Western Power Corporation
Networks Business Unit
System Optimisation Branch

SUBDIVISION DESIGN REQUIREMENT- NUMBER 02 (Revision 1, 27/10/2005)

Substation/switchgear layout requirements on subdivision design drawing submitted for Design Conformance Review

It is essential that HV cables be correctly terminated into HV switchgear. Incorrect terminated cables will create electrical hazards that will jeopardise the safety of Western Power's employee and persons engaged in the operation and maintenance of the equipment and the safety of the general public. Western Power, therefore, requires the configuration of switches and switchfuses and the layout of terminating HV cables be clearly shown on the design drawing submitted for Design Conformance Review. Failure to meet this requirement will result in non-conformance of a design submission.

1. Configuration diagram Requirements:

1.1 Switches and switchfuses must be labelled on the configuration diagram.
1.2 Switches and switchfuses must be shown in the same order of the physical arrangement of the switchgear.
1.3 If the substation contains a transformer, the transformer must be shown on the left of the switchgear as viewed from the front.

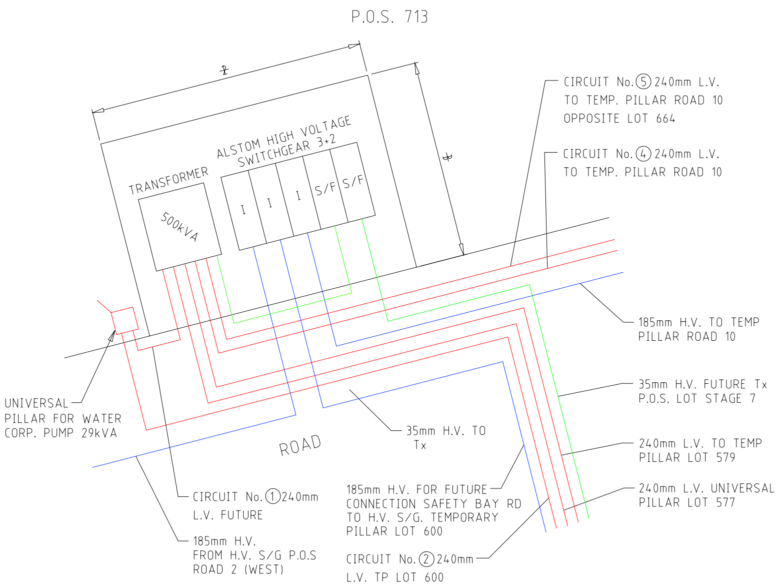
2. Terminating Cables Layout Requirements:

The layout of terminating cables must be designed according to the following practice:

2.1 The 35 sqmm HV cable of the local transformer must be connected to the nearest switchfuse.
2.2 Crossing of HV cables must be avoided as far as practicable.
2.3 All 35 sqmm HV cables must not be connected to switches as they are not fault rated and must be protected by fuses.
2.4 The destination of every HV cable must be clearly shown on the switchgear configuration and cable layout diagram.

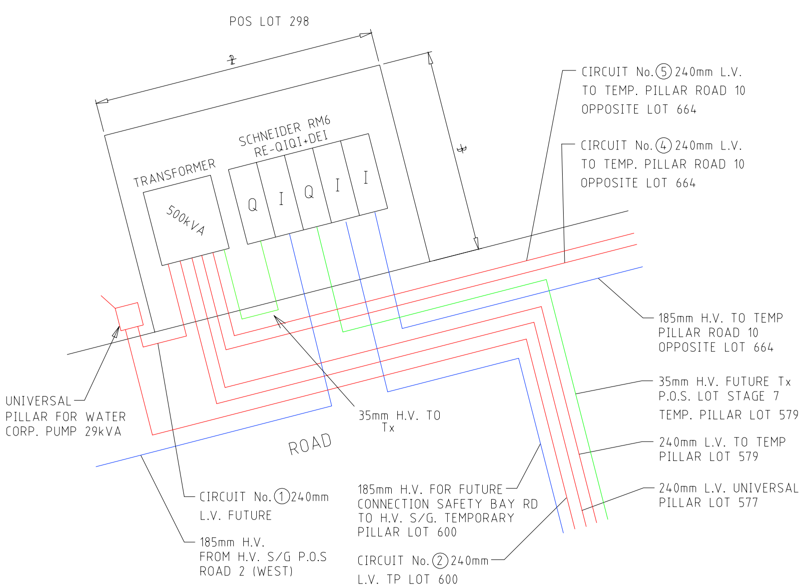
The two diagrams below illustrate the switchgear configuration and cable layout diagrams that are acceptable to Western Power:

Diagram A – Substation with transformer and Alstom switchgear (standard WPC switchgear at the time of issuing of this Subdivision Design Requirement.)



ALSTROM H.V. SWITCHGEAR & TRANSFORMER

Diagram B – Substation with transformer and Schneider RM6 switchgear (pre-approved non-standard switchgear at the time of issuing of this Subdivision Design Requirements.)



SCHNEIDER RM6 SWITCHGEAR RE-QIQI+DEI & TRANSFORMER

Document History

Date Issued	Description	Revision
12/03/2004	Original Issue	-
27/10/2005	Updated for release on website. Aesthetic changes made, such as logo resized, font and formatting.	1