DATE OF ISSUE		28.11.05	04.11.11	20.07.12	25.10.13	12.12.13	07.05.14	30.04.18	24.05.22	18.10.22
DRAWING PACKAGE VERSION		1	2	3	4	5	6	7	8	9
GENERAL										
S0314-G1	SITE SPECIFICATIONS	AB	A	AB1	AB1	AB1	AB1	A	B	C
S0314-G2	OVERALL SITE PLAN	-	A	AB	-	-	-	A	B	B
S0314-G3	SITE LAYOUT AND SETOUT PLAN	AB	A	AB1	B	C	D	E	F	F
S0314-G4	SITE ELEVATION	AB	A	AB1	B	C	D	E	F	F
ANTENNAS & TRANSMISSION										
S0314-A1	PANEL ANTENNA SYSTEM CONFIGURATION	-	A	AB	B	C	D	E	F	F
S0314-A2	RF PLUMBING DIAGRAM	-	A	AB	B	B	C	D	E	E
STRUCTURAL										
S0314-S1	RRU MOUNTS DETAILS - SHEET 1	-	-	-	-	-	-	A	B	B
S0314-S2	ANTENNA MOUNTS DETAILS - SHEET 1	-	-	-	-	-	-	A	B	B
ELECTRICAL										
SHELTER / FITOUT										
S0314-F1	EQUIPMENT SHELTER LAYOUT PLAN	AB	A	AB1	B	B	C	D	E	E
EME EXCLUSION ZONES										
LEASE / LICENCE										
REFERENCE DOCUMENTS										
OSD-100	STANDARD CONSTRUCTION NOTES	-	-	-	-	-	-	B	B	B
OSD-180	SITE SIGNAGE TYPICAL ROOFTOP SITE	-	-	-	-	-	-	A	A	A
OSD-191	OPTUS EME SAFETY SIGNAGE REQUIREMENTS	-	-	-	-	-	-	A	A	A
DISTRIBUTION										
OPTUS	RICHARD YOUNG	-	-	-	-	-	-	1	1	1
SERVICESTREAM	HABIBUR RAHMAN	-	-	-	-	-	-	1	1	1

OPTUS

OPTUS SITE - S0314

GLEBE ISLAND

GLEBE ISLAND WHEAT SILOS

JAMES CRAIG RD GLEBE ISLAND

ROZELLE NSW 2039

UPGRADE 5G (OO)

OPTUS WORK AUTHORITY Nº 509902

NSW GOVERNMENT Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 1 of 13

ServiceStream

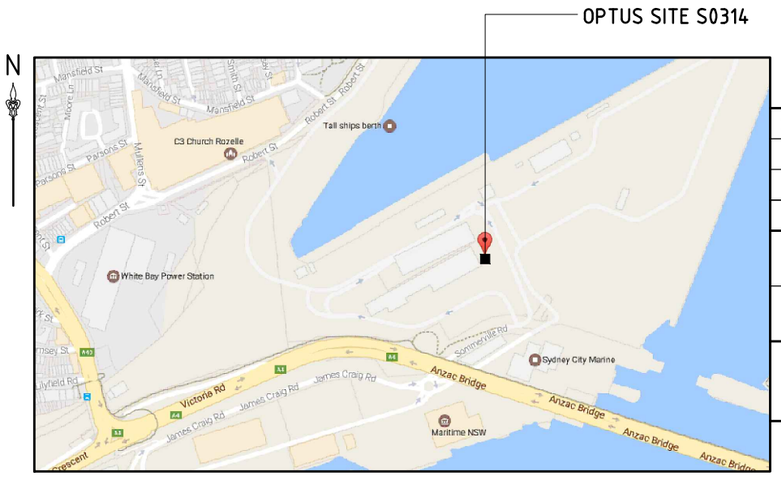
FOR CONSTRUCTION

Drawing No.
S0314 - 00

A3

SITE ADDRESS

JAMES CRAIG RD GLEBE ISLAND
ROZELLE NSW 2039



SITE LOCATION DATA	
SOURCE: GOOGLE MAPS	
DATUM: MGA (GDA94)	ZONE: 56
REF LOCATION: ℄ OF ROOFTOP	
EASTING	331 890
NORTHING	6 251 142
LATITUDE	-33.86666
LONGITUDE	151.18255

WGS84 DATUM (USED BY GOOGLE EARTH® AND GPS DEVICES) CAN BE CONSIDERED SAME AS GDA94 (SOURCE: "GEOCENTRIC DATUM OF AUSTRALIA TECHNICAL MANUAL" VERSION 2.3)

TOPOGRAPHIC MAP . . . COPYRIGHT © GOOGLE MAPS

EXISTING ROOFTOP

1. NEW MOUNTING POLES ON EXISTING PEDESTAL MOUNTS ON LOWER AND UPPER ROOFS. EXISTING 3 x CNNPX310R AND 3 x KATHREIN 742 215 PANEL ANTENNAS TO BE RECOVERED.
2. NEW OPTUS ANTENNAS AND ANCILLARIES TO BE INSTALLED ON NEW OPTUS MOUNTS FIXED TO EXISTING MOUNTS, REFER TO DRAWINGS S0314-S2 FOR DETAILS.
3. NEW OPTUS RRUs TO BE INSTALLED ON NEW MOUNTS REFER TO DWG. S0314-S1 FOR DETAILS.
4. EXISTING FEEDERS AND NEW TRUNK CABLES TO RUN INSIDE EXISTING CABLE LADDERS.
5. ANTENNA MAINTENANCE ACCESS VIA STEP PEGS AND LAD-SAF BY QUALIFIED PERSONNEL ONLY.
6. STRUCTURAL ADEQUACY OF EXISTING AND NEW ANTENNA AND RRU MOUNTS ARE CONFIRMED BY SERVICESTREAM. REFER TO S0314 GLEBE ISLAND - STRUCTURAL CERTIFICATE.

EQUIPMENT SHELTER

1. EXISTING OPTUS (JAMES HARDIE) PHASE 6 (5309) SANDWICH PANEL EQUIPMENT SHELTER COLOURED COLORBOND CREAM (BEIGE) REFER TO DRAWING S0314-F1 FOR DETAILS.

SITE HAZARDS

1. EXISTING EME TRANSMITTING ANTENNAS
2. MANUAL HANDLING
3. WORKING AT HEIGHTS
4. SLIP, TRIP AND FALLS
5. ELECTRICAL HAZARDS
6. WEATHER / LIGHTNING
7. SUN EXPOSURE
8. WILDLIFE / INSECTS

TRANSMISSION

THIS SITE IS LINKED TO THE NETWORK VIA EXISTING OPTIC FIBRE.

CONSTRUCTION SITE ACCESS

ACCESS IS VIA SOMMERVILLE ROAD AS INDICATED ON DRAWING S0314-G2

ACCESS NOTES:
FOR SITE INSPECTION YOU NEED TO CONTACT SYDNEY PORTS JURGEN DOHLE PROPERTY MANAGER SYDNEY PORTS CORPORATION, EMAIL: jdohle@portauthoritynsw.com.au

DESCRIPTION
OPTUS EQUIPMENT SHELTER WITH 3 SECTOR OF ANTENNAS ON ROOFTOP.

DIRECTION
ACCESS IS VIA FIRST SIGNING IN AT THE DISPATCH OFFICE, AT THE SOUTH WEST CORNER OF THE COMPLEX, LOOK FOR THE SIGNS. AS TEMP ACCESS, YOU WILL BE ESCORTED THROUGH THE COMPLEX AND AROUND TO THE LIFT. TAKE THE LIFT UP TO THE TOP FLOOR, THAN UP THE STAIRS AND OUT ONTO THE ROOF TOP. ONCE WE HAVE THE CARDS, YOU CAN SIGN IN AT THE ABOVE OFFICE, THAN WALK AROUND THE BUILDING CLOCKWISE, LOCATE THE DOOR AT THE APPROX. NORTH EAST CORNER OF THE COMPLEX, USE THE ACCESS CARD TO OPEN IT, YOU CAN THAN TAKE THE LIFE DIRECT TO THE ROOFTOP.

SECURITY
SPECIAL KEY CARD AND GENERAL OPTUS KEY ARE REQUIRED.

SITE SIGNAGE

1. SITE SIGNAGE SHALL BE IN ACCORDANCE WITH OSD-180 AND OSD-191.

EME EXCLUSION ZONES

1. REFER TO RADIO COMMUNICATIONS SITE MANAGEMENT BOOK (RCSMB) FOR LATEST EME EXCLUSION ZONES FOR EXISTING AND PROPOSED ANTENNAS AT THIS SITE.

ELECTRICAL INSTALLATION

EXISTING POWER SUPPLY IS 63AMP 3PHASE AND SUFFICIENT FOR THIS UPGRADING WORKS.

SITE EARTHING

NEW OPTUS EQUIPMENT TO BE EARTHED TO CURRENT OPTUS EARTHING SPECIFICATIONS.

Department of Planning and Environment
Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: DA 22/9116
Approved on: 19 December 2022
Signed: AN Sheet No: 2 of 13

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
C	18.10.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	GM	MA	HR	HR
B	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
A	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	MT	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: SITE SPECIFICATIONS

Drawing Status: FOR CONSTRUCTION

Drawing No. S0314-G1

Revision C

CAD File: Z:\6. Upgrade 5G\S0314_GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 4:12 PM

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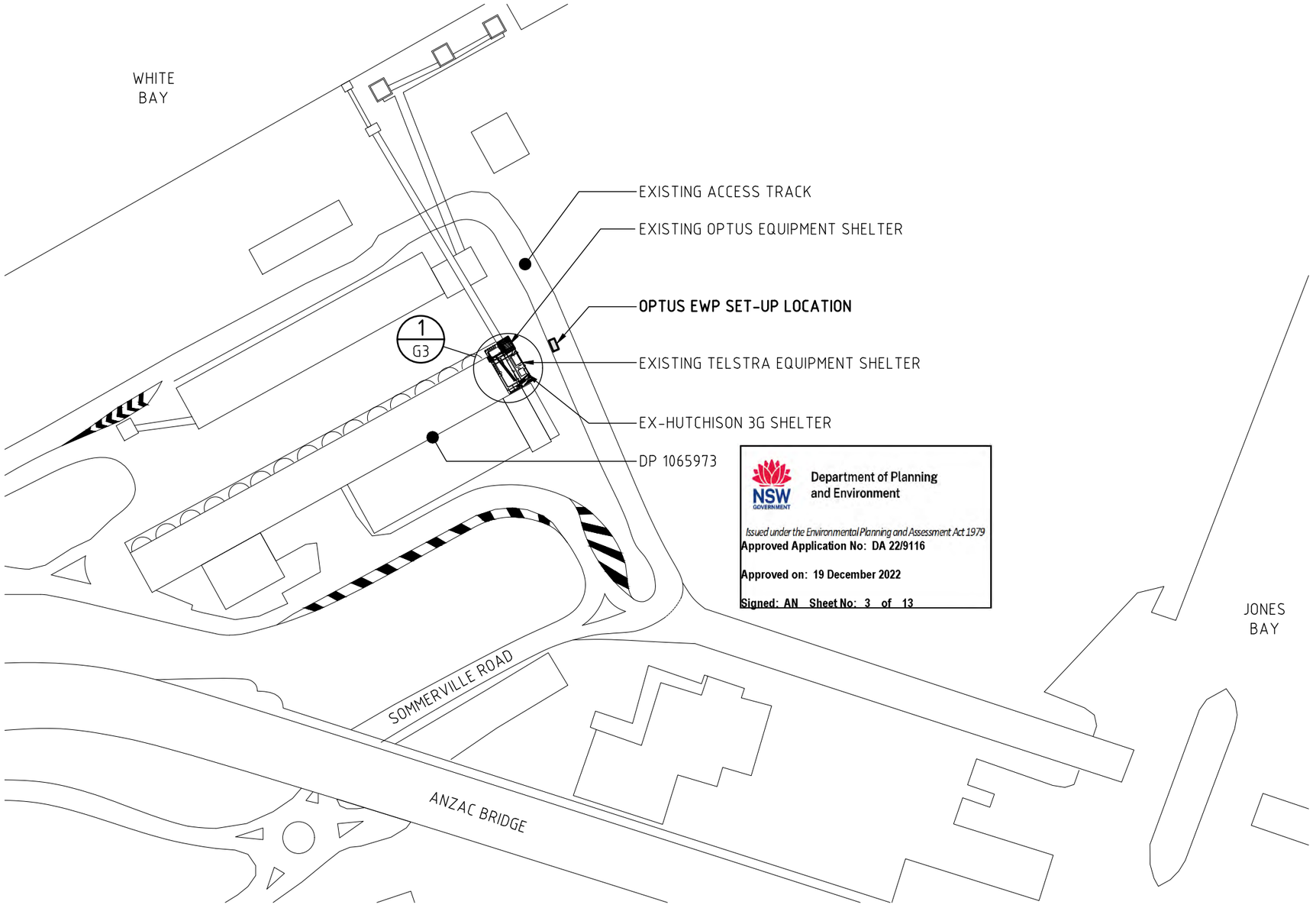
A3



Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 3 of 13

NOTE:
1. ALL INFORMATION TO BE CHECKED ON SITE PRIOR TO FABRICATION AND CONSTRUCTION.
2. DRAWINGS BASED ON INFORMATION PROVIDED BY OTHERS.
3. CONSTRUCTION CONTRACTOR TO CONFIRM SUITABILITY OF PROPOSED EWP SET UP/PACKING LOCATION ON SITE PRIOR TO WORK COMMENCING.
4. SERVICES INFORMATION CONTAINED ON THIS DRAWING IS INDICATIVE ONLY AND REFERENCE SHOULD BE MADE TO THE AUTHORITIES DRAWINGS TO CONFIRM ACCURACY AND COMPLETENESS. WHERE INFORMATION IS AVAILABLE, THE SUB-SURFACE SERVICES INSTALLED BY AGENTS OTHER THAN THE AUTHORITIES HAVE BEEN SHOWN, BUT ADDITIONAL UNDOCUMENTED SERVICES MAY BE PRESENT. SHOULD THE CONTRACTOR BELIEVE THAT SUB-SURFACE SERVICES ARE AT RISK OF DAMAGE DURING CONSTRUCTION, THE CONTRACTOR SHOULD NOTIFY THE RELEVANT AUTHORITIES AND ESTABLISH THE EXACT LOCATION OF THE SERVICES.

LEGEND

- PROPERTY BOUNDARY
- EXISTING OPTUS U/G POWER LINE
- EXISTING OPTUS FIBER LINE

OVERALL SITE PLAN

1:2000

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
A	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	MT	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: OVERALL SITE PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S0314-G2

Revision B

CAD File: Z:\6. Upgrade 5G\S0314_GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM

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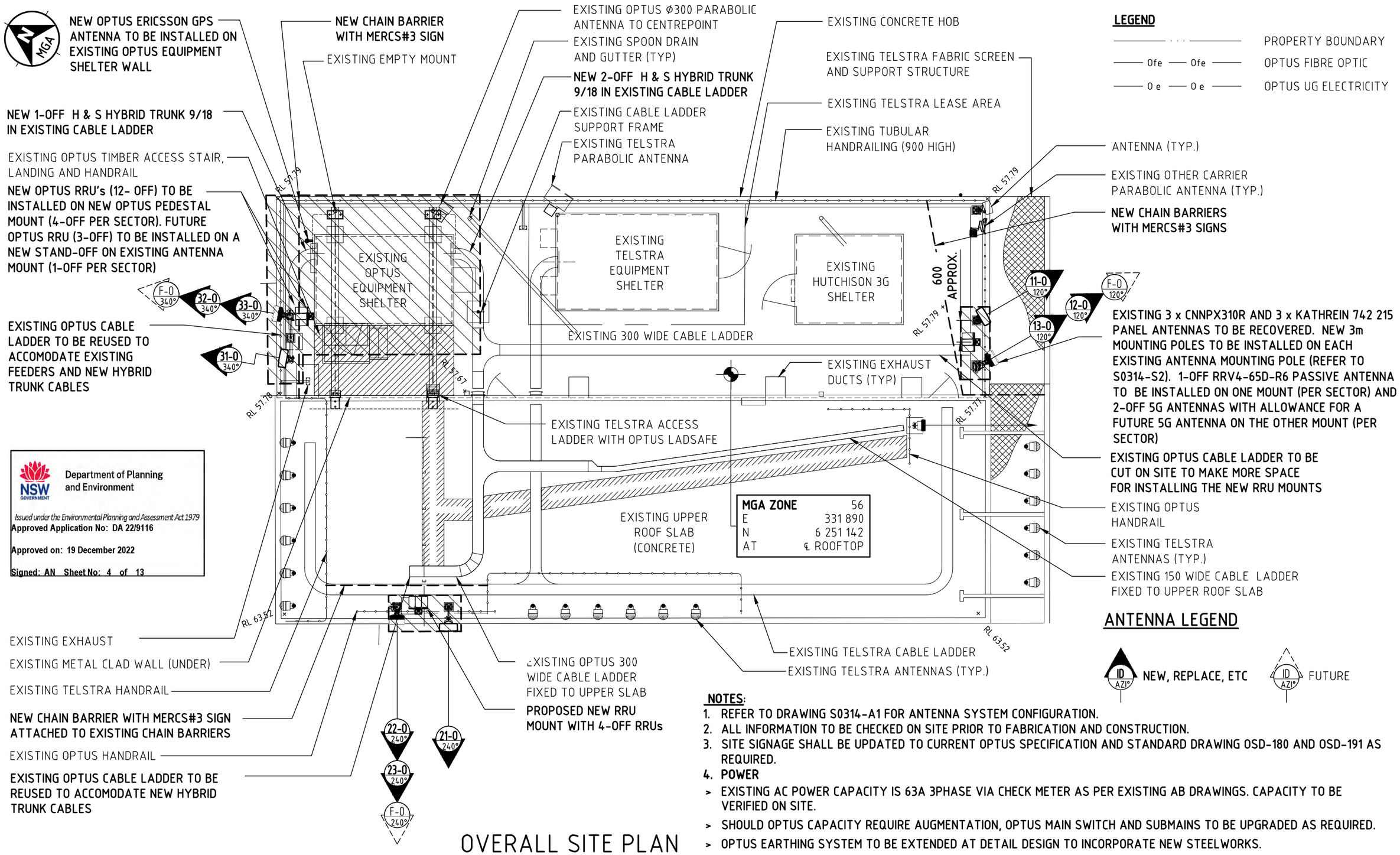
A3



LEGEND

- PROPERTY BOUNDARY
- Ofe — Ofe — OPTUS FIBRE OPTIC
- O e — O e — OPTUS UG ELECTRICITY

ANTENNA LEGEND

ID AZI° NEW, REPLACE, ETC

ID AZI° FUTURE

NOTES:

1. REFER TO DRAWING S0314-A1 FOR ANTENNA SYSTEM CONFIGURATION.
2. ALL INFORMATION TO BE CHECKED ON SITE PRIOR TO FABRICATION AND CONSTRUCTION.
3. SITE SIGNAGE SHALL BE UPDATED TO CURRENT OPTUS SPECIFICATION AND STANDARD DRAWING OSD-180 AND OSD-191 AS REQUIRED.
4. **POWER**
   - EXISTING AC POWER CAPACITY IS 63A 3PHASE VIA CHECK METER AS PER EXISTING AB DRAWINGS. CAPACITY TO BE VERIFIED ON SITE.
   - SHOULD OPTUS CAPACITY REQUIRE AUGMENTATION, OPTUS MAIN SWITCH AND SUBMAINS TO BE UPGRADED AS REQUIRED.
   - OPTUS EARTHING SYSTEM TO BE EXTENDED AT DETAIL DESIGN TO INCORPORATE NEW STEELWORKS.
   - TBC AT DETAIL DESIGN.

OVERALL SITE PLAN

1:100

Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 4 of 13

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
F	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (OO))	SSNC	AB	MA	SA	SA
E	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
D	07.05.14	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	DC	RN	MA	NT
C	12.12.13	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	STY	RN	MA	NT
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	CPC	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: SITE LAYOUT AND SETOUT PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S0314-G3

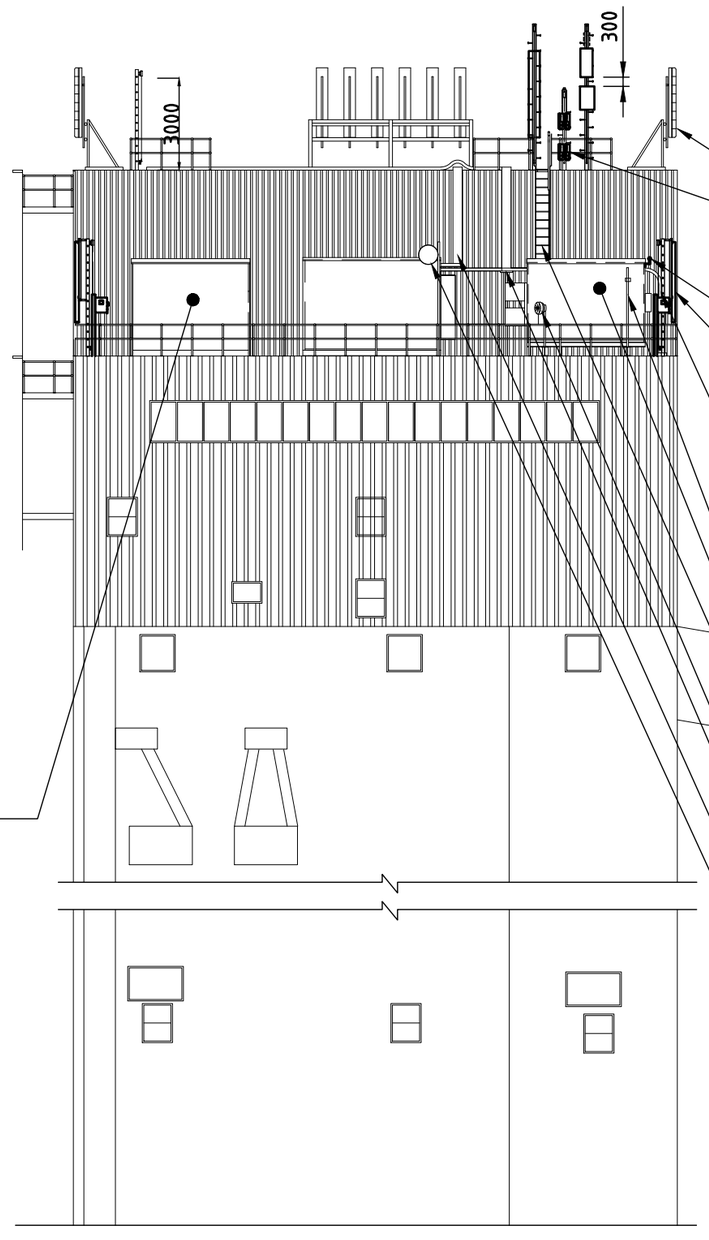
Revision F

20 10 0 10 20 30 40 50mm

A3

CAD File: Z:\6. Upgrade 5G\S0314_GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM

NOTE:
THIS DRAWING IS DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED.



EL 65.85m
℄ REPLACE WITH OPTUS RRV4-65D-R6 PANEL ANTENNAS (1-OFF)

EL 65.10m
℄ NEW OPTUS RRUs (2-OFF)

EL 64.10m
℄ NEW OPTUS RRUs (2-OFF)

EL 63.50m
TOP OF UPPER ROOF (APPROXIMATELY)

EL 61.80m
℄ FUTURE 5G ANTENNA (2-OFF)

EL 60.90m
℄ REPLACE WITH AIR6419 5G ANTENNAS (2-OFF)

EL 59.85m
℄ REPLACE WITH OPTUS RRV4-65D-R6 12P PANEL ANTENNAS (2-OFF)

EL 59.70m
℄ REPLACE WITH OPTUS AIR3239 5G PANEL ANTENNAS (2-OFF)
℄ FUTURE RRU (1 OFF)

EL 59.10m
℄ NEW OPTUS RRUs (4-OFF)

EL 58.10m
℄ NEW OPTUS RRUs (4-OFF)

EL 57.50m
TOP OF LOWER ROOF (APPROXIMATELY)

EX-HUTCHINSON 3G SHELTER

EL 67.75m
℄ FUTURE 5G ANTENNA (1-OFF)

EL 67.00m
℄ REPLACE WITH AIR6419 (1 OFF)

EL 65.85m
℄ REPLACE WITH AIR3239 (1 OFF)
℄ FUTURE RRU (1 OFF)

EXISTING TELSTRA PANEL ANTENNAS (TYP.)

NEW OPTUS RRU's (12-OFF) TO BE INSTALLED ON NEW OPTUS PEDESTAL MOUNTS (4-OFF PER SECTOR)
FUTURE OPTUS RRU (3-OFF) TO BE INSTALLED ON A NEW STAND-OFF ON EXISTING ANTENNA MOUNT (1-OFF PER SECTOR)

NEW OPTUS ERICSSON GPS ANTENNA TO BE INSTALLED ON EXISTING OPTUS EQUIPMENT SHELTER WALL

EXISTING 3 x CNNPX310R AND 3 x KATHREIN 742 215 PANEL ANTENNAS TO BE RECOVERED. NEW 3m MOUNTING POLES TO BE INSTALLED ON EACH EXISTING ANTENNA MOUNTING POLE (REFER TO S0314-S2). 1-OFF RRV4-65D-R6 PASSIVE ANTENNAS TO BE INSTALLED ON ONE MOUNT (PER SECTOR) AND 2-OFF 5G ANTENNAS WITH ALLOWANCE FOR A FUTURE 5G ANTENNA ON THE OTHER MOUNT (PER SECTOR)

EXISTING OPTUS CABLE LADDER TO BE REUSED TO ACCOMMODATE NEW HYBRID TRUNK CABLES AND EXISTING FEEDERS.

EXISTING OPTUS SPARE MOUNT

EXISTING OPTUS EQUIPMENT SHELTER ON STEEL SUPPORT FRAME

EXISTING TELSTRA UPPER ROOF ACCESS LADDER WITH OPTUS LAD-SAF

EXISTING OPTUS PARABOLIC ANTENNA

EXISTING OPTUS CABLE LADDER & SUPPORT POST
NEW 1-OFF H & S HYBRID TRUNK 9/18 IN EXISTING CABLE LADDER

EXISTING TELSTRA CABLE LADDER

EXISTING TELSTRA PARABOLIC ANTENNA

EL 0.0m GROUND LEVEL

Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 5 of 13

NORTH-EASTERN ELEVATION
1:200

NOTES:
1. REFER TO DRAWING S0314-A1 FOR PANEL ANTENNA DETAILS.
2. SITE SIGNAGE SHALL BE UPDATED TO CURRENT OPTUS SPECIFICATION DOCUMENT OSD-180, ALL AS REQUIRED.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
F	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
E	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
D	07.05.14	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	DC	RN	MA	NT
C	12.12.13	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	STY	RN	MA	NT
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	CPC	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: SITE ELEVATION

Drawing Status: FOR CONSTRUCTION

Drawing No. S0314-G4

Revision F

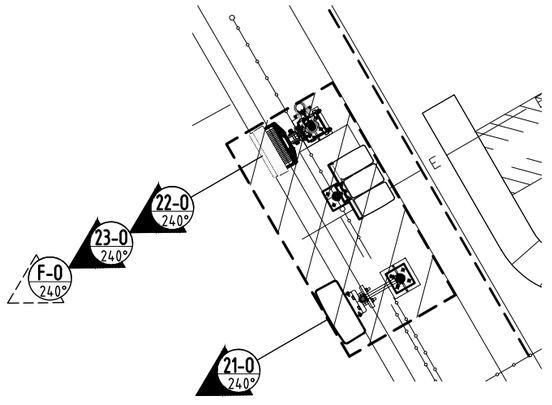
CAD File: Z:\6. Upgrade 5G\S0314_GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM

20 10 0 10 20 30 40 50mm

A3

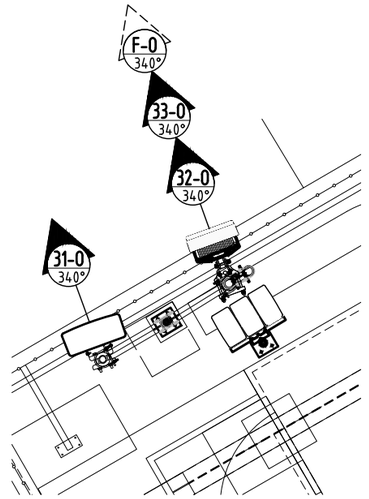
ANTENNA	OPERATOR	OPTUS	OPTUS	OPTUS
	SECTOR	SECTOR 1	SECTOR 2	SECTOR 3
	IDENTITY Nº (SAO)	F-O	F-O	F-O
	STATUS	FUTURE	FUTURE	FUTURE
	AZIMUTH (° TN)	120° TN	240° TN	340° TN
	E. O/L ANTENNA	61.80m	67.75m	61.80m
	CO-ORDINATES (NOTE 2)	E 331 890 N 6 251 142	E 331 890 N 6 251 142	E 331 890 N 6 251 142
	MECHANICAL TILT (°)	-	-	-
	MAKE & MODEL	AAU1	AAU1	AAU1
	DIMENSIONS (H x W x D)	290 x 200 x 136	290 x 200 x 136	290 x 200 x 136
	PORTS	1 & 2	1 & 2	1 & 2
	PORT USER	O	O	O
	FREQUENCY BANDS	-	-	-
	RET	-	-	-
ANCILLARIES	MHA	N/A	N/A	N/A
	COMBINER / DIPLEXER	N/A	N/A	N/A
	RRU / RF MODULES	N/A	N/A	N/A
COAXIAL FEEDERS	STATUS	-	-	-
	TECHNOLOGIES	-	-	-
	QUANTITY	-	-	-
	DESIGNATION (SIZE)	-	-	-
	ESTIMATED LENGTH	-	-	-
TRUNK CABLES	STATUS			
	TECHNOLOGIES			
	QUANTITY	SHARED	SHARED	SHARED
	MAKE & MODEL (SIZE)	WITH PASSIVE ANTENNA	WITH PASSIVE ANTENNA	WITH PASSIVE ANTENNA
	NO. OF DC / SMF PAIRS	SECTOR 1	SECTOR 2	SECTOR 3
	ESTIMATED LENGTH			
	OTHER			

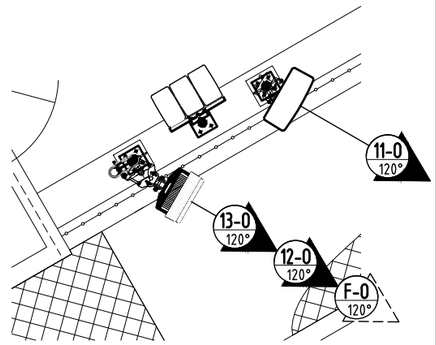
ANCILLARY	EQUIPMENT CODE	MANUFACTURER PRODUCT CODE	TECHNOLOGY FREQUENCIES	DIMENSIONS (mm x mm x mm)	WEIGHT (kg)
MHA	MHA3	E15R02P15	900	260 x 170 x 140	8
	MHA5	E15S09P55	2100	191 x 170 x 50.5	3.3
RRU	ERICSSON RRU	4480	700/900	555 x 398 x 190	37.6
		4418	2300	420 x 342 x 150	15.6
		4419	2600	447 x 398 x 153	21
		4480	1800/2100	550 x 400 x 150	32
COMBINER	COM19D	E14F10P7100	2100/2300/2600	398 x 167 x 94	8.45
DIPLEXER	RF SWITCH	D08C99P0300	700/900	340 x 165 x 83	
FILTER	850 REJ FILTER	E14V00P21	700/900	147 x 106 x 158	2.5



OPTUS ANTENNAS PLAN

NTS





LEGEND:

ID AZI° REPLACE

ID AZI° FUTURE

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RF PLUMBING DIAGRAM DRAWING S0314-A2.
2. ANTENNA CO-ORDINATES ARE SPECIFIED FOR CENTRE OF EACH SECTOR, TO THE NEAREST METRE.
3. INFORMATION IN THE TABLES SUPPLIED AND VERIFIED BY OPTUS.
4. ANCILLARIES REFER TO ITEMS AT OR NEAR THE ANTENNA.
5. CO-AXIAL FEEDER AND TRUNK LENGTHS ARE ESTIMATED, ROUNDED UP TO THE NEXT 5m.
6. FEEDER TAILS TO BE 84 OFF WITH MAXIMUM LENGTH OF 5m FROM RRU/MHA/COMBINERS TO ANTENNA.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
F	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
E	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
D	07.05.14	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	DC	RN	MA	NT
C	12.12.13	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	STY	RN	MA	NT
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	CPC	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: PANEL ANTENNA SYSTEM CONFIGURATION

Drawing Status: FOR CONSTRUCTION

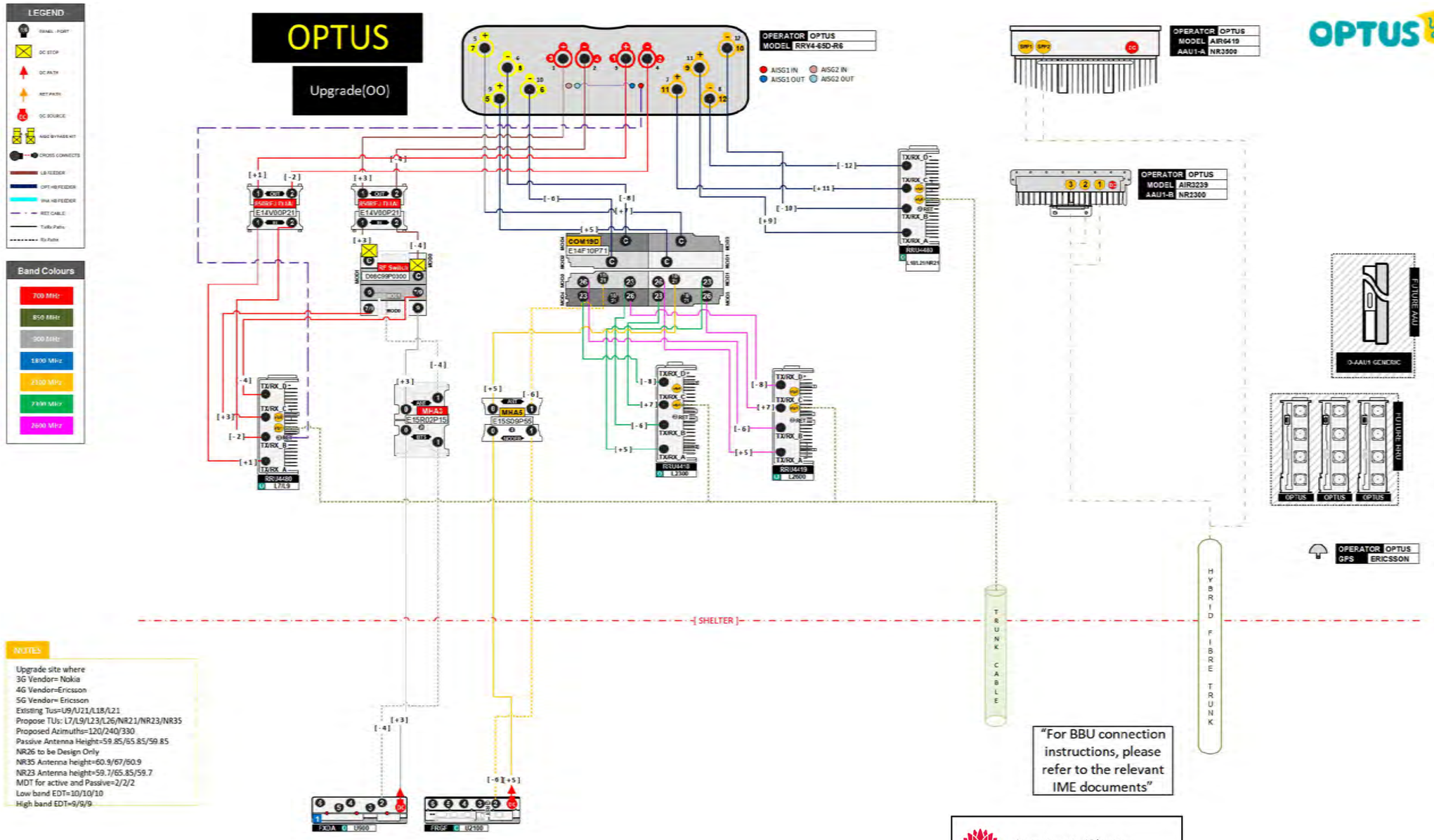
Drawing No. S0314-A1

Revision F

20 10 0 10 20 30 40 50mm

A3

CAD File: Z:\6. Upgrade 5G\S0314_ GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM



NOTES:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING S0314-A1.

OPTUS RF PLUMBING DIAGRAM

PER SECTOR

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
E	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (OO))	SSNC	AB	MA	SA	SA
D	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
C	12.12.13	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	STY	RN	MA	NT
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	CPC	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: RF PLUMBING DIAGRAM

Drawing Status: FOR CONSTRUCTION

Drawing No. S0314-A2

Revision E

20 10 0 10 20 30 40 50mm

A3

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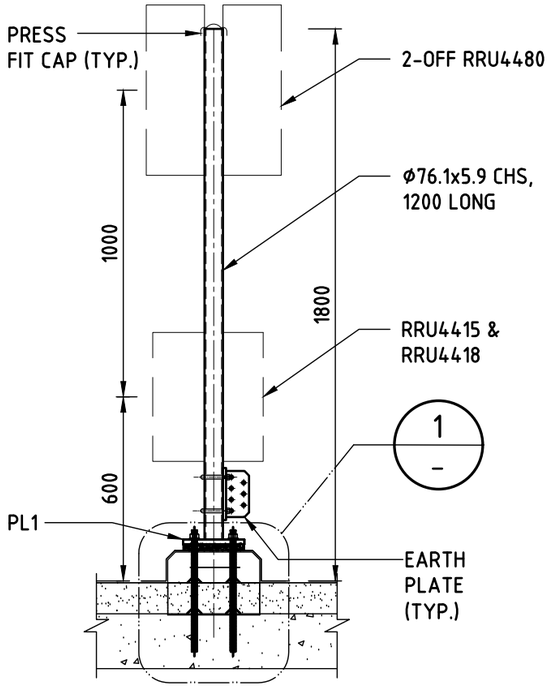
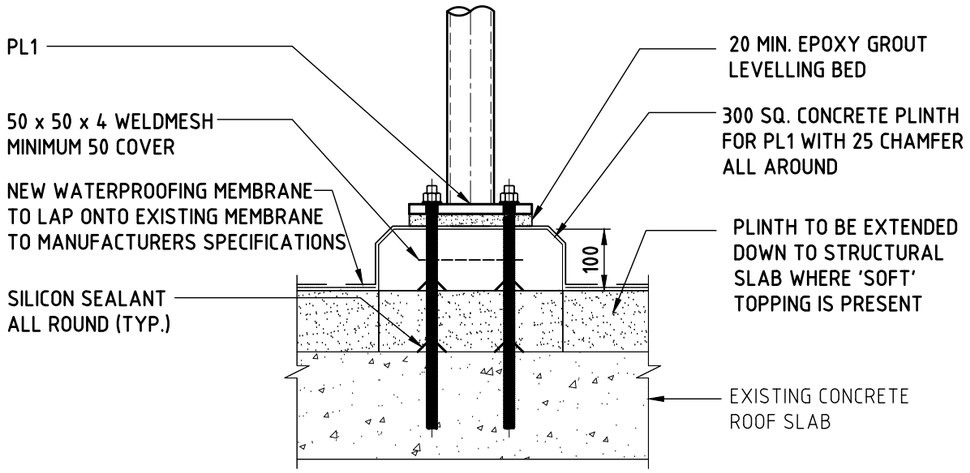


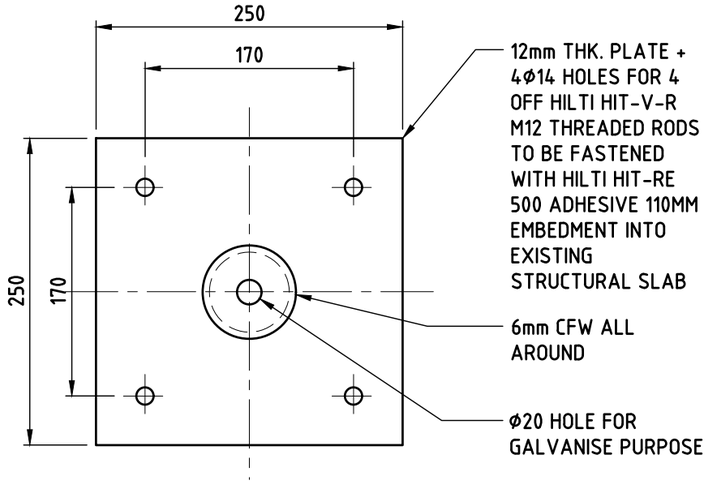
RRU'S MOUNT ELEVATION

1:20



DETAIL 1

1:10



PL1 DETAIL

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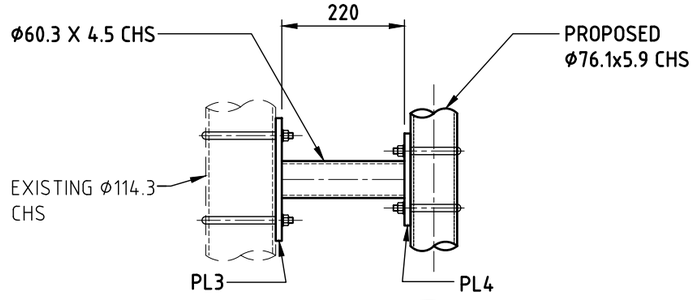
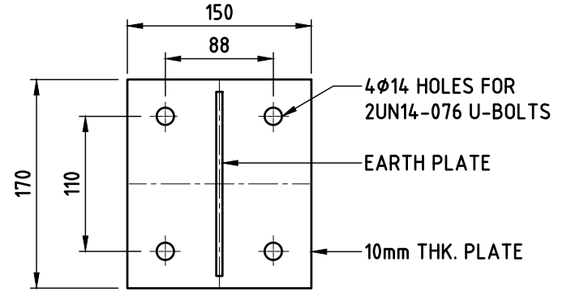


DETAIL 2

1:10



PL2 DETAIL

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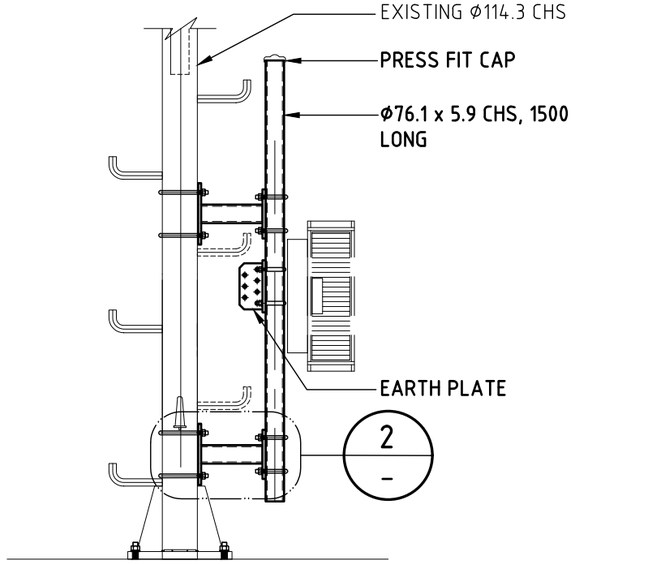
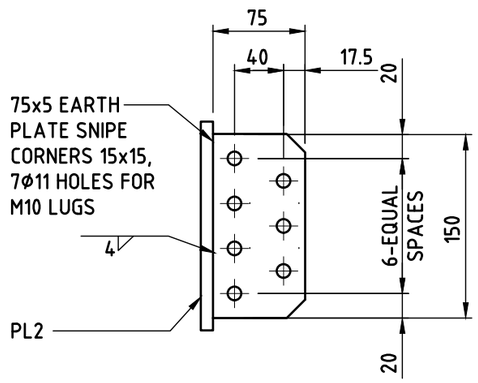


FUTURE RRU'S MOUNT ELEVATION

1:20



EARTH PLATE DETAIL

1:5

Department of Planning and Environment

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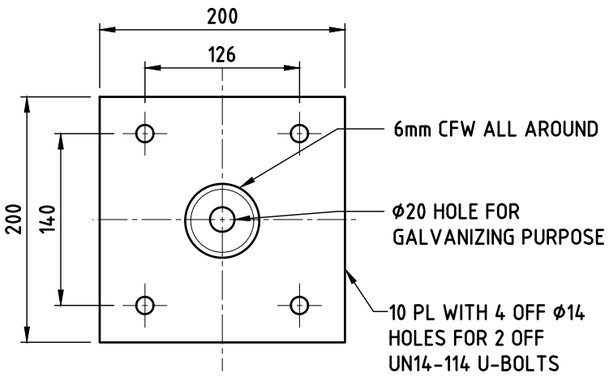
Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 8 of 13



PL3 DETAIL

1:5

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
A	30.04.18	FOR CONSTRUCTION	MYD	FS	DA	AA	PM

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: RRU MOUNTS DETAILS - SHEET 1

Drawing Status: FOR CONSTRUCTION

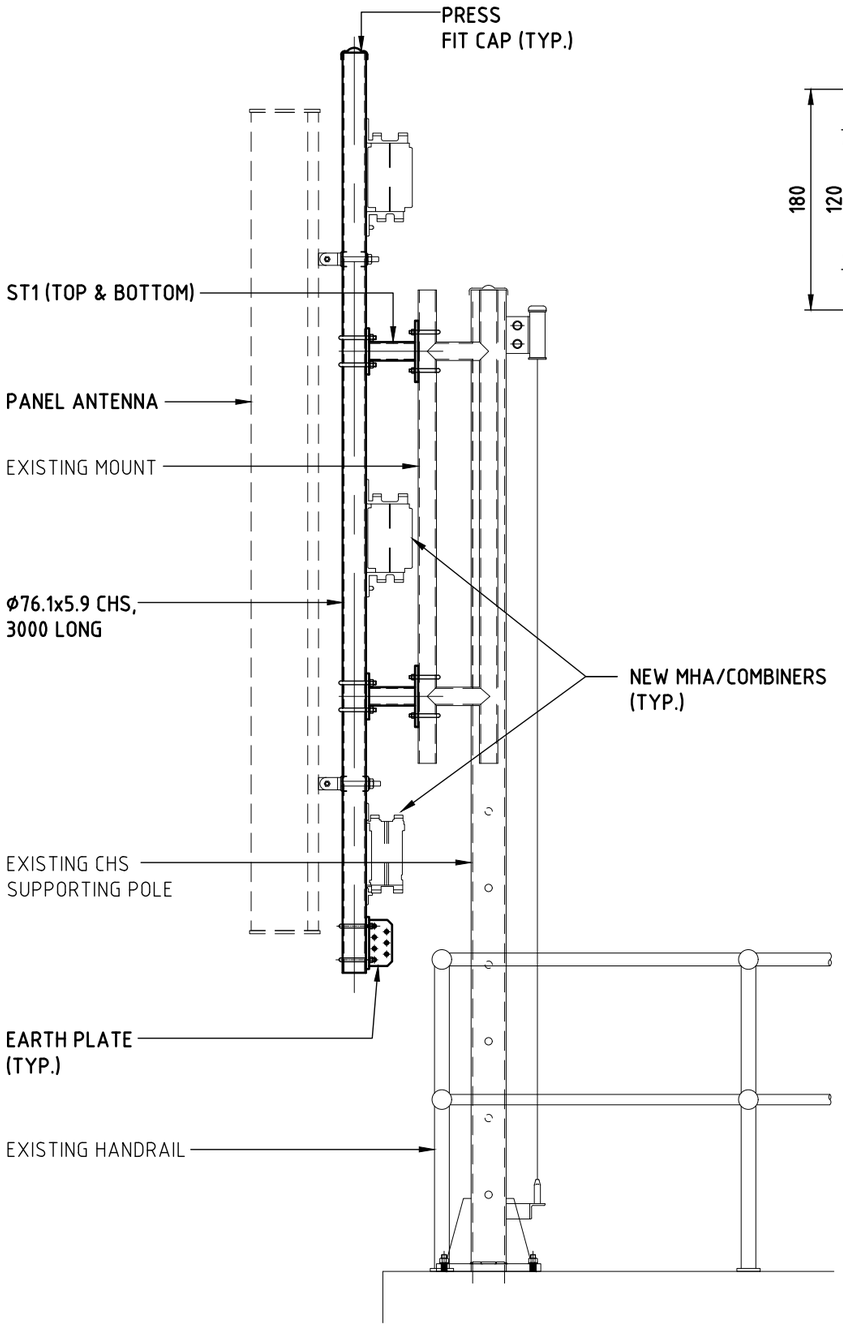
Drawing No. S0314-S1

Revision B

20 10 0 10 20 30 40 50mm

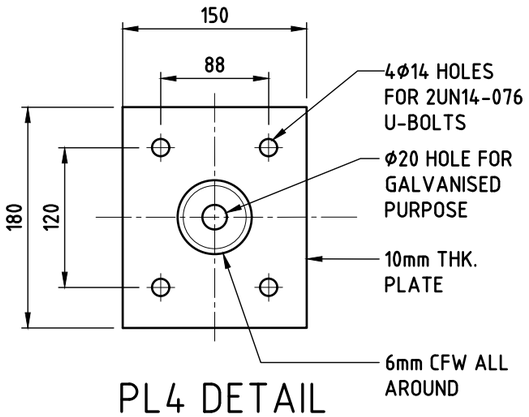
A3

CAD File: Z:\6. Upgrade 5G\S0314_GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM



ANTENNA MOUNT ELEVATION (SECTORS 11-0 & 21-0)

1:20



PL4 DETAIL

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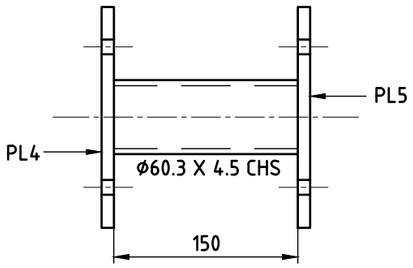
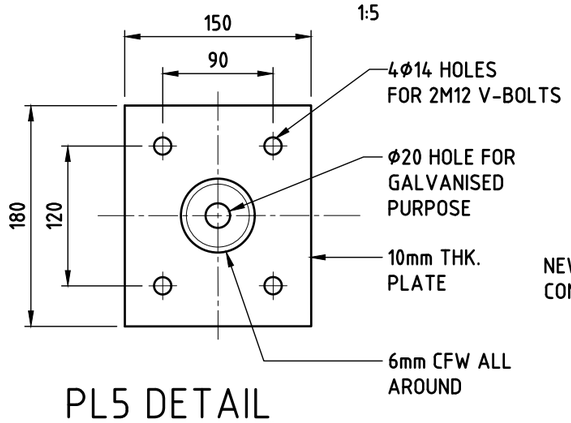


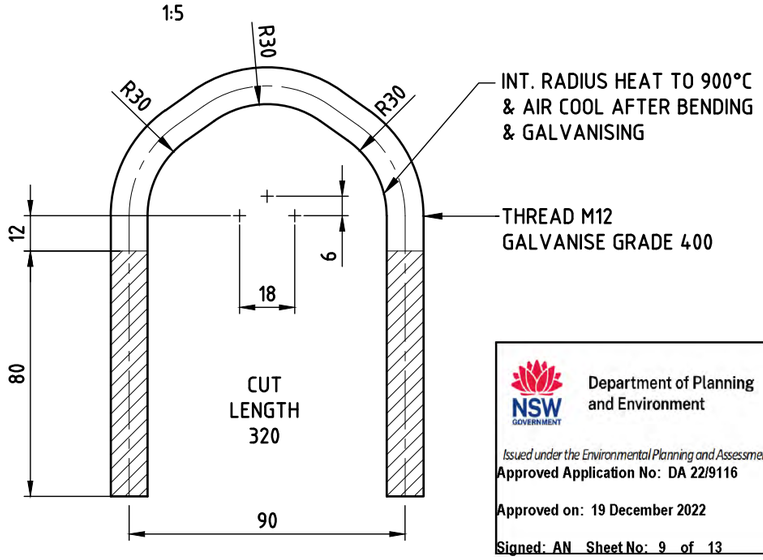
ST1 DETAIL

1:5



PL5 DETAIL

1:5



M12 V-BOLT DETAIL

1:2

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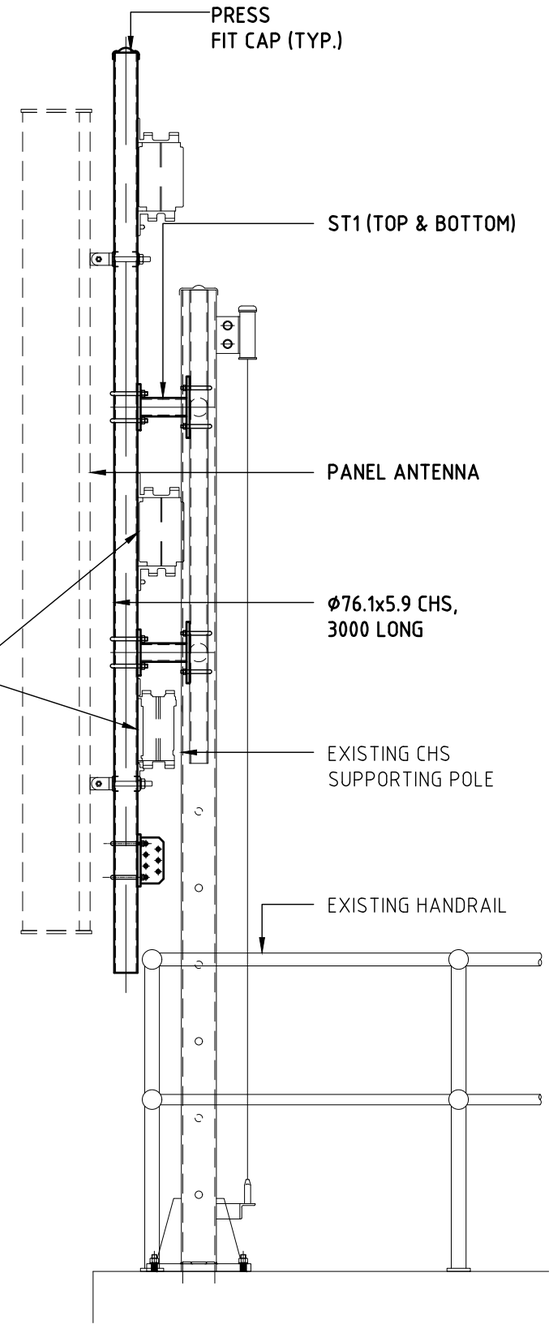
Approved on: 19 December 2022

Signed: AN Sheet No: 9 of 13



ANTENNA MOUNT ELEVATION (SECTOR 31-0)

1:20

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
A	30.04.18	FOR CONSTRUCTION	MYD	FS	DA	AA	PM

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: ANTENNA MOUNTS DETAILS - SHEET 1

Drawing Status: FOR CONSTRUCTION

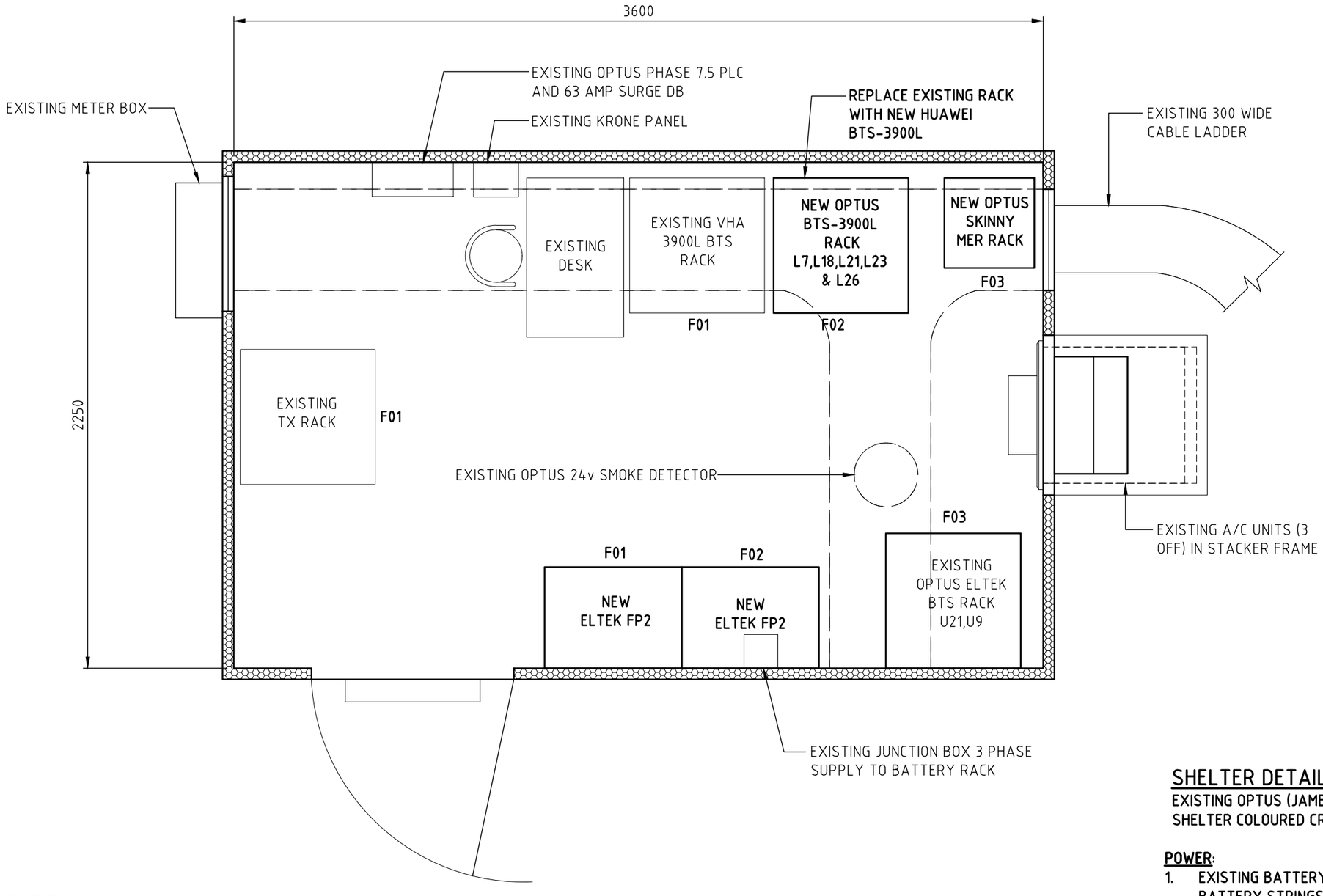
Drawing No. S0314-S2

Revision B

CAD File: Z:\6. Upgrade 5G\S0314_ GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Infernal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM

20 10 0 10 20 30 40 50mm

A3



NOTE:
THIS DRAWING IS DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED.

Department of Planning and Environment

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Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 10 of 13

SHELTER DETAILS:

EXISTING OPTUS (JAMES HARDIE) PHASE 6 (5309) SANDWICH PANEL EQUIPMENT SHELTER COLOURED CREAM (BEIGE).

POWER:

1. EXISTING BATTERY RACK WITH RECTIFIERS (FLAT PACK 1500) (7 OFF) AND BATTERY STRINGS (12T92F) (1 OFF) + BATTERY STRINGS (UXF100-12FS) (3 OFF) AT G02,F01 TO BE SWAPPED OUT WITH NEW ELTEK FP2 RACK WITH NEW BATTERY STRINGS (LPFG12-100HS)(3 OFF) AND NEW RECTIFIERS (FLAT PACK2 3KW HE)(4 OFF) AND EXISTING BATTERY RACK WITH RECTIFIERS (R1248) (6 OFF) AND BATTERY STRINGS (12T92F) (3 OFF) + BATTERY STRINGS (UXF100-12FS) (1 OFF) AT G02.F02 TO BE SWAPPED OUT WITH NEW ELTEK FP2 RACK WITH NEW BATTERY STRINGS (LPFG12-100HS)(5 OFF) AND NEW RECTIFIERS (FLAT PACK2 3KW HE)(6 OFF) AS PER DC TAB ON LATEST FR.

EQUIPMENT:

1. REUSE EXISTING ELTEK MULTI RADIO RACK (1 OFF) TO ACCOMMODATE U21 AND U9 EQUIPMENT AT G02.F03.
2. SWAPOUT EXISTING NSN RACK (1 OFF) TO ACCOMMODATE L7,L18,L21,L23 & L26 EQUIPMENT AT G00.F02 WITH NEW HUAWEI BTS-3900L RACK (1 OFF)
3. OPTUS SKINNY MER RACK TO BE INSTALLED AT LOCATION G00.F03 FOR FIBRE MANAGEMENT.
4. FOR DETAILED CABINET LAYOUT REFER TO "BTS" TAB OF SSR.
5. EXISTING 2G (1800) BTS RACK AT G00.F03 TO BE RECOVERED

SHELTER PLAN

1:20

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
E	24.05.22	FOR CONSTRUCTION (UPGRADE 5G (00))	SSNC	AB	MA	SA	SA
D	30.04.18	FOR CONSTRUCTION	MYD	DA	DA	AA	PM
B	25.10.13	ISSUED FOR CONSTRUCTION (LTE1800/ 2300 UPGRADE)	AURECON	STY	RN	MA	GR
AB1	20.07.12	AS BUILT (METRO U800 UPGRADE)	DALY	CPC	MM	DI	CT
A	04.11.11	FOR CONSTRUCTION	DALY	CPC	MM	DI	CT

ServiceStream

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S0314
GLEBE ISLAND
GLEBE ISLAND WHEAT SILOS

Drawing Title: EQUIPMENT SHELTER LAYOUT PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S0314-F1

Revision E

20 10 0 10 20 30 40 50mm

A3

CAD File: Z:\6. Upgrade 5G\S0314_GLEBE ISLAND\WA 509902\Phase 2\5. Design\2. CAD Folder\2.3 Internal CAD (Do not send)\S0314-FC_221018.dwg Date: 18.10.2022 10:02 AM

GENERAL AND PRELIMINARY

1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR ALL WORKS AND REQUIREMENTS UNLESS NOTED OTHERWISE.
2. THE CONTRACTOR OR REPRESENTATIVE SHALL BE RESPONSIBLE FOR LIAISONS WITH THE PROPERTY OWNER REGARDING CONSTRUCTION OF THE INSTALLATION. THE PROPERTY MUST REMAIN SERVICEABLE AND OPERATIONAL AT ALL TIMES UNLESS AGREED WITH THE PROPERTY OWNER.
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO FABRICATION AND CONSTRUCTION.
4. REFER TO GIVEN DIMENSIONS ONLY, DRAWINGS SHOULD NOT TO BE SCALED. DIMENSIONS ARE IN MILLIMETRES UNO.
5. SPECIFIED PRODUCTS (OR THEIR APPROVED EQUIVALENTS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
6. THE CONTRACTOR SHALL USE DROP SHEETS OR ANY OTHER METHOD DEEMED NECESSARY TO PROTECT THE EXISTING BUILDING FROM DAMAGE DURING CONSTRUCTION.
7. NORTH POINT AS SHOWN ON DRAWINGS INDICATES MGA NORTH (GDA 94 DATUM) UNLESS NOTED OTHERWISE.
8. ANTENNA AZIMUTHS ARE SPECIFIED IN DEGREES REFERENCED TO TRUE NORTH (TN).
9. ALL LEVELS ARE EXPRESSED IN METRES TO AUSTRALIAN HEIGHT DATUM (AHD).

SET OUT

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SET OUT OF THE SHELTER OR OUTDOOR UNITS IN ACCORDANCE WITH THE DESIGN INTENT AS SHOWN ON THE DRAWINGS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SET OUT OF THE CABLE LADDER IN ACCORDANCE WITH THE DESIGN INTENT AS SHOWN ON THE DRAWINGS.
3. CONCRETE WORKS TOLERANCES SHALL COMPLY WITH CLAUSE 17.5 OF AS 3600. △C
4. STRUCTURAL STEELWORK TOLERANCES SHALL COMPLY WITH CLAUSE 15.3 OF AS 4100.

USE OF OPTUS STANDARD DRAWINGS

CONSTRUCTION DETAILS ON OPTUS STANDARD DRAWINGS SHALL BE ONLY BE USED WITHIN THE SPECIFIED DESIGN CRITERIA. THE OPTUS DESIGN CONSULTANT SHALL CONFIRM APPLICABILITY TO THE SITE. THE OPTUS CONTRACTOR SHALL CONFIRM ACTUAL SITE CONDITIONS ARE SAME AS STATED ON THE STANDARD DRAWINGS REFERENCED.

STRUCTURAL STEELWORK

1. ALL MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH AS 4100, AS 1657 AND AS/NZS 1554.1.
2. ALL STEELWORK SHALL BE IN ACCORDANCE WITH AS/NZS 3679.1 (GRADE 300) FOR HOT-ROLLED SECTIONS AND BARS), AS/NZS 3678 (GRADE 250) FOR HOT-ROLLED PLATES AND AS 1163 (GRADE 250 (MIN)) FOR HOLLOW SECTIONS. △C
3. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS ON SITE PRIOR TO FABRICATION.
4. ALL PREFABRICATED STEELWORK SHALL BE HOT-DIP GALVANISED AFTER FABRICATION, IN ACCORDANCE WITH AS/NZS 4680. PLUG AND SEAL WATERTIGHT ANY HOLES MADE FOR GALVANISING.
5. THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER TO STEEL, WHETHER OR NOT DETAILED ON THE STEELWORK DRAWINGS.
6. UNLESS SPECIFIED OTHERWISE, WELDS SHALL BE GENERAL PURPOSE (GP) CONTINUOUS FILLET WELDS. DEFAULT SIZE IS LESSOR OF 6mm AND THICKNESS OF THE THINNEST PART BEING JOINED. STRUCTURAL PURPOSE (SP) WELDS SHALL BE SELECTED FOR STRUCTURES SUBJECT TO FATIGUE. △C
7. ANY CUTS, HOLES AND WELDS TO EXISTING STEELWORK SHALL BE TREATED WITH 'COLD-GAL' ZINC RICH PAINT.
8. BOLTS NOT DESIGNATED SHALL BE GRADE 8.8 TO AS/NZS 1252 AND 'SNUG' TIGHTENED.
9. ALL BOLTS AND U-BOLTS SHALL BE SNUG TIGHTENED AND SECURED WITH FLAT WASHER AND SPRING WASHER (UNLESS SPECIFIED OTHERWISE). △C
10. PROVIDE APPROVED NEOPRENE (OR EQUIVALENT) WASHERS AND COLLARS AT ALL DISSIMILAR METAL INTERFACES.
11. ALL CHEMICAL AND MECHANICAL MASONRY ANCHORS SHALL BE STAINLESS STEEL (UNLESS SPECIFIED OTHERWISE) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
12. TWO-HOLE EARTH LUGS SHALL BE PROVIDED ON ALL MOUNTS, EXCEPT ON STEEL MONOPOLES, LATTICE TOWERS AND GUYED MASTS.

CONCRETE WORK

1. ALL CONCRETE WORK SHALL COMPLY WITH THE CURRENT ISSUE OF AS 3600 AND OTHER RELEVANT STANDARDS REFERENCED THEREIN.
2. UNLESS SPECIFIED OTHERWISE, CONCRETE MIX SHALL CONTAIN PORTLAND CEMENT TYPE GP OR GB, 20mm GRADED COARSE AGGREGATE AND ACHIEVE 80mm SLUMP AT POINT OF DELIVERY.
3. UNLESS SPECIFIED OTHERWISE, CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS (f'c) SHALL BE 32 MPa.
4. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED COATINGS. BEAM DEPTHS INCLUDES SLAB THICKNESS (IF ANY).
5. CONCRETE SURFACES SHALL BE CURED FOR A MINIMUM OF 7 DAYS, COMMENCING IMMEDIATELY AFTER PLACING.

MASONRY WORK

1. ALL MASONRY WORK SHALL CONFORM WITH THE CURRENT ISSUE OF AS 3700 AND OTHER STANDARDS REFERENCED THEREIN.
2. BUILD IN AS NECESSARY, LINTELS, FRAMES, BOLTS, LUGS, WALL TIES AND METALWORK.
3. CAREFULLY POSITION OPENINGS FOR OTHER TRADES TO ELIMINATE CUTTING.
4. BED JOINTS ARE TO BE 10mm THICK.
5. BEFORE LAYING MASONRY UNITS, ENSURE THAT THE BASE IS CLEAN AND FREE OF LAITANCE.
6. INSTALL WIRING FOR POWER AND OTHER CONDUITS WITHIN BLOCK CORES (WHERE APPLICABLE). DO NOT CUT CHASES IN HOLLOW BLOCKWORK.
7. ALL WALL INTERSECTIONS SHALL BE OF BONDED CONSTRUCTION OR TIED TO EXISTING WITH MEDIUM DUTY (MIN) TIES AT 400mm CENTRES VERTICALLY.

TIMBER WORK

1. ALL TIMBER WORK SHALL CONFORM WITH THE CURRENT ISSUE OF AS/NZS 1684 AND AS/NZS 1720 AND OTHER STANDARDS REFERENCED THEREIN.
2. MINIMUM STRENGTH GRADE SHALL BE F7, UNLESS SPECIFIED OTHERWISE.

ELECTRICAL WORK (POWER)

1. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH THE RELEVANT CODES, STANDARDS, RULES, AND REGULATIONS OF STATUTORY AUTHORITIES. IN PARTICULAR: STATE SERVICE AND INSTALLATION RULES, AS/NZS 3000 WIRING RULES, AS3015, AS/NZS 3017 AND THE SUPPLY AUTHORITY REGULATIONS.
2. THE LOCATIONS AND MOUNTING HEIGHTS OF THE NEW INSTALLATION SHOWN ON THE SITE DRAWINGS IS INDICATIVE ONLY. THE FINAL LOCATIONS AND HEIGHTS SHALL BE DETERMINED ON SITE TO SUIT THE CLIENT AND THE INSTALLATION. THE CONTRACTOR SHOULD VISIT THE SITE DURING THE TENDER PERIOD TO BECOME FAMILIAR WITH THE SCOPE OF WORK.
3. ALL REQUIREMENTS FOR INSTALLATIONS REGARDING SUPPLY ARRANGEMENTS, PROVISION OF SERVICE CABLES AND CONSUMER MAINS AND METERING SHALL BE IN ACCORDANCE WITH AS/NZS 3000 AND RELEVANT STATE SERVICE AND INSTALLATION RULES.
4. A SEPARATE MEN EARTH ELECTRODE SHALL BE PROVIDED BY THE CONTRACTOR BELOW THE METER BOX AS REQUIRED.
5. ALL WIRING SYSTEMS SHALL BE INSTALLED AND ENCLOSED BY APPROVED METHODS WHICH WILL READILY PERMIT CABLES TO BE DRAWN IN OR REPLACED AFTER COMPLETION OF CONSTRUCTION.
6. CABLE MARKERS SHALL BE PROVIDED FOR UNDERGROUND WIRING FROM WITHIN THE PROPERTY BOUNDARY AND TO THE OPTUS INSTALLATION, AT THE COMMENCEMENT AND FINISH OF EACH ROUTE AND AT EACH CHANGE OF DIRECTION.
7. ALL EXISTING SURFACES, KERBS, GUTTERS, INVERTS, VEHICLE CROSSINGS AND PAVEMENTS DISTURBED AFTER INSTALLATION OF UNDERGROUND WIRING SHALL BE REINSTATED AND MADE GOOD BY THE CONTRACTOR.
8. LOCATE AND INDENTIFY ALL UNDERGROUND SERVICES BEFORE COMMENCING WORK.

EARTHING

1. EQUIPMENT AND ANTENNA MOUNTS SHALL BE EARTHED IN ACCORDANCE WITH THE EARTHING SPECIFICATION (OSD-030).
2. ALL EXTERIOR EARTH TAPE ELECTRODES SHALL BE COPPER BONDED HARDENED STEEL UNLESS OTHERWISE NOMINATED ON THE SITE DRAWINGS.
3. THE EARTHING SYSTEM SHALL BE CHECKED FOR CONTINUITY AND IMPEDANCE SHALL BE MEASURED AND A WRITTEN TEST REPORT PROVIDED.
4. EARTHING ELECTRODES SHALL BE INSTALLED AT A DEPTH OF NOT LESS THAN 3 METRES UNLESS NOTED OTHERWISE.

UNDERGROUND SERVICES

1. EXISTING SERVICES SHOWN ON SITE DRAWINGS IS REPRESENTATIVE OF AVAILABLE INFORMATION (OBTAINED FROM LOCAL AUTHORITIES) AND THE SITE SURVEY.
2. SERVICES INFORMATION SHALL BE READ IN CONJUNCTION WITH THE RELEVANT LOCAL AUTHORITIES DRAWINGS TO CONFIRM ACCURACY AND COMPLETENESS.
3. ADDITIONAL UNDOCUMENTED SERVICES MAY BE PRESENT ON SITE. FOR INFORMATION OF UTILITY UNDERGROUND SERVICES CALL 1100 'DIAL BEFORE YOU DIG'.
4. THE CONTRACTOR SHALL IDENTIFY AND CONFIRM THE LOCATION OF ALL RELEVANT UNDERGROUND SERVICES PRIOR TO COMMENCEMENT OF THE WORKS USING MANUAL POTHOLING OR OTHER APPROVED MEANS.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
C	OCT 18	STRUCTURAL STEELWORKS NOTES AMENDED	HW	QG	JYW	BL	MVDL
B	DEC 10	DATUM CHANGED TO MGA; ELECTRICAL REVISED	AA	DCL	DCL	MTA	NT
A	NOV 08	ISSUED FOR CONSTRUCTION (REPLACES GSM-SPEC1)	CW	DCL	DCL	MTA	SN

HUAWEI TECHNOLOGIES (AU) PTY LTD
ABN 49 103 793 800

SYDNEY
LEVEL 6 TOWER B 799 PACIFIC HIGHWAY
CHATSWOOD NSW 2067
TEL: +61 2 9928 3888 FAX: +61 2 9411 8533

MELBOURNE
LEVEL 24 459 COLLINS STREET
MELBOURNE VIC 3000
TEL: +61 3 8610 0600 FAX: +61 3 9621 1575

Client: OPTUS

Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979
Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 11 of 13

Project: MOBILE NETWORK AUSTRALIA

OPTUS STANDARD DRAWING

Drawing Title: STANDARD CONSTRUCTION NOTES

Drawing Status: FOR CONSTRUCTION

Drawing No. OSD-100

Revision C

CAD File: C:\Users\Q8409804\Desktop\OSD updated drawings\Updated CAD&PDF\STDWG-96524_OSD_100_Rev_C.dwg Date: 08.10.2018 5:50 PM

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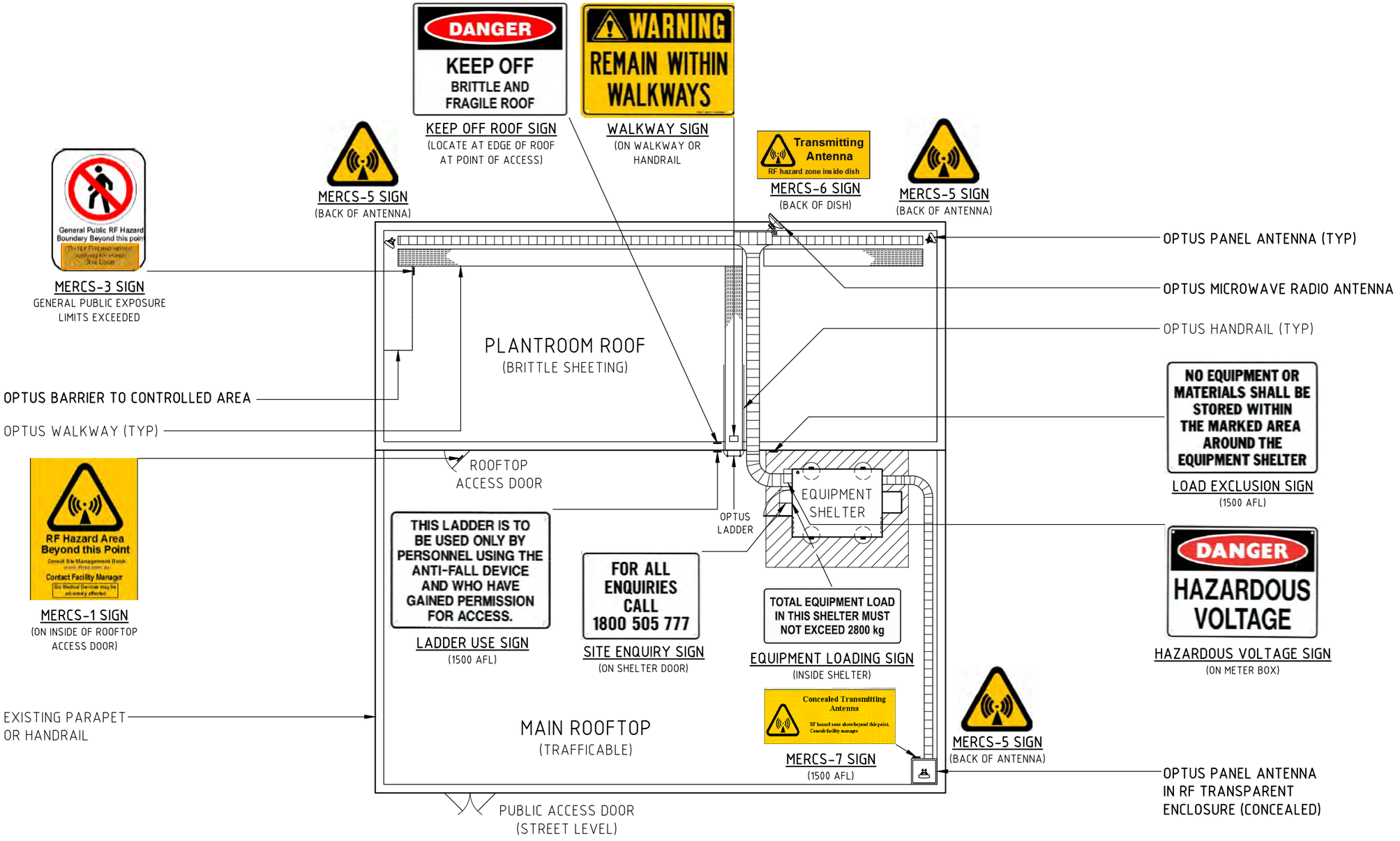
A3



Department of Planning and Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No: DA 22/9116

Approved on: 19 December 2022

Signed: AN Sheet No: 12 of 13

NOTES:

1. SIGNAGE ON AND INSIDE THE SHELTER IS PROVIDED BY THE SHELTER SUPPLIER.
2. REFER TO SECTION 6 OF THE OPTUS CONSTRUCTION SPECIFICATION (OSD-010) FOR SIGNAGE DETAILS, INCLUDING SIZE, MATERIALS AND FIXING.
3. EME SIGNAGE REQUIREMENTS FOR OPTUS MACRO ROOFTOP SITES ARE BASED ON MCF MERCS DOCUMENT "PREFERRED SITE SIGNAGE " (NOVEMBER 2007).
4. WHEN CO-SITING, EXISTING OTHER CARRIERS SIGNAGE SHALL NOT BE REMOVED.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	JUN 16	SHELTER TYPE CHANGED TO STANDARD	VPL	TL	DM	DM	MC MC	MV MV
A	NOV 08	ISSUED FOR CONSTRUCTION	CW	DCL	DCL	DCL	MTA MTA	SN SN

VISIONSTREAM PTY LTD
25-37 Huntingdale Road
Burwood VIC 3125
Australia
Tel- +61 3 9273 7600
www.visionstream.com.au

Client: OPTUS yes

Project: MOBILE NETWORK AUSTRALIA

OPTUS STANDARD DRAWING

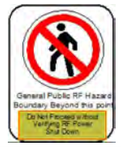
Drawing Title: SITE SIGNAGE TYPICAL ROOFTOP SITE

Sheet Size	Scale	Drawing No.	Revision
A3	1:50	OSD-180	B

20 10 0 10 20 30 40 50mm

CAD File: N:\EastBentleigh\National\COMMON\00 OWP\National Design\CAD Library\Standard Drawings - Optus (OSD)\CAD\For Approval\OSD-180 Rev_B.dwg
Plot By: Pathmathan Rayappan Date: 24.06.16 1:29 PM

MERCS SIGNAGE

SIGN NAME	SYMBOL	SIGN IMAGE	SIZE / MATERIAL	LOCATION	FIXING METHOD
MERCS-1 *(RF HAZARD AREA SIGN)*	S1		400H x 350W METAL OR SELF ADHESIVE 200H x 175W METAL OR SELF ADHESIVE	1. INSIDE ROOFTOP ACCESS DOORS OR ON BUILDING FACADE (NEED OWNER'S APPROVAL) IF EWP ACCESS ONLY. CONSULT SAE FOR ANY COMMUNITY SENSITIVITIES. 2. AT BOUNDARY OF CONTROLLED AREA (ROOFTOP EXCLUSION ZONES DEFINED BY HANDRAILS, SAFETY CHAINS, BALLARD, SHROUDS ETC). 3. ON MONOPOLE FACE (DIRECTLY BELOW CLIMBING PEGS /LADDER AND FALL ARREST SYSTEM). 4. ON INSTALLATIONS SUCH AS LIGHTING COLUMNS / POLES AT SPORTING VENUES, PARKS, RESERVES ETC. 5. ON LATTICE TOWER LEG (DIRECTLY BELOW CLIMBING PEGS /LADDER AND FALL ARREST SYSTEM).	CENTRE OF SIGN TO BE 1500mm ABOVE FLOOR LEVEL AND 400mm FROM DOOR EDGE. AFFIXED VIA SCREW-FIXED, RIVETED OR SELF-ADHESIVE. CENTRE OF SIGN TO BE 1500mm ABOVE BASE OF MONOPOLE. AFFIXED VIA STEEL STRAPS OR WEATHERPROOF ADHESIVE. CENTRE OF SIGN TO BE 1500mm ABOVE BASE OF TOWER LEG. AFFIXED VIA STEEL STRAPS (NOT OBSCURING SIGN OR SCREWED) TO STEEL BRACKET. CENTRE OF SIGN TO BE AT LEAST 3m BELOW ANTENNAS OR DISHES AND MIN. 5m ABOVE THE BASE OF THE STRUCTURE. ONE SIGN PER CLIMBING ACCESS POINT.
MERCS-2 *(MCF INFORMATION SIGN)*	S2		180H x 250W METAL	ON ALL TOWER AND MONOPOLE FACILITIES - FIXED TO SITE ACCESS GATES. MAY BE INSTALLED ON ROOFTOP ACCESS DOORS THAT ARE NOT RESTRICTED ACCESS (i.e. DOORS THAT DO NOT HAVE MERCS-1 SIGNAGE INSTALLED).	CENTRE OF SIGN TO BE 1500mm ABOVE GROUND LEVEL AND 400mm FROM PADLOCK SIDE OF DOUBLE ACCESS GATES. FOR SINGLE ACCESS GATES, LOCATE SIGN 400mm FROM PADLOCK SIDE ON FIXED FENCING ADJACENT THE ACCESS GATE. SIGN TO BE FIXED VIA STAINLESS STEEL OR CORROSION RESISTANT CABLE TIES.
MERCS-3 *(GENERAL PUBLIC RF HAZARD SIGN)*	S3		400H x 350W METAL OR SELF ADHESIVE 200H x 175W METAL OR SELF ADHESIVE	NEAR AREAS THAT EXCEED PUBLIC EXPOSURE LIMITS IN A CONTROLLED AREA (e.g. WALKWAYS PASSING IN FRONT OF TRANSMITTING ANTENNAS OR DISHES). IF BARRIERS ARE REQUIRED, LOCATION OF BARRIERS (E.G. CHAINS) AND SIGN TO BE SHOWN ON FC DRAWING. NEED OWNER APPROVAL FOR THE BARRIERS.	SIGN TO BE INSTALLED AT ENTRY POINT TO CONTROLLED AREAS (ESPECIALLY ON LARGE ROOFTOPS WITH MULTIPLE ACCESS POINTS OR POOR ACCESS RESTRICTION) - ON HANDRAIL, SAFETY CHAIN, BALLARD, SHROUD OR WALL. SIGN TO BE FIXED VIA FIXING SCREWS OR WEATHERPROOF ADHESIVE.
MERCS-4 *(OCCUPATIONAL RF HAZARD SIGN)*	S4		400H x 350W METAL OR SELF ADHESIVE 200H x 175W METAL OR SELF ADHESIVE	NEAR AREAS THAT EXCEED OCCUPATIONAL EXPOSURE LIMITS IN A CONTROLLED AREA (e.g. EME EXCLUSION ZONES ON GROUND WITHIN COMPOUNDS OR ON STRUCTURES CAUSED BY TRANSMITTERS NEARBY). IF BARRIERS ARE REQUIRED, LOCATION OF BARRIERS (E.G. CHAINS) AND SIGN TO BE SHOWN ON FC DRAWING. NEED OWNER APPROVAL FOR THE BARRIERS.	SIGN TO BE INSTALLED AT ENTRY POINT TO CONTROLLED AREAS (EITHER SIDE OF CLIMBING BARRIERS ON STRUCTURES OR ON SMALL DIAMETER FREE-STANDING POLE ON GROUND EITHER SIDE OF EXCLUSION ZONES). SIGNAGE ON STRUCTURES IS NOT TO IMPEDE OPERATION OF FALL ARREST SYSTEM. SIGN TO BE FIXED VIA SCREWS, RIVETS OR STEEL STRAPS.
MERCS-5 *(TRANSMITTING ANTENNA SIGN)*	S5		100 x 100 x 100 SELF ADHESIVE	REQUIRE ON BACK OF EACH PANEL ANTENNAS ON ROOFTOP SHARED FACILITY.	CENTRE OF SIGN TO BE INSTALLED ON REAR OF PANEL ANTENNAS AND AT BASE OF OMNI ANTENNA MOUNTS, PREFERABLY 1500mm ABOVE NORMAL ACCESS (ROOF) LEVEL. SIGN TO BE SELF-ADHESIVE TO BACK OF PANEL ANTENNAS.
			200 x 200 x 200 METAL	ALTERNATIVELY INSTALL SIGNAGE FOR NON-EME AWARE ROOFTOP WORKERS WHERE THEY MAY INADVERTENTLY ACCESS AN EME OVERHEAD HAZARD ZONE ON FOOT, OR VIA ACCESS LADDER, EWP ETC.	SIGN TO BE INSTALLED MOUNTING POLE OF ANTENNA SO THAT IT'S VISIBLE FROM NORMAL ACCESS (ROOF) LEVEL (e.g. ROOF EDGES IN THE VICINITY OF TRANSMITTING ANTENNAS OR DISHES INSTALLED ABOVE). SIGN TO BE FIXED VIA SCREWS OR RIVETS TO MOUNTING POLES OF PANEL ANTENNAS.
MERCS-6 *(TRANSMITTING MICROWAVE SIGN)*	S6		110H x 200W SELF ADHESIVE 55H x 100W SELF ADHESIVE	REQUIRED ON ALL ROOFTOP SHARED FACILITIES TO IDENTIFY LOW POWER TRANSMITTING MICROWAVE ANTENNAS (DISHES). THESE TRANSMITTERS EME EXCLUSION ZONES ARE CONTAINED WITHIN THE DIAMETER OF THE ANTENNA (i.e TRANSMIT LINEALLY FROM WITHIN).	SIGN TO BE INSTALLED AT REAR OF DISH HEAD UNIT OR RADIO UNIT FACING IN THE DIRECTION FROM WHICH ROOFTOP VISITOR WOULD MOST LIKELY APPROACH. SIGNAGE SHOULD NOT IMPEDE DISH OPERATION OR COOLING. DO NOT INSTALL SIGNAGE ON FRONT OF DISHES. **THIS SIGNAGE DOES NOT APPLY TO GRIDPAK ANTENNAS.**

MCF Mobile Carriers Forum

THIS TABLE IS BASED ON MOBILE CARRIERS FORUM (MCF) DOCUMENT 'FACILITY RF EME SIGNAGE - 7.1.01 PREFERRED SITE SIGNAGE' AND COMPLIES WITH ARPANSA's RADIATION PROTECTION STANDARD (RPS3) [1]
REFER TO DRAWING OSD-170, OSD-180 & OSD-190 FOR GUIDANCE ON LOCATION OF SIGNAGE.

NSW GOVERNMENT Department of Planning and Environment

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Signed: AN Sheet No: 13 of 13

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
A	JUN 16	ISSUED FOR CONSTRUCTION	VPL	KpL	NR : NR	AC : AC	DM : DM

visionstream
VISIONSTREAM PTY LTD
25-37 Huntingdale Road
Burwood VIC 3125
Australia
Tel- +61 3 9273 7600
www.visionstream.com.au

Client: OPTUS yes

Project: MOBILE NETWORK AUSTRALIA

OPTUS STANDARD DRAWING

Drawing Title: OPTUS EME SAFETY SIGNAGE REQUIREMENTS

Sheet Size	Scale	Drawing No.	Revision
A3	1:1	OSD-191	A

20 10 0 10 20 30 40 50mm

CAD File: N:\EastBentleigh\National\COMMON\00 OWP\National Design\CAD Library\Standard Drawings - Optus (OSD)\CAD\For Approval\OSD-191 Rev__A.dwg
Plot By: Pathathan Rayappan Date: 24.06.16 1:29 PM