









MAIN SWITCHBOARD				
Identification:		Main Switchboard 6		
Inspected By:		Lance Stewart		
Technician Signature:				
Date:		20.03.17		
INSPECTION ITEMS				
ITEM	NON-COMPLIANCE	Pass	Fail	N/A
1	General Access & Location	X		
2	Emergency & Exit Egress	X		
3	General Lighting	X		
4	Emergency & Exit Lighting	X		
5	Safety Signage		X	
6	Smoke Detection	X		
7	Evidence of Preventative Maintenance Completed	X		
8	External Cabling (Including Supports & Fixings)	X		
9	Cable Penetrations		X	
10	Enclosure - Damage	X		
11	Enclosure - Escutcheon/Cover Fittings & Handles		X	
12	Enclosure - IP Rating & Degree of Protection	X		
13	Labelling - Identification & Compliance Label Fitted	X		
14	Labelling - Warning Labels, Busbar/Cable Zone, Live Equipment	X		
15	Labelling - Service Protection Devices & Main Switches		X	
16	Labelling - Alternate Supplies			X
17	Labelling - Essential Services (Fire & Smoke)	X		
18	Labelling - Equipment		X	
19	Labelling - General		X	
20	Indication - Functional			X
21	Busway Condition (Visual Inspection)	X		
22	Busway - Supports & Blocks (Visual Inspection)	X		
23	Busway Insulation	X		
24	Busway Terminations	X		
25	Internal Cabling (Including Supports & Fixings)		X	
26	Unprotected Cable Take-Offs	X		
27	Cable Terminations		X	
28	MIMS & ESR Neutral & Earth Conductors			X
29	Earthing - Correctly Configured		X	
30	MEN Link - Correctly Configured (Where Applicable) & Labelled	X		
31	Switchgear Condition	X		


ITEM	NON-COMPLIANCE	Pass	Fail	N/A
32	Switchgear Orientation	X		
33	Switchgear Selection (Discrimination/Coordination)	X		
ITEM	HAZARDS & RECOMMENDATIONS	Yes	No	N/A
34	Electrical Hazards Present	X		
35	Hazardous Material Present	X		
36	Miscellaneous Items Not Listed Above		X	
37	Thermal Audit Completed		X	
38	Abnormal Thermal Radiation Found	X		

Main Switchboard MSB 6		
Item	Priority	Non-Compliance Description
ITEM: 5	P1	Insufficient electric shock signs on areas/cover whereby live equipment is located behind and the risk of electric shock is present.
ITEM: 5	P1	Currently within the switchroom a resuscitation (CPR) chart and/or emergency procedure chart does not exist
ITEM: 9	P3	Penetration(s) are not sealed with openings greater than 5mm, therefore effecting the main switchboards IP rating and fire preventative measures.
ITEM: 11	P4	Main switchboard equipment (Handles, locking facilities, escutcheon fixings, quarter turns, dome nuts etc.) are missing/and or damaged.
ITEM: 15	P3	The installed service protection device has insufficient and or incorrect identification and labelling.
ITEM: 18	P3	The current equipment/service labelling does not sufficiently describe the current rating, submain size or type of the associated service.
ITEM: 18	P3	The current equipment/service labelling includes abbreviations, temporarily installed (hand written) and or is illegible.
ITEM: 19	P3	The main earthing conductor installed within the main switchboard and its location has not been labelled/identified.
ITEM: 25	P3	The minimum bending radius for the installed cabling has been ignored damaging the cable.
ITEM: 27	P1/P3	Stranded copper termination made without appropriate sleeving, lugs, bootlaces etc.
Item	Priority	General Recommendation
ITEM: 36	P1/P4	It is recommended that the existing consumer mains connections be wrapped with suitable heat shrink to provide insulation.
ITEM: 36	P4	It is recommended that a numbering system be installed via labelling to help in identifying all main switches/ submain isolators etc.

NON-COMPLIANCE	
ITEM: 5	NON-COMPLIANCE
N/A	<p>Priority: P1</p> <p>Non-Compliance: Insufficient electric shock signs on areas/cover whereby live equipment is located behind and the risk of electric shock is present.</p> <p>Legislation: AS/NZS 3439.1:2002: Clause 5.2</p> <p>Recommendation/ Rectification: Supply and installation of electric shock / warning labels (lightning bolt) where live equipment is located behind</p> <p>Site Specific Notes: Lightning bolt labels required for busbar zones. 2 off</p>
ITEM: 5	NON-COMPLIANCE
N/A	<p>Priority: P1</p> <p>Non-Compliance: Currently within the switchroom a resuscitation (CPR) chart and/or emergency procedure chart does not exist</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Appendix L</p> <p>Recommendation/ Rectification: It is recommended that a resuscitation (CPR) and emergency procedure chart (electric shock) be installed on the switchroom wall in a readily accessible area.</p> <p>Site Specific Notes: Install CPR chart</p>
ITEM: 9	NON-COMPLIANCE
	<p>Priority: P3</p> <p>Non-Compliance: Penetration(s) are not sealed with openings greater than 5mm, therefore effecting the main switchboards IP rating and fire preventative measures.</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 2.9.7 & 3.9.1 AS/NZS 3439.1:2002: Clause 7.1.3.6 & 7.8.3.3</p> <p>Recommendation/ Rectification: It is recommended the associated penetration(s) be sealed (fire retardant substance). This can be achieved via silicon (For cable glands), Foam filler (Cable penetrations), bungs etc.</p> <p>Site Specific Notes: Far cable zone on RHS. 4 x cable penetrations not sealed</p>

ITEM: 11	NON-COMPLIANCE
	<p>Priority: P4</p> <p>Non-Compliance: Main switchboard equipment (Handles, locking facilities, escutcheon fixings, quarter turns, dome nuts etc.) are missing/and or damaged.</p> <p>Legislation: AS/NZS 3439.1:2002: Clause 7.1.1 & 7.4.3.2.2 AS/NZS 3000:2007/Amdt 2:2012: Clause 1.5.4.4</p> <p>Recommendation/ Rectification: All damaged/missing enclosure equipment is to be repaired and or replaced to ensure the enclosures design intent is being met.</p> <p>Site Specific Notes: House services maintenance isolator cover fixings</p>
ITEM: 15	NON-COMPLIANCE
	<p>Priority: P3</p> <p>Non-Compliance: The installed service protection device has insufficient and or incorrect identification and labelling.</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 2.3.3.4, 7.2.6.1/2 NSW Service Rules 2016: Clause 4.7.10, 4.7.11 & 4.21.2.2</p> <p>Recommendation/ Rectification: It is recommended that the current Service Protection Device be re-labelled and identified with the labels listed below: - SPD Settings (Frame Size /Max Setting/ Set at) - Consumer Mains size & type</p> <p>Site Specific Notes: Install Frame Size, max setting & current setting label Install label describing consumer main sizing (1 x 300mm / PH + N + 1 x 120mm E)</p>
ITEM: 18	NON-COMPLIANCE
	<p>Priority: P3</p> <p>Non-Compliance: The current equipment/service labelling does not sufficiently describe the current rating, submain size or type of the associated service.</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 2.9.5.2 NSW Service Rules 2016: Clause 4.21.1 & 4.21.2.6</p> <p>Recommendation/ Rectification: It is recommended that all associated equipment be re-labelled with suitable trifoliate labels identifying the current rating of the switchgear (Frame Size/Max Setting/Set at). The associated services requiring re-labelling are listed below:</p> <p>Site Specific Notes: Frame Size, max setting & current settings labels through. Qty of 8 required</p>

ITEM: 18	NON-COMPLIANCE
	<p>Priority: P3</p> <p>Non-Compliance: The current equipment/service labelling includes abbreviations, temporarily installed (hand written) and or is illegible.</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 2.9.5.1 & 2.9.5.2 NSW Service Rules 2016: Clause 4.21, 4.21.1 & 4.21.2.6</p> <p>Recommendation/ Rectification: It is recommended that all associated equipment be re-labelled with suitable trifoliate labels with full descriptions used with no abbreviations used. The associated services requiring re-labelling are listed below:</p> <p>Site Specific Notes: Temporary labelling throughout. CB 6 & 10</p>
ITEM: 19	NON-COMPLIANCE
	<p>Priority: P3</p> <p>Non-Compliance: The main earthing conductor installed within the main switchboard and its location has not been labelled/identified.</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 5.5.1.3</p> <p>Recommendation/ Rectification: It is recommended that a suitable trifoliate label be installed for the Main Earthing conductor and its location. "MAIN EARTH * LOCATED BEHIND" & "MAIN EARTH - DO NOT DISCONNECT"</p> <p>Site Specific Notes: Earth Conductor not labelled</p>
ITEM: 25	NON-COMPLIANCE
	<p>Priority: P3</p> <p>Non-Compliance: The minimum bending radius for the installed cabling has been ignored damaging the cable.</p> <p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 3.9.6</p> <p>Recommendation/ Rectification: It is recommended that associate cabling be replaced and or repaired. The cabling should be re-installed considering the minimum bending radius given by the cabling manufacturer.</p> <p>Site Specific Notes: Consumer mains bent beyond manufacturers standards. Damage evident. Cut and re-terminate - sub outage required</p>

ITEM: 27	NON-COMPLIANCE
	<p>Priority: P1/P3</p>
	<p>Non-Compliance: Stranded copper termination made without appropriate sleeving, lugs, bootlaces etc.</p>
	<p>Legislation: AS/NZS 3000:2007/Amdt 2:2012: Clause 3.7.2.5 AS/NZS 3439.1:2002: Clause 7.8.3.101</p>
	<p>Recommendation/ Rectification: It is recommended the associated termination be removed and re-terminated. The termination should be made with appropriate conductor sleeving, lugs and or bootlaces.</p>
	<p>Site Specific Notes: MSSB NE 2A.1. Lugs have trimmed to fit CB. Install appropriate CB LUGS</p>

HAZARDS & RECOMMENDATIONS
ELECTRICAL HAZARD
Priority: P1/P4
Recommendation/Rectification: CONSUMER MAINS
Site Specific Notes: Wrap consumer main connections. Substation outage required
ELECTRICAL HAZARD
Priority: P4
Recommendation/Rectification: NUMBERING IDENTIFICATION
Site Specific Notes: Install numbering for Submain Isolators as per SLD