proposed Boardwalk.

Table 2.2: Performance Matrix Comparing the Fulfilment of Harbour Planning Principles and Guidelines

	<i>Without Boardwalk</i>	<i>With Boardwalk</i>	Remarks
TPB's Vision and Goals for Victoria Harbour			
<ul style="list-style-type: none"> To bring the people to the Harbour and the Harbour to the people 	*	√	The proposed Boardwalk will solve the current “missing-link” between the North Point and Quarry Bay waterfront, while providing a new pedestrian regime along the waterfront that local residents could easily get to for leisure and exercise. This aspect will therefore be improved with the proposed Boardwalk.
<ul style="list-style-type: none"> To enhance the scenic views of the Harbour and maintain visual access to the Harbourfront 	*	√	The Boardwalk would provide convenient public access to the scenic views of the Harbour currently blocked by the IEC structures from inland viewpoints. Moreover, according to the preliminary Visual Impact Assessment, the propose Boardwalk will not create further adverse visual impact as viewed from surrounding key strategic viewpoints. Therefore, no change under this aspect.
<ul style="list-style-type: none"> To enhance the Harbour as a unique attraction for our people and tourists 	*	√	There are currently no attractions along the section of waterfront between North Point and Quarry Bay underneath the IEC. With the proposed Boardwalk, a new pedestrian realm will be formed along the waterfront for local residents or visitors to exercise or enjoy, which could also serve as a new attraction to the area. This aspect will therefore be improved under “with Boardwalk” scenario.

	<i>Without Boardwalk</i>	<i>With Boardwalk</i>	Remarks
TPB's Vision and Goals for Victoria Harbour			
<ul style="list-style-type: none"> To create a quality Harbourfront through encouraging innovative building design and a variety of tourist, retail, leisure and recreational activities, and providing an integrated network of open space and pedestrian links 	*	√	As mentioned above, the proposed Boardwalk will solve the current “missing-link” between the North Point and Quarry Bay waterfront, enhancing the overall integration of pedestrian linkages within the district and along the waterfront. This aspect will therefore be improved under “with Boardwalk” scenario.
<ul style="list-style-type: none"> To facilitate the improvement of the water quality of the Harbour 	*	√	Provides a means of access for cleaners to remove floating debris in the harbour and/or provide self-cleaning systems such as plastic water bottle nets etc.
<ul style="list-style-type: none"> To maintain a safe and efficient harbour for the transport of people and goods and for the operation of an international hub port 	-	-	Although the headroom for vessels going in/out of the FSD and private piers would be reduced due to the proposed Boardwalk and therefore, affecting the efficiency of transporting activities, major marine transportation of people at the North Point Ferry Piers and goods at the North Point Vehicular Ferry Pier would not be affected by the proposed Boardwalk. Therefore, no significant changes to the marine activities in the vicinity are anticipated.

	<i>Without Boardwalk</i>	<i>With Boardwalk</i>	Remarks
HEC's Harbourfront Planning Principles and Guidelines			
<ul style="list-style-type: none"> Preserving Victoria Harbour - Victoria Harbour must be protected and preserved for Hong Kong people and visitors as a special public asset, a natural and cultural heritage asset, and a driver for the creation of economic and social values. 	-	✓	Although there may be no change or improvement on this aspect under “without Boardwalk” scenario, the proposed Boardwalk would form an integral part of the waterfront promenade along the northern Hong Kong Island that attract local and overseas visitors to the waterfront, and revitalise the local business/ economic opportunities. This aspect is therefore considered improved under “with Boardwalk” scenario.
<ul style="list-style-type: none"> Stakeholder Engagement - All sectors of the community must be engaged at an early stage and on an on-going basis in the planning, development and management of Victoria Harbour and its harbourfront areas through transparent and inclusive consensus building processes. 	-	✓	Although there may be no change or improvement on this aspect under “without Boardwalk” scenario, the public has been well-engaged at different stages of this Assignment with a supportive consensus built on the proposed Boardwalk. This aspect is therefore considered improved under “with Boardwalk” scenario.

	<i>Without Boardwalk</i>	<i>With Boardwalk</i>	Remarks
HEC's Harbourfront Planning Principles and Guidelines			
<ul style="list-style-type: none"> • Sustainable Development - The planning, development and management of Victoria Harbour and its harbourfront areas should embrace the principles of sustainable development to balance and cater for the economic, social and environmental needs of all sectors of the present generation, without compromising the needs of future generations. 	-	√	The congested walking environment and the heavy vehicular traffic along the existing major corridors of King's Road and Java Road have long resulted in congested and polluted environment. The proposed Boardwalk would alleviate stress on the existing road infrastructure to enhance sustainability.
<ul style="list-style-type: none"> • Integrated Planning - Integrated and long-term planning, development and management of infrastructure, land and marine uses, and water quality is essential to ensure the Victoria Harbour and its harbourfront areas support and enhance the economic, environmental and social aspirations of Hong Kong. 	-	√	the waterspace underneath the IEC presents a rare and unique "opportunity" that could "re-connect" the districts and their communities, by offering a much more pleasant, healthy and enjoyable walking experience that will not only improve the living quality and lifestyle of the residents but also fill in the missing linkage between North Point and Quarry Bay

	<i>Without Boardwalk</i>	<i>With Boardwalk</i>	Remarks
HEC's Harbourfront Planning Principles and Guidelines			
<ul style="list-style-type: none"> • Proactive Harbour Enhancement - The planning, development and management of Victoria Harbour must proactively enhance the harbour and its harbourfront areas as Hong Kong's symbol of urban design excellence and Hong Kong's brand identity to the international community. 	-	✓	<p>The three movable bridges, three link bridges connecting Provident Centre / Man Hong Street / Healthy Street East to the Boardwalk provides an iconic structure enhancing waterfront along this part of the northshore of Hong Kong Island.</p> <p>Along the boardwalk, greenery landscape shall further enhance the overall environment of the harbour.</p>
<ul style="list-style-type: none"> • Vibrant Harbour - It is essential to balance the use of the harbour to provide both a maritime and logistics hub for safe and efficient passage of people and goods, and as a cultural and leisure facility. Both marine and land-side activities must cater to and balance with the aspirations of all sectors of the community. 	-	-	<p>There shall be no change or no improvement on this aspect under both scenarios.</p>
<ul style="list-style-type: none"> • Accessible Harbour - Victoria Harbour must integrate with the hinterland in a comprehensive manner, including ample unrestricted and convenient visual and physical access for pedestrians, preferably at grade, to and along the Harbour as well as the harbourfront areas. 	*	✓	<p>As mentioned above, the proposed Boardwalk will solve the current "missing link" between the Causeway Bay and Quarry Bay waterfront, allowing better integration between the waterfront and its hinterland. This aspect is therefore considered improved under "with Boardwalk" scenario.</p>

	<i>Without Boardwalk</i>	<i>With Boardwalk</i>	Remarks
HEC's Harbourfront Planning Principles and Guidelines			
<ul style="list-style-type: none"> Public Enjoyment - The planning, development and management of Victoria Harbour and its harbourfront areas should maximize opportunities for public enjoyment. Land required for and the impact from infrastructure developments, utility installations and land uses incompatible with the harbour planning principles should be minimized. 	*	√	There are currently no attractions along the section of waterfront between Causeway Bay and Quarry Bay underneath the IEC. With the proposed Boardwalk, a new pedestrian regime will be formed along the waterfront for local residents or visitors to exercise or enjoy, which could also serve as a new attraction for public enjoyment. This aspect will therefore be improved under “with Boardwalk” scenario.

2.6.6 As reflected in the table above, the current situation along the North Point harbour-front does not comply with any of the harbour planning principles and guidelines, while the implementation of the proposed Boardwalk underneath the IEC would follow all the relevant harbour planning principles and guidelines. In other words, the introduction of the Boardwalk underneath the IEC would be in line with the harbour planning intentions as set out by both the TPB and the Harbourfront Commission. The timeframe for this is present, in order to correct the existing unacceptable situation.

2.6.7 In a number of public engagements for harbour-front planning, including “Hong Kong Island East Harbourfront Study”, “Harbour-front Enhancement Review - Wan Chai, Causeway and Adjoining Areas” as well as the “Urban Design Study for the Wan Chai North and North Point Harbourfront Areas”, the general public has voiced out their desire to have a continuous harbour-front and be able to use the harbour-front for public enjoyment. The proposed Boardwalk would become a new public facility that will greatly enhance the accessibility and continuity of the waterfront between North Point and Quarry Bay and fully achieve the Harbour Planning Principles on “Accessible Harbour” and “Public Enjoyment”.

A catalyst for further revitalization of the local economy/ businesses

- 2.6.8 The proposed Boardwalk would not only provide a solution to the broken linkage between North Point and Quarry Bay, the future users/ visitors attracted by the Boardwalk will result in more pedestrian movement towards and along the waterfront. The anticipated increase in pedestrians/ visitors would also bring about a positive effect in revitalizing existing local businesses/ shops and eateries, particularly those clustered along the older areas of North Point (Java Road, Marble Road, King’s Road, etc), stimulating the local economy and bringing about social economic benefits.

The Boardwalk as an important facility to encourage “healthy living”

- 2.6.9 As urbanisation and economic growth thrives, unsatisfactory diet and physical activity patterns becomes more commonly evident in Hong Kong’s population. People nowadays are more vulnerable to affluent diets than ever, many also lead sedentary lives. As a result, increasing number of people are becoming overweight and obese, which in turn would experience higher risk of potentially lethal NCDs. With Government determined to promote healthy living in Hong Kong, it is important to ensure adequate facilities and spaces are provided now, for the public to exercise or participate in other leisure activities.
- 2.6.10 Looking at the local context of the North Point area, the congested walking environment and the heavy vehicular traffic along the existing major corridors of King’s Road and Java Road have long resulted in congested, polluted and rather undesirable environment for physical activities and leisure exercises. While existing public transport caters to the daily commuting needs of local residents, there is an obvious need to provide a less-polluted, pleasant and enjoyable environment for local residents to walk, jog, cycle, or other forms of exercise. The proposed Boardwalk would be an important facility to encourage local residents to exercise, providing an impetus to promoting the concept of “healthy lifestyle” within the Island East area.

Enabling better connection and integration with the pocket open spaces along the waterfront

- 2.6.11 While some open spaces are currently available along the waterfront, these open spaces are mostly “pocket open spaces”, that are relatively

small and surrounded by high-rise commercial or residential buildings, and they are currently not well-connected. Users are mostly confined to a single small open space area without being able to enjoy the full spectrum of open space experience offered along the whole waterfront.

- 2.6.12 On one hand, the introduction of the proposed Boardwalk underneath the IEC would provide new activity space for local residents to exercise, walk, jog or cycle. On the other hand, the proposed Boardwalk would also enable better connection and integration of the pocket open spaces along the waterfront by linking them up together and forming a comprehensive network of open spaces. In this way, the pocket open spaces could be activated by the proposed Boardwalk with users freely accessing different parts of the open spaces along the waterfront through a pleasant pedestrianised environment provided by the Boardwalk.

Catchment population and potential future users of the proposed Boardwalk

- 2.6.13 According to the data of 2011 Census, Eastern District houses a total population of about 588,000 in a land area of about 1,856 ha. In terms of population density, Eastern District ranks sixth among 18 districts, and is the most densely populated district of Hong Kong Island. Moreover, North Point is amongst the most densely populated area within Eastern District. According to the Explanatory Statement of the North Point OZP (No. S/H8/24), North Point had a population of about 161,000 in 2006, despite only covering 277 ha of land, which is about 15% of the area of Eastern District.
- 2.6.14 The dense population of North Point, and in a wider perspective, Eastern District, provides a strong justification of the user demand for the proposed Boardwalk, which would definitely relieve the inland area by providing extra open-air activity space. The high population in Eastern District will also provide a critical mass in supporting the proposed Boardwalk in terms of its catchment population.
- 2.6.15 Besides residential population, North Point also accommodates different commercial activities including retail, offices and hotels. Major offices in the area include Convoy, AIA Tower, Fortress Tower, Island Place Tower, K. Wah Centre, 633 King's Road and the North Point Government Offices. The workers in these offices as well as those engaged in the various commercial activities in the area are also the target catchment population as they could use the proposed Boardwalk during

their off-hours such as lunch time or as commuting route to nearby public transport such as North Point Ferry Pier.

2.6.16 As of 2019, there were some 18 hotels in Eastern District, with a total number of about 5,429 hotel rooms. Major hotels near the proposed Boardwalk include City Garden Hotel, Harbour Grand Hong Kong and Harbour Plaza North Point. Guests of these hotels would provide further demand for the proposed Boardwalk, as walking on the Boardwalk along the harbour-front would definitely attract hotel guests to appreciate Victoria Harbour.

2.6.17 Beside the existing catchment population of the proposed Boardwalk which comprises residential population, working population and hotel guests in Eastern District, the proposed Boardwalk could work more than on a local or district level, but on a regional or territorial level. With the implementation of the proposed Boardwalk together with new, interesting and unique harbour-front proposals, people from different districts, ie at a regional or even territorial level, would be attracted to the harbour-front to enjoy the unique experience of the Boardwalk. Therefore, the proposed Boardwalk would attract demand not only by users from Eastern District, but also from the general public from other parts of Hong Kong.

2.6.18 Moreover, the creation of a continuous connection with the Wan Chai North waterfront area to the west and the Quarry Bay Promenade to the east would certainly bring about a synergetic effect among these waterfront areas. A well-designed integration and seamless connection between them would facilitate pedestrian flow freely between these waterfront areas and result in additional patronage on the proposed Boardwalk.

Pedestrian Survey

2.6.19 To substantiate the anticipated demand for the proposed Boardwalk, at least at the local district level, pedestrian volumes at key locations near access points to the proposed Boardwalk were surveyed and pedestrians interviewed at those locations regarding whether they would use the Boardwalk as an alternative route. From the analysis of the survey results, the shift of pedestrian volume from the surveyed locations to the Boardwalk has been estimated, together with potential cyclist demand.

Details of the pedestrian surveys and the findings of the pedestrian and cyclist demand assessment are presented in **Annex G**.

- 2.6.20 From the survey assessment, it has been estimated that there would be a shift of pedestrian flow from hinterland streets to the Boardwalk of up to 3,000 peak hourly flow on weekdays and up to 4,300 peak hourly flow on weekends. The largest shift would occur in the vicinity of Tong Shui Road.
- 2.6.21 The estimated peak cyclist volumes along the Boardwalk would be over 200 per hour on weekdays and over 1200 per hour on weekends.
- 2.6.22 This indicates a substantial local area demand, supporting the need for this harbour-front connection as an environmentally friendly pedestrian (and cycle) alternative to the current hinterland linkages.

Harbourfront Commission Task Force

- 2.6.23 The Task Force on the Harbourfront Developments on Hong Kong Island of Harbourfront Commission⁵ rendered unanimous support to the Boardwalk scheme and urged for early completion of the Boardwalk for public enjoyment of harbour and leisure activities along the harbour.

2.7 Assessment of Economic Needs

- 2.7.1 The economic impacts generated by each economic activity at the Boardwalk development and the Boardwalk itself have been assessed in the Economic Impact Assessment Report at **Annex H**. During the construction phase, the proposed Boardwalk is expected to generate a value added of HKD 80.1 million per year, with over 100 persons employed each year for the construction works. During the operation phase, it is estimated that about HKD 2.3 million to HKD 4.7 million of value added will be generated each year. About 30 to 60 persons will be engaged to support the daily operation of the proposed Boardwalk and economic activities.
- 2.7.2 Apart from direct economic impact, the proposed Boardwalk further contributes to local economy through indirect and induced impacts. Indirect economic impact is generated when the supportive sectors

⁵ Thirty-third Meeting of the Task Force on Harbourfront Developments on Hong Kong Island of Harbourfront Commission on 20 February 2019.

provide goods/services to, and receive a payment from, the firms operating the proposed Boardwalk and facilities. In addition, induced economic impact is also generated when there is spending of incomes by the employees arising from the direct and indirect impact of the proposed Boardwalk and facilities.

- 2.7.3 On the other hand, a large part of the economic impact falls into intangible economic impact. It is expected that introducing a unique waterfront Boardwalk in the Island East would further enhance Hong Kong's image. The proposed Boardwalk will provide the missing link between Causeway Bay and Quarry Bay, integrating Hong Kong's waterfront spaces to form a comprehensive network. It will promote better utilisation of the waterfront, which is the unique and special public asset, and enhance utilisation and efficiency of other infrastructures in the neighbourhood. The Boardwalk will also bring vibrant cultural and art activities to the local community, and provide a pedestrian and bicycle-friendly environment which will ultimately minimise the need for mechanised transport over short distances and help relieve road congestion.
- 2.7.4 As per the findings of Economic Impact Assessment, both tangible and intangible economic impact generated by proposed Boardwalk demonstrated the economic need of the community.

2.8 Assessment of Environmental Needs

- 2.8.1 Adverse air quality, noise, water quality impact from the operation of the proposed Boardwalk is not anticipated.

Assessment on Waste Management

- 2.8.2 Waste types generated by the construction activities are likely to include inert and non-inert Construction & Demolition (C&D) materials from piling, site levelling and structural modification works, general refuse from the workforce and chemical wastes from the maintenance of construction vehicles and equipment. Provided that the identified wastes during construction phase would be handled, transported and disposed of using the recommended methods and that good site practices would be strictly followed, adverse environmental impacts during construction phase are not expected.

- 2.8.3 Minimal quantities of general refuse from littering and maintenance activities on the Boardwalk would be generated during operation phase of the Project, with the proper disposal arrangement, no adverse impact is expected. Sewerage system will be provided along the Boardwalk to collect the limited wastewater generated from the operation of the Boardwalk.

Assessment on Sewerage Impact

- 2.8.4 Small amount of sewage generation is expected from the proposed Boardwalk development. Based on the hydraulic assessment, existing sewers will have sufficient capacity to convey the additional peak sewage flow generated from the development.
- 2.8.5 The proposed development will not cause any adverse sewerage impact within the site and in the adjacent areas during both the construction and operation stages.

Sustainability Considerations

Landscape and Visual Impact Aspect

- 2.8.6 As per the proposed Boardwalk schemes, the space under the IEC will be turned to a functional recreation open space which provides passive recreation to the area for options of Boardwalk. It also provides a new waterfront promenade linking the planned open space north of Oil Street under Central-Wan Chai Bypass and the waterfront open space at Hoi Yu Street with the creation of new activity nodes and pocket open spaces along the waterfront. The Project will enhance and uplift the landscape amenity to the space under the IEC within the North Point Waterfront Residential and North Point Waterfront Urban Fringe Landscape Character Areas. It is considered that the Project will make significantly beneficial changes to the landscape character of the North Point Waterfront. Architectural feature lighting will be proposed along the Boardwalk which will light up the waterbody in the Victoria Harbour at night. The Project would enhance the scenic night view of the Victoria Harbour. It is considered the Project is visually beneficial to the strategic VSRs in Kowloon side. In addition, the project will make visual changes to the sensitive Residential VSRs along the waterfront taken from City Garden and Tong Shui Road Pier. Under the proposed landscape design, existing columns of IEC will be renovated and aesthetically pleasing designed Boardwalk will be provided under the IEC. Landscape areas

connecting to the Boardwalk will also be beautified. It is considered that the Project will enhance the visual conditions of the areas under the IEC and create significantly beneficial changes to the adjacent VSRs who can view the Project from a close distance.

Public Health Aspect

- 2.8.7 In order to further encourage sports, exercise and physical activities in Hong Kong, consideration should be given to further introduce quality exercise spaces, venues and facilities to the community, and ensure these facilities are accessible to the public. To promote healthy living style, when providing exercise spaces or venue and designing the activities to be included in these spaces, consideration should be given to the needs and preferences of different members of the community, including different genders, ages, occupations, etc. Also, in order to ensure the exercise spaces or venues are accessible to the public, they should be well-connected to its surrounding and be able to capture a sizeable catchment area of people in their vicinity. In this connection, the Boardwalk with cycling facilities would also offer a much flexible public facility to encourage exercise and physical activities, without the need to provide much supporting facilities or requiring large, sizeable sites within the already densely developed Eastern District.

2.9 Conclusion on the Need for the Boardwalk

- 2.9.1 The North Point shoreline is the gap in the vision for a continuous and accessible harbour-front, and the Boardwalk is the “Missing Link” that is needed to close this gap between Causeway Bay and Quarry Bay and complete a continuous harbour-front along the northshore of Hong Kong Island, thereby enabling public access to the harbour.
- 2.9.2 The public have expressed a strong demand for continuous public access along the harbour-front. This access is deemed essential in order that the public can enjoy the full benefit of the harbour as a recognised special public asset; indeed, it is considered that the public has a right of access to this harbour-front area according to PHO.
- 2.9.3 Further, there is an equally strong and unequivocal view that there is a compelling and present need for the Boardwalk in order to provide this continuous public access along the harbour-front and increased public space.

- 2.9.4 There is also a strongly held view that the public use of the harbour-front access should be maximised, with a clear majority of the public accepting that the various proposed Boardwalk components (walkway, cycleway, viewing platforms, food and beverage kiosks, etc) would all meet the compelling and present needs of the community.
- 2.9.5 As demonstrated in the planning assessment of social needs, the proposed Boardwalk meets a need for a continuous harbour-front connection and creates a harbour-front that is able to cater for and balance the aspirations of all sectors of the community. The Boardwalk will meet public aspirations for harbour-front enhancement in accordance with the harbour planning principles and guidelines as laid down by the TPB and the Harbourfront Commission. The proposed Boardwalk also meets a need for an important facility to encourage “healthy lifestyle” which is strongly advocated and promoted by Government.
- 2.9.6 Ever since the proposal was raised, it had the general support of the public. The Boardwalk would satisfy public needs, including to enhance accessibility, connectivity and public enjoyment of the harbour-front area of the Victoria Harbour. If it takes a holistic approach to characterize these needs, they are most appropriately considered to be “social needs”.
- 2.9.7 The Harbourfront Commission Task Force are in support of the Boardwalk providing a continuous harbour-front area, which would enable for early public enjoyment of the harbour and leisure activities along the harbour. Insofar as to compress the implementation timetable for early completion.
- 2.9.8 The vast majority of the stakeholders are in support of a continuous harbour-front area, which enable for public enjoyment of the harbour and leisure activities along the harbour. The high degree of support supports that the Boardwalk is not merely something that is “nice to have”, desirable, preferable or beneficial. It is a matter dearly wanted or demanded by the vast majority of the stakeholders. In addition, the public need has first raised more than 10 years ago. Furthermore, the Government had committed previously to commence construction of the Boardwalk in Q2 2018. It is clear that the Boardwalk Project will not commence on time in Q2 2018. It is not a need that is likely to arise in the future. It is already a need that has already arisen. The need is not



only “present” but also overdue. The overwhelming public demand for access to the harbour. The Boardwalk as the means to achieve this harbour-front access, together with the findings of the social, economic and environmental assessments, demonstrate conclusively that **there is a compelling and present need for the Boardwalk.**

3 NO-RECLAMATION OPTIONS

3.1 Introduction

- 3.1.1 The need for the Boardwalk has been established, the next step is to determine any reasonable alternative to reclamation that may meet the overriding need. In other words, can an alignment or form of construction for the Boardwalk be adopted that will obviate the need for reclamation? If there is a feasible “no-reclamation” option, then it should be pursued. Only if the need for reclamation can be demonstrated to be necessary will scenarios involving minimum reclamation be contemplated.
- 3.1.2 An alignment that may not require reclamation would self-evidently be along an inland routing, i.e. along the existing seawall on existing land, if such an alignment can be found that is feasible.
- 3.1.3 The investigation of “no-reclamation” options therefore starts with the identification of constraints along the coastal strip from Oil Street to Hoi Yu Street; then the determination of an alternative Boardwalk/promenade routing along the waterfront through this constrained area. The feasibility of this alternative alignment would then be determined.
- 3.1.4 The investigation then returns to the Boardwalk routing under the IEC, to define and clarify the engineering requirements for reclamation and to examine alternative forms of construction that may minimise reclamation required.
- 3.1.5 Two possible alternative routes have been identified for the Boardwalk: (i) along existing footpaths, and (ii) along the existing seawall, between Oil Street and Hoi Yu Street.
- 3.1.6 A feasible alignment for the Boardwalk underneath the IEC has been identified in the Topical Study and further developed into the Concept Scheme as presented in **Annex D**.
- 3.1.7 The existing inland pedestrian route between Oil Street and Hoi Yu Street has been reviewed. The Working Paper on Preliminary

Assessment of Inland Alignment is attached at **Annex J**. The findings are summarised as follows.

3.2 Option 1: Existing Inland Routing

3.2.1 The existing inland pedestrian route for pedestrians walking from Oil Street at the west to Hoi Yu Street at the east is described below:

- (a) entering City Garden Road through Electric Road and Power Street;
- (b) going eastward along City Garden Road, passing by City Garden;
- (c) turning into Wharf Road in front of Hong Kong Baptist Church Henrietta Secondary School;
- (d) going eastward along Wharf Road, passing by Provident Centre;
- (e) crossing Tong Shui Road and turning north to reach North Point Promenade;
- (f) going eastward along North Point Promenade, passing by North Point Ferry Piers;
- (g) going southward along Tin Chiu Street to enter Java Road;
- (h) going eastward along Java Road, passing by K. Wah Centre, ICAC Building, Kodak House, North Point Fire Station and North Point Government Offices; and
- (i) entering Hoi Yu Street next to the North Point Police Station.

3.2.2 Along the existing inland route above, there are a few locations where the pedestrians might access the waterfront, including:

- The waterfront between Block 6 and 7 of City Garden north of the City Garden Road (length of accessible waterfront is less than 10m)
- Provident Centre north of Wharf Road (length of accessible waterfront is about 300m)
- Tong Shui Road Garden at the eastern end of Wharf Road (length of accessible waterfront is about 30m)
- North Point Promenade between Tong Shui Road and Tin Chiu Street (length of accessible waterfront is about 400m)
- North Point Ferry Concourse Promenade and the adjacent car park north of Java Road (length of accessible waterfront is about 120m)
- Man Hong Street Playground at the waterfront of the ICAC Building northeast of Java Road / Man Hong Street junction (length of accessible waterfront is about 60m)
- Northern end of Healthy Street East north of Java Road (length of accessible waterfront is about 30m).

3.2.3 Except the Provident Centre and North Point Promenade which is a long continuous path with length of about 300m or more, all other accessible waterfront areas are quite short in length, scattered away from the main pedestrian route.

3.3 Option 2: Inland Route along the Waterfront

3.3.1 An alternative inland alignment running along seawall of the waterfront was also studied. The premises without a readily available waterfront promenade provision along the waterfront alignment from west to east are as follows:

- (a) City Garden (private lot);
- (b) Hong Kong Baptist Church Henrietta Secondary School;
- (c) Po Leung Kuk Yu Lee Mo Fan Memorial School;
- (d) K. Wah Centre (private lot);
- (e) Kodak House (private lot);
- (f) North Point Fire Station;
- (g) North Point Government Offices; and
- (h) North Point Pigging Station.

3.3.2 The waterfront alternative inland alignment would not be continuous at Tong Shui Road and Man Hong Street, where there were existing at-grade slip roads connecting the IEC to the inland road network. There was insufficient headroom underneath the IEC for the Boardwalk at the waterfront in the vicinity. Therefore, the alternative alignment would turn south to Wharf Road and Java Road first before crossing Tong Shui Road and Man Hong Street via inland pedestrian crossing respectively.

3.4 Assessment of Inland Alignments

Land resumption

3.4.1 The alternative inland alignment for the Boardwalk would encroach into a number of sites which are currently occupied by private properties, namely City Garden, Provident Centre, K. Wah Centre and Kodak House. In order to vacant sufficient space to accommodate the inland boardwalk, land resumption of part of these private premises would be required.

Conflict with existing buildings

- 3.4.2 The alternative inland alignment of Boardwalk would be in conflict with the following existing building structures:
- (a) Block 6 to Block 10 of City Garden and their podium;
 - (b) podium of K. Wah Centre;
 - (c) North Point Fire Services Married Quarters at North Point Fire Station;
 - (d) podium of North Point Government Offices; and
 - (e) North Point Pigging Station.
- 3.4.3 Demolition and reconstruction of at least part of these buildings would be required to accommodate the alternative inland alignment boardwalk.

Impact on existing piers

- 3.4.4 Apart from the above, the alternative inland alignment of Boardwalk should minimise the interference with the operation of the following existing piers:
- (a) North Point Vehicular Ferry Pier;
 - (b) private pier of K. Wah Centre;
 - (c) private pier of Kodak House; and
 - (d) North Point (FSD) Pier.
- 3.4.5 In order to maintain the functioning of these piers, modification at the crossing interfaces would be required. Agreement with the pier owners/operators on operation, management and maintenance responsibilities would be required on the detailed interface arrangements.

Inland Route Assessment Findings

- 3.4.6 The review of the existing pedestrian route from Oil Street to Hoi Yu Street revealed that the current accessibility to the waterfront is very limited and scattered at various locations. The only exception is the North Point Promenade which would be a continuous path of about 400m long along the seawall between Tong Shui Road and Tin Chiu Street.
- 3.4.7 Along most of the existing waterfront, the alternative inland alignment for the Boardwalk would encroach into private lots, with existing residential and commercial developments, as well as Government, institution or community premises including schools and offices. Thus

an inland promenade option would face severe challenges, some of which were considered insurmountable. The consequent land resumption costs and the costs of demolition and reconstruction of numerous buildings would be unreasonable and out of proportion. It would also take an excessively long time (if it can be done at all) to resolve the land resumption issues, followed by another lengthy period of time for the affected building redevelopment, in achieving the development of a waterfront inland alignment. And even then, this waterfront inland alignment would not be continuous due to the discontinuity at Tong Shui Road and Man Hong Street.

- 3.4.8 In view mainly of the implications related to land resumption and the need for demolition of buildings, it is considered that there is no reasonable alternative inland alignment that would effectively secure continuous access along the waterfront. Even though the PHO implications would be a major concern, construction of the Boardwalk underneath the IEC is the feasible option which brings the least impacts, with minimal reclamation.

3.5 Conclusion on “No-Reclamation” Options

- 3.5.1 Alternative alignments for the Boardwalk have been examined, taking into account existing and planned land use, engineering constraints, with a view to determining if there are any options that do not require any reclamation for the Boardwalk, i.e. “no-reclamation” option.
- 3.5.2 An alternative Boardwalk inland alignment that would avoid reclamation is found to be not feasible due mainly to the existence of numerous private, Government, institution or community premises and the IEC itself; it is considered that there is no reasonable alternative inland alignment that would effectively secure continuous access along the waterfront.
- 3.5.3 Alternative structural schemes with the proposed Boardwalk structure to be supported by existing seawall and IEC viaduct substructures have been explored in **Annex K**. It is found that some of the piles/substructures were structurally inadequate to cater for extra loading from the proposed Boardwalk. Some new piled structures, which are regarded as reclamation, are required. Therefore, no feasible alternative engineering schemes with “no-reclamation” was found.



3.5.4 Consequently, it is concluded that **there is no feasible “no-reclamation” option for the Boardwalk**, and it must be accepted that at least some reclamation (arising from the new IEC protection dolphins and piled structures) would be required to support the Boardwalk.

4 REVIEW OF BOARDWALK FEASIBLE SCHEMES

4.1 Introduction

- 4.1.1 Schemes were developed for the 3-stage community engagement under the Investigation Study. In Stage 1 Community Engagement, a 7.5m wide Boardwalk with continue cycle track is proposed. The 7.5m wide Boardwalk deck consists of a 3.5m wide footpath and a 4m wide cycle track. It connects the future open space north of Oil Street in North Point to the waterfront promenade at Hoi Yu Street in Quarry Bay. Access points are provided at Tong Shui Road Pier and Tin Chiu Street for access from the hinterland to allow people to enjoy the harbour-front.
- 4.1.2 In Stage 2 Community Engagement, a 10m wide Boardwalk scheme is proposed to meet the public aspirations revealed from Stage 1 Community Engagement. The 10m wide Boardwalk deck consists of a 5m wide footpath, a 1m wide sitting/landscape area and a 4m wide cycle track. The alignment and longitudinal profile of the Boardwalk remain the same as in previous proposal in Stage 1 Community Engagement. Separately, an additional access point was proposed at Provident Centre.
- 4.1.3 During the Stage 2 Community Engagement, there were concerns on the under-utilization of the space underneath the existing IEC structure and the need of cycleway, as well as the reclamation extent of the schemes presented in Stage 2 Community Engagement and the implication on PHO. In response, a revised Boardwalk scheme of generally 10m wide with most of the alignment practically located underneath the footprint of the existing IEC structure was developed.
- 4.1.4 In Stage 3 Community Engagement, the Boardwalk scheme proposed would maintain a general width of 10m throughout, providing pocket spaces which would allow various social and recreational activities. About 1.3km of the Boardwalk would be put entirely or partially underneath the existing IEC structure. The remaining 400m long Boardwalk would be built entirely outside the footprint of the IEC. Three additional access points were introduced, which are located outside Provident Centre, Man Hong Street and Healthy Street East.

4.2 Boardwalk Alignment Variations

- 4.2.1 The alignment and longitudinal profile of the Boardwalk proposal in Stage 2 Community Engagement remain the same as Stage 1 Community Engagement.
- 4.2.2 The Boardwalk deck runs at low level (+5.5mPD) from future open space of Oil Street to Tong Shui Road Pier and merge with the proposed promenade at ex-North Point Estate. Another section of Boardwalk deck ramps up from the proposed promenade at ex-North Point Estate to +9.2mPD in order to connect to the upper deck of North Point Vehicular Ferry Pier to minimize decking directly over water and maintain the operation of the pier. Appropriate risk assessment has been carried out to confirm the risk at the pier is acceptable. The deck then further raises to +12.5mPD to maintain the marine access of K. Wah Pier, piers at Kodak House and North Point FSD Pier. The deck gradually ramps down to low level (+5.5mPD) and connects to the existing promenade at Hoi Yu Street in Quarry Bay.
- 4.2.3 In order to respond the concerns as stated in Section 4.1, a revised Boardwalk scheme was developed and presented during Stage 3 Community Engagement. The alignment of the revised Boardwalk scheme is as follows:
- (a) In addition to the connection point proposed at Provident Centre in Stage 2 Community Engagement, 2 more additional connections are proposed at Man Hong Street and Healthy Street East to enhance the connectivity and accessibility between the Boardwalk and hinterland. The location of the 3 connection points has been carefully selected to connect with public roads or garden. Spacing of the connection points are less than 500m apart at regular intervals along the Boardwalk as means of escape in case of emergency.
 - (b) From existing IEC Pier F1a to Pier F4, due to inadequate headroom and supported by the existing dolphin structure, the Boardwalk will be located outside of the footprint of IEC in order to allow minimum 2.7m headroom of the Boardwalk;
 - (c) Beyond IEC Pier F4, the minimum 2.7m headroom can be achieved underneath footprint of existing IEC structure. Therefore, the alignment of Boardwalk will run along the mainline of IEC between

existing piers from Pier F5 to Pier F14. The Boardwalk structure will be supported by existing piled foundations of IEC. The width of this section will be generally 10m, and the Boardwalk will be maintained at +5.5mPD. Extra piled foundations are required between Pier F9 and F10 and at the proposed link bridge connecting to Provident Centre for supporting the movable bridges for accessing the inner harbour to facilitate regular maintenance and emergency rescue operations.

- (d) Due to insufficient horizontal clearance between existing piers along IEC and inadequate headroom under Slip Road C of IEC, at Tong Shui Road, the Boardwalk will be supported on the existing protection dolphin structures along the northern edge of Slip Road C of IEC, from IEC Piers 49 to 58. The proposed Boardwalk will be aligned outside the footprint of IEC and supported by protection dolphin structures. To compensate for the reduction of structural capacity of existing dolphin structural capacity to provide adequate ship collision protection to IEC, re-provisioning of protection dolphin structures are required. Beyond IEC Pier 59, the Boardwalk will be connected with the approach deck of the Tong Shui Road Pier, and will then run along the proposed promenade on existing land at ex-North Point Estate site.
- (e) From the eastern end of the proposed promenade at ex-North Point Estate site, the Boardwalk will run underneath the IEC structure, ramping up to the upper deck of the North Point Vehicular Ferry Pier at +9.2mPD to avoid decking directly over water and maintain the operation of pier, and then pass under Slip Road E of IEC at +7.9mPD. The Boardwalk will then ramp up to +9.0mPD at Pier 95 and provide a minimum 4.7m charted vertical clearance above Highest Astronomical Tide (HAT)⁶ at North Point (FSD) Pier for FSD vessels to access into the inner pier.
- (f) Beyond IEC Pier 96, the proposed Boardwalk will then ramp down to connect with the existing promenade at +5.5mPD at Hoi Yu Street in Quarry Bay.

4.3 Alternative Boardwalk Designs

⁶ The Highest Astronomical Tide at Quarry Bay/North Point is +2.78mCD or +2.64mPD.

- 4.3.1 The revised Boardwalk scheme in Stage 3 Community Engagement has taken into account the relevant design criteria. According to the findings from the pedestrian survey, a 3.5m wide walkway should be provided in order to achieve a minimum level of service C along the proposed Boardwalk. The proposed walkway width can accommodate for pedestrian volume of 80-100 pedestrians per minutes and comply with the requirements shown on HKPSG Table 9 of Chapter 8 and TPDM Vol. 2 Table 3.4.11.1. According to HKPSG Table 10 of Chapter 8 and TPDM Vol. 2 Table 3.8.3.1, a desirable width of 4.0m two-way cycle track should be allowed. In this connection, the minimum width of proposed Boardwalk with cycling facilities should be 7.5m.
- 4.3.2 To maximise the utilization of the space underneath the existing IEC structure, the Boardwalk deck structure would be widened to maximise public enjoyment. Subject to the structural capacity of the existing IEC substructures, the Boardwalk would be widened to generally 10m underneath the IEC footprint. Taking into account the maintenance clearance required and the residue clearance between the existing IEC piers, a wider deck structure would embrace the existing IEC columns so as to integrate the walkway and cycle track separated apart by the IEC columns. Street furniture or landscape features would be provided along the Boardwalk for leisure and recreational uses.
- 4.3.3 Overall, the revised Boardwalk scheme in Stage 3 Community Engagement minimizes the adverse impact to the harbour and promotes a minimal design idea. It aims to create a light and thin structure. Taking into account the structural capacities of existing IEC substructures, lightweight materials, such as steel, would be adopted.

4.4 Boardwalk Facilities

- 4.4.1 With reference to the major feedback from Stage 1 Community Engagement, in addition to being a pedestrian walkway as the core component of the Boardwalk, the facilities proposed to be provided under the Boardwalk scheme, namely the cycle track, cycle rental kiosks, bicycle parking, viewing platforms, seating, food & beverage kiosks and fishing platform, are primarily welcomed as meeting the needs of the community.
- 4.4.2 Where appropriate, artworks on panels would be used to decorate the concrete columns of the existing IEC Structure. Besides, static graphics

or animations could be projected to the IEC structure by lighting installations to provide a brighter and more interactive environment for Boardwalk users.

4.5 Reclamation in the form of New Piled Structures

4.5.1 The Boardwalk underneath IEC will not require any land to be formed by filling the sea with soil (the more commonly perceived notion of ‘reclamation’). However, there will be some new piled structures which are regarded as reclamation in the context of the PHO.

4.5.2 The 7.5m wide Boardwalk scheme in Stage 1 Community Engagement requires reclamation of ten new piled structures which involves total reclamation area of approximately 300m².

4.5.3 The 10m wide Boardwalk scheme in Stage 2 Community Engagement requires sixteen piled structures for the Boardwalk and one piled structure for the link bridge to Provident Centre. They involve total reclamation area of approximately 510m².

4.5.4 The 10m wide Boardwalk scheme in Stage 3 Community Engagement would also involve new piled structures. The exact total reclamation area will be worked out when the scheme is finalized during the Design of Boardwalk. (see Section 6)

4.6 Decked Area above the Sea

4.6.1 The Boardwalk deck structures would cross over the sea. The decked area for the proposed Boardwalk above the sea is the total planar area of the whole Boardwalk in the harbour, excluding existing foundations, deck structures, protection dolphin structures and other associated structures. The decked area may be overlapped with the IEC footprint at different height level above sea (ranging from +4.0mPD to + 12.5mPD).

4.6.2 The Decked Area above the Sea for the Boardwalk scheme in Stage 1 Community Engagement is about 13,250m² in total, including 10,000 m² outside IEC footprint.

4.6.3 The Decked Area above the Sea for the Boardwalk scheme in Stage 2 Community Engagement is about 17,500m² in total, including 14,300 m² outside IEC footprint.

4.6.4 The Boardwalk Scheme in Stage 3 Community Engagement will be refined and finalized for detailed design and construction. The exact total Decked Area will be worked out when the scheme is finalized during the Design of Boardwalk. (see Section 6)

4.7 Affected Area of the Harbour

4.7.1 The Boardwalk deck structures would cross over the sea. They would not physically affect the seabed or the water area of the harbour, however they may restrict access to the water beneath them and to the water area between the deck structures and the existing shoreline. The Affected Area of the Harbour has implications under the PHO.

4.7.2 The Affected Area of the Harbour for 7.5m wide Boardwalk scheme in Stage 1 Community Engagement is about 43,000 m² in total.

4.7.3 The Affected Area of the Harbour for 10m wide Boardwalk scheme in Stage 2 Community Engagement is about 40,500 m² in total.

4.7.4 The 10m wide Boardwalk Scheme in Stage 3 Community Engagement will be refined and finalized for detailed design and construction. The exact total Affected Area of the Harbour will be worked out when the scheme is finalized during the Design of Boardwalk. (see Section 6)

4.8 Conclusion of the Review of Feasible Schemes

4.8.1 Taking into account the feedback from various stages of community engagement exercises and relevant stakeholders, the revised Boardwalk Scheme in the Stage 3 Community Engagement is recommended as the Preferred Scheme under the Investigation Study to meet the overriding public need. The exact length of the proposed Boardwalk would be about 1.7 km. Its western section would run from Oil Street to Tong Shui Road, while its eastern section would run from Tin Chiu Street to Hoi Yu Street. These two portions would be connected by a 400 m long and 20 m wide promenade fronting the Ex-North Point Estate.

4.8.2 During the Design of Boardwalk, an Enhanced Boardwalk Scheme will be developed by refining the Preferred Scheme according to the comments and views received during the Stage 3 Community Engagement. The enhanced scheme will be discussed in Section 6.

5 PUBLIC VIEWS

5.1 Public Engagement Activities of the Investigation Study

- 5.1.1 The Investigation Study had engaged a wide spectrum of stakeholders, including the Task Force on Harbourfront Developments on Hong Kong Island (TFHK) of Harbourfront Commission (HC), the Planning, Works and Housing Committee of the Eastern District Council (EDC), academics and professional institutes, green groups, cyclist groups, animal concern groups, road safety concern groups and harbour concern groups, as well as local residents.
- 5.1.2 Background information of the project and preliminary Boardwalk designs were disseminated to the public and stakeholders via project website, Facebook page, community engagement digests and pamphlet, etc. The public and stakeholders were also invited to provide their comments and opinions via the project hotline, email, fax and mail throughout the Investigation Study.
- 5.1.3 During the Stage 1 Community Engagement from 1 February to 31 March 2016, various activities including roving exhibitions, questionnaire survey, focus group meetings and community workshops cum site visits were carried out. A questionnaire survey was conducted on the website, as well as during the roving exhibitions and the various engagement activities and 1306 completed questionnaires were received. A copy of the Stage 1 Community Engagement Report is attached at **Annex E** for reference.
- 5.1.4 Stage 2 Community Engagement was carried out from 29 November 2016 to 28 January 2017. Findings from Stage 1 Community Engagement were presented. A focus group meeting and community forums were also held. A copy of the Stage 2 Community Engagement Report is attached at **Annex L** for reference.
- 5.1.5 Stage 3 Community Engagement was from 25 February 2019 to 24 April 2019. The Latest Scheme of the Boardwalk was presented, which had balanced different views received during Stage 2 Community Engagement for building consensus on the alignment of the Latest Scheme. A focus group meeting and community forums were also held. A copy of the Stage 3 Community Engagement Report is attached at **Annex N** for reference.

5.1.6 The community engagement activities carried out under the Investigation Study are summarised as follows.

Table 5.1: Summary of the community engagement activities

Date	Activities
Stage 1 Community Engagement Activities	
1 Feb 2016	Stage 1 Community Engagement Kick-off Start of roving exhibition and questionnaire survey
1 Feb 2016 to 24 Mar 2016	Roving Exhibitions
1 Feb 2016	Consultation with the Planning, Works and Housing Committee of EDC
17 Feb 2016	1st Focus Group Meeting (academic and professional institutions)
21 Feb 2016	1st Community Workshop cum Site Visit
25 Feb 2016	2nd Focus Group Meeting (concern groups: green groups, cyclist groups and harbour concern groups)
29 Feb 2016	Consultation with the Task Force on Harbourfront Developments on Hong Kong Island of Harbourfront Commission
2 Mar 2016	Briefing Session for local residents
5 Mar 2016	2nd Community Workshop cum Site Visit
30 Mar 2016	Harbourfront Commission boat trip site visit for the proposed boardwalk under IEC
30 Mar 2016	Briefing Session for local residents
31 Mar 2016	Completion of Stage 1 Community Engagement
Stage 2 Community Engagement Activities	
19 Oct 2016	Consultation with the Task Force on Harbourfront Developments on Hong Kong Island of HC
29 Nov 2016	Stage 2 Community Engagement Kick-off
29 Nov 2016	Consultation with the Planning, Works and Housing Committee of EDC
15 Dec 2016	Focus Group Meeting (academic and professional institutions and concern groups)
17 Dec 2016	1st Community Forum
14 Jan 2017	2nd Community Forum
28 Jan 2017	Completion of Stage 2 Community Engagement

Date	Activities
Stage 3 Community Engagement Activities	
19 Feb 2019	Consultation with the Planning, Works and Housing Committee of EDC
20 Feb 2019	Consultation with HKTF
25 Feb 2019	Stage 3 Community Engagement Kick-off
2 Mar 2019	1st Community Forum
5 Mar 2019	Focus Group Meeting for Professional Institutions, Academia, Green Groups and Cyclist Group
9 Mar 2019	2nd Community Forum
24 Apr 2019	Completion of Stage 3 Community Engagement

5.2 Public Views on the Boardwalk Schemes

Summary on Public Views collected from Stage 1 Community Engagement

- 5.2.1 It is recognised that the harbour-front from North Point to Quarry Bay is currently occupied by private lots, roads, utilities, jetties as well as the IEC, which have created both a physical and visual barrier to the harbour along the Island East harbourfront. There is strong public support for a continuous harbour-front in the area concerned in order to enable public enjoyment of the harbour. The public generally agree that there is a compelling and present need for the Boardwalk in order to open up the North Point harbourfront to the public and provide a continuous connection along the Island East harbourfront.
- 5.2.2 It is generally accepted that there is a public need to provide easy access to the waterfront from the hinterland in this area. There are also views that more access points to the Boardwalk should be provided to encourage patronage. The Boardwalk would serve to increase public right of access to the harbour-front and also provide a better walking environment to and along the harbour-front.
- 5.2.3 There were views that a Boardwalk of 7.5m as proposed would not be sufficient to meet the public need for a safe and interesting harbour-front connection. The public demanded for a wider Boardwalk in order for

their needs to be satisfied and to ensure proper and conflict-free enjoyment of the harbour by all user groups including both pedestrians and cyclists.

- 5.2.4 It is generally agreed that the Boardwalk would encourage residents of the local community to adopt a healthy lifestyle by walking on the Boardwalk or to making use of the ancillary facilities provided. In addition, most agree that the Boardwalk would introduce new possible leisure activities to the Eastern District and also bring about creative uses of the space, including event organization, art display and even light installations. It could enhance positive social interactions among patrons.
- 5.2.5 The majority agrees that the Boardwalk would increase pedestrian flow and hence bring in local business opportunities. Some propose to put on street performances and holiday markets on the Boardwalk for vibrancy of our harbour-front areas.
- 5.2.6 There were also views that more landscaping and greening features could be incorporated to improve the visual quality and landscaping character of the harbour-front in this area.
- 5.2.7 In addition to being a pedestrian walkway as the core component of the Boardwalk, the facilities proposed to be provided under the Boardwalk scheme, namely the cycle track, cycle rental kiosks, bicycle parking, viewing platforms, seating, food & beverage kiosks and fishing platform, were primarily welcomed as meeting the needs of the community.

Summary on Public Views collected from Stage 2 Community Engagement

- 5.2.8 The vast majority of the stakeholders were in support for a continuous harbour-front area, which enable for public enjoyment of the harbour and leisure activities along the harbour.
- 5.2.9 Some participants queried about the under-utilization of the space underneath the existing IEC structure and the need of cycleway. They expressed their reservation about the extent of the scheme presented in Stage 2 Community Engagement and the impact to the harbour. They opined that the proposed Boardwalk should be placed directly underneath the IEC superstructure as far as possible.

- 5.2.10 In terms of the design, it was generally accepted that a design theme of simplicity and naturalistic was more preferable. The refined proposal of 10 meters wide Boardwalk was an improvement from previous scheme, yet some participants requested for an even wider Boardwalk. Another participant considered that the spaces underneath the IEC should be better exploited in a dense city with a high demand for space, which not only revitalize a “left-over” area under the IEC, but also provide climate protection from rain or sunlight. The majority of the participants in the focus group meeting agreed that the concept of shared use of public spaces should be promoted to allow wider variety of activities and enhance vibrancy at the harbour-front.
- 5.2.11 The activity nodes proposed at Oil Street, Tong Shui Road Pier, North Point Vehicular Ferry Pier and Hoi Yu Street were welcomed by the participants. The water playground, fishing platform and refreshment kiosks along the Boardwalk were generally supported. Other facilities recommended by the participants in the focus group meeting include vending machine, drinking fountains, rain shelter, toilets and swimming facilities.
- 5.2.12 Regarding the connectivity of the Boardwalk, it was generally agreed to enhance the connectivity of the Boardwalk with the hinterland and hoped the Boardwalk to extend further east and west to create a continuous waterfront promenade.
- 5.2.13 There was a general view to restrict the opening hours for the Boardwalk to avoid nuisance to the residents in close proximity. Some others suggested opening a portion of the Boardwalk for 24 hours access. There were diverse views on activities and events allowed within the Boardwalk, some supported to allow diversified functions including weekend markets, performances, gathering and other group activities, while others wanted the Boardwalk to be static. Participants in the focus group meeting also expressed their reservation about designated area for specific uses; they considered that the public should freely enjoy the space available for various activities.
- 5.2.14 There were diverse views on the cycling activities within the Boardwalk; some encouraged sharing space with cyclists while others worried about the safety especially at the parts of the Boardwalk with ramp. While some stakeholders generally supported the provision of cycle track on

the Boardwalk, some participants in the focus group meeting doubted the need for a cycle track.

- 5.2.15 Some anglers suggested flexible fishing spots over a designated fishing platform.
- 5.2.16 There were diverse views on allowing pets to enter the Boardwalk, many considered pets as part of their community and therefore pets should be allowed in, while some thought that the Boardwalk should be people-oriented. Regarding the construction and implementation of the Boardwalk, participants had queries on the cost, schedule and safety concern. Most of them requested early implementation of the project.
- 5.2.17 It was generally agreed that there was an overriding public need to have this Boardwalk. Some participants in the focus group meeting expressed concern over the widened Boardwalk proposed in the Stage 2 Community Engagement might not satisfy the requirements of PHO.

Summary on Public Views collected from Stage 3 Community Engagement

- 5.2.18 The vast majority of the stakeholders were in support of the proposed Boardwalk and urged for its early implementation. In general, stakeholders supported the current alignment of the proposed Boardwalk with a general width of 10m between Oil Street and Hoi Yu Street. The stakeholders also supported the provision of more access points along the proposed Boardwalk.
- 5.2.19 It was generally accepted that a design theme of simplicity was more preferable. It was also recommended to include more green, water-friendly and artistic design to improve the ambience of the proposed Boardwalk. Some stakeholders were concerned about the width of some sections of the proposed Boardwalk due to the presence of the IEC footings, as well as the design of the possible barriers/shelters and lighting of the proposed Boardwalk. Design concepts incorporating the use of renewable energy were suggested for achieving the goal of sustainable development.
- 5.2.20 Regarding the selection of material for the construction of the proposed Boardwalk, it was suggested that permeable, quick-drying, anti-skid and

easy maintenance materials should be used. Testing should be conducted to ensure the safety and comfort of different users.

- 5.2.21 Stakeholders had diverse views on cycling activities within the proposed Boardwalk; some encouraged shared use by pedestrians and cyclists while others were worried about the potential risk of collision and asked for separate cycle track. There was concern on level differences which might have safety issues on cyclists and elderly. In general, members of some professional institutes and cyclist groups supported the concept of shared use of the proposed Boardwalk between pedestrians and cyclists. In addition, some were concerned that the provision of a single cycle rental kiosk would be inconvenient to residents, and proposed more rental kiosks at the access points.
- 5.2.22 Some stakeholders supported allowing pets on the proposed Boardwalk and to provide pet-friendly area. Supporting facilities should be provided to ensure hygiene.
- 5.2.23 Some stakeholders supported the provision of a fishing platform while some suggested allowing flexible fishing spots along the proposed Boardwalk. It was proposed to provide more viewing platforms and to move them towards the harbour for a better view. However, there was concern on the capacity of the viewing platforms in accommodating crowd during special occasions.
- 5.2.24 Stakeholders generally supported the provision of more open space for more diverse activities, such as Tai Chi, dancing, water sport activities etc, on the proposed Boardwalk to enable the boardwalk to meet the needs of the public and be energetic and vibrant. The provision of viewing platform, fishing platform and refreshment kiosks along the proposed Boardwalk were generally supported. Other facilities recommended by stakeholders include rain shelters, toilets, wash basins, drinkers, jogging track and pontoon for the berthing of small pleasure boats.
- 5.2.25 Some stakeholders were concerned that the proposed Boardwalk might be slippery with insufficient lighting as it would be located underneath IEC. Residents were concerned that criminals might intrude into nearby private housing estate through the proposed Boardwalk. Some stakeholders expressed concerned that the proposed Boardwalk would be affected by extreme weather.

- 5.2.26 It was generally agreed that the Boardwalk could enhance connectivity between the harbour-front and its hinterland and hoped the proposed Boardwalk would be connected to other harbour-front area in the northern shore of Hong Kong Island under a holistic and comprehensive plan and management. In this connection, some stakeholders urged for more access points especially for the section between Oil Street and Tong Shui Road.
- 5.2.27 Some stakeholders were concerned about the air quality problem, dripping and splashing of rainwater from IEC, and noise nuisance to nearby resident by boardwalk users. Some stakeholders also urged to alleviate existing odour problem in the harbour-front.
- 5.2.28 Generally, the public supported the Latest Scheme and alignment of the proposed Boardwalk and considered that the implementation programme of the proposed Boardwalk should be accelerated. While noting there was overriding public need of the Boardwalk, they were worried about potential legal challenge to the Boardwalk under PHO.
- 5.2.29 Some stakeholders were concerned about the luminance of the section of the proposed Boardwalk underneath IEC, the provision of safety facilities, and requested for additional provision of coach parking spaces.
- 5.2.30 Some stakeholders expressed their concerns in the aesthetic design, the greening proposal, the accessibility, the gradient and marine impact of the proposed Boardwalk.

5.3 Conclusion Drawn from the Public Engagement

- 5.3.1 Through the three-stage community engagement exercise, comments and concerns from the public and relevant stakeholders are collated. Public views collected have assisted to establish an overriding public need of the proposed Boardwalk as required under the PHO. The comments and opinions received have been discussed in Section 2.5 and 5.2. The comments on the design and facilities have been carefully studied and reviewed for the formulation of the Latest Scheme for public discussion and comment.
- 5.3.2 It is generally accepted that there is a compelling and present need to provide easy access to the waterfront from the hinterland of North Point.

- 5.3.3 In addition to being a pedestrian walkway as the core component of the Boardwalk, other facilities proposed to be provided under the Boardwalk scheme, namely the cycle track, cycle rental kiosks, bicycle parking, viewing platforms, seating, food & beverage kiosks and fishing platform, were primarily welcomed as meeting the needs of the community.
- 5.3.4 The activity nodes proposed at Oil Street, Tong Shui Road Pier, North Point Vehicular Ferry Pier and Hoi Yu Street were welcomed by the participants. The water playground, fishing platform and refreshment kiosks along the Boardwalk were generally supported. Other facilities recommended by the stakeholders include vending machine, drinking fountains, rain shelter, toilets and swimming facilities.
- 5.3.5 More access points to the Boardwalk should be provided to enhance the connectivity of the Boardwalk with the hinterland.
- 5.3.6 A sufficiently wide Boardwalk should be provided to ensure proper and conflict-free enjoyment of the harbour by all user groups including both pedestrians and cyclists.
- 5.3.7 More landscaping and greening features should be incorporated to improve the visual quality and landscaping character of the harbour-front in the area.
- 5.3.8 Some stakeholders opined that the proposed Boardwalk should be placed directly underneath the IEC superstructure as far as possible so as to minimise the impact to the harbour.

6 ENHANCED BOARDWALK SCHEME

6.1 Enhanced Boardwalk Scheme

6.1.1 During the Design of Boardwalk, the preferred Boardwalk scheme presented in Stage 3 Community Engagement, is refined and finalized, with due consideration to minimum adverse impact to the harbour and maximum public enjoyment of the harbour, for detailed design and construction.

6.2 Boardwalk Scheme Engineering Details

6.2.1 The engineering layout of the enhanced Boardwalk scheme is presented in **Annex M**. Various refinements have been made in response to public feedbacks and, for completeness, the overall Boardwalk scheme are described briefly below.

Overall Boardwalk Layout

6.2.2 The Boardwalk is proposed to link up the planned open space north of Oil Street in North Point and the existing Quarry Bay Promenade at Hoi Yu Street. It would connect the at-grade access points at Provident Centre, Tong Shui Road, Man Hong Street, Healthy Street East and the North Point Promenade.

Horizontal Alignment and Vertical Profile

6.2.3 Horizontal Alignment of the Boardwalk generally follows the same alignment of the Preferred Boardwalk Scheme as presented during Stage 3 Community Engagement, which is discussed in Section 4.2.3. Vertical profile of the Boardwalk between Oil Street and Tong Shui Road follows the same profile of the Preferred Boardwalk Scheme in general with minor adjustments on the landing points at Oil Street and Tong Shui Road to match with the future East Coast Park and the North Point Promenade.

6.2.4 The width of the Boardwalk is in general 10m for all sections underneath and outside the footprint of IEC. In view of the demand for shared use facility for promenade, the Boardwalk is divided into a leisure zone and a shared zone. The leisure zone is intended for pedestrian only with a

minimum width of 4m. The 4m width is necessary for a 2m wide pedestrian pathway and 2m wide benches. The shared zone is a street furniture free zone for co-use of pedestrian, cyclists and pets on a leash with a desirable width and an absolute minimum width of 6m and 5m respectively. The 6m wide shared zone is necessary for a 4m wide two-way cycle path and a 2m wide pedestrian pathway. It is not recommended to reduce the width of Boardwalk from 10m in order to avoid creation of bottleneck or safety concerns under special occasions, such as firework displays.

- 6.2.5 During the Design of Boardwalk, taking into account the views and comments received from the community engagement exercises, the Preferred Boardwalk Scheme was refined and enhancements have been proposed to the “Enhanced Scheme”, which are discussed in the following subsections.
- 6.2.6 Reducing the gradient and lowering the level of the Boardwalk to a more barrier free and water-friendly promenade - The vertical profile between the North Point Vehicular Ferry Pier (NPVFP) and North Point FSD Pier has been lowered from a higher level to +5.5mPD. This enhancement however will restrict the marine access to the inner water in the vicinity of K. Wah Pier. In order to maintain the marine access, an additional movable bridge will be provided at this location as shown in **Annex M** Drawing No. 91640/D/GL/0002. The existing privately owned Kodak Pier is also required to be demolished to avoid conflicting with the proposed Boardwalk deck and to provide a marine passage for manoeuvring by vessels. The gradient of the Boardwalk is reduced to 3% in general with an exception of 5% from the North Point Promenade to the upper deck of the North Point Vehicular Ferry Pier.
- 6.2.7 Increasing the number of viewing decks from four to six for public enjoyment of the harbour view - The connection between the viewing deck and the Boardwalk has also been enhanced with connecting points from two ends in a flare shape for a better pedestrian circulation.
- 6.2.8 Enhancing the design of the fishing platform for better pedestrian circulation and seating arrangement – At present, the Tong Shui Road Pier is a popular location for fishing and seating out. Limited number of benches at the Tong Shui Road Pier is unable to cater for the demand from the locals. A 3.5m wide linkage is proposed for its connection with

the Boardwalk to provide a better pedestrian circulation. In addition, the fishing platform has been enlarged to provide adequate seating places.

- 6.2.9 Lowering the level of the link bridges for a more barrier-free access and to promote an elderly-friendly experience - Although the maximum gradient limit allowed for a barrier-free access is 8%, the Enhanced Scheme has adopted a lower gradient of 5% achieving a more barrier-free access to promote elderly-friendly experience to the Boardwalk. As a result, Link Bridge No. 3 will be lengthened but with a gentler slope.
- 6.2.10 Extending the access point at Hoi Yu Street to connect with the Quarry Bay Promenade - The Boardwalk is extended at Hoi Yu Street to provide a 10m wide continuous Boardwalk to link up the existing Quarry Bay Promenade.

Boardwalk Structural Option

- 6.2.11 To minimize the extent of reclamation, the proposed Boardwalk structure will be generally supported by existing piled foundations and protection dolphin structures of IEC. However, new piled structures would be required if the capacity of existing structures were found to be inadequate to cater for extra loading from proposed Boardwalk, movable bridges and link bridges. Those new piled structures will be considered as reclamation in the context of the PHO.
- 6.2.12 Taking into account the structural capacities of existing piled foundations and crossheads along the existing IEC, lightweight material is considered to minimize overall dead weight of the deck structure. Steel deck options is developed with the consideration given to the need for architectural and landscape enhancement measures. In order to maintain marine access to the inner harbour area, 3 movable bridges are allowed at strategic locations for emergency rescue and maintenance. Additional piled foundations are required for the movable bridges to support the counterweights, mechanical parts and machinery.
- 6.2.13 A number of steel girders, e.g. hot rolled universal beams, would be adopted as the main structural members to carry the concrete deck slab, live load and other superimposed dead load above. Transverse steel bracing composed of angle/channel members would be applied to provide the lateral rigidity for the deck complex. Cladding panels would be installed outside to soften appearance of the bridge deck. Steel

columns would be adopted as pier support system transferring loads from superstructure to the foundation.

6.3 Reprovisioning of Affected IEC Protection Dolphin Structures

- 6.3.1 Portion of proposed Boardwalk is aligned above the existing protection dolphin structures of IEC, making use the existing protection dolphin structures to serve as the foundation of the Boardwalk. In order to minimize the required reclamation caused by new protection dolphin structures, a structural review was conducted to check whether the existing protection dolphin structure has sufficient load-carrying capacity to support the proposed Boardwalk and sustain the original ship impact load.
- 6.3.2 According to the detailed assessment result, several existing protection dolphin structures have insufficient spare load-carrying capacity to support the proposed 10m wide IEC Boardwalk while sustaining their original design load. Additional protection dolphin structures are therefore proposed to be constructed adjacent to these existing protection dolphin structures to share the design load.
- 6.3.3 For the existing protection dolphin structures that are able to sustain the proposed 10m wide Boardwalk as well as their original design load, no modification of the existing structures is required.
- 6.3.4 Additional piled foundations will be also required to support the proposed movable bridges and link bridges connecting proposed Boardwalk to Provident Centre, Man Hong Street and Healthy Street East.
- 6.3.5 For the existing piled foundations of IEC that are able to sustain the proposed Boardwalk as well as their original design load, no modification of the existing structures is required.

6.4 Boardwalk Scheme Aesthetic Design Proposals

Physical Linkages

- 6.4.1 A smooth linkage is proposed to link up the Boardwalk at grade by careful design and selection of materials. Proposed open space acts as the buffer zone at the beginning, in the middle and at the end of the

Boardwalk from Oil Street to Hoi Yu Street in which the landscape design strategically blurs the boundary between the Boardwalk and the inland. This treatment provides smooth transition areas for pedestrian walking to and from the inland. The Boardwalk runs along the waterfront from Oil Street to Hoi Yu Street and physically links to the existing facilities and buildings so as to improve the connectivity and accessibility.

- 6.4.2 The orientation of the Boardwalk aims to add new and better physical linkages to the existing waterfront facilities along the seashore from Oil Street to Hoi Yu Street. This new public space will allow visitors to engage much more closely with the water. The Boardwalk physically links to Tong Shui Road Pier in which an expanded part of Boardwalk area introduces an activity node for different activities. A canopy providing shelter space will be added to the Tong Shui Road Pier. The North Point Ferry Pier is connected to the 20m wide waterfront promenade of the North Point Promenade between Tong Shui Road and Tin Chiu Street, providing a better waterfront area for pedestrians and passengers. The Boardwalk connects to the upper deck of the North Point Vehicular Ferry Pier, which is one of the proposed Activity Node. The pier is proposed to be connected to the existing North Point Vehicular Playground to further improve the accessibility to the community. The Boardwalk ends at Hoi Yu Street with facilities including bicycle renting, water playground, public toilets as well as food and beverage.

The Recommended Aesthetic Design Theme

- 6.4.3 The design minimizes the exposure of structure and encourages a minimal design idea. It aims to create a light and thin structure. Street furniture provides various facilities, such as benches, recycling bins, display panels, etc.

Hard Landscape for Boardwalk Modules

Size

- 6.4.4 The typical modules of the Boardwalk are set to be 25m in length which is the general distance between two existing pier structures. Also, 25m is a suitable length for different facilities to happen on the Boardwalk. There are 3 types of Boardwalk typical modules, including (i) a 6m wide shared-zone at +5.95mPD and a 4m wide leisure zone at +5.2mPD; (ii) a 5m wide shared-zone at +5.95 mPD and a 5m leisure zone at +5.2mPD;

and (iii) a 6m wide shared-zone and 4m wide leisure zone, both at the same level, allowing variations in every 25m.

Benches/ facilities

- 6.4.5 Preliminarily, there will be leisure zone and shared zone with separation space in between for multi-purposes benches in the conceptual design. With different combinations of various modules, a serpentine and undulating middle section on the boardwalk is created. This site-specific concept for benches and facilities will elevate design quality and reinforce zone character. It not only segregates space for pedestrians only (leisure zone) and all users (shared zone) but also serves as seating, planters, recycling bins, art works display, etc. Materials for benches are terrazzo which is durable, waterproof, sustainable and has high aesthetic value

Signage

- 6.4.6 Signage are incorporated at specific locations, both painting on floor and in standing form, ensure safety at some corner areas and lead directions to activities nodes.

Lighting

- 6.4.7 The lighting design would take into account the dark environment underneath the existing IEC creating the atmosphere for various occasions.

Shelters

- 6.4.8 Shelters (1.5m wide) are proposed on Type 3 Boardwalk module. Considering different sun angles at different seasons and at different times in a day, shelters are designed to make sure maximum area of shadow casts on the seating areas while allow sufficient sunlight onto the Boardwalk. The patterns of shadow casts on the floor would be considered when designing the shelters.

Glass Floor

- 6.4.9 Glass floor/ panel will be provided at a high level section of the boardwalk for the public to get closer to the harbour and to enjoy this exciting see through experience

Hard Landscape Proposals for Activities Nodes

Node 1 – Oil Street

- 6.4.10 The Boardwalk will be connected to the future waterfront open space north of Oil Street in North Point. Comprehensive harbour-front enhancement proposals are being studied under the "Urban Design Study for the Wan Chai North and North Point Harbourfront Areas" (UDS), commissioned by the Planning Department in 2015. Pocket garden, seating area, children's play area and cycle track are proposed at the future waterfront open space. The connection design between the open space and the Boardwalk would create a smooth transition and a natural separation of cycle track and walkway.

Node 2 – Tong Shui Road Pier

- 6.4.11 The Tong Shui Road Pier is a vibrant area and is an attractive place for fishing lovers. A new fishing platform is proposed as an extension from the eastern edge of the Boardwalk, which offers a buffering area at the junction to avoid congestion between pier users and Boardwalk users. Public art was also suggested as a highlight to the Boardwalk journey. The existing pier structure will be kept with upgraded shelter, additional sitting area, refined floor surfaces and railing to match the overall design language at the node. Besides, the pier can also serve as a boarding point for water taxi services. The space could be a multi-purpose activity space which benefits from the sunlight and rain protection under the IEC.

Node 3 – North Point Vehicular Ferry Pier

- 6.4.12 The design intention of the enhancement proposal is to revitalize the existing North Point Vehicular Ferry Pier by the Boardwalk. The Boardwalk passes through the upper deck of the pier, which could be used as an outdoor multi-purpose activity space for performances, exhibitions, events, etc. The hard and soft landscape on the deck is designed to enhance the amenity value of the existing pier and help its integration with the nearby open space to create an area promoting healthy living. The existing ramp leading to the upper deck of the pier connects the Boardwalk to the surrounding recreational facilities. Also, a new lift and staircase are proposed to connect the upper deck of the pier to the nearby developing open space in which supporting facilities such as food and beverage kiosks are proposed.

Node 4 – Hoi Yu Street

- 6.4.13 The node at Hoi Yu Street serves as an entrance on the eastern end of the Boardwalk. The access point is designed to ensure smooth pedestrian flows from various directions. Cycle rental kiosk, public toilet, and food and beverage kiosk are suggested. To highlight the access to the Boardwalk, public artworks in different formats such as sculptures, art walls, floor patterns and light projections are introduced to make the node an artistic and attractive entrance. To vitalize the space underneath the IEC, a water playground was also proposed here.

Design Enhancement for the Space underneath IEC structures

- 6.4.14 Where appropriate, artworks on panels would be used to decorate the concrete columns of the existing IEC structure. By changing the artworks, we can create different ambience to make different sections of the Boardwalk more interesting. Besides, static graphics or animations could be projected to the IEC structure by lighting installations to provide a brighter and more interactive environment for Boardwalk users.

Soft Landscape for Boardwalk

- 6.4.15 The planting strips and zones with different planting materials which soften the visual impact of the whole structure are provided as a combination element with the bench to enhance amenity value. The soft landscape materials are carefully selected. Plants which are tough and adaptable to the coastal environment are proposed to provide visual interests along the Boardwalk.
- 6.4.16 The general landscape design approach is to provide a distinctive landscape treatment to the Boardwalk which creates its own identity while providing seamless design transitions to the adjacent existing waterfront areas. In terms of the soft landscape, different texture and colour plantings are provided to embed with the feature bench to maximize the greening opportunities.
- 6.4.17 In order to maximize greening opportunities, climber species such as *Lonicera japonica* is introduced to the shelter to soften visual impact.
- 6.4.18 Clean low level of shrub and groundcover planting are provided to match with the Geometric shape of the paving design and planter arrangement.

Some spaces are underneath the IEC, planting materials with shade tolerance would be selected.

- 6.4.19 In the eastern gateway of the Boardwalk, soft landscape materials are made reference to the Greening Master Plan of Eastern District, Royal Palm is proposed as the theme tree of this area. Other lower level of planting cluster will be planted to create a leisure and pleasant environment for the both the neighbourhood residents and the visitor. As part of the areas are under the IEC, allocation of species are in conjunction with their shade tolerance at respective areas

6.5 Connectivity and Access Proposals

- 6.5.1 The Boardwalk will connect the future open space north of Oil Street in North Point to the waterfront promenade at Hoi Yu Street in Quarry Bay.
- 6.5.2 The site is mainly bounded by a mixture of medium-rise residential development and commercial uses at the south and southwest area as well as government, institutions or community premises at the east.
- 6.5.3 Access points to the Boardwalk will be provided at 8 access points, namely Oil Street, Provident Centre, Tong Shui Road, Tin Chiu Street, North Point Vehicular Ferry Pier, Man Hong Street, Healthy Street East and Hoi Yu Street for access.
- 6.5.4 The open spaces in the vicinity of the Boardwalk are relatively isolated. Some access points are connected to open spaces, creating smooth transition areas from inland to the Boardwalk. These open spaces house different activities that expand the potential of this project to not just a pedestrian walkway. The Boardwalk enables better connection and integration of these open spaces to form a comprehensive open space network.

6.6 Summary of Reclamation Requirements of the Enhanced Boardwalk Scheme

- 6.6.1 The Boardwalk scheme has been proposed with the minimum reclamation necessary to meet the overriding public need for reclamation, in conformance with the PHO.

- 6.6.2 Reclaimed land will be the decked area of the Enhanced Scheme including 23 new piled structures required to support the two movable bridges, one movable link bridge and two link bridges connecting Provident Centre / Man Hong Street / Healthy Street East to the Boardwalk. There would be 8 new protection dolphin structures to support the Boardwalk and/or to provide ship impact protection to existing IEC structures. There would be 5 new piled structures supporting the fishing platform. Moreover, there would be 53 new piled structures to support the Boardwalk as the existing IEC foundations have insufficient load-carrying capacity.
- 6.6.3 The Decked Area above the Sea for the Enhanced Boardwalk Scheme under the Design of Boardwalk is about 27,300 m² in total, including 6,600 m² outside IEC footprint.
- 6.6.4 Apart from reclamation, the accessibility of existing water area would also be affected by the proposed Boardwalk through being covered by the new deck above or being enclosed by the low level Boardwalk. The Affected Area of the Harbour for the Enhanced Boardwalk Scheme under the detailed design assignment is about 41,500 m² in total.
- 6.6.5 This area of reclamation is examined in more detail in the following section to ensure that it is the minimum necessary for the implementation of the Boardwalk scheme with reclamation requirements that have now been more clearly defined.

7 MINIMUM RECLAMATION

7.1 Introduction

7.1.1 In this section, the area of reclamation is defined more accurately, based on the Boardwalk alignment and configuration that have now been established in more detail, IEC protection dolphin structures reprovisioning details arising from more detailed engineering design, and on the more clearly established Boardwalk facility requirements, as described in Section 6 above. The resulting reclamation will then be the minimum required by the overriding public need for the Boardwalk, in compliance with the CFA ruling on the PHO.

7.1.2 Relevant considerations in deciding whether extent of reclamations is the minimum required include (i) width of the Boardwalk; (ii) area taken up by new protection dolphin structures and new piled structures in the sea; (iii) decked area directly/not directly underneath IEC superstructures above the sea; and (iv) size of affected water area that restricts marine access to the shoreline.

7.2 Width of Boardwalk

7.2.1 The Boardwalk is designed to be placed over the sea and forms a surface that allows for certain land activities (such as walking, jogging or cycling). The width of Boardwalk will affect the reclamation area since it will be regarded as “land”. The width of the Boardwalk will also affect the required additional protection dolphins and pile structures to support the Boardwalk. The width of the Boardwalk should be determined whether the extent of the reclamation would not be more than the minimum required to satisfy the overriding public needs.

7.2.2 As mentioned in Section 5, the width of the Boardwalk varying from 5m to 10m was explored through studies and public engagement activities, it is concluded that a 10m wide Boardwalk is necessary to meet the public need for a safe and conflict-free harbourfront connection for public enjoyment of the harbour.

7.2.3 The width of the Boardwalk of 10m is reviewed during the Design of Boardwalk. In view of the demand for shared use facility for promenade, the Boardwalk is divided into a leisure zone and a shared zone. The

leisure zone is for pedestrians only with a minimum width of 4m. The 4m width is necessary for 2m wide pedestrian pathway and 2m wide benches. The shared zone is a street furniture free zone for co-use of pedestrian, bicycle and pet on a leash with a desirable width and an absolute minimum width of 6m and 5m respectively. The 6m wide shared zone is necessary for a 4m wide two-way cycle path and a 2m wide pedestrian pathway. The 10m wide Boardwalk is required to satisfy different needs for all users of the Boardwalk. The width of Boardwalk should not be further reduced from 10m in order to avoid creation of bottleneck or safety concerns under special occasions, such as firework displays.

7.3 New Protection Dolphin Structures and New Pile Structures

- 7.3.1 The proposed Boardwalk would utilise the existing piled foundations and protection dolphin structures of IEC for structural support so as to minimize new reclamation in the form of piled structures. A detailed structural assessment on the loading capacity of the existing IEC structures has been conducted to determine the additional numbers of new protection dolphin structures and new piles structures required to support the Boardwalk, movable bridges and link bridges. The structural analysis is presented in **Annex O** “Report on Impact Assessment on Existing Structures”.
- 7.3.2 Based on the engineering assessment, IEC piled foundations and protection dolphin structures generally have sufficient load-carrying capacity to sustain the load from proposed Boardwalk and their original design load, including the ship impact effect.
- 7.3.3 Owing to the presence of the proposed Boardwalk at low level, the accessibility to the waterfront by vessels would be blocked. In view of the request from government departments for maintaining marine access to the inner water for rescue operation and maintenance, movable bridges will be provided at strategic location of Boardwalk. New piled foundations are required for the movable bridges to support the counterweights, mechanical components and machinery.
- 7.3.4 Considerations have also been given to the number of connection points (or link bridges) which will affect the number of additional piled structures supporting them. As discussed in Section 4.2.3, to meet the public request for more access points along the Boardwalk, 3 connection

points have been proposed to connect with public roads or open space. Spacing of the connection points are less than 500m apart at regular intervals along the Boardwalk as means of escape in case of emergency.

- 7.3.5 For the enhanced 10m wide Boardwalk scheme, 23 new piled structures will be required to support the two movable bridges, one movable link bridge and two link bridges connecting Provident Centre / Man Hong Street / Healthy Street East to the Boardwalk. There would be 8 new protection dolphin structures to support the Boardwalk and/or to provide ship impact protection to existing IEC structures. There would be 5 new piled structures supporting the fishing platform. Moreover, there would be 53 new piled structures to support the Boardwalk as the existing IEC foundations have insufficient load-carrying capacity. The above new piled structures and protection dolphin structures will result in an area about 640m² which are regarded as reclamation in the context of the PHO. On the other hand, there will be reprovisioned of 11 affected existing protection dolphin structures at their original locations to suit the construction of the Boardwalk. These reprovisioned protection dolphin structures would be in the same size as their original structures, so it would not contribute to any reclamation.

7.4 Decked Area

- 7.4.1 The total area of the decked area is largely depended on the width of the Boardwalk which is discussed in Section 7.2 above.
- 7.4.2 Other consideration should also be given to the decked area directly / not directly underneath IEC superstructures above the sea. In order to minimize the number of new protection dolphin structures and new piles structures required to support the Boardwalk, the Boardwalk is located directly underneath the IEC wherever possible. Locations such as the connection points and link bridges have obvious reasons to be outside of the IEC footprint. Other locations with insufficient headroom and horizontal clearance: including connection at Oil Street, Tong Shui Road Pier / Slip Road C, Slip Road E, Slip Road G, and connection at Hoi Yu, The Boardwalk will be situated outside the IEC.
- 7.4.3 The Decked Area above the Sea for the Enhanced Boardwalk Scheme under the Design of Boardwalk is about 27,300 m² in total, including 6,600 m² outside IEC footprint.

7.5 Affected Water Area

7.5.1 The affected water area is the area of the harbour between the outer part of Boardwalk structures and the existing shoreline, where harbour/marine access will be restricted by the low level Boardwalk. The Affected Area of the Harbour for the Enhanced Boardwalk Scheme under the detailed design assignment is about 41,500 m² in total.

7.5.2 Three movable bridges have been allowed at strategic locations for emergency rescue and maintenance of the inner harbour area adjacent to existing seawall.

7.6 Conclusion on Minimum Reclamation Requirements

7.6.1 For the reclamation area under the Boardwalk schemes in stage 1, stage 2 and Design of Boardwalk is summarized in the following table:

Table 7.1: Summary of Reclamation Area

Scheme	Width of Boardwalk (m)	Reclamation in form of new protection dolphin structures, new piled structures and footings (m ²)	Decked area for proposed Boardwalk above the sea (m ²)	Decked area underneath IEC footprint (m ²)	Decked area outside IEC footprint (m ²)	Affected water area ⁷ (m ²)
CE1 Scheme	7.5	300	13,250 ⁸	3,250 ⁸	10,200 ⁸	43,000
CE2 Scheme	10	510	17,500 ⁸	3,200 ⁸	14,300 ⁸	40,500

⁷ “Affected water area”, is the area of the harbour between the boardwalk structures and the existing shoreline, where harbour/marine uses would be restricted. This is not regarded as reclamation area.

⁸ The definition of “Decked area above the sea” stated in CE1 and CE2 is the area on plan of the elevated boardwalk structures that cross over the water.

Enhanced Scheme during Design of Boardwalk	10	640 ⁹	27,300	20,700	6,600	41,500
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- 7.6.2 For the Enhanced Scheme, the width of the Boardwalk is in general 10m for all sections underneath and outside the footprint of IEC. In view of the demand for shared use facility for promenade, the Boardwalk is divided into leisure zone and shared zone. The 10m wide Boardwalk is the minimum required to satisfy different needs for all users of the Boardwalk. Hence, while the width of 10m is not the minimum when it is compared with the width of the CE1 scheme, it is the minimum required by the overriding public need for the Boardwalk.
- 7.6.3 The decked area is largely depended on the width of the Boardwalk. Majority of the decked area of the Enhanced Scheme is located directly underneath IEC superstructure wherever possible. Location with insufficient headroom and horizontal clearance will inevitably be situated out the IEC footprint. The decked area underneath the IEC structure of the Enhanced Scheme is therefore the maximum when compared with the same of the CE1 and CE2 schemes. The total decked area of the Enhanced Scheme, which is determined by the minimum width and the preferred alignment of the Boardwalk, is the minimum required for the overriding public need for the Boardwalk, though it is not the minimum when it is compared with those of the CE1 and CE2 schemes.
- 7.6.4 New piled foundations / protection dolphin structures will be required to support the proposed Boardwalk, movable bridges and link bridges, and these additional piled foundations / protection dolphin structures are regarded as reclamation under the PHO. The required new piled foundations / protection dolphin structures of the Enhanced Scheme, which are determined from the engineering assessments based on the minimum width, preferred alignment and design level of the Boardwalk, are the minimum required by the overriding public need for the

⁹ There are 11 existing protection dolphin structures to be reprovisioned at their original locations to suit the construction of the Boardwalk. These reprovisioned protection dolphin structures would be in the same size as their original structures, so it would not contribute to any reclamation.

Boardwalk, though they are not the minimum when they are compared with those of the CE1 and CE2 schemes.

- 7.6.5 Apart from reclamation, the accessibility of existing water area would also be affected by the proposed Boardwalk through being covered by the new deck above or being enclosed by the low level Boardwalk. The affected water area of the Enhanced Scheme, which is determined based on the minimum width and the preferred alignment of the Boardwalk, is the minimum required by the overriding public need for the Boardwalk, though it is not the minimum when it is compared with those of the CE1 and CE2 schemes.
- 7.6.6 In order to facilitate the provision of proposed Boardwalk to meet the overriding public need, the proposed extent of reclamation of the Enhanced Scheme is considered as essential and minimum.

8 CONCLUSION

8.1 Compelling and Present Need for the Boardwalk

- 8.1.1 Throughout various stages of Community Engagement carried out under the Investigation Study, implications of the PHO as per different proposed Boardwalk schemes were thoroughly discussed. Public needs and support were documented and had demonstrated that the continuous linkage in the form of the proposed Boardwalk underneath the IEC meets a compelling and present need.
- 8.1.2 Ever since the proposal was raised, it had the overwhelming support of the general public. The Boardwalk would satisfy public needs, including enhancing accessibility, connectivity and public enjoyment of the harbour-front area of the Victoria Harbour.
- 8.1.3 As revealed from the community engagement exercises, the vast majority of the stakeholders envisions a continuous harbour-front promenade, which enables public enjoyment of the harbour and leisure activities along the harbour-front. The high degree of support demonstrates that the Boardwalk is not merely something that is “nice to have”, desirable, preferable or beneficial. It is a matter dearly wanted or demanded by the vast majority of the stakeholders. In addition, the public need was first raised more than 10 years ago and the need has sustained since then. Furthermore, the Government had previously committed to commence construction of the Boardwalk in Q2 2018 to meet the prevailing public need. Although the Boardwalk Project had not actually commenced as scheduled for various reasons, it is obvious that the project is to meet a “present” need, which is overdue, rather than a need to arise in the future. There is absolutely no doubt an overwhelming public demand for direct and free access to one of Hong Kong’s most valuable assets, the Victoria Harbour. The Boardwalk project will go a long way to meet this public need.
- 8.1.4 In the thirty-third meeting of the Harbourfront Commission Task Force on Harbourfront Development on Hong Kong Island, convened on 20 February 2019, the proposed Boardwalk scheme was unanimously supported by all the members, including representatives from Friends of the Earth (HK) Charity Ltd., Society for Protection of the Harbour, Business Environment Council, The Conservancy Association, Real

Estate Developers Association of Hong Kong, various professional institutions and other stakeholders.

- 8.1.5 It is expected that introducing a unique waterfront Boardwalk in the Island East would further enhance Hong Kong's image. The proposed Boardwalk will provide the missing link between Causeway Bay and Quarry Bay, integrating Hong Kong's waterfront spaces to form a comprehensive network. It will promote better utilisation of the waterfront, which is the unique and special public asset, and enhance utilisation and efficiency of other infrastructures in the neighbourhood. The Boardwalk will also bring vibrant cultural and art activities to the local community, and provide a pedestrian, pet-friendly and bicycle-friendly environment which will ultimately minimise the need for mechanised transport over short distances and help promote physical exercises and relieve road congestion.

8.2 The Need for Reclamation

- 8.2.1 Apart from the seafront at the ex-North Point Estate site, which will become the new North Point Promenade, and the waterfront promenade at Provident Centre, there is barely any publicly accessible waterfront for the public between the planned waterfront park north of Oil Street in North Point and the promenade at Hoi Yu Street in Quarry Bay.
- 8.2.2 As per the actual site condition, much of the land abutting the waterfront lies in private hands. The consequent cost (economic implications: the unreasonable additional cost required to provide the continuous access along the waterfront) and length of time (social implications: the delay in meeting the need for the continuous access along the harbour-front) in acquiring this land and associated marine rights for redevelopment would be significant. Thus an "inland" promenade option would face many challenges, some of which might be insurmountable. It is also likely that it would take many years (if it can be done at all) to resolve all land issues and to acquire the extent of private land required to achieve the development of a continuous waterfront for public access and enjoyment.
- 8.2.3 The Boardwalk underneath the IEC is therefore considered the most feasible means by which continuous public access along the North Point harbourfront can be achieved. There is thus no viable "no-reclamation" option. No other reasonable feasible alternatives to implement the

Boardwalk underneath the IEC that do not require any reclamation could be identified.

8.3 Minimum Reclamation Required to Meet the Overriding Public Need

- 8.3.1 Given that an inland alignment was found to be infeasible and the pertaining physical, structural and operational constraints, there is no viable “no-reclamation” option to allow a continuous public access along the North Point harbourfront. A feasible continuous route under the existing IEC that require the minimum amount of reclamation has been identified.
- 8.3.2 The proposed Boardwalk would utilise the existing piled foundations and protection dolphin structures of IEC for structural support so as to minimize new reclamation in the form of piled structures. Based on engineering assessment, existing piled foundations and protection dolphin structures generally have sufficient load-carrying capacity to sustain the load from the proposed Boardwalk and their original design load, including the ship impact load.
- 8.3.3 For the enhanced 10m wide Boardwalk scheme, 23 new piled structures will be required to support the two movable bridges, one movable link bridge and two link bridges connecting Provident Centre / Man Hong Street / Healthy Street East to the Boardwalk. There would be 8 new protection dolphin structures to support the Boardwalk and/or to provide ship impact protection to existing IEC structures. There would be 5 new piled structures supporting the fishing platform. Moreover, there would be 53 new piled structures to support the Boardwalk as the existing IEC foundations have insufficient load-carrying capacity. The above new piled structures and protection dolphin structures will result in an area about 640m² which are regarded as reclamation in the context of the PHO. On the other hand, there will be reprovisioned of 11 affected existing protection dolphin structures at their original locations to suit the construction of the Boardwalk. These reprovisioned dolphin structures would be in the same size as their original structures, so it would not contribute to any reclamation.

8.4 Compliance with the Overriding Public Need Test

The CCM has demonstrated that there is a compelling and present need for the Boardwalk to enhance accessibility, connectivity and public enjoyment of the harbourfront area of the Victoria Harbour. There is no feasible “no-reclamation” option to allow for a continuous public access along the North Point harbourfront. The Enhanced Scheme, which is developed from the Latest Scheme in the CE3, has considered the views and comments of various stakeholders and engineering requirements. The extent of reclamation involved is considered no more than required by the overriding public need. The Overriding Public Need test is hence considered to have been met.