



香港電燈有限公司  
THE HONGKONG ELECTRIC CO., LTD  
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在地下電纜附近進行挖掘及建造工程的一般守則

本一般守則只提供指引。承建商除需要參考本守則所列舉的事項外，並應切記遵守由機電工程署根據《電力條例》(第406章)訂立的《供電電纜(保護)規例》所擬備之《有關在供電電纜附近工作的實務守則》之最新版本，經路政署發出之《挖掘准許證條款》或《緊急挖掘准許證條款》之最新版本及其他相關法例要求，採取一切必須的預防措施以保護地下公用設施。再者，除須遵照本守則外，承建商在進行工程時必須小心謹慎，並採用妥善的技術和工程方法。任何承建商因其工程或由其工程引致或造成的一切後果，或因參照本守則全部或部分內容導致的任何損失，香港電燈有限公司(下稱「港燈」)概不負責。

1. 地下電纜圖則上的特別標記及圖例

若地下電纜的圖則上的工程地點附近有任何一類  或  的標記，承建商必須在動工前聯絡港燈，作工地視察。

2. 適當保護及承托地下電纜和電纜接駁箱

為避免在工程進行時損毀電纜或電纜接駁箱，應如附圖（標題為 - 電纜承托之方法）所示，使用適當設施來承托電纜。在接駁箱周圍，應如附圖（標題為 - 承托及保護電纜接駁箱）所示，鋪上沙包以作保護，及不得在港燈電纜附近放置易燃物料。

若在工程進行時電纜或電纜接駁箱遭受損毀，應立即停止工程，所有人員亦須即時撤離現場，防止別人進入該範圍並立即通知港燈。無論如何，切勿對地下電纜進行未經許可的修理。

### 3. 挖掘或建造工程鄰近港燈的132千伏或以上的輸電電纜

若挖掘或建造工程鄰近港燈的132千伏或以上的輸電電纜，承建商須在動工前聯絡港燈，及安排承建商和港燈進行每週工程會議，承建商並須嚴格遵守下列規定：

- 3.1 在132千伏或以上的輸電電纜三米範圍內，祇可用手掘方法，並須在動工前最少一星期，提交每項在132千伏或以上的輸電電纜三米範圍內進行挖掘或建造工程的方法予港燈書面批核。
- 3.2 切勿干擾132千伏或以上的輸電電纜接駁箱，承建商必須聯絡港燈商討適當的保護方法，定出雙方同意並符合港燈要求的保護方法後方可動工。
- 3.3 港燈的132千伏或以上的輸電電纜或電纜接駁箱均不能懸空架設，承建商須重新設計／更改工程路線以免上述情況發生。
- 3.4 除非在動工前得到港燈書面批准，否則切勿移去港燈電纜的保護板，亦不得在板下進行挖掘或建造工作。
- 3.5 承建商不得在港燈的132千伏或以上的輸電電纜及電纜接駁箱頂部上方安裝或擺放任何新設施，以免阻礙港燈將來的維修工作。新設施應與港燈的132千伏或以上的輸電電纜保持最少一米的距離。

### 4. 地下電纜及電纜接駁箱的最少覆蓋深度

必須符合路政署的規定，22千伏或以下的電纜深度，在行車路最少應有900毫米及在行人路最少應有450毫米。132千伏或以上的輸電電纜在行車路及行人路之最少覆蓋深度則為1,000毫米。

港燈在敷設其電纜時是按路政署當時發出之挖掘准許證所規定的深度，或是獲有關當局書面許可的深度而行，但港燈不能保證電纜敷設後，其深度保持在原來水平。

地下電纜的圖則可能顯示出某些位於離地面較近之電纜位置，但有時會基於不同因素，例如：電纜電壓、敷設時間、鄰近障礙物、其他設施之位置、不斷改善及擴展的港燈供電網絡與及道路和物業發

展等所引起的變更等，以致電纜可能出現在不同準線和深度。電纜亦可能會因第三者進行挖掘、建造或修復工程而被移動。承建商必須注意，電纜深度及準線可能在港燈並未知悉或非因其錯誤引致下，少於挖掘准許證的規定及與地下電纜圖則上之顯示有重大差別。承建商務必小心確定電纜的準線及深度。

如上文所述，港燈不能確保電纜敷設後，其深度保持在原來水平。若在工程進行中發現有電纜的深度未符合上述規定，應通知港燈安排實地視察。

未獲得港燈書面核准之前，承建商不可以改動任何電纜或電纜接駁箱的覆蓋深度或走向。若曾移動電纜或電纜接駁箱，承建商應將它敷設於原來深度。回填泥土前，應先由港燈代表檢查壕坑。承建商應致電2814 3443聯絡港燈以作安排。承建商須因其工程引致任何電纜或電纜接駁箱的損壞及電纜或電纜接駁箱的移位而導致之任何損失向港燈作出賠償。

## 5. 適當回填地下電纜及電纜接駁箱上的泥層

回填泥土前，木料或其他不必要的物料需搬離。在特殊的情況下及得到港燈事前書面批准，才可移去在電纜保護板下包圍電纜的回填物。在復修移去的回填物時，承建商應致電2814 3443通知港燈有關之回填時間表。應用原來的回填物料重新填補電纜壕坑內電纜之周圍，要確保完全不含木料，及需遵守以下規定：

### 5.1 港燈電纜保護板下地下電纜周圍的回填物料

5.1.1 22千伏或以下的電纜壕坑應使用經篩格的土壤作基層及覆蓋層。基層土壤的厚度應是75毫米。電纜放在基層面後，應以另一層厚度達75毫米經篩格的土壤覆蓋，才敷設電纜保護板。

5.1.2 經篩格的土壤，是指能通過12毫米 x 12毫米網孔的土壤。

5.1.3 132千伏或以上的輸電電纜周圍的回填物料的使用應按照特別規定，並須列入上述第3項所提及的每週工程會議的議程內。

- 5.1.4 承建商應按照港燈規定及如附圖（標題為 - 電纜、電纜保護板及警告性告示帶的標準位置圖）所示，重新敷設移去之電纜保護板及電纜警告性告示帶。若原先移去的保護板及警告性告示帶不敷應用，承建商需通知港燈提供足夠數量的保護板及／或警告性告示帶。

5.2 在港燈電纜保護板上方的回填物料

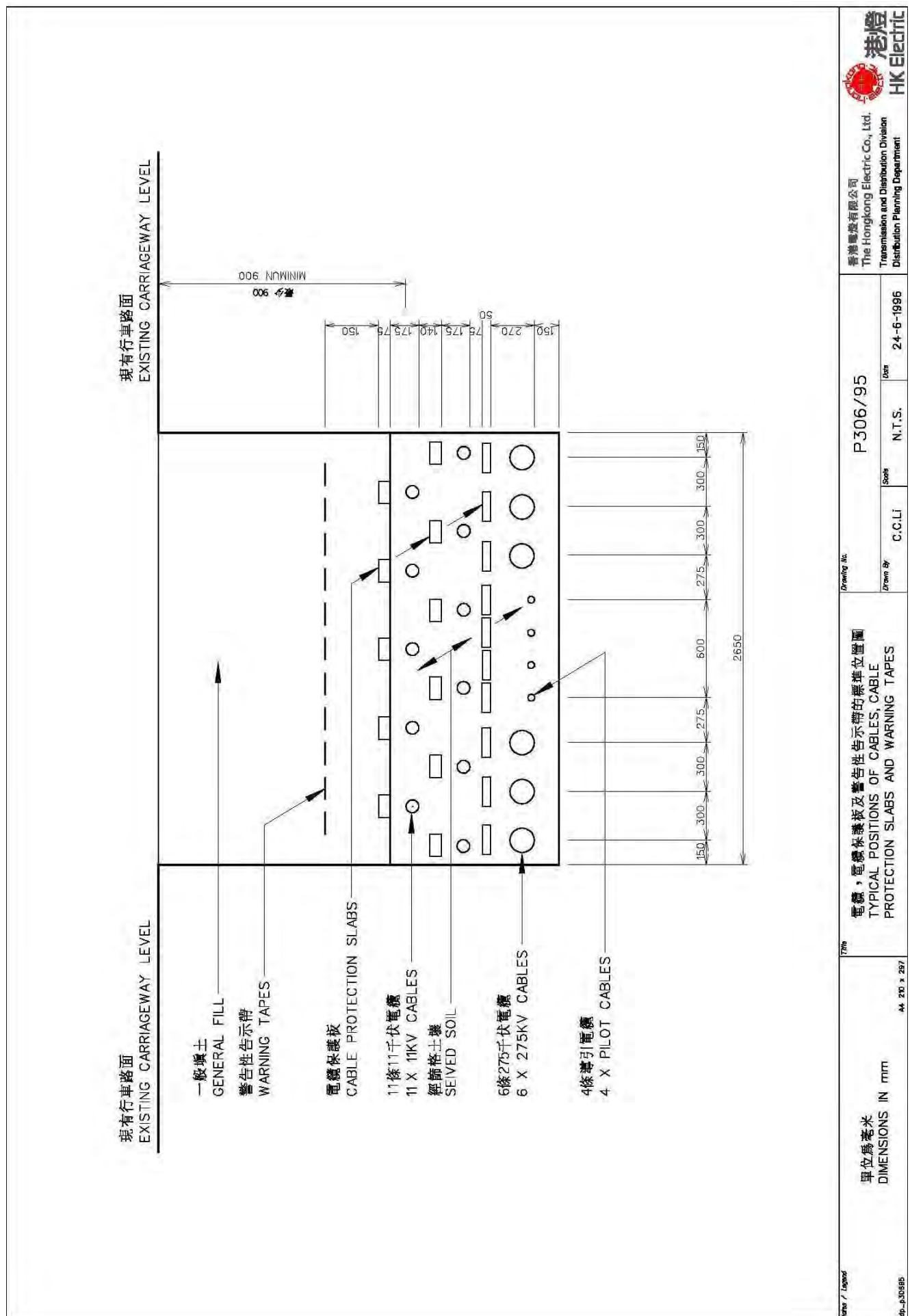
在港燈電纜保護板上方的回填物料應符合路政署的規定，粒徑最大不能超過75毫米，不得含有泥炭、木料、容易腐爛物料、石塊、碎混凝土或容易自燃的物料，並須壓實為穩固的填土。

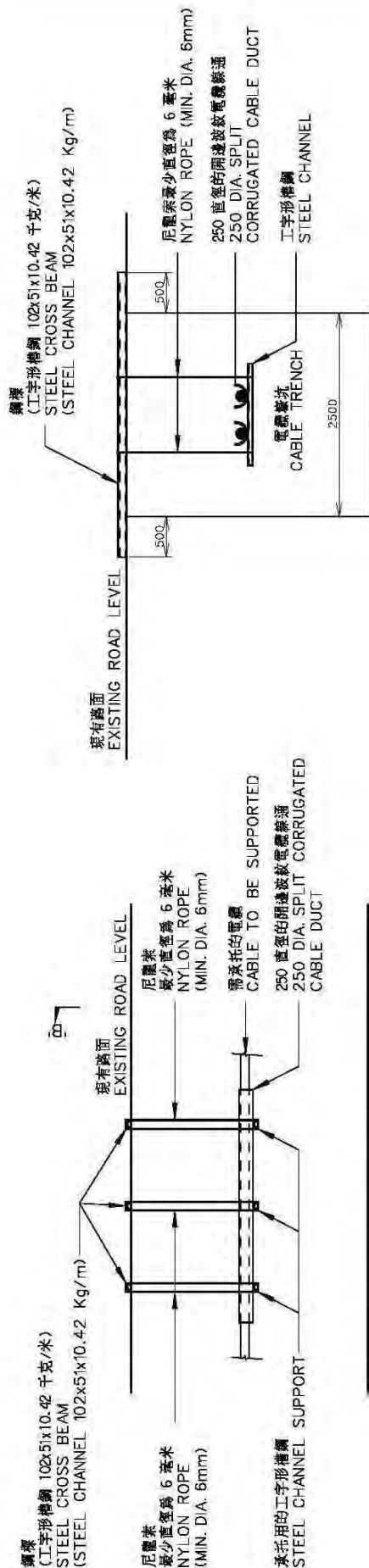
- 5.3 若承建商對符合上列要求有任何困難，承建商應即致電2814 3443聯絡港燈作實地視察。

6. 港燈的聯絡電話號碼

除上述情況外，若遇上其他特殊問題和情況請向港燈查詢及要求特別指示。承建商若有疑問請撥下列聯絡電話：

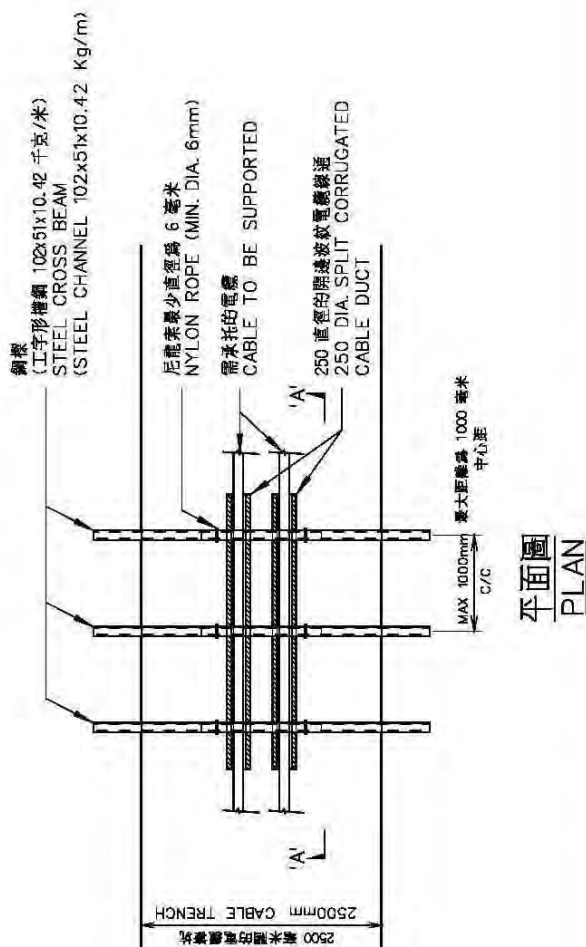
- 6.1 一般查詢及工地視察 — 2814 3443（24小時熱線）
- 6.2 報告電纜損毀事故 — 2555 4999（粵語/普通話24小時熱線）或  
2555 4000（英語24小時熱線）





'A-A' 切面圖  
SECTION 'A-A'

'B-B' 切面圖  
SECTION 'B-B'



註：  
NOTES：

- 將開邊波紋電纜通裝在電纜壕坑內現有電纜的底部
- INSTALL SPLIT CORRUGATED CABLE DUCT UNDERNEATH THE EXISTING CABLE INSIDE CABLE TRENCH
- 在電纜通下裝設承托的工字形槽鋼
- INSTALL STEEL CHANNEL SUPPORT UNDER THE CABLE DUCT
- 將鋼索橫放在電纜壕坑上
- INSTALL STEEL CROSS BEAM ACROSS THE CABLE TRENCH
- 使用足夠強度的尼龍索將電纜承托架牢固在鋼索上
- FIXED NYLON ROPE OF SUFFICIENT STRENGTH TO SECURE THE CABLE SUPPORT TO THE CROSS BEAM
- 鋼索的最大距離為 1000 毫米中心距
- THE MAX. SPACING OF STEEL BEAM IS 1000mm C/C

Notes / Legend

7mm

單位為毫米  
DIMENSIONS IN mm

AA 230 x 237

電纜承托之方法  
METHOD TO SUPPORT CABLES

Drawing No.

P307/95

Drawn By

C.C.Li

Scale

N.T.S.

Date

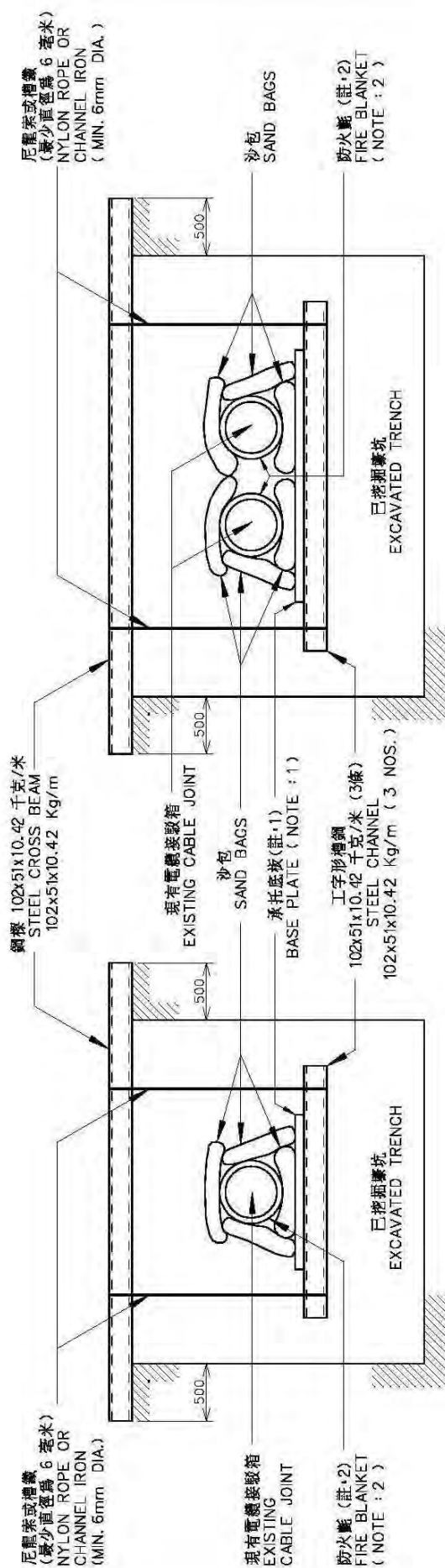
24-6-1996

香港電燈有限公司  
The Hongkong Electric Co., Ltd.

Transmission and Distribution Division  
Distribution Planning Department







註 :  
NOTES :

1 輸電電纜壕坑內要使用非木料物質之承托底板

BASE PLATE SHOULD BE WOODLESS FOR TRANSMISSION CABLE TRENCH.

2 電纜接駁箱最少要有二層防火氈包裹及伸延至接駁箱末端 300 毫米外

MINIMUM 2 LAYERS OF FIRE BLANKET SHOULD BE WRAPPED OVER CABLE JOINT,  
AND THE BLANKET SHOULD EXTEND OVER THE END OF THE JOINT BY 300mm MINIMUM.

3 單位為毫米  
DIMENSIONS IN mm

Notes / Legend

17mm

承托及保護電纜接駁箱

SUPPORT & PROTECTION OF CABLE JOINT

Drawing No.

P097/00

Drawn By  
C.C.Li

Checked By  
C.W.Fung

Approved By  
K.W.Kwan

Scale  
N.T.S.

Date  
18-8-2000

香港電燈有限公司  
The Hongkong Electric Co., Ltd.  
Transmission and Distribution Division  
Construction & Maintenance Dept.



港燈  
HK Electric

cm\_p09700



A4 210 x 297

香港電燈有限公司  
THE HONGKONG ELECTRIC CO., LTD.  
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GENERAL PRACTICE ON EXECUTION OF EXCAVATION AND CONSTRUCTION  
WORK NEAR UNDERGROUND ELECTRICITY CABLES

This General Practice is intended for guidance only. Contractors are reminded that in addition to following this General Practice, they should take all necessary precautionary measures to protect underground services as stipulated in the latest version of Code of Practice on Working near Electricity Supply Lines in accordance with the provisions of the Electricity Supply Lines (Protection) Regulation under the Electricity Ordinance (Cap. 406) issued by Electrical and Mechanical Services Department, the latest version of Conditions of Excavation Permit or Conditions of Emergency Excavation Permit issued by Highways Department and other relevant legislative requirements. Moreover, the contractors must exercise due diligence and all reasonable care in carrying out their work in conformity with sound technical and engineering practice. The Hongkong Electric Co., Ltd. (hereinafter referred to as 'HK Electric') shall not be liable for any losses and/or damages suffered by any contractors arising out of or in consequence of their work taken or from reliance upon the whole or any part of the contents of this General Practice.

1. Special Marks and Legends on The Cable Plan

Should any of the signs  or  be found on the underground electricity cable plan provided in the vicinity of the work area, the contractor responsible for such work must contact HK Electric for site inspection before commencement of any work.

2. Proper Protection and Support of Underground Electricity Cables and Cable Joints

In order to avoid damage of any cables or cable joints during the work, adequate support must be provided to the cables as shown in the drawing attached (Title - Method To Support Cables). Sand bags shall be placed around the cable joints for protection as shown in the drawing attached (Title - Support & Protection of Cable Joint). No flammable material shall be placed near any HK Electric's cable.

Should any cable or cable joint be damaged in the course of a contractor's work, the work shall be stopped immediately and all personnel shall immediately be cleared from the spot. Guard the site and report to HK Electric at once. Under no circumstances shall any unauthorised repairs be made to an underground electricity cable.

3. Excavation or Construction Work Near HK Electric's Transmission Cables of 132kV and above

For excavation or construction work that is undertaken in close proximity to HK Electric's transmission cables of 132kV and above, the contractor responsible for such work is required to contact HK Electric before commencement of work. Weekly meetings between HK Electric and the contractor regarding the site work should be set up before the work commencement. The following requirements should also be strictly observed by the contractor:



- 3.1 Only hand digging method is allowed within 3 metres from the transmission cables of 132kV and above. Method statement of each individual excavation or construction work within 3 metres' range to the transmission cables of 132kV and above shall be submitted to HK Electric for written approval at least 1 week prior to the commencement of the work.
- 3.2 The transmission cable joints of 132kV and above should not be disturbed at all times and the contractor must contact HK Electric to work out proper protective measures. The work can only be commenced after the agreed protective measures have been completed to HK Electric's satisfaction.
- 3.3 Overhanging HK Electric's transmission cables or cable joints of 132kV and above is not allowed and the contractor shall revise the design/routing of the work to avoid any overhanging.
- 3.4 HK Electric's cable protection slabs shall not be removed and no excavation or construction work underneath the slabs shall be carried out unless prior written approval has been obtained from HK Electric.
- 3.5 The contractor's new installation shall not be placed right above HK Electric's transmission cables and cable joints of 132kV and above as to obstruct HK Electric's future maintenance work. The minimum clearance between new installation and HK Electric's transmission cables of 132kV and above is 1 metre.

4. Minimum Depth of Underground Electricity Cable and Cable Joint

To comply with the requirements of Highways Department, cables of 22kV and below should have a minimum depth of 900mm underneath carriageway and a minimum depth of 450mm under footway. Transmission cables of 132kV and above should have a minimum depth of 1000mm underneath carriageway and footway.

HK Electric's cables have been originally laid at the depths required by the then prevailing requirements of the Conditions of Excavation Permit issued by the Highways Department or such other depth as approved in writing by the authority. HK Electric cannot however guarantee that the cables have remained at such depths since they were laid.

The underground electricity cable plan may indicate locations of cables which are more prone to shallow depth, however cables may be located in different alignment and depths depending on such factors as the voltage of the cable, the time it was laid, obstructions in the area, the location of other utilities, changes due to continuous alteration, improvement and extension of HK Electric's network and changes due to continuous road and property developments etc. Cables may also have been moved by excavation, construction or reinstatement work by third parties. Contractors are put on notice that the cover over cables and the alignment of cables may, without the knowledge or fault of HK Electric, be significantly less than provided for in the Conditions of Excavation Permit, and/or different from those indicated on the underground electricity cable plan. The contractor must take responsibility and great care in identifying the exact alignment and depth of the cables.

As explained above, HK Electric cannot guarantee that the cables have remained at such depths since they were laid. If you discover during your work any cable not complying with the above minimum depth requirement, you should inform HK Electric to arrange a site inspection.

The contractor is not allowed to change the burial depth or alignment of any cables or cable joints in the course of any excavation or construction work without obtaining prior written approval from HK Electric. Cables or cable joints should be reinstated, if having been disturbed, back to their original depth by the contractor. The trench should then be inspected by HK Electric's representative before backfilling. The contractor should call HK Electric at telephone No. 2814 3443 for arrangement. HK Electric will hold the contractor liable for any damage to its cables or cable joints, and any loss or damage arising from the alteration of the location of the cables or cable joints by the contractor.

## 5. Proper Backfilling to Underground Electricity Cables and Cable Joints

Wooden material or other unwanted substance should be removed before backfilling. Under exceptional circumstances and with prior written approval from HK Electric, the backfilling materials around cables underneath cable protection slabs may be removed. In reinstating the removed materials, the contractor should call and inform HK Electric at telephone No. 2814 3443 of the schedule of the backfilling. The cable trench should be backfilled with original backfilling materials surrounding cables which should be completely free from any wooden materials, as follows:

### 5.1 Backfilling Materials Around Underground Electricity Cables Underneath HK Electric's Cable Protection Slabs

- 5.1.1 Sieved soil shall be used as bedding and covering materials for cable trench of cables of 22kV and below. The thickness of the bedding layer shall be 75mm. After the cables are placed on bedding, they shall be covered by another layer of sieved soil, with a thickness of 75mm before the cable protection slabs are placed.
- 5.1.2 Sieved soil is defined as suitable filling materials passing through a 12mm x 12mm mesh.
- 5.1.3 Backfilling materials around transmission cables of 132kV and above shall follow special requirements and shall be included in the agenda of the weekly meeting as mentioned in item 3 above.
- 5.1.4 Cable protection slabs and cable warning tapes having been removed shall be reinstated by the contractor in accordance with HK Electric's requirements as shown in the drawing attached (Title - Typical Positions of Cables, Cable Protection Slabs and Warning Tapes). If the protection slabs and warning tapes remaining from previous removal are found to be insufficient for the protection of the cables, the contractor must contact HK Electric for the provision of adequate quantity of protection slabs and/or warning tapes.

### 5.2 Backfilling Materials Above HK Electric's Cable Protection Slabs

Backfilling materials above HK Electric's cable protection slabs shall comply with the requirements of Highways Department with particle size not exceeding 75mm, free from

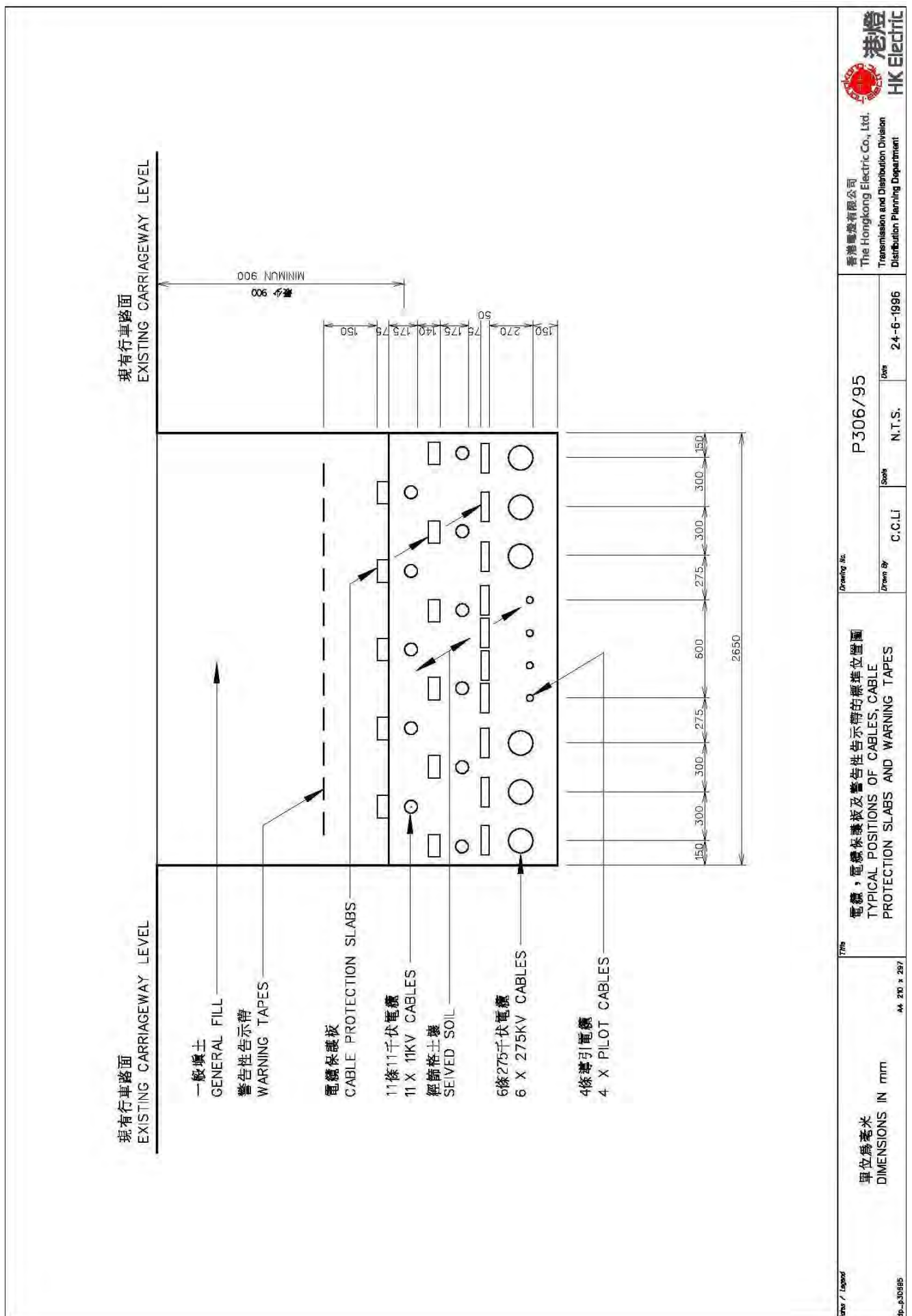
peat, timber, perishable materials, rock, broken concrete or spontaneous combustion materials and capable of being compacted to form a stable fill.

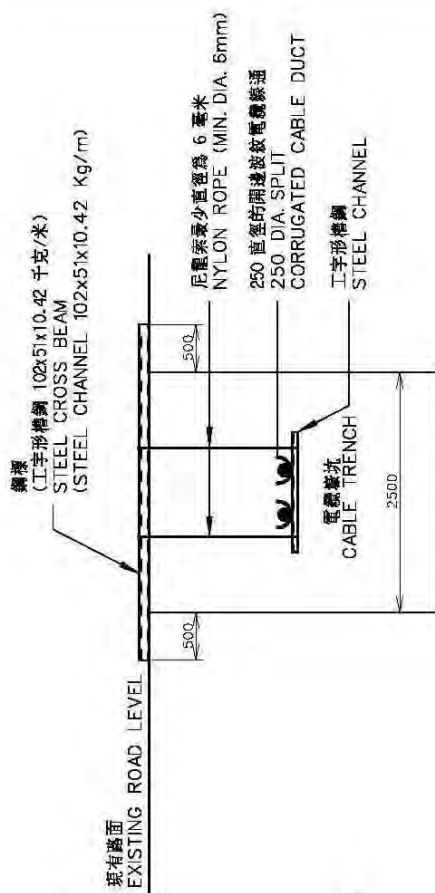
- 5.3 If the contractor has any difficulty in complying with any of the above, the contractor should call HK Electric at telephone No. 2814 3443 for site inspection.

6. HK Electric's Contact Telephone No.

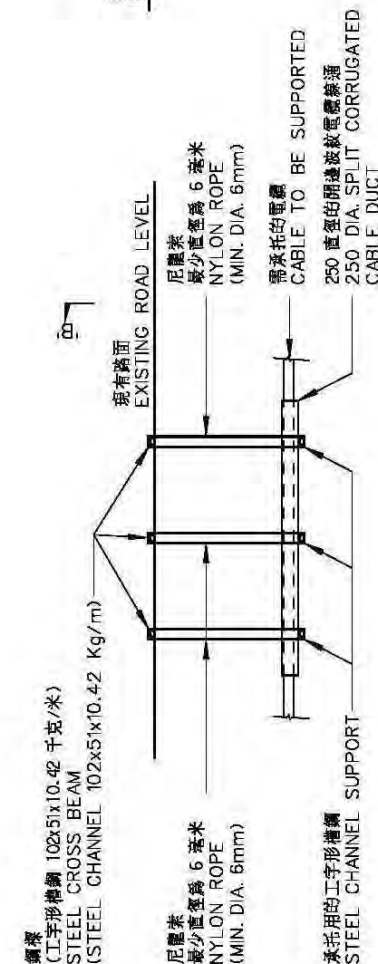
Special factors and circumstances other than those described above may require specific directions from HK Electric. Contractors shall, in case of doubt, make use of the following telephone contacts:

- 6.1 For general enquiries and site inspection - 2814 3443 (24-hr hotline)
- 6.2 For reporting cable damage - 2555 4999 (Chinese 24-hr hotline) or  
2555 4000 (English 24-hr hotline)

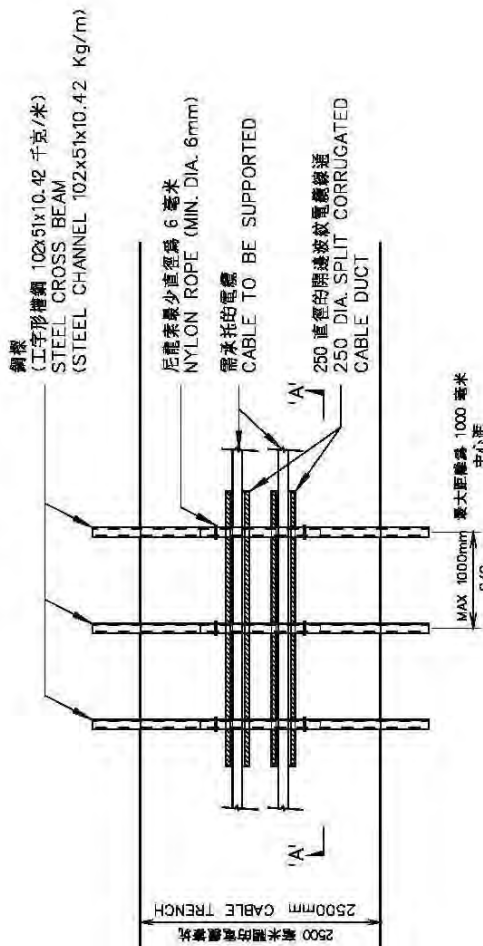




'A-A' 剖面圖  
SECTION 'A-A'



'B-B' 剖面圖  
SECTION 'B-B'



平面圖  
PLAN

註：  
NOTES :

將開邊波紋電纜線通裝在電纜壕坑內現有電纜的底部  
INSTALL SPLIT CORRUGATED CABLE DUCT UNDERNEATH THE EXISTING CABLE INSIDE CABLE TRENCH

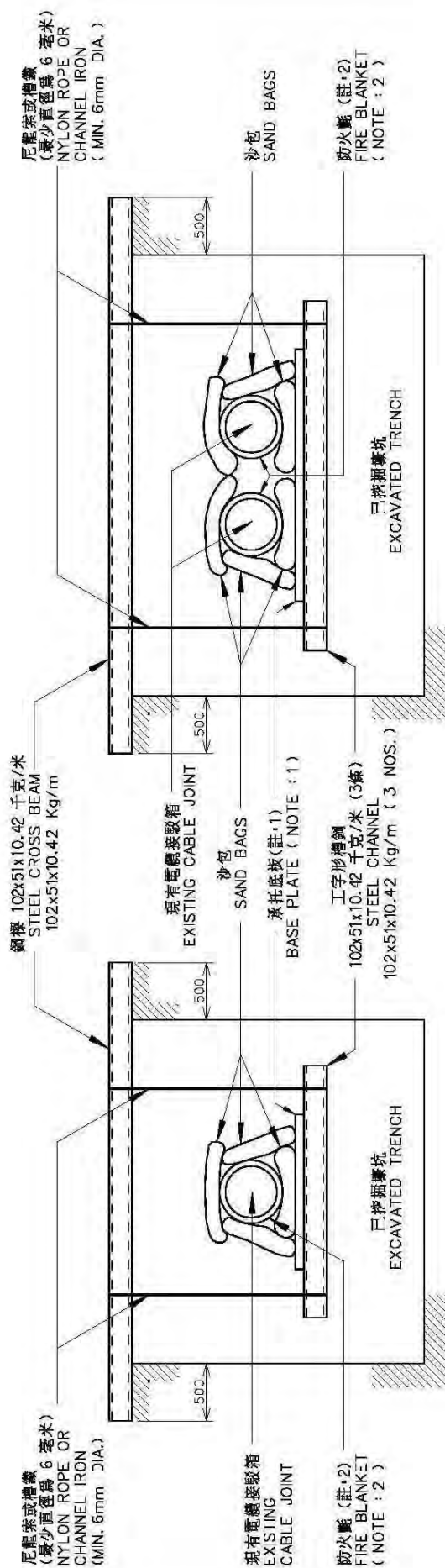
在電纜線通下裝設承托的工字形槽鋼  
INSTALL STEEL CHANNEL SUPPORT UNDER THE CABLE DUCT

將鋼樑橫放在電纜壕坑上  
INSTALL STEEL CROSS BEAM ACROSS THE CABLE TRENCH

使用足夠強度的尼龍索將電纜承托架牢固在鋼樑上  
FIXED NYLON ROPE OF SUFFICIENT STRENGTH TO SECURE THE CABLE SUPPORT TO THE CROSS BEAM

鋼樑的最大距離為 1000 毫米中心距  
THE MAX. SPACING OF STEEL BEAM IS 1000mm C/C





註：  
NOTES：

1 輸電電纜壕坑內要使用非木料物質之承托底板

BASE PLATE SHOULD BE WOODLESS FOR TRANSMISSION CABLE TRENCH.

2 電纜接駁箱最少要有二層防火氈包裹及伸延至接駁箱末端 300 毫米外

MINIMUM 2 LAYERS OF FIRE BLANKET SHOULD BE WRAPPED OVER CABLE JOINT,  
AND THE BLANKET SHOULD EXTEND OVER THE END OF THE JOINT BY 300mm MINIMUM.

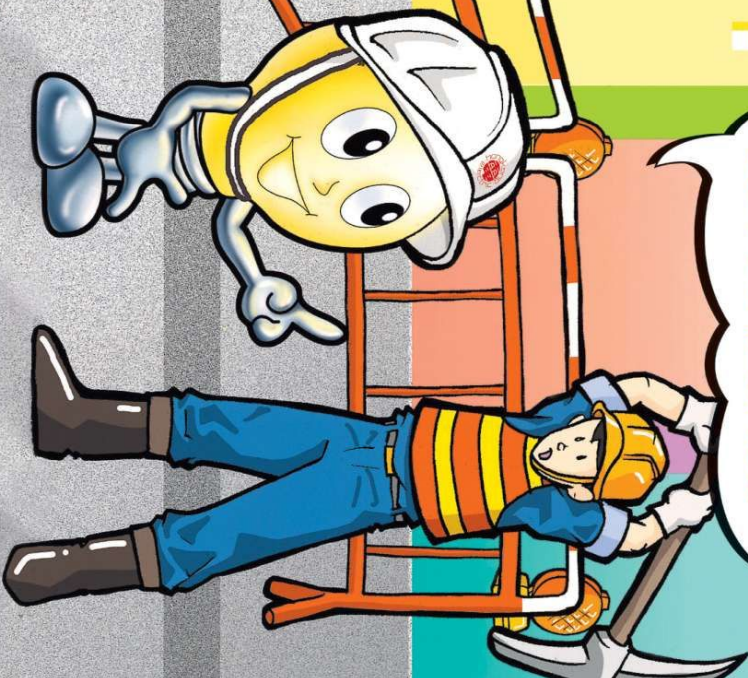
3 單位為毫米

DIMENSIONS IN mm

Notes / Legend	17mm	承托及保護電纜接駁箱 SUPPORT & PROTECTION OF CABLE JOINT	Drawing No.	P097/00	香港電燈有限公司 The Hongkong Electric Co., Ltd.	18-8-2000
cm_p09700	A4 210 x 297		Drawn By C.C.Li	Checked By C.W.Fung	Approved By K.W.Kwan	Starts N.T.S.
					Transmission and Distribution Division Construction & Maintenance Dept.	



# 提防損毀電纜 引致身體損傷!



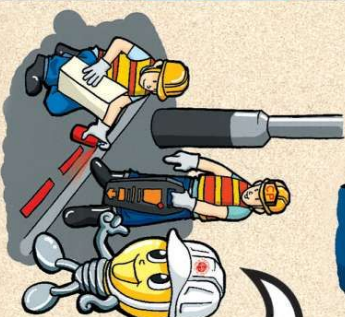
## 1. 香港電燈有限公司(“港燈”)的圖則

倘還未有地下電纜圖則，致電 **2814 3443** 索取。若地下電纜的圖則上的工程地點附近有任一類⊙或⊙的標記，必須在動工前致電**2814 3443** 聯絡港燈，作工地視察。



## 2. 測定地下電纜的準線

施工前應使用電纜探測器了解地下電纜的準線及在路面加上標記。



## 3. 挖掘試孔

使用手工工具挖掘試孔，找出藏於地下電纜的正確位置及其深度。



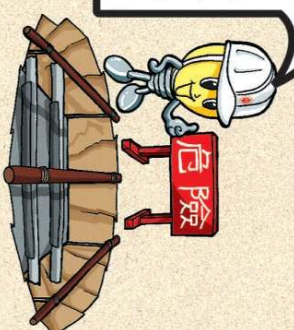
## 4. 環形有源探測

測定及記下電纜未有外露部份的深度資料。



## 5. 正確地保護電纜及接駁箱可避免損毀

若有損毀電纜，應立即停止工作，撤離現場及防止別人闖入，並致電**2555 4999** (粵語/普通話) 或**2555 4000** (英語)。

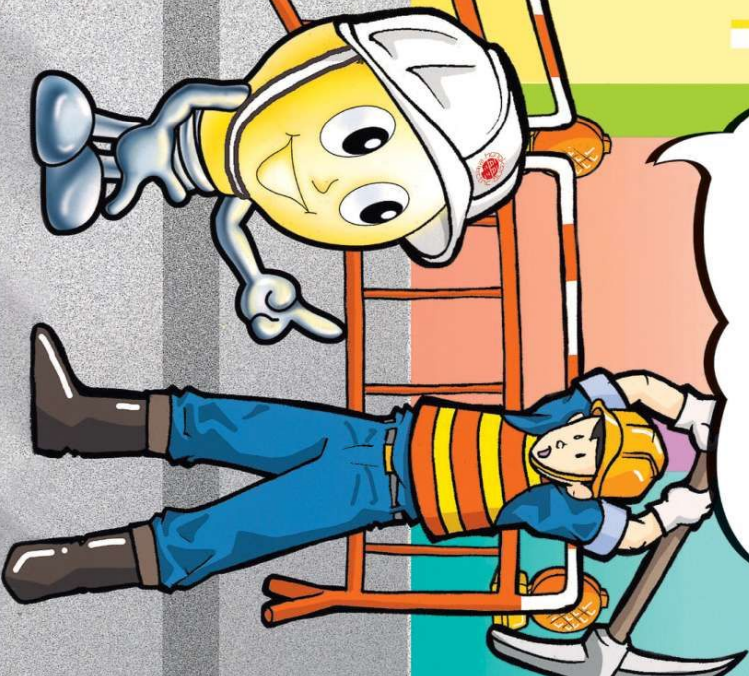


回填前，應重新敷設移去之電纜保護版及電纜警告性告示帶。若有查詢，致電 **2814 3443**。

本冊子只提供指引。承建商除需要遵照本冊子及香港電燈有限公司發出之《在地下電纜附近進行挖掘及建造工程的一般守則》所列舉的程序外，並應切記遵守由機電工程署根據《電力條例》(第406章)訂立的《供電電纜(保護)規例》所擬訂之《有關在供電電纜附近工作的實務守則》之最新版本及其他相關法例要求所載的《挖掘條款》或《緊急挖掘准許證條款》。再者，承建商在進行工程時必須小心謹慎，並採用妥善的技術和工程方法。任何承建商因其工程或由其工程引致或造成的一切後果，或因參照本冊子全部或部分內容導致的任何損失，香港電燈有限公司概不負責。



**Beware of  
Cable Damage,  
It Could Cause Injury!**



### 1. Plans from The Hongkong Electric Company, Limited ("HK Electric")

Call **2814 3443** if you do not have one. Should any of the signs  or  be found on the underground electricity cable plan provided in the vicinity of the work area, call **2814 3443** to contact HK Electric for site inspection before commencement of any work.



### 2. Locating Underground Cable Alignment

Make use of cable locating device to locate the alignment of underground electricity cables and mark the alignment on the road surface before commencement of work.

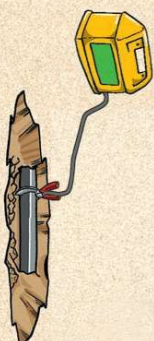
### 3. Trial Holes

Make use of hand tools to locate the exact position and depth of underground electricity cables.



### 4. Toroidal Active Detection

Determine and record the depth profile of the unexposed part of cable.



### 5. Proper Protection of Cables and Joints Can Avoid Damage

If cable is damaged, stop work, keep away, guard the site and call **2555 4999** (Chinese speaking) or **2555 4000** (English speaking) immediately.



Reinstate all protection slabs and warning tapes previously removed before backfilling. For enquiry, call **2814 3443**.

This leaflet is intended for guidance only. Contractors are reminded that in addition to following the procedures set out in this leaflet and the General Practice on Excavation of Excavation and Construction Work near Underground Electricity Cables issued by The Hongkong Electric Co., Ltd., they should take all necessary precautionary measures to protect underground services as stipulated in the latest version of Code of Practice on Working near Electricity Supply Lines in accordance with the provisions of the Electricity Supply Lines (Protection) Regulation under the Electricity Ordinance (Cap. 406) issued by Electrical and Mechanical Services Department, the latest version of Conditions of Excavation Permit or Conditions of Emergency Excavation Permit issued by Highways Department and other relevant legislative requirements. Moreover, the contractors must exercise due diligence and all reasonable care in carrying out their work in conformity with sound technical and engineering practice. The Hongkong Electric Co., Ltd. shall not be liable for any losses and/or damages suffered by any contractors arising out of or in consequence of their work taken or from reliance upon the whole or any part of the contents of this leaflet.



Attachment 1  
Photos of Services of The Hongkong Electric Co., Ltd.

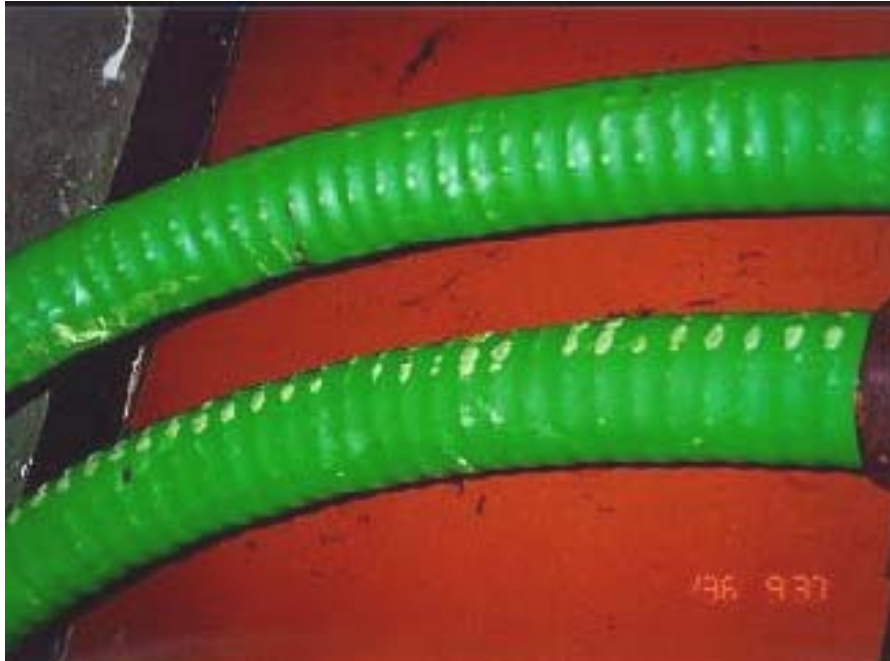


Photo 1 - LV Cables



Photo 2 - 11kV Cables



Photo 3 - 11kV Cable Joint



Photo 4 - 22kV Cables





Photo 5 - 11kV, LV and Communication Cable Ducts



Photo 6 - LV Cable Joint



Photo 7 – 132kV Cables



Photo 8 – 132kV Cable Ducts





Photo 9 – 132kV Cable Joints

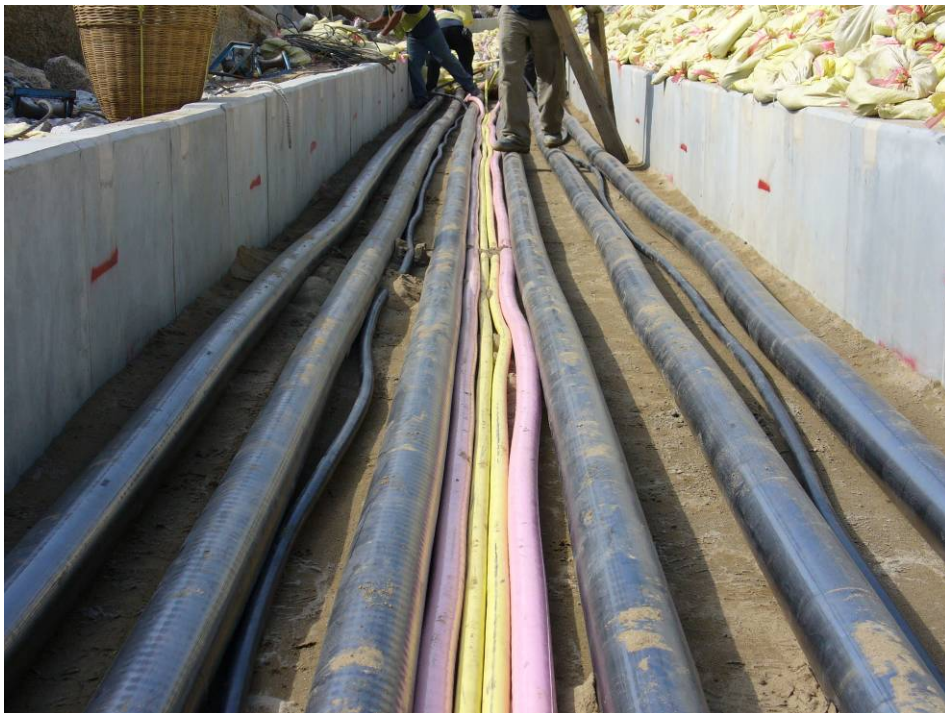


Photo 10 – 275kV Cables



Photo 11 – 275kV Cable Joints

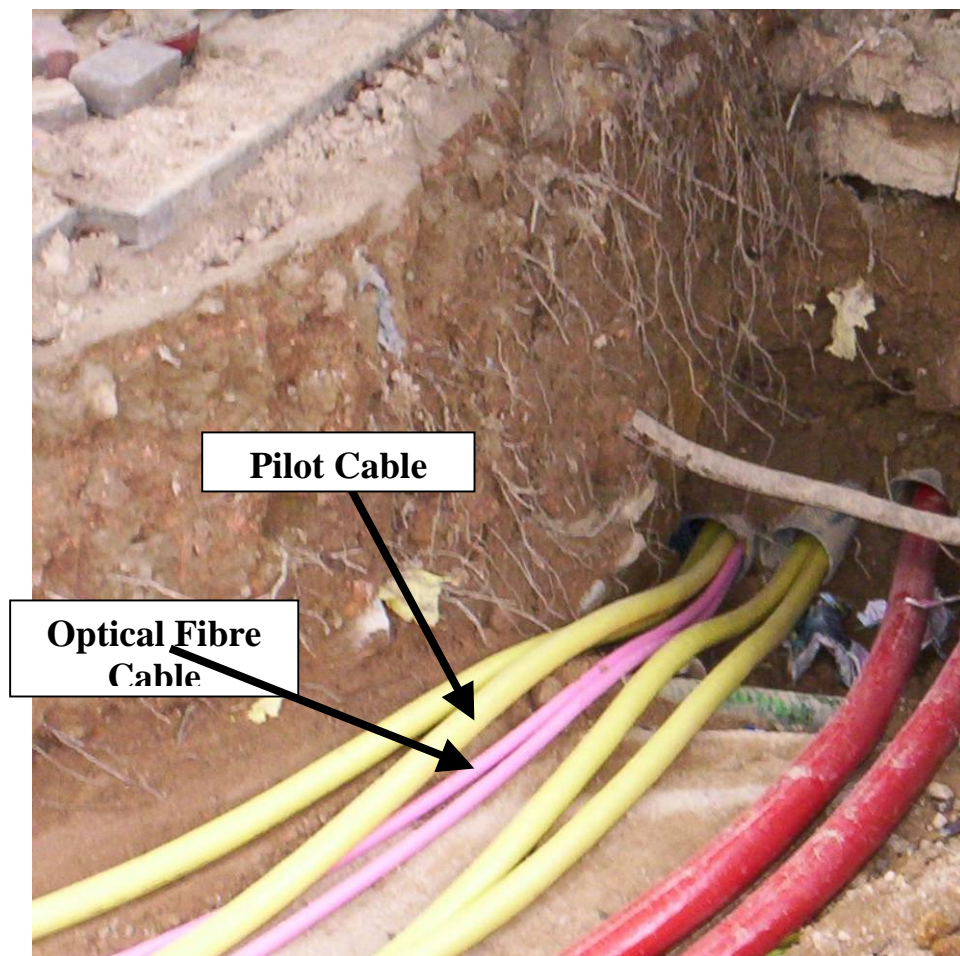


Photo 12 – Pilot and Optical Fibre Cable





Photo 13 – Pilot Cable Joints



Photo 14 – Optical Cable Joints



Photo 15 – 132kV Overhead Line Towers



Photo 16 – LV Overhead Line Poles





Photo 17 – Transformer Pillar



Photo 18 – LV Fuse Pillar



Photo 19 – Underground Pit Cover



Photo 20 – Transmission Cable Joint Bay