



6

Part 6 – Low Voltage Overhead

DISTRIBUTION CONSTRUCTION
STANDARDS HANDBOOK

HB01-2007

Drawing Register

Number	Revision	Description
L01	E	LV Intermediate Deviation 0 to 2°
L02	E	LV Intermediate Deviation 2 - 20°
L03	E	Inline Strain or Angle 21 - 40°
L05	D	Termination
L06	E	L.V. Isolators Underslung
L07	D	Two Cross-arms

General Notes

Clearances of conductors from ground, other structures and other conductors shall be undertaken in accordance with Distribution Overhead Line Design Manual – Clearances chapter, EDM 29636820.

The low voltage neutral shall be continuous at all times, including where low voltage isolation is provided as indicated in drawing L06 and terminations as shown in L03.

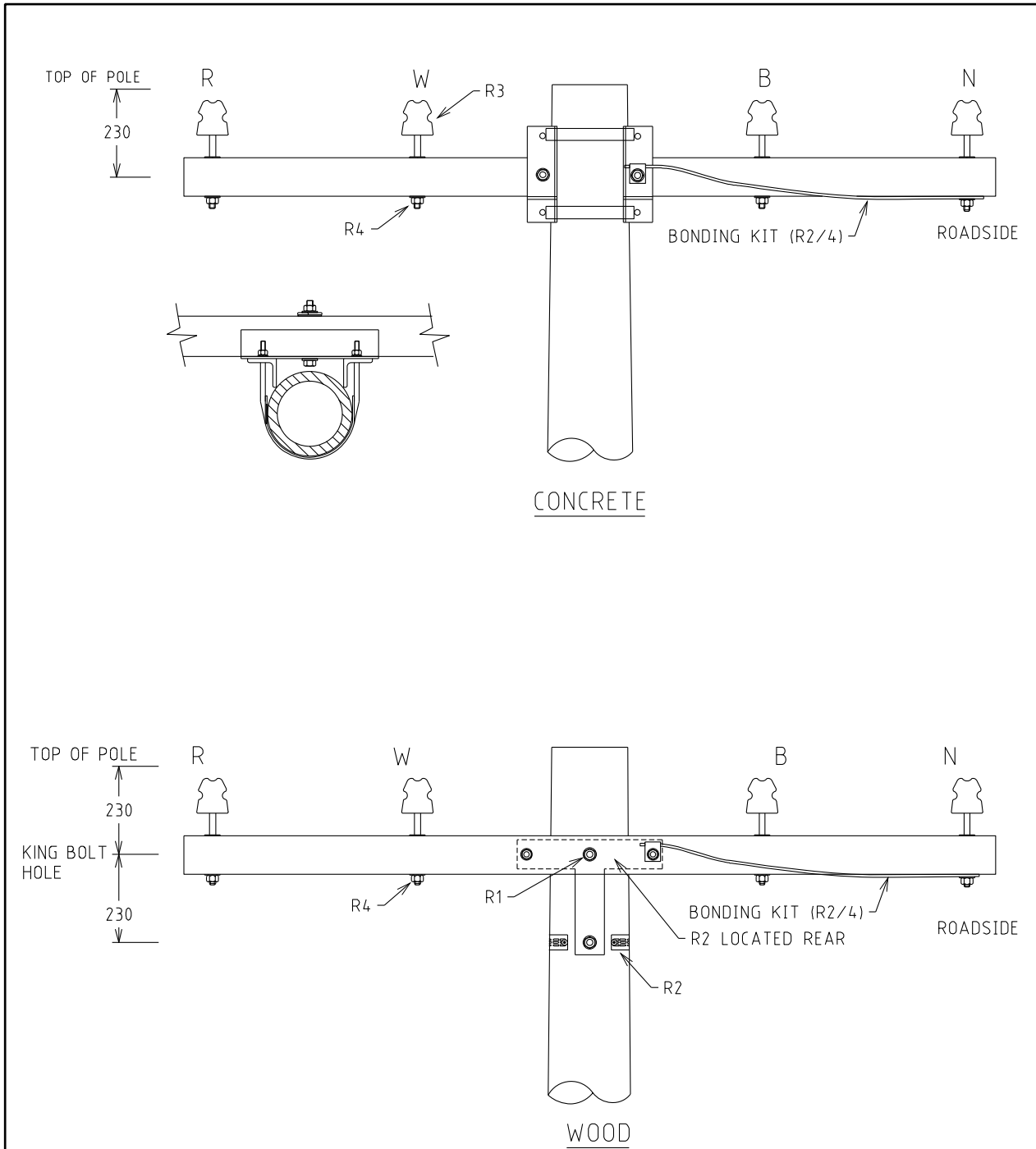
All aerial connections shall be undertaken by mechanical means, hand splicing is not acceptable. Any in-line service extensions shall match the existing conductor size unless otherwise rated for connected load.

All poles supporting transposed open aerial conductors must be identified. Approved 'LV Transposed' signs must be attached on the roadside of the pole; refer to the Distribution Equipment Labelling Standard (DELS), EDM 25433005. A transposed sign may also indicate incorrect phase positions.

No LV bonding wire or dispersion plates on LV required if only LV on structure or HV with running earth present.

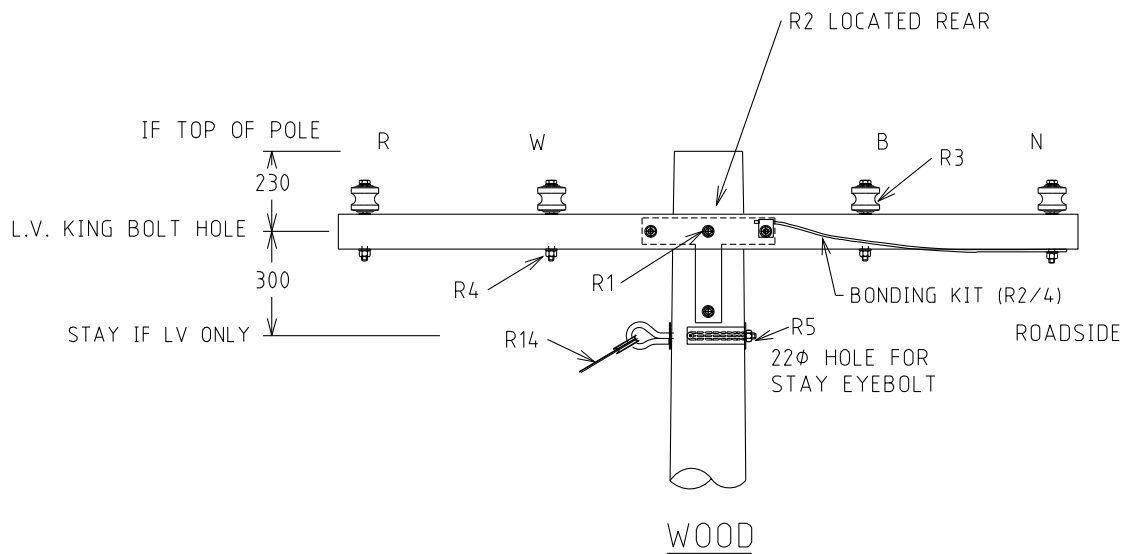
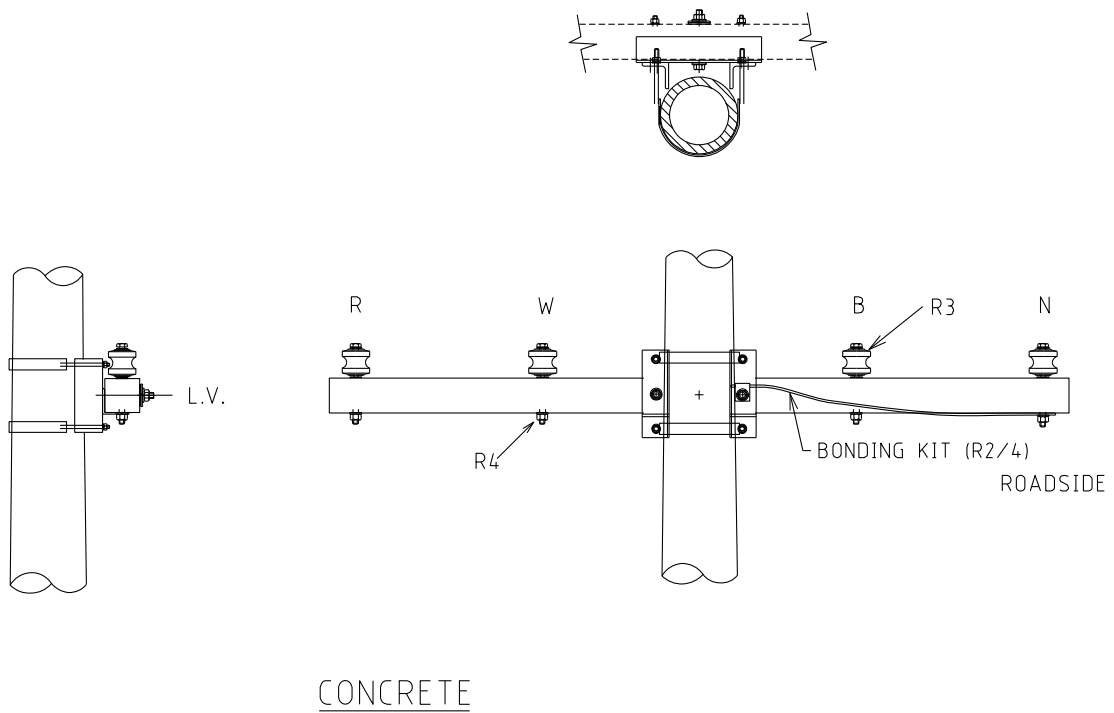
Low Voltage Spreaders

All LV spreader requirements shall be as detailed in the Low Voltage Spreaders Standard, EDM 27665827.



- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. ALL HOLES 18DIA U.O.N.
 3. IF SERVICE FUSE IS FITTED SEE R11.
 4. BONDING KIT TO BE USED FOR WOOD CROSS-ARM ONLY.
 5. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

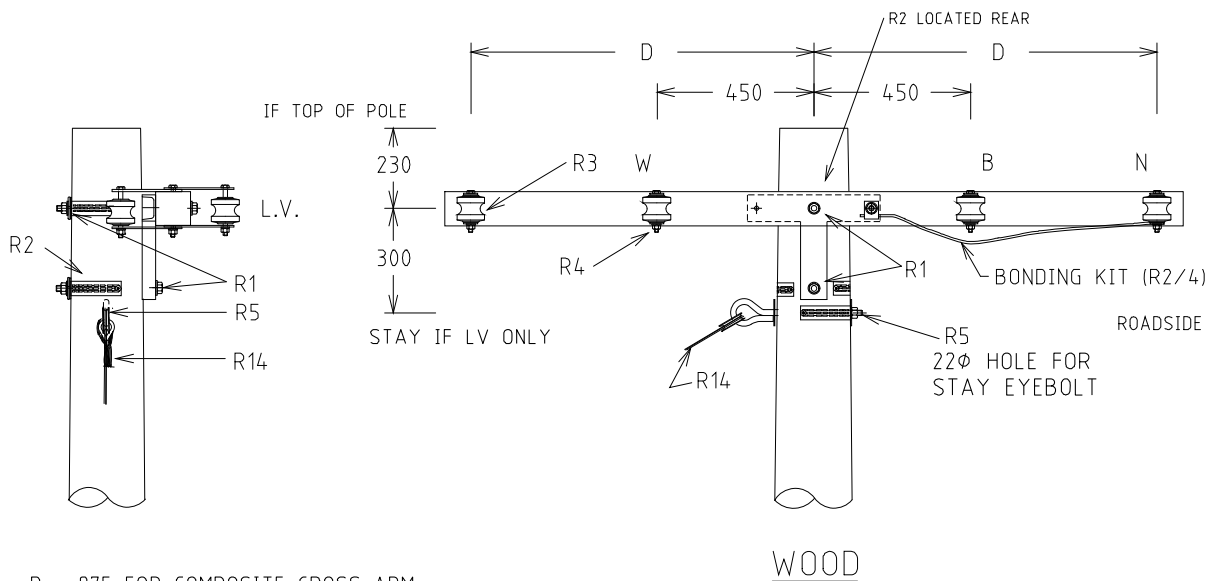
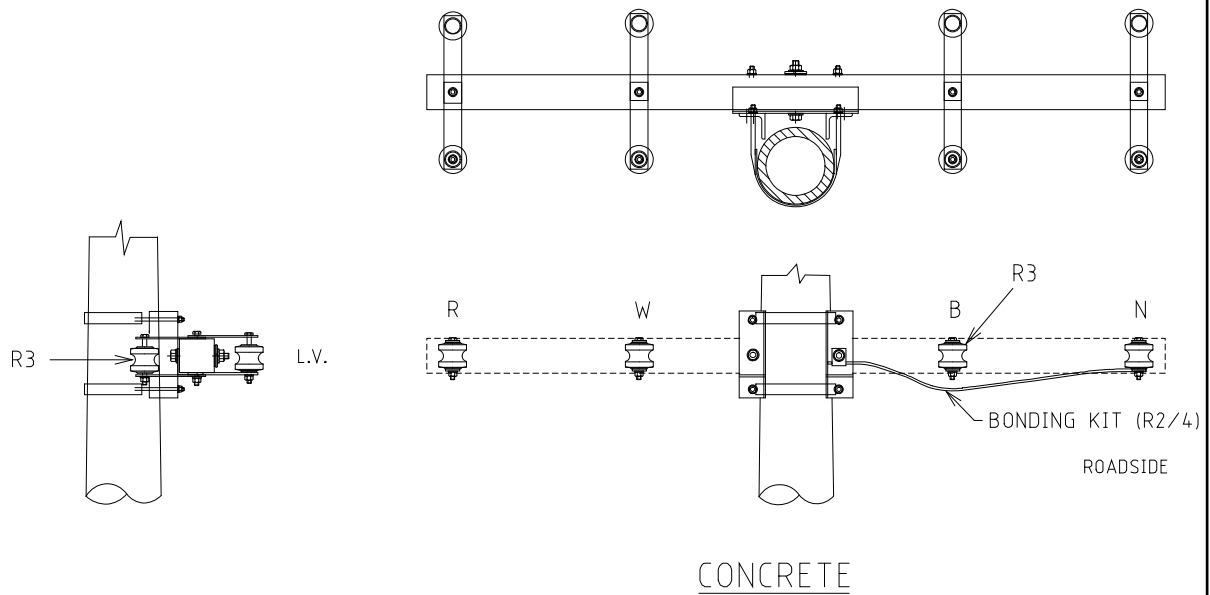
				STRUCTURE			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 25-03-2014	
				LV INTERMEDIATE DEVIATION 0 to 2°			ORIGINATED:		SCALE: NTS	
							CHECKED: REE		L01	
							APPROVED:		REV. E	
							GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD					
E	23.11.18	NOTE 5 ADDED	JN	REE	GS					
D	13.09.17	TITLE CHANGED AND INSULATOR DISTANCES DELETED	JB	NMC	GS					
C	24.02.17	BONDING KIT, NOTE 4 AND DIMENSION 'D' ADDED	KT	JC	GS					
B	14.10.13	ORIGINAL ISSUE								



NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18DIA U.O.N.
3. IF SERVICE FUSE IS FITTED SEE R11.
4. IF EXTRA CLEARANCE REQUIRED DISTANCE CAN BE REDUCED TO 600mm
5. BONDING KIT TO BE USED FOR WOOD CROSS-ARM ONLY.
6. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

				STRUCTURE			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 25-03-2014	
				LV INTERMEDIATE DEVIATION 2° - 20°			ORIGINATED: JRR		SCALE: NTS	
							CHECKED: REE		REV. E	
							APPROVED: GRANT STACY		SHT. L02	
REV	DATE	DESCRIPTION	ORGO	CHKD	APRD					
E	23.11.18	NOTE 6 ADDED	JN	REE	GS					
D	13.09.17	TITLE CHANGED AND INSULATOR DISTANCES DELETED	JB	NMc	GS					
C	24.02.17	BONDING KIT, DIMENSION 'D' AND NOTES 5 ADDED	KT	JC	GS					
B	05.12.13	ORIGINAL ISSUE								

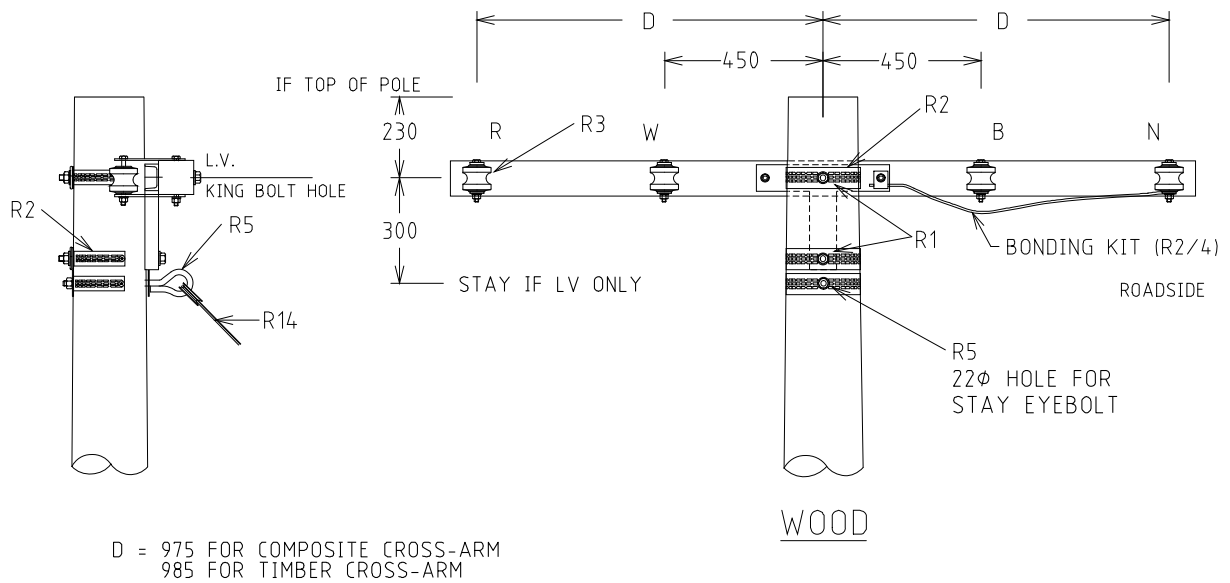
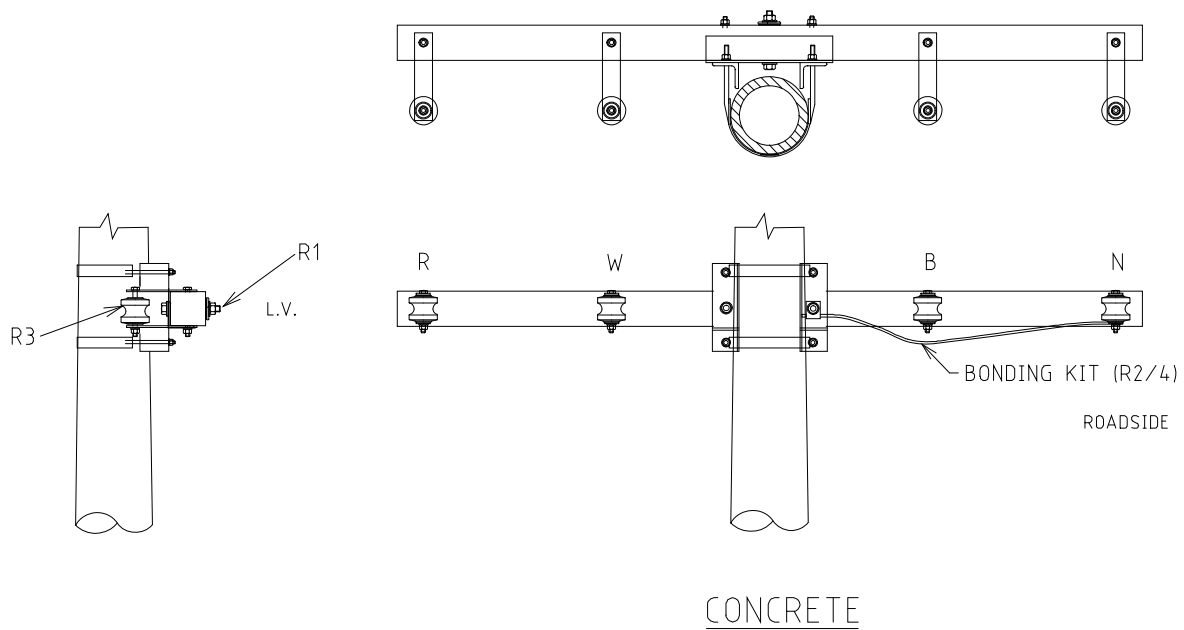


D = 975 FOR COMPOSITE CROSS-ARM
985 FOR TIMBER CROSS-ARM

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18DIA U.O.N.
3. IF SERVICE FUSE IS FITTED SEE R11.
4. BONDING KIT TO BE USED FOR WOOD CROSS-ARM ONLY.
5. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

				STRUCTURE			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 25-03-2014	
				IN LINE STRAIN OR ANGLE 21° - 40°			ORIG. No.		L03	
							CHECKED: REE		SCALE: NTS	
							APPROVED: GRANT STACY		REV. E	
							SHT.			
REV	DATE	DESCRIPTION	DRG	CHKD	APRD					
E	23.11.18	NOTE 5 ADDED	JN	REE	GS					
D	24.02.17	BONDING KIT, NOTE 4 AND DIMENSION 'D' ADDED	KT	JC	GS					
C	25.03.15	FORMAT AND TITLE CHANGED	AK	DVT	GS					
B	05.12.13	ORIGINAL ISSUE								

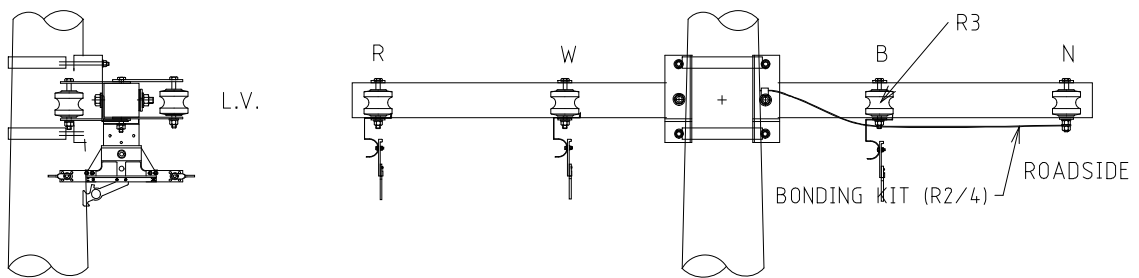


NOTES:-

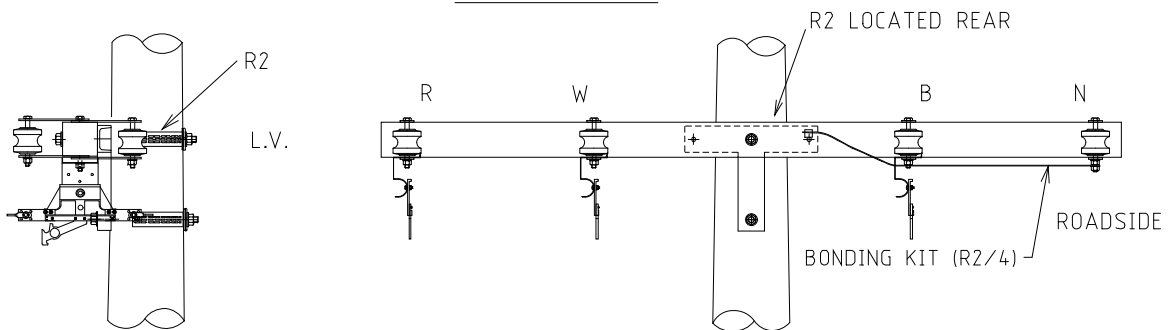
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18 ϕ U.O.N.
3. IF SERVICE FUSE IS FITTED SEE R11.
4. BONDING KIT TO BE USED FOR WOOD CROSS-ARM ONLY.
5. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

				STRUCTURE			DISTRIBUTION CONSTR. STANDARD		westernpower			
				TITLE								
				TERMINATION							L05	
D	23.11.18	NOTE 5 ADDED		JN	REE	GS	DRAWN: JRR		DATE: 25-03-2014	DRG. No.		
C	24.02.17	BONDING KIT, NOTE 4 AND DIMENSION 'D' ADDED		KT	JC	GS	ORIGINATED:		SCALE: NTS			
B	05.12.13	ORIGINAL ISSUE					CHECKED: REE					
REV	DATE	DESCRIPTION		ORGO.	CHKD.	APRD.	APPROVED: GRANT STACY		REV. D	SHT.		

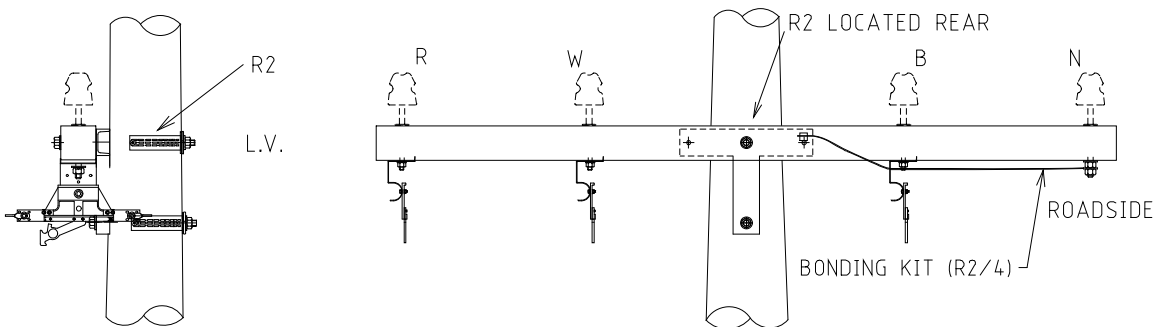
CONCRETE POLE



WOOD POLE



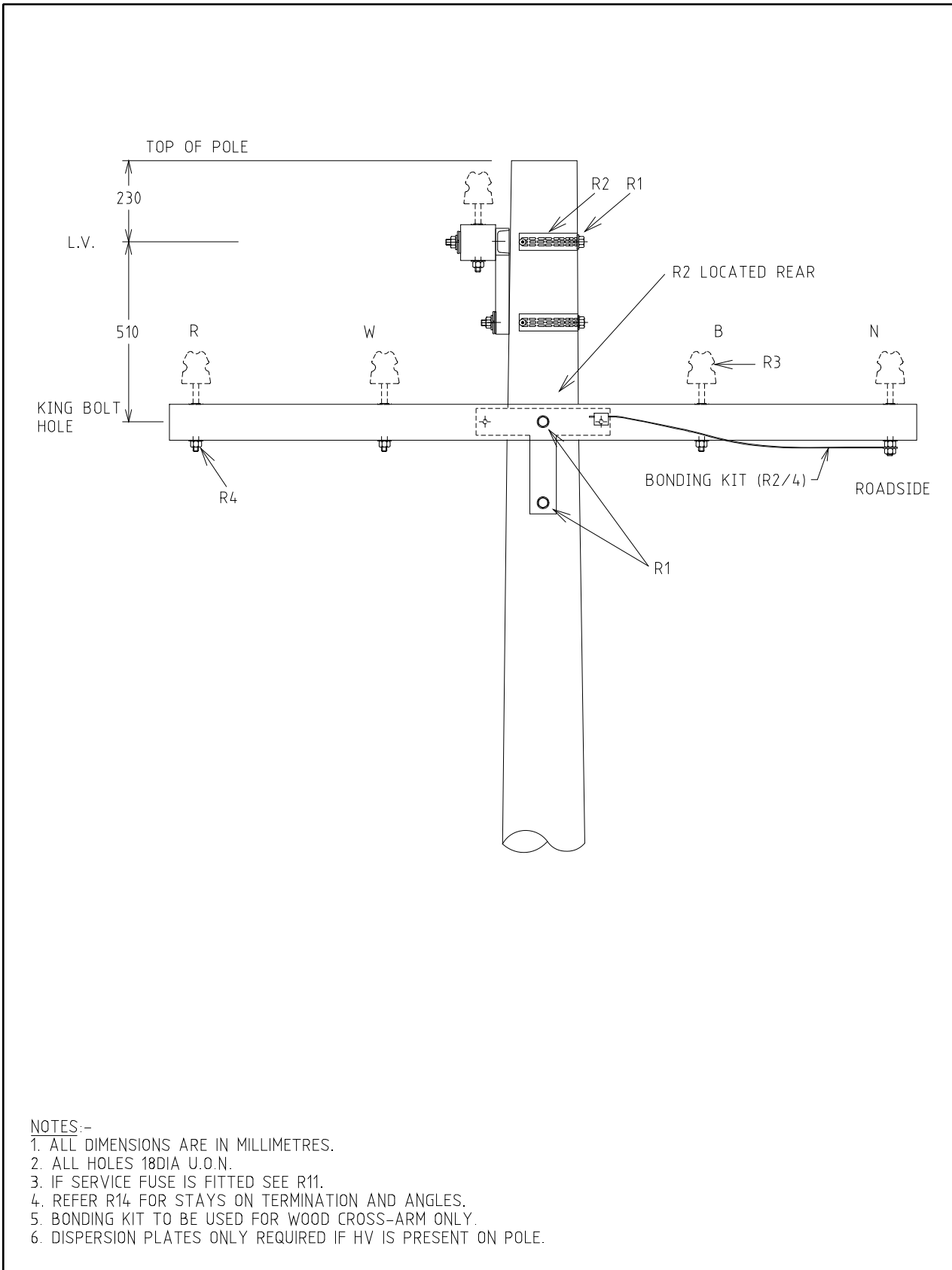
UNDER TRANSFORMER



NOTES:-

1. ALL HOLES 18DIA U.O.N.
2. IF SERVICE FUSE IS FITTED SEE R11.
3. THE NEUTRAL MUST ALWAYS BE CONTINUOUS INCLUDING POLES WHERE ISOLATORS ARE FITTED.
4. BONDING KIT TO BE USED FOR WOOD CROSS-ARM ONLY.
5. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

				STRUCTURE			DISTRIBUTION CONSTR. STANDARD				
				TITLE			DRAWN: JRR		DATE: 25-03-2014		
				L.V. ISOLATORS UNDERSLUNG			ORIGINATED:		SCALE: NTS		
							CHECKED: REE		REV. E		
							APPROVED: GRANT STACY		SHT. 1		
REV	DATE	DESCRIPTION	ORGD.	CHKD.	APRD.					DRG. No. L06	
E	23.11.18	NOTE 5 ADDED	JN	REE	GS						
D	09.08.17	LV UNDERSLUNG SWITCH REVISED	REE	JC	GS						
C	24.02.17	BONDING KIT AND NOTE 4 ADDED	KT	JC	GS						
B	05.12.13	ORIGINAL ISSUE									



NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18DIA U.O.N.
3. IF SERVICE FUSE IS FITTED SEE R11.
4. REFER R14 FOR STAYS ON TERMINATION AND ANGLES.
5. BONDING KIT TO BE USED FOR WOOD CROSS-ARM ONLY.
6. DISPERSION PLATES ONLY REQUIRED IF HV IS PRESENT ON POLE.

				STRUCTURE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR		DATE: 25-03-2014	
				TWO CROSSARM		ORIGINATED: REE		SCALE: NTS	
						CHECKED: REE		APPROVED: GRANT STACY	
								DRG. No. L07	
								REV. D	
								SHT.	
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD				
D	23.11.18	NOTE 6 ADDED	JN	REE	GS				
C	24.02.17	BONDING KIT AND NOTE 5 ADDED	KT	JC	GS				
B	05.12.13	ORIGINAL ISSUE							