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Part 1 – General

DISTRIBUTION CONSTRUCTION
STANDARDS HANDBOOK

HB01-2007

1 Purpose

The Technical Requirements therein set out the minimum standard of construction required for the distribution network asset. This standard shall form the auditing guidelines for acceptance and hand-over of assets on the distribution network within the South West Interconnected System.

The person/s engaged to undertake the construction of network assets for hand-over to Western Power Corporation shall be responsible for ensuring that these Technical Requirements are met.

2 Application

2.1 General

The Distribution Construction Standards Handbook has been prepared independent of the Distribution Design Catalogue (DDC), however links will be provided for reference where possible.

Although it is intended to include as much information as possible on each drawing, the drawing Notes shall also be referred to as they clarify the required intent of the drawing.

In addition, references have been provided on some drawings similar or related to others to allow greater depth of detail to be provided.

Rather than provide revision history comments on each drawing, a central revision history is provided. This is also traceable from the revision number and/or date provided on each drawing. Previous drawing versions can always be sourced from the Document Management System.

The Construction Standards Handbook has been divided into the following sections for ease of use. A small description of each is provided below.

Part 2 Reference — (R series) represent equipment and arrangements that are common to multiple structures.

When reference is made to a R series drawing, this shall refer to the set of drawings associated with the reference (ie R8 shall refer to R8/1, R8/2 and R8/3)

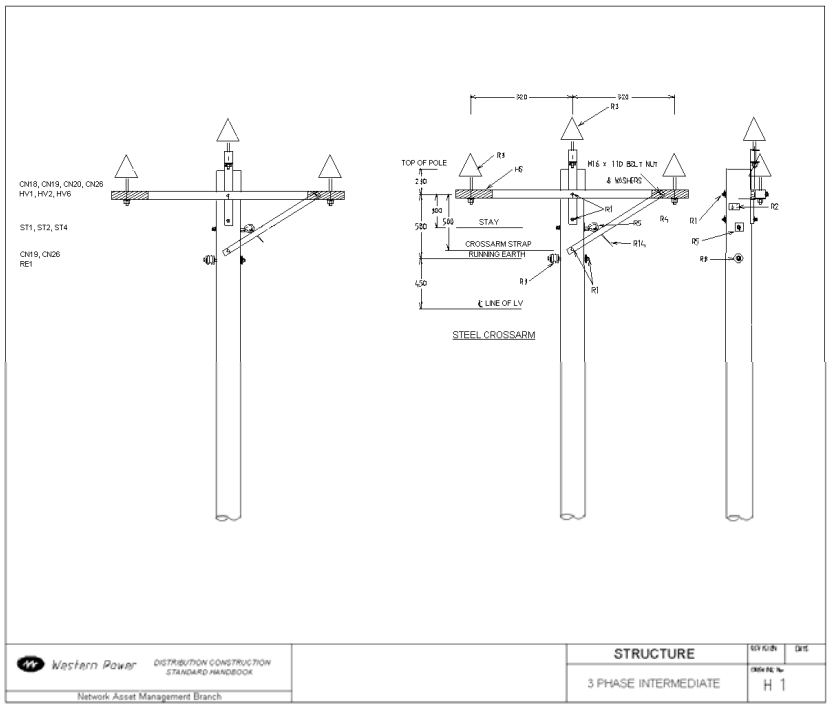
Part 3 High Voltage Underground — (UH series) represents High Voltage Underground type structures and arrangements. The Underground reference applies to those materials associated with below ground and groundmount installations.

Part 4	High Voltage Overhead	(H series) represents High Voltage Overhead type structures and arrangements. The Overhead reference applies to those materials associated with above ground, polemount and aerial installations.
Part 5	Low Voltage Underground	(U series) represents Low Voltage Underground type structures and arrangements. The Underground reference applies to those materials associated with below ground and groundmount installations.
Part 6	Low Voltage Overhead	(L series) represents Low Voltage Overhead type structures and arrangements. The Overhead reference applies to those materials associated with above ground, polemount and aerial installations.
Part 7	Low Voltage ABC	(A series) represents Low Voltage Aerial Bundled Conductor (ABC) type structures and arrangements.
Part 8	Streetlights	(S series) represents Streetlight type structures and arrangements.
Part 9	Maintenance Manual	(MM series) is a collection of drawings for superseded construction standards. These can be used where existing pole top assets are being reinstalled on a new pole (in accordance with an approved asset strategy). This will typically occur when poles with pole top assets attached are being changed as part of the pole replacement program. The MM series can also be used on a 'like-for-like' basis to match the original pole top configuration where use of the current standard would compromise other aspects of the design. For any other replacement activities, the current standard in the DCSH should be applied.
Part 10	Conductor Tensioning Table	(CT Series) Represents tension, sag and beat tables to construct new lines and of regulate existing lines during maintenance.

2.2 Philosophy

It is the intent of the Networks Asset Manager to maintain a relationship between the Distribution Design Catalogue (DDC) which represents the compatible units, and the Distribution Construction Standards Handbook, which represents the standard of construction. It is however recognised that these are separate functions and may involve separate responsibilities.

Future revisions of this Handbook aim to improve the relationship to the DDC, whilst maintaining a separate numbering convention. This will evolve into a two part drawing detailing the Structure components or materials expressed as compatible units and the construction requirements as shown below.



The above drawing aims to provide a single, and most importantly common reference for both the design, construction and auditing personnel for a common network asset.

3 Definitions

3.1 General

Material	Any apparatus connectable to a point of supply. Any network consumable or part which is adapted from the MIMS dialogue.
Structure	Any combination of equipment which is representative of a network asset having a specific function
LV	Low Voltage. This represents voltages less than 1000V, typically 415V three phase and 240V single phase.
HV	High Voltage. This represents voltages exceeding 1000V, typically between 6 and 33kV.
DCM	Distribution Construction Manual replaced by Distribution Design Catalogue (DDC)
ABC	Aerial Bundled Conductor
LCH	Line Construction Handbook
MIMS	Mincom Information Management System
WAER	Western Australian Electrical Requirements

3.2 Abbreviations and Acronyms

AS	Australian Standard
AS/NZS	Australian Standard/New Zealand Standard
WA	Western Australia
WPC	Western Power Corporation

3.3 Related Information

Perth One-Call System, operated by Association of Australia. Dial Before You Dig Services Ltd.

Western Australian Electrical Requirements (WAER) published by the WA Office of Energy.

Policy and Procedures for Contractor Safety published by Western Power.

Occupational Safety and Health Act 1984 published by the Governance of Western Australia.

AS/NZS 3000 Wiring Rules, published by Standards Australia

Other Western Power publications as appropriate. These shall include;

- Distribution Design Catalogue (DDC) formerly known as Distribution Construction Manual (DCM)
- Distribution Substations Manual (DSM)
- SPUDS manual
- SPURS manual

4 Safety and Work Skills

All of Western Power's work shall be done by suitably trained Western Power staff or by approved contractors in accordance with the "Policy and Procedures for Contractor Safety".