

PROJECT PROFILE

工程項目簡介

MTR Corporation Limited
香港鐵路有限公司

**Decommissioning of the Magazine
Site at Victoria Road for West Island
Line (WIL)**

解除西港島綫堅尼地城爆炸品倉庫的運作

February 2013
2013年2月

Environmental Resources Management
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Hong Kong

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GMS#0180138

For and on behalf of

代表

ERM-Hong Kong, Limited

香港環境資源管理顧問有限公司

Approved by:

批核 :



溫志雄 (Mr Frank Wan)

Position:

職位 :

Partner

合伙人

Date:

日期 :

1 February 2013

2013年2月1日

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1 BASIC INFORMATION

1.1 PROJECT TITLE

Decommissioning of the Magazine Site at Victoria Road for West Island Line (the Project)

1.2 PURPOSE AND NATURE OF THE PROJECT

To support the construction of West Island Line (WIL), a temporary magazine was constructed in 2010 under the western side of Mount Davis off Victoria Road in Kennedy Town for the storage of explosives that would be supplied and delivered by the Mines Division of the Civil Engineering and Development Department (CEDD). The potential environmental impacts associated with the construction and operation of the magazine had been assessed in the approved WIL EIA Report ⁽¹⁾.

Under the agreement with the relevant Government departments, MTR Corporation is required to decommission and reinstate the magazine upon completion of the blasting works for WIL.

Gammon Nishimatsu WIL Joint Venture (GNWILJV) has been appointed by MTR Corporation to undertake the construction of WIL Works Contract No. 704, which includes the operation, management and decommissioning of the magazine.

This Project is to decommission the existing explosives magazine which was constructed to support the construction of WIL upon completion of the blasting works for WIL. Any surplus explosives would be returned to Mines Division before the commencement of the decommissioning works.

1.3 NAME OF PROJECT PROPONENT

MTR Corporation Limited (MTR Corporation)

1.4 LOCATION AND SCALE OF PROJECT AND HISTORY OF THE PROJECT SITE

The Project Site is located off Victoria Road, at the western side of Mount Davis in Kennedy Town (*Figure 1.1*). The Project Site was a former ammunitions store with restricted access and platform of land for access, such that formation of access road and platform was required as part of the construction of the magazine.

The Project Site comprises an underground U-shape access tunnel to the explosives storage chambers with a total storage capacity of approximately

(1) West Island Line Environmental Impact Assessment, Final EIA Report (EIA Register No.: AEIAR-126/2008).

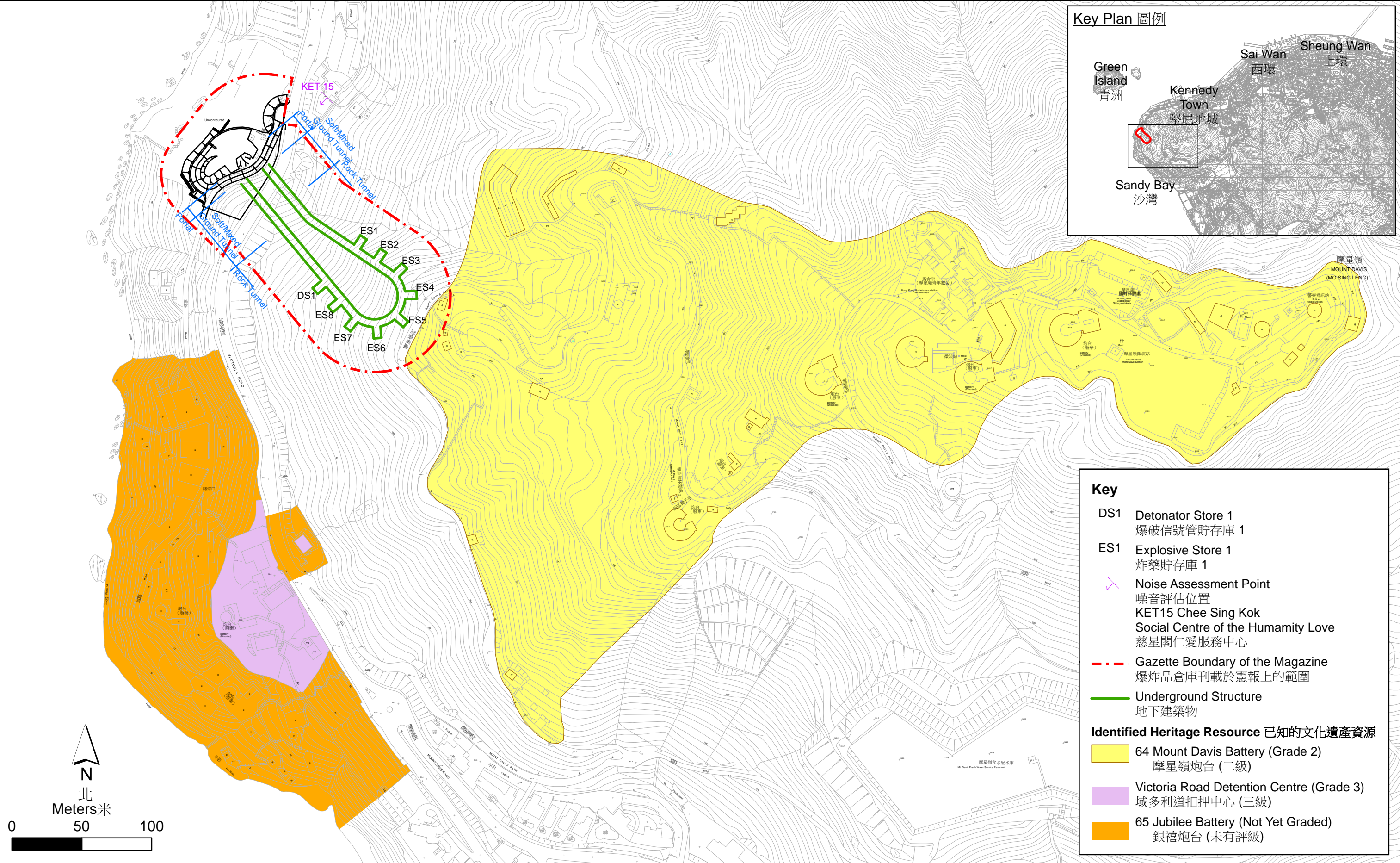


Figure 1.1
圖 1.1

Location of Magazine at Kennedy Town for WIL and the Surrounding Environment
堅尼地城西港島綫爆炸品倉庫及附近的環境

File: T:\GIS\CONTRACT\0180138\Mxd\0180138_Magazine_at_Kennedy_Town_for_WIL.mxd
Date: 1/2/2013

Environmental Resources Management
ERM

2,400 kg explosives. The tunnel portals of the access tunnel were built on a flat platform next to Victoria Road at a level of approximately +35 mPD. The underground U-shape tunnel and chambers, and the ground platform cover areas of approximately 2,400 sq m and 2,200 sq m, respectively. The as-built drawings of the Project Site are presented in *Annex A*.

1.5 *NUMBER AND TYPES OF DESIGNATED PROJECTS TO BE COVERED BY THE PROJECT PROFILE*

The decommissioning of the magazine is classified as a Designated Project under *Schedule 2, Part II, Item 11* of the *Environmental Impact Assessment Ordinance* (EIAO) – decommissioning of an explosives depot.

1.6 *NAME AND TELEPHONE NUMBER OF CONTACT PERSON*

Name: Mr Richard Kwan

Title: Environment Manager

Phone No: 2688 1179

The tentative start date for the decommissioning works is around second quarter of 2013 and the tentative completion date is around fourth quarter of 2013 to first quarter of 2014. An indicative programme is presented in *Annex B1*.

This Project will be implemented by Gammon Nishimatsu WIL Joint Venture (GNWILJV) appointed by MTR Corporation.

The shortest distance between the Project Site boundary and the nearest Work Site A1 for WIL is approximately 430m. It is not anticipated that the Project would have any interaction with other projects in the surrounding area, including WIL.

3.1 MAJOR DECOMMISSIONING WORKS ACTIVITIES

The key activities of the decommissioning works are given in the following, with reference to the diagram given in *Annex B1*:

- Work Activity No. 1 - dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services installed inside the explosive chambers;
- Work Activity No. 2 - dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services installed inside the tunnel adit;
- Work Activity Nos. 3 to 8 - demolition of the concrete bunch retaining wall, i.e. the portal barricades in front of the east and west portals;
- Work Activity No. 9 - remove the concrete debris;
- Work Activity No. 10 - remove all fire services facilities, pipes, pumps of the fire services concrete pump room and all ground services, including temporary office, and road furniture and lighting;
- Work Activity No. 11 - remove water tanks;
- Work Activity No. 12 - break and remove fire services concrete pump room; and
- Work Activity No. 13 - remove any temporary steel works.

As seen from the above, work activities involved would mainly be dismantling and removal of structures previously used for the explosive magazine. Some of the work activities would be conducted simultaneously, as illustrated in the process of the decommissioning works in the diagram given in *Annex B1*. Powered mechanical equipment that would generally be used for carrying out the abovementioned work activities is shown in *Annex B2*. The site plans are shown in *Annex A*.

3.2 POSSIBLE ENVIRONMENTAL IMPACTS

As described in *Section 3.1* above, the decommissioning works are considered small in scale and will involve dismantling, demolition and removal of the temporary structures. No removal of existing vegetation will be required.

During the decommissioning works, about 10 workers are expected to be on the Project Site at any one time. *Table 3.1* identifies the potential environmental impacts that may arise from the decommissioning of the magazine. The key potential environmental impacts are related to noise, air quality and waste management during the decommissioning works.

Table 3.1 *Potential Environmental Impacts Arising from the Project*

Potential Impact	
• Gaseous Emission	-
• Dust	✓
• Odour	-
• Noise	✓
• Night-Time Operations	-
• Traffic (Land)	-
• Liquid Effluents, Discharge or Contaminated Runoff	-
• Generation of Waste or By-products	✓
• Manufacturing, Storage, Use, Handling, Transport, or Disposal of Dangerous Goods	-
• Hazard to life	-
• Disposal of Spoil Material	-
• Disruption of water movement or bottom sediment	-
• Unsightly visual Appearance	-
• Cultural and Heritage	-
• Terrestrial Ecology	-
• Cumulative Impacts	-

Note:
'✓' = Possible; '-' = Not Expected

As the decommissioning works will only involve dismantling, demolition and removal of the existing temporary structures, and removal of existing vegetation will not be required, no landscape and visual impact and terrestrial ecology impact are anticipated.

Confirmation from Mines Division has been sought by the GNWILJV that any surplus explosives will be returned to Mines Division before the commencement of the decommissioning works. Based on this, no hazard to life impact is anticipated.

In accordance with the approved WIL EIA Report, no sign of contamination was identified at the Project Site (named as Works Area MA in the approved EIA Report). As the site is used as a magazine for storage of explosives only, there is no chemical store and use of lubricant or other chemicals are not required. The magazine was paved. Any surplus explosives would be returned to Mines Division before the commencement of the decommissioning works. Based on the above-mentioned, no land contamination impact is anticipated due to the decommissioning works.

Due to the small scale of construction works, construction site runoff and drainage from the works areas will be very minimal, and water quality impact is not anticipated due to the decommissioning works.

Further details on the consideration of the potential environmental impacts are provided in subsequent sections.

The surrounding environment of the Project Site is shown in *Figure 1.1*. The Project Site is located on a steep wooded hillside running down to the coast and is in an area of Quaternary Debris Flow Deposits. The only known usage of the Project Site is as a short lived World War II Battery, which was constructed in 1939 and destroyed in 1974. As concluded in the approved WIL EIA Report, there is no potential for archaeological deposits to be located in the magazine site. The existing magazine at the Project Site was constructed in 2010 to support the construction of WIL.

The majority of the area within 500m from the Project Site is Mount Davis with some residential developments at the foothill area at the waterfront and along Mount Davis Road, and some scattered government, institution or community (GIC) uses. The nearest sensitive receiver is identified as the Chee Sing Kok Social Centre of the Humanity Love (No. 410 - 411 Victoria Road), for residential use, located at approximately 25m from the Project Site boundary in the northeast. Caritas Jockey Club Hostel - Mount Davis (No. 405 - 406 Victoria Road) is vacant. Environmental Protection Department Waste Facilities Business Unit is located at more than 250m to the north-east of the Project Site. Other residential developments of The Sail at Victoria and No. 68 Mount Davis Road are located at approximately 390m to the north-east and 280m to the south of the Project Site.

The nearest heritage resources are identified as Mount Davis Battery (Grade 2 historic building), Victoria Road Detention Centre (Grade 3 historic building) and Jubilee Battery (not yet graded). The Victoria Road Detention Centre (Grade 3) and Jubilee Battery (not yet graded) are located at approximately 100m and 50m from the Project Site boundary ⁽¹⁾ in the south, respectively. The Project Site boundary encroached into the western edge of the site boundary of the Mount Davis Battery (Grade 2), as shown in *Figure 1.1*.

(1) Measured from the nearest point of the boundary of the historic buildings to the nearest point of the Project Site Boundary.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 AIRBORNE CONSTRUCTION NOISE IMPACT

5.1.1 Environmental Legislation, Standards and Guidelines

The *Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM)* stipulates assessment standards of $L_{eq(30 \text{ minutes})}$ 75 dB(A) for all domestic premises and 70/65 dB(A) for educational institutions during normal school term/examination periods for daytime (ie 0700 to 1900 hours on any day not being a Sunday or general holiday) construction activities. These criteria apply to Noise Sensitive Receivers (NSRs) relying only on openable windows for ventilation.

5.1.2 Identified Noise Sensitive Receiver

In accordance with Table 3.3 of the WIL EIA Report, one representative NSR was identified and listed in *Table 5.1a*. No new NSRs were identified since the approval of the WIL EIA Report. The location of the identified NSR is presented in *Figure 1.1*.

Table 5.1a Representative Noise Sensitive Receiver

NSR No.	Description	Type	No. of Storey
KET 15	Chee Sing Kok Social Centre of the Humanity Love (No. 410 - 411 Victoria Road)	Residential	2

Note:

Recent site inspection confirmed that the name of KET15 has been changed to Chee Sing Kok Social Centre of the Humanity Love.

5.1.3 Construction Plant Inventory and Programme

The use of Powered Mechanical Equipment (PME) for the decommissioning works activities will be the major source of construction noise impact on the nearby NSR. The decommissioning works will involve dismantling, demolition and removal of the temporary structures. The PME that will be used will include crane lorry, lifting platform, drill/grinder, excavator, dump truck, excavator-mounted breaker, concrete crusher, ventilation fans and generator. The construction programme and plant inventory provided by GNWIL JV are presented in *Annexes B1* and *B2*.

5.1.4 Assessment Methodology and Assumptions

Assessment Methodology

Reference has been made to the WIL EIA Report, EIAO-TM and *Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM)* for the assessment methodology, which is summarised as follows:

- Locate representative NSRs that may be affected by the Project;
- Determine the plant teams for corresponding activities, based on the agreed plant inventory;
- Assign sound power levels (SWLs) to the PME proposed based on the *GW-TM*;
- Calculate the correction factors based on the distance between the NSRs and the notional noise source position of the work site;
- Apply corrections in the calculations, such as potential screening effects and acoustic reflection, if any; and
- Predict the construction noise levels at NSRs in the absence of any mitigation measures.

The potential noise impacts on the identified NSRs were subsequently evaluated by comparing the predicted noise levels with the *EIAO-TM* day-time construction noise criteria ($L_{eq, 30min}$ dB(A)).

Reduced Utilisation Rates

In reality, some of the PME will not be operated continuously within the work site. Reduced utilisation rates for some PME adopted in the assessment are summarised in *Table 5.1b*. The utilisation rates are determined based on the actual works to be carried out. As advised by GNWIL JV, the majority of the wall will be demolished using concrete crusher. The excavator mounted breaker will be used to demolish the rest of the wall. The utilisation rates are considered realistic and practicable in achieving the construction programme by GNWIL JV.

Table 5.1b *Utilization rates for PME*

PME	Utilisation rate
Crane lorry, lifting platform, generator and dump truck	15% - 50%
Drill/grinder, excavator-mounted breaker	15%
Excavator, concrete crusher	50%

5.1.5 *Evaluation of Impact - Unmitigated*

The predicted façade noise levels are in the range of 62 to 74dB(A) at the representative NSR, ie comply with the day-time construction noise criterion for residential premises. Detailed calculations are provided in *Annex B3*.

As the results indicate no exceedance over the day-time construction noise criterion for residential premises, noise mitigation measures are not required.

5.1.6 *Construction Site Management Measures for Noise Control*

Implementation of standard construction site management measures for noise control, such as the use of well-maintained construction plant and planning of

the construction plant team, will be sufficient to ensure compliance with the construction noise criterion.

5.2 *AIR QUALITY*

The nearest Air Sensitive Receiver (ASR) is identified as the Chee Sing Kok Social Centre of the Humanity Love (No. 410 – 411 Victoria Road), which is at a distance of about 25m to the northeast of the Project site.

Dust may arise from general construction works including minor dismantling, demolition and removal of temporary structures. With respect to the nature and the small scale of the decommissioning works, the number of mobile plant to be used on site at any one time will be small, and all works will be conducted on a paved site, the potential air quality impact (including air emission and odour) to the identified ASR is expected to be minimal. With the implementation of dust suppression measures stipulated under the *Air Pollution Control (Construction Dust) Regulation* and the adoption of good site practice, includes covering of dusty stockpiles or the exposed excavated soil surfaces (if any) with impervious sheeting, no adverse air quality impact of the decommissioning works is expected.

5.3 *WASTE MANAGEMENT*

The major types of solid waste likely to be generated from the decommissioning works include construction and demolition (C&D) materials, chemical wastes and general refuse. Negligible amount of rock or spoil will be generated, and only small amount of metal will be generated from the decommissioning works. Owing to the small scale of works, the amount of C&D materials generated will be limited, approximately 10m³. Based on the above, the potential impacts associated with the handling and disposal of C&D materials due to the decommissioning works are considered negligible.

The decommissioning works will involve only a very small number of construction equipment. The quantities of chemical waste to be generated from regular maintenance of equipment will be minimal. All chemical wastes will be handled in accordance with the EPD's Code of Practice on the Packaging Labelling and Storage of Chemical Waste and a licenced collector will be employed for the collection of the chemical waste generated to the licenced disposal facilities (eg Chemical Waste Treatment Facility at Tsing Yi). Hence, no adverse environmental impact is anticipated due to the management of a small quantity of chemical waste to be generated from the Project. With proper housekeeping measures and refuse collection in place, minimal or no impact is expected to result from refuse generated (up to about 6 kg per day) during the decommissioning works. The C&D materials and general refuse will be disposed of at Tuen Mun Area 38 Fill Bank and SENT Landfill, respectively.

To minimise the amount of waste, careful design, comprehensive planning and good site management practice will be adopted by the contractors of the Project and waste on-site will be properly segregated to increase the potential for reuse and recycling. Chemical waste generated from the demolition works will be properly stored in accordance with *Code of Practice on the Packaging, Labelling and Storage of Chemical Waste* published by the EPD before collection for disposal by a licensed Chemical Waste Collector. The quantity of general refuse generated on-site will be minimal owing to the small number of workers involved. General refuse will be disposed of on a daily basis.

5.4 WATER QUALITY

The decommissioning works that may have the potential to generate silty surface runoff are expected to include minor dismantling, demolition and removal of temporary structures. Adverse water quality impact is therefore not expected with the implementation of proper site runoff control measures considering the small scale and short duration of works activities. Water quality impact on other fresh water courses from the works is also unlikely as none were observed in proximity to the Project Site.

Appropriate measures will be implemented in accordance with the guidelines stipulated in EPD's *Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN1/94)* during the construction works to properly control site run-off and drainage and to minimise potential water quality impacts.

5.5 CULTURAL HERITAGE

One Grade 2 historic building (Mount Davis Battery), one Grade 3 historic building (Victoria Road Detention Centre) and one not yet graded historic building (Jubilee Battery) are identified in close proximity to the Project Site boundary. The Victoria Road Detention Centre (Grade 3) and Jubilee Battery (not yet graded historic building) are located at approximately 100m and 50m from the Project Site boundary ⁽¹⁾ in the south, respectively. With respect to the nature of the proposed decommissioning works described in *Section 3.1* and the separation distances between the Project Site and these historic buildings, adverse direct and indirect impacts to these buildings are not anticipated.

Although the Project Site boundary encroached into the western edge of the site boundary of the Mount Davis Battery (Grade 2 historic building), as shown in *Figure 1.1*, the proposed decommissioning works within the encroached portion will only be limited to the dismantling and removal of the fire services and E&M services inside the explosive chambers and along tunnel adit, which are underground. Therefore, no adverse direct and indirect impacts to the Grade 2 historic building are anticipated.

(1) Measured from the nearest point of the boundary of the historic buildings to the nearest point of the Project Site Boundary.

The decommissioning works will not involve any tunnel boring or blasting activities, and hence no vibration impact on the identified heritage resources is anticipated.

*COMMENT ON POSSIBLE SEVERITY, DISTRIBUTION AND DURATION
OF ENVIRONMENTAL EFFECTS*

The scale of the decommissioning works is relatively small and will last for about seven months. The overall environmental impacts potentially arising from the Project are considered to be very minor. With the implementation of appropriate environmental control measures discussed in the preceding sections, no adverse environmental impacts are anticipated. Based on the above-mentioned that no adverse environmental impacts are expected, further implication is not anticipated.

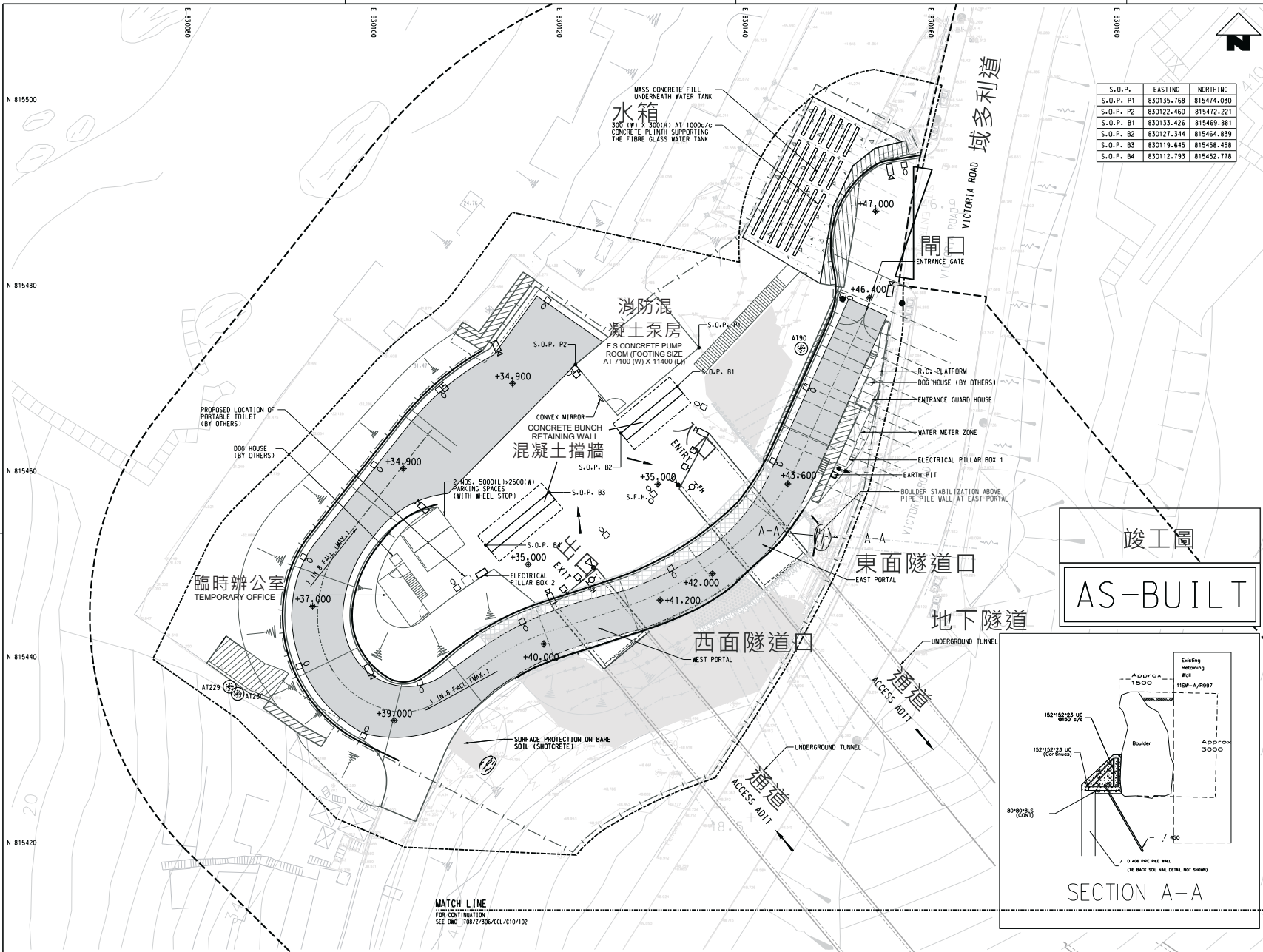
General reference has been made to the following approved WIL EIA Report:

West Island Line Environmental Impact Assessment, Final EIA Report (EIA Register No.: AEIAR-126/2008), which was approved on 23 Dec 2008.

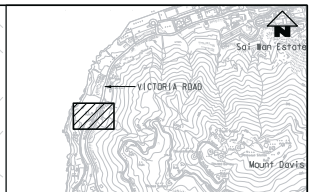
The potential environmental aspects assessed in the approved WIL EIA Report includes noise, landscape and visual, cultural heritage, waste management, land contamination, water quality, hazard to life and air quality impacts, which covers the construction and operation of the WIL project including the explosive magazine, would not be relevant to the decommissioning of the magazine.

Annex A
附錄甲

As-built Drawings of the
Magazine Site at Kennedy
Town for WIL
西港島綫堅尼地城爆炸品倉
庫的竣工圖



S.O.P.	EASTING	NORTHING
S.O.P. P1	830135.768	815474.030
S.O.P. P2	830122.460	815472.221
S.O.P. B1	830133.426	815469.881
S.O.P. B2	830127.344	815464.839
S.O.P. B3	830119.645	815458.458
S.O.P. B4	830112.793	815452.178



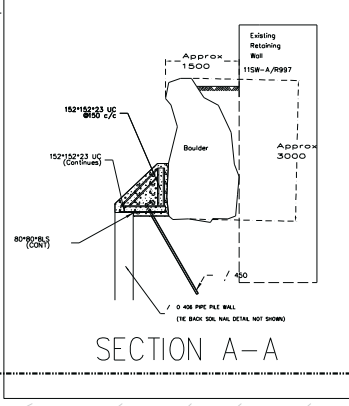
KEY LOCATION PLAN

- NOTES:**
- ALL HINGES AND LOCKS IN THE DETONATOR/EXPLOSIVE STORES SHALL BE NON-FERROUS METAL SUCH AS BRASS.
 - NO FERROUS METAL SHALL BE LEFT EXPOSED IN THE INTERIOR OF THE DETONATOR/EXPLOSIVES STORES.
 - THE INTERIOR WALL AND CEILING OF THE DETONATOR/EXPLOSIVE STORES SHALL BE PAINTED WHITE WITH EMULSION PAINT.
 - THE GATE AT A DETONATOR/EXPLOSIVE STORE SHALL BE PAINTED RED. THE WORDS "DANGEROUS - EXPLOSIVES" AND "NO SMOKING" SHALL BE WRITTEN IN WHITE ON THE OUTSIDE OF THE DOORS. THE LETTERS SHALL BE AT LEAST 100mm HIGH.
 - A SECURITY FENCE AT THE PORTAL COMPOUND AREA SHALL BE 2.5m HIGH, STOUTLY CONSTRUCTED CHAIN LINK FENCING HAVING A MESH SIZE NOT EXCEEDING 50mm. THE FENCE SHALL BE FIRMLY FIXED TO METAL OR CONCRETE POSTS AND TOPPED WITH A 0.1m OUTWARD OVERHANG OF BARBED WIRE. THE BASE OF THE FENCE SHALL BE SECURED WITH PEGS TO PREVENT INTRUSION.
 - THE AREA 1m BEYOND THE EXTERIOR OF THE SECURITY FENCING SHALL BE CLEARED OF VEGETATION.
 - THE ENTRANCE GATE SHALL BE FITTED WITH A LOCK OF CLOSED SHACKLE DESIGN WITH KEY-INTENTION FEATURE. A WARNING NOTICE BOARD PROHIBITED ARTICLES AND SUBSTANCES PAINTED IN RED AND BLACK SHOWN IN SYMBOLS AND CHINESE AND ENGLISH CHARACTERS SHALL BE POSTED AT THE GATE. EACH SYMBOL SHALL BE AT LEAST 100mm IN DIAMETER.
 - INSIDE THE MAIN GUARD HOUSE, AN ARMS LOCKER CONSTRUCTED AS AN INTEGRAL PART OF THE HOUSE AND FITTED WITH A LOCK SHALL BE PROVIDED.
 - WATCHDOGS SHALL BE PROVIDED BY OPERATOR OF MAGAZINE.
 - WIDTH OF EMERGENCY VEHICULAR ACCESS TO BE 4.5m MINIMUM UNLESS OTHERWISE STATED.
 - SETTING OUT COORDINATES FOR PORTAL AND ROAD, REFER TO DRAWING NO. 708/Z/306/GCL/C10/300 AND 708/Z/306/GCL/C10/150 RESPECTIVELY.

LEGEND

- EXTENT OF EMERGENCY VEHICULAR ACCESS
- GROUND LEVEL
- SECURITY FENCING 2.5m HIGH WITH 0.7m OUTWARD OVERHANG OF BARBED WIRE
- STREET LIGHTING
- STREET FIRE HYDRANT
- ELECTRICAL PILLAR BOX
- CCTV
- TREE NO. AT230 TO BE RETAINED AND PROTECTED
- FIRE HYDRANT
- TUNNEL JET FAN
- BEAM BARRIER
- GAZETTE BOUNDARY
- INDICATIVE TEMPORARY HOARDING LINE (TO BE AGREED WITH THE ENGINEER)
- ESE LIGHTNING ROD
- FLOOD LIGHT
- STREET LIGHTING WITH FLOOD LIGHT
- ROAD MARKING
- RED/GREEN LIGHT
- SHOTCRETE SURFACE PROTECTION

竣工圖
AS-BUILT



MATCH LINE
FOR CONTINUATION
SEE DWG 708/Z/306/GCL/C10/102

PLOT DATE: 18/04/2010
MODEL NAME: 708_Z_306_GCL_C10_101A.DGN
ELEMENT: GENERAL LAYOUT PLAN

PRINTED BY: MUSEER
DATE: 18/04/2010
TIME: 10:00

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED
A	As-Built	TL	19APR10	GT					

DRAWN	AY
DESIGNED	TL
CHECKED	GT
APPROVED	GT
DATE	18/JAN/2010

MTR
WEST ISLAND LINE

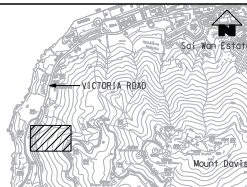
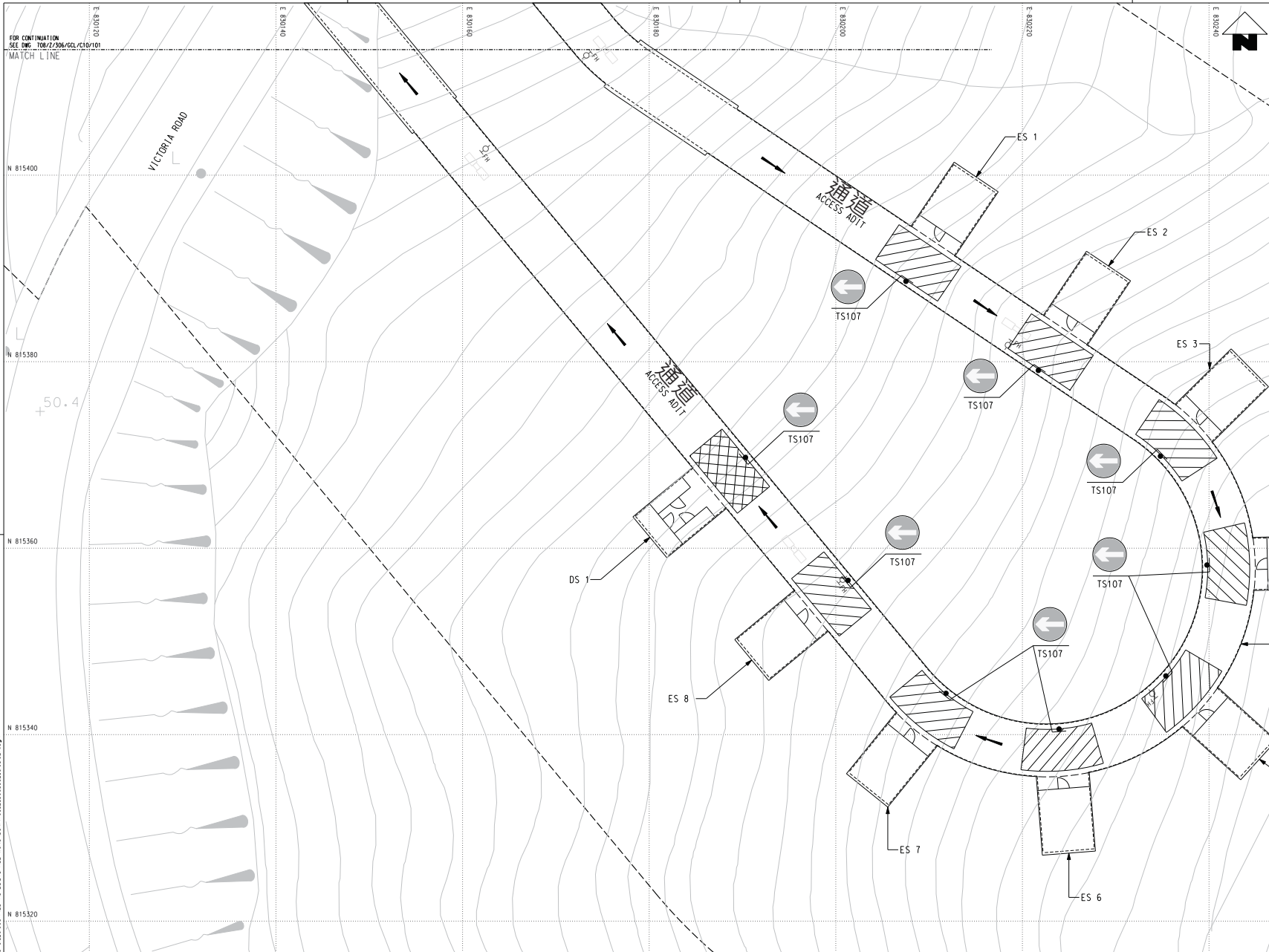
CONTRACTOR: **Gammon**
ORIGINATOR: **LAMBETH**

CADD REF: 708_Z_306_GCL_C10_101A.DGN

TITLE: **CONTRACT 708**
UNDERGROUND MAGAZINE
GENERAL LAYOUT PLAN
SHEET 1 OF 2

地下爆炸品倉庫
設計圖
圖一

SCALE: 1 : 200 (A1)
DRAWING NO.: 708/Z/306/GCL/C10/101
REV: A

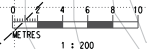


KEY LOCATION PLAN

- NOTES:**
- EXPLOSIVE STORAGE CHAMBER AND DETONATOR CHAMBER LAYOUT REFER TO DRAWING NO. 708/Z/306/GCL/C10/105.
 - SIGNAGE SHALL BE PROVIDED OUTSIDE EACH STORAGE CHAMBER TO SHOW THE DIRECTION TO EXIT PORTAL. SIGNAGE SHALL BE MOUNTED ON TRAFFIC SIGN POST 1.5M ABOVE TUNNEL BASE SLAB. TRAFFIC SIGN POST SHALL BE IN ACCORDANCE WITH HYD STANDARD DRAWING NO. H2147C AND H2148A.

- LEGEND:**
- FULL PVC COATED WIRE MESH PARTITIONING WITH 2.5m HIGH BY 1.2m WIDE LOCKABLE WIRE MESH GATE DETAIL. REFER TO DRAWING NO. 708/Z/306/GCL/C11/111.
 - SECURITY FENCING 2.5m HIGH WITH 0.7m OUTWARD OVERHANG OF BARBED WIRE. REFER TO DRAWING NO. 708/Z/306/GCL/C11/110.
 - ROAD MARKING ON TUNNEL BASE SLAB
 - ES EXPLOSIVE STORE 爆炸品儲藏室
 - DS DETONATOR STORE 雷管儲藏室
 - GAZETTE BOUNDARY 憲報邊界
 - TUNNEL JET FAN 抽氣扇
 - FIRE HYDRANT 消防柱
 - ROAD MARKING SHOWING TRANSFER PARKING AREA FOR DETONATOR CHAMBER
 - ROAD MARKING SHOWING TRANSFER PARKING AREA FOR EXPLOSIVE CHAMBERS

竣工圖
AS-BUILT



PLOT DIR: C:\Program Files Bentley\MicroStation\System\Plotter\VLI_Color_Windows_080902.dwt
 PLOT NAME: 708_Z_306_GCL_C10_102A.dgn
 PLOT DATE: 28/06/2010 10:58:48
 PLOT SCALE: 1:200
 PLOT SHEET: 2 OF 2
 PLOT BY: J.C.
 PLOT TIME: 10:58:48 AM
 PLOT DEVICE: HP DesignJet 500

REV	DESCRIPTION	BY	DATE	APPROVED
A	AS_BUILT	MC	28/JUN/10	JC

DRAWN: CWY DESIGNED: KM CHECKED: FWL APPROVED: JC DATE: 28/JUN/2010	
WEST ISLAND LINE	
CONTRACTOR:	ORIGINATOR:
CADD REF: 708_Z_306_GCL_C10_102A.DGN	

TITLE: CONTRACT 708 UNDERGROUND MAGAZINE GENERAL LAYOUT PLAN SHEET 2 OF 2	地下爆炸品倉庫 設計圖 圖二
SCALE: 1 : 200 (A1)	DRAWING NO. 708/Z/306/GCL/C10/102
	REV. A

Annex B
附錄乙

Construction Noise Impact Assessment 建築噪音影響評估

Annex B1 : Preliminary Construction Programme

附錄 B1: 初步施工程序圖

No. 號數	Activity Description 工序描述	WorkSite 工地號	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7			
			wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4
	Daytime Period 日間																													
1	Dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes inside the explosive chambers 拆卸和移除炸藥儲藏室內的機動及電力、消防、閉路電視、照明和泵管設備	MA	■	■	■	■																								
2	Dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services inside the tunnel adit 拆卸和移除隧道內的機動及電力、消防、閉路電視、照明和泵管設備	MA	■	■	■	■																								
3	Setup temporary rock filling platform to break the upper part of the concrete bunch retaining wall, ie the portal barricades in front of the east and west portals 搭建臨時填石平臺以打破混凝土擋牆的上部份，即東面和西面隧道口的擋牆	MA	■	■	■	■																								
4	Break the upper part of the concrete bunch retaining wall 打破混凝土擋牆的上部份	MA					■	■	■	■																				
5	Frame cut the rebars during breaking works 在打破工程中，切割鋼筋	MA									■	■	■	■																
6	Remove the temporary rock filling platform 移除臨時填石平臺	MA									■	■	■	■																
7	Break the lower part of the concrete bunch retaining wall 打破混凝土擋牆的下部份	MA													■	■	■	■												
8	Frame cut the rebars during breaking works 在打破工程中，切割鋼筋	MA																	■	■	■	■								
9	Remove the concrete debris 移除混凝土碎片	MA																					■	■	■	■				
10	Remove all fire services facilities, pipes, pumps of the fire services concrete pump room and all ground services, including temporary office, and road furniture and lighting 移除所有消防混凝土泵房內的消防設施、管道、泵和所有地面設備，包括臨時辦公室和道路設備及照明	MA	■	■	■	■	■	■	■	■	■	■	■	■																
11	Remove water tanks 移除水箱	MA																					■	■	■	■				
12	Break and remove fire services concrete pump room 打破和移除消防混凝土泵房	MA																									■	■	■	■
13	Remove any temporary steel works 移除任何臨時鋼鐵支架	MA																												

Annex B2 : Construction Plant Inventory

附錄 B2: 施工時使用的機動設備

No. 號數	Activities 工序	PME 機動設備	TM Ref. 技術備忘錄的 辨認代碼/ BS 5228	No. of PME 數量	On- time % 運作時 間	Unit SWL 聲功率級 (分貝(A))	Type of Noise Control 控制噪音類別	Noise reduction 聲功率修正, dB(A)	SWL 修正後的 聲功率級, dB(A)	Total SWL 聲功率級總 數, dB(A) ^[1]
1	Dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services inside the explosive chambers 拆卸和移除炸藥儲藏室內的機動及電力、消防、閉路電視、照明和泵管設備	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機，貨車，5.5噸<車輛總重<38噸	CNP 145	1	25%	105	Operating inside tunnel 在隧道內運作	-10	89	98
		Lifting platform 升降平臺	BS C4 57	1	25%	95	Operating inside tunnel 在隧道內運作	-10	79	
		Drill/grinder, hand-held (electric) 鑽／磨機，手提型（電動）	CNP 065	1	15%	98	Operating inside tunnel 在隧道內運作	-10	80	
		Ventilation fan 抽氣扇	CNP 241	3	100%	108	Silencer 消音器	-15	98	
2	Dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services inside the tunnel adit 拆卸和移除隧道內的機動及電力、消防、閉路電視、照明和泵管設備	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機，貨車，5.5噸<車輛總重<38噸	CNP 145	1	25%	105	Operating inside tunnel 在隧道內運作	-10	89	98
		Lifting platform 升降平臺	BS C4 57	1	25%	95	Operating inside tunnel 在隧道內運作	-10	79	
		Drill/grinder, hand-held (electric) 鑽／磨機，手提型（電動）	CNP 065	1	15%	98	Operating inside tunnel 在隧道內運作	-10	80	
		Ventilation fan 抽氣扇	CNP 241	3	100%	108	Silencer 消音器	-15	98	
3	Setup temporary rock filling platform to break the upper part of the concrete bunch retaining wall, ie the portal barricades in front of the east and west portals 搭建臨時填石平臺以打破混凝土擋牆的上部份，即東面和西面隧道口的擋牆	Excavator/loader, wheeled/tracked 挖土機／搬土機，輪動式／履帶式	CNP 081	1	50%	112			109	110
		Dump truck, 5.5 tonne < gross vehicle weight < 38 tonne 卸土車，5.5噸<車輛總重<38噸	CNP 068	2	50%	105			105	
4	Break the upper part of the concrete bunch retaining wall 打破混凝土擋牆的上部份	Breaker, excavator mounted (hydraulic) 破碎機，裝在挖土機上（油壓）	CNP 028	1	15%	122			114	114
		Concrete crusher, excavator mounted 混凝土破碎機，裝在挖土機上	CNP 055	1	50%	103				
		Dump truck, 5.5 tonne < gross vehicle weight < 38 tonne 卸土車，5.5噸<車輛總重<38噸	CNP 068	1	15%	105			97	
5	Frame cut the rebars during breaking works 在打破工程中，切割鋼筋	Generator, silenced, 75dB(A) at 7m 發電機，低噪音型在7米距離時75分貝(A)	CNP 102	1	50%	100			97	101
		Lifting platform 升降平臺	BS C4 57	1	50%	95			92	
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機，貨車，5.5噸<車輛總重<38噸	CNP 145	1	15%	105			97	

Annex B2 : Construction Plant Inventory

附錄 B2: 施工時使用的機動設備

No. 號數	Activities 工序	PME 機動設備	TM Ref. 技術備忘錄的 辨認代碼/ BS 5228	No. of PME 數量	On- time % 運作時 間	Unit SWL 聲功率級 (分貝(A))	Type of Noise Control 控制噪音類別	Noise reduction 聲功率修正, dB(A)	SWL 修正後的 聲功率級, dB(A)	Total SWL 聲功率級總 數, dB(A) ^[1]
6	Remove the temporary rock filling platform 移除臨時填石平臺	Excavator/loader, wheeled/tracked 挖土機/搬土機, 輪動式/履帶式	CNP 081	1	50%	112			109	110
		Dump truck, 5.5 tonne < gross vehicle weight < 38 tonne 卸土車, 5.5噸<車輛總重<38噸	CNP 068	2	50%	105			105	
7	Break the lower part of the concrete bunch retaining wall 打破混凝土擋牆的下部份	Breaker, excavator mounted (hydraulic) 破碎機, 裝在挖土機上 (油壓)	CNP 028	1	15%	122			114	114
		Concrete crusher, excavator mounted 混凝土破碎機, 裝在挖土機上	CNP 055	1	50%	103				
		Dump truck, 5.5 tonne < gross vehicle weight < 38 tonne 卸土車, 5.5噸<車輛總重<38噸	CNP 068	1	15%	105			97	
8	Frame cut the rebars during breaking works 在打破工程中, 切割鋼筋	Generator, silenced, 75dB(A) at 7m 發電機, 低噪音型在7米距離時75分貝(A)	CNP 102	1	50%	100			97	101
		Lifting platform 升降平臺	BS C4 57	1	50%	95			92	
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機, 貨車, 5.5噸<車輛總重<38噸	CNP 145	1	15%	105			97	
9	Remove the concrete debris 移除混凝土碎片	Excavator/loader, wheeled/tracked 挖土機/搬土機, 輪動式/履帶式	CNP 081	1	50%	112			109	110
		Dump truck, 5.5 tonne < gross vehicle weight < 38 tonne 卸土車, 5.5噸<車輛總重<38噸	CNP 068	2	50%	105			105	
10	Remove all fire services facilities, pipes, pumps of the fire services concrete pump room and all ground services, including temporary office, and road furniture and lighting 移除所有消防混凝土泵房內的消防設施、管道、泵和所有地面設備, 包括臨時辦公室和道路設備及照明	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機, 貨車, 5.5噸<車輛總重<38噸	CNP 145	1	15%	105			97	101
		Lifting platform 升降平臺	BS C4 57	1	25%	95			89	
		Generator, silenced, 75dB(A) at 7m 發電機, 低噪音型在7米距離時75分貝(A)	CNP 102	1	50%	100			97	
		Drill/grinder, hand-held (electric) 鑽/磨機, 手提型 (電動)	CNP 065	1	15%	98			90	
11	Remove water tanks 移除水箱	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機, 貨車, 5.5噸<車輛總重<38噸	CNP 145	1	50%	105			102	102

Annex B2 : Construction Plant Inventory

附錄 B2: 施工時使用的機動設備

No. 號數	Activities 工序	PME 機動設備	TM Ref. 技術備忘錄的 辨認代碼/ BS 5228	No. of PME 數量	On- time % 運作時 間	Unit SWL 聲功率級 (分貝(A))	Type of Noise Control 控制噪音類別	Noise reduction 聲功率修正, dB(A)	SWL 修正後的 聲功率級, dB(A)	Total SWL 聲功率級總 數, dB(A) ^[1]
12	Break and remove fire services concrete pump room 打破和移除消防混凝土泵房	Breaker, excavator mounted (hydraulic) 破碎機，裝在挖土機上（油壓）	CNP 028	1	15%	122			114	114
		Concrete crusher, excavator mounted 混凝土破碎機，裝在挖土機上	CNP 055	1	25%	103				
		Dump truck, 5.5 tonne < gross vehicle weight < 38 tonne 卸土車，5.5噸<車輛總重<38噸	CNP 068	2	15%	105			100	
13	Remove any temporary steel works 移除任何臨時鋼鐵支架	Breaker, excavator mounted (hydraulic) 破碎機，裝在挖土機上（油壓）	CNP 028	1	15%	122			114	114
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne 吊機，貨車，5.5噸<車輛總重<38噸	CNP 145	1	50%	105			102	
		Lifting platform 升降平臺	BS C4 57	1	15%	95			87	
		Generator, silenced, 75dB(A) at 7m 發電機，低噪音型在7米距離時75分貝(A)	CNP 102	1	25%	100			94	
		Drill/grinder, hand-held (electric) 鑽/磨機，手提型（電動）	CNP 065	1	15%	98			90	

Notes:

[1] The figures are rounded-up to a whole number.

數字四捨五入為一個整數。

[2] Activity 1 and 2 will be operating inside tunnel. Other activities will be carried out outside the tunnel area, ie in open-air. The adit entrance will remain open during the various decommissioning activities.

活動1和2將在隧道內進行。其他活動將在隧道外的區域，即在露天進行。隧道口在工程期間將維持開放。

Construction Noise Assessment建築噪音評估

NSR: KET15 Chee Sing Kok Social Centre of the Humanity Love 慈星閣仁愛服務中心

No. 號數	Activities 工序	Worksite ID 工地號	SWL 聲功率級 dB(A)	Distance 距離 m	Corr. for distance 距離衰減 dB(A) ^{[1][2]}	Corr. for façade 聲音反射修正 dB(A)	Predicted Construction Noise Level (dB(A)) 預計的噪音聲級 (分貝(A)修正)																											
							Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7			
							wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4	wk1	wk2	wk3	wk4
	<i>Daytime Period 日間</i>																																	
1	Dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services inside the explosive chambers 拆卸和移除炸藥儲藏室內的機動及電力、消防、閉路電視、照明和泵管設備	MA	98	59	-43	3	58	58																										
2	Dismantle and remove the E&M, fire services, CCTV, lighting and pump pipes services inside the tunnel adit 拆卸和移除隧道內的機動及電力、消防、閉路電視、照明和泵管設備	MA	98	59	-43	3	58	58																										
3	Setup temporary rock filling platform to break the upper part of the concrete bunch retaining wall, ie the portal barricades in front of the east and west portals 搭建臨時填石平臺以打破混凝土擋牆的上部份，即東面和西面隧道口的擋牆	MA	110	59	-43	3	70	70	70																									
4	Break the upper part of the concrete bunch retaining wall 打破混凝土擋牆的上部份	MA	114	59	-43	3				73	73																							
5	Frame cut the rebars during breaking works 在打破工程中，切割鋼筋	MA	101	59	-43	3				60	60																							
6	Remove the temporary rock filling platform 移除臨時填石平臺	MA	110	59	-43	3						70	70																					
7	Break the lower part of the concrete bunch retaining wall 打破混凝土擋牆的下部份	MA	114	59	-43	3								73	73																			
8	Frame cut the rebars during breaking works 在打破工程中，切割鋼筋	MA	101	59	-43	3										60	60																	
9	Remove the concrete debris 移除混凝土碎片	MA	110	59	-43	3								70	70																			
10	Remove all fire services facilities, pipes, pumps of the fire services concrete pump room and all ground services, including temporary office, and road furniture and lighting 移除所有消防混凝土泵房內的消防設施、管道、泵和所有地面設備，包括臨時辦公室和道路設備及照明	MA	101	59	-43	3	60	60	60	60	60	60	60	60	60																			
11	Remove water tanks 移除水箱	MA	102	59	-43	3							62	62	62	62	62	62	62	62														
12	Break and remove fire services concrete pump room 打破和移除消防混凝土泵房	MA	114	59	-43	3								74	74	74																		
13	Remove any temporary steel works 移除任何臨時鋼鐵支架	MA	114	59	-43	3																		74	74	74	74							
Predicted Noise Level, dB(A)							71	71	70	74	74	70	70	74	74	70	71	74	74	74	62	62	62	62	62	62	62	62	-					
							-	74	74	74	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							

Note:

- [1] Distance Correction 距離衰減 = $10 \cdot \log(2 \cdot \pi \cdot r^2)$
 [2] The figures are rounded-up to a whole number.
 數字四捨五人為一個整數。