

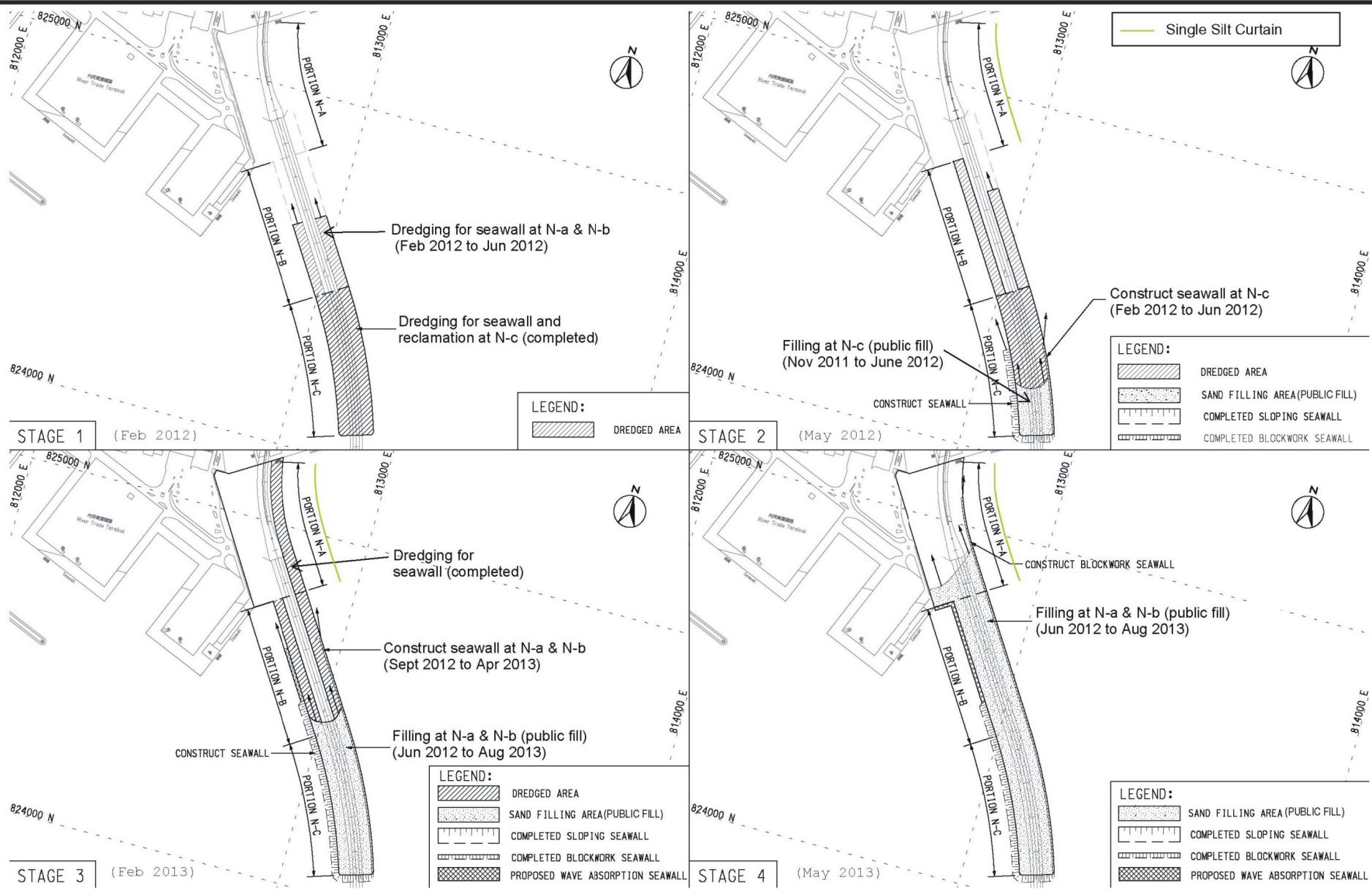
1. **ORIGINAL CONSTRUCTION SEQUENCE PRESENTED IN THE APPROVED EIA REPORT**

The original construction sequence of the northern landfall reclamation of the Project is illustrated in *Figure 3* of the EP-354/2009A and is attached to this Notification ("the original sequence"). Descriptions of the construction sequence are also provided in *Section 3.2* of the approved EIA Report and are briefly summarised below.

Accordingly to the approved EIA Report, reclamation is required at the northern landfall for the construction of the Project in order to provide a land area for construction of the launching shaft for the tunnel boring machine (TBM) and ultimately, protection to the tunnel structure when constructed. The reclamation size is approximately 16.5 ha of land area when calculated to the cope line or 21.1 ha for the footprint area to the bottom of the seawall where it intersects the seabed.

It is assumed in the approved EIA Report that the construction of Portion N-c, the portion of reclamation adjacent to the TBM launching shaft, is critical to the overall programme as the TBM is planned to be launched from the northern reclamation southward (please refer to *Figure 3* of the EP-354/2009A). As such, land is required to be formed earlier for the construction and operation of the launching shaft, as well as for the stockpile of tunnel lining segments, a slurry treatment plant to treat the extracted alluvium arising from the tunnel construction so that it would then be suitable as public fill and other operations. In the approved EIA Report and the EP condition, it is thus assumed that reclamation will commence at Portion N-c, followed by reclamation at Portions N-b and N-a.

It should be noted that the rationale of adopting the original sequence is entirely based on construction programme consideration rather than any environmental implications.



Project Title: Tuen Mun - Chek Lap Kok Link
工程項目名稱: 屯門至赤鱸角連接路

Construction Sequence of Northern Landfall
北接點施工程序

(Plan originated from Figure 9a of Appendix D6a of Approved EIA Report reference no.: AEIAR-146/2009)
 (圖則源自已批准的環境影響評估報告編號AEIAR-146/2009 附件D6a 圖 9a)



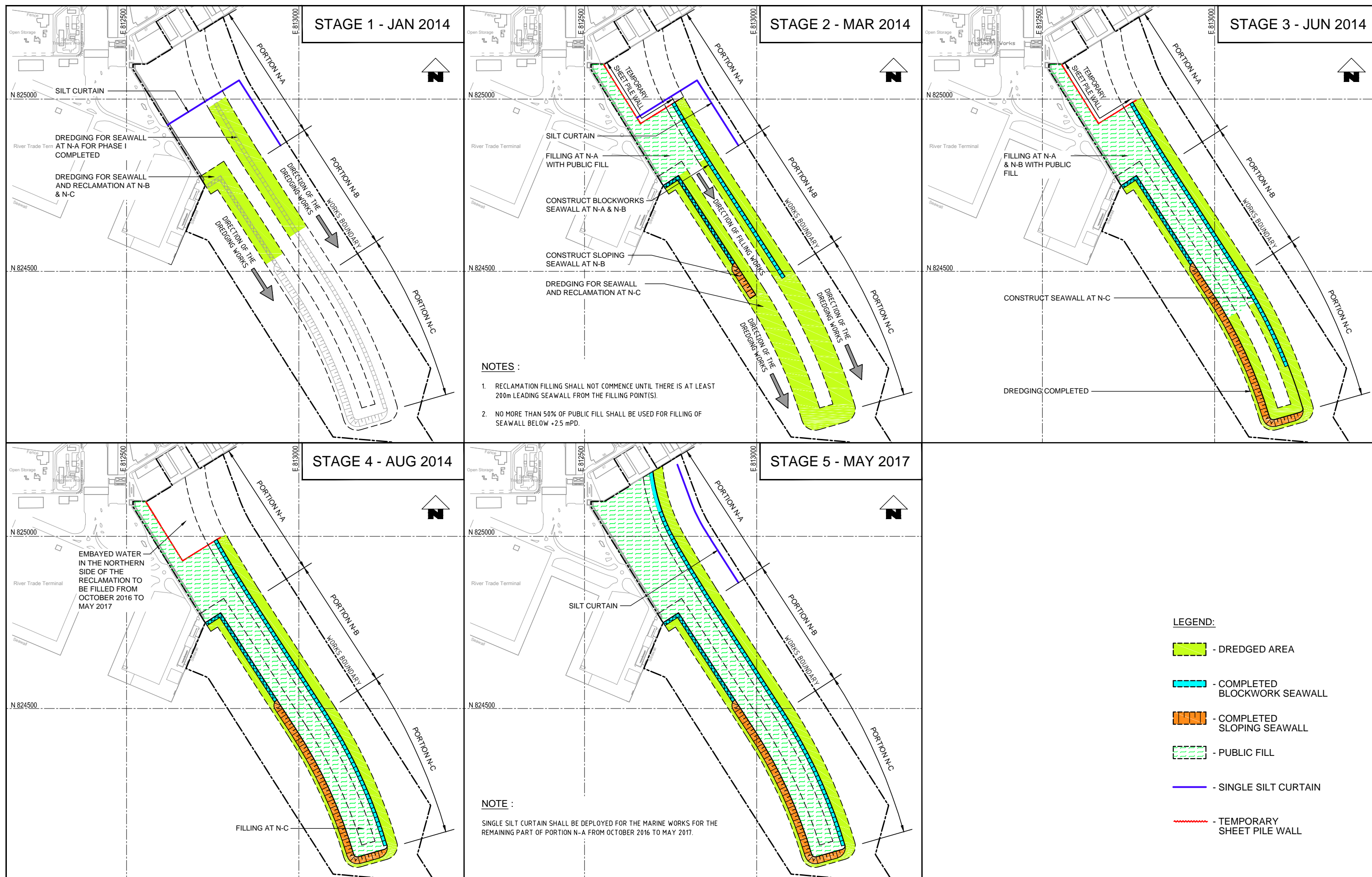
LATEST CONSTRUCTION SEQUENCE

During the detailed design phase of the Contract, the latest development of the tunnels' design requires Portion N-a of the reclamation to be ready first in order to reduce the construction risks. The latest construction sequence is presented in *Figure 1*. Under the latest sequence, it is proposed to commence reclamation at Portion N-a, followed by reclamation at Portions N-b and N-c, which is a reverse of the original sequence of the EIA Report and EP-354/2009A.

By adopting the latest construction sequence, it is expected that the construction risks of the northern landfall could be reduced through the following ways:

- This change of construction sequence will ensure that the reclamation works will always be connected to the shore, avoiding the construction of the reclamation to start with the formation of an island offshore;
- Working from the shore towards the sea will improve the access to the works area (effectively providing a land access) while minimizing the construction risks associated with the strong currents in the works area;
- The access to the works area between the two constructed seawalls (slopping seawall on the western side and vertical seawall on the eastern side) will be done from the open end of the reclamation with reduced impact on the local marine traffic; and
- The works will start in the shallower waters, allowing a better learning process in more protected environment.

Except for the change in the sequence of construction, the construction method (ie plant requirements, duration, method and extent of dredging, filling and seawall construction etc), layout, alignment, scale and design of the Project will be the same between the original and latest construction sequence. In addition, mitigation measures recommended in the EP, approved EIA Report and Environmental Monitoring and Audit Manual of the Project for the original sequence will also be adopted for the construction of the latest sequence. It should, however, be noted that the arrangement of the single silt curtain at Portion N-a will be changed due to concern of marine access to the piers along the northern coast of the Northern Landfall during Stage 1 and Stage 2 of works (*Figure 1*).



Rev.	Description	Date	Checked
C	FURTHER ESS COMMENTS ADDED	24SEP13	PKV
B	ESS COMMENTS ADDED	23SEP13	PKV
A	FIRST ISSUE	09SEP13	MHo

Designed By: AAm
 Drawn By: KC
 Approved By: SPo
 Date: 09SEP2013

Main Contractor:

 Dragages - Bouygues Joint Venture 夏嘉 - 布魯格聯營

Client:

 路政署 HIGHWAYS DEPARTMENT
 ARUP Ove Arup & Partners Hong Kong Limited

Contract No. HY/2012/08
 Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-Sea Tunnel Section

Drawing Title: **Figure 1.1 Latest Construction Sequence**

Drawing no.	TMCLKL8-DBJ-NTH-DWG-00132
Scale	1:10000 @ A3
CADD Ref.	TMCLKL8-DBJ-NTH-DWG-00132-DFT-C
Issue Status	DFT (DRAFT)
Revision	C

3. ***ASSESSMENT OF THE LATEST CONSTRUCTION SEQUENCE AGAINST
EIAO-TM ITEM 6***

Considering the definitions stipulated under *Items 6.1-2* of the *EIAO-TM*, the proposed latest sequence is evaluated against *Item 6.1* to justify whether there will be any material changes to the designated project and against *Item 6.2* to assess any material changes to the environmental impacts of the Project as presented in the approved EIA report. If no material change is identified, the proposed sequence should be considered as conforming to the information and requirements contained in the EIA Report. Results of the evaluation are summarized in *Table 3.1*

Table 3.1 Summary of Evaluation Results against Item 6 of the EIAO-TM

Item	Requirements	Major Findings	Material Change?
6.1 (a)	A change to physical alignment, layout or design of the project causing an environmental impact likely to affect existing or planned community, ecologically important areas or sites of cultural heritage	Under the latest sequence, the physical alignment, layout and design of the northern landfall is the same as that presented for the original sequence in the approved EIA Report and the EP-354/2009A.	No
6.1 (b)	A physical change resulting in an increase in the extent of reclamation or dredging affecting water flow or quality likely to affect ecologically important areas, or disrupting sites if cultural heritage	<p>Under the latest sequence, the extent of reclamation and dredging are the same as the original sequence assumed in the approved EIA Report and EP-354/2009A, which are presented as follows:</p> <ul style="list-style-type: none"> • Reclamation size of about 16.5 ha of land area when calculated to the cope line or 21.1 ha for the footprint area to the bottom of the seawall where it intersects the seabed. • Dredging for the construction of the seawall of all portions and for the reclamation area of Portion N-c. Extent of dredging will remain the same since the footprint of seawall and reclamation will be the same between the latest and original sequence (please refer to <i>Figure 3</i> of the EP-354/2009A and <i>Figure 1</i>). 	No
6.1 (c)	An increase in pollution emissions or discharges or waste generation likely to violate guidelines or criteria in this technical memorandum without mitigation measures in place	Emission (eg dust emission) and discharges (eg dispersal of suspended sediment due to dredging and filling works, construction site runoff) due to the latest sequence are expected to be no greater than those predicted in approved EIA report since the construction method, plant requirements and working rate (ie rate of dredging and filling) would not be increased. Waste generation would also not be greater than that predicted in approved EIA report with no changes in volume of excavation, dredging and reclamation as well as number of construction workers required.	No
6.1 (d)	An increase in throughput or scale of the project leading to physical additions or alterations that are likely to violate the guidelines or criteria in this technical memorandum without mitigation measures in place	Under the latest sequence, the extent of reclamation and dredging are the same as that presented in the approved EIA Report and the EP-354/2009A. No change in scale of Project is identified.	No
6.1 (e)	A change resulting in physical works that are likely to affect rare, endangered or protected species, or an important ecological habitat, or site of cultural heritage.	Construction method will be the same between the latest and original sequence such that changes in physical works are not anticipated.	No

Item	Requirements	Major Findings	Material Change?
6.2	<p>The environmental impact of a designated project, for which an environmental permit has been issued, is considered to be materially changed if the environmental performance requirements set out in the EIA report for this project may be exceeded or violated, even with the mitigation measures in place.</p>	<p>It is assumed in the approved EIA Report that the northern landfall reclamation will commence at Portion N-c and followed by Portion N-b and Portion N-a. This original construction sequence is assumed based on the construction programme requirement rather than the environmental performance / impacts of such sequence.</p> <p>Given the similarity between the original and latest construction sequence as assessed for <i>Item 6.1</i> above and the mitigation measures recommended in the EP, approved EIA Report and Environmental Monitoring and Audit Manual of the Project will be adopted for the construction of the latest sequence, it is considered that the implementation of the latest sequence would not lead to any material change of environmental impact of the Project.</p> <p>Please also refer to <i>Section 4</i> for detailed discussion of the assessment of the potential environmental impacts associated with the adoption of the latest construction sequence.</p>	No