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Proj No. **16017**

	08	08	14	15	21	20	01	27	22	21	07	10	10	31	07	13	11	14	14	20	20			
	04	04	04	04	04	05	06	06	08	09	10	10	10	10	11	01	02	02	02	02	02			
	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	17	17	17	17	17	17			

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PURPOSE		CR = Client Review	DELIVERY	
A = Approval	I = Information		C = Courier	H = Hand Deliver
BA = Building Approval	P = Preliminary		E = Email	M = Mail
C = Construction	PR = Pricing Issue		EL = Electronic Lodgement	X = Express Post
CO = Coordination	T = Tender Issue		F = Fax	

[illegible]

## NOTES

- CO-ORDINATE LIGHTING LOCATIONS WITH HYDRAULIC PIPEWORK ON SOFFIT. CONFIRM LAYOUTS PRIOR TO INSTALLATION OF CONDUITS IN SLAB.
- POOL LIGHTING & ASSOCIATED CONTROLS BY POOL INSTALLER. LIAISE WITH POOL INSTALLER FOR EXACT POWER REQUIREMENTS & LOCATIONS.

## DRAWING SCHEDULE

## ELECTRICAL SERVICES

16017-E100	ELECTRICAL SERVICES	BASEMENT : LIGHTING LAYOUT
16017-E101	ELECTRICAL SERVICES	BASEMENT : POWER LAYOUT
16017-E110	ELECTRICAL SERVICES	LEVEL 1 : LIGHTING & POWER LAYOUT
16017-E120	ELECTRICAL SERVICES	LEVEL 2 : LIGHTING & POWER LAYOUT
16017-E130	ELECTRICAL SERVICES	LEVEL 3 : LIGHTING & POWER LAYOUT
16017-E800	ELECTRICAL SERVICES	SCHEMATICS & DETAILS : SINGLE LINE DIAGRAM
16017-E850	ELECTRICAL SERVICES	SCHEMATICS & DETAILS : SHEET 2 - NBN
16017-E900	ELECTRICAL SERVICES	LEGEND
16017-E950	ELECTRICAL SERVICES	PROJECT NOTES - SHEET 1
16017-E951	ELECTRICAL SERVICES	PROJECT NOTES - SHEET 2

## BASIS OF DESIGN - INDIGO APARTMENTS

ITEM	DESIGN & INSTALLATION CRITERIA
RP	LOT 1 SP 230070
BCA	2015 BUILDING USE: RESIDENTIAL + RESIDENTIAL CAR PARK TYPE OF CONSTRUCTION: TYPE A EFFECTIVE HEIGHT: < 25 M CLASSES OF OCCUPANCY: CLASS 2: RESIDENTIAL CLASS 7A: CARPARK
NCC J6.1 - J6.6	CLASS 2 - SOU:- INTERNAL LIGHTING: 5 W/m <sup>2</sup> BALCONY LIGHTING: 4 W/m <sup>2</sup> COMMON AREAS:- OCCUPANCY SENSOR CONTROL EXTERNAL AREAS:- DAYLIGHT OR DAYLIGHT/TIMESWITCH CONTROL WITH AVERAGE EFFICACY NOT LESS THAN 60 LMW
QDC MP4.1	P4 / A4 :- SOLE OCCUPANCY UNITS OF CLASS 2 BUILDINGS, INCLUDING VERANDAHs, BALCONIES OR ENCLOSED CLASS 10A BUILDINGS ATTACHED TO A CLASS 2 BUILDING: ENERGY EFFICIENT LIGHTING FOR A MINIMUM OF 80 % OF TOTAL FIXED ARTIFICIAL LIGHTING i.e. MINIMUM OUTPUT OF 27 LUMENS/ WATT (HEAT LAMPS IN BATHROOMS EXCLUDED).  P9 / A9 :- ELECTRICITY SUB-METERING TO EACH INDIVIDUAL SOU. (ELECTRICITY METERS OF A RETAIL ENTITY OR SPECIAL APPROVAL HOLDER ARE ACCEPTABLE). MINIMUM ACCURACY CLASS 1 UNDER AS62053 21:2005; or COMPLIES WITH AS1284.1:2004.  P10 / A10 :- ELECTRICITY METERS LOCATED IN A COMMON AREA, FREE OF HINDRANCE OR OBSTRUCTION  P11 / A11 :- LABELS TO EACH ELECTRICITY METER FOR EACH METERABLE PREMISES TO IDENTIFY WHICH PREMISES IT IS ASSOCIATED WITH, AFFIXED OR LOCATED ADJACENT TO EACH METER (WHITE HEAT-RESISTANT MATERIAL WITH BLACK LETTERING FIXED BY MEANS OF SCREWS, RIVETS OR GLUE)
SUPPLY AUTHORITY	ENERGEX
METERING	SUPPLY AUTHORITY METERING THROUGHOUT
SOU	HOT WATER: ELECTRIC STORAGE TO Units 1, 2, 3, & 4 ; SOLAR TO UNITS 5 & 6; COOKTOPS: ELECTRIC OVENS: ELECTRIC
EMERGENCY LIGHTING	SINGLE POINT LUMINAIRES, MANUAL TESTING FACILITIES TO LOCAL SWITCHBOARDS
FIRE SOLUTION	DEEMED TO SATISFY SOLUTION  SOU's : FIRE ALARMS LINKED WITHIN INDIVIDUAL SOLE OCCUPANCY UNITS WITH ACKNOWLEDGEMENT PUSHBUTTON TO EACH SOU SPEAKERS OUTSIDE EACH ENTRY DOOR TO SOUs CONNECTED TO FIRE ALARM SYSTEM OCCUPANT WARNING SYSTEM (OWS) TO PROVIDE 100dB(A) @ 1m  REMAINING : SYSTEM COMPLIANT TO AS1670 FIRE DETECTION & ALARMS SPEAKERS OUTSIDE SOU DOORS PROVIDE 100dB(A) AT THE SOU DOOR SYSTEM COMPLIANT TO AS1670  CARPARK: FIRE FAN CONTROL PANEL NOT REQUIRED FOR CARPARK EXHAUST SYSTEM.  BRIGADE CONNECTION: NOT REQUIRED (PROVIDE FACILITY FOR FUTURE BRIGADE CONNECTION WITHIN FIP)  FIRE SPRINKLERS: NONE  IN CEILING SERVICES: DESIGN IS BASED UPON NO ELECTRICAL EQUIPMENT BEING CONTAINED WITHIN CEILING SPACES WHICH TRIGGERS CONCEALED DETECTION REQUIREMENTS. VERIFY PRIOR TO INSTALLATION.
FIRE COMPARTMENTATION	VERTICAL SHAFTS & RISERS:- DESIGN IS BASED UPON FIRE RATING OF OPENINGS AT EACH FLOOR LEVEL. VERIFY PRIOR TO INSTALLATION.

AMENDMENTS				By	PCW
Rev	Date	Subject			
A	10.10.16	TENDER ISSUE			
B	13.01.17	ARCHITECTURAL BACKGROUND UPDATED, LED TO BBQ ADDED			

DO NOT SCALE FROM DRAWINGS. VERIFY DIMENSIONS, LEVELS, ALIGNMENT WITH CIVIL, STRUCTURAL, MECHANICAL, HYDRAULIC & ARCHITECTURAL DOCUMENTS & ON SITE PRIOR TO COMMENCING WORK OR SHOP DRAWINGS. REPORT DISCREPANCIES.

ALL WORKS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA (BAC/NC), AS/NZS3000, ELECTRICITY SAFETY ACT, ALL RELEVANT STANDARDS & AUTHORITY REQUIREMENTS. PROJECT & TRADE NOTES APPLY THROUGHOUT. TEST & COMMISSION AT COMPLETION OF WORKS. PROVIDE INSTALLATION & TEST RECORDS, FORM 15 FOR DESIGNED COMPONENTS & FORM 16 CERTIFICATION FOR THE COMPLETED INSTALLATION. INFORMATION CONTAINED HEREIN IS THE BEST AVAILABLE AT TIME OF DOCUMENTATION. FINAL POSITIONS & QUANTITIES SHALL BE ADJUSTED TO SUIT PHYSICAL ELEMENTS (e.g. STRUCTURE, ROADWAYS, PIPES & THE LIKE) WHICH MAY IMPEDE PROPER OPERATION OF THE SYSTEM. FINAL SELECTIONS, DESIGN & ARRANGEMENTS SHALL BE FIT FOR PURPOSE.

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43 ELANDA ST, SUNSHINE BEACH Q 4567  
For ALDEV Holdings

SERVICES  
**ELECTRICAL SERVICES**

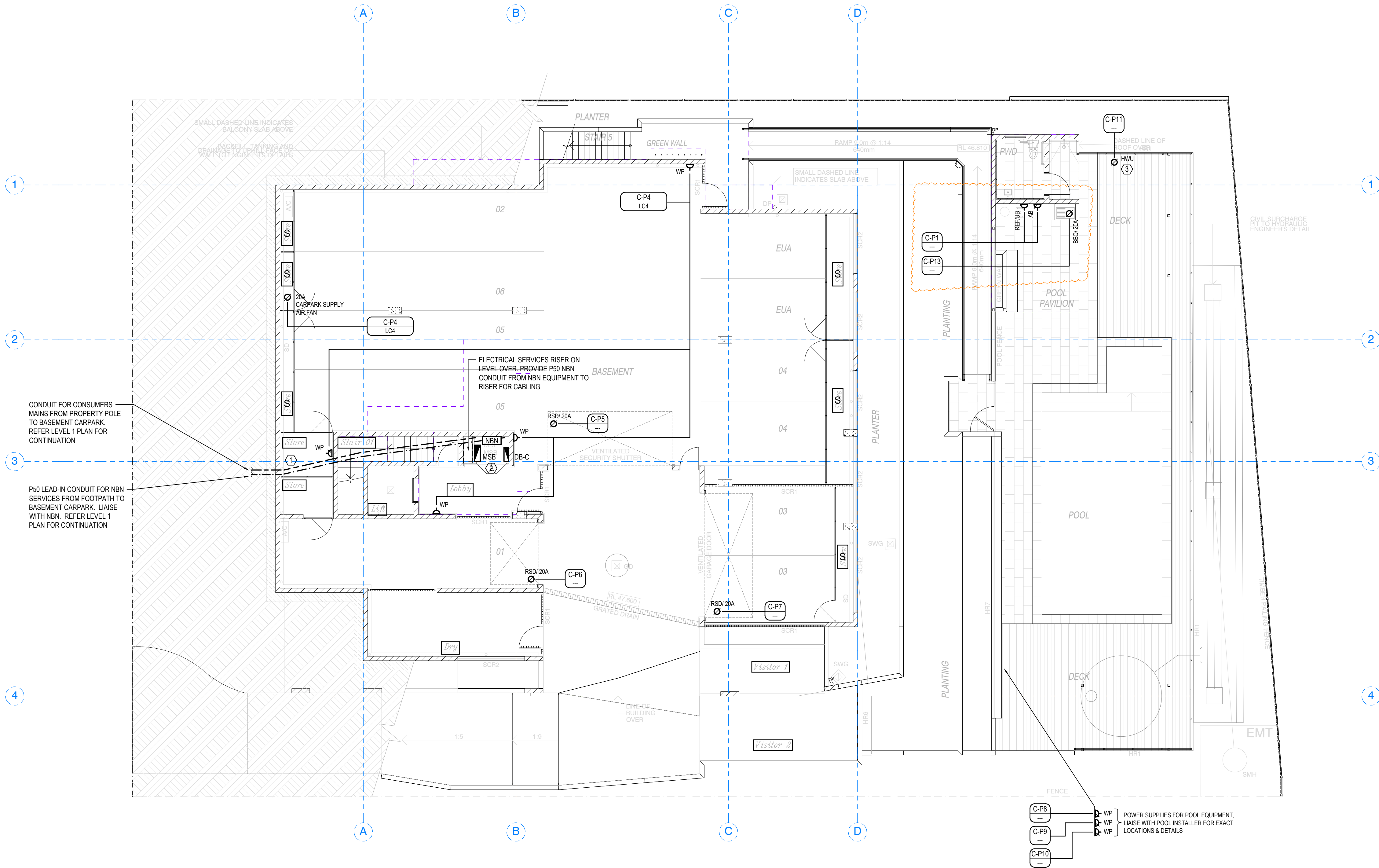
**BASEMENT  
LIGHTING LAYOUT**

DRAWN	PCW	PROJECT DATE	FEB 2016	
APPROVED	MBW	CONTRACT No.		
MASTER SITE		SCALE	1:100	@ A1
PROJECT No.	16017	DRAWING No.	E100	ISSUE B



NOTES

1. CONSUMERS MAINS & NBN UNDERGROUND CONDUITS FROM FRONT OF PROPERTY PENETRATE CARPARK WALL BELOW CARPARK SUPPLY AIR DUCTWORK. CUT CONDUITS 10mm PROUD OF WALL & PROVIDE TUNDISH BELOW EACH CONDUIT WITH 25mm WASTE PIPE FIXED TO WALL TO DIRECT SEEPAGE WATER INTO SPOON DRAIN BELOW. PROVIDE CABLE TRAY FROM ENTERING CONDUITS TO UNDERGROUND CONDUITS TO MAIN SWITCHROOM. CO-ORDINATE LAYOUT. PROVIDE MECHANICAL PROTECTION AS A REMOVABLE ENCLOSURE AROUND TRAYS & CONDUITS TO APPROVAL.
2. REFER TO DRAWING E850 FOR ADDITIONAL DETAILS.
3. HWU LOCATED BENEATH POOL DECK, CONFIRM EXACT LOCATION ON SITE.



AMENDMENTS			By
Rev	Date	Subject	
A	10.10.16	TENDER ISSUE	PCW
B	10.10.16	REVISED TENDER: CONDENSER UNIT SUPPLIES RELOCATED TO L01	PCW
C	13.01.17	ARCHITECTURAL BACKGROUND UPDATED, REF TO BBQ ADDED	PCW

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INFORMATION CONTAINED HEREIN IS THE BEST AVAILABLE AT TIME OF DOCUMENTATION. FINAL POSITIONS & QUANTITIES SHALL BE ADJUSTED TO SUIT. PHYSICAL ELEMENTS (e.g. STRUCTURE, ROADWAYS, PIPES & THE LIKE) WHICH MAY IMPEDE PROPER OPERATION OF THE SYSTEM. FINAL SELECTIONS, DESIGN & ARRANGEMENTS SHALL BE FOR APPROVAL.

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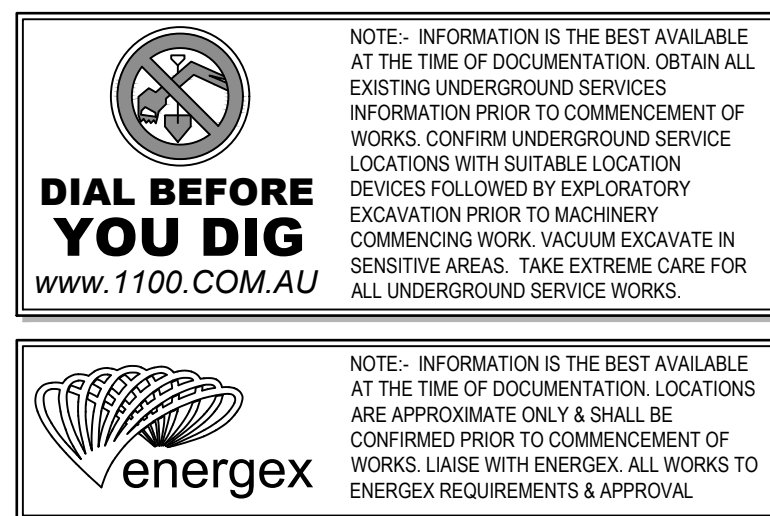
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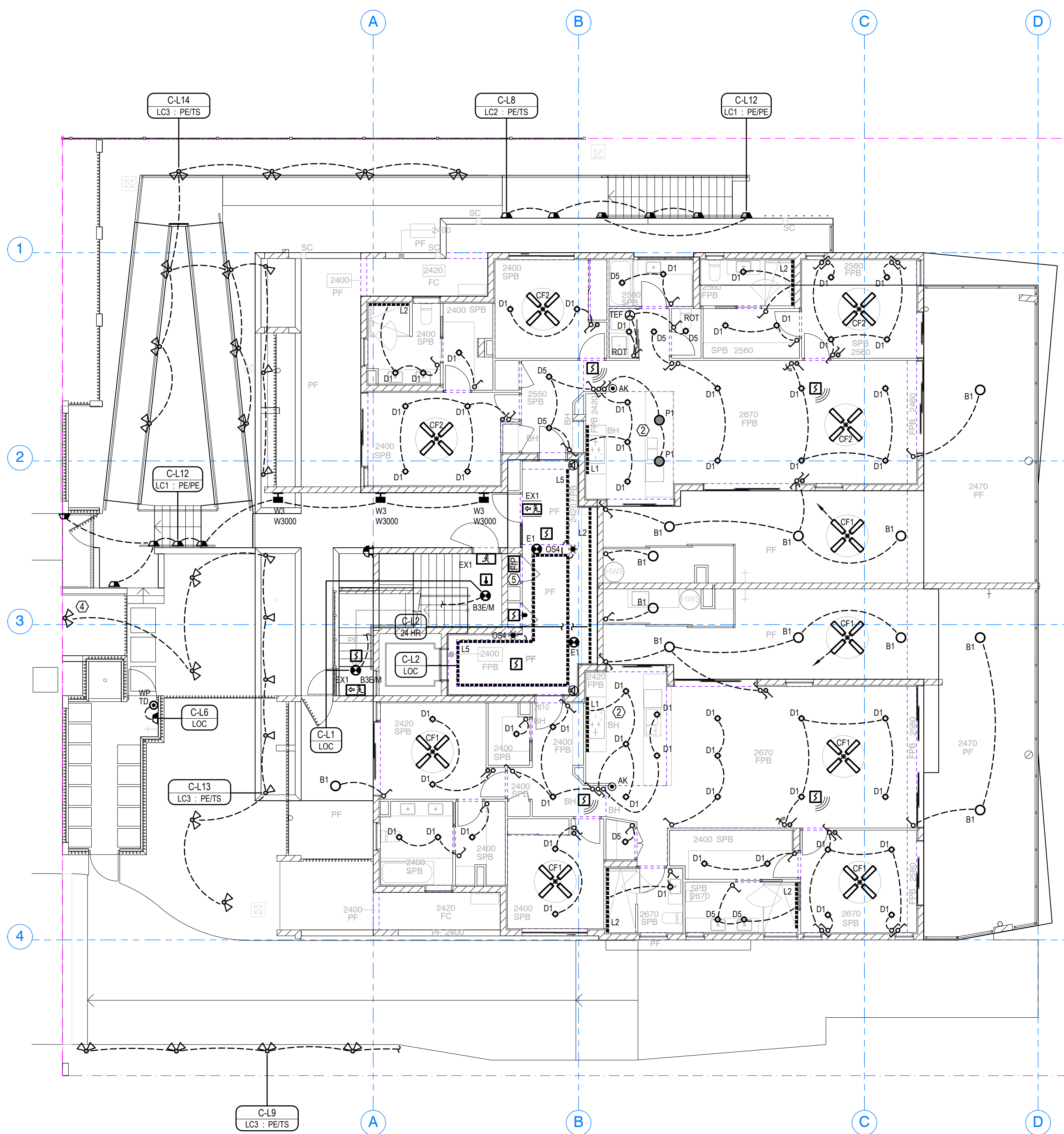
43 ELANDA ST, SUNSHINE BEACH Q 4567  
For ALDEV Holdings

SERVICES	DRAWING		PROJECT DATE		
	<b>ELECTRICAL SERVICES</b>		PCW FEB 2016		
<b>BASEMENT POWER LAYOUT</b>	APPROVED		CONTRACT No.		
	MBW				
	MASTER SITE		SCALE		
			<b>1:100</b>		@ A1
	PROJECT No.		DRAWING No.		ISSUE
	<b>16017</b>		<b>E101</b>		<b>C</b>



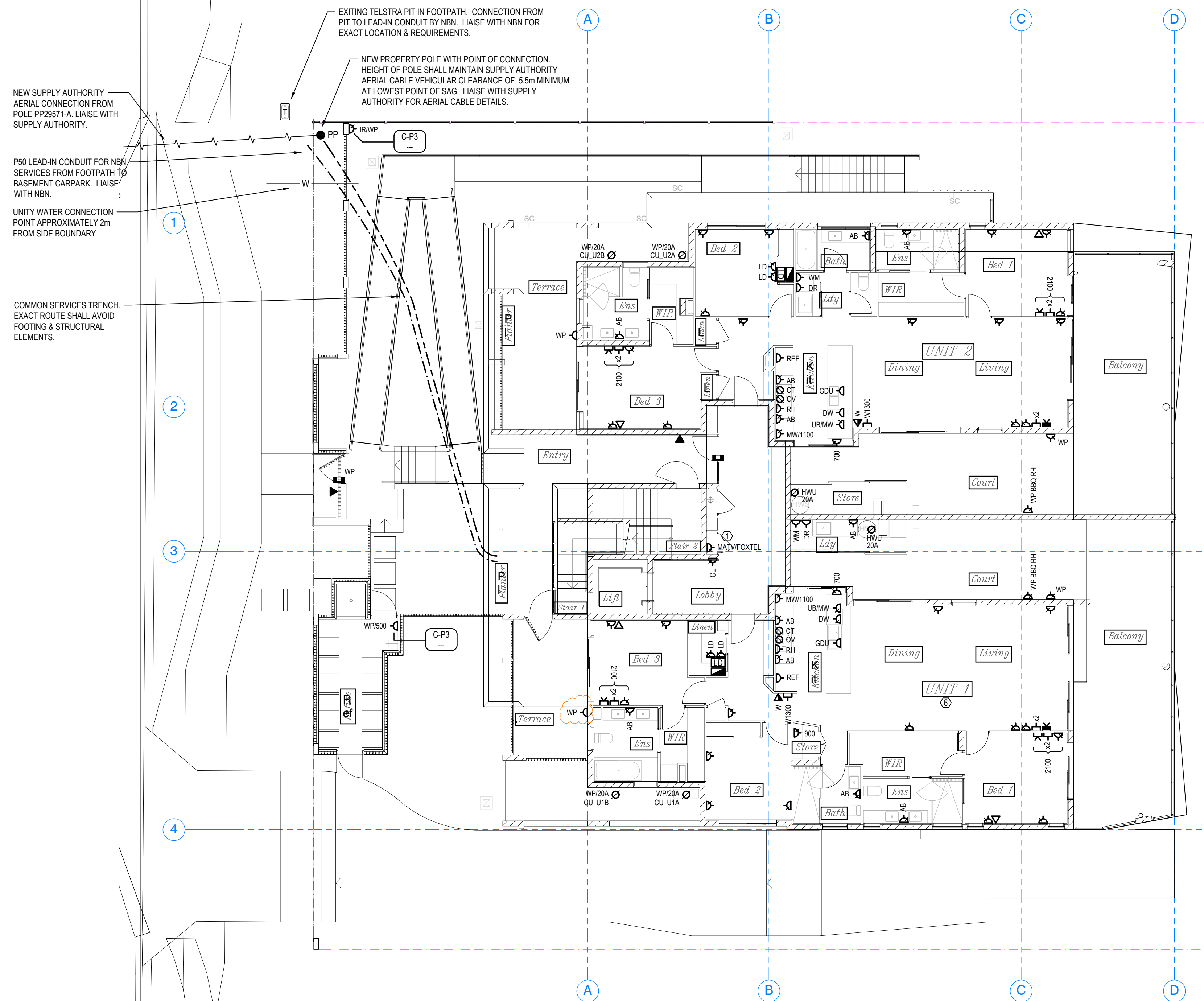


- ## NOTES
1. COMMON SERVICES RISER FOR LV CABLING, NBN, MATV & ICT CABLING. REFER RISER DETAILS FOR ADDITIONAL INFORMATION.
  2. RECESSED FAN COIL UNIT WITHIN KITCHEN CEILING. CO-ORDINATE FCU LOCATION & LIGHTING.
  3. CO-ORDINATE LUMINAIRE LOCATIONS WITH IN-CEILING SERVICES PRIOR TO INSTALLATION.
  4. PROVIDE RE-ENFORCED CONCRETE BASE & FIX LUMINAIRES SECURELY TO PREVENT UNAUTHORISED REMOVAL.
  5. WATER PIPES RISE IN THIS VICINITY. CO-ORDINATE FIP WITH OTHER SERVICES & ARCHITECTURAL DETAILS.
  6. UNIT 1 : ALL SWITCHOUTS & ACCESSORIES SHALL BE CLIPSAL C2000 SERIES WITH BRUSHED ALUMINIUM FACEPLATES.



LIGHTING LAYOUT

SCALE = 1:100 APPROX



POWER LAYOUT  
SCALE = 1:100 APPROX

AMENDMENTS			
Rev	Date	Subject	By
A	10.10.16	TENDER ISSUE	PCW
	10.10.16	REVISED TENDER, CONDENSER UNIT SUPPLIES ADDED	PCW
	10.10.16	UNIT 1: BALCONY LIGHT ADDED, BED 3 ENSUITE SHOWER RELOCATED	PCW
	07.11.06	INTERNAL, CEILING FANS CHANGED FROM CP2 TO CP1	PCW
E	13.01.17	ARCHITECTURALS UPDATED, ENTRY STAIR LIGHTING AMENDED, HTR SSOs DELETED	PCW
F	14.02.17	PURCHASER ALTERATIONS TO UNITS 1 & 2	PCW
G	14.02.17	SSO ADDED TO UNIT 1 TERRACE	PCW

**DON'T SCALE FROM DRAWINGS** VARY DEPENDENCIES, ALIGNMENT WITH CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL & ARCHITECTURAL DOCUMENTS, ON SITE REPORT TO COMMUNICATE WORK OR STOP WORK  
**DRAWING CODES** REPORT DISCREPANCIES

**ALL WORKS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA (BCOA), AS/NZS3000, ELECTRICITY SAFETY ACT, ALL RELEVANT STANDARDS & AUTHORITY REQUIREMENTS. PROJECT A TRADE NOTES ENTRY THROUGHOUT, TEST & COMMISSION AT COMPLETION OF WORKS, PROVIDE INSTALLATION & TEST RECORDS.**

**FORN 16 PERSONS INCLUDING ONE BUILT IN PLACE FOR COMPLETED INSTALLATION**

**INFORMATION SHALL HANDS HANGING AT THE END OF EACH DOCUMENT, PLAN POSITIONS & QUANTITIES SHALL BE ALIGNED TO THE BEST AVAILABLE, 48 HOUR STRUCTURE, ROADWAYS, PIPES & ETC) WHICH MAY IMPERE PROPER OPERATION OF THE SYSTEM, FINAL SELECTIONS, DESIGN & ARRANGEMENTS SHALL BE FIT FOR PURPOSE.**

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43 ELANDA ST, SUNSHINE BEACH Q 4567  
For ALDEV Holdings

## SERVICES

# ELECTRICAL SERVICES

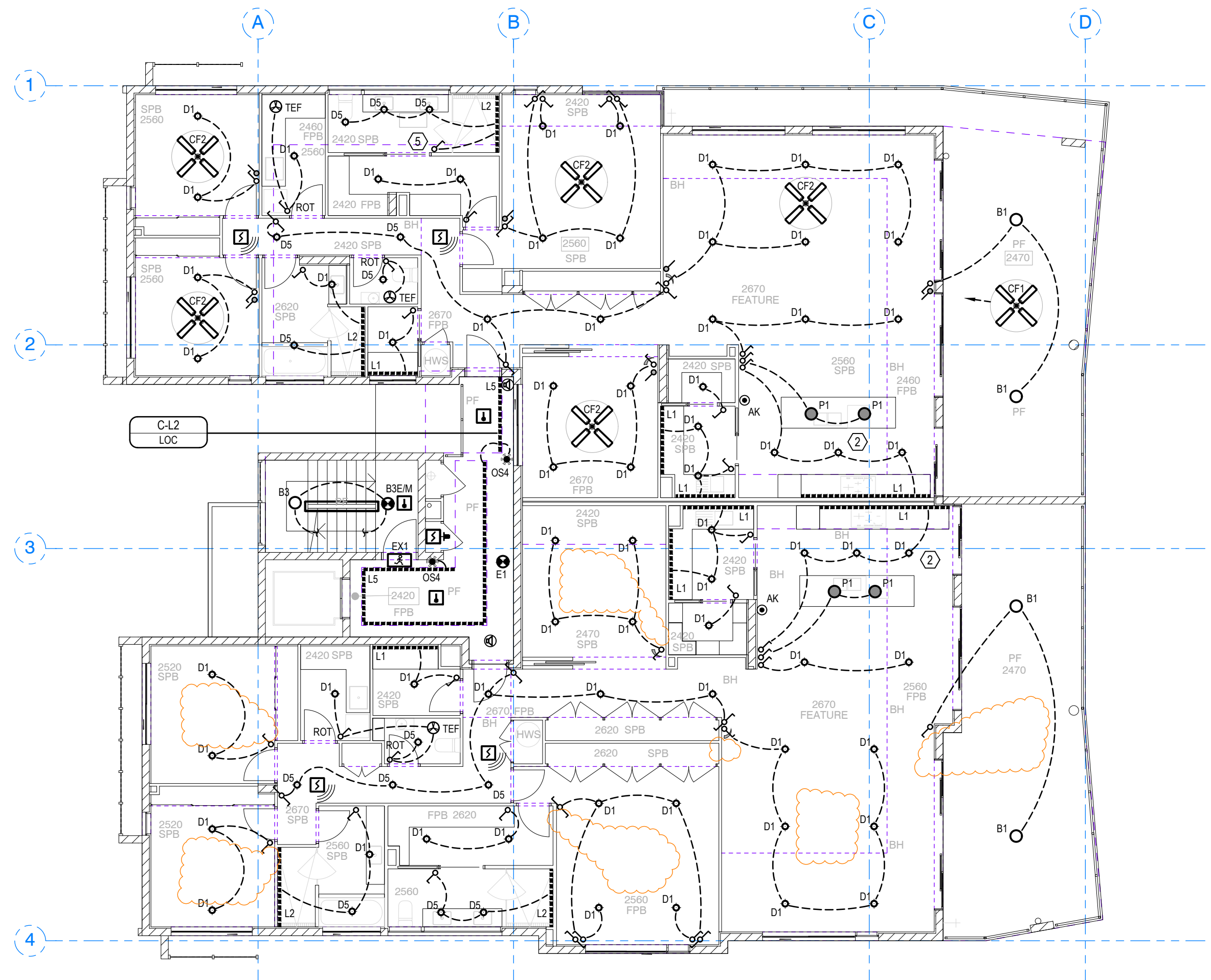
## LEVEL 1 LIGHTING & POWER LAYOUT

DRAWN	PROJECT DATE	
PCW	FEB 2016	
APPROVED	CONTRACT No.	
MBW		
MASTER SITE	SCALE	
	<b>1:100</b>	@ A1
PROJECT No.	DRAWING No.	ISSUE
<b>16017</b>	<b>E110</b>	<b>G</b>



## NOTES

1. COMMON SERVICES RISER FOR LV CABLING, NBN, MATV & ICT CABLING. REFER RISER DETAILS FOR ADDITIONAL INFORMATION.
2. RECESSED FAN COIL UNIT WITHIN KITCHEN CEILING. CO-ORDINATE FCU LOCATION & LIGHTING.
3. CO-ORDINATE LUMINAIRE LOCATIONS WITH IN-CEILING SERVICES PRIOR TO INSTALLATION.
4. NOT USED
5. LIGHT SWITCH IN SHOWER ZONE 2. INSTALL TO AS3000 WET AREAS REQUIREMENTS. PROTECTION RATING FOR ACCESSORY IPX4 MINIMUM.
6. CONDUITS FROM ELECTRICAL SERVICES RISER TO LOCAL DISTRIBUTOR WITHIN UNITS:
  - NBN: 1x P23 CONDUIT MINIMUM
  - MATV: 2x 25mm COMMS MINIMUM



## LIGHTING LAYOUT

SCALE = 1:100 APPROX

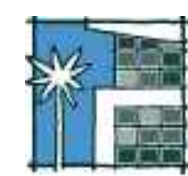
AMENDMENTS				
Rev	Date	Subject		By
A	10.10.16	TENDER ISSUE		PCH
B	13.01.17	ARCHITECTURAL'S UPDATED; HTR SSRs DELETED		PCH
C	20.02.17	UNIT 3 CEILING FANS DELETED		PCH
D	20.02.17	UNIT 3 BALCONY PLAN REMOVED		PCH

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Jackson Design  
Architecture | Landscape | Interiors

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Indigo  
SUNSHINE BEACH

43 ELANDA ST, SUNSHINE BEACH Q 4567  
For ALDEV Holdings


## POWER LAYOUT

SCALE = 1:100 APPROX

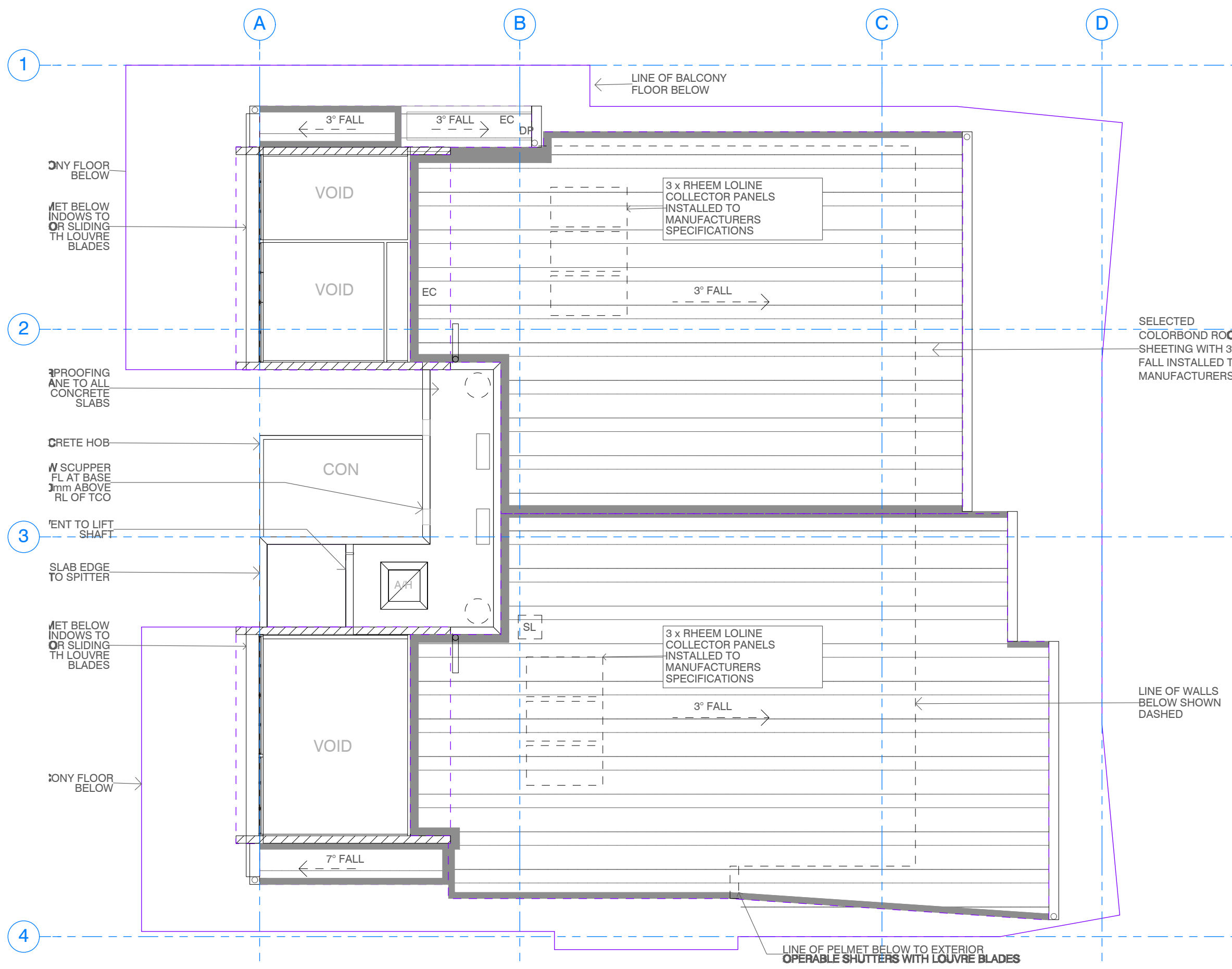
## SERVICES

### ELECTRICAL SERVICES

## LEVEL 2 LIGHTING & POWER LAYOUT

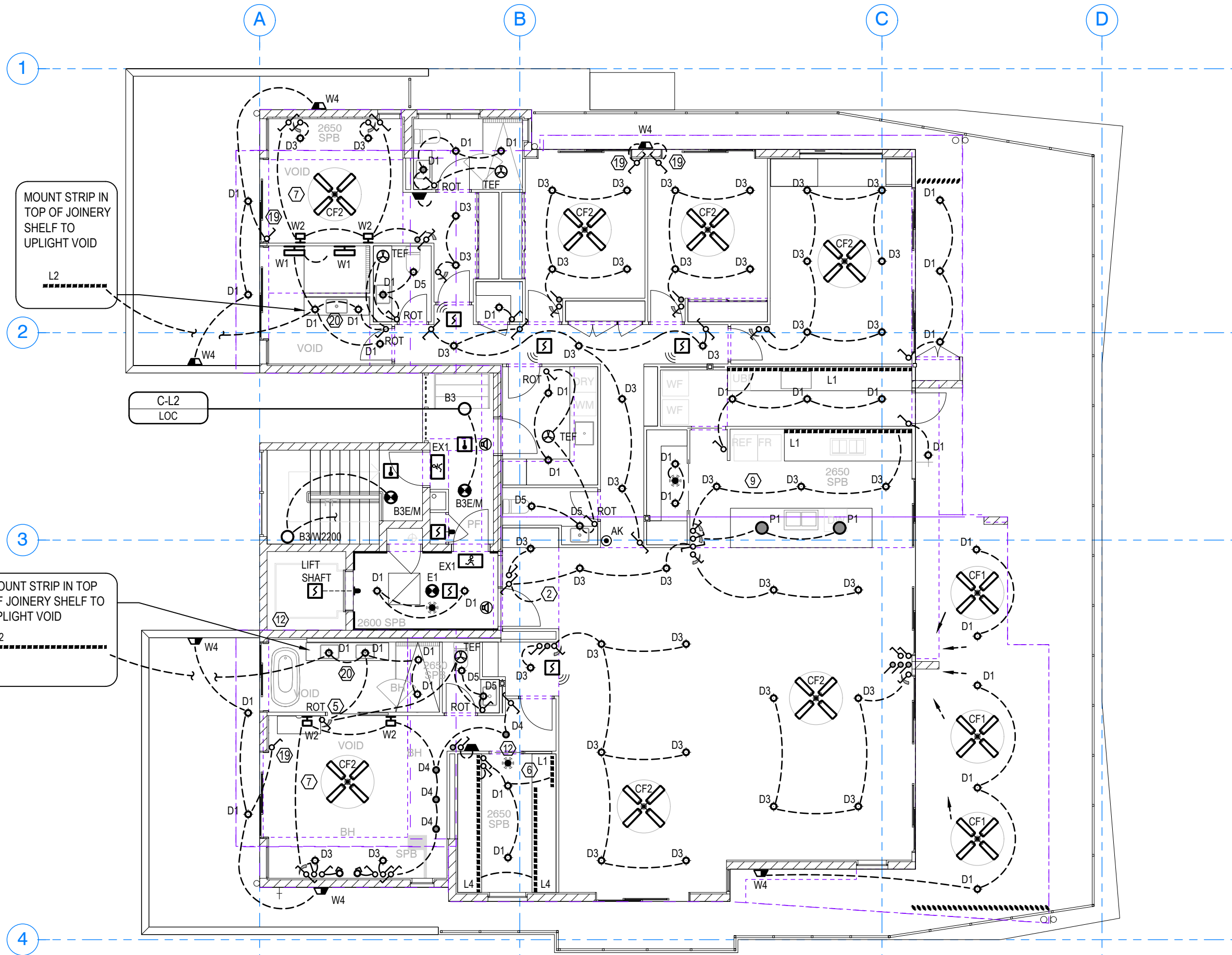
DRAWN	PCW	PROJECT DATE	FEB 2016	
APPROVED	MBW	CONTRACT No.		
MASTER SITE		SCALE	<b>1:100</b>	@ A1
PROJECT No.		DRAWING No.	ISSUE	
<b>16017</b>		<b>E120</b>		<b>D</b>





ROOF LEVEL - LIGHTING LAYOUT

SCALE = 1:100 APPROX



LEVEL 3 - LIGHTING LAYOUT

SCALE = 1:100 APPROX

## NOTES

- COMMON SERVICES RISER FOR LV CABLING, NBN, MATV & ICT CABLING. REFER RISER DETAILS FOR ADDITIONAL INFORMATION.
- SOLAR LED ILLUMINATED SKYLIGHT BY OTHER TRADES.
- MOUNT SPOTLIGHTS ABOVE SHUTTERS MIDWAY OF HORIZONTAL ELEMENT NOMINALLY. CONFIRM EXACT POSITION ON SITE TO APPROVAL TO CO-ORDINATE WITH STRUCTURE & PREVENT SHADOWING FROM SHUTTERS.
- RANGE HOOD FAN WILL BE ROOF MOUNTED. LOCATE POWER OUTLET TO SUIT. LIAISE WITH RANGE HOOD INSTALLER.
- PROVIDE 2 POLE SWITCH TO ALLOW DIMMING OF LIGHTING & RUN ON TIMER FOR EXHAUST FAN.
- LED STRIP LIGHTING WITHIN VANITY JOINERY. PROVIDE 1x VERTICAL RUN ON BOTH SIDES 100mm NOM IN FRONT OF MIRROR FACE. LIAISE WITH JOINERY FABRICATOR FOR RECESS TO SUIT STRIP LIGHT EXTRUSION.
- PROVIDE 2200mm MIN EXTENSION ROD FOR CEILING FAN & ADJUST TO SUIT AGREED MOUNTING HEIGHT (2650mm NOM LEVEL WITH SURROUNDING BULKHEAD). CONFIRM EXACT HEIGHT OF FAN ON SITE TO APPROVAL.
- MATV ANTENNA & SATELLITE - DETERMINE EXACT LOCATION ON SITE TO APPROVAL FOLLOWING SIGNAL STRENGTH TESTING. LIAISE WITH BUILDING TRADES FOR STRUCTURAL BRACING.
- RECESSED FAN COIL UNIT WITHIN KITCHEN CEILING. CO-ORDINATE FCU LOCATION & LIGHTING.
- CO-ORDINATE LUMINAIRE LOCATIONS WITH IN-CEILING SERVICES PRIOR TO INSTALLATION.
- CONDUITS FROM ELECTRICAL SERVICES RISER TO LOCAL DISTRIBUTOR WITHIN UNITS:
  - NBN: 1x P23 CONDUIT MINIMUM
  - MATV: 2x 25mm COMMS MINIMUM
- LIFT SHAFT POWER, LIGHTING & EMERGENCY LIGHTING BY LIFT INSTALLER
- MOUNT OUTLETS WITHIN JOINERY BENEATH TV. CONFIRM EXCAT HEIGHT & DETAILS ON SITE TO APPROVAL.
- MOUNT OUTLET WITHIN JOINERY - IN SHELF ABOVE BIN. REFER ARCHITECTURAL DETAILS. CONFIRM ON SITE TO APPROVAL.
- OUTLET AT HIGH LEVEL. CONFIRM EXACT LOCATION PRIOR TO INSTALLATION.
- WITHIN 6 WEEKS OF CONTRACT AWARD, BENCH TEST DIMMERS & CEILING FANS FOR PROPER OPERATION OF CEILING FANS & LUMINAIRES WITH THE SATURN RANGE DIMMERS & CONTROLLERS PRIOR TO ORDERING DIMMERS, CONTROLLERS, FANS & LUMINAIRES. WHERE SATURN RANGE DIMMERS & CONTROLLERS DO NOT PROVIDE CORRECT OPERATION OF FANS & LUMINAIRES, NOTIFY PRINCIPAL OF INCOMPATIBILITY. NO COSTS ASSOCIATED WITH INCOMPATIBILITY RECTIFICATION WILL BE CONSIDERED WHERE BENCH TESTING HAS NOT BEEN PERFORMED.
- MOVEMENT DETECTOR SWITCHES WIR LIGHTING "ON/OFF". LIGHT SWITCHES SWITCH LIGHTING OFF TO ALLOW SELECTED GROUP ONLY TO ACTIVATE WITH MOVEMENT SENSOR.
- OUTDOOR LIGHTING SWITCH: PROVIDE PUSHBUTTON ON WITH SEPARATE PUSHBUTTON OFF. PUSH ON STARTS 0-60 MINUTE DELAY OFF TIMER TO AUTOMATICALLY SWITCH LIGHTS OFF AFTER SET TIME PERIOD. PUSH OFF BUTTON TURNS LIGHTS OFF IMMEDIATELY. LOCATE ADJUSTABLE TIMERS IN DB.
- MOUNT OVER-BASIN DOWNLIGHTS IN OVERHEAD JOINERY SHELF TO ARCHITECTURAL DETAIL & APPROVAL.
- WIRELESS ACCESS POINT (WAP). LOCATE ON CEILING ABOVE JOINERY. SUPPLY & INSTALL WAP. WAP SHALL BE D-LINK DWM-6610AP DUAL BAND UNIFIED WIRELESS ACCESS POINT. LOCATE SSO ADJACENT & PROVIDE POWER SUPPLY. CONFIRM DETAILS WITH CLIENT PRIOR TO PURCHASE (ALTERNATIVE MAY BE PoE SUBJECT TO ROUTER).

## ACCESSORY SCHEDULE - UNIT 5

ITEMS NOTED ARE REQUIRED MANUFACTURE WHERE DESIGNATED AS "OR APPROVED EQUAL" THE FINAL DECISION SHALL BE BY PRINCIPAL

### SPECIFIC REQUIREMENTS:

- SATURN HORIZON RANGE IN SILVER:
  - KITCHEN MIRRORED SPLASH BACK; ANY ABOVE BENCH VISIBLE POWER OUTLETS LOCATED ON THE MIRRORED KITCHEN SPLASH BACK

CLIPSAL 'SATURN' IN THE WHITE (OCEAN MIST) ON A WHITE MOUNTING FRAME, VISIBLE POWER OUTLETS:

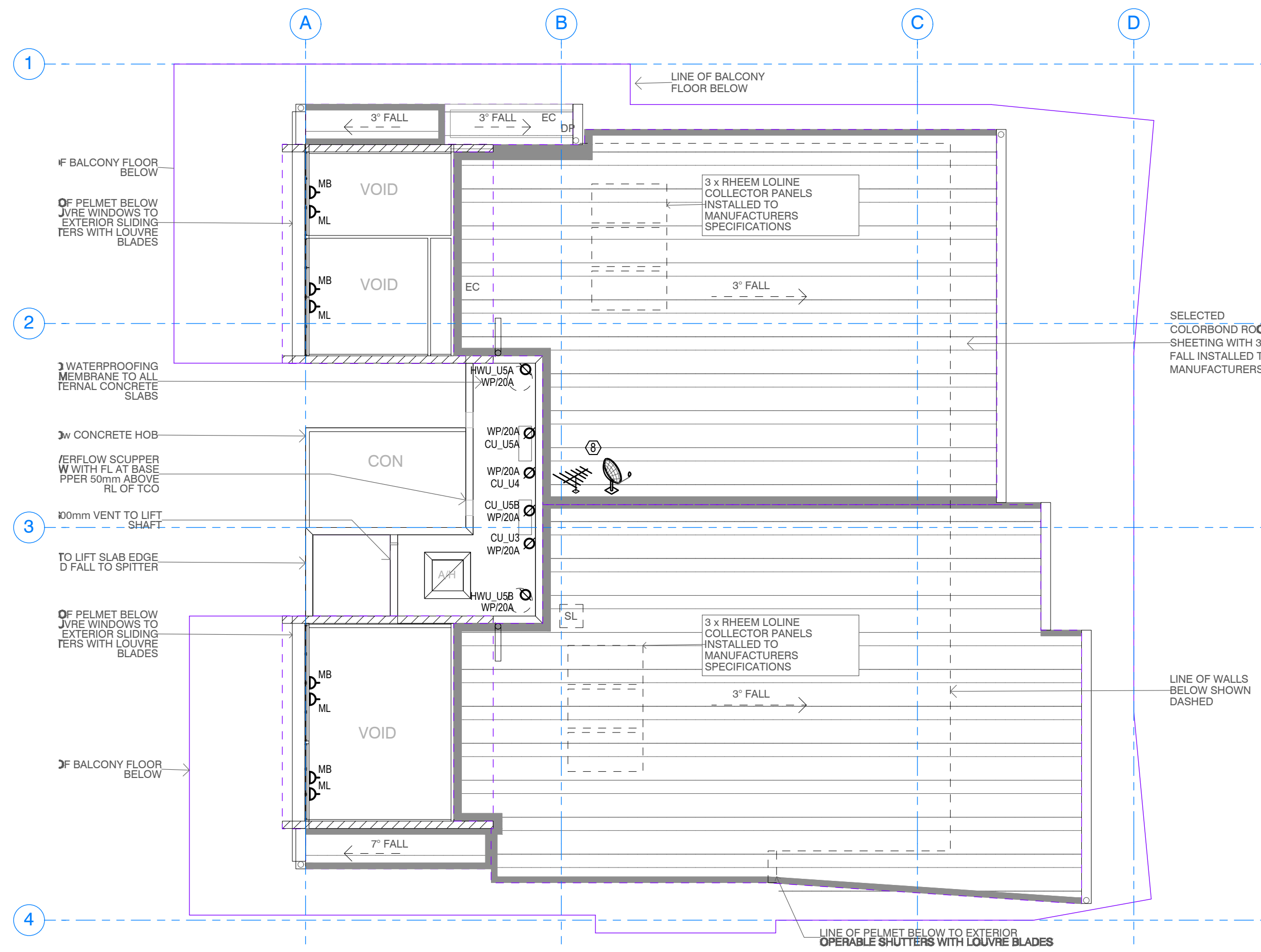
- ABOVE BENCH OUTLETS TO ENTRY JOINERY
- ABOVE BENCH OUTLETS TO MASTER ENSUITE VANITY
- ABOVE BENCH OUTLETS TO MAIN BATHROOM VANITY
- ABOVE BENCH OUTLETS TO ENSUITE 2 VANITY
- ABOVE BENCH OUTLETS TO VISIBLE POWER OUTLETS ONLY TO STUDY JOINERY
- ABOVE BENCH OUTLETS TO SCULLERY SPLASHBACK
- ALL VISIBLE LOW LEVEL OUTLETS ABOVE LIVING TV UNIT JOINERY (EXCLUDING GPO HIDDEN BEHIND WALL-HUNG TV)

CLIPSAL 'SATURN' IN THE WHITE (OCEAN MIST) ON A WHITE MOUNTING FRAME, SWITCHES, DIMMERS & FAN CONTROLLERS (REFER NOTE 17) TO ALL AREAS EXCLUDING:

- BEDS 2, 3 & 4, BED 2 ENSUITE
- BATHROOM, POWDER ROOM 1, STORE
- LAUNDRY

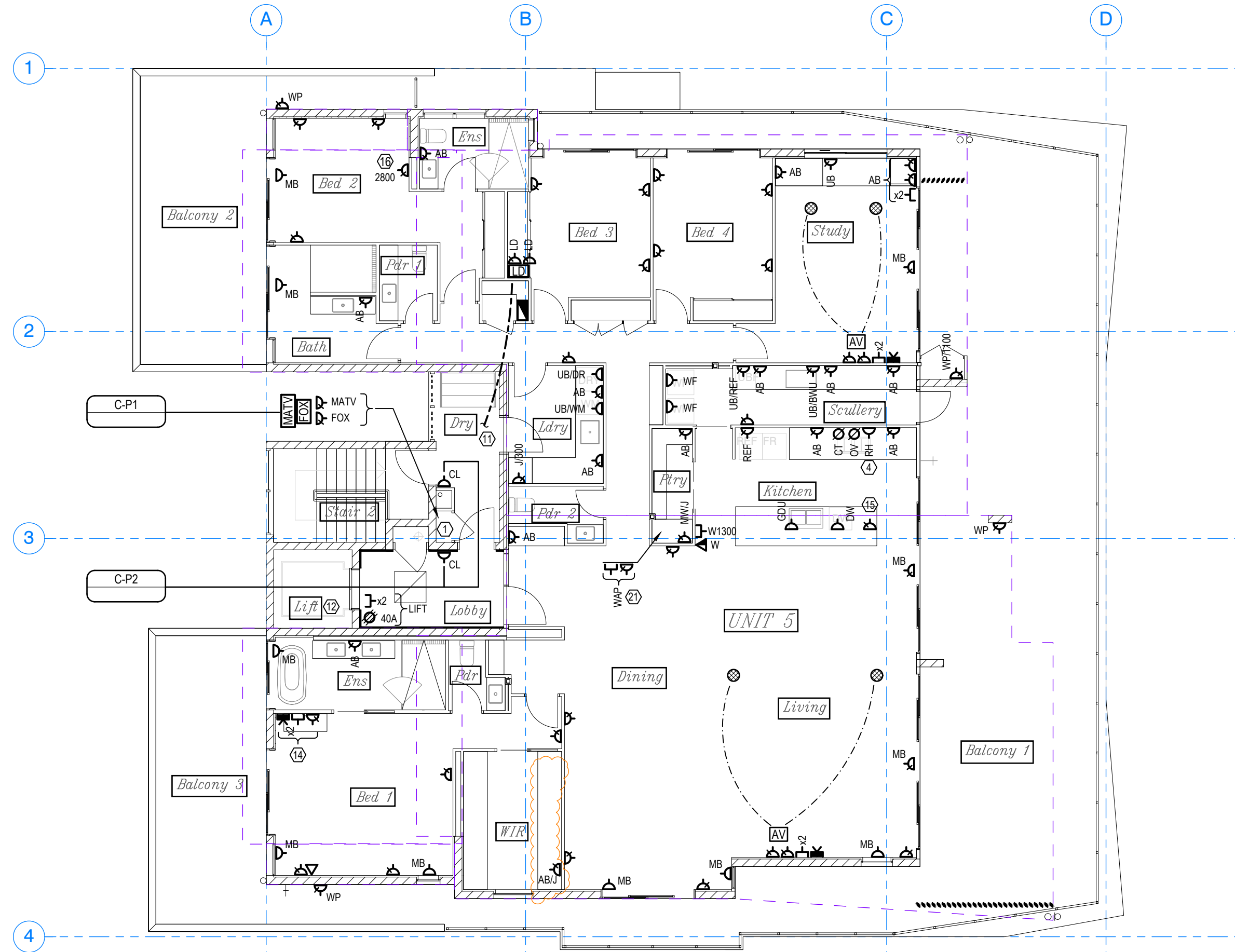
### REMAINDER:

- LIGHT SWITCHES : CLIPSAL C2000 CLASSIC RANGE (IP66 SERIES FOR WET AREAS)
- DIMMERS : ROTARY UNIVERSAL COMPATIBLE WITH LUMINAIRES (BENCH TEST PRIOR TO ORDERING)
- SSOs : CLIPSAL C2000 CLASSIC RANGE
- USB : COMBINED WITH SSO
- WEATHERPROOF : CLIPSAL WSCF SERIES



ROOF LEVEL - POWER LAYOUT

SCALE = 1:100 APPROX



LEVEL 3 - POWER LAYOUT

SCALE = 1:100 APPROX

Rev	Date	Subject	By
A	10.10.16	TENDER ISSUE	PCW
B	10.10.16	REVISED TENDER: CUS, CUH ADDED, ADDITIONAL SSO TO BED 1	PCW
C	13.01.17	ARCHITECTURALS UPDATED	PCW
D	11.02.17	NIGHT LIGHTS ADDED, DOWNLIGHT ADDED TO BED 2	PCW
E	14.02.17	WAP ADDED TO PANTRY	PCW
F	14.02.17	SSO TO WIR RELOCATED	PCW

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ALL WORKS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA (BAC/NC), AS/NZS3000, ELECTRICITY SAFETY ACT, ALL RELEVANT STANDARDS & AUTHORITY REQUIREMENTS. PROJECT & TRADE NOTES APPLY THROUGHOUT. TEST & COMMISSION AT COMPLETION OF WORKS. PROVIDE INSTALLATION & TEST RECORDS, FORM 15 FOR DESIGNED COMPONENTS & FORM 16 FOR IDENTIFICATION FOR THE COMPLETED INSTALLATION.

INFORMATION CONTAINED HEREIN IS THE BEST AVAILABLE AT THE TIME OF DOCUMENTATION. FINAL POSITIONS & QUANTITIES SHALL BE ADJUSTED TO SUIT PHYSICAL ELEMENTS (e.g. STRUCTURE, ROADWAYS, PIPES & THE LIKE) WHICH MAY IMPED PROPER OPERATION OF THE SYSTEM. FINAL SELECTIONS, DESIGN & ARRANGEMENTS SHALL BE FOR APPROVAL.

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**ALTUM**

**Blackburne Jackson Design**  
Architecture | Landscape | Interiors

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**Indigo**  
SUNSHINE BEACH

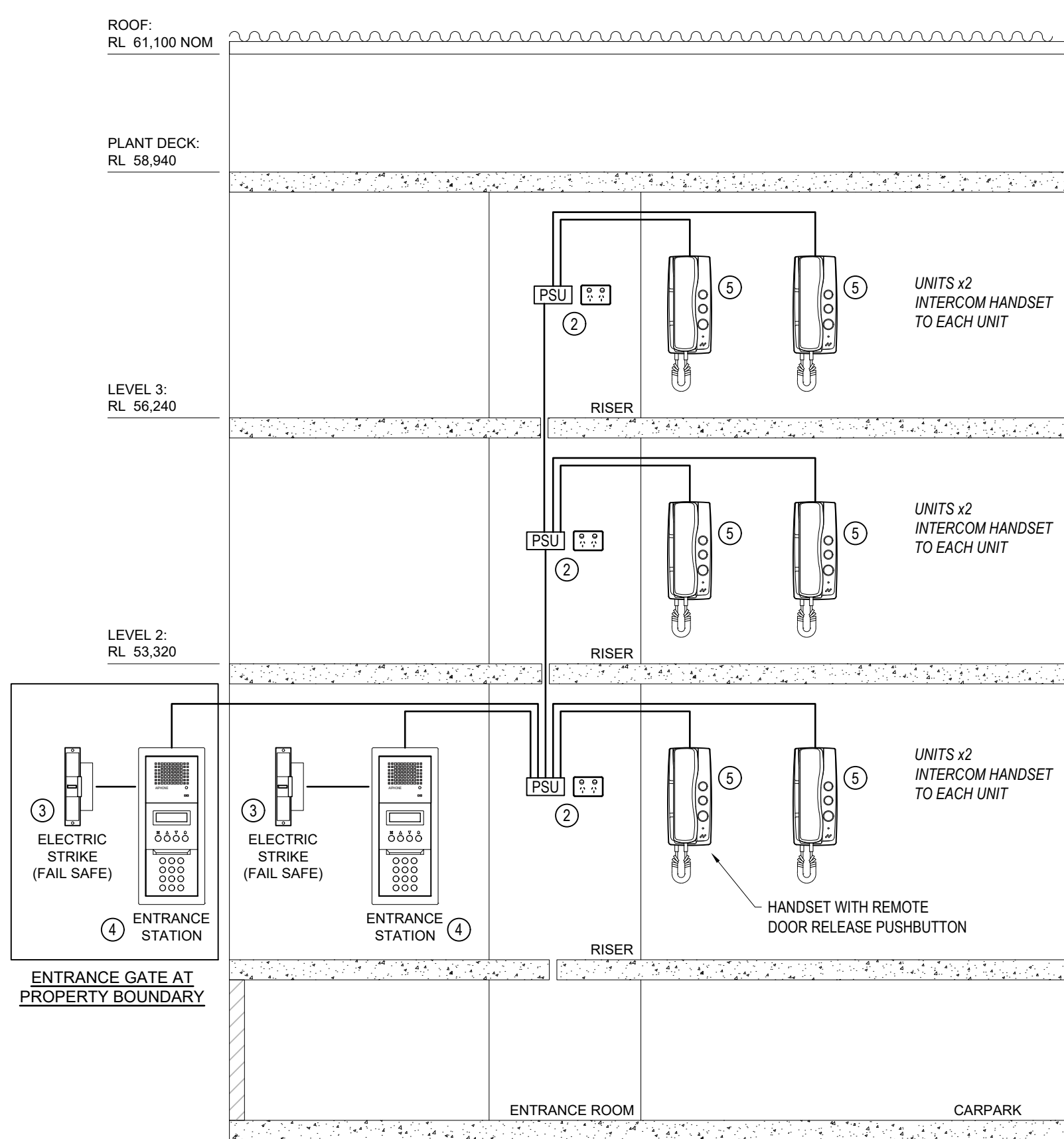
43 ELANDA ST, SUNSHINE BEACH Q 4567  
For ALDEV Holdings

SERVICES  
**ELECTRICAL SERVICES**

**LEVELS 3 & ROOF  
LIGHTING & POWER LAYOUT**

DRAWN	PCW	PROJECT DATE	FEB 2016
APPROVED	MBW	CONTRACT No.	
MASTER SITE		SCALE	1:100 @ A1
PROJECT No.	16017	DRAWING No.	E130
		ISSUE	F



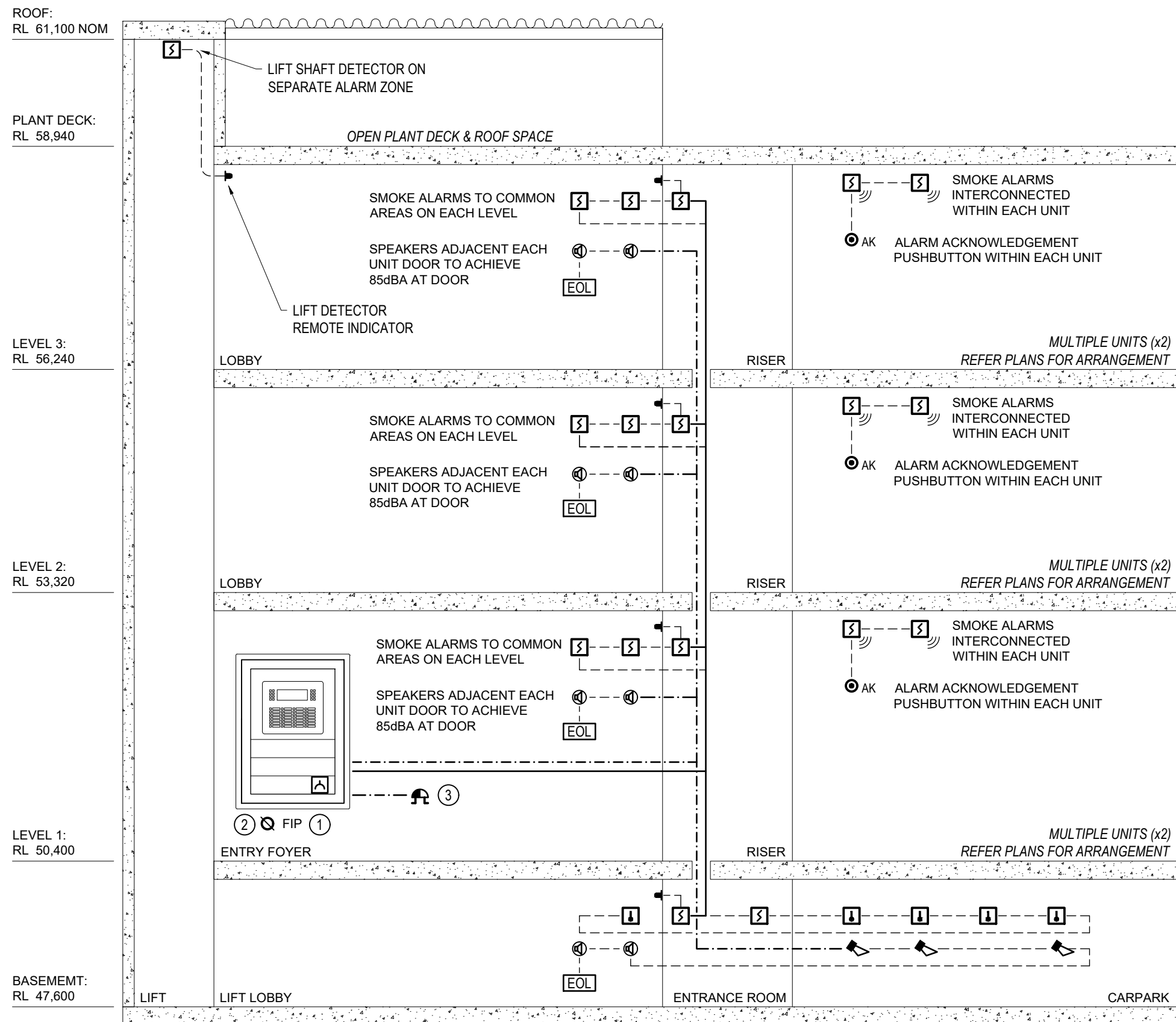


#### NOTES

- AUDIO INTERCOM SYSTEM, AIPHONE GH SERIES OR APPROVED EQUAL. COMPLETE WITH ALL COMPONENTS, FIRMWARE, SOFTWARE & PROGRAMMING, FULLY OPERATIONAL SYSTEM TO MANUFACTURER'S RECOMMENDATIONS & AUSTRALIAN STANDARDS AS A MINIMUM.
- POWER SUPPLY & BUS CONTROLLER UNITS AS REQUIRED, LOCATED IN RISER. PROVIDE SSOs ADJACENT CONNECTED TO DEDICATED COMMUNICATIONS EQUIPMENT CIRCUIT.
- ENTRANCE STRIKE SUPPLIED & INSTALLED BY BUILDING TRADES. CONNECT TO ELECTRIC STRIKE. PROVIDE ALL REQUIRED INTERFACE RELAYS & POWER SUPPLIES.
- ENTRANCE STATION: MARINE GRADE STAINLESS STEEL, FINISHED FINISH, GH-10AS SERIES TO APPROVAL. RECESS MOUNTED UNLESS NOTED OTHERWISE. PROVIDE PROPRIETARY RECESS ENCLOSURE. ALLOW TO PROVIDE SURFACE MOUNTING ENCLOSURE WHERE RECESSING IS NOT AN OPTION.
- INTERCOM HANDSETS WITH REMOTE DOOR RELEASE PUSHBUTTON, GT-1D SERIES NOM TO APPROVAL.
- REFER FLOOR PLANS FOR QUANTITIES & LOCATIONS.
- FINAL POSITIONS OF HANDSETS & ENTRANCE STATION TO ARCHITECTURAL DETAIL & TO APPROVAL.

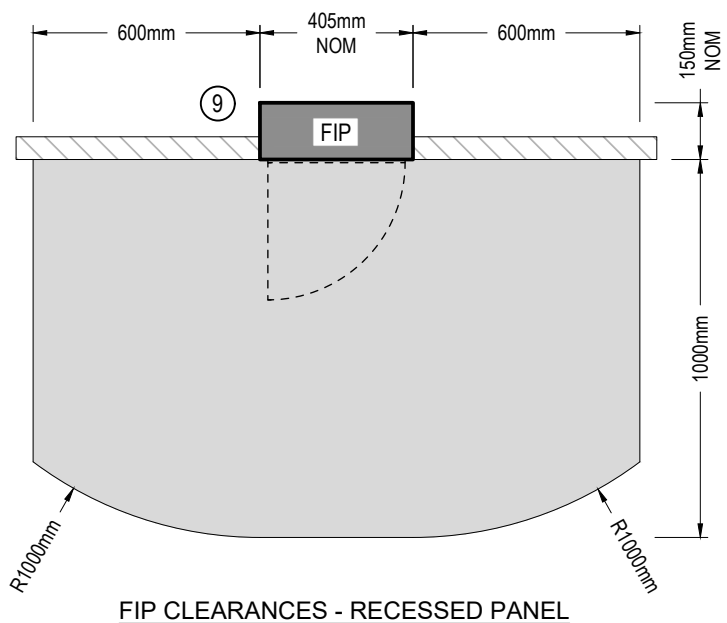
#### INTERCOM SCHEMATIC

Scale = N.T.S.



#### NOTES

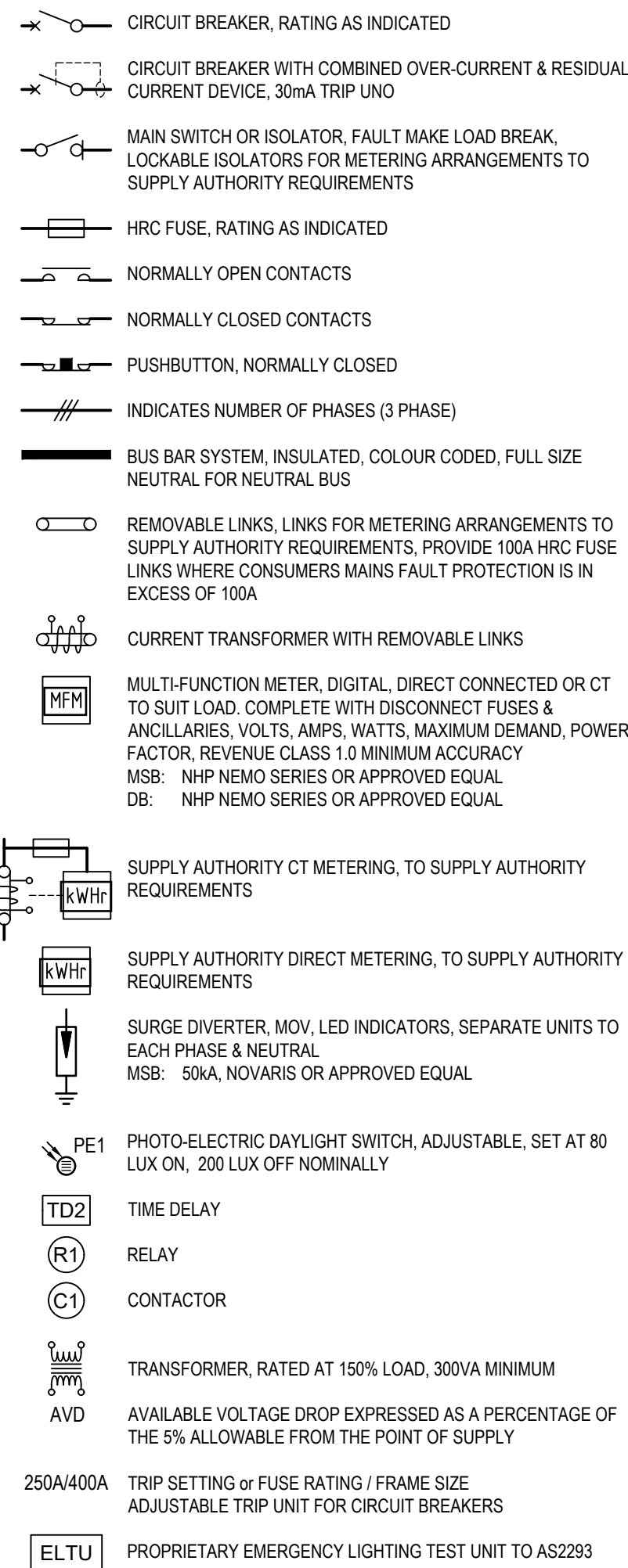
- FIRE INDICATOR PANEL (FIP) COMPLETE WITH BUILDING OCCUPANT WARNING SYSTEM (BOWS) & INTEGRAL MCP. LOCATED IN ENTRANCE TO OFES APPROVAL. COMPLETE WITH ALL COMPONENTS, FIRMWARE, SOFTWARE & PROGRAMMING, BRIGADE CONNECTION FACILITY, FULLY OPERATIONAL SYSTEM TO MANUFACTURER'S RECOMMENDATIONS & AUSTRALIAN STANDARDS AS A MINIMUM.
- 20A POWER SUPPLY FROM MSB HARD WIRED TO FIP.
- RED VISUAL ALARM STROBE LOCATED EXTERNALLY ADJACENT ENTRY VISIBLE FROM THE ROADWAY.
- SINGLE OCCUPANCY UNITS (SOUs) SMOKE ALARMS TO AS3786.
- COMMON AREA FIRE DETECTION & ALARMS TO AS1670.
- REFER TO FLOOR PLANS FOR QUANTITIES & LAYOUT.
- FINAL POSITIONS OF EQUIPMENT, DETECTORS & ACCESSORIES TO ARCHITECTURAL APPROVAL & TO STATUTORY AUTHORITY REQUIREMENTS.
- EACH ALARM ACKNOWLEDGEMENT FACILITY SHALL CONTROL ONLY ONE (1) SOU, BE LOCATED WITHIN THE RESPECTIVE SOU, SET TO 30 SECONDS, & EACH SMOKE ALARM SHALL HAVE A VISUAL ALARM INDICATOR.
- CONFIRM FIP DIMENSIONS PRIOR TO COMMENCEMENT OF ASSOCIATED BUILDING WORKS ON SITE. LIAISE WITH BUILDING TRADES FOR RECESS, BRACING & CABLING ACCESS.
- AMPAC ZONESENSE PLUS (8 ZONE), 505mm H x 405mm W x 150mm DEEP, RECESS FLANGE SHALL MATCH FIP FINISH.



#### FIRE DETECTION & ALARMS SCHEMATIC

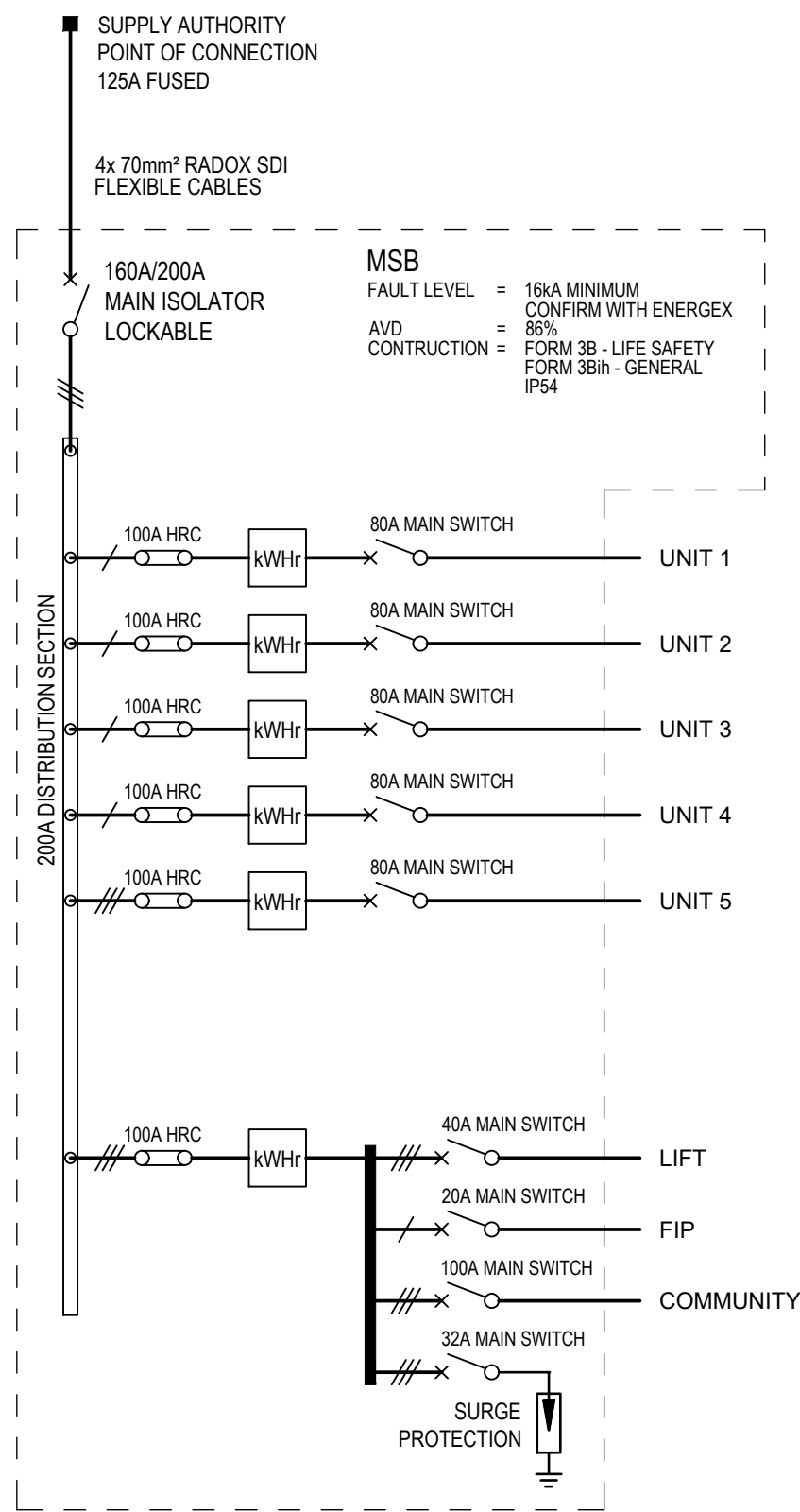
Scale = N.T.S.

#### LEGEND - SINGLE LINE DIAGRAM



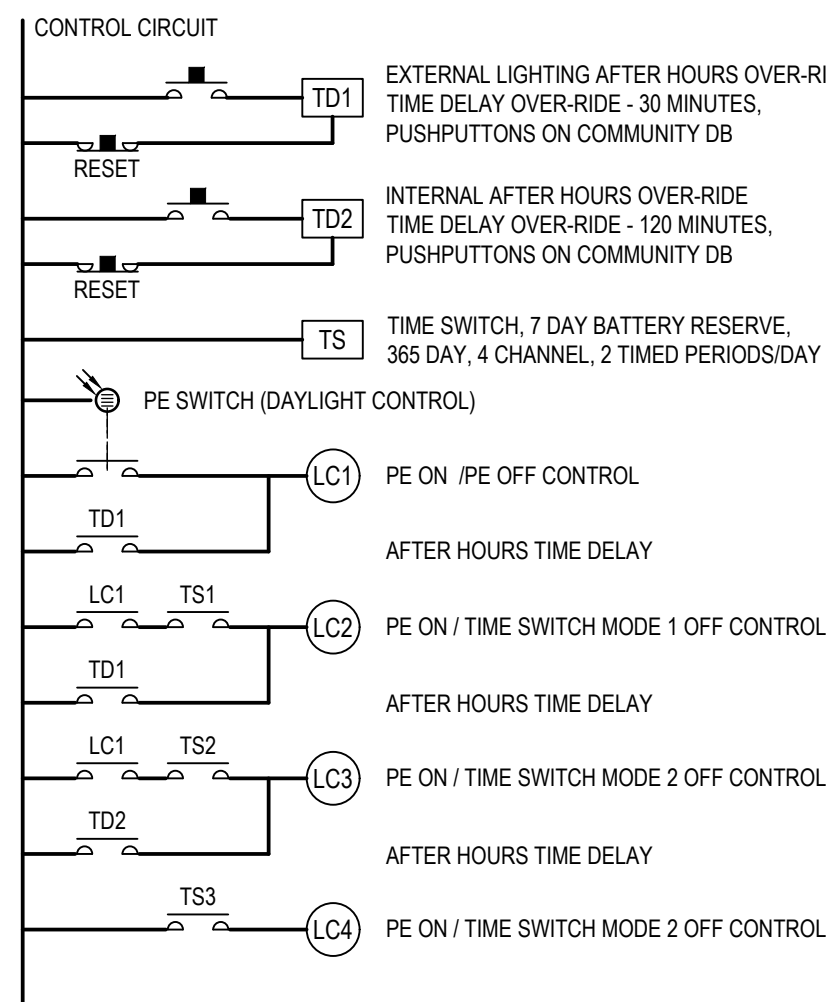
#### SUBMAIN SCHEDULE

CIRCUIT	SUBMAIN	AVD	FAULT LEVEL
UNIT 1	2C+E 16mm <sup>2</sup> XLPE	63 %	6 kA
UNIT 2	2C+E 16mm <sup>2</sup> XLPE	63 %	6 kA
UNIT 3	2C+E 16mm <sup>2</sup> XLPE	55 %	6 kA
UNIT 4	2C+E 16mm <sup>2</sup> XLPE	59 %	6 kA
UNIT 5	4x 16mm <sup>2</sup> XLPE + E	70 %	6 kA
DB-C (COMMUNITY)	4C+E 16mm <sup>2</sup> XLPE	84 %	10 kA
LIFT	4x 10mm <sup>2</sup> RADOX + 10mm <sup>2</sup> E	76 %	6 kA
FIP	2C+E 16mm <sup>2</sup> RADOX	80 %	2 kA



#### MSB SCHEMATIC

Scale = N.T.S.

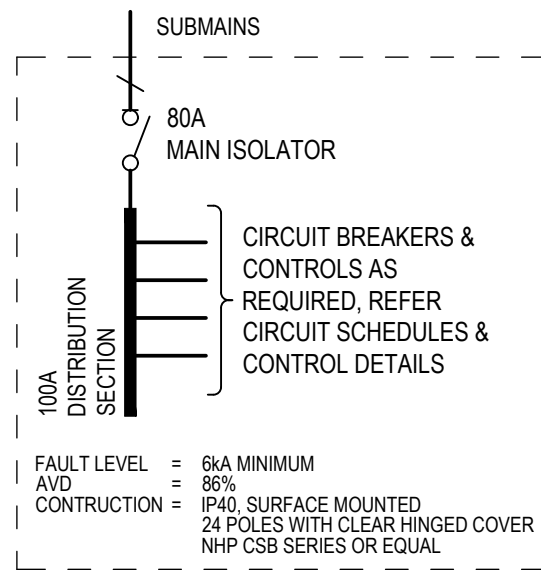


#### LIGHTING CONTROL SCHEMATIC

Scale = N.T.S.

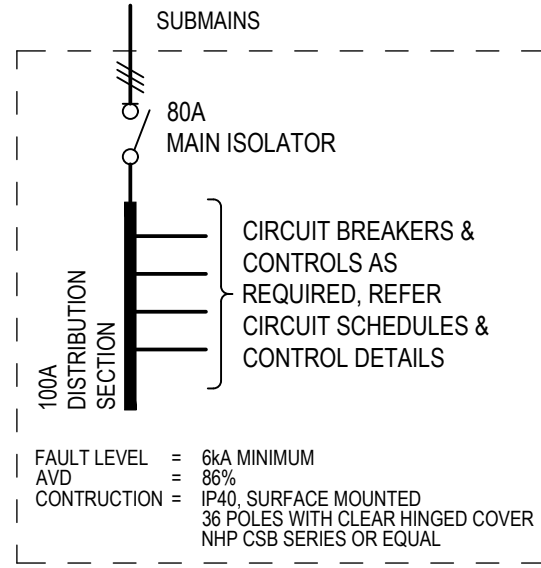
#### DB-C : CIRCUIT SCHEDULE

CIRCUIT	CB RATING	PHASES	CONTROL	DESCRIPTION
---	20A RCD	1	---	CONTROL CIRCUIT
L1	20A RCD	1	LOCAL	LIGHTING: FIRE STAIR 1, STAIR 2
L2	20A RCD	1	LOCAL	LIGHTING: LOBBY LEVELS 2 & 3
L3	20A RCD	1	LOCAL	LIGHTING: LOBBY LEVEL 1
L4	20A RCD	1	LOCAL	LIGHTING: BASEMENT CARPARK
L5	20A RCD	1	LOCAL	LIGHTING: BASEMENT CARPARK
L6	20A RCD	1	LOCAL	LIGHTING: BASEMENT CARPARK
L7	20A RCD	1	LC2	LIGHTING: POOL PAVILLION
L8	20A RCD	1	LC2	LIGHTING: EXTERNAL PATHWAYS
L9	20A RCD	1	LC3	LIGHTING: LANDSCAPE
L10	20A RCD	1	LC3	LIGHTING: LANDSCAPE
L11	20A RCD	1	LC3	LIGHTING: LANDSCAPE
L12	20A RCD	1	LC1	LIGHTING: MAIN ENTRY
L13	20A RCD	1	LC3	LIGHTING: LANDSCAPE
L14	20A RCD	1	LC3	LIGHTING: LANDSCAPE
P1	20A RCD	1	---	SSOs: MATV, PAY TV, INTERCOM
P2	20A RCD	1	---	SSOs: CLEANERS
P3	20A RCD	1	---	SSOs: IRRIGATION CONTROLLER
P4	20A RCD	1	LC4	CARPARK SUPPLY AIR FAN
P5	20A RCD	1	---	CARPARK ROLLER SHUTTER
P6	20A RCD	1	---	CARPARK ROLLER SHUTTER
P7	20A RCD	1	---	CARPARK ROLLER SHUTTER
P8	20A RCD	1	---	SSOs: POOL EQUIPMENT
P9	20A RCD	1	---	SSOs: POOL EQUIPMENT
P10	20A RCD	1	---	SSOs: POOL EQUIPMENT
P11	20A RCD	1	---	HOT WATER UNIT - POOL AREA
P12	20A RCD	1	---	SSOs: POOL AREA
P13	25A RCD	1	---	BBQ: POOL AREA



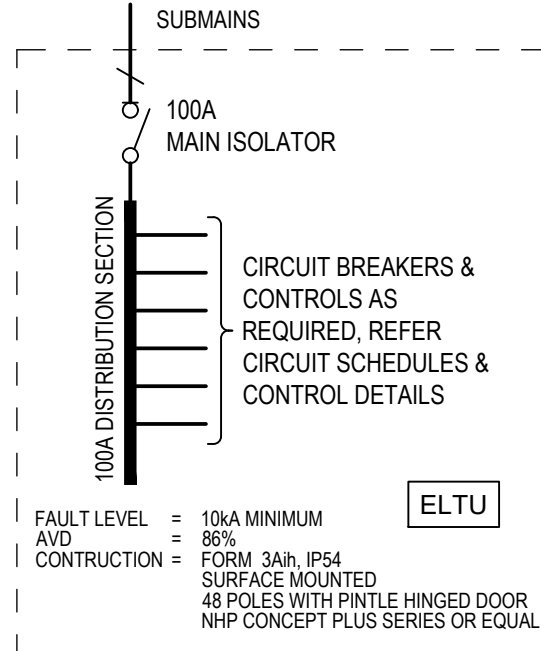
#### TYPICAL UNIT DB

Scale = N.T.S.



#### UNIT 5 DB

Scale = N.T.S.



#### DB - C

Scale = N.T.S.

#### LIGHTING CONTROL SCHEDULE

CONTROL	DESCRIPTION
LC1	PE ON / PE OFF
LC2	PE ON / TS1 OFF
LC3	PE2 / TS2
LC4	TS3 ON / TS3 OFF
LOC	INDICATES LOCAL CONTROL

#### UNIT 1 - CIRCUIT SCHEDULE

CIRCUIT	CB RATING	PHASES	CONTROL	DESCRIPTION
F1	20A RCD	1	---	SMOKE ALARMS, LOCAL DISTRIBUTOR SSOs
L1	16A RCD	1	---	LIGHTING: BALCONY & COURT, LAUNDRY, KITCHEN
L2	16A RCD	1	---	LIGHTING: BED1, ENSUITE, ROBE, LIVING, DINING
L3	16A RCD	1	---	LIGHTING: BED2, ENSUITE, ROBE, BED 3, HALLWAY, BATH, POWDER, STORE, LINEN
P1	20A RCD	1	---	AIR CONDITIONING UNIT
P2	20A RCD	1	---	AIR CONDITIONING UNIT
P3	20A RCD	1	---	HVU
P4	20A RCD	1	---	OVEN
P5	32A RCD	1	ISOLATOR	COOKTOP
P6	20A RCD	1	---	SSOs: REF, RH, ABOVE BENCH (x2)
P7	20A RCD	1	---	SSOs: GDU, DISHWASHER
P8	20A RCD	1	---	SSOs: MW, ABOVE BENCH (x1)
P9	20A RCD	1	---	SSOs: BALCONY, DINING, LIVING, BED 1 & ENSUITE
P10	20A RCD	1	---	SSOs: WASHING MACHINE, DRIER
P11	20A RCD	1	---	SSOs: REMAINDER

#### UNIT 2 - CIRCUIT SCHEDULE

CIRCUIT	CB RATING	PHASES	CONTROL	DESCRIPTION
F1	20A RCD	1	---	SMOKE ALARMS, LOCAL DISTRIBUTOR SSOs
L1	16A RCD	1	---	LIGHTING: BALCONY & COURT, STORE, KITCHEN
L2	16A RCD	1	---	LIGHTING: BED1, ENSUITE, ROBE, LIVING, DINING
L3	16A RCD	1	---	LIGHTING: BED2, ENSUITE, ROBE, BED 3, HALLWAY, BATH, POWDER, LAUNDRY
P1	20A RCD	1	---	AIR CONDITIONING UNIT
P2	20A RCD	1	---	AIR CONDITIONING UNIT
P3	20A RCD	1	---	HVU
P4	20A RCD	1	---	OVEN
P5	32A RCD	1	ISOLATOR	COOKTOP
P6	20A RCD	1	---	SSOs: REF, RH, ABOVE BENCH (x2)
P7	20A RCD	1	---	SSOs: GDU, DISHWASHER
P8	20A RCD	1	---	SSOs: MW, ABOVE BENCH (x1)
P9	20A RCD	1	---	SSOs: BALCONY, DINING, LIVING, BED 1 & ENSUITE
P10	20A RCD	1	---	SSOs: WASHING MACHINE, DRIER
P11	20A RCD	1	---	SSOs: REMAINDER

#### UNIT 3 & UNIT 4 - CIRCUIT SCHEDULE

CIRCUIT	CB RATING	PHASES	CONTROL	DESCRIPTION
F1	20A RCD	1	---	SMOKE ALARMS, LOCAL DISTRIBUTOR SSOs
L1	16A RCD	1	---	LIGHTING: BALCONY, LIVING, DINING
L2	16A RCD	1	---	LIGHTING: KITCHEN, PANTRY, SCULLERY, STUDY, POWDER
L3	16A RCD	1	---	LIGHTING: BED 2 & 3, BATH, LAUNDRY, HALLWAY
L4	16A RCD	1	---	LIGHTING: BED 1, ENSUITE ROBE, MPR
P1	20A RCD	1	---	AIR CONDITIONING UNIT
P2	20A RCD	1	---	HVU
P3	20A RCD	1	---	OVEN
P4	32A RCD	1	ISOLATOR	COOKTOP
P5	20A RCD	1	---	SSOs: REF, MW, RH
P6	20A RCD	1	---	SSOs: GDU, DISHWASHER, ISLAND BENCH
P7	20A RCD	1	---	SSOs: ABOVE BENCH (x2)
P8	20A RCD	1	---	SSOs: BALCONY, DINING, LIVING, BED 1 & ENSUITE
P9	20A RCD	1	---	SSOs: WASHING MACHINE, DRIER
P10	20A RCD	1	---	SSOs: REMAINDER

#### UNIT 5 - CIRCUIT SCHEDULE

CIRCUIT	CB RATING	PHASES	CONTROL	DESCRIPTION
F1	20A RCD	1	---	SMOKE ALARMS, LOCAL DISTRIBUTOR SSOs
L1	16A RCD	1	---	LIGHTING: BALCONY 3, BED 1, WIR
L2	16A RCD	1	---	LIGHTING: ENSUITE 1, WC, BED 1
L3	16A RCD	1	---	ENTRY, POWDER 2, LAUNDRY
L4	16A RCD	1	---	ENSUITE, STORE
L5	16A RCD	1	---	LIGHTING: BED 3, BED 4, STUDY, BALCONY 1 (ADJACENT STUDY)
L6	16A RCD	1	---	LIGHTING: SCULLERY, CORRIDOR, PANTRY, KITCHEN, BALCONY 1 (ADJACENT KITCHEN)
L7	16A RCD	1	---	LIGHTING: DINING, ENTRY, ADJACENT KITCHEN
L8	16A RCD	1	---	LIGHTING: BALCONY 1, LIVING
P1	20A RCD	1	---	AIR CONDITIONING UNIT
P2	20A RCD	1	---	AIR CONDITIONING UNIT
P3	20A RCD	1	---	HVU
P4	20A RCD	1	---	OVEN
P5	32A RCD	1	ISOLATOR	COOKTOP
P6	20A RCD	1	---	SSOs: REF, RH, ABOVE BENCH (x2)
P7	20A RCD	1	---	SSOs: ISLAND BENCH
P8	20A RCD	1	---	SSOs: GDU, DISHWASHER
P9	20A RCD	1	---	SSOs: PANTRY
P10	20A RCD	1	---	SSOs: WF (x2), ABOVE BENCH (x1)
P11	20A RCD	1	---	SSOs: CBWU, LIE REF
P12	20A RCD	1	---	SSOs: SCULLERY - ABOVE BENCH (x2), GENERAL (x1)
P13	20A RCD	1	---	SSOs: WASHING MACHINE, DRIER
P14	20A RCD	1	---	SSOs: LAUNDRY
P15	20A RCD	1	---	SSOs: MOTORISED LOUVRES / BLINDS
P16	20A RCD	1	---	SSOs: TVs - BED 1, LIVING, STUDY, DINING
P17	20A RCD	1	---	SSOs: BED 1, ENS, WIR, DINING, ENTRY, CORRIDOR
P18	20A RCD	1	---	SSOs: BED 2, ENSUITE, BATH, BALCONY 2, BED 3
P19	20A RCD	1	---	SSOs: BED 4, STUDY
P20	20A RCD	1	---	SSOs: BALCONY 1
P21	20A RCD	1	---	SSOs: BALCONY 1

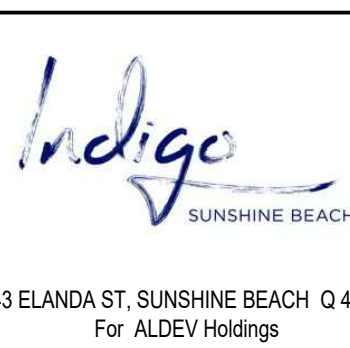
AMENDMENTS	Rev	Date	Subject	By
A	10.10.16	TENDER ISSUE	PCW	PCW
B	10.10.16	REVISED TENDER: ADDITIONAL AC SUPPLY TO UNITS 1 & 2	PCW	PCW

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#### ELECTRICAL SERVICES

#### SCHEMATICS & DETAILS SINGLE LINE DIAGRAM

DRAWN	PCW	PROJECT DATE	FEB 2016
APPROVED	MBW	CONTRACT No.	
MASTER SITE		SCALE	1:100 @ A1
PROJECT No.	16017	DRAWING No.	E800
		ISSUE	B

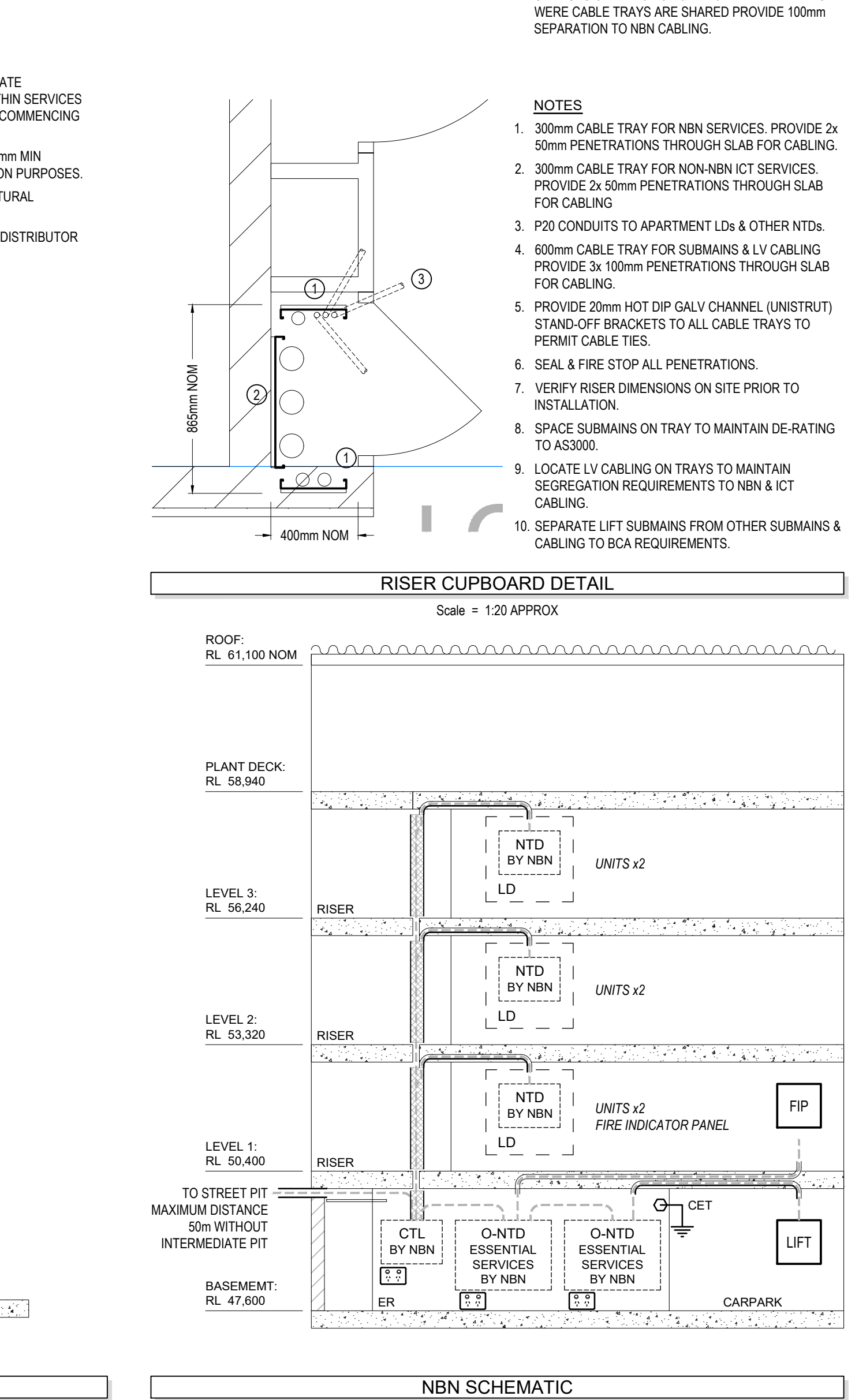
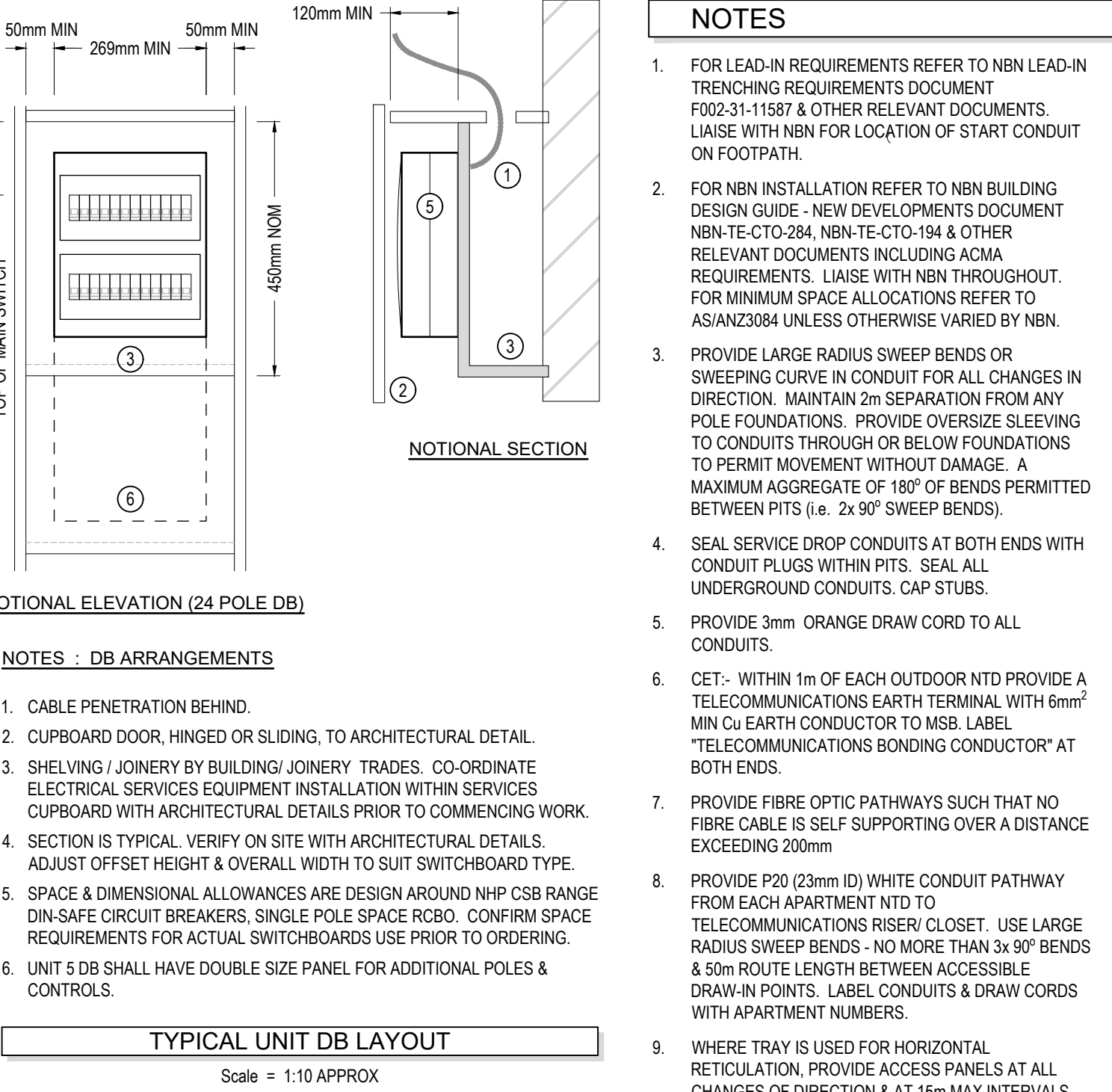
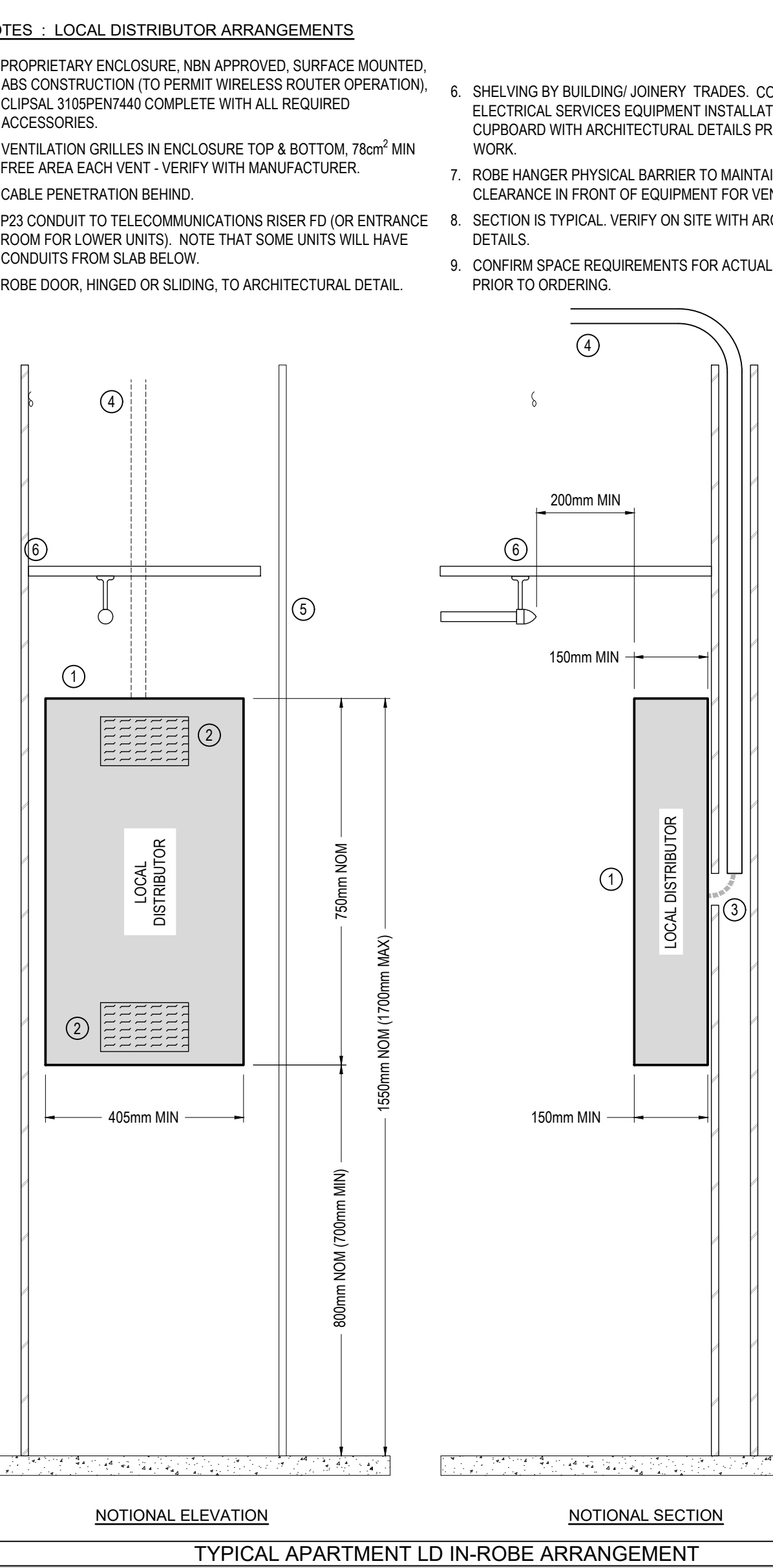
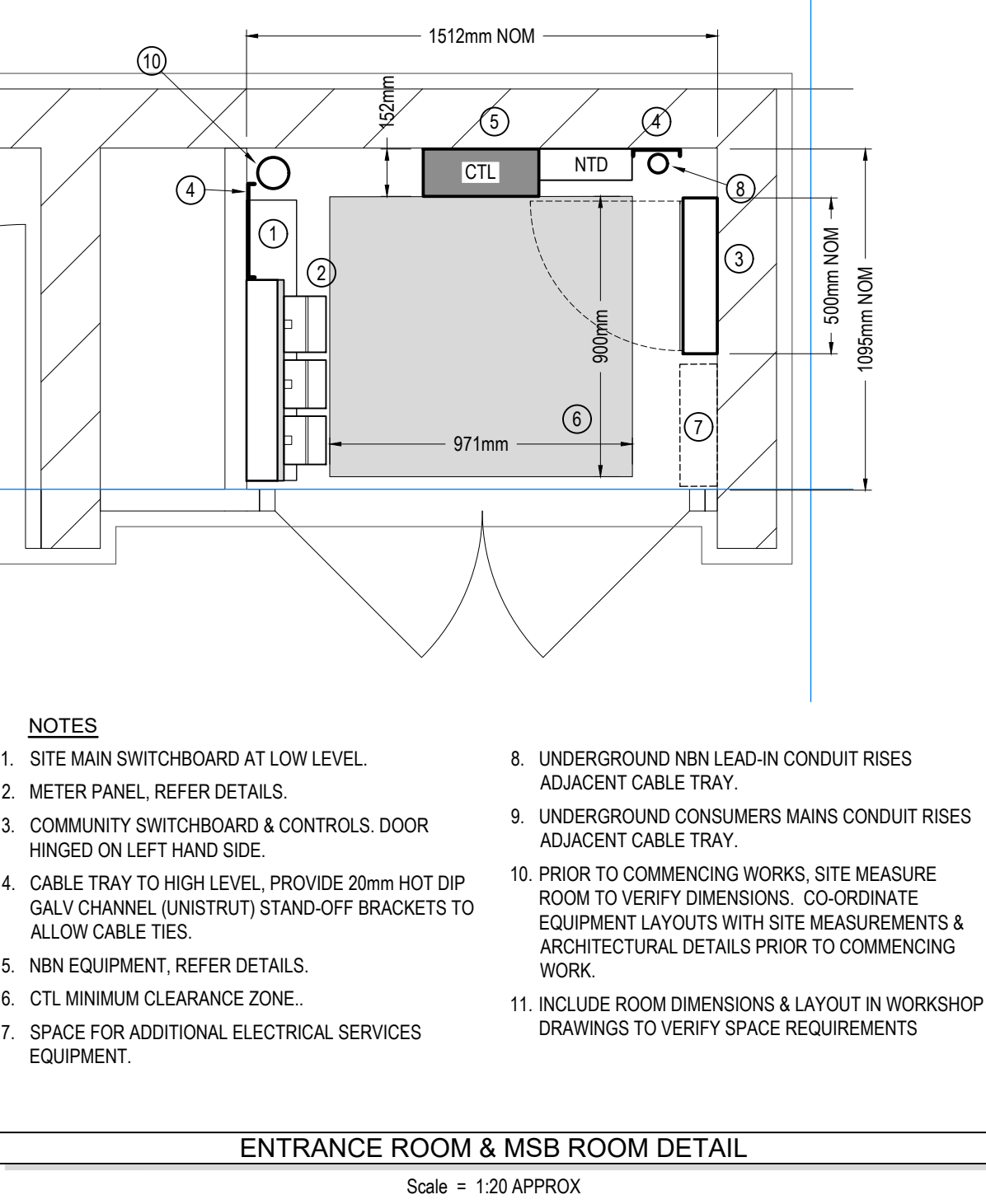
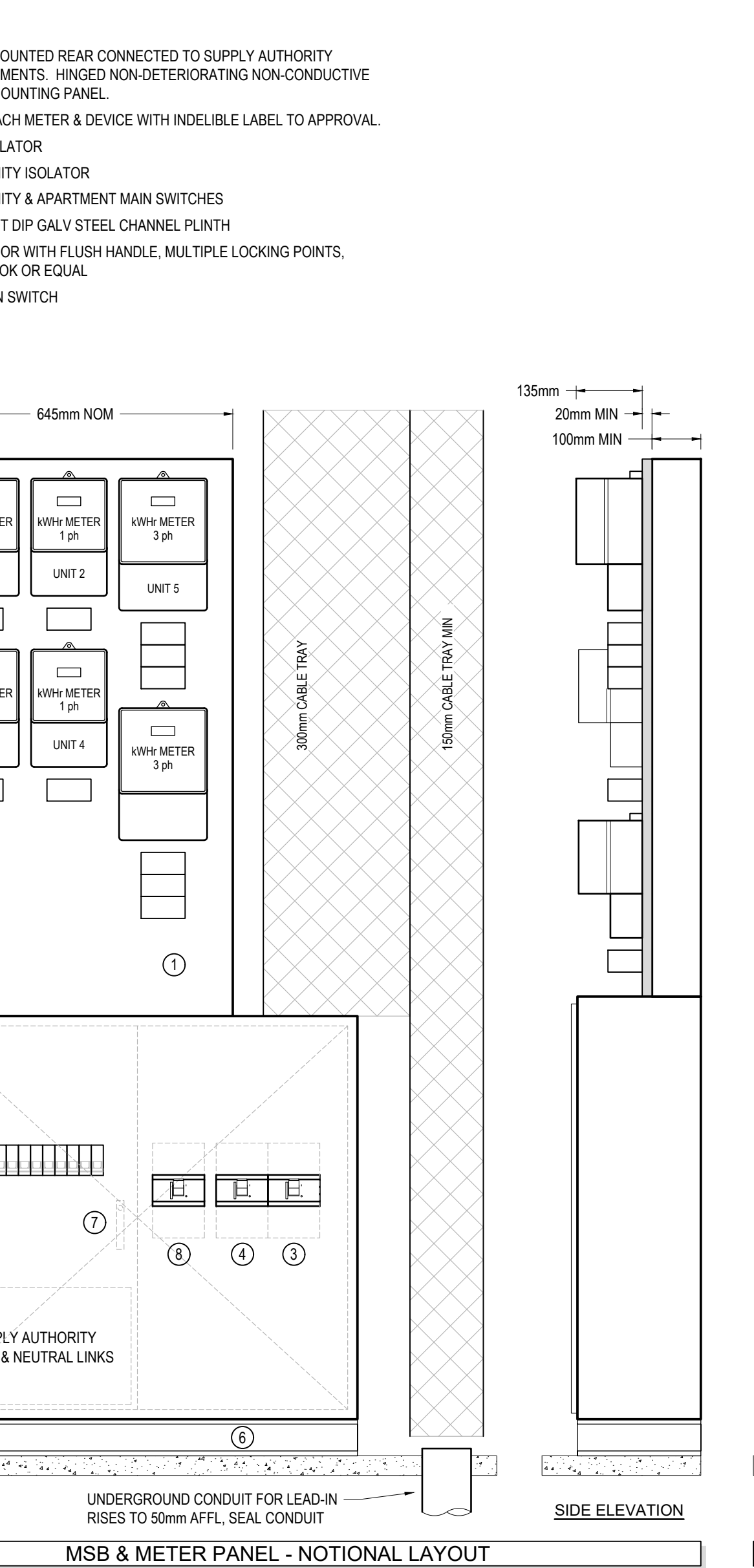
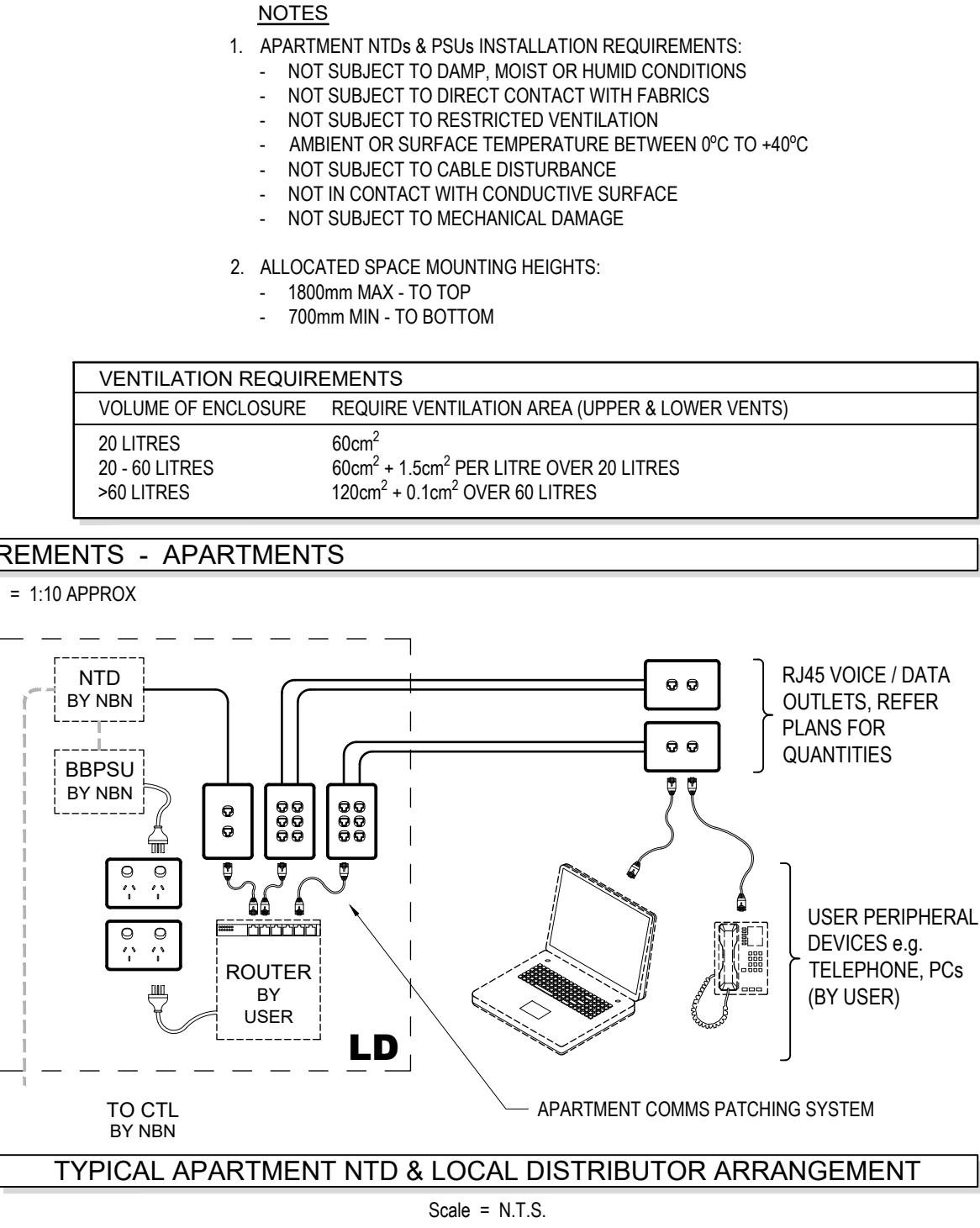
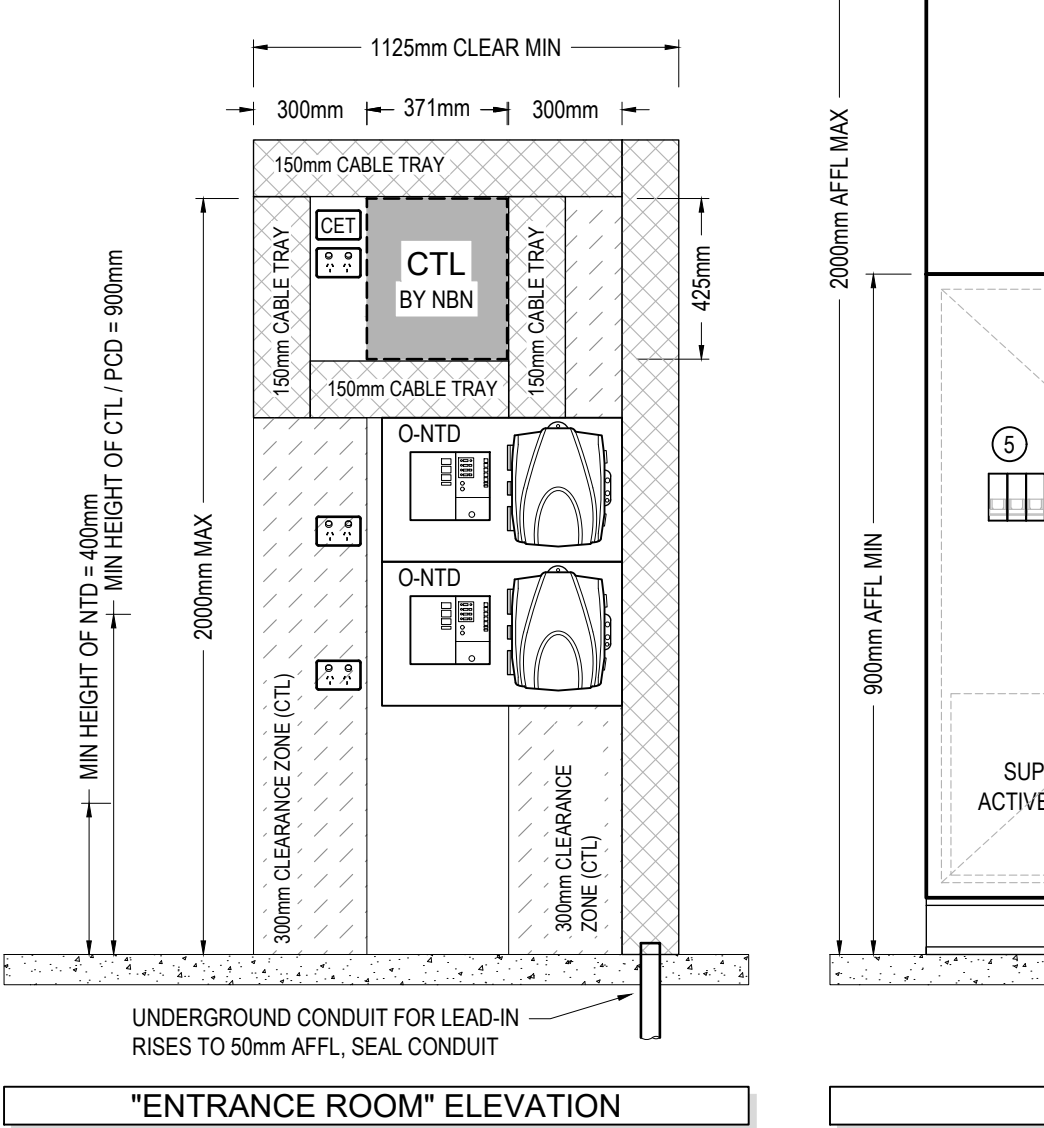
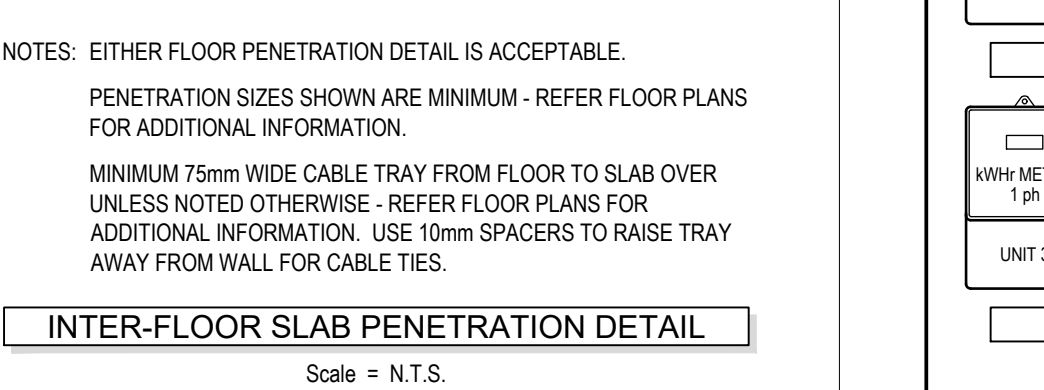
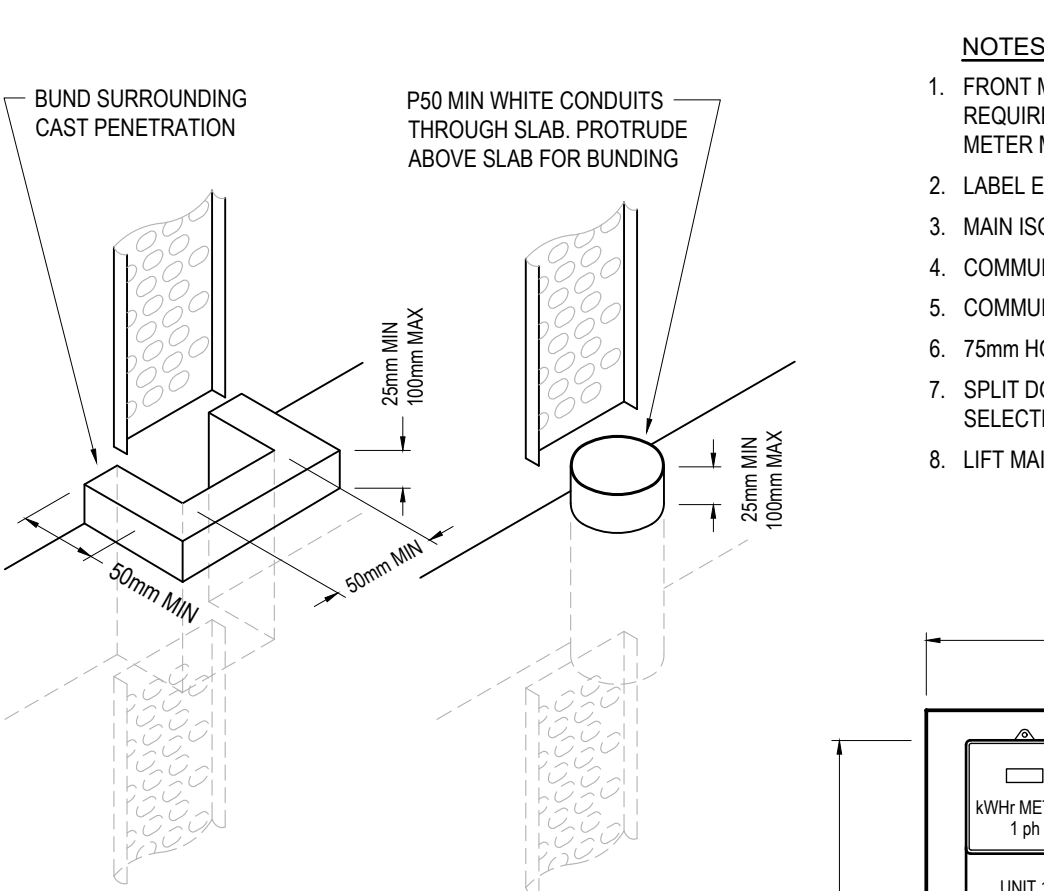
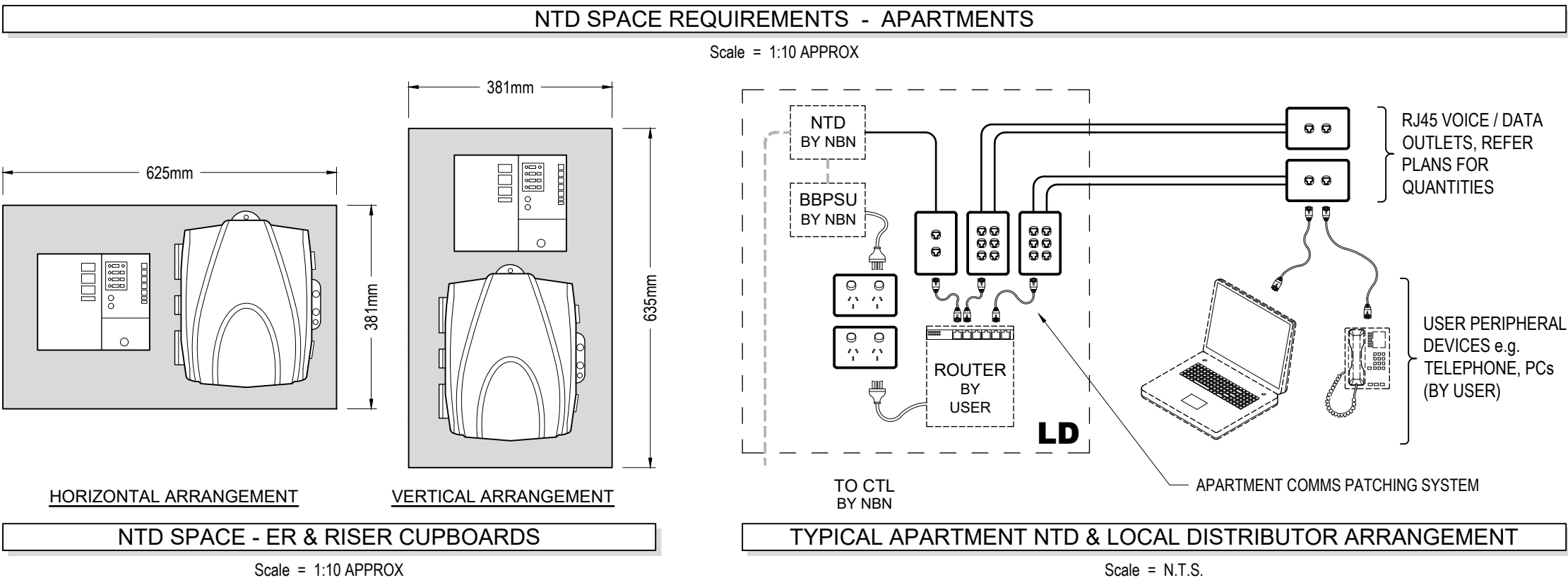
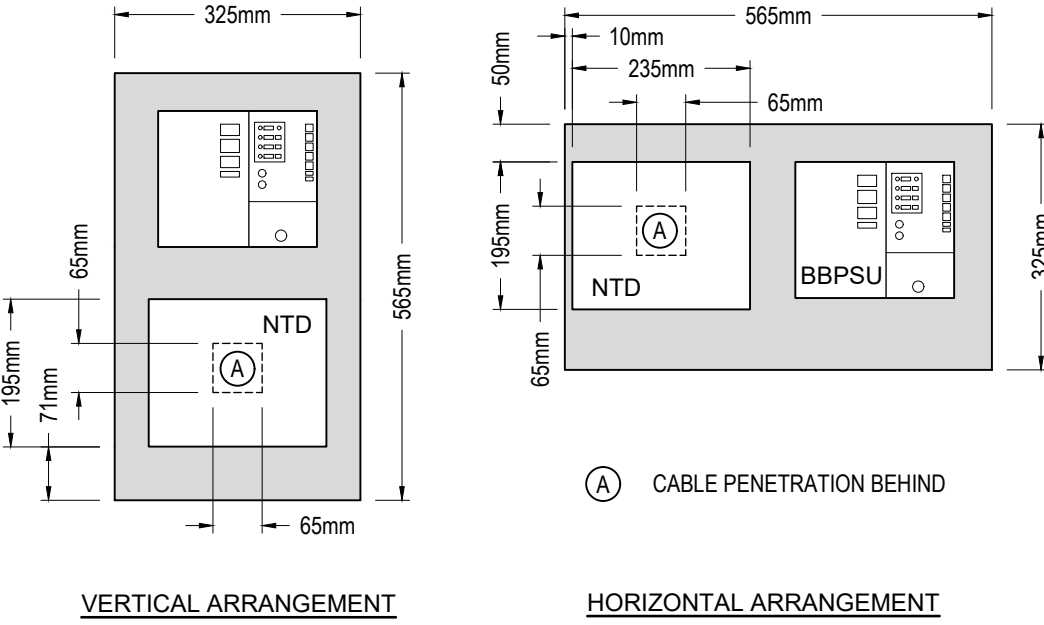


NBN UNDERGROUND CONDUIT INSTALLATION			
CONDUIT LOCATION		MINIMUM DEPTH OF COVER	
LEAD-IN ON PRIVATE PROPERTY		300mm	
PRIVATE DRIVEWAYS		450mm	
VERGE, WALKWAYS, FOOTPATHS		450mm	
ROADS		600mm	
ROAD CROSSINGS		800mm - 1200mm (TYPICALLY)	
NUMBER OF PREMISES	MIN LEAD-IN CONDUIT SIZE	DISTANCE BETWEEN PITS (MAX)	TRENCH WIDTH (MINIMUM)
1	P20	50m	100mm
2 - 25	P50	100m	100mm
> 25	P100	100m	150mm
	2x P100	100m	300mm
SERVICE		SHARED TRENCH MINIMUM SEPARATION	
NBN CONDUITS		NIL SEPARATION	
TELECOMMUNICATIONS CONDUITS		100mm SPECIFIED (NIL REQUIRED BY NBN)	
OTHER CARRIER		100mm	
LV POWER CONDUITS (ORANGE)		100mm SPECIFIED (NIL REQUIRED BY NBN)	
HV POWER		NOT ACCEPTABLE TO SHARE TRENCH	
STORM WATER		100mm (NBN NOT PERMITTED ABOVE PIPES)	
GAS		100mm	
SANITARY (SEWER, SEWERAGE)		100mm	
WATER		100mm	
SERVICE		SHARED TRENCH MINIMUM SEPARATION	
LV POWER CONDUITS (ORANGE)		100mm	
LV POWER (DIRECT BURIED)		300mm	
HV POWER (IN CONDUIT )		300mm	
HV POWER (DIRECT BURIED)		450mm	
SERVICE		CROSS-OVER MINIMUM SEPARATION	
NBN CONDUITS		NIL SEPARATION	
PRIVATE COMMUNICATIONS CONDUITS		100mm SPECIFIED (NIL REQUIRED BY NBN)	
OTHER CARRIER		100mm	
LV POWER CONDUITS (ORANGE)		100mm (NBN ABOVE POWER)	
		IF OVER POWER - CONCRETE COVER REQ'D	
LV POWER (DIRECT BURIED)		300mm (NBN ABOVE POWER)	
		100mm IF CONCRETE SEPARATOR EXTENDS	
		600mm EACH SIDE OF CROSS-OVER	
HV POWER (IN CONDUIT)		300mm (NBN ABOVE POWER)	
		IF OVER POWER - CONCRETE COVER REQ'D	
HV POWER (DIRECT BURIED)		450mm (NBN ABOVE HV)	
		300mm IF CONCRETE SEPARATOR EXTENDS	
		600mm EACH SIDE OF CROSS-OVER	
STORM WATER		100mm (NBN BELOW STORM WATER PIPE) AT NOT LESS THAN 45° ANGLE AT CROSS-OVER	
GAS		100mm (NBN ABOVE GAS PIPE) AT NOT LESS THAN 45° ANGLE AT CROSS-OVER	
SANITARY (SEWER, SEWERAGE)		100mm (NBN ABOVE SANITARY PIPE) AT NOT LESS THAN 45° ANGLE AT CROSS-OVER	
WATER		100mm (NBN BELOW WATER PIPE) AT NOT LESS THAN 45° ANGLE AT CROSS-OVER	

DELINEATION SCHEDULE			
DES	NBN	CONTRACT	ITEM
		X	LEAD-IN CONDUIT, TRENCHING, BACKFILL TO PROPERTY BOUNDARY
		X	CABLE ACCESS PATHWAYS THROUGHOUT, CABLE TRAYS, CONDUITS
		X	P20 (23mm INTERNAL DIA NOM) WHITE CONDUIT TO EACH NTD FROM RISER/CLOSET (WHITE 3mm ORANGE DRAW CORD)
		X	CABLING & CONNECTION BETWEEN NTDs & LIFT PANELS
		X	CABLING & CONNECTION BETWEEN NTDs & FIP
		X	DOUBLE SSO AT EACH NTD
		X	CET AT OUTDOOR NTD
	X	X	CONNECTION BETWEEN CET & OUTDOOR NTD
		X	POWER SUPPLIES AT NBN EQUIPMENT TO NBN REQUIREMENTS
	X	X	TELECOMMUNICATIONS EARTH AT EACH EQUIPMENT LOCATION AS REQUIRED BY NBN
		X	EQUIPMENT, CABLING, NETWORK ELEMENTS, UP TO & INCLUDING NTD & PSU (SUPPLY, INSTALL, MAINTAIN)
		X	PSU BATTERY MAINTENANCE & REPLACEMENT FOLLOWING INITIAL INSTALLATION
	X		LEAD-IN CONDUIT FROM PROPERTY BOUNDARY TO STREET INFRA-STRUCTURE (SUPPLY, INSTALL, MAINTAIN)
	X		LEAD-IN CABLE (SUPPLY & INSTALL)
	X		CTL, NTDs, BBPSUs, (SUPPLY & INSTALL)
	X		CABLING & TERMINATIONS BETWEEN NBN SUPPLIED EQUIPMENT

ABBREVIATION SCHEDULE	
CET	: COMMUNICATIONS EARTHING TERMINAL DEDICATED TO NBN SERVICES
ER	: ENTRANCE ROOM
MDU	: MULTI-UNIT DEVELOPMENT (RESIDENTIAL ONLY)
MPS	: MULTI-PREMISES SITE (MIXED & MAY INCLUDE RETAIL & COMMERCIAL)
NBP	: NETWORK BOUNDARY POINT (SERVICE OUTPUT TERMINALS/ PORTS/ SOCKETS OF THE NTD)
NTD	: NETWORK TERMINATION DEVICE
O-NTD	: OUTDOOR NETWORK TERMINATION DEVICE FOR ESSENTIAL SERVICES SUCH AS LIFT, FIP, MANAGED ALARMS (HAS ADDITIONAL EARTHING REQUIREMENTS)
PSU	: POWER SUPPLY UNIT

SCHEDULE OF REFERENCE DOCUMENTS	
NBN-TE-CTO-194	NEW DEVELOPMENTS DEPLOYMENT OF THE NBN CONDUIT & PIT NETWORK
NBN-TE-CTO-284	BUILDING DESIGN GUIDE - NEW DEVELOPMENTS
F0002-31-11578	NBN'S LEAD-IN TRENCHING REQUIREMENTS
AS / ACIF S008	REQUIREMENTS FOR CUSTOMER CABLING
AS / CA S009	INSTALLATION REQUIREMENTS FOR CUSTOMER CABLING
ACIF C524	EXTERNAL TELECOMMUNICATIONS CABLE NETWORKS



AMENDMENTS			
Rev	Date	Subject	By
A	10.10.16	TENDER ISSUE	PCW

DO NOT SCALE FROM DRAWINGS. VERIFY DIMENSIONS, LEVELS, ALIGNMENT WITH CIVIL, STRUCTURAL, MECHANICAL, HYDRAULIC & ARCHITECTURAL DOCUMENTS & ON SITE PRIOR TO COMMENCING WORKS. SHOP DRAWINGS REPORT DISCREPANCIES.

ALL WORKS SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA (BAC001), AS/NZS3000, ELECTRICITY SAFETY ACT, ALL RELEVANT STANDARDS & AUTHORITY REQUIREMENTS. PROJECT & TRACE NOTES APPLY THROUGHOUT. TEST & COMMISSION AT COMPLETION OF WORKS. PROVIDE INSTALLATION & TEST RECORDS, FORM 10 FOR DESIGNER COMPONENTS & FORM 11 FOR IDENTIFICATION FOR THE COMPLETED INSTALLATION.

INFORMATION CONTAINED HEREIN IS THE BEST AVAILABLE AT THE TIME OF DOCUMENTATION. FINAL POSITIONS & QUANTITIES SHALL BE ADJUSTED TO SUIT PHYSICAL ELEMENTS IN THE STRUCTURE, ROADWAYS, PIPES & THE LIKE, WHICH MAY IMPAIR PROPER OPERATION OF THE SYSTEM. FINAL SELECTIONS, DESIGN & ARRANGEMENTS SHALL BE FOR APPROVAL.

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ALTUM

Blackburne Jackson Design  
Architecture | Landscape | Interiors

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

















Indigo  
SUNSHINE BEACH

43 ELANDA ST, SUNSHINE BEACH Q 4567  
For ALDEV Holdings















SERVICES		PROJECT DATE	
ELECTRICAL SERVICES		FEB 2016	
DRAWN		CONTRACT No.	
PCW			
APPROVED		SCALE	
MBW		N.T.S.	
MASTER SITE		@	
PROJECT No.		ISSUE	
16017		E850	
DRAWING No.		A	









































LEGEND - EMERGENCY LUMINAIRES

	EX1	1.2W LED EMERGENCY EXIT LUMINAIRE, SINGLE SIDED, SELF CONTAINED, MAINTAINED, PICTOGRAPH, DIRECTIONAL ARROWS AS INDICATED, HIGH TEMPERATURE NICKEL METAL HYDRIDE BATTERIES, IP20, MOUNTING BRACKETS TO SUIT INSTALLATION, 326mmW x 211mmH x 80mm DEEP NOM CLASSIFICATION:- C0=E2, C90=E1.6 (24m VIEWING) EKTOR MERCURY III 3135 SERIES	
	EX2	1.2W LED EMERGENCY EXIT LUMINAIRE, DOUBLE SIDED, SELF CONTAINED, MAINTAINED, PICTOGRAPH, DIRECTIONAL ARROWS AS INDICATED, HIGH TEMPERATURE NICKEL METAL HYDRIDE BATTERIES, IP20, MOUNTING BRACKETS TO SUIT INSTALLATION, 326mmW x 80mm DEEP NOM CLASSIFICATION:- C0=E2, C90=E1.6 (24m VIEWING) EKTOR MERCURY III 3135 SERIES	
	EX3	1.2W LED EMERGENCY EXIT LUMINAIRE, DOUBLE SIDED, WEATHERPROOF IP64, SELF CONTAINED, MAINTAINED, PICTOGRAPH, DIRECTIONAL ARROWS AS INDICATED, HIGH TEMPERATURE NICKEL METAL HYDRIDE BATTERIES, MOUNTING BRACKETS TO SUIT INSTALLATION, 370mmW x 240mmH x 105mm DEEP NOM CLASSIFICATION:- C0=D4, C90=D4 EKTOR MERCURY III 3136 SERIES	
	E1	4.3W LED EMERGENCY LUMINAIRE, RECESSED, WHITE, NON-MAINTAINED, SELF CONTAINED, HIGH TEMPERATURE NICKEL METAL HYDRIDE BATTERIES, IP20, 80/ 140mm DIA x 26mm DEEP NOM CLASSIFICATION:- C0=D63, C90=D63 (20m SPACING @ 2.4mMH) EKTOR LEDFIRE PRO 1694 SERIES	
	E2	4.3W LED EMERGENCY LUMINAIRE, SURFACE MOUNTED, WHITE, NON-MAINTAINED, SELF CONTAINED, HIGH TEMPERATURE NICKEL METAL HYDRIDE BATTERIES, IP20, 230mmW x 230mmH x 55mm DEEP NOM CLASSIFICATION:- C0=D63, C90=D63 (20m SPACING @ 2.4mMH) EKTOR LEDFIRE PRO 1689 SERIES	
	B3/E	25W LED CIRCULAR BULKHEAD (5W EMERGENCY), SURFACE MOUNTED, WHITE FINISH, OPAL DIFFUSER, WEATHERPROOF, IP65, ABS BODY, SELF CONTAINED, NON-MAINTAINED, 1680lm, LITHIUM IRON BATTERIES, 450mm DIA x 135mm DEEP NOM CLASSIFICATION:- C0=D40, C90=D40 (17m SPACING @ 2.4mMH) EKTOR PEARL CIRCULAR PRO 018 SERIES /M INDICATES INTEGRAL MICROWAVE OCCUPANCY SENSOR	
	F2/E	2/14W FLUORESCENT EMERGENCY LUMINAIRE, WEATHERPROOF IP65, IMPACT RESISTANT, POLYCARBONATE CONSTRUCTION, REEDED DIFFUSER, NON MAINTAINED EMERGENCY POD, SELF CONTAINED, LITHIUM IRON PHOSPHATE BATTERIES, FTB, 4 YEAR WARRANTY, 1230 x 160W x 105mmH, INTEGRAL MICROWAVE MOVEMENT SENSOR (HAWKEYE) TO ACTIVATE ADJACENT LUMINAIRES (WHERE INDICATED) /M - INDICATES INTEGRAL MICROWAVE MOVEMENT SENSOR CLASSIFICATION:- C0=D63, C90=D50 (20m / 18m @ 2.4mH) CLEVERTRONICS T5N L10 OPTIMUM SERIES OR APPROVED EQUAL	
	F3/E	1/28W FLUORESCENT EMERGENCY LUMINAIRE, WEATHERPROOF IP65, IMPACT RESISTANT, POLYCARBONATE CONSTRUCTION, REEDED DIFFUSER, NON MAINTAINED EMERGENCY POD, SELF CONTAINED, LITHIUM IRON PHOSPHATE BATTERIES, FTB, 4 YEAR WARRANTY, 1330 x 160W x 105mmH, INTEGRAL MICROWAVE MOVEMENT SENSOR (HAWKEYE) TO ACTIVATE ADJACENT LUMINAIRES (WHERE INDICATED) /M - INDICATES INTEGRAL MICROWAVE MOVEMENT SENSOR CLASSIFICATION:- C0=D63, C90=D50 (20m / 18m @ 2.4mH) CLEVERTRONICS T5N L10 OPTIMUM SERIES OR APPROVED EQUAL	
	F4/E	2/28W FLUORESCENT EMERGENCY LUMINAIRE, WEATHERPROOF IP65, IMPACT RESISTANT, POLYCARBONATE CONSTRUCTION, REEDED DIFFUSER, NON MAINTAINED EMERGENCY POD, SELF CONTAINED, LITHIUM IRON PHOSPHATE BATTERIES, FTB, 4 YEAR WARRANTY, 1330 x 160W x 105mmH, INTEGRAL MICROWAVE MOVEMENT SENSOR (HAWKEYE) TO ACTIVATE ADJACENT LUMINAIRES (WHERE INDICATED) /M - INDICATES INTEGRAL MICROWAVE MOVEMENT SENSOR CLASSIFICATION:- C0=D63, C90=D50 (20m / 18m @ 2.4mH) CLEVERTRONICS T5N L10 OPTIMUM SERIES OR APPROVED EQUAL	










LEGEND - LUMINAIRES

NOTE: LAMP COLOUR TEMPERATURE SHALL BE 3000K. CONFIRM PRIOR TO ORDING LAMPS / LUMINAIRES.			
CO-ORDINATE DIMMING WITH LUMINAIRES TO ENSURE FULL COMPATIBILITY OF LUMINAIRES WITH DIMMING OPERATION. DIMMING SHALL PROVIDE 3-100% (MINIMUM) STABLE DIMMING FUNCTIONALITY. PROVIDE FILTERS TO PREVENT TRANSIENT INTERFERENCE REFLECTING IN LIGHT OUTPUT OF LUMINAIRES. WHERE ANY DISCREPANCIES OCCUR, PROVIDE NOTIFICATION & OBTAIN RESOLUTION PRIOR TO ORDERING EQUIPMENT.			
	B1	19W LED LUMINAIRE, CIRCULAR, SURFACE MOUNTED, DIE CAST ALUMINIUM BODY, WHITE FINISH, OPAL POLYCARBONATE LENS, STAINLESS STEEL FIXINGS, IP65, 970lm, 35000 HRS @ L70, INTEGRAL CONTROL GEAR, 350mm DIA x 135mm DEEP TYPE: RAYLING ELS SUMO LED SERIES OR EQUAL	
	B3	25W LED CIRCULAR BULKHEAD, SURFACE MOUNTED, WHITE FINISH, OPAL DIFFUSER, WEATHERPROOF, IP65, ABS BODY, 1680lm, 450mm DIA x 135mm DEEP EKTOR PEARL CIRCULAR TO MATCH TYPE E3 (NON EMERGENCY VERSION) /M INDICATES INTEGRAL MICROWAVE OCCUPANCY SENSOR	
	D1	12W LED DOWNLIGHT, RECESSED, WHITE TRIM, OPAL LENS, 900lm @ 3000K, 3 YEAR WARRANTY, IP44, REMOTE CONTROL GEAR, DIMMABLE (TRAILING EDGE), WIDE BEAM, 110mm DIA x 45mm DEEP NOM (90mm CUTOUT), 50000 HRS @ L70. TYPE: CARIBOU ORCA 12 OR EQUAL	
	D2	12W LED DOWNLIGHT, RECESSED, WHITE TRIM, 975lm @ 3000K, 3 YEAR WARRANTY, IP44, REMOTE CONTROL GEAR, DIMMABLE (TRAILING EDGE), WIDE BEAM, 110mm DIA x 95mm DEEP NOM (90mm CUTOUT), 50000 HRS @ L70. TYPE: CARIBOU GIMBALO 1.0 OR EQUAL	
	D3	12W LED DOWNLIGHT, RECESSED, 30° ADJUSTABLE, WHITE TRIM, 975lm @ 3000K, 3 YEAR WARRANTY, IP44, REMOTE CONTROL GEAR, DIMMABLE (TRAILING EDGE), WIDE BEAM, 110mm DIA x 95mm DEEP NOM (90mm CUTOUT), 50000 HRS @ L70. TYPE: CARIBOU GIMBALO 2.0 OR EQUAL	
	D4	4.5W LED MINIATURE DOWNLIGHT, RECESSED, ADJUSTABLE, WHITE TRIM, CLEAR LENS, 90lm, 3000K, 45° BEAM, IP20, REMOTE CONTROL GEAR, DIMMABLE, 56mm DIA x 46mm DEEP (46mm CUTOUT), 3 YEAR WARRANTY TYPE: ATOM AT9014 SERIES OR EQUAL	
	D5	7W LED DOWNLIGHT, RECESSED, WHITE TRIM, OPAL LENS, 525lm @ 3000K, 3 YEAR WARRANTY, IP44, REMOTE CONTROL GEAR, DIMMABLE (TRAILING EDGE), WIDE BEAM, 110mm DIA x 45mm DEEP NOM (90mm CUTOUT), 50000 HRS @ L70. TYPE: CARIBOU ORCA 7 OR EQUAL	


LEGEND - LUMINAIRES

	F2	2/14W FLUORESCENT LUMINAIRE, SURFACE MOUNTED, WEATHERPROOF IP65, IMPACT RESISTANT, POLYCARBONATE CONSTRUCTION, REEDED DIFFUSER, FTB, 4 YEAR WARRANTY, 655 x 160W x 105mmH, INTEGRAL MICROWAVE MOVEMENT SENSOR (HAWKEYE) TO ACTIVATE ADJACENT LUMINAIRES (WHERE INDICATED) /M - INDICATES INTEGRAL MICROWAVE MOVEMENT SENSOR TYPE: CLEVERTRONICS T5N L10 OPTIMUM SERIES OR APPROVED EQUAL	
	F3	1/28W FLUORESCENT LUMINAIRE, SURFACE MOUNTED, WEATHERPROOF IP65, IMPACT RESISTANT, POLYCARBONATE CONSTRUCTION, REEDED DIFFUSER, FTB, 4 YEAR WARRANTY, 1265 x 160W x 105mmH, INTEGRAL MICROWAVE MOVEMENT SENSOR (HAWKEYE) TO ACTIVATE ADJACENT LUMINAIRES (WHERE INDICATED) /M - INDICATES INTEGRAL MICROWAVE MOVEMENT SENSOR TYPE: CLEVERTRONICS WEATHERPROOF BATTEN TO MATCH F3/E OR APPROVED EQUAL	
	F4	2/28W FLUORESCENT LUMINAIRE, SURFACE MOUNTED, WEATHERPROOF IP65, IMPACT RESISTANT, POLYCARBONATE CONSTRUCTION, REEDED DIFFUSER, FTB, 4 YEAR WARRANTY, 1265 x 160W x 105mmH, INTEGRAL MICROWAVE MOVEMENT SENSOR (HAWKEYE) TO ACTIVATE ADJACENT LUMINAIRES (WHERE INDICATED) /M - INDICATES INTEGRAL MICROWAVE MOVEMENT SENSOR TYPE: CLEVERTRONICS WEATHERPROOF BATTEN TO MATCH F4/E OR APPROVED EQUAL	
	L1	LED STRIP LIGHTING, RECESSED, IP20, MOUNTED WITHIN JOINERY ABOVE BENCH, CONTINUOUS STRIP SITE MEASURED TO SUIT, ALUMINIUM EXTRUSION HEAT SINK TO SUIT JOINERY, REEDED DIFFUSER, 3000K, 19.2 W/m, REMOTE CONTROL GEAR, DIMMABLE 3-100%, 28mmW x 10mmH NOM TYPE: CARIBOU RAZOR MAX SERIES OR EQUAL	
	L2	LED STRIP LIGHTING, RECESSED, IP68, CONTINUOUS STRIP SITE MEASURED TO SUIT, ALUMINIUM EXTRUSION HEAT SINK TO SUIT INSTALLED LOCATION, REEDED DIFFUSER, 3000K, 9.6 W/m, REMOTE ELECTRONIC CONTROL GEAR, DIMMABLE 3-100%, 20mmW x 16mmH TYPE: CARIBOU RAZOR 3 SERIES OR EQUAL	
	L3	LED STRIP LIGHTING, IP20, MOUNTED WITHIN JOINERY, INDIVIDUAL LENGTHS SITE MEASURED TO SUIT, ALUMINIUM EXTRUSION HEAT SINK TO SUIT JOINERY, LIAISE WITH JOINERY FABRICATOR TO INTEGRATE INTO JOINERY CONCEALED FROM VIEW, REEDED DIFFUSER, 3000K, 9.6 W/m, REMOTE CONTROL GEAR, DIMMABLE 3-100%, 28mmW x 10mmH NOM SUBJECT TO EXTRUSION TYPE TYPE: CARIBOU RAZOR SERIES OR EQUAL	
	L4	LED STRIP LIGHTING, IP20, MOUNTED WITHIN ROBES BENEATH OVERHEAD SHELF, CONTINUOUS LENGTH SITE MEASURED TO SUIT, ALUMINIUM EXTRUSION HEAT SINK TO SUIT, CONCEAL FROM VIEW, REEDED DIFFUSER, 3000K, 9.6 W/m, REMOTE CONTROL GEAR, 16mmW x 16mmH QUADRANT NOM SUBJECT TO EXTRUSION TYPE TYPE: CARIBOU RAZOR SERIES OR EQUAL	
	P1	10W LED PENDANT, TIMBER TRIM, WHITE SHADE & CEILING ROSE, WHITE FLEXIBLE LEAD, SUSPEND TO 1800mm (CONFIRM ON SITE TO APPROVAL), E27 BASE GLS REPLACEMENT DIMMABLE LED LAMP, 350mm DIA x 300mmH NOM TYPE: FAT SHACK VINTAGE OSLO	
	S1	6W LED READING LIGHT, WHITE FINISH, FROSTED GLASS SHROUD, WALL MOUNTED AT 1500mm NOM, REMOTE ELECTRONIC CONTROL GEAR, 3000K 250lm LED LAMP. TYPE:- GAMMA ILLUMINATION SATELLITE SERIES OR EQUAL	
	SP1	6W LED GARDEN SPIKE LIGHT, FULL ROTATE & TILT, POWDERCOAT BLACK FINISH, ALUMINIUM CONSTRUCTION, IP65, 850mm "RETRO" POST WITH INTEGRAL ELECTRONIC CONTROL GEAR (CO-ORDINATE CONTROL GEAR ARRANGEMENTS ON SITE TO MANUFACTURER'S RECOMMENDATIONS), GU10 LED LAMP, 60° BEAM, 250lm @ 3000K, CONFIRM FINAL NUMBER & LOCATIONS TO APPROVAL FOLLOWING ON SITE LIGHTING TESTS TYPE: HUNZA BORDERLITE SERIES OR EQUAL	
	SP2	2x 6W LED TWIN HEAD GARDEN SPIKE LIGHT, FULL ROTATE & TILT, POWDERCOAT BLACK FINISH, ALUMINIUM CONSTRUCTION, IP65, 850mm "RETRO" POST WITH INTEGRAL ELECTRONIC CONTROL GEAR (CO-ORDINATE CONTROL GEAR ARRANGEMENTS ON SITE TO MANUFACTURER'S RECOMMENDATIONS), GU10 LED LAMP, 600 BEAM, 2x 250lm @ 3000K, CONFIRM FINAL NUMBER & LOCATIONS TO APPROVAL FOLLOWING ON SITE LIGHTING TESTS TYPE: HUNZA BORDERLITE TWIN SERIES OR EQUAL	
	W1	18W LED UP/DOWN WALL LIGHT, WHITE FINISH, INTEGRAL DIMMABLE ELECTRONIC CONTROL GEAR, 3000K, 1650lm, 530mm W x 80mm H x 100mm DEEP, 120° DISTRIBUTION, MOUNT AT 2800mm NOM UNO (CONFIRM ON SITE PRIOR TO INSTALLATION) TYPE: COUGAR LIGHTING PENTAX SERIES OR EQUAL	
	W2	12W LED UP/DOWN WALL LIGHT, WHITE FINISH, INTEGRAL DIMMABLE ELECTRONIC CONTROL GEAR, 3000K, 1100lm, 365mm W x 80mm H x 100mm DEEP, 120° DISTRIBUTION, MOUNT AT 2800mm NOM UNO (CONFIRM ON SITE PRIOR TO INSTALLATION) TYPE: COUGAR LIGHTING PENTAX SERIES OR EQUAL	
	W3	14W LED WALL LIGHT, SURFACE MOUNTED, WHITE POWDERCOAT FINISH, DIE CAST ALUMINIUM BODY, CLEAR IMPACT RESISTANT GALLS LENS, 1100lm, 3000K, IP65, INTEGRAL CONTROL GEAR, WIDE BEAM, 113mm W x 160mm H x 60mm DEEP NOM, 50000 HRS @ L70. TYPE: LIGMAN MATRIX 4 SERIES OR EQUAL	
	W4	4W LED WALL LIGHT, FLUSH MOUNTED, SILVER POWDERCOAT FINISH (CONFIRM PRIOR TO ORDER), DIE CAST ALUMINIUM BODY, 124lm, 3000K, IP65, INTEGRAL CONTROL GEAR, 100mm W x 155mm H x 135mm DEEP NOM, 50000 HRS @ L70. TYPE: LIGMAN RADO 1 SERIES OR EQUAL	
	W5	13.5W LED WALL MOUNTED BULKHEAD, SURFACE MOUNTED, WHITE FINISH, OPAL DIFFUSER, WHITE GRILLE, ASYMMETRIC DISTRIBUTION, WEATHERPROOF, IP55, ABS BODY, 912lm, 310mmW x 185mmH x 145mm DEEP TYPE: PIL PRISMA CHIP OVALE 30 LED GRILLE SERIES OR EQUAL	
	W6	3W LED NIGHTLIGHT, FLUSH MOUNTED, WHITE FINISH, DIE CAST ALUMINIUM BODY, 180lm, 3000K, IP20, DEDICATED CONTROL GEAR, 60mm DIA FACE x 35mm DEEP NOM, 50000 HRS @ L70. TYPE: HAVIT HV3204 SERIES OR EQUAL	
	CF1	CEILING FAN, 1350mm DIA, WHITE FINISH, POLYMER BLADES, CATHEDRAL MOUNT, EXTENSION RODS TO SUIT, MOUNT AT 2100mm MIN CLEAR (TO BE DETERMINED ON SITE TO APPROVAL), COROSION RESISTANT CONSTRUCTION, LOW NOISE, SUITABLE FOR EXTERNAL COASTAL USE, 6 YEAR WARRANTY TYPE:- NOOSA LIGHTING SPYDA SERIES	
	CF2	CEILING FAN, 1350mm DIA, WHITE FINISH, CATHEDRAL MOUNT, EXTENSION RODS TO SUIT, MOUNT AT 2100mm CLEAR (TO BE DETERMINED ON SITE TO APPROVAL), DIE CAST ALUMINIUM BODY, PLYWOOD BLADES, 3 SPEED CONTROLLER INTEGRATED INTO SWITCHPLATE TO MATCH APARTMENT ACCESSORIES, SUITABLE FOR INTERNAL COASTAL USE, REMOTE CONTROLLER, 3 YEAR WARRANTY TYPE: HUNTER PACIFIC INTERCEPT SERIES	















LEGEND - SWITCHING

	LIGHT SWITCH, 15A FLUORESCENT MECHANISM ROT : INDICATES RUN ON TIMER SET AT 10 MINUTES, FOR EXHAUST FAN
	LIGHT SWITCH, 2 WAY OR INTERMEDIATE, 15A FLUORESCENT MECHANISM
	LIGHT SWITCH, DOUBLE POLE
	LIGHT SWITCH, DIMMER CONTROL
	LIGHT SWITCH, 2 WAY OR INTERMEDIATE DIMMER CONTROL
	CEILING FAN CONTROLLER
	OCCUPANCY / DAYLIGHT SENSOR, 300° OCCUPANCY SENSOR WITH ADJUSTABLE ZONES, IP54 WEATHERPROOF, PIR DETECTION, WALL, CORNER OR CEILING MOUNT TO SUIT, 20m NOM RANGE TYPE: CLIPSAL 757 SERIES INFRASCAN OR EQUAL
	OCCUPANCY / DAYLIGHT SENSOR, 360° OCCUPANCY SENSOR, COMBINED PIR AND MICROWAVE DETECTION, SWITCH ACTION, LOCAL GROUP, 6.4m OVAL OCCUPANCY ZONE, 5m TOWARD, 24m ACROSS MOVEMENT ZONE, WHITE FINISH TYPE: BEG PD4 SERIES
	PHOTO-ELECTRIC DAYLIGHT SENSOR, ADJUSTABLE SETTINGS FOR SWITCH ON & SWITCH OFF, INITIAL SETTING 80 LUX ON : 200 LUX OFF, FINAL SELECTION TO APPROVAL







LEGEND - SECURITY SERVICES

	ELECTRIC STRIKE, SUPPLIED & INSTALLED BY BUILDING TRADES, CONNECT TO INTERCOM SYSTEM FOR REMOTE GATE & DOOR RELEASE
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LEGEND - FIRE SERVICES

	FIRE DETECTION & ALARM SYSTEM SHALL BE A COMPLETE SYSTEM WITH ALL COMPONENTS COMPATIBLE WITH SSL APPROVALS. TYPES NOMINATED ARE PREFERRED MANUFACTURE. ALTERNATIVE SYSTEMS MAY BE PERMITTED TO APPROVAL INCLUDING ADDRESSABLE SYSTEMS.
	FIRE INDICATOR PANEL (FIP), CONVENTIONAL, INTEGRAL MANUAL CALL POINT, BRIGADE CONNECTION FACILITY, 230V FIRE RATED POWER SUPPLY FROM MSB, OCCUPANT WARNING SYSTEM (OWS), FIRE FAN CONTROL CENTRE, MINIMUM 20% SPARE CAPACITY TO EACH AMPLIFIER, ZONING TO AS1670 WITH SEPARATE ZONE FOR CARPARK AS A MINIMUM, OFES KEY LOCKS, SIGNAGE TO AS1670, 24 HOUR MIN BATTERY BACKUP, ABS CABINET, REFER TO SCHEMATICS FOR ADDITIONAL DETAILS
	SMOKE DETECTOR, CONVENTIONAL, PHOTO-ELECTRIC (OTHER TYPES IN ACCORDANCE WITH AS/NZS1670 TO SUIT APPLICATION BY EXCEPTION), 100mm DIA x 46mm DEEP NOM LIFT: MOUNT DETECTOR WITHIN 1.5m OF LIFT OPENING LIFT SHAFT: MOUNT DETECTOR IN LIFT SHAFT WITH REMOTE INDICATOR IN LOBBY, CONNECT TO SEPARATE ALARM ZONE (OR SEPARATELY ADDRESSABLE) DETECTOR FOR MSB CUPBOARD WITH REMOTE INDICATION OR SEPARATE ALARM ZONE, NOT REQUIRED WHERE MSB IS WITHIN AN OPEN PROTECTED SPACE TYPE: AMPAC ORBIS SERIES
	SMOKE DETECTOR, CONCEALED SPACE, CONVENTIONAL, PHOTO-ELECTRIC (OTHER TYPES IN ACCORDANCE WITH AS/NZS1670 TO SUIT APPLICATION BY EXCEPTION), REMOTE INDICATION LIFT: AMPAC ORBIS SERIES
	THERMAL DETECTOR, CONVENTIONAL, TYPE TO SUIT APPLICATION, 100mm DIA x 46mm DEEP NOM TYPE: AMPAC ORBIS SERIES
	THERMAL DETECTOR, CONCEALED SPACE, CONVENTIONAL, TYPE TO SUIT APPLICATION, REMOTE INDICATION, 450x350mm ACCESS PANEL REQUIRED (BY BUILDING TRADES) TYPE: AMPAC ORBIS SERIES
	REMOTE LED INDICATOR, WALL MOUNTED WITH APPROPRIATE WORDING TO APPROVAL
	MANUAL CALL POINT, CONVENTIONAL, RED HIGH IMPACT PLASTIC, KEY RE-SETTABLE (NON-BREAKING GLASS), FLUSH MOUNTED (90 x 90 x 16mm PROUD) WHERE PRACTICABLE INTERNALLY, SURFACE MOUNTED ELSEWHERE (90 x 90 x 54mm PROUD), IP44 INTERIOR USE, IP65 EXTERIOR USE TYPE: INDOOR - AMPAC FP2 SERIES OUTDOOR - AMPAC WEATHERPROOF SERIES
	OWS SPEAKER, SOUND LEVEL 85dB(A) @ 1m, SPEECH CAPABLE, 100V, MULTI-TAP FOR ADJUSTABLE VOLUME CONTROL, FLUSH 150mm WHITE GRILLE FOR CAVITY CEILINGS (120mm DEEP), CIRCULAR SURFACE MOUNT ELSEWHERE (220mm DIA x 65mm DEEP), CAPACITOR END OF LINE (EOL) DEVICE TYPE: AMPAC 100mm SERIES OR APPROVED EQUAL
	OWS SPEAKER FOR SOU, SOUND LEVEL 100dB(A) @ 1m, SPEECH CAPABLE, 100V, MULTI-TAP FOR ADJUSTABLE VOLUME CONTROL, FLUSH 150mm WHITE GRILLE FOR CAVITY CEILINGS (120mm DEEP), CIRCULAR SURFACE MOUNT ELSEWHERE (220mm DIA x 65mm DEEP), CAPACITOR EOL DEVICE TYPE: AMPAC 100mm SERIES
	HORN SPEAKER, HIGH SPL PERFORMANCE, UV STABILISED ABS, SURFACE MOUNTED, IP66, CLEAR SPEECH CAPABLE, 100V, ADJUSTABLE MULTI-TAP VOLUME CONTROL, 10W or 20W SELECTION TO ACHIEVE AS1670 & BCA SOUND LEVEL REQUIREMENTS, CO-ORDINATE LOCATIONS WITH VEHICLE CLEARANCES IN CARPARKS TYPE: AMPAC HIGH EFFICIENCY 218 SERIES
	VISUAL AUDIBLE FIRE ALARM TO AS1670, RED STROBE, VARIABLE VOLUME SETTINGS, WEATHERPROOF, INDELIBE SIGNAGE WITH WORDING "FIRE", FINAL LOCATION TO APPROVAL TYPE: AMPAC VANTAGE COMBI SERIES
	SMOKE ALARM TO AS3786, 240vac, PHOTO-ELECTRIC, SURFACE MOUNTED TYPE: BROOKS TL SERIES WITH ACKNOWLEDGEMENT FACILITY
	ALARM ACKNOWLEDGEMENT PUSHBUTTON (MUTES FIRE ALARMS FOR 30 SECONDS WITHIN RESPECTIVE SOU WHEN PRESSED), LOCATE, SILENCE, TEST FUNCTIONS TYPE: BROOKS BAATLS SERIES TO SUIT SMOKE ALARMS


LEGEND - POWER

	10A SWITCHED SOCKET OUTLET (SSO), SINGLE
	10A SWITCHED SOCKET OUTLET (SSO), DOUBLE
	SINGLE SWITCHED SOCKET OUTLET, PENDANT TYPE WITH MATCHING CAPTIVE PLUG, RATING AS NOTED, ALLOW TO CHANGE POWER RAIL PLUG-TOP TO SUIT (IF REQUIRED), PROVIDE STAINLESS STEEL SUSPENSION WIRE & BRACING & SUPPORT WITHIN CEILING SPACE AS REQUIRED ZONE, SUSPEND TO HEIGHT TO SUIT ICT EQUIPMENT RACK
	PERMANENT CONNECTION, SINGLE PHASE, PROVIDE ISOLATOR & FLEXIBLE CONNECTION TO EQUIPMENT.ALLOW TO CONNECT
	PERMANENT CONNECTION, 3 PHASE, PROVIDE ISOLATOR & FLEXIBLE CONNECTION TO EQUIPMENT.ALLOW TO CONNECT
	POWER SUPPLY FOR BATHROOM / TOILET / LAUNDRY EXHAUST SYSTEM, 1 PHASE, CONNECT TO LIGHTING CIRCUIT, PROVIDE DELAY RUN-ON TIMER WITH PARALLEL OPERATION WITH ALL ROOMS SERVED BY THE EXHAUST FAN (USE DOUBLE POLE SWITCH AS APPROPRIATE), LIAISE WITH MECHANICAL INSTALLER FOR EXACT LOCATIONS & REQUIREMENTS









LEGEND - ICT

	NBN EQUIPMENT, ENTRANCE ROOM
	LOCAL DISTRIBUTOR, REFER DRAWING E850 FOR ADDITIONAL DETAIL
	MATV EQUIPMENT, PAY & FTA, INSTALLATION & DESIGN COMPLIANT WITH FOXTEL AS REQUIRED
	FOXTEL EQUIPMENT, INSTALLATION & DESIGN TO FOXTEL APPROVAL
	DATA OUTLET CONNECTED TO LOCAL DISTRIBUTOR PATCH PANEL (x2 INDICATES DOUBLE OUTLET, NUMBERS INDICATE QUANTITY OF SOCKETS AT OUTLETS)
	VOICE OUTLET CONNECTED TO PATCH PANEL (x2 INDICATES DOUBLE OUTLET, NUMBERS INDICATE QUANTITY OF SOCKETS AT OUTLETS)
	INTERCOM STATION, REFER DRAWING E800 FOR ADDITIONAL DETAIL
	MASTER INTERCOM STATION, REFER DRAWING E800 FOR ADDITIONAL DETAIL
	MATV OUTLET (FREE TO AIR)
	MATV OUTLET PAY TV & FREE TO AIR (WITH DATA OUTLETS)
	FOXTEL SATELLITE DISH, LIAISE WITH BUILDING TRADES FOR ALL STRUCTURAL SUPPORT BRACING, PROTECT CABLEING FROM WEATHER
	MATV ANTENNA

LEGEND - AV

	LIAISE WITH AV INSTALLER FOR EXACT LOCATIONS & REQUIREMENTS PRIOR TO ORDERING OR INSTALLING CABLING / EQUIPMENT. LABEL BOTH ENDS OF ALL CABLING FOR IDENTIFICATION. SEGREGATE CABLING FROM ALL OTHER SERVICES (1500mm MIN SEPARATION)
	FUTURE AV CONNECTION POINT, BLANK PLATE WITH WALL BOX / CAVITY BEHIND, SPEAKER CABLES FROM SPEAKER LOCATIONS WITHIN WALL BOX / CAVITY FOR FUTURE CONNECTION BY AV INSTALLER. LEAVE 1m COILED TAILS IN CAVITY OR 1m SLACK IN CEILING SPACE TO ENABLE FUTURE DRAW THOUGH
	FUTURE AV SPEAKER LOCATION, PROVIDE 1m COILED TAILS IN CEILING SPACE. IDENTIFY EXACT LOCATION ON AS CONSTRUCTED PLANS FOR FUTURE RETRIEVAL, LIAISE WITH BUILDING TRADES TO PROVIDE 300mm UNOBSCTURED SPACE FOR FUTURE SPEAKER INSTALLATION

LEGEND - RETICULATION

	PROPERTY POLE WITH POINT OF CONNECTION, INTERNAL CABLING (LOOP ENTRY TO PREVENT WATER INGRESS), HOT DIP GALVANISED, BLACK MARINE GRADE PAINT FINISH, STAINLESS STEEL RAG-BOLT ASSEMBLY, CONCRETE FOUNDATIONS SUITABLE FOR TERRAIN (REFER GEOTECH REPORT), POLE & FOUNDATIONS CERTIFIED BY STRUCTURAL/CIVIL ENGINEER
	ELECTRICAL SERVICES SWITCHBOARD
	ELECTRICAL SERVICES METER PANEL
	MECHANICAL SERVICES SWITCHBOARD
	POWER SERVICES CONDUITS
	COMMUNICATIONS SERVICES CONDUITS
	POWER SERVICES CABLE LADDER / TRAY
	ICT SERVICES CABLE BASKET / TRAY

ACCESSORIES

ACCESSORY TYPES & MANUFACTURE SHALL BE CONFIRMED PRIOR TO PURCHASE, & SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE (ALSO REFER UNIT 5 ACCESSORY SCHEDULE):	
SSOs, LIGHT SWITCHES, DATA FACEPLATES: CLIPSAL C2000 CLASSIC RANGE, WHITE BODY WITH METAL COVERS, TYPE TO BE CONFIRMED PRIOR TO ORDER	



PROJECT NOTES		SERVICES NOTES	
<b>CONDITIONS OF TENDER</b>		<b>CROSS REFERENCE</b>	
1. <b>CONTRACT-</b> REFER TO HEAD CONTRACT FOR FULL CONTRACT CONDITIONS AND DETAILS. WHERE NO OTHER CONTRACT CONDITIONS EXIST, THE GENERAL CONDITIONS OF CONTRACT AS PER AS4000 SHALL APPLY.		1. <b>PROJECT NOTES-</b> SERVICES NOTES SHALL BE READ IN CONJUNCTION WITH PROJECT NOTES & PROVIDES MORE SPECIFIC INFORMATION ON THE MINIMUM OVERALL REQUIREMENTS.	
2. <b>DISCREPANCIES &amp; CONFLICTS-</b> ANY DISCREPANCIES OR CONFLICTS WITHIN THE DOCUMENTATION (INCLUDING GUIDELINES & STANDARDS) SHALL BE RESOLVED PRIOR TO TENDER, OR WHERE NOT RESOLVED THE MORE ONEROUS SHALL APPLY.		<b>GENERAL SCOPE</b>	
3. <b>CONFORMING TENDER-</b> SUBMIT A CONFORMING TENDER. NON-CONFORMING TENDERS MAY BE REJECTED WITHOUT FURTHER CONSIDERATION. A NON-CONFORMING TENDER MAY BE SUBMITTED IN ADDITION TO THE CONFORMING TENDER WHERE DEPARTURES & ALTERNATIVES ARE ITEMISED WITH ASSOCIATED COSTS & TECHNICAL DETAILS SUFFICIENT FOR TECHNICAL & FINANCIAL COMPARISON. ALTERNATE PRICING SHALL INCLUDE ALL ASSOCIATED TRADE & BUILDING WORKS REQUIRED FOR THE ALTERNATE TO BE USED. PRICING & TECHNICAL SCHEDULES SHALL BE COMPLETE IN ALL RESPECTS. WHERE SCHEDULES ARE NOT PROVIDED, SUBMIT A TENDER PRICE BREAK-DOWN SCHEDULING MAJOR COMPONENTS IN THE TENDER.		2. <b>SCOPE OF WORKS-</b> THE WORKS CONSIST OF ELECTRICAL, ICT, FIRE DETECTION SERVICES FOR A NEW UNIT DEVELOPMENT. PROVIDE ALL ELECTRICAL SERVICES AS REQUIRED FOR A COMPLETE, SAFE & FULLY OPERATIONAL INSTALLATION. WORKS INCLUDE, BUT ARE NOT LIMITED TO: <ul style="list-style-type: none"> <li>- PROPERTY POLE &amp; CONSUMERS MAINS</li> <li>- MAIN SWITCHBOARD (MSB) &amp; SUPPLY AUTHORITY METERING PANEL</li> <li>- LOCAL SWITCHBOARDS &amp; SUBMAIN RETICULATION</li> <li>- GENERAL &amp; SPECIAL PURPOSE POWER</li> <li>- ARTIFICIAL LIGHTING &amp; EMERGENCY &amp; EXIT LIGHTING</li> <li>- EARTHING &amp; EQUIPOTENTIAL BONDING</li> <li>- TELECOMMUNICATIONS LEAD-IN PATHWAYS (NBN)</li> <li>- MATV SYSTEM - FREE TO AIR (FTA) &amp; PAY TV RETICULATION;</li> <li>- INTERCOM SYSTEM WITH REMOTE DOOR RELEASE</li> <li>- FIRE DETECTION &amp; ALARM SYSTEM</li> <li>- UNDERGROUND RETICULATION SYSTEMS INCLUDING PIT &amp; PIPE, TRENCHING, BACKFILL, COMPACTION</li> <li>- DETAILED LIAISON &amp; CO-ORDINATION WITH ALL AUTHORITIES &amp; TRADES</li> <li>- ALL AUTHORITY SUBMISSIONS, INSPECTIONS, APPROVALS &amp; CERTIFICATIONS INCLUDING LOCAL COUNCIL, SERVICES &amp; UTILITY PROVIDERS</li> <li>- TESTING, COMMISSIONING &amp; DEMONSTRATING PERFORMANCE OF ALL SYSTEMS</li> <li>- ALL ASSOCIATED WORKS FOR A COMPLETE &amp; OPERATIONAL INSTALLATION</li> </ul>	
4. <b>SUB-CONTRACTORS / INSTALLERS-</b> ALL SUB-CONTRACTORS & THEIR RESPECTIVE EXTENT OF WORK SHALL BE NOMINATED WITHIN THE TENDER, WHERE PREFERRED INSTALLERS ARE IDENTIFIED. ALTERNATE PRICING MAY BE OBTAINED & SUBMITTED AS AN ALTERNATE IN ADDITION TO THE CONFORMING TENDER. ALTERNATE INSTALLERS TO NOMINATED INSTALLERS WILL NOT BE ACCEPTED. FINAL DECISIONS REMAIN WITH THE PRINCIPAL. WRITTEN APPROVAL SHALL BE OBTAINED PRIOR TO ENGAGEMENT.		<b>ASSOCIATED WORKS</b>	
5. <b>FEES &amp; CHARGES-</b> PAY ALL FEES, CHARGES, LEVIES & THE LIKE ASSOCIATED WITH THE WORKS INCLUDING BUT NOT LIMITED TO AUTHORITY SUBMISSIONS, REVIEWS, OBTAINING APPROVALS, CERTIFICATION, ENGINEERING & INSPECTIONS UNLESS SPECIFICALLY NOTED OTHERWISE. ORGANISE & PAY ALL COSTS FOR CONFIRMATION, TESTING & INVESTIGATION REQUIRED FOR DETERMINING EXISTING CONDITIONS & SUITABILITY FOR ADDITIONS & MODIFICATIONS INCLUDING CONNECTIONS TO INFRA-STRUCTURE & UTILITIES. COMPLETE ALL SUBMISSIONS, RECORDS, APPROVALS & THE LIKE INTO THE O&M MANUALS.		3. <b>ASSOCIATED WORKS-</b> ALL WORKS REQUIRED FOR A COMPLETE & OPERATIONAL INSTALLATION SHALL BE INCLUDED UNLESS SPECIFICALLY NOTED HEREIN TO BE CARRIED OUT BY OTHER TRADES AS ASSOCIATED WORKS. ASSOCIATED WORKS INCLUDE: <ul style="list-style-type: none"> <li>- FIRE EXTINGUISHERS &amp; BLANKETS</li> <li>- ROLLER SHUTTER DOOR CONTROLS</li> <li>- SWIMMING POOL &amp; SPA CONTROLS</li> </ul>	
6. <b>DOCUMENTS-</b> DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ASSOCIATED DOCUMENTATION FOR THE PROJECT INCLUDING ARCHITECTURAL, JOINERY, CIVIL, STRUCTURAL, SERVICES & REFERENCE DRAWINGS. CO-ORDINATE FULLY ON & OFF SITE. ALLOW FOR ALL ASSOCIATED & INCIDENTAL WORKS INCLUDING THOSE REQUIRED FOR ALTERATIONS TO SERVICES FOR CO-ORDINATION PURPOSES.		<b>GENERAL REQUIREMENTS</b>	
7. <b>SITE INSPECTION-</b> PRIOR TO SUBMISSION OF QUOTATION, CARRY OUT A SITE INSPECTION TO DETERMINE ALL NECESSARY WORKS, ALLOWANCES FOR ACCESS & CONDITIONS, & INCIDENTAL WORKS REQUIRED TO PROVIDE A FULLY FUNCTIONAL & COMPLIANT INSTALLATION. SEEK CLARIFICATION OF ANY ANOMALIES. NO ADDITIONAL COSTS WILL BE DUE THROUGH FAILURE TO CONDUCT INSPECTIONS OR LACK OF DUE DILIGENCE.		4. <b>CONFIRMATION OF LOADS-</b> OBTAIN & CONFIRM CONNECTION & LOAD DETAILS FOR ALL ITEMS OF EQUIPMENT PRIOR TO COMMENCING INSTALLATION. VERIFY RETICULATION CAPACITY, RATINGS & POWER CHARACTERISTICS & MODIFY THE ELECTRICAL INSTALLATION TO SUIT WHERE REQUIRED. MATCH PROTECTIVE DEVICE SELECTIONS WITH EQUIPMENT CHARACTERISTICS.	
<b>GENERAL REQUIREMENTS</b>		5. <b>PROTECTION &amp; DISCRIMINATION-</b> OBTAIN & VERIFY PLANT & EQUIPMENT ELECTRICAL FAULT LEVEL RATING, DISTRIBUTION & PROTECTION SYSTEMS INFORMATION. REVIEW WHOLE OF ELECTRICAL INSTALLATION FAULT LEVEL PROTECTION & DISCRIMINATION SYSTEM. LIAISE WITH OTHER TRADES TO ADDRESS ANOMALIES. INCLUDE FINAL ANALYSIS IN O&M DOCUMENTS.	
8. <b>CROSS REFERENCE-</b> PROJECT NOTES SHALL BE READ IN CONJUNCTION WITH TRADE SPECIFIC NOTES & PROVIDES THE MINIMUM OVERALL REQUIREMENTS. WHERE CONFLICTS ARISE, THE MORE ONEROUS REQUIREMENTS TAKE PRECEDENCE. SEEK CLARIFICATION PRIOR TO ORDERING MATERIALS OR COMMENCING INSTALLATION.		6. <b>RCDs-</b> ALL GENERAL POWER & LIGHTING CIRCUITS SHALL BE RCD PROTECTED TO AS3000 COMPLIANCE. WHERE THIS IS NOT PRACTICABLE DUE TO EQUIPMENT CHARACTERISTICS, APPROPRIATE ALTERNATE PROTECTION SOLUTION SHALL BE PROVIDED. OUTLETS NOT PROTECTED BY RCD SHALL BE LABELLED IN ACCORDANCE WITH THE REQUIREMENTS OF AS3000. RCDs shall be 30mA type GENERALY.	
9. <b>NOMENCLATURE-</b> UNLESS THE CONTEXT OTHERWISE REQUIRES, DEFINITIONS MEAN: <ul style="list-style-type: none"> <li>• <b>SUPPLY</b> - : SUPPLY ONLY</li> <li>• <b>PROVIDE</b> - : SUPPLY &amp; INSTALL</li> <li>• <b>TO APPROVAL</b> - : APPROVED IN WRITING BY THE PRINCIPAL OR PRINCIPAL'S REPRESENTATIVE (IN ADDITION TO ANY STATUTORY OR LEGAL REQUIREMENTS</li> </ul>		7. <b>LOAD BALANCE-</b> AT COMPLETION OF WORK, CARRY OUT A LOAD BALANCE AT EACH SWITCHBOARD. LOADS ACROSS PHASES SHALL BE BALANCED WITHIN 10%. CONDUCT A FURTHER LOAD BALANCE AT FULL OCCUPANCY & OPERATIONAL CAPACITY (WITHIN 3 MONTHS OF PRACTICAL COMPLETION).	
11. <b>COMPLIANCE-</b> REFERENCE DOCUMENTS SHALL BE CURRENT EDITIONS WITH AMENDMENTS IN FORCE 3 MONTHS PRIOR TO CLOSING DATE OF TENDERS UNLESS REQUIRED OTHERWISE. PROVIDE ALL WORKS & MODIFICATIONS AS REQUIRED FOR A COMPLIANT, FIT-FOR-PURPOSE, SAFE, FULLY FUNCTIONAL & OPERATIONAL INSTALLATION. ALL WORKS SHALL BE PERFORMED TO BEST TRADE PRACTICE AND SHALL COMPLY WITH ALL APPLICABLE CODES & STANDARDS INCLUDING BUT NOT LIMITED TO (AS A MINIMUM); <ul style="list-style-type: none"> <li>• NATIONAL CONSTRUCTION CODE OF AUSTRALIA (BCA / NCC)</li> <li>• FIRE ENGINEERING REPORTS OR ALTERNATE SOLUTIONS WHERE APPLICABLE</li> <li>• TELECOMMUNICATIONS ACT (COMMONWEALTH) &amp; AMCA REQUIREMENTS;</li> <li>• AUSTRALIAN RADIATION PROTECTION &amp; NUCLEAR SAFETY AGENCY REQUIREMENTS</li> <li>• INTERNATIONAL COMMISSION ON NON-IONISING RADIATION PROTECTION GUIDELINES</li> <li>• ELECTRICAL SAFETY ACT, REGULATIONS &amp; CODES OF PRACTICE</li> <li>• ELECTRICITY ACT, REGULATIONS &amp; INDUSTRY CODES</li> <li>• ELECTRICITY AUTHORITY SERVICE AND INSTALLATION RULES</li> <li>• UTILITY, AUTHORITY &amp; SERVICES PROVIDER REGULATIONS &amp; REQUIREMENTS</li> <li>• GOVERNMENT GAZETTE /TARIFFS</li> <li>• FIRE &amp; EMERGENCY SERVICES</li> <li>• LOCAL GOVERNMENT &amp; AUTHORITY REGULATIONS &amp; REQUIREMENTS</li> <li>• DISABILITY (ACCESS TO PREMISES- BUILDINGS) STANDARD</li> <li>• AS 1428.1 - DESIGN FOR ACCESS &amp; MOBILITY</li> <li>• AS 3000 - WIRING RULES</li> <li>• FEDERAL &amp; STATE CODES OF PRACTICE</li> <li>• RELEVANT AUSTRALIAN STANDARDS</li> <li>• AUTHORITIES HAVING JURISDICTION</li> <li>• ADDITIONAL STANDARDS &amp; GUIDELINES AS LISTED IN THE SCHEDULE OF REFERENCE DOCUMENTS</li> </ul>		8. <b>CIRCUIT CONFIGURATIONS &amp; LOADING-</b> MAINTAIN DIVERSITY OF LOADS TO ELIMINATE NUISANCE RCD OPERATION. PROVIDE LABELLING TO INDICATE FUNCTION. WHERE CIRCUITING IS NOT DESIGNATED, MAXIMUM CIRCUIT LOADING / QUANTITIES SHALL BE AS FOLLOWS: <ul style="list-style-type: none"> <li>- 1500VA for LIGHTING SUB-CIRCUITS</li> <li>- 14x 10A SWITCH SOCKET OUTLETS (SSOs)- DOUBLE SSOs COUNT AS 2 OUTLETS)</li> <li>- 1x SSO WITH A RATING ABOVE 10A</li> <li>- 4x 10A DOUBLE SSOs - SECURITY</li> <li>- 2x 10A DOUBLE SSOs - KITCHEN OUTLETS</li> <li>- 1x OUTLET - BWU</li> <li>- 2x HAND DRIERS</li> </ul>	
12. <b>FIT FOR PURPOSE-</b> THE FINAL INSTALLATION SHALL BE FIT FOR PURPOSE. ALL INCIDENTAL WORKS, EQUIPMENT, MATERIALS & LABOUR, WHETHER SPECIFICALLY MENTIONED OR NOT, REQUIRED TO FORM A FIT-FOR-PURPOSE, SAFE, COMPLIANT, FUNCTIONAL, PROPER & COMPLETE, MAINTAINABLE SOLUTION TO MEET SPECIFIED REQUIREMENTS (AS A MINIMUM) SHALL BE INCLUDED.		9. <b>CIRCUITS SHALL BE DEDICATED TO LIGHTING OR POWER CIRCUITS. PROVIDE DEDICATED SUB-CIRCUITS FOR THE FOLLOWING AS A MINIMUM:</b> <ul style="list-style-type: none"> <li>- SECURITY SERVICES</li> <li>- AV SERVICES (WITH ALL SUB-CIRCUITS ORIGINATING ON THE SAME PHASE)</li> <li>- ICT RACKS OR CABINETS</li> <li>- HOT WATER UNIT</li> <li>- CLEANER'S OUTLETS</li> <li>- BOILING WATER UNIT (BWU)</li> </ul>	
13. <b>LICENCE-</b> ONLY APPROPRIATELY LICENSED FIRMS & TRADESPERSON SHALL BE ENGAGED / EMPLOYED ON WORK INCLUDING THAT FOR WHICH ANY AUTHORITY HAVING JURISDICTION REQUIRES THE WORK TO BE CARRIED OUT BY LICENSED TRADESPEOPLE WITH PARTICULAR CERTIFICATION & QUALIFICATIONS.		10. <b>LABELLING OF ACCESSORIES-</b> ALL OUTLETS SHALL BE LABELLED WITH BROTHER P-TOUCH OR APPROVED EQUAL AS A MINIMUM. LOCATE LABELS IN A VISIBLE & LEGIBLE POSITION EXCEPT WITHIN UNITS WHERE DESIGNATIONS SHALL BE HIDDEN BEHIND FACIAPETATES, UNLESS NOTED OTHERWISE. WHERE LABELLING IS IN ADVERSE LOCATIONS, PROVIDE SUITABLE LABELLING WITH TYPE TO APPROVAL.	
14. <b>WORKMANSHIP-</b> SHALL BE OF A HIGH STANDARD THROUGH-OUT AS ACCEPTED BY RESPECTIVE SPECIALIST TRADES & TO APPROVAL. ONLY FIRST CLASS COMPETENT & RELEVANT EXPERIENCED TRADESPERSON SHALL BE EMPLOYED ON WORK IN THEIR RESPECTIVE TRADES. WHERE THE PRINCIPAL CONSIDERS WORKMANSHIP IS NOT SUFFICIENT, CO-ORDINATE WITH THE PRINCIPAL TO OBTAIN APPROVAL. ALL MATERIALS, EQUIPMENT, COMPONENTS OR THE LIKE ARE INFERIOR OR DEFICIENT IN QUATY TO THAT SPECIFIED, THE PRINCIPAL MAY GIVE NOTICE IN WRITING SETTING FORTH THE DEFECT OR DEFICIENCY TO BE RECTIFIED. RECTIFICATION SHALL BE AT NO COST TO THE PRINCIPAL.		11. <b>LIGHTING CONTROL SYSTEM-</b> PROVIDE A LIGHTING CONTROL SYSTEM TO BCA JE REQUIREMENTS, CONSISTING OF NORMAL HOURS OPERATION & AFTER HOURS OPERATION CONTROLLED VIA DAYLIGHT SWITCH. PROVIDE OCCUPANCY SENSORS TO COMMUNITY AREAS TO SENSE OCCUPANCY & ACTIVATE THE LIGHTING. SWITCHES IN CONJUNCTION WITH OCCUPANCY SENSORS FUNCTION AS AN OVER-RIDE "OFF" IN CASE OF FAILURE OF THE OCCUPANCY SENSORS. FINAL ARRANGEMENT SHALL COMPLY WITH BCA JE REQUIREMENTS & SHALL BE TO APPROVAL. REFER LIGHTING CONTROL SCHEMATICS WHERE PROVIDED.	
ALL MATERIALS, EQUIPMENT, COMPONENTS AND DEVICES SHALL BE NEW AND UNUSED, OF CURRENT MANUFACTURE AND FIRST QUALITY. THE MANUFACTURE SHALL BE APPROVED BY THE PRINCIPAL WHERE THIS HAS NOT BEEN SPECIFIED. ALL MATERIALS AND EQUIPMENT SHALL BE CLEARLY MARKED AND SUITABLE FOR THE SUPPLY SYSTEM TO WHICH THEY WILL BE CONNECTED. UNLESS SPECIFIED OTHERWISE THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED WITH REGARD TO BOTH WORKMANSHIP AND ASSOCIATED MATERIALS, EQUIPMENT, COMPONENTS AND DEVICES.		<b>ICT WORKS</b>	
15. <b>SAFETY-</b> PROVIDE SAFE WORKING CONDITIONS, ALL NECESSARY SAFETY CONTROLS & SAFE WORKING METHOD STATEMENTS. WORK SHALL COMPLY WITH ALL REQUIREMENTS OF OH&S & SITE SPECIFIC SAFETY PLANS. PROVIDE ALL SPECIALISED LABOUR, TOOLS & EQUIPMENT REQUIRED INCLUDING LADDERS, SCAFFOLDS & THE LIKE.		12. <b>ICT SERVICES-</b> DATA CABLEING SHALL BE A CAT 6 STRUCTURED VOICE/DATA SYSTEM. TEST TO CURRENT CAT 6 STANDARDS. SYSTEM SHALL BE INSTALLED BY AN ACCREDITED INSTALLER FOR THE MANUFACTURER OF THE PRODUCT & SHALL BE COMPLETE WITH A VENDOR WARRANTY. PROVIDE LABELLING THROUGHOUT TO APPROVAL. REFER ICT SCHEMATICS WHERE PROVIDED.	
16. <b>SAFETY DATA SHEETS (SDS)-</b> PREVIOUSLY MSDS. PROVIDE & MAINTAIN AN UP TO DATE DOSSIER OF SDS FOR ALL HAZARDOUS SUBSTANCES, DANGEROUS GOODS & CHEMICALS IN ACCORDANCE WITH SAFEWORK AUSTRALIA REQUIREMENTS. INCLUDE DOSSIER IN O&M DOCUMENTATION.		13. <b>INTERCOM SYSTEM-</b> PROVIDE A COMPLETE INTERCOM SYSTEM WITH REMOTE DOOR RELEASE FROM EACH UNIT. SYSTEM SHALL BE AN IP BASED SYSTEM COMPLETE WITH ALL POWER SUPPLIES, CABLEING, PROGRAMMING & THE LIKE FOR A COMPLETE & OPERATIONAL SYSTEM. COMPONENTS SHALL BE SUITABLE FOR MARINE ENVIRONMENTS. REFER ICT SCHEMATICS WHERE PROVIDED.	
17. <b>UNIFORMITY-</b> UNLESS SPECIFICALLY DETAILED OTHERWISE, ALL MATERIALS, EQUIPMENT, FIXTURES, ACCESSORIES, COMPONENTS & THE LIKE SHALL BE NEW / UNUSED, OF CURRENT MANUFACTURE & FIRST QUALITY. THE MANUFACTURE SHALL BE TO APPROVAL WHERE THIS HAS NOT BEEN SPECIFIED OR ALTERNATIVES OFFERED/ ACCEPTED. WHERE EXISTING COMPONENTS ARE PERMITTED TO BE RE-USED, TEST FOR COMPLIANCE, SAFETY, OPERATION, SUITABILITY & THE LIKE PRIOR TO RE-USE. UNLESS SPECIFICALLY NOTED OTHERWISE, THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED WITH REGARD TO PURPOSE, WORKMANSHIP & ASSOCIATED MATERIALS, EQUIPMENT, COMPONENTS & THE LIKE. ALL MATERIALS, EQUIPMENT, COMPONENTS & THE LIKE SHALL BE SUITABLE & COMPATIBLE FOR THE SYSTEM TO WHICH THEY WILL TO BE CONNECTED. THE COMPLETE INSTALLATION & ALL COMPONENTS SHALL BE FIT FOR THE INTENDED PURPOSE.		<b>FIRE DETECTION &amp; ALARM SERVICES</b>	
18. <b>ALTERNATIVES-</b> ANY ALTERNATIVES SHALL BE OFFERED WITH SUFFICIENT LEAD-TIME FOR REVIEW & REJECTION TO MAINTAIN PROGRAMME WITH THE SPECIFIED ITEM. WHERE ALTERNATIVES ARE OFFERED, THEY SHALL BE EQUAL OR SUPERIOR QUALITY & PERFORMANCE TO THE SPECIFIED ITEM IN ALL RESPECTS (INCLUDING AESTHETICS, CONSTRUCTION, PERFORMANCE & TECHNICAL) & SHALL BE ACCOMPANIED BY FULL TECHNICAL & FINANCIAL COMPARISONS. ALL COSTS FOR ANY ASSOCIATED WORKS TO OTHER TRADES REQUIRED FOR THE ALTERNATIVE TO BE USED, INSTALLED OR MAINTAINED SHALL BE INCLUDED & CLEARLY IDENTIFIED IN THE COMPARISONS. A STATEMENT OF COMPLIANCE WITH THE SPECIFIED PRODUCT		14. <b>PROVIDE A FIRE DETECTION &amp; ALARM SYSTEM CONSISTING OF:-</b> <ul style="list-style-type: none"> <li>- FIRE ALARM PANEL (FIP) LOCATED IN THE COMMON AREA ON THE GROUND FLOOR ENTRY;</li> <li>- INTERLINKED SMOKE ALARMS WITHIN SDOs</li> <li>- SMOKE &amp; THERMAL DETECTORS TO COMMON AREAS AS APPROPRIATE TO STATUTORY REQUIREMENTS</li> <li>- BUILDING OCCUPANT WARNING SYSTEM THROUGHOUT COMMON AREAS</li> <li>- FIRE BRIGADE CONNECTION FACILITY</li> </ul>	
21. <b>PROGRAMME-</b> PRIOR TO COMMENCEMENT OF WORKS, PROVIDE A DETAILED CONSTRUCTION PROGRAMME CO-ORDINATED WITH THE MASTER PROJECT PROGRAMME. IDENTIFY LEAD-TIMES FOR ALL EQUIPMENT, MATERIALS, COMPONENTS & THE LIKE. SCHEDULE & PLACE ORDERS IN SUFFICIENT TIME TO MEET PROGRAMME. ORGANISE & CO-ORDINATE DELIVERY & HOLDING AREAS WITH ALL STAKEHOLDERS. IDENTIFY & SCHEDULE ALL LEAD-TIMES & RISKS & NOTIFY PRINCIPAL. COSTS RELATED TO DELAYS IN PLACING ORDERS OR EXPEDITED DELIVERY TO MEET PROGRAMME SHALL BE BORNE BY THE RESPECTIVE CONTRACTOR WITHOUT COST TO THE PRINCIPAL.		16. <b>FULLY TEST &amp; COMMISSION UPON COMPLETION. PROVIDE DESIGN CERTIFICATION WITH WORKSHOP DRAWINGS &amp; FORM 16 CERTIFICATION UPON COMPLETION.</b>	
20. <b>SUBMISSIONS-</b> PROVIDE COMPREHENSIVE TECHNICAL DATA SHEETS OF ALL EQUIPMENT, COMPONENTS, ACCESSORIES, FITTINGS, FIXTURES & THE LIKE FOR APPROVAL PRIOR TO ORDERING. SUBMIT SAMPLES FOR APPROVAL UPON REQUEST. PROVIDE A COMPILED COMPREHENSIVE SPREADSHEET DETAILING ALL IMPORTANT DATES, SUBMISSIONS, STATUS OF REVIEW & APPROVALS. MAINTAIN CURRENT STATUS RECORDS & PROVIDE REGULAR UPDATES FOR REVIEW.		17. <b>REFER FIRE SYSTEM SCHEMATICS WHERE PROVIDED.</b>	
21. <b>DETAILED DESIGN COMPLETION-</b> PROVIDE COMPLIANT & CONFORMING DETAILED DESIGN WHERE REQUIRED. DOCUMENT & SUBMIT DESIGNS FOR REVIEW & APPROVAL. SAFETY IN DESIGN REPORTS SHALL BE DEVELOPED & ENHANCED, & SHALL INCLUDE CONSIDERATION & DOCUMENTATION OF SAFE CONSTRUCTION & MAINTENANCE METHODOLOGIES. OBTAIN EXISTING SAFETY IN DESIGN REPORTS WHERE AVAILABLE.			
22. <b>SITE RECORDS-</b> MAINTAIN A COMPLETE SET OF THE LATEST AMENDED / REVISED DRAWINGS ON SITE AT ALL TIMES. RECORD ALL DEVIATIONS, MODIFICATIONS & VARIATIONS. INSTALLATION & RECORD INFORMATION, CHANGES & THE LIKE AS THE WORK PROGRESSES. LEGIBLE RED PEN MARK-UPS WITH FULL DETAILS ARE ACCEPTABLE. INFORMATION SHALL BE TRANSCRIBED INTO 'AS CONSTRUCTED' DOCUMENTS.			
23. <b>OPERATIONS &amp; MAINTENANCE MANUALS-</b> SHALL INCLUDE CERTIFICATION & COMPLIANCE STATEMENTS, ASSET REGISTER, TECHNICAL DATA ON ALL EQUIPMENT USED, OPERATING INSTRUCTIONS, DRAWINGS, TEST & COMMISSIONING RESULTS & THE LIKE, BOTH IN HARD COPY & ELECTRONIC FORMATS. DRAWINGS, SCHEDULES & THE LIKE SHALL BE IN ELECTRONIC EDITABLE FORMATS. PROVIDE FULLY DOCUMENTED 'AS CONSTRUCTED' DRAWINGS FOR THE WORKS. DRAWINGS SHALL ALSO INCLUDE ALL INFORMATION ON EXISTING SERVICES OBTAINED THROUGH THE WORKS. UPDATE ALL RECORDS WITH CURRENT WORKS.			
ELECTRONIC COPIES SHALL INCLUDE PDF SCANS OF ALL DOCUMENTS NOT AVAILABLE IN ORIGINAL ELECTRONIC FORMAT. SUBMIT ELECTRONIC COPY FOR APPROVAL PRIOR TO PRACTICAL COMPLETION. FINAL DOCUMENTS SHALL INCLUDE ONE (1) HARD COPY FOR SITE COMPLETE WITH 3 COPIES OF ELECTRONIC FORMAT ON USB.			
24. <b>BUILDING USER GUIDE-</b> PROVIDE A PICTORIAL DOCUMENT DETAILING INFORMATION & INSTRUCTIONS ON THE USE & OPERATION OF THE VARIOUS SYSTEMS FOR USE BY THE USERS. RELAY INSTRUCTIONS IN IMAGES & EASY TO UNDERSTAND LANGUAGE. COVER THE BASIC SYSTEMS THAT USERS MAY BE REQUIRED TO OPERATE. INCLUDE ENERGY & RESOURCE MANAGEMENT INFORMATION. SUBMIT ELECTRONIC COPY FOR APPROVAL PRIOR TO PRACTICAL COMPLETION. PROVIDE ELECTRONIC COPY & SIX (6) HARD COPIES.			
25. <b>TRAINING-</b> FOR EACH SYSTEM, ALLOW FOR A TRAINING SESSION TO BE CARRIED OUT FOR THE PRINCIPAL'S REPRESENTATIVES. PROVIDE ALL MATERIALS (WRITTEN & OTHER) & USER GUIDES APPLICABLE TO THE TRAINING SESSION FOR EACH ATTENDEE. SCHEDULE TRAINING SESSIONS WITH PRINCIPAL TO APPROVAL.			
26. <b>TESTING &amp; COMMISSIONING-</b> TEST & COMMISSION EACH SYSTEM & ALL INTERFACES FOR OPERATION & FUNCTIONALITY INCLUDING STABILITY OF OPERATION. CO-ORDINATE WITH ALL TRADES TO MAKE REQUIRED SERVICES AVAILABLE TO SUIT TESTING & COMMISSIONING PROGRAMME. e.g. POWER AVAILABLE TO RUN EQUIPMENT, LAND-LINE CONNECTIONS AVAILABLE FOR REMOTE SERVICES, WATER AVAILABLE FOR EQUIPMENT OPERATION, LICENCES IN PLACE FOR SOFTWARE & THE LIKE. PROVIDE FORMAL RECORDS & INCLUDE IN O&M MANUALS.			
ALLOW FOR 4 HOURS ON 2 SEPARATE NIGHTS FOR CONDUCTING SITE LIGHTING TESTS TO DETERMINE THE OPTIMUM POSITION FOR THE EXTERNAL LANDSCAPE LIGHTING. PROVIDE ALL TOOLS & EQUIPMENT NECESSARY FOR THE TESTING TO BE CONDUCTED SUCCESSFULLY.			
27. <b>MAINTENANCE, DEFECTS LIABILITY &amp; WARRANTY-</b> PROVIDE 12 MONTHS MAINTENANCE, DEFECTS LIABILITY & WARRANTY FOR ALL PLANT, EQUIPMENT, FITTINGS, FIXTURES, WORKMANSHIP & LABOUR FOR ALL WORKS. AS A MINIMUM, MAINTENANCE SHALL INCLUDE ALL STATUTORY REQUIREMENTS & RECOMMENDATIONS, APPLICABLE MANUFACTURER'S RECOMMENDATIONS INCLUDING ALL WORK REQUIRED TO MAINTAIN SUPPLIER / MANUFACTURER WARRANTY. WHERE EXISTING AGREEMENTS ARE IN PLACE, LIAISE WITH ELECTRICAL MAINTENANCE FIRMS TO MAINTAIN EXISTING & ONGOING WARRANTIES. RE-ASSIGN AND PRINCIPAL, TO PRODUCT WARRANTIES TO ENSURE CONTINUITY OF WARRANTY UNDER ALL CONDITIONS. PROVIDE A SCHEDULE OF MAINTENANCE REQUIREMENTS & WARRANTIES WITHIN O&M DOCUMENTATION.			
28. <b>PRACTICAL COMPLETION-</b> UNLESS SPECIFICALLY APPROVED OTHERWISE, PRACTICAL COMPLETION SHALL NOT BE ACHIEVED UNTIL COMPLETION OF THE FOLLOWING (TO APPROVAL): <ul style="list-style-type: none"> <li>• AUTHORITY CERTIFICATES OF FINAL INSPECTION &amp; APPROVAL</li> <li>• NCC &amp; AS3000 COMPLIANCE</li> <li>• FORM 16s SUBMITTED</li> <li>• TESTING &amp; COMMISSIONING WITH RESULT RECORDS SUBMITTED</li> <li>• WARRANTIES INFORMATION SUBMITTED</li> <li>• MAINTENANCE &amp; WARRANTY SCHEDULE</li> <li>• USER'S GUIDES &amp; O&amp;M MANUALS REVIEWED</li> <li>• TRAINING COMPLETED</li> </ul>			
29. <b>WASTE DISPOSAL &amp; CLEANLINESS-</b> WASTE DISPOSAL SHALL BE CARRIED OUT IN ACCORDANCE WITH REGULATORY REQUIREMENTS & IN ACCORDANCE WITH ENVIRONMENTAL REGULATORY REQUIREMENTS, PROJECT ENVIRONMENTAL MANAGEMENT PLAN, ENVIRONMENTAL REGULATORY REQUIREMENTS & IN ACCORDANCE WITH THE PROJECT WASTE MANAGEMENT PLAN. MAINTAIN RECORDS AS REQUIRED. WHERE PROJECT PLANS DO NOT EXIST, PROVIDE TRADE SPECIFIC PLANS. REMOVE ALL PACKAGING & WASTE AS THE JOB PROGRESSES. UPON COMPLETION, ALL FITTINGS & EQUIPMENT SHALL BE CLEAN, UNBLEMISHED, & IN A CONDITION ENABLING IMMEDIATE USE, TO APPROVAL.			
<b>GENERAL WORK REQUIREMENTS</b>			
30. <b>CO-ORDINATION-</b> DRAWINGS SHALL BE READ IN CONJUNCTION WITH <b>ALL OTHER DOCUMENTS</b> INCLUDING ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, HYDRAULIC, GEOTECHNICAL & LANDSCAPE DRAWINGS. CO-ORDINATE WITH ALL TRADES PRIOR TO INSTALLATION COMMENCING, INCLUDING PROGRAMME. CONSIDERS WORKMANSHIP IS NOT SUFFICIENT, CO-ORDINATE WITH THE PRINCIPAL TO OBTAIN APPROVAL. ALL MATERIALS, EQUIPMENT, COMPONENTS OR THE LIKE ARE INFERIOR OR DEFICIENT IN QUATY TO THAT SPECIFIED, THE PRINCIPAL MAY GIVE NOTICE IN WRITING SETTING FORTH THE DEFECT OR DEFICIENCY TO BE RECTIFIED. RECTIFICATION SHALL BE AT NO COST TO THE PRINCIPAL.			
31. <b>VERIFICATION OF LOCATIONS-</b> LOCATIONS OF PLANT, ACCESS, OUTLETS, FITTINGS, FIXTURES, CABLE PATHWAYS & THE LIKE SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY. VERIFY EXACT LOCATIONS, DIMENSIONS, ACCESS & REQUIREMENTS ON SITE PRIOR TO MANUFACTURE/ ORDER & INSTALLATION. FINAL ARRANGEMENTS SHALL BE TO APPROVAL. ALLOW FOR MINOR RELOCATIONS (NOT MORE THAN 3m) TO SUIT ALL ASSOCIATED WORKS WITHOUT ADDITIONAL COST.			
ALLOW FOR NEW SWITCHES OR OUTLETS TO BE LOCATED ANYWHERE IN THE ASSOCIATED ROOM WITHOUT ADDITIONAL COST. FOR ACCESSORIES & THE LIKE, MOUNTING HEIGHTS, HEIGHTS ABOVE BENCHES, HORIZONTAL POSITIONING etc. SHALL BE FULLY CO-ORDINATED WITH ALL OTHER ACCESSORIES & TRADES. REFER TO ARCHITECTURAL & JOINERY DRAWINGS FOR ADDITIONAL INFORMATION. POSITIONS SHALL NOT BE SCALED FROM DRAWINGS, BUT SHALL BE VERIFIED ON SITE PRIOR TO INSTALLATION. MOUNTING HEIGHTS & LOCATIONS SHALL COMPLY WITH AS1428.1 (DESIGN FOR ACCESS & MOBILITY) AS A MINIMUM.			
32. <b>ALIGNMENT-</b> ALL PLANT, EQUIPMENT, FITTINGS, FIXTURES, DEVICES, ACCESSORIES & THE LIKE SHALL BE INSTALLED SQUARE & LEVEL & IN ALIGNMENT WITH BUILDING ELEMENTS WITH FINAL ARRANGEMENTS TO APPROVAL. LOCATIONS & POSITIONS SHALL BE FULLY CO-ORDINATED (INCLUDING CEILING ARRANGEMENTS) BOTH VERTICALLY & HORIZONTALLY, ALIGNED & FUNCTIONALLY APPROPRIATE WITH AESTHETIC CONSIDERATION TO APPROVAL. USE UNIFORM MANUFACTURE, FIXING, FACEPLATES, DEVICES & THE LIKE THROUGHOUT. WHERE FACEPLATE MATCHING IS NOT PRACTICABLE, PROVIDE ALTERNATIVE SAMPLES FOR REVIEW, TO APPROVAL. CO-ORDINATE LOCATIONS WITH OTHER TRADES.			
33. <b>SEGREGATION / SEPARATION-</b> SEGREGATION & SEPARATION BETWEEN SERVICES SHALL BE MAINTAINED AT ALL TIMES WITH THE MINIMUM ACCEPTABLE BEING COMPLIANT WITH ALL APPLICABLE STANDARDS, CODES, RECOMMENDATIONS & REQUIREMENTS. WHERE SEPARATION DISTANCES CANNOT BE ACHIEVED PROVIDE PHYSICAL BARRIERS AS REQUIRED. REFER TO TRADE SPECIFIC NOTES & DETAILS (& SEGREGATION SCHEDULES WHERE PROVIDED) FOR ADDITIONAL INFORMATION.			
34. <b>PENETRATIONS / SEALING / FIRE RATINGS-</b> EACH TRADE SHALL BE RESPONSIBLE FOR THEIR RESPECTIVE BLOCK-OUTS, CUTTING, INFILL, SEALING & FIRE RATING OF PENETRATIONS (IN CO-ORDINATION WITH BUILDING TRADES). LOCATION OF PENETRATIONS IN STRUCTURAL ELEMENTS SHALL BE CERTIFIED BY A STRUCTURAL ENGINEER PRIOR TO COMMENCEMENT OF WORKS. SEAL ALL PENETRATIONS VERMINPROOF & WEATHERTIGHT. ALL PENETRATIONS & SEALING TO APPROVAL.			
FIRE STOP ALL PENETRATIONS IN FIRE RATED ELEMENTS. LABEL & REGISTER ALL FIRE STOPPING. COMPILE/ CONTRIBUTE TO SITE WIDE FIRE STOPPING REGISTER. WHERE A FIRE ENGINEERING REPORT			
DOES NOT DEFINE ACCEPTABLE FIRE STOPPING METHODS, COMPLY WITH NCC/ AUSTRALIAN STANDARD METHODS.			
PROVIDE ACOUSTIC TREATMENT & SEALING TO ACOUSTIC ELEMENTS. MAINTAIN ACOUSTIC SEPARATION BETWEEN SPACES WITH APPROPRIATE & APPROVED METHODS. LIAISE WITH BUILDING TRADES.			
35. <b>ACCESSORIES RECESSED IN FIRE WALLS-</b> OUTLETS, SWITCHES & THE LIKE MOUNTED INTO FIRE WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS. USE FIRE RATED WALL BOXES. OFFSET FIRE RATED WALL BOXES BY 300mm MIN TO RETAIN FIRE RATING INTEGRITY.			
36. <b>ACOUSTIC ISOLATION-</b> OUTLETS, SWITCHES & THE LIKE MOUNTED INTO WALLS SHALL BE INSTALLED TO MAINTAIN ACOUSTIC RATINGS. OFFSET OUTLETS BY 300mm MIN TO RETAIN ACOUSTIC INTEGRITY.			
37. <b>SEISMIC CONDITIONS-</b> PROVIDE SEISMIC RESTRAN SYSTEMS TO COMPLY WITH APPROPRIATE STANDARDS & CODES. ALL MATERIALS, EQUIPMENT, COMPONENTS, INSTALLATION TECHNIQUES & THE LIKE SHALL BE SUITABLE FOR THE INSTALLED ENVIRONMENT TO MAINTAIN SATISFACTORY OPERATION WITHIN STANDARDS & GUIDELINES. PROVEN METHODS SHALL BE USED TO APPROVAL. SEPARATION OF COMPONENTS SHALL ALIGN WITH RESPECTIVE STRUCTURAL ELEMENTS.			