



Architectural Checklist Design Stage

Form AD/1.2
Comply N.A. Waiver

1. Consider life span of building components

- For external building components such as the facade and roof whether replacement needed for aesthetic face-lift.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 - Interlocking concrete paving
 - Others, please specify _____

- Durability of building elements should maintain a minimal expected level of performance despite the deteriorating effects of weather or mechanical forces of electrochemical corrosion and biological degeneration.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- Any waiver application for the life span of building services may be affected in future maintenance.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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2 Building serviceability

- Building parts that need maintenance should be easily and safely accessible for inspection, cleaning, painting, oiling, sealing, fastening etc.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3 Selection of building components and building materials

- All structural hardwood timber is to be treated with wood preservative and fire retardant material.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- All structural hardwood should not have direct contact with water dampness at the ground level.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- All metal component such as bolts & nuts, angle brackets must be stainless steel or approved equivalent material.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- All steel plates, connection plates etc. must be hot dipped galvanised or approved equivalent material.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- The design for the handrail and type of material used should be flexible and allow for future replacement of damaged/defective portion, i.e. hot dipped galvanised mild steel, stainless steel minimum grade 316 etc.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- The provision of park furniture such as bench, table, litter bin, play structure, railing etc., to take the following factors into considerations :
 - Vandalism

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 - Durability e.g. wear and tear

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 - Maintainability/replacement of major components

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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- | | Comply | N.A. | Waiver |
|---|--------------------------|--------------------------|--------------------------|
| • Environmental factor, e.g. weathering, shrinkage, warping, etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Others, please specify _____
_____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • All items used such as dustbin, bench etc. should be easily available in local market for future replacement/maintenance. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Any Warranty/Guarantee provided : | | | |
| • Water Proofing – 10 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Termite Treatment – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Aluminium Works – 10 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Spray Coating/Polyurethane/Fluorocarbon Painting system – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Roofing – 10 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Play/Fitness Equipment – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Play/Fitness Flooring (EPDM / Rubber Safety Matting) – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Others, please specify _____
_____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Consultant's Acknowledgement

I am the Qualified Person appointed under Section 6(3) of the Building Control Act in respect of the above project and declare that all particulars required have been complied with.

Designation : _____

Signature and Date : _____



Architectural Checklist
Contract Documentation/Completion of Project

Form AD/2.2
Comply N.A. Waiver

- | | | | | |
|-----|--|--------------------------|--------------------------|--------------------------|
| a) | 2 full sets of Architectural As-built Drawings required. Each As-built Drawing to be endorsed by the submission Qualified Person, stamped with the word “As-built Drawings” and date of issue. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) | 1 soft copy in digitised form i.e., computer diskettes 3 1/2”. The drawings shall be formatted in standard DXF or other approved National Standards for the Construction Industry. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) | Include a complete list of Sub-contractors/Suppliers including the contact addresses, telephone, fax number, person in-charge etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) | Provide technical data/information /detail drawings for benches, litter bins, heavy duty grating/checker plate cover, bollard, road marker, signage's, play structure, fitness equipment, stainless steel railing, water proofing system, etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) | The Contractor is required to submit the following Form of Warranty/Guarantee if applicable at the Completion stage: | | | |
| | • Water Proofing – 10 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Termite Treatment – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Aluminium Works – 10 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Spray Coating/Polyurethane/Fluorocarbon Painting System – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Roofing – 10 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Play/Fitness Equipment – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Play/Fitness Flooring (EPDM / Rubber Safety Matting) – 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | • Others, please specify _____
_____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f). | A copy of the Certificate of Statutory Completion issued by BCA. if applicable. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Consultant’s Acknowledgement

I am the Qualified Person appointed under Section 6(3) of the Building Control Act in respect of the above project and I have supervised the above-mentioned building works and declare that all particulars required have been complied with.

Designation : _____

Signature and Date : _____



Civil & Structural Checklist Design Stage

Form CS/1.2
Comply N.A. Waiver

1. To ensure structural safety

- All structural elements must be endorsed by a Professional Engineer. (Civil/Structural)
- The design and loading requirements for the service tracks shall cater for heavy vehicular access of 20 tones.
- Provided with a proper drainage system including surface run-off drain system and subsoil pipe/geotextile system especially along the tracks to prevent future water ponding on the track surface and side table.
- R. C. kerb to be provided for all asphalt tracks.

2. Equipment lifecycle cost

- To provide indicative comprehensive maintenance cost for proposed play/fitness equipment.

Consultant's Acknowledgement

I, the Qualified Person (Professional Engineer) have ensure that the Building Control Regulations (Cap. 29, Rg 5) in respect to the above project and all particulars required for the above proposal have been complied with.

Designation : _____

Signature and Date : _____



Civil & Structural Checklist

Contract Documentation/Completion of Project

Form CS/2.2

Comply N.A. Waiver

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| a) Provided a complete list of Contractor/sub-contractor, manufacturer and Suppliers with address, telephone, fax, and person in-charge. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Included the Professional Engineer's endorsement for major structures including foundation/footing for play structures and signboards. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Included endorsement by Qualified Safety Inspectors for all play and fitness equipment installation complying SS 457:1999. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Included endorsement by Licensed Exercise Physiologist for all elderly exercise equipment installation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Included the following warranty/guarantee in the contract documents if applicable: | | | |
| • Warranty and for play/fitness equipment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Option for comprehensive and non-comprehensive maintenance of play/fitness equipment for 5 years | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Quality Warranty for other park furniture e.g.: litter bin, bench against defect, discolouration, etc. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Provide 2 full sets of As-built Drawings for Civil & Structural works including the site plan and detail structural drawings. Each as built drawing to be endorsed by the submission Professional Engineer (Civil/Structural), stamped with the word "As-built Drawings" and date of issue. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) A copy of Form BEV/C1 - The Professional Engineer's Certificate of Supervision of Piling Works, if applicable. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) A copy of Form BC/BC - The Builder's Certificate of Completion of the Building Works, if applicable. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) A copy of Form BEV/C2 - The Professional Engineer's Certificate of Supervision of Structural Works | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i) A copy of Form BEV/C3 - Submission of 'As-built Drawings/Calculations/ Report and Supervision Certificate'. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Consultant's Acknowledgement

I, the Qualified Person (Professional Engineer) have inspected the above works and all particulars required for the above proposal have been complied with.

Designation : _____

Signature and Date : _____



Mechanical & Electrical Services Checklist

Form M & E/1.2

A. Design Stage

Comply N.A. Waiver

1. Recommended average lux level requirement for outdoor lighting are as follows:
 - a. Footpath (Ave 5 lux)
 - b. Playground (Ave of 20 lux with the darkest spot of minimum 6 lux)
 - c. PCN (Ave 5 lux)
 - d. Conflict areas (Ave 10 lux)
 - e. Others not applicable to comply with B.S./Local Code of Practice
2. Submit proposed fittings, lighting design calculation for the lighting scheme, showing the average illuminance, uniformity ratio and glare parameters.
3. Segregation of power supply circuiting for buried lights and spotlights from elevated lights.
4. Avoid use of bollard fittings, spotlights and buried fittings.
5. Lightings shall be looped in an alternating series from 2 different circuits.
6. Provision of lightning protection system according to SS 555: 2010.
7. At barbecue pits, 2 lamp poles shall be provided unless there are substantial spill over lights from other sources. The 2 lamp poles shall be supplied from different circuits.

B. Installation Requirements

1. Light Fittings

- a. Vandal resistant type with minimum IK08 protection. To indicate the impact strength.
- b. Ultra violet (UV) stabilised.
- c. Easily available from local supplier at all times for next 5 years.
- d. Use energy efficiency lamps.
- e. IP66 for all outdoor fittings and IP 68 for submersible fittings.
- f. Avoid use of step lights. Use poles to light up step.
- g. Avoid use of bollard lights unless a dark ambience is desired and the average lighting level of min. 5 lux is not required. Submit footing design for the prevention of vandalism.



Comply N.A. Waiver

- | | | |
|------|--|--|
| i. | For pole top lanterns, select only from the list of approved lanterns model. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| j. | Avoid use of buried uplighters unless it is absolutely necessary. If uplighters have to be installed use only LED type uplighters. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|
 | | |
| 2. | Poles | |
| a. | Easily accessible door with allen key door. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| b. | The door (flushed with pole finishing) shall be done 500mm from ground. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| c. | Pole should be installed at least 3.5m away from park chair, trees and hedges. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| d. | Avoid installation of pole on sand, water logged and soft ground. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| e. | Pole shall be hot-dipped galvanised, and shall be powder Coated comply to ASTM D3451. 10 years warranty on the power coating. Do not use aluminium pole. Pole height to be between 3m to 4m above ground. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| f. | Earthing terminal to be provided on the last pole of each circuit. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| g. | Cable gland to be provided for cable termination in the pole. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| h. | Cable entrance sealed to prevent insert ingress. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| i. | To provide labelling on the lamp poles at height 1.5m above ground level with the wording of size is 6mm x 19mm x 34mm red retro-reflective sticker. The numbering should be continuous from first pole no. 1 to the last number of poles. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| j. | Lamp pole wall thickness should be at least 2.5mm thick. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| k. | To install earth rod at the last lamp pole of every circuit. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| l. | Lamp poles door cover is to be secured to the pole body using approved hinge method. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| m. | Lamp poles shall be flanged mounted. The pole base plate, bolts and nuts are to be concealed by a layer of cement copping. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| n. | Flange mount at least 50mm above ground. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| o. | Size of the J bolt shall be minimum M16 diameter or Professional Engineer calculation whichever higher. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |



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3.	Earthing Arrangement			
	a. Earth electrode complete with precast concrete inspection pit fitted with heavy duty stainless steel removable cover must be provided and connected to :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. Main earthing terminal in OG Box/Distribution Board	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ii. Earthing terminal in last pole of each circuit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Earth point to be labelled as per Code of Practice requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Lighting down conductors for the copper tape from the bi-metallic connector to the earth chamber to be concealed in cement. Where the down conductor is on the surface of wooden structure, the tape to be enclosed in uPVC pipes (50mm dia) filled with cement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	OG Box/Distribution Box			
	The OG box shall be:			
	a. Cabinet shall be made of aluminium mounted on concrete plinth.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Provided with 30% space for future additions. Separate DB is required for circuits other than the lighting circuit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Weatherproof (IP55) free from condensation with cable entrance sealed to prevent insect ingress.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Provided with single/double leaf doors complete with locks as follows:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. Brass type 'ABLOY' cam lock complying with universal specification, Model No. : CL 104C – NP Series under PUB master key 911047, complete with straight or offset cam and 90° cam turn with key removable in locked position only.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ii. Heavy duty brass padlocks 'ABLOY' Model No. : PL 320C/20 -NP series under PUB MK 911047 system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. To provide with viewing panel to read utility meter inside the box. The opening shall be covered with laminated/tampered glass material of high impact resistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. Sited in a non-conspicuous and easily accessible when carrying out maintenance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. Label all MCB, RCCB, spare MCB and contactor in DB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h. To provide with laminated single line diagram fitted on interior of OG Box's door.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	i. OG Box foundation should be able to withstand pushing and soil erosion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j. To provide Omron programme digital timer ZEN-10C1AR-A-V2 with seasonal timing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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k.	To paint the OG Box with colour code No. PR12/20164/CW2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l.	Each circuit shall be protected with an RCCB and should not be supplying to more than 10 fittings. All RCCB shall come with surge protection characteristic complying to SS97:2005	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m.	The internal base of OG boxes is to be filled with sand up to the ground level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n.	Outgoing final sub circuit in OG boxes shall only supply to outdoor park lighting system, it shall not be used to supply building lightings, etc. Where building (e.g toilet) tapped supply from OG boxes, it shall be through a sub mains circuit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o.	The maximum number of lighting point for an OG box shall not exceed 100 nos.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p.	OC boxes shall adhere to any one of the design as depicted in Appendix A to G. For OG boxes that falls outside this range, The design principles shall be adhere to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q.	To follow the naming and labelling of convention for OG boxes, lamp poles circuit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r.	Single line diagram shall tally with As-built drawing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Cables			
a.	Type and size of cable shall be in accordance with Singapore Standards Code of Practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Armoured cables shall be used and buried 700mm below the finished ground level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Approved PVC cable protection slabs shall be laid along the entire length of the cable route.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	150mm diameter ducts (encased in approved grade of concrete) must be provided under footpaths and concreted areas for all cable crossings. Provision of 30% spare capacity to cater for future usage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Joints, tee joints and exposed cables are prohibited. All life metal parts shall not be exposed and coated with epoxy to prevent accidental tripping due to insect ingress.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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f.	Fully enclosed cable termination unit c/w HRC fuse shall be used for cable termination within the pole.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Connection between underground and lantern cable should be use street lightning enclose cut out unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Consultant's Acknowledgement

I, the Qualified Person (Professional Engineer) have ensure that the Building Control Regulations (Cap. 29, Rg 5) in respect to the above project and all particulars required for the above proposal have been complied with.

Designation : _____

Signature and Date : _____



C. Contract Documentation/Completion of Project

Form M & E/2.2
Comply N.A. Waiver

1. As-Built Drawings

- | | | | | |
|------|---|--------------------------|--------------------------|--------------------------|
| a. | The drawings must include the following details : | | | |
| i. | Location Plan. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. | Site Layout Plan. The plan shall include : | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (1) The exact cable routes and cable sizes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (2) The cable ducts location and sizes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (3) The location of OG Box/ Distribution Box. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (4) The earthing cable routes and location of earthing inspection pits. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (5) The position of light fittings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (6) Lightning Protection (LNP) layout plan (complied with SS 555 : 2010). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iii. | PE/LEW endorsed Single Line Diagram. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| iv. | OG Box/ Distribution Board Layout Plan & Installation Details. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| v. | Lamp Poles Installation Details. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | For 3 phase circuit installation, individual lamp posts must be coloured according to the as-built phase (i.e. L1, L2, L3). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | The number of light fittings and their designated identification number connected to each circuit must be indicated in the single line diagram. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | All drawings submitted must be of the same standard size. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. Light Fittings

- | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|
| | The following details of light fittings shall be submitted. | | | |
| a. | Type of fitting (Make and Model No.) and lamp wattage with original catalogue attached. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Cost of fitting. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Manufacturer's Name. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | The name, address and telephone number of local agent. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Scale drawing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Photometric data of the fittings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



3. OG Box/ Distribution Board

Comply N.A. Waiver

The following details of OG Box/DB shall be provided:-

- | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|
| a. | Manufacturer's name. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | The name, address and telephone number of local agent. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | One copy of single line diagram, in A3 or A4 size shall be laminated in plastic and fixed on to the inside of OG Box's door. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Scale drawing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. | Electrical installation test Report from Power Supply Pte. Ltd. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. | Lighting installation record (Form CS 2). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Test Results

The test results must include the following in compliance with the SS CP 5:1998, SS 555:2010 & CP 13:1999.

- | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|
| a. | Insulation resistance readings of all out-going circuits. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Earth fault loop impedance for each outgoing lighting and power circuits. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Earth electrode resistance readings and BPD CSC03 Certificate of Supervision of Lightning Protection System of the installation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Leakage current reading for all circuits. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Earth fault current setting reading. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Ensure that Application for Electricity Form C/1 is endorsed by LEW. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. | Polarity test. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. | BPD CSC05 Certificate of Supervision of ACMV System. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. | The Contractor should submit <u>Attachment A</u> when the project is ready for inspection at substantial completion of project. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. | After the initial inspection, the Contractor is required to follow up on the 'defects list' and arrange for final inspection within 1 month form the initial inspection. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. | The Operation & Maintenance Manual shall comprise of all items listed in this guidelines. This manual should be compiled in ring file and include the following details :- | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| a. | Name of the project. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



		Comply	N.A.	Waiver
b.	Name and address of consultant (QP/PE/LEW).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Date of completion and handing over.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	2 sets of Operation and Maintenance Manual to be submitted within 1 month from certified Substantial Completion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Site Photograph			
	All the relevant site progress photograph fitted on A4 size paper.			
	The following contents to be included:-			
	i. OG Box or distribution box (internal or external view).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ii. Lamp poles and type of lantern/lamp fitting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	iii. Name of signboard (park/open space/playground).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	iv. Cable duct construction and underground cable layout.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	v. Lamp poles foundation erection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Provide 2 full sets of As-built Drawings for the cable routing, circuit wiring, earthing, lamp post installation details, illuminance level for each area achieved and indicated in the overall layout plan. Each as-built drawing to be endorsed by the submission Consultant Professional Engineer (M&E), stamped with the word “As-built Drawings” and date of issue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	1 soft copy in digitised format i.e., computer diskettes 3 1/2”. The drawings shall be formatted in standard DXF or other approved National Standards for the Construction Industry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Provide all M & E catalogues and technical schedules for the weather-proof junction box, MCB, ELCB, fuse, cable, lamp, light fitting and other accessories installed. (country of origin, manufacturer and supplier name should be included in the technical schedule).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Provide meggering report on the insulation of cables from OG box to all lamp poles, lightning and earthing test report.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Consultant’s Acknowledgement

I, the Qualified Person (Professional Engineer) have inspected the above project and all particulars required for the above proposal have been complied with.

License No. : _____

Company address : _____

Signature and Date : _____



C. Contract Documentation/Completion of Project

**Form M & E/2.2
Comply N.A. Waiver**

1. As-Built Drawings

- | | | | | |
|-------|---|--------------------------|--------------------------|--------------------------|
| e. | The drawings must include the following details : | | | |
| i. | Location Plan. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| vi. | Site Layout Plan. The plan shall include : | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (1) The exact cable routes and cable sizes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (7) The cable ducts location and sizes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (8) The location of OG Box/ Distribution Box. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (9) The earthing cable routes and location of earthing inspection pits. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (10) The position of light fittings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | (11) Lightning Protection (LNP) layout plan (complied with SS 555 : 2010). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| vii. | PE/LEW endorsed Single Line Diagram. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| viii. | OG Box/ Distribution Board Layout Plan & Installation Details. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ix. | Lamp Poles Installation Details. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | For 3 phase circuit installation, individual lamp posts must be coloured according to the as-built phase (i.e. L1, L2, L3). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. | The number of light fittings and their designated identification number connected to each circuit must be indicated in the single line diagram. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. | All drawings submitted must be of the same standard size. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. Light Fittings

- | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|
| | The following details of light fittings shall be submitted. | | | |
| g. | Type of fitting (Make and Model No.) and lamp wattage with original catalogue attached. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. | Cost of fitting. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. | Manufacturer's Name. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. | The name, address and telephone number of local agent. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. | Scale drawing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. | Photometric data of the fittings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



		Comply	N.A.	Waiver
3.	OG Box/ Distribution Board			
	The following details of OG Box/DB shall be provided:-			
	e. Manufacturer's name.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	f. The name, address and telephone number of local agent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	g. One copy of single line diagram, in A3 or A4 size shall be laminated in plastic and fixed on to the inside of OG Box's door.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	h. Scale drawing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Electrical installation test Report from Power Supply Pte. Ltd.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Lighting installation record (Form CS 2).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Test Results			
	The test results must include the following in compliance with the SS CP 5:1998, SS 555:2010 & CP 13:1999.			
	i. Insulation resistance readings of all out-going circuits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	j. Earth fault loop impedance for each outgoing lighting and power circuits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	k. Earth electrode resistance readings and BPD CSC03 Certificate of Supervision of Lightning Protection System of the installation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	l. Leakage current reading for all circuits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	m. Earth fault current setting reading.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	n. Ensure that Application for Electricity Form C/1 is endorsed by LEW.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	o. Polarity test.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	p. BPD CSC05 Certificate of Supervision of ACMV System.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	The Contractor should submit <u>Attachment A</u> when the project is ready for inspection at substantial completion of project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	After the initial inspection, the Contractor is required to follow up on the 'defects list' and arrange for final inspection within 1 month form the initial inspection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	The Operation & Maintenance Manual shall comprise of all items listed in this guidelines. This manual should be compiled in ring file and include the following details :-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	d. Name of the project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e. Name and address of consultant (QP/PE/LEW).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



		Comply	N.A.	Waiver
f.	Date of completion and handing over.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	2 sets of Operation and Maintenance Manual to be submitted within 1 month from certified Substantial Completion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Site Photograph			
	All the relevant site progress photograph fitted on A4 size paper. The following contents to be included:-			
	i. OG Box or distribution box (internal or external view).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	vi. Lamp poles and type of lantern/lamp fitting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	vii. Name of signboard (park/open space/playground).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	viii. Cable duct construction and underground cable layout.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ix. Lamp poles foundation erection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Provide 2 full sets of As-built Drawings for the cable routing, circuit wiring, earthing, lamp post installation details, illuminance level for each area achieved and indicated in the overall layout plan. Each as-built drawing to be endorsed by the submission Consultant Professional Engineer (M&E), stamped with the word “As-built Drawings” and date of issue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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