## **NOTES**

### 1. EXTENT OF WORKS

THE ELECTRICAL SERVICES SUB-CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- SUPPLY AND INSTALLATION OF ALL COMPONENTS FORMING PART OF THE ELECTRICAL SERVICES.

- CO-ORDINATION.
- INSPECTIONS. - TESTING AND COMMISSIONING.
- MAINTENANCE.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS. POWER DISTRIBUTION.
- LIGHTING.
- NBN ACCESS.
- FIRE DETETION AND ALARM SYSTEM.

- REMOVE ALL OF THE EXISTING ELECTRICAL INSTALLATION FROM THE SITE. - ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO. HOWEVER NECESSARY TO COMPLETE THE ELECTRICAL SERVICES INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

SUPPLY ALL LABOUR, MATERIALS, EQUIPMENT, AND ALL OTHER ITEMS, WHETHER MENTIONED IN DETAIL OR NOT, REQUIRED FOR THE SATISFACTORY COMPLETION OF THE ELECTRICAL SERVICES INSTALLATION, LEAVING IN FULL WORKING ORDER TO THE SATISFACTION OF THE PROJECT MANAGER.

ACCEPT FULL RESPONSIBILITY FOR LIASING, ARRANGING AND CO-ORDINATION ALL WORKS THAT HAVE AN EFFECT ON OR WILL BE AFFECTED BY THE ELECTRICAL SERVICES.

REMOVE ALL OF THE EXISTING ELECTRICAL SERVICES THAT BECOME REDUNDANT DUE TO THE WORKS.

### WORKMANSHIP

ENSURE THAT THE WORK IS PERFORMED BY THE HOLDER OF A CURRENT ELECTRICAL SUB-CONTRACTOR LICENSE. ENSURE THE INSTALLATION AND ALL COMPONENTS, FIXTURES, FITTINGS, OUTLETS AND CABLES ARE SUPPLIED AND INSTALLED TO A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS. ENSURE ALL MATERIALS AND COMPONENTS OF A SIMILAR TYPE ARE OF THE SAME MANUFACTURER AND INSTALLED IN A UNIFORM MANNER.

IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE INSTALLATION IS FIT FOR PURPOSE AND IS PROVIDED AS A COMPLETE WORKING INSTALLATION. IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL COMPONENTS, FITTINGS, FIXTURES, SYSTEMS, PROGRAMMING ETC IRRESPECTIVE OF THE LEVEL DETAILED IN THE DOCUMENTS SUCH THAT THE INSTALLATION IS PROVIDED AS A COMPLETE WORKING INSTALLATION.

CONCEAL ALL WIRING AND CONDUITS. EXPOSED CABLING OR CONDUITS ARE GENERALLY NOT ACCEPTABLE. IT IS NOTED THAT CHASING AND REINSTATEMENT WILL BE REQUIRED. ENSURE ALL COMPONENTS, EQUIPMENT AND MATERIALS SUPPLIED ARE NEW, UNUSED, DESIGNED AND SELECTED TO ENSURE SATISFACTORY OPERATION UNDER VARYING ATMOSPHERIC, CLIMATIC, HUMID TROPICAL CONDITIONS WITHOUT DISTORTION AND DETERIORATION IN ANY PART AFFECTING EFFICIENCY AND RELIABILITY OF THE SYSTEMS. DESIGN AND SELECT ALL EQUIPMENT TO PROVIDE THE NECESSARY SAFETY TO HUMAN LIFE AND PROPERTY DURING OPERATION AND MAINTENANCE WITH PARTICULAR ATTENTION GIVEN TO ELECTRICAL SAFETY AND SEGREGATION PRECAUTIONS.

CHECK THE FINISHED PAINTWORK AROUND THE AREA OF EACH INSTALLATION AND TOUCH UP ALL DAMAGED PARTS AND FINISHES AFTER THE INSTALLATION OF THE ELECTRICAL

ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDER'S PROGRAM. ENSURE ALL FINAL LOCATIONS OF OUTLETS AND FITTINGS ARE CO-ORDINATED ONSITE WITH THE ARCHITECT AND ALL OTHER SERVICES, TO THE APPROVAL OF THE PROJECT MANAGER. ALLOW TO CO-ORDINATE THE FINAL LOCATION OF ALL EQUIPMENT, FITTINGS, & OUTLETS, SUCH THAT THEY ARE INSTALLED IN ACCORDANCE WITH THE AS3000 RESTRICTED ZONES, AND ARE NOT COVERED INAPPROPRIATELY.

ENSURE THAT ALL METAL SURFACES ARE SUITABLY PROTECTED AGAINST CORROSION, AND THAT ALL PLASTIC MATERIALS ARE UV STABILISED.

PROVIDE ALL MATERIALS AS NEW. AND OF THE HIGHEST CLASS AVAILABLE FOR THEIR RESPECTIVE TYPES. ENSURE ALL ASPECTS OF THE WORK ARE OF A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS.

## 3. STANDARDS

IRRESPECTIVE OF INFORMATION CONTAINED IN THE ELECTRICAL SERVICES DOCUMENTS OR IN INSTRUCTIONS, IT IS THE ELECTRICAL SUB CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL ELECTRICAL SERVICES WORKS ARE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING. REFER ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE FOLLOWING AND/OR THE ELECTRICAL SERVICES DOCUMENTS AND INSTRUCTIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO THE PLACING OF ORDERS, FABRICATION OR INSTALLATION OF THE ITEMS/METHODS IN DISCREPANCY.

- NCC BUILDING CODE OF AUSTRALIA.
- ELECTRICITY ACT. - ELECTRICAL SAFETY ACT.
- AS/NZS3000.
- AS3008. AS1670.
- WORKPLACE HEALTH AND SAFETY ACT.
- TELECOMMUNICATIONS ACT. ACMA REQUIREMENTS.
- 4. AUTHORITIES

ENSURE ALL OF THE ELECTRICAL SERVICES COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AUTHORITIES HAVING JURISDICTION OVER THE SITE INCLUDING BUT NOT

- LIMITED TO THE FOLLOWING: ACMA.
- LOCAL COUNCIL LOCAL SUPPLY AUTHORITY.
- STATE GOVERNMENT DEPARTMENT OF ENVIRONMENT AND HERITAGE.
- QLD GOVERNMENT, DIVISION OF WORKPLACE, HEALTH AND SAFETY. QLD FIRE AND RESCUE AUTHORITY.
- 5. CABLES

**ELECTRICAL DESIGN GROUP BRISBANE** 

UNLESS OTHERWISE SPECIFIED, INSTALL AND TERMINATE CABLES IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. DETERMINE THE FINAL ROUTES TO SUIT THE BUILDING STRUCTURE AND SITE CONDITIONS. UNLESS NOTED OTHERWISE, PROVIDE ALL 240 VOLT POWER AND LIGHTING WIRING AS 2.5mm2 TWIN & EARTH STRANDED COPPER CONDUCTORS, PVC INSULATED 0.6/1kV V75 GRADE TO AS3174, PROTECTED BY A 20 AMP CIRCUIT BREAKER. ALL CONDUIT AND FITTINGS TO BE RIGID UPVC TO AS2053, UNLESS NOTED OTHERWISE.

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## **NOTES**

## 6. POWER DISTRIBUTION

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES THE PROVISION OF A NEW EXTERNAL MAIN SWITCHBOARD CONTAINING RETAIL METERING AND A COMMON ARE DISTRIBUTION BOARD DB-M. NEW UNDERGROUND CONSUMERS MAINS ARE TO BE PROVIDED FROM THE EXISTING ENERGEX POINT OF SUPPLY LOCATED IN THE CRAWL SPACE IN THE LOWER LEVEL STORE UNDER THE LOBBY. DIRECT WIRED RETAIL METERING IS TO BE PROVIDED FOR THE COMMON SERVICES AND EACH OF THE THREE TENANCIES. EACH LEVEL IS TO BE CONFIGURED AS A DEDICATED TENANCY WITH A DEDICATED DISTRIBUTION BOARD ON EACH LEVEL. SUBMAIN ARE TO BE PROVIDED FROM THE MAIN SWITCHBOARD TO EACH DISTRIBUTION BOARD. ALL NECESSARY CIRCUITS OUTLETS AND CONNECTIONS FROM THE DISTRIBUTION BOARDS ARE TO BE PROVIDED. THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- POWER DISTRIBUTION. EARTHING.
- CONSUMERS MAINS.
- MAIN SWITCHBOARD C/W REINFORCED MOUNTING PLINTH.
- SUBMAINS. DISTRIBUTION BOARDS.
- SHOP DRAWINGS.
- CABLE ACCESS
- CIRCUITS.
- ISOLATORS AND OUTLETS. TESTING AND COMMISSIONING.

## 7. LIGHTING

ALL OF THE LIGHT FITTINGS, LAMPS AND ACCESSORIES ARE TO BE PROVIDED AS PART OF THIS CONTRACT. THE LIGHTING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- LIGHTING. - LIGHT FITTINGS AND ACCESSORIES.
- EARTHING OF THE LIGHTING INSTALLATION.
- LIGHTING CONTROL.
- LIGHTING SUBCIRCUITS.

- LIGHTING SOBOTROOT.C.
- TESTING AND COMMISSIONING. CONFIGURE THE LOBBY LIGHTING CIRCUIT DB-M-L1 TO OPERATE AUTOMATICALLY VIA A PROGRAMABLE 7-DAY 24-HOUR TIME CLOCK WITH THE LIGHTS TURNING ON AT 7.30 AM AND OFF AT 8.30 PM MONDAY TO FRIDAY. CONFIGURE THE AFTER HOURS SENSOR (AH) TO OPERATE THE ASSOCIATED LOBBY LIGHTING FOR 30 MINUTES AFTER HOURS WHEN THE LIGHTS ARE NOT TURNED-ON VIA THE TIME CLOCK. 8. NBN

ARRANGE WITH THE NBN CO TO PROVIDE A NEW NBN SERVICE TO THE PROPERTY VIA A NEW UNDERGROUND LEAD IN CONDUIT TO AN EXTERNAL PCD. FROM THE PCD PROVIDE NBN COMPLIANT CABLE ACCESS TO AN NTD WITHIN EACH TENANCY.

### 9. FIRE DETECTION AND ALARM SYSTEM

PROVIDE A NON BRIGADE MONITORED AS1670. 1 COMPLIANT FIRE DETECTION AND ALARM SYSTEM. PROVIDE AN ALARM STATUS OUTPUT TO THE SECURITY SYSTEM BEING PROVIDED BY THE CLIENT TO FACILITATE REMOTE MONITORING BY THE CLIENTS SECURITY MONITORING FIRM. INTERFACE THE FIRE ALARM SYSTEM TO THE CLIENT SUPPLIED ACCESS CONTROL SYSTEM SUCH THAT ALL EXIT DOORS UNLOCK UPON ALARM. THE FIRE DETECTION AND ALARM SYSTEM COMPONENT OF THIS CONTRACT IS TO INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- FIRE INDICATOR PANEL
- DETECTORS. SPEAKERS.
- SECURITY SYSTEM OUTPUT
- ACCESS CONTROL SYSTEM INTERFACE. - TESTING AND COMMISSIONING.
- 10. ABBREVIATIONS
- A AMP CURRENT RATING
- AB MOUNT ABOVE BENCH. AFFL - ABOVE FINISHED FLOOR LEVEL.
- MOUNT BELOW BENCH. MOUNT ON BULKHEAD
- CEIL MOUNT ON CEILING.
- CS MOUNT WITHIN CEILING SPACE.
- C/W COMPLETE WITH.
- DW DISHWASHER.
- HP HOT PLATE
- MCB MINIATURE CIRCUIT BREAKER. MSB - MAIN SWITCHBOARD.
- MSSB MECHANICAL SERVICES SWITCHBOARD. MW - MICROWAVE
- NEON / LED INDICATOR WHEN ON.
- NTS NOT TO SCALE.
- OV OVEN.
- RCBO CIRCUIT PROTECTED VIA A 30mA RESIDUAL CURRENT DEVICE INTEGRAL TO THE CIRCUIT BREAKER. 3-PHASE RCBO TO BE 4-POLE. REF - REFRIGERATOR.
- SUS MOUNT SUSPENDED FROM CEILING.
- UNO UNLESS NOTED OTHERWISE.
- WEATHERPROOF TO IP56 UNO. 500 - NUMBER DENOTES MOUNTING HEIGHT AFFL.

## **DB-M DISTRIBUTION BOARD SCHEDULE**

FAULT CURRENT: 6kA

CHASSIS SIZE:			48 POLES				
CHASSIS RATING:			250A				
PHASES:			3				
PROVIDE T	THE DB WITH	I AN AS2293 EMERG	ENCY LIGHTING COI	NTROL SYSTEM TO C	ONTROL THE COMMON A	AREA EMERGENCY LIGHTS.	
		CIRCUIT	CONTROL	CABLE		CIRCUIT	
CIRC	PH	BREAKER (amps)	EQUIPMENT	SIZE ( mm2 )	LOCATION	USE	
P1	1	20	RCBO	2.5	GROUND LOBBY	FIP	
P2	1	20	RCBO	2.5	COMMON	MAINTENANCE	
P3	1	20	RCBO	2.5	EXTERNAL	GATE	
P4	1	20	RCBO	2.5	AMENITIES	AMENITY	
P5	1	20	RCBO	2.5	LEVEL 1	LIFT	
P6	3	20	RCBO	4.0	ROOF	OUTSIDE AIR	
P7	3	20	RCBO	4.0	ROOF	LOBBY AC	
P8	1	20	RCBO TC ON 7.30 AM TC OFF 8.30 PM	2.5	ROOF	TOILET EXHAUST	
P9	1	20	RCBO	2.5	GROUND	ACCESS CONTROL	
L1	1.00	20.00	RCBO REFER TO THE NOTES FOR CONTROL DETAILS	2.5	LOBBIES	LOBBY AC	
L2	1.00	20.00	RCBO	2.5	REAR STAIRWELL	STAIRWELL	
L3	1.00	20.00	RCBO	2.5	LOWER GROUND	STORE	
L4	1.00	20.00	RCBO	2.5	LOWER GROUND	AMENITY	
L5	1.00	20.00	RCBO	2.5	GROUND	AMENITY	
L6	1.00	20.00	RCBO	2.5	LEVEL 1	AMENITY	
			RCBO PE CELL				

MAIN SWITCH: INTEGRAL TO THE MSB

## **DB-A DISTRIBUTION BOARD SCHEDULE**

ON DUSK OFF

20.00

FAULT CURRENT:		6kA		MAIN SWITCH:	100 AMP	
CHASSIS SIZE: 30 POLES			SUPPLIED FROM:	MSB		
CHASSIS RATING:		: 250A		SUPPLY CABLE:	4C 35	
PHASES:			3			
PROVIDE TI LIGHTS.	HE DB WITH	AN AS2293 EMERGE	NCY LIGHTING CON	TROL SYSTEM TO CO	ONTROL THE ASSOCIATE	D TENANCY EMERGENCY
CIRC PH		CIRCUIT	CONTROL	CABLE	LOCATION	CIRCUIT
	PH	BREAKER (amps)	EQUIPMENT	SIZE ( mm2 )		USE
P1	3	40		10.0	ROOF	LOBBY AC
P2	1	20	RCBO	2.5	LOWER GROUND	NBN
L1	1	20	RCBO	2.5	LOWER GROUND	LIGHTING
L2	1	20	RCBO	2.5	LOWER GROUND	LIGHTING

**EXTERNAL** 

CARPARK

## **DB-B DISTRIBUTION BOARD SCHEDULE**

**RCBO** 

FAULT CURRENT:		6kA		MAIN SWITCH:	100 AMP		
CHASSIS SIZE:			30 POLES		SUPPLIED FROM:	MSB	
CHASSIS RATING:			250A		SUPPLY CABLE:	4C 35	
PHASES:			3				
PROVIDE TH LIGHTS.	PROVIDE THE DB WITH AN AS2293 EMERGENCY LIGHTING CONTROL SYSTEM TO CONTROL THE ASSOCIATED TENANCY EMERGENCY LIGHTS.						
		CIRCUIT	CONTROL	CABLE		CIRCUIT	
CIRC	PH	BREAKER (amps)	EQUIPMENT	SIZE ( mm2 )	LOCATION	USE	
CIRC P1	<b>PH</b> 3		EQUIPMENT	<b>SIZE ( mm2 )</b>	ROOF	USE LOBBY AC	
		(amps)	EQUIPMENT RCBO	, ,			
P1	3	(amps) 40		10.0	ROOF	LOBBY AC	
P1	3	(amps) 40		10.0	ROOF	LOBBY AC	

## **DB-C DISTRIBUTION BOARD SCHEDULE**

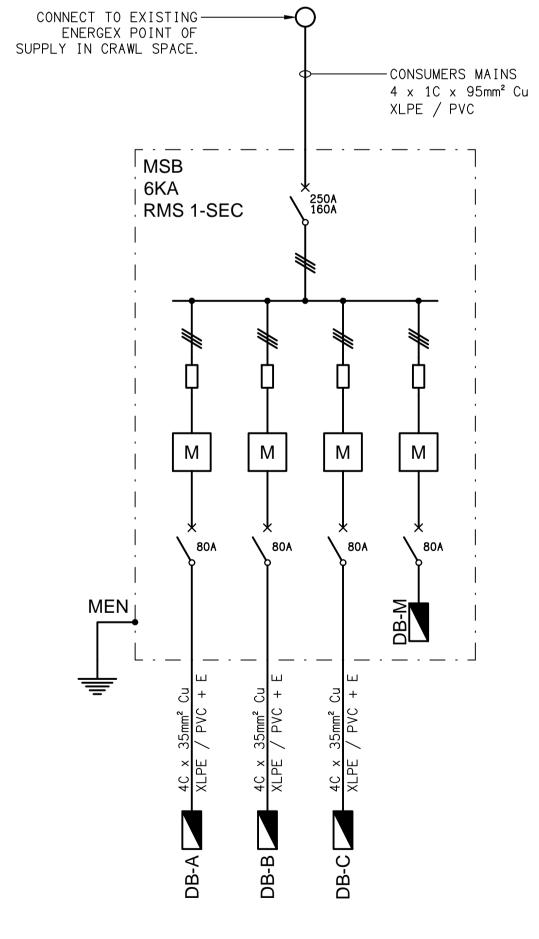
FAULT CURRENT: 6kA

CHASSIS SIZE: 30 POLES

CHASSIS RATING:		250A		SUPPLY CABLE:	4C 35		
		PHASES:	3				
PROVIDE T LIGHTS.	HE DB WITH	AN AS2293 EMERGE	NCY LIGHTING CON	TROL SYSTEM TO CO	ONTROL THE ASSOCIATE	D TENANCY EMERGENCY	
		CIRCUIT	CONTROL	CABLE		CIRCUIT	
CIRC	PH	BREAKER (amps)	EQUIPMENT	SIZE ( mm2 )	LOCATION	USE	
P1	3	40		10.0	ROOF	LOBBY AC	
P2	1	20	RCBO	2.5	LEVEL 1	NBN	
L1	1	20	RCBO	2.5	LEVEL 1	LIGHTING	
L2	1	20	RCBO	2.5	LEVEL 1	LIGHTING	

MAIN SWITCH: 100 AMP

SUPPLIED FROM: MSB



# **SCHEMATIC**

POWER CONFIGURATION NOT TO SCALE

В	TENDER			21/04/2	0
REV:	DESCRIPTION:			DATE:	
DRAWING	G:				
ELE	ECTRICAL SEI	RVICES			
NO	TES & DB SCH	1EDULES			
		PRO IECT NO:	DRAWING NO:	DE\/IQI	$\overline{}$

REMAINS THE PROPERTY OF THE ACN 092 710 793 ELECTRICAL DESIGN GROUP. TRADING AS: USE FIGURED DIMENSIONS **ELECTRICAL DESIGN GROUP** IN PREFERENCE TO SCALE. ALL DIMENSIONS TO BE

**ELECTRICAL DESIGN GROUP** ELECTRICAL BUILDING SERVICES CONSULTANTS

BRISBANE GOLD COAST

143 WHARF STREET, SPRING HILL

GROUND

 $\sim\sim$ 

LIGHTING

NOT TO SCALE AT A1 C3017a E06

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BRISBANE

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