

**Welcome** to our “e-REW Express”. Typically, electricity supply to a new building or a new development is fed via a customer substation at G/F. However, because of site constraints or other special conditions, customer substations at 1/F may sometimes be adopted. In this issue of “e-REW Express”, we will elaborate the requirements for 1/F customer substation and we hope you will find the information useful and handy.

If you have any suggestion, please send an email to us at [mail@hkelectric.com](mailto:mail@hkelectric.com) or contact our Customer Installation Section at 2887 3455 so that we can further improve our service.

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## Requirements for 1/F Customer Substation

Basically, 1/F customer substation shall at least meet the general requirements for ground floor substation, which include the requirements for construction, cable entry duct, ventilation system, power and lighting, supply interface and auxiliary equipment etc. Apart from this, the following additional requirements for 1/F customer substation shall also be met:-

1. The substation floor level should not be higher than the pavement level by more than 7m.
2. An exclusive staircase for HK Electric personnel access to the substation should be provided from public pavement.
3. Two separate cable entries of minimum 3.5m apart should be provided for the substation. Working platform should be designed at the cable shaft/compartments for 1/F customer substation to facilitate the cable installation (as indicated in Figure 1).
4. Direct vehicular access should be provided to the substation for equipment transportation purpose, i.e. a Fire Services Department standard 30-tonne fire appliance should be accessible to a position not exceeding 4m horizontally from the door for equipment transportation. To enable equipment transportation work, width of the carriageway should be not less than 7.0m. The access must be freely available and maintained at all times.

5. A section of 20m long pavement measured 10m from both sides of centre line of the door for equipment transportation should be of gradient not greater than 1:12.
6. The developer should undertake at the time of substation take-over and any time thereafter, not to erect any obstacles protruding from the outer wall of the building which may obstruct future equipment transportation by HK Electric. The area of outer wall clear from any obstruction should measure 6m from both sides of centre line of the door for equipment transportation and from pavement level to a height of 3m above the top of the same door.
7. To harmonize the substation with the architectural facade of the building, decorative louvre/cladding at the substation outside wall and the substation door may be allowed provided that the decorative louvre/cladding will not affect the substation ventilation, and the opening/closing of substation door.

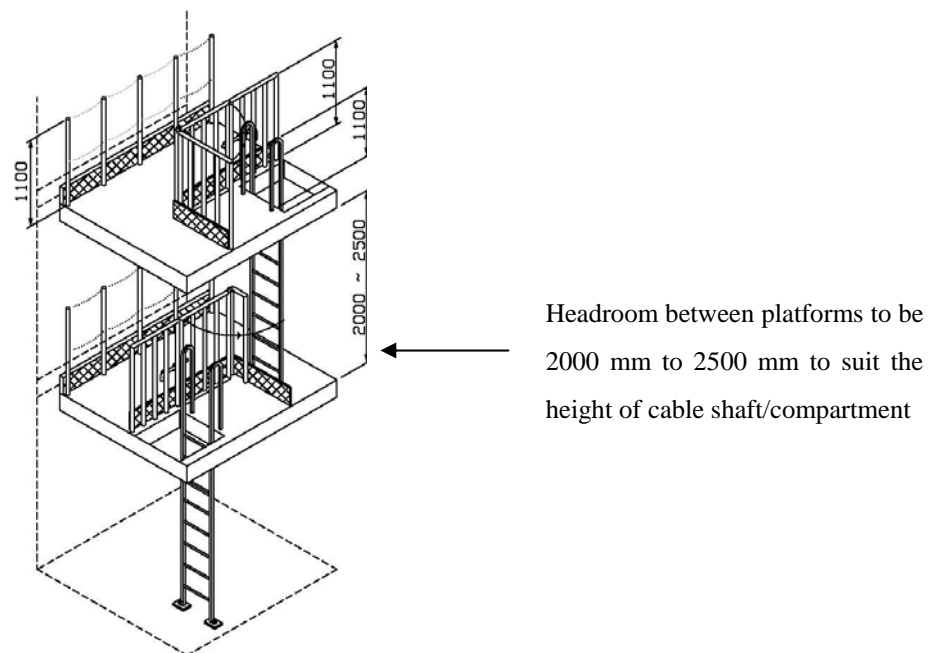


Figure 1 – Typical Design of Working Platforms at Cable Shaft/Cable Compartment for 1/F Substation

The above is a brief introduction to the requirements for 1/F customer substation. For details please refer to Chapter 3 of our 'Guide to Connection of Supply' (5<sup>th</sup> Edition) which can be downloaded from our website [www.hkelectric.com](http://www.hkelectric.com). For further enquiries, please contact us by mail to G.P.O. Box 915 Hong Kong and we shall be pleased to discuss and explain the detailed requirements to developer/consultant as appropriate.