



將軍澳跨灣連接路 Cross Bay Link, Tseung Kwan O

第五期
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*圖像只供參考
Diagram for reference only

海上地基工程 Marine Foundation Works

將軍澳跨灣連接路工程項目包括興建一條橫跨將軍澳灣總長度約為1公里的海上高架橋。海上高架橋的建造工序依次為海上地基工程、樁帽建造、橋墩建造及橋面裝嵌，當中海上地基工程包括前期鑽探及鑽孔樁工程。
The Cross Bay Link (CBL), Tseung Kwan O project comprises construction of an about 1-kilometre long marine viaduct across Junk Bay. The construction sequence of the marine viaduct mainly involves marine foundation works, pile cap construction, pier construction and bridge deck installation. Marine foundation works comprise pre-drilling and bored-piling works.

往將軍澳 - 藍田隧道(興建中)
To Tseung Kwan O - Lam Tin Tunnel
(Under Construction)

往將軍澳第86區的環保大道
To Wan Po Road in Area 86 of
Tseung Kwan O



前期鑽探 Pre-drilling

在未進行鑽孔樁工程前，承建商要在海上搭建工作台，進行鑽探工程，以確定堅硬石層的深度。前期鑽探工程已於2019年5月中完成。

Before carrying out the bored-piling works, the Contractor has to erect platform at sea for conducting pre-drilling works. This is to ascertain the depth of hard rock stratum. The pre-drilling works were completed in mid May 2019.



前期鑽探工程
Pre-drilling works



鑽孔樁 Bored-piling

海上高架橋由12個橋墩和94支鋼筋混凝土鑽孔樁承托。樁柱直徑為2米，穩固地坐落在離海面45米至65米深的堅硬石層。

The marine viaduct is supported on 12 piers with a total of 94 reinforced concrete bored piles. The piles are 2 metres in diameter, resting on hard rock stratum 45 to 65 metres from sea level.

鑽孔樁主要工序

Major Construction Sequence of Bored-piling

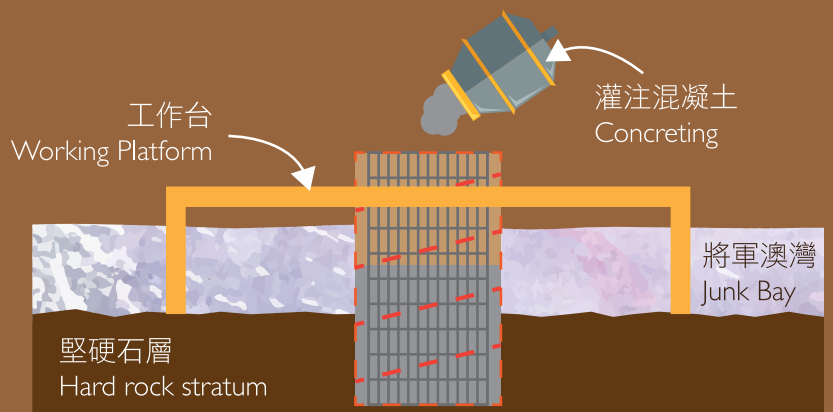
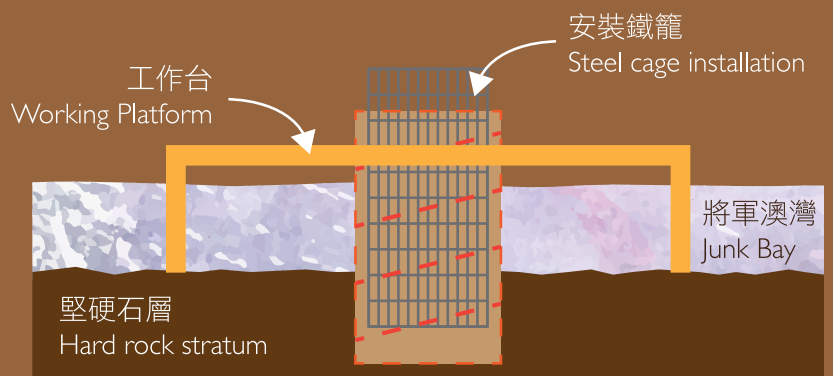
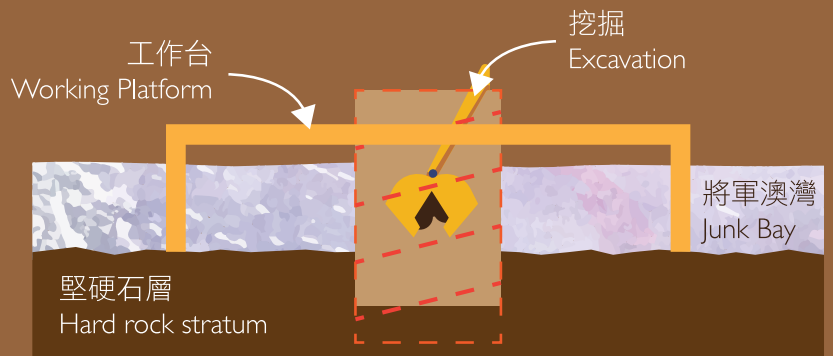
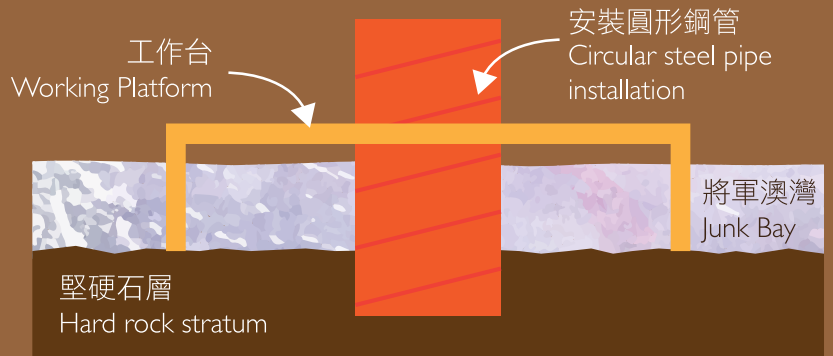
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運用振動錘安裝圓形鋼管至堅硬石層
Use vibration hammer to install circular steel pipe down to hard rock stratum

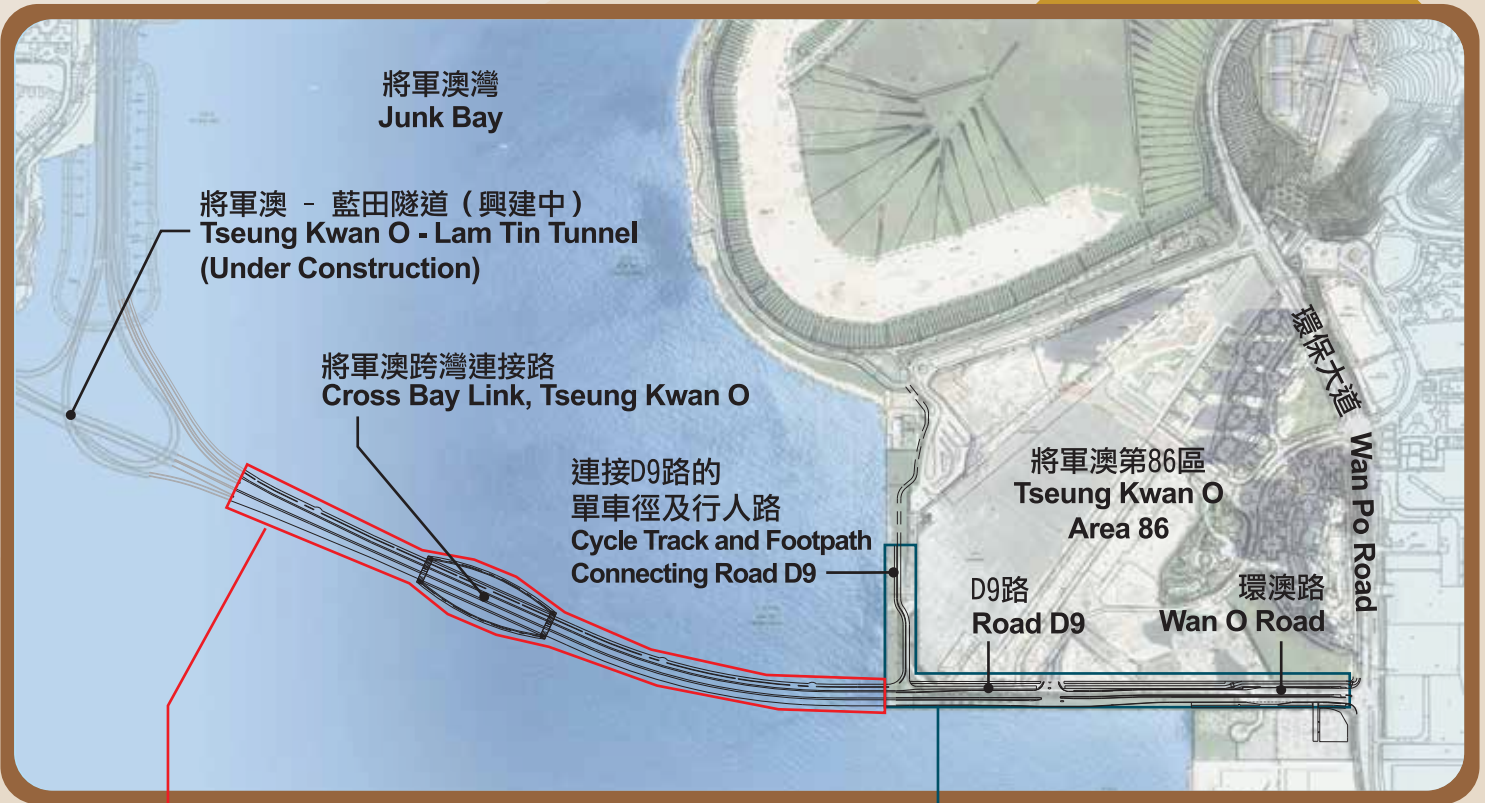
運用挖泥抓斗及 / 或反循環鑽孔機械清除在圓形鋼管內的泥沙
Use grab and/or reverse circulation drilling machine to remove soil inside circular steel pipe

在達到所需樁柱長度後，會抽取石層樣板檢查以核實挖掘至堅硬石層。之後會把剩餘在圓形鋼管內的泥沙清洗乾淨以安裝鐵籠
At required depth and confirmed by sampling to ascertain reaching the hard rock stratum, circular steel pipe would be cleansed thoroughly to remove residual soil for installation of steel cage

在安裝鐵籠後，再次清洗乾淨圓形鋼管內部，然後在鋼管內灌注混凝土
After steel cage is in place, cleanse the inside of the circular steel pipe again for placing of concrete



工程進度 Project Progress



主橋及相關工程 (合約編號：NE/2017/07) Main Bridge and Associated Works (Contract No : NE/2017/07)



海上鑽孔樁工程進展順利，並開始在將軍澳灣放置預製樁帽殼，以及在國內工場為海上高架橋生產混凝土箱樑，機電工房的建造工程亦同步進行。The progress of marine bored-piling works is good. Precast pile-cap shells are being installed at Junk Bay. The concrete box girders of the marine viaduct is being produced at the fabrication yard in the Mainland. The construction of E&M plant room is being constructed in tandem.

D9路及相關工程 (合約編號：NE/2017/08) Road D9 and Associated Works (Contract No : NE/2017/08)



現時正在D9路進行前期鑽探及地基工程。Pre-drilling and foundation works at Road D9 are in progress.

工程小知識 Knowledge of Construction

樁柱測試 Pile Tests

當海上鑽孔樁已鑄造28天後，需要進行一系列的樁柱測試，以確保樁柱質量符合合約要求而建造。以下介紹兩種實地進行的樁柱測試：

After 28 days of casting of marine bored piles, a series of pile tests are required to ensure that the quality of the piles complies with the contract requirements. Two pile tests carried out on-site are introduced below.



接口岩芯鑽探測試 Interface Core Drilling Test

利用鑽探機在鑽孔樁底部混凝土與堅硬石層的接口採取樣本進行測試，以檢驗混凝土和石層的接口是否符合標準。

A drilling rig is used to retrieve a sample at the interface of concrete and hard rock stratum at the base of bored pile to verify whether the said interface complies with standard.



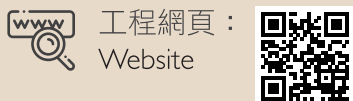
聲波透射法 Sonic Logging

利用超聲波探測器檢測混凝土鑽孔樁柱的質量是否均勻並無瑕疵，超聲波的傳送速度和相對能量會因應混凝土的質量不均勻或瑕疵而減低。

Sonic detector is used to verify whether the quality of concrete bored piles is homogeneous and free from defects. The wave velocity of sound and its relative energy will decrease due to heterogeneous concrete or defects.

資訊與聯絡 Information and Enquiries

如欲知詳情，請瀏覽「將軍澳跨灣連接路」的工程網頁：
For further information, please visit the Cross Bay Link, Tseung Kwan O's project website:



工程網頁：
Website



www.cbltko.hk

歡迎提出意見及建議。

Your views and comments are welcome.

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開放時間 Opening Hours	星期一至五 Mon to Fri	09:00 - 19:00
	星期六 Sat	10:00 - 15:00
	星期日及公眾假期 Sun and Public Holiday	休息 Closed

