



GUIDELINES ON TELECOMMUNICATIONS STRUCTURES

- **STRUCTURES OF LAMP POLES INTEGRATED WITH TELECOMMUNICATIONS TRANSMISSION SYSTEMS (BIFUNCTIONAL LAMP POLES)**
- **TRANSMISSION SYSTEM STRUCTURES ON BILLBOARDS**
- **STRUCTURES MOBILE BASE TRANSCEIVER SYSTEM (MBTS)**



CONTENTS

1.0 GUIDELINES ON STRUCTURES OF LAMP POLES INTEGRATED WITH TELECOMMUNICATIONS TRANSMISSION SYSTEMS (BIFUNCTIONAL LAMP POLES)	2
1.1 DEFINITION	2
1.2 APPROVAL GUIDELINES	2
1.3 CONSTRUCTION GUIDELINES	3
1.4 CHARGE RATES	4
1.5 SUPERINTENDING OFFICER (SO) DEPARTMENT	4
1.6 GENERAL CONDITIONS	4
1.7 PARTICULAR CONDITIONS	5
1.8 SIGN BOARD DISPLAY	6
1.9 APPROVAL APPLICATION PROCESS FLOW CHART	7
1.10 BIFUNCTIONAL LAMP POLE STRUCTURAL DESIGN	8
1. Bifunctional Lamp Pole Telecommunications Structure	8
2. Bifunctional Lamp Pole Telecommunications Structure Equipment (cabinet)	9
1.11 APPLICATION DOCUMENTS	10
2.0 GUIDELINES ON TRANSMISSION SYSTEM STRUCTURES ON BILLBOARDS	11
2.1 DEFINITION	11
2.2 APPROVAL GUIDELINES	11
2.3 CONSTRUCTION GUIDELINES	11
2.4 CHARGE RATES	12
2.5 SUPERINTENDING OFFICER (SO) DEPARTMENT	13
2.6 APPROVAL APPLICATION PROCESS FLOW CHART	13
2.7 APPLICATION DOCUMENTS	14
3.0 GUIDELINES ON MOBILE BASE TRANSCEIVER SYSTEM (MBTS)	15
3.1 DEFINITION	15
3.2 APPROVAL GUIDELINES	15
3.3 CONSTRUCTION GUIDELINES	15
3.4 CHARGE RATES	16
3.5 SUPERINTENDING OFFICER (SO) DEPARTMENT	16
3.6 APPROVAL APPLICATION PROCESS FLOW CHART	17
3.7 APPLICATION DOCUMENTS	18



1.0 GUIDELINES ON STRUCTURES OF LAMP POLES INTEGRATED WITH TELECOMMUNICATIONS TRANSMISSION SYSTEMS (BIFUNCTIONAL LAMP POLES)

1.1. DEFINITION

Specific structures constructed on land to replace existing lamp poles owned by Kuala Lumpur City Hall with lamp poles integrated with telecommunications transmission systems

1.2 APPROVAL GUIDELINES

1.2.1 Applications for the construction of bifunctional lamp pole structures are LIMITED to companies appointed by Kuala Lumpur City Hall;

1.2.2 The site applied for shall :

- i. Be located in an existing lamp pole area
- ii. Comply with the minimum distance measurement from the nearest building side as per the following table:

Building Type	Minimum Distance
Terrace House	5 M
Apartment	10 M
Commercial/Industrial	5 M



- iii. (Road Shoulder) - minimum space of 1.5 meters for pedestrian use and does not obstruct pedestrian walkways;
- iv. (Road divider) - minimum width of 4 meters

1.2.3 The applicant is required put up notification signboards for a period of at least 14 consecutive days when directed by JKME for objection invitation purposes. Signboard specifications are as follows:

- i. Display size is 1500mm (width) x 1200mm (height)
- ii. Signboard is erected at a height of about 600mm to 1000mm
- iii. Signboard display is as per Item 1.8 [Display Signboard]

1.2.4 The applicant is required to resolve objection issues (received within 14 days from the putting up of signboards) before the application is presented in

1.3 CONSTRUCTION GUIDELINES

- 1.3.1 The applicant shall comply with the design approved by Kuala Lumpur City Hall as per Item 1.10 [Structural Design of Lamp Poles Integrated With Telecommunications Transmission Systems (Bifunctional Lamp Poles)]
- The structure of the bifunctional lamp pole shall not exceed 18 meter high
 - The BTS cabinet size not exceeding 2000mm (height) x 2000mm (length) x 1300mm (width)
- 1.3.2 The number of hardware installed not exceeding:

Telecommunications Hardware	Unit
Bifunctional lamp pole structure	1
Cabinet (BTS)	1
Microwave dish	≤ 2
Antenna	≤ 3

- 1.3.3 All Remote Radio Units (RRU) are not permitted to be exposed and shall only be placed inside the BTS Cabinet;
- 1.3.4 The installation of caging (fence) surrounding the constructed structure area is not permitted;
- 1.3.5 Site approval will be cancelled if not constructed within 90 days from the date of approval;
- 1.3.6 The applicant is not permitted to use portable generators (genset);
- 1.3.7 The applicant shall submit a notification letter to remove existing KLCH lamp poles to the Mechanical and Electrical Engineering Department (MEED) before constructing bifunctional lamp pole structures. The connection of underground cables shall be connected according to type, being 3M Joint and Raychem Joint;
- 1.3.8 Works to remove lamp poles and connect underground cables shall only be carried out between 9.00 am to 5.00 pm;
- 1.3.9 The applicant shall submit an application letter to obtain TNB power supply to MEED after completion of the construction of the bifunctional lamp poles and BTS cabinet;

1.4 CHARGE RATES

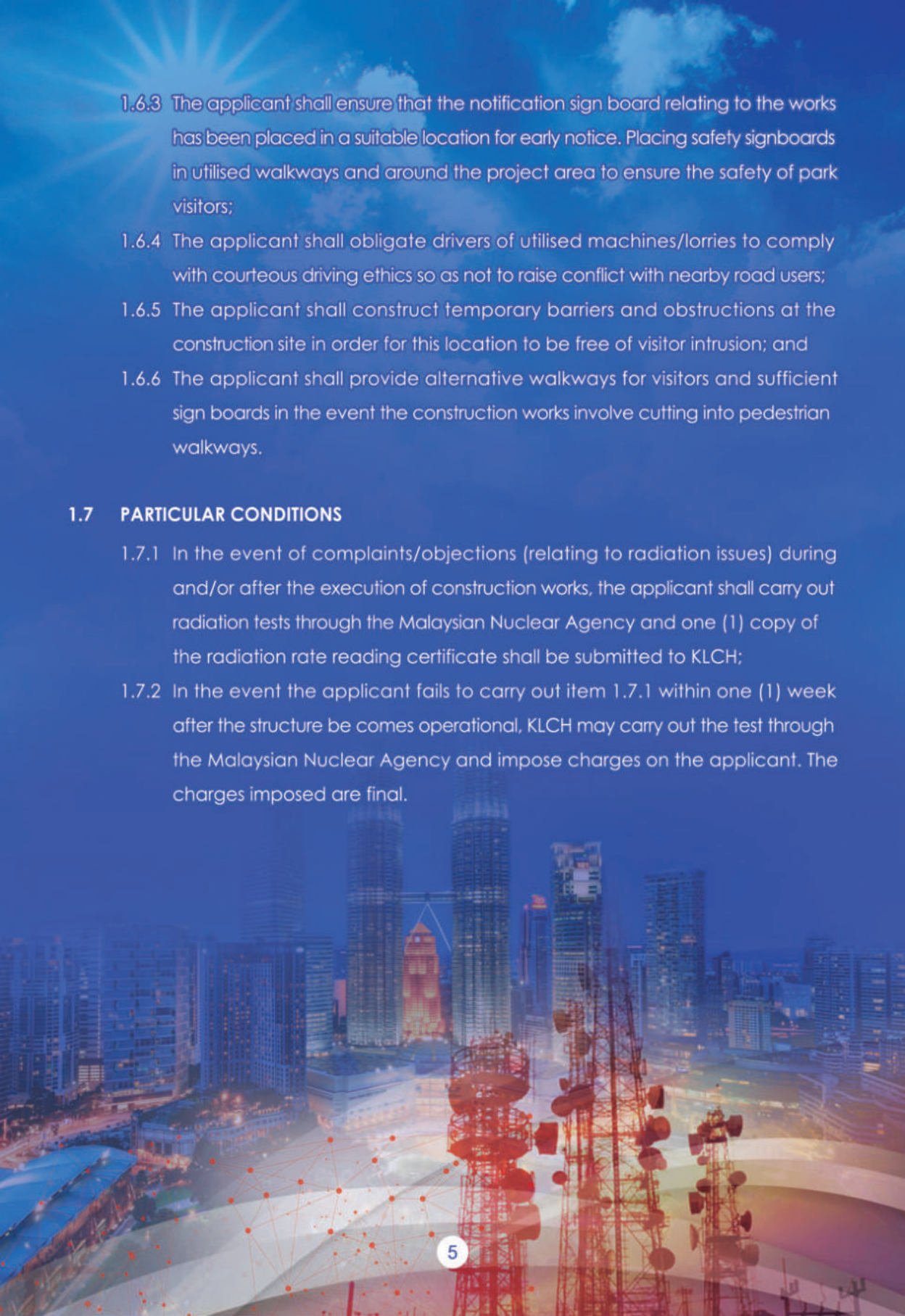
Rental payment rates imposed on each bifunctional lamp pole telecommunications structure application is RM 800.00 per month commencing on the date of the start work directive letter from the department (MEED). Payment shall be made no later than the 7th day of each month and late interest of eight percent (8%) of the monthly returns payment in arrears and calculated each day until all such monthly returns payment in arrears is fully settled by the applicant..

1.5 SUPERINTENDING OFFICER (SO) DEPARTMENT

The Mechanical and Electrical Engineering Department will issue a KLCH Returns Payment For The First Month letter and a Start Work Directive Letter for the sites applied for after obtaining approval in the OSC Committee Meeting.

1.6 GENERAL CONDITIONS

- 1.6.1 The applicant shall obtain a separate approval from the Civil Engineering and Urban Transportation Department before executing excavation works for cable installation in public road reserve areas and is subject to any payment and other conditions prescribed by the department;
- 1.6.2 The applicant shall obtain a separate approval from the Landscape and Recreational Development Department for works involving trees, landscaped areas or open areas;

- 
- 1.6.3 The applicant shall ensure that the notification sign board relating to the works has been placed in a suitable location for early notice. Placing safety signboards in utilised walkways and around the project area to ensure the safety of park visitors;
- 1.6.4 The applicant shall obligate drivers of utilised machines/lorries to comply with courteous driving ethics so as not to raise conflict with nearby road users;
- 1.6.5 The applicant shall construct temporary barriers and obstructions at the construction site in order for this location to be free of visitor intrusion; and
- 1.6.6 The applicant shall provide alternative walkways for visitors and sufficient sign boards in the event the construction works involve cutting into pedestrian walkways.

1.7 PARTICULAR CONDITIONS

- 1.7.1 In the event of complaints/objections (relating to radiation issues) during and/or after the execution of construction works, the applicant shall carry out radiation tests through the Malaysian Nuclear Agency and one (1) copy of the radiation rate reading certificate shall be submitted to KLCH;
- 1.7.2 In the event the applicant fails to carry out item 1.7.1 within one (1) week after the structure becomes operational, KLCH may carry out the test through the Malaysian Nuclear Agency and impose charges on the applicant. The charges imposed are final.

NOTICE OF PROPOSED CONSTRUCTION OF TELECOMMUNICATIONS STRUCTURE



THE MAYOR HAS RECEIVED AN APPLICATION

PROJECT : PROPOSED REPLACEMENT OF EXISTING LAMP POLES OWNED BY KUALA LUMPUR CITY HALL WITH LAMP POLES INTEGRATED WITH TELECOMMUNICATIONS TRANSMISSION SYSTEM HAVING AN ADDRESS AT [TELECOMMUNICATIONS STRUCTURE LOCATION] BY MESSRS. [NAME OF APPOINTED COMPANY]

PROJECT AUTHORITY : MECHANICAL AND ELECTRICAL ENGINEERING DEPARTMENT
7TH FLOOR (SOUTH), DBKL TOWER 2
JALAN RAJA LAUT
50350 KUALA LUMPUR

LAMAN WEB : www.dbkl.gov.my

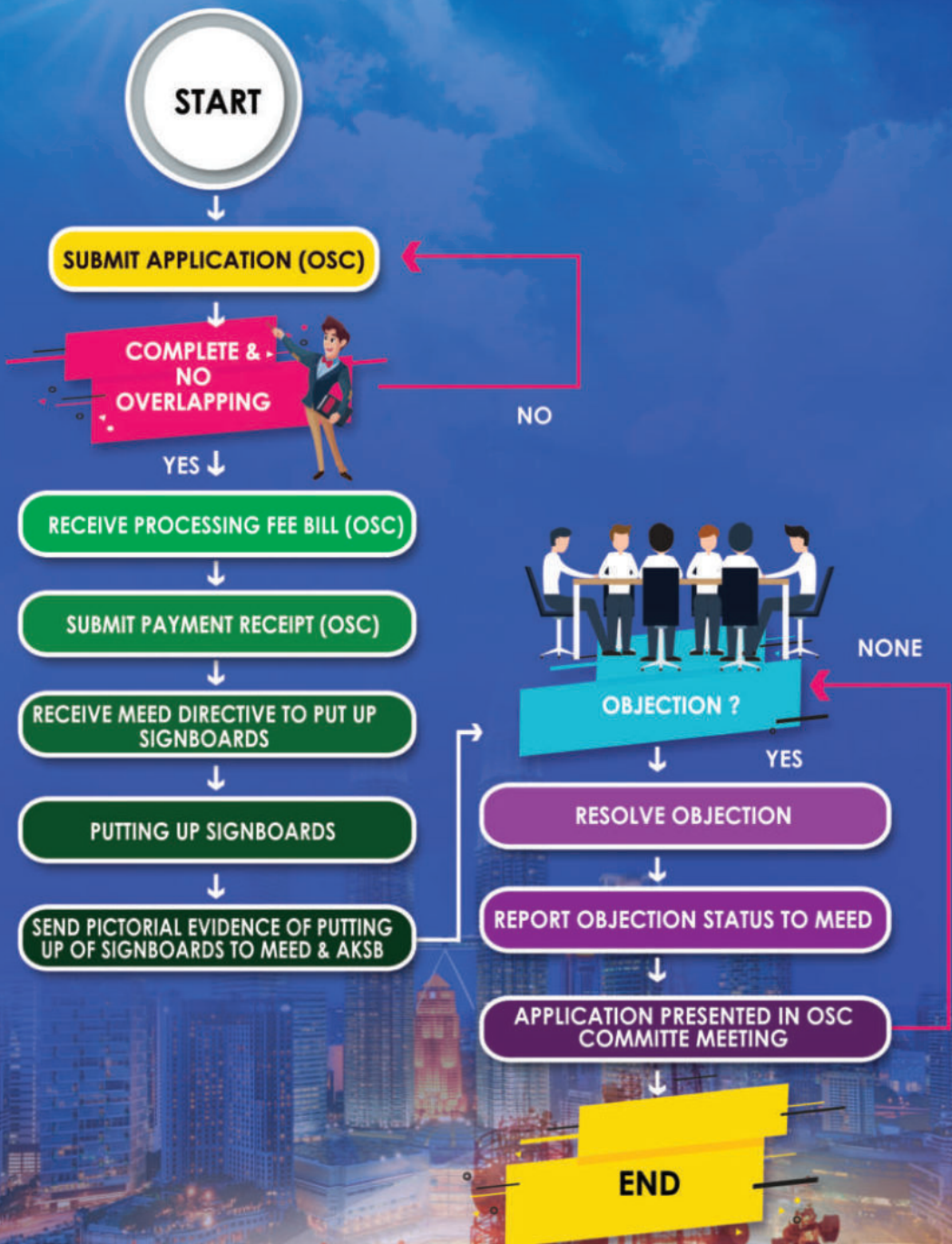
FEEDBACK MAY BE SUBMITTED IN WRITING VIA

Fax No : 03-2691 2302
Email : telcotower@dbkl.gov.my
(LAST DATE FOR FEEDBACK IS ON [DD MMMM YYYY])

Reference : CHKL-MEED **Advertisement Date :** [DD MMMM YYYY]

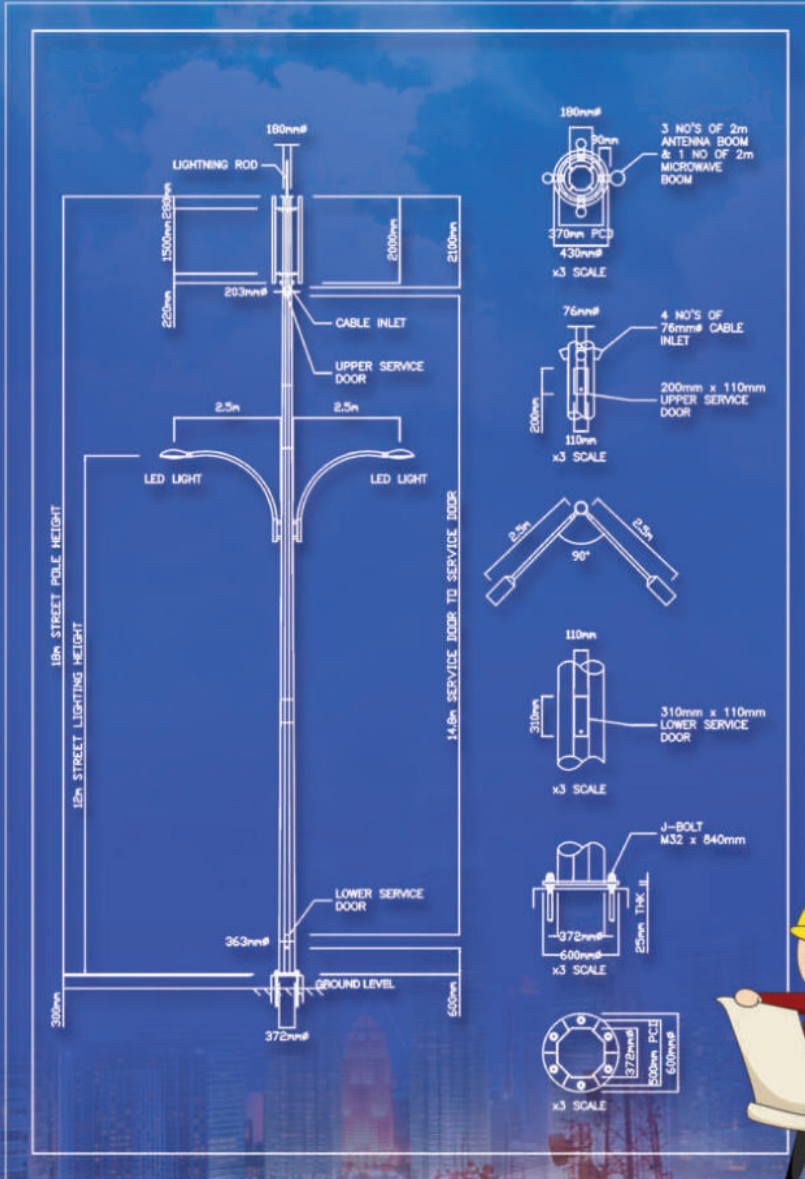
1200mm

1.9 APPROVAL APPLICATION PROCESS FLOW CHART

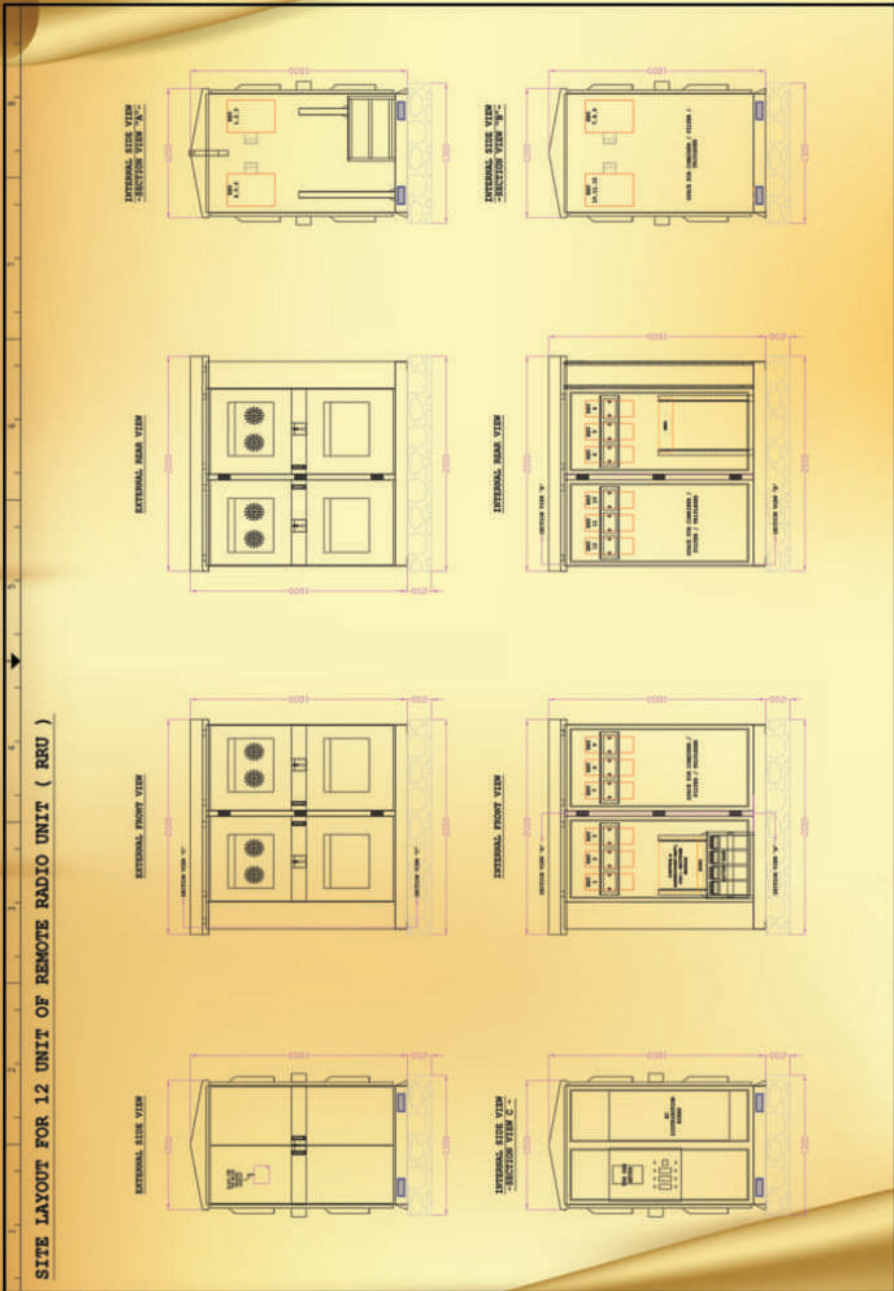


1.10 BIFUNCTIONAL LAMP POLE STRUCTURAL DESIGN

1. Bifunctional Lamp Pole Telecommunications Structure



2. Bifunctional Lamp Pole Telecommunications Structure Equipment (cabinet).



1.11 APPLICATION DOCUMENTS

- 1.11.1 Picture of Location Plan complete with proposed site coordinates (3 coloured copies), together with site location address;
- 1.11.2 Picture of Proposed Site for the placement of bifunctional telecommunications lamp pole structures;
- 1.11.3 Picture of Proposed Site for the placement of telecommunications equipment (cabinet);
- 1.11.4 Picture of existing lamp poles owned by KLCH (Existing lamp poles shall have KLCH lamp pole numbers);
- 1.11.5 Existing lamp poles shall have KLCH lamp pole numbers;
- 1.11.6 Bifunctional Telecommunications Lamp Pole Structural Design Plan;
- 1.11.7 Bifunctional Telecommunications Equipment (Cabinet) Structural Design Plan; and
- 1.11.8 Copy of application processing fee payment receipt.

2.0 GUIDELINES ON TRANSMISSION SYSTEM STRUCTURES ON BILLBOARDS

2.1 DEFINITION

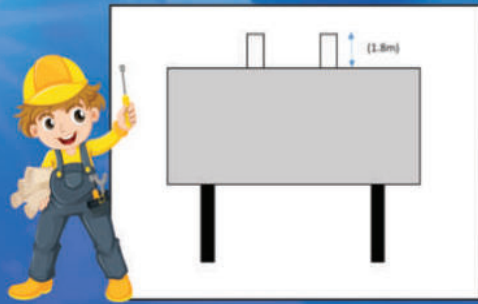
A Transmission System Structure on a Billboard is a telecommunications structure which is installed / attached to an existing billboard and outfitted with equipment (cabinet) in the billboard area.

2.2 APPROVAL GUIDELINES

- 2.2.1 Applications are open to any company having a valid Network Facilities Provider (NFP) license;
- 2.2.2 Only "free standing" type billboards with a height exceeding 18 meters tall are permitted;
- 2.2.3 Billboards must have a valid license issued by the KLCH Licensing and Petty Traders Development Department;
- 2.2.4 The applicant shall enclose written proof of the permission from the billboard owner;
- 2.2.5 The applicant shall take out Public Liability Insurance coverage to protect the government / KLCH from any claims by third parties due to risks throughout the duration of the installation of the telecommunications transmission structure; and
- 2.2.6 The applicant shall submit an acknowledgement and confirmation by a Professional Engineer accredited with the Board of Engineers Malaysia from the aspects of load requirement, wind speed, foundation et cetera as well as certified as safe.

2.3 CONSTRUCTION GUIDELINES

- 2.3.1 The structure shall only be installed at the top portion of the billboard;
- 2.3.2 The overall height of the transmission structure on the billboard is a maximum of 1.8 meters as per the following diagram:



- 2.3.3 The transmission structure on the billboard shall be well-arranged and take into account aesthetic aspects;
- 2.3.4 The placement of telecommunications equipment on land shall be within the billboard compound;
- 2.3.5 The applicant shall colour the telecommunications transmission structure with black colour; and
- 2.3.6 The maximum cabinet size for telecommunications equipment is as follows:

Side	Measurement (mm)
Lenght	2000
Width	1300
Height	1800

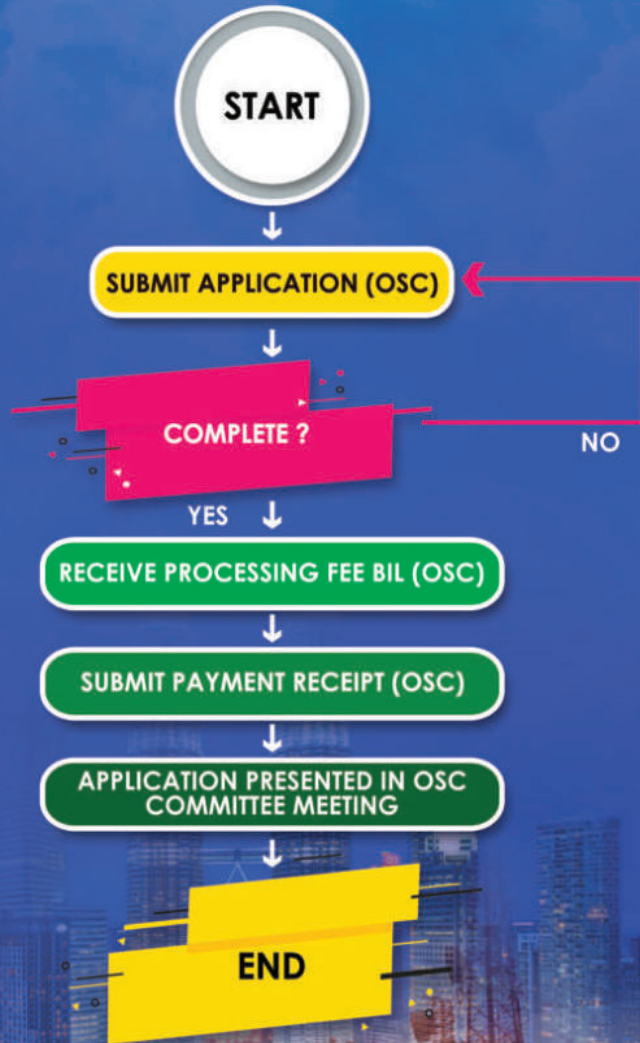
2.4 CHARGE RATES

- 2.4.1 This rate is based on the current rate used by KLCH;
- 2.4.2 Permit rate of RM 2,500.00 per annum for each operator;
- 2.4.3 The validity period of the permit is based on the validity period of the billboard license issued; and
- 2.4.4 The validity of the permit depends on the validity of the billboard license. The permit is considered invalid in the event the billboard license is cancelled/withdrawn.

2.5 SUPERINTENDING OFFICER (SO) DEPARTMENT

Building Control Department for issuing Temporary Permit for applied Billboard Transmission system structure after obtaining approval in OSC meeting

2.6 APPROVAL APPLICATION PROCESS FLOW CHART



2.7 APPLICATION DOCUMENTS

- 2.7.1 Accompanying letter submitting application plan by the Registered Consultant Engineer;
- 2.7.2 Accompanying letter submitting application plan by the network facilities provider (NFP);
- 2.7.3 Owner rental agreement;
- 2.7.4 Copy of Network Facilities Provider (NFP) Licence;
- 2.7.5 Copy of application processing fee payment receipt;
- 2.7.6 Operator rental acknowledgement letter;
- 2.7.7 Copy of billboard license approval from the Licensing and Petty Traders Development Department, KLCH within validity period;
- 2.7.8 Acknowledgement and confirmation by a Professional Engineer accredited with the Board of Engineers Malaysia from the aspects of load requirement, wind speed, foundation et cetera as well as certified as safe;
- 2.7.9 Copy of Public Liability Insurance to protect the government/KLCH;
- 2.7.10 A3 Plan (Key plan, Site plan, Location plan and Structural design);
- 2.7.11 Form A (Acknowledgement of Structure/Building Plan);
- 2.7.12 Proforma report from the applicant (operator);
- 2.7.13 Design and/or geotechnical report certified by the Registered Consultant Engineer;
- 2.7.14 360-degree (4 viewing angles) picture of proposed site; and
- 2.7.15 One set of Tower/rooftop inspection form complete with signature of Consultant Engineer.

3.0 GUIDELINES ON MOBILE BASE TRANSCIVER SYSTEM (MBTS)

3.1 DEFINITION

A Temporary Transmission System Structure involves:

- 3.1.1 A structure which is assembled on private land or KLCH-controlled reserve land;
- 3.1.2 Does not involve land excavation works;
- 3.1.3 Short term assembly period; and
- 3.1.4 Only the Mobile Base Transceiver Station (MBTS) type intended to increase the coverage area and/or coverage capacity during a ceremony / event involving a public gathering is permitted.

3.2 APPROVAL GUIDELINES

- 3.2.1 Applications are open to any company having a valid Network Facilities Provider (NFP) license;
- 3.2.2 The application shall be submitted to KLCH via the OSC counter within a period of 21 days before the date of holding an event/ceremony;
- 3.2.3 The applicant shall enclose written proof of the permission from the land owner;
- 3.2.4 The approval process is through the OSC Committee Meeting; and
- 3.2.5 The permit is issued by the Building Control Department.

3.3 CONSTRUCTION GUIDELINES

- 3.3.1 The structure shall be assembled within a period of 7 days before the date of holding the ceremony;
- 3.3.2 The structure shall be dismantled within a period of 7 days after the date of the end of the ceremony; and

3.4 CHARGE RATES

3.4.1 Payment Charges imposed by KLCH are as follows:

3.4.1.1 Permit payment charge of RM 2,500.00 for each site; and

3.4.1.2 Deposit which will be refunded when the site is handed over in its usual state again.

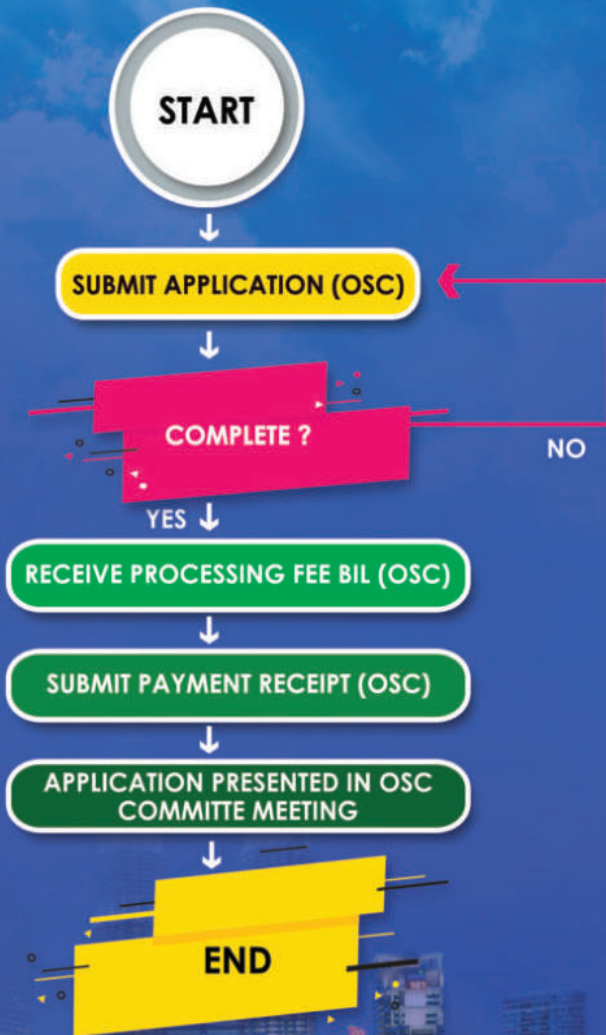
3.4.1.3 The deposit rates imposed are as follows:

Assembly Period	Deposit
≤ 2 weeks	RM 10,000.00
1 moth	RM 20,000.00

3.5 SUPERINTENDING OFFICER (SO) DEPARTMENT

The Building Control Department will be responsible for processing and issuing permits for all applications for approval to assemble temporary transmission system structures.

3.6 APPROVAL APPLICATION PROCESS FLOW CHART



3.7 APPLICATION DOCUMENTS

- 3.7.1 Accompanying letter submitting application plan by the Registered Consultant Engineer.
- 3.7.2 Accompanying letter submitting application plan by the network facilities provider (NFP).
- 3.7.3 Owner rental agreement.
- 3.7.4 Copy of Network Facilities Provider (NFP) Licence
- 3.7.5 Copy of application processing fee payment receipt.
- 3.7.6 Operator rental acknowledgement letter.
- 3.7.7 Acknowledgement and confirmation by a Professional Engineer accredited with the Board of Engineers Malaysia from the aspects of load requirement, wind speed, foundation et cetera as well as certified as safe.
- 3.7.8 Copy of Public Liability Insurance to protect the government/KLCH.
- 3.7.9 A3 Plan (Key plan, Site plan, Location plan and Structural design.
- 3.7.10 Form A (Acknowledgement of Structure/Building Plan)
- 3.7.11 Proforma report from the applicant (operator).
- 3.7.12 Design and/or geotechnical report certified by the Registered Consultant Engineer.
- 3.7.13 360-degree (4 viewing angles) picture of proposed site
- 3.7.14 Seven (7) copies of the plan together with one (1) linen set measuring A1 which complies with the format.
- 3.7.15 One set of Tower/rooftop inspection form complete with signature of Consultant Engineer.

