		10.06.24	22.10.24	03.12.24
DATE OF ISSUE				
DRAWING PACKAGE VERSION		1	2	3
GENERAL				
S4116-G1	SITE SPECIFICATIONS	A	A	B
S4116-G2	OVERALL SITE PLAN	A	A	B
S4116-G3	SITE LAYOUT AND SETOUT PLAN	A	A	B
S4116-G4	SITE ELEVATION SHEET 1 OF 2	A	A	B
S4116-G4-1	SITE ELEVATION SHEET 2 OF 2	A	A	B
ANTENNAS & TRANSMISSION				
S4116-A1	PHYSICAL ANTENNA SYSTEM CONFIGURATION	A	B	B
S4116-A2	PHYSICAL ASSET SUMMARY TABLE	A	B	B
S4116-P1	RF PLUMBING DIAGRAM FOR SECTOR S1	A	A	A
S4116-P2	RF PLUMBING DIAGRAM FOR SECTOR S2	A	A	A
STRUCTURAL				
S4116-S1	NEW STEELWORK DETAILS SHEET 1 OF 12	A	A	B
S4116-S2	NEW STEELWORK DETAILS SHEET 2 OF 12	A	A	B
S4116-S3	NEW STEELWORK DETAILS SHEET 3 OF 12	A	A	B
S4116-S4	NEW STEELWORK DETAILS SHEET 4 OF 12	A	A	B
S4116-S5	NEW STEELWORK DETAILS SHEET 5 OF 12	A	A	B
S4116-S6	NEW STEELWORK DETAILS SHEET 6 OF 12	A	A	B
S4116-S7	NEW STEELWORK DETAILS SHEET 7 OF 12	A	A	B
S4116-S8	NEW STEELWORK DETAILS SHEET 8 OF 12	A	A	B
S4116-S9	NEW STEELWORK DETAILS SHEET 9 OF 12	A	A	B
S4116-S10	NEW STEELWORK DETAILS SHEET 10 OF 12	A	A	B
S4116-S11	NEW STEELWORK DETAILS SHEET 11 OF 12	A	A	B
S4116-S12	NEW STEELWORK DETAILS SHEET 12 OF 12	A	A	B
ELECTRICAL				
S4116-E1	SITE POWER DETAILS	A	A	A
S4116-E2	SINGLE LINE DIAGRAM	A	A	A
S4116-E3	SITE EARTHING PLAN	A	A	A
OUTDOOR UNITS				
S4116-F1	ODU LAYOUT PLAN	A	A	A
LEASE / LICENCE				
6952_LE	LEASE SURVEY	A	A	A

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

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CPS TECH	SELVA SELVARAJ	1	1	1

OPTUS

OPTUS SITE - S4116

COLLAROY BEACH 2

1058 PITTWATER RD

COLLAROY

NSW 2097

OPTUS STAY ALIVE SITE REPLACEMENT 5G

OPTUS WORK AUTHORITY Nº 482772

CPS
TECHNOLOGY & INFRASTRUCTURE

FOR CONSTRUCTION

Drawing No.
S4116 - 00

A3

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DATE OF ISSUE	10.06.24	22.10.24	03.12.24
DRAWING PACKAGE VERSION	1	2	3

REFERENCE DOCUMENTS

OSD-100	STANDARD CONSTRUCTION NOTES	C	C	C
OSD-171-2	SITE SIGNAGE TYPICAL ROOFTOP SITE - PLAN	B	B	B
OSD-171-3	SIGNAGE LEGEND AND NOTES	B	B	B
OSD-540	CABLE LADDER FIXING DETAILS TO BUILDINGS & STRUCTURES	F	F	F
OSD-620	MAINS POWER MANUAL CHANGEOVER SWITCH DETAILS	A	A	A
OSD-713	OUTDOOR CABINET GENERAL EARTHING DETAILS	A	A	A
OSD-800	TYPICAL ROOFTOP EARTHING PLAN	B	B	B
OSD-810	TYPICAL ROOFTOP EARTHING DETAILS AT ANTENNAS	C	C	C
OSD-830	EARTH BAR DETAILS	B	B	B
OSD-831	SINGLE POINT EARTH BAR DETAILS	A	A	A
21080.21 CERT01	INDARA ROOFTOP STRUCTURAL CERTIFICATE	1	1	2

OPTUS

OPTUS SITE - S4116

COLLAROY BEACH 2

1058 PITTWATER RD

COLLAROY

NSW 2097

OPTUS STAY ALIVE SITE REPLACEMENT 5G

OPTUS WORK AUTHORITY Nº 482772

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Accreditation Number: BDC2304

CPS
TECHNOLOGY & INFRASTRUCTURE

FOR CONSTRUCTION

Drawing No.
S4116 - 01

A3

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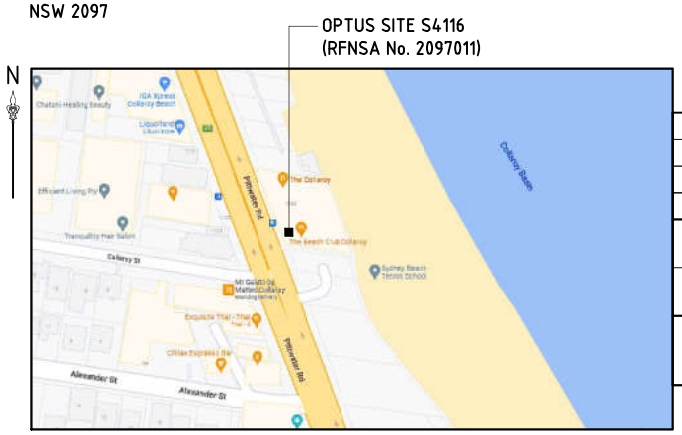
SITE ADDRESS

1058 PITTWATER RD
COLLAROY
NSW 2097



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SITE LOCATION DATA	
SOURCE: RFNSA	
DATUM: MGA (GDA94)	ZONE: 56
REF LOCATION:	℄ ROOFTOP
EASTING	342 633
NORTHING	6 266 273
LATITUDE	-33.731914°
LONGITUDE	151.301343°

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)

NEW INDARA STRUCTURE

1. NEW INDARA STEEL STRUCTURE.
   REFER TO DRG'S S4116-S1 TO S12 & LETHLEAN/INDARA CERTIFICATE FOR DETAILS.
2. ANTENNA MAINTENANCE ACCESS EWP ONLY BY QUALIFIED PERSONNEL ONLY.
3. CORROSION RATING - HIGH (C5). REFER TO DRG. S4116-S1 FOR COATING DETAILS.

EQUIPMENT 2 BAY OUTDOOR UNITS

STRUCTURAL ADEQUACY OF OUTDOOR CABINET (2-BAY) PLATFORM HAS BEEN CONFIRMED BY LETHLEAN ENGINEERING. REFER TO LETHLEAN/INDARA CERTIFICATE FOR DETAILS.

TRANSMISSION

THIS SITE SHALL BE LINKED TO THE NETWORK VIA OPTIC FIBRE. FOR RADIO LINKS, WORKS AT THE LINK SITE SHALL BE CARRIED OUT IN ACCORDANCE WITH LINK SITE'S TRANSMISSION DRAWINGS, ISSUED SEPARATELY.

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

SITE HAZARDS

1. MANUAL HANDLING
2. WORKING AT HEIGHTS
3. SLIP, TRIP AND FALLS
4. ELECTRICAL HAZARDS
5. WEATHER / LIGHTNING
6. SUN EXPOSURE
7. WILDLIFE / INSECTS
8. FOOT AND VEHICULAR TRAFFIC CONTROL

CONSTRUCTION SITE ACCESS

1. EXISTING ACCESS TRACK IS VIA PITTWATER ROAD AND THROUGH REAR FIRE STAIRS ACCESS FROM NORTH CAR PARK AT REAR OF 1066 PITTWATER ROAD.
2. SITE CONTACT IS DARREN PYECROFT AND CONTACT DETAILS ARE:
   PH: 02 9971 5355
   EMAIL: darren.p@thebeachclub.com.au.
   CONTACT CLUB GENERAL MANAGER AT LEAST 2 DAYS PRIOR TO VISIT AND ENSURE MINIMUM INTERRUPTION TO CLUB OPERATIONS.

SITE SIGNAGE

1. SITE SIGNAGE SHALL BE IN ACCORDANCE WITH OSD-171-2 (ROOFTOP SITE) AND OSD-171-3 (EME SIGNAGE).
2. FOR SITES THAT DO NOT HAVE A FENCE, FIX SIGNS THAT ARE PRESCRIBED TO BE FIXED TO THE FENCE TO THE OUTDOOR CABINET MAIN DOOR.
3. REFER TO DRG. S4116-G2 FOR SITE SPECIFIC SIGNAGE REQUIREMENT.

EME EXCLUSION ZONES

REFER TO RADIO COMMUNICATIONS SITE MANAGEMENT BOOK (EMEG) FOR LATEST EME EXCLUSION ZONES FOR NEW ANTENNAS AT THIS SITE.

ELECTRICAL INSTALLATION

REFER TO SITE POWER DETAILS DRAWINGS S4116-E1 & E2.

SITE EARTHING

REFER TO EARTHING DRAWINGS S4116-E1 & E3.

PAINTING ELEMENT:

1. NEW OPTUS OUTDOOR CABINETS, ANTENNAS, RRU'S, ANCILLARY EQUIPMENT AND ALL OTHER EXTERNALLY VISIBLE SURFACES TO BE PAINTED IN GRAY COLOUR.
2. POWER CONDUIT TO BE PAINTED TO COLOUR MATCH BUILDING FACADE BLUE IN COLOUR.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	03.12.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SITE SPECIFICATIONS

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-G1

Revision B

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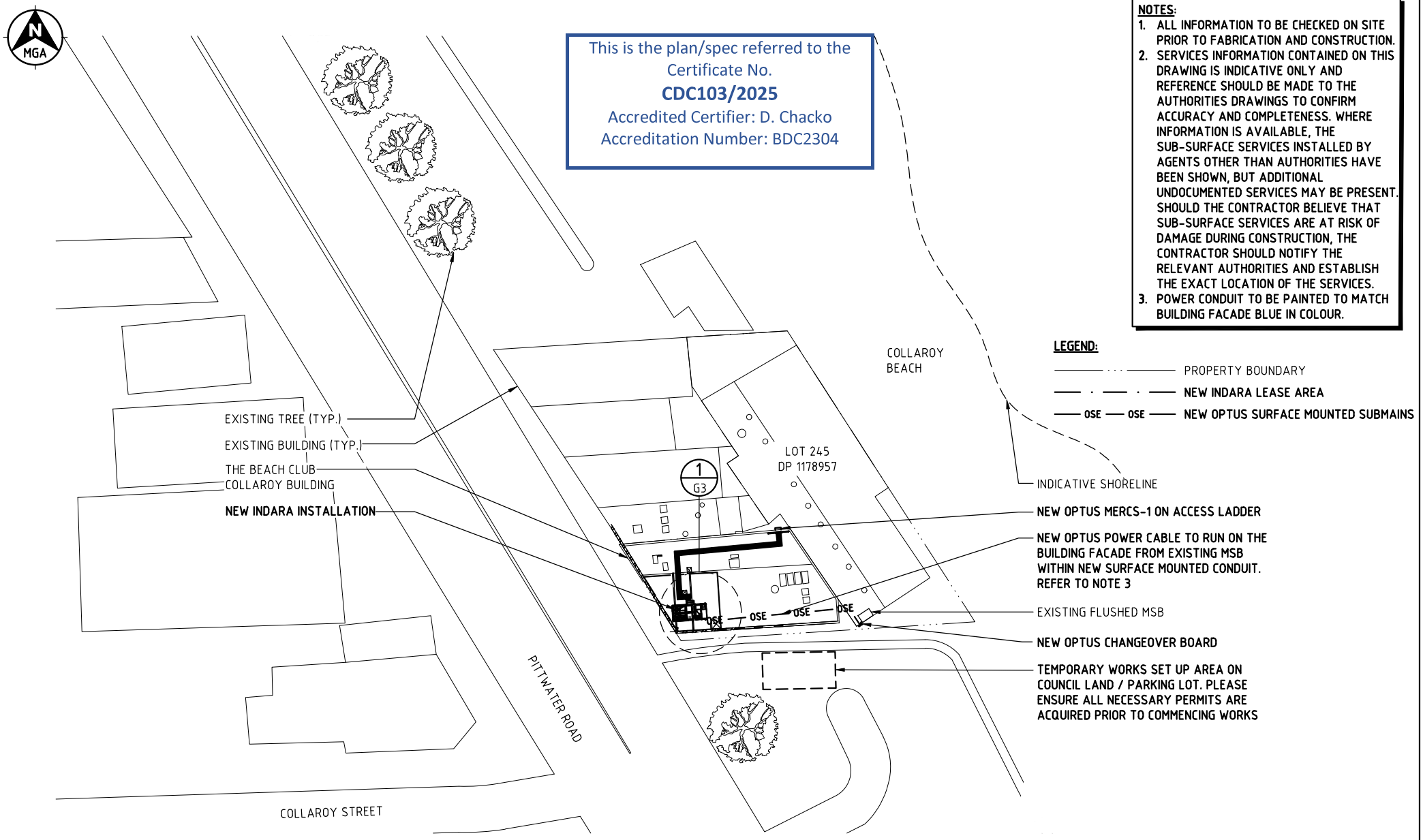
20 10 0 10 20 30 40 50mm

A3



OVERALL SITE PLAN

SCALE 1:500

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	03.12.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: OVERALL SITE PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-G2

Revision B

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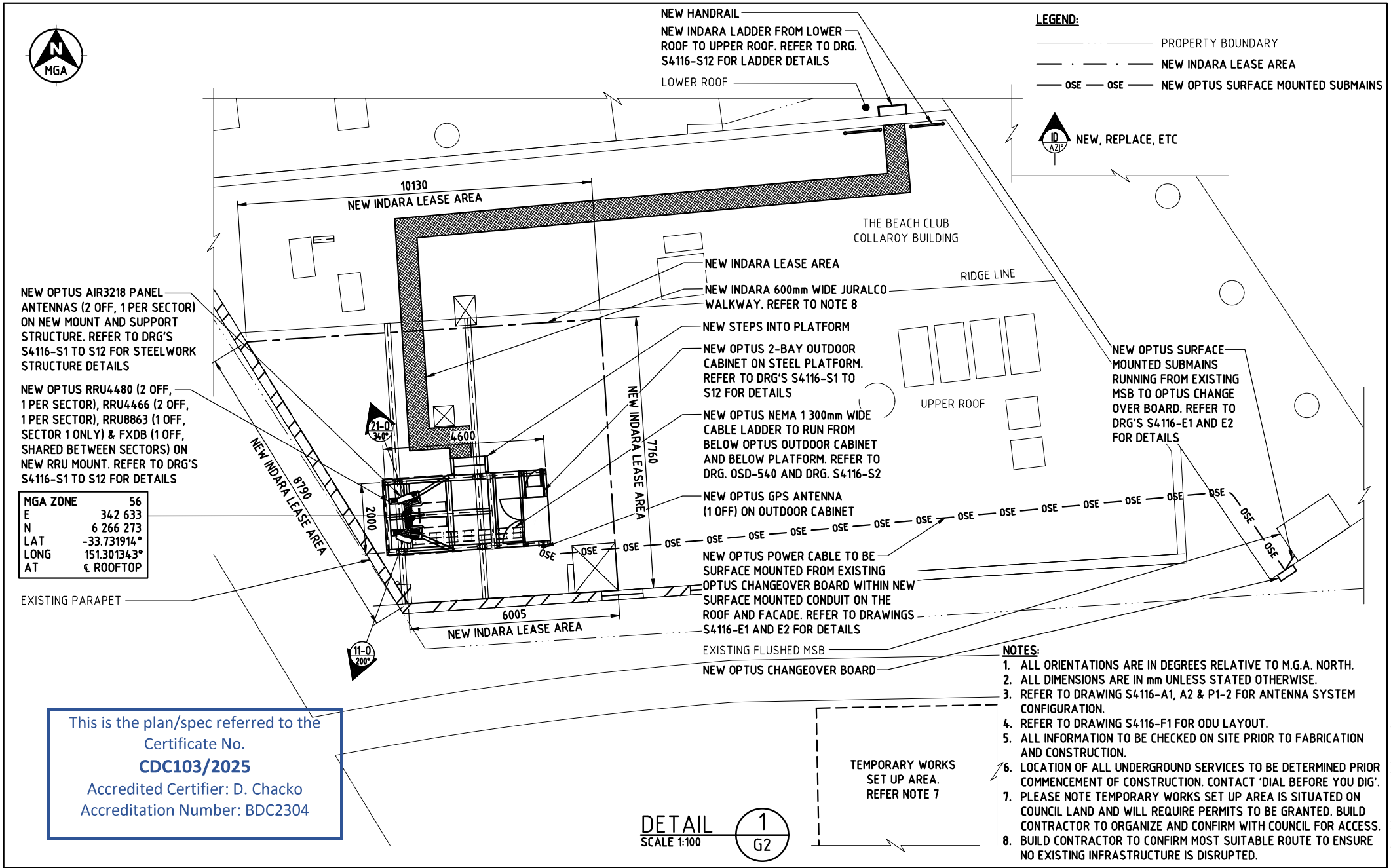
20 10 0 10 20 30 40 50mm

A3



DETAIL 1/G2
SCALE 1:100

NOTES:

1. ALL ORIENTATIONS ARE IN DEGREES RELATIVE TO M.G.A. NORTH.
2. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
3. REFER TO DRAWING S4116-A1, A2 & P1-2 FOR ANTENNA SYSTEM CONFIGURATION.
4. REFER TO DRAWING S4116-F1 FOR ODU LAYOUT.
5. ALL INFORMATION TO BE CHECKED ON SITE PRIOR TO FABRICATION AND CONSTRUCTION.
6. LOCATION OF ALL UNDERGROUND SERVICES TO BE DETERMINED PRIOR COMMENCEMENT OF CONSTRUCTION. CONTACT 'DIAL BEFORE YOU DIG'.
7. PLEASE NOTE TEMPORARY WORKS SET UP AREA IS SITUATED ON COUNCIL LAND AND WILL REQUIRE PERMITS TO BE GRANTED. BUILD CONTRACTOR TO ORGANIZE AND CONFIRM WITH COUNCIL FOR ACCESS.
8. BUILD CONTRACTOR TO CONFIRM MOST SUITABLE ROUTE TO ENSURE NO EXISTING INFRASTRUCTURE IS DISRUPTED.

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	03.12.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SITE LAYOUT AND SETOUT PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-G3

Revision B

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20 10 0 10 20 30 40 50mm

A3

NOTE:
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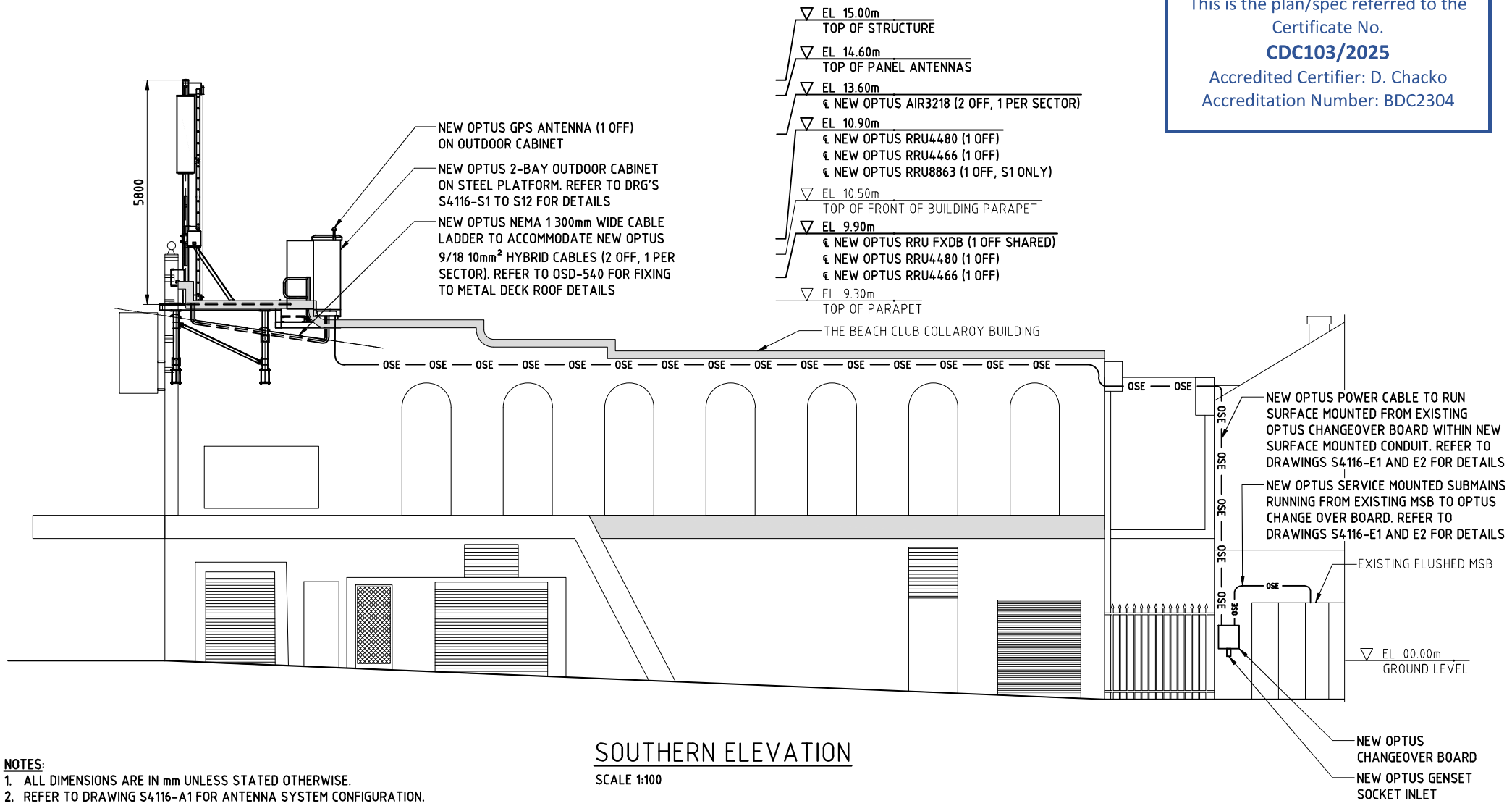
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304



SOUTHERN ELEVATION

SCALE 1:100

NOTES:
1. ALL DIMENSIONS ARE IN mm UNLESS STATED OTHERWISE.
2. REFER TO DRAWING S4116-A1 FOR ANTENNA SYSTEM CONFIGURATION.
3. REFER TO DRAWING S4116-F1 FOR ODU LAYOUT.
4. ALL INFORMATION TO BE CHECKED ON SITE PRIOR TO FABRICATION AND CONSTRUCTION.
5. LOCATION OF ALL UNDERGROUND SERVICES TO BE DETERMINED PRIOR COMMENCEMENT OF CONSTRUCTION. CONTACT 'DIAL BEFORE YOU DIG'.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	03.12.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SITE ELEVATION SHEET 1 OF 2

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-G4

Revision B

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20 10 0 10 20 30 40 50mm A3

NOTE:
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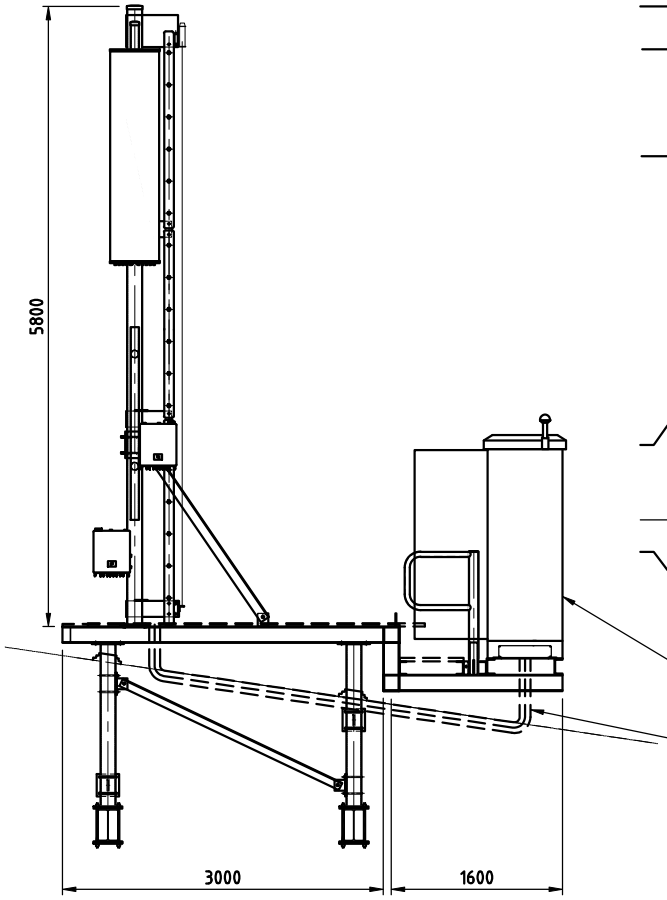
AND SHOULD NOT BE SCALED.



EL 15.00m
TOP OF STRUCTURE
EL 14.60m
TOP OF PANEL ANTENNAS

EL 13.60m
℄ NEW OPTUS AIR3218 (2 OFF, 1 PER SECTOR)

EL 10.90m
℄ NEW OPTUS RRU4480 (1 OFF)
℄ NEW OPTUS RRU4466 (1 OFF)
℄ NEW OPTUS RRU8863 (1 OFF, S1 ONLY)
EL 10.50m
TOP OF FRONT OF BUILDING PARAPET
EL 9.90m
℄ NEW OPTUS RRU FXDB (1 OFF SHARED)
℄ NEW OPTUS RRU4480 (1 OFF)
℄ NEW OPTUS RRU4466 (1 OFF)

NEW OPTUS 2-BAY OUTDOOR CABINET
ON STEEL PLATFORM. REFER TO DRG'S
S4116-S1 TO S12 FOR DETAILS

NEW OPTUS NEMA 1 300mm WIDE CABLE LADDER
TO ACCOMMODATE NEW OPTUS 9/18 10mm² HYBRID
CABLES (2 OFF, 1 PER SECTOR). REFER TO OSD-540
FOR FIXING TO METAL DECK ROOF DETAILS

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

PART SOUTHERN ELEVATION
SCALE 1:50

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	03.12.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SITE ELEVATION SHEET 2 OF 2

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-G4-1

Revision B

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20 10 0 10 20 30 40 50mm

A3

ANTENNA DETAILS													
PHYSICAL ANTENNA GROUP (N2)		1						2					
CO-ORDINATES (N5)	LATITUDE	-33.73191						-33.73191					
	LONGITUDE	151.30134						151.30134					
ANTENNA OPERATOR		OPTUS						OPTUS					
PHYSICAL ANTENNA NUMBER (N3)		1						1					
PHYSICAL ANTENNA ID (N4)		11-O						21-O					
ANTENNA ALIAS		12-PORT MED IPAA						12-PORT MED IPAA					
ANTENNA STATUS		NEW						NEW					
PHYSICAL AZIMUTH (°) (N6)		200						340					
PHYSICAL ANT CL EL (m) (N7)		13.6						13.6					
MECH DOWN-TILT (°)		0						-2 (REFER NOTE 9)					
MODEL NO.		AIR3218 (Passive) + AIR3258 B78V (AAU)						AIR3218 (Passive) + AIR3258 B78V (AAU)					
MANUFACTURER		ERICSSON						ERICSSON					
TYPE		PASSIVE | ACTIVE						PASSIVE | ACTIVE					
NO. OF RF PORTS / TxRx		12 | 32T32R						12 | 32T32R					
PORT TYPE		4.3-10 | SFP						4.3-10 | SFP					
BAND CAPABILITY		07 / 09 / 18 / 21 / 23 / 26 | 35						07 / 09 / 18 / 21 / 23 / 26 | 35					
DIMENSIONS (HxWxD) (mm)		2000 × 468 × 180						2000 × 468 × 180					
WEIGHT (kg)		58						58					
RF SECTOR & BAND ALLOCATION													
RF SECTOR ID / SUB-SECTOR ID		1						2					
PHYSICAL ARRAY ID		L11	L21	H12	H22	H12	H22	L11	L21	H12	H22	H12	H22
LOGICAL ANTENNA PORT		LP1 & LP2	LP3 & LP4	LP5 & LP6	LP7 & LP8	LP9 & LP10	LP11 & LP12	LP1 & LP2	LP3 & LP4	LP5 & LP6	LP7 & LP8	LP9 & LP10	LP11 & LP12
PHYSICAL ANTENNA PORT (OEM LABEL)		3 & 4	1 & 2	7 & 8	11 & 12	9 & 10	5 & 6	3 & 4	1 & 2	7 & 8	11 & 12	9 & 10	5 & 6
ETILT (N8)		6	6	2	2	4	4	2	2			2	2
ARRAY BEAM OFFSET (°)		0						0					
ARRAY BEAM AZIMUTH (°)		200						340					
ARRAY BAND CAPABILITY		7,8,9	7,8,9	18,21,23,26	18,21,23,26	18,21,23,26	18,21,23,26	7,8,9	7,8,9	18,21,23,26	18,21,23,26	18,21,23,26	18,21,23,26
ASSIGNED ARRAY OPERATOR		O	O	O	O	O	O	O	O	O	O	O	O
ASSIGNED RF PORT FREQUENCY 1		07/09	07/09	23	23	18/21/26	18/21/26	07/09	07/09			18/21/26	18/21/26
ASSIGNED RF PORT FREQUENCY 2			09						09				
ASSIGNED RF PORT FREQUENCY 3													
ASSIGNED RF PORT FREQUENCY 4													

NOTES:

1. THIS ANTENNA TABLE SHALL BE READ IN CONJUNCTION WITH THE DETAIL RF PLUMBING DRAWING FOR THIS SITE.
2. A PHYSICAL SECTOR GROUP IS DEFINED AS A GROUP OF ANTENNAS GENERALLY ORIENTATED WITH SIMILAR AZIMUTHS AND EACH GROUP IS ASSIGNED A NUMBER 1, 2, 3, 4, ETC. THE PHYSICAL SECTOR GROUP MAY INCLUDE SINGLE BEAM OR MULTI-BEAM ANTENNAS. IN THE CASE OF MULTI-BEAM ANTENNAS THE RF SECTOR MAY DIFFER TO THE PHYSICAL SECTOR.
3. THE PHYSICAL ANTENNA NUMBER IS DEFINED BY ASSIGNING SEQUENCED NUMBERS TO EACH JV OPERATOR'S ANTENNAS WITHIN A PHYSICAL SECTOR GROUP, STARTING FROM LEFT TO RIGHT, TOP TO BOTTOM.
4. THE PHYSICAL ANTENNA ID IS DEFINED BY THE NUMBER MADE UP BY CONCATENATING THE PHYSICAL SECTOR GROUP NUMBER WITH THE PHYSICAL ANTENNA NUMBER & THE FIRST LETTER FROM THE OPERATORS NAME OR JOINT (O, V, J), SAME AS THE SAO NUMBER, AS SPECIFIED IN OSD-070 SECTION 5.6.
5. ANTENNA CO-ORDINATES ARE TO BE IN GDA94/GDA2020 REFERENCE SYSTEM, SPECIFIED FOR CENTRE OF EACH SECTOR TO NEAREST METRE.
6. THE PHYSICAL AZIMUTH (°) IS DEFINED AS THE DIRECTION OF THE PHYSICAL ANTENNA BORE SIGHT WITH RESPECT TO TRUE NORTH, AZIMUTHS OF EACH BEAM OF MULTI-BEAM ANTENNAS ARE NOT DOCUMENTED IN THIS TABLE.
7. THE PHYSICAL ANT CL EL (m) IS DEFINED AS THE MID-HEIGHT OF THE PHYSICAL ANTENNA, THE HEIGHT OF INDIVIDUAL BEAMS OR DIFFERENT SEGMENTS OF MULTI-BEAM OR HYBRID ANTENNAS (IPAA) ARE NOT DOCUMENTED IN THIS TABLE.
8. ELECTRICAL DOWN-TILTS ARE ONLY ACCURATE AT TIME OF BUILD AS THEY ARE FREQUENTLY OPTIMISED. ALWAYS REFER TO CURRENT VALUES IN MNIS.

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	02.07.24	ISSUED FOR CONSTRUCTION (M-TILT & E-TILT UPDATE)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: PHYSICAL ANTENNA SYSTEM CONFIGURATION

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-A1

Revision B

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20 10 0 10 20 30 40 50mm

A3

ANCILLARY DEVICES

EQUIPMENT ALIAS	PART NO.	STATUS	LOCATION	OPERATOR	PHY ANT GRP	QTY	FREQUENCY	MFR	RF PORT TYPE	DIM (H x W x D)	WT (Kg)
850 REJ	E14V00P21	NEW	ANTENNA	O	1	2	85	COMMS	4.3-10	257 × 179.5 × 124	5.4
COM2c	D08C99P03	NEW	ANTENNA	O	1	1	07 / 09	COMMS	4.3-10	340 × 168 × 81	5.4
850 REJ	E14V00P21	NEW	ANTENNA	O	2	2	85	COMMS	4.3-10	257 × 179.5 × 124	5.4
COM2c	D08C99P03	NEW	ANTENNA	O	2	1	07 / 09	COMMS	4.3-10	340 × 168 × 81	5.4

RADIO UNITS

EQUIPMENT ALIAS	PART NO.	STATUS	LOCATION	OPERATOR	PHY ANT GRP	QTY	RF PORT CONNECTED	MFR	NO. RF PORTS / TxRx	RF PORT TYPE	DIM (H x W x D)	WT (Kg)
RRU 700/900	RRU4480 B28/B8	NEW	ANTENNA	O	1	1	4	ERICSSON	4T4R	4.3-10	588 × 398 × 195	38.1
RRU 1800/2100/2600	RRU4466 B3/B1/B7	NEW	ANTENNA	O	1	1	4	ERICSSON	4T4R	4.3-10	666 × 401 × 201	45
RRU 2300	RRU8863 B40	NEW	ANTENNA	O	1	1	4	ERICSSON	8T8R	Nex-10	478 × 375 × 155	24
RFM 900	FXDB B8	NEW	ANTENNA	O	1,2	1	4	NOKIA	3T6R	7/16 DIN	115 × 492 × 560	27.9
RRU 700/900	RRU4480 B28/B8	NEW	ANTENNA	O	2	1	4	ERICSSON	4T4R	4.3-10	588 × 398 × 195	38.1
RRU 1800/2100/2600	RRU4466 B3/B1/B7	NEW	ANTENNA	O	2	1	4	ERICSSON	4T4R	4.3-10	666 × 401 × 201	45

COAXIAL FEEDER / HFDC TRUNK CABLES

CABLE ALIAS	STATUS	LENGTH (m)	OPERATOR	PHY ANT GRP	QTY	COAX BAND ASIGNMENT	MFR
HFDC 9/18 C10	NEW	10	O	1	1	-	H+S
HFDC 9/18 C10	NEW	10	O	2	1	-	H+S

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	02.07.24	ISSUED FOR CONSTRUCTION (M-TILT & E-TILT UPDATE)	CPS TECH	JM	HA	HA	RP
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: PHYSICAL ASSET SUMMARY TABLE

Drawing Status: FOR CONSTRUCTION

Drawing No.: S4116-A2

Revision: B

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:34 PM

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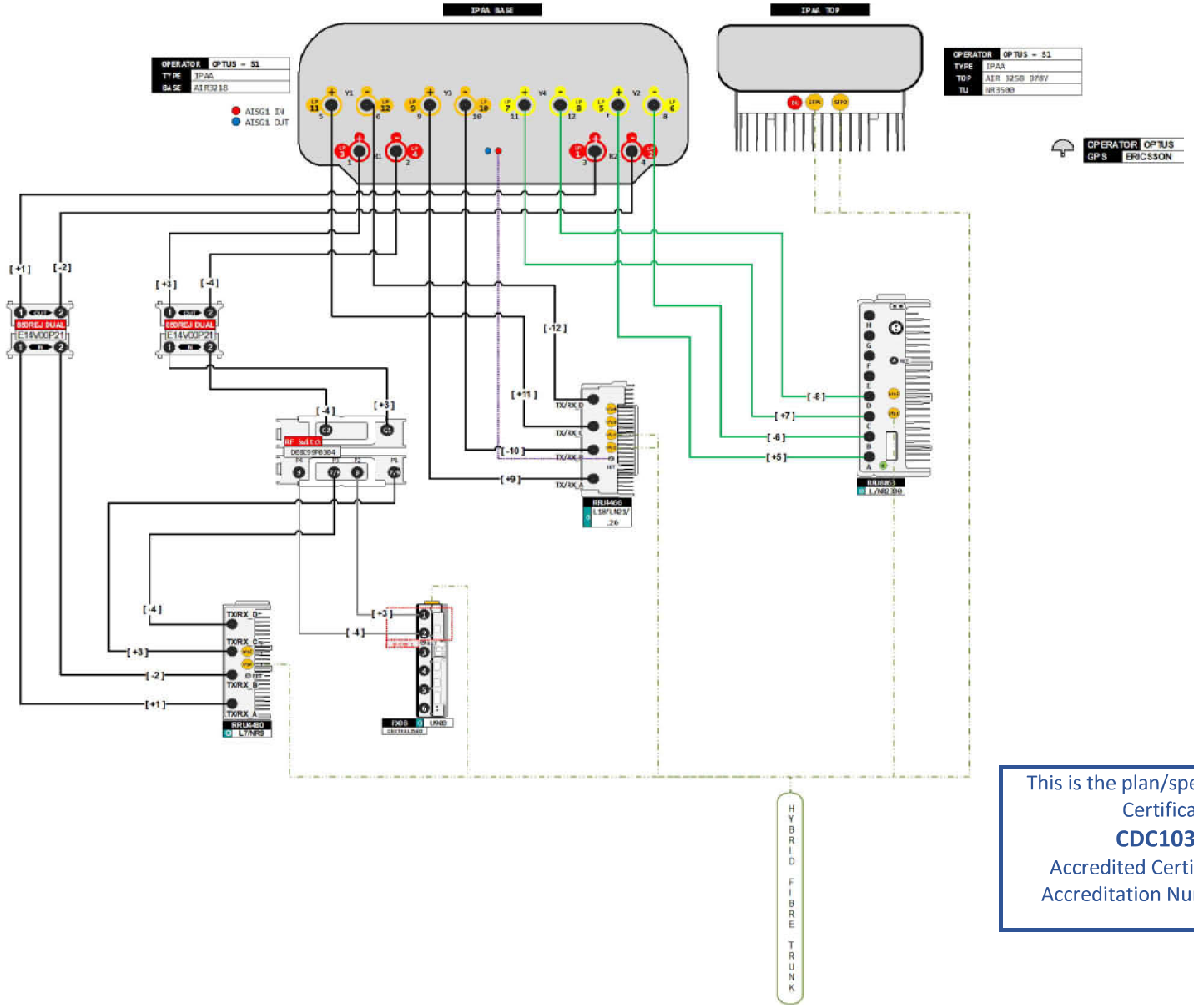
20 10 0 10 20 30 40 50mm

A3



This is the plan/spec referred to the Certificate No.

CDC103/2025

Accredited Certifier: D. Chacko

Accreditation Number: BDC2304

RF PLUMBING DIAGRAM

FOR SECTOR S1

NOTE:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING S4116-A1.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: RF PLUMBING DIAGRAM FOR SECTOR S1

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-P1

Revision A

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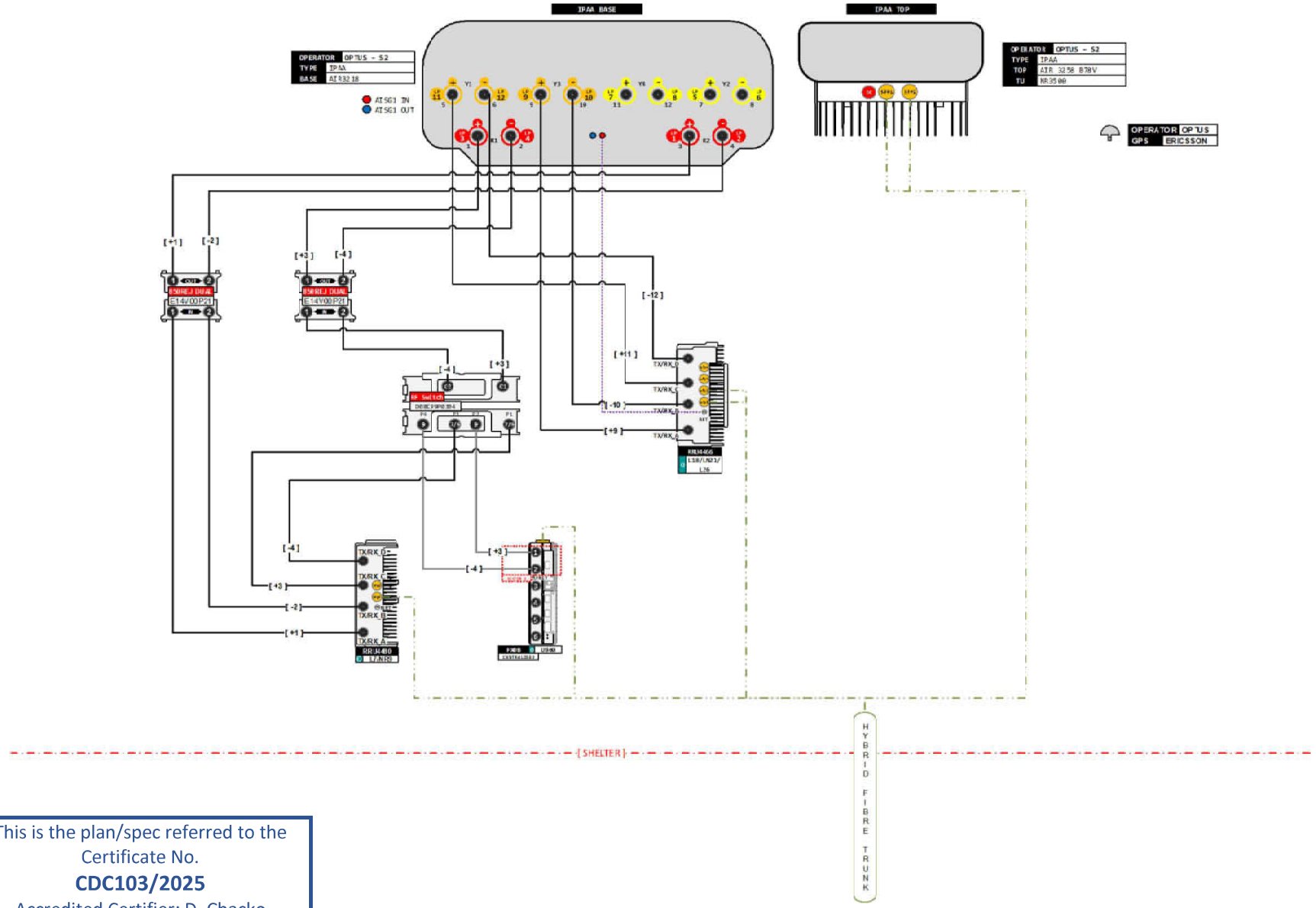

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

RF PLUMBING DIAGRAM

FOR SECTOR S2

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING S4116-A1.

Rev	Date	Revision Details	Consultant	Designer	Verifier	Approver
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM / HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: RF PLUMBING DIAGRAM FOR SECTOR S2

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-P2

Revision A

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:34 PM

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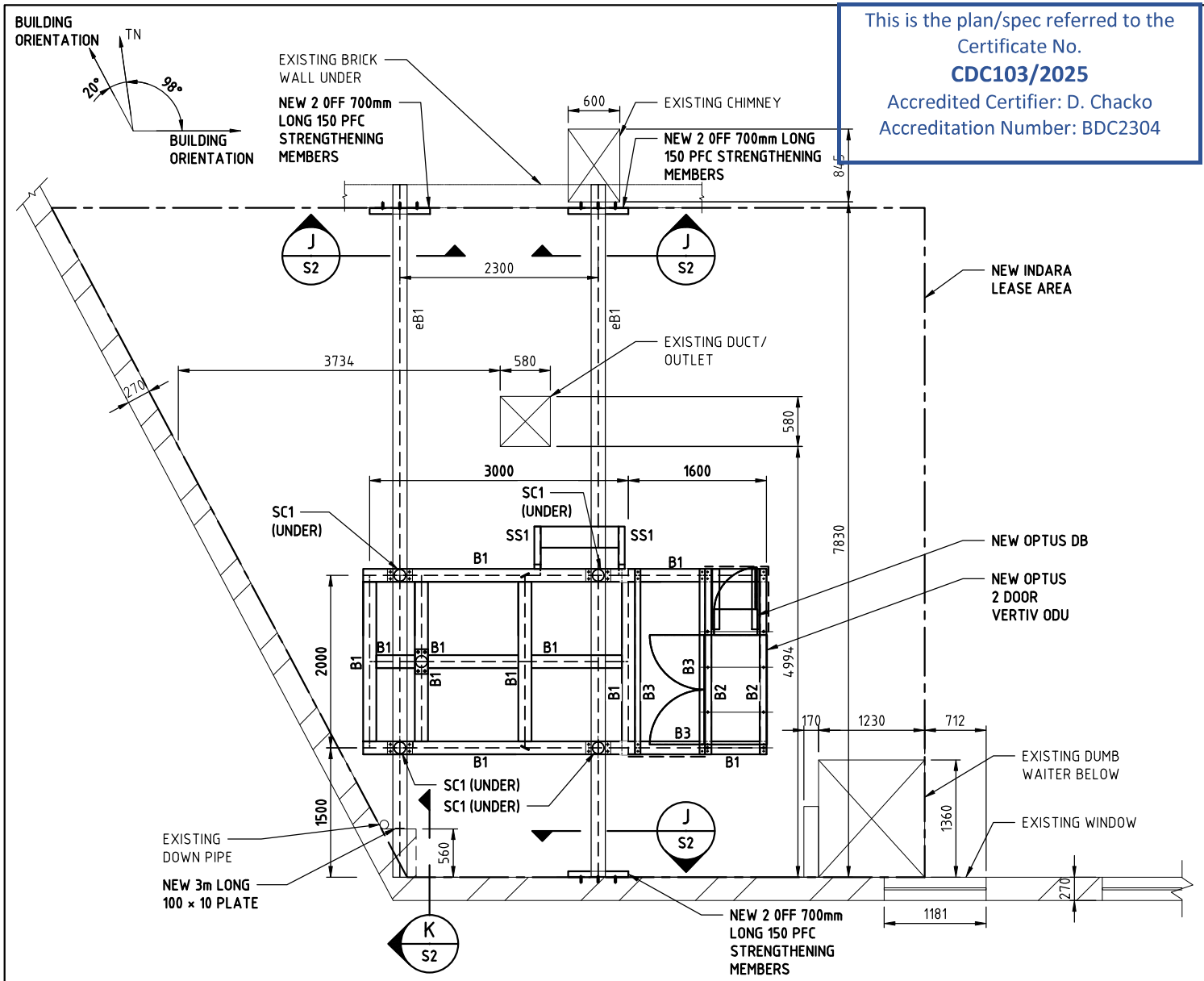
20 10 0 10 20 30 40 50mm A3

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304



PLAN
SCALE 1:50

STEELWORK PROTECTION NOTES:

1. CORROSIVITY ENVIRONMENT (EXTERNAL) IS "C5" (VERY HIGH) IN ACCORDANCE WITH AS4312.
2. ALL EXTERNAL STEELWORK TO BE PROTECTED AS FOLLOWS:
   - PREPARE & GALVANISE IN ACCORDANCE WITH AS4680
   - REMOVE ANY DIRT AND GREASE FROM SURFACES TO BE COATED AS PER AS 1627.1
   - LIGHTLY WHIP ABRASIVE BLAST THE NEW GALVANISING AS PER AS 1627.4 TO PROVIDE A UNIFORMLY ROUGHENED SURFACE USING A NON-METALLIC ABRASIVE. AVOID CAUSING EXCESSIVE DAMAGE TO THE GALVANISING. ALL SURFACES ARE TO BE CLEAN AND DRY BEFORE COATING AND BETWEEN COATS.
   - APPROVED COATING SYSTEMS:

CARBOLINE	PRODUCT	DFT/WFT (µm)		RECOAT (MIN/MAX) @ 25°C		SOLVENT
PRIMER	TP VINYL PRIMER	60	120	16 HRS	INDEF	No 10
FINISH COAT (1):	TP VINYL TOPCOAT	60	120	16 HRS	INDEF	No 10
FINISH COAT (2):	TP VINYL TOPCOAT	60	120	16 HRS	INDEF	No 10

   - MORE THAN ONE APPLICATION OF EACH COAT MAY BE REQUIRED TO ACHIEVE THE NOMINATED DFT.
   - VINYLS DRY SLOWER THAN MANY CATALYSED COATINGS, MEANING SHOP TURN-AROUND TIMES MAY BE LONGER TO MINIMISE DAMAGE.
   - THE SPECIFIED MINIMUM DFT IS TO BE ACHIEVED OVER THE INDICATED NUMBER OF COATS, TOTAL MINIMUM DFT IS TO BE 180 MICRONS, MEASURED OVER THE GALVANISING IN ACCORDANCE WITH AS 3894.3.
   - THE FINISH COLOUR IS TO MATCH THE EXISTING BUILDING. REFER GENERAL DRAWINGS FOR SPECIFIC COLOUR.
   - THE USE OF THINNERS OTHER THAN THOSE SPECIFIED BY THE MANUFACTURER IS NOT PERMITTED.
3. ALL INTERNAL STEELWORK TO BE HOT DIP GALVANISED ONLY.

CONSTRUCTION PROCEDURE NOTES:

1. INSTALL UNDER-ROOF BEAM SUPPORTS AND HOLD DOWN (4 LOCATIONS).
2. INSTALL UNDER-ROOF STUB COLUMNS (4 OFF) AND ASSOCIATED UNDER-ROOF BRACING (4 OFF).
3. MEASURE FINAL PRECISE DIMENSIONS BETWEEN UNDER-ROOF STUB COLUMNS IN EAST-WEST DIRECTION. DRILL HOLES IN BASE FRAME BEAMS TO SUIT THESE DIMENSIONS.
4. LIFT OVERALL BASE FRAME FROM GROUND ONTO ROOF AND ONTO THE PRE-INSTALLED UNDER-ROOF STUB COLUMNS (NOTE THAT BASE FRAME IS PRE-CAMBERED PRIOR TO INSTALLATION OF ODU).
5. LIFT 2 DOOR ODU UNIT AND BOLT INTO PLACE ONTO BASE FRAME. CHECK FRAME IS LEVEL. SHIM IF REQUIRED.
6. LIFT FULLY FITTED OUT MOUNT STRUCTURE ONTO FRAME.
7. INSTALL PLATFORM GRATING & HANDRAILS.

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project:
MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title:
NEW STEELWORK DETAILS
SHEET 1 OF 12

Drawing Status: FOR CONSTRUCTION
Drawing No. S4116-S1
Revision B

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:34 PM

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20 10 0 10 20 30 40 50mm

A3

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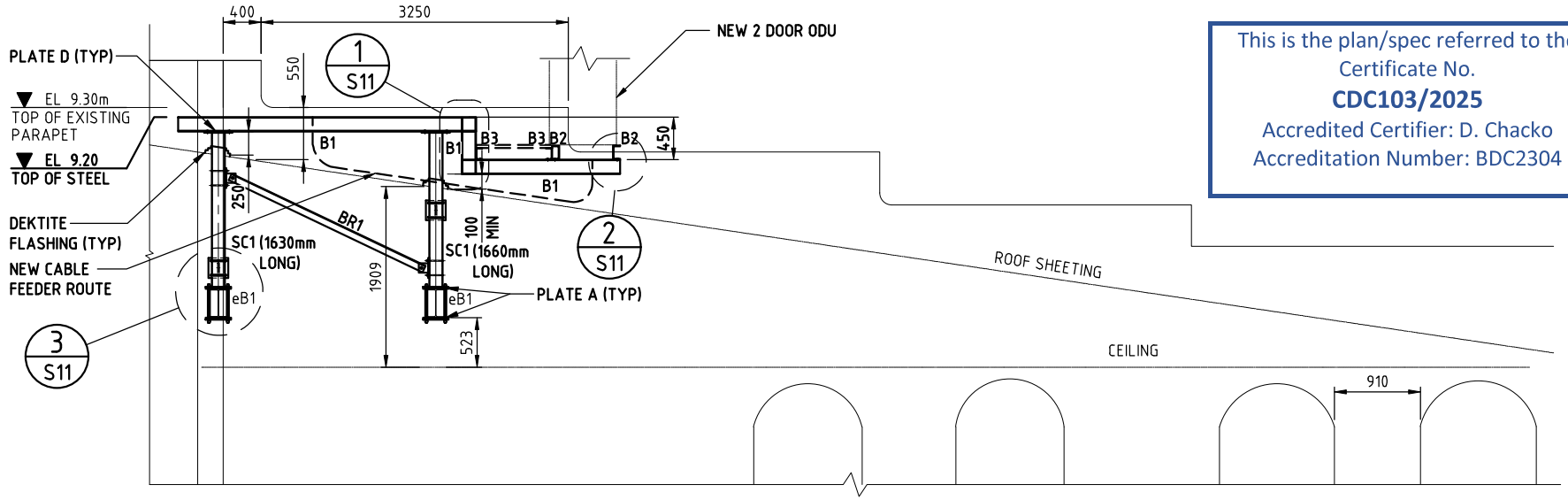
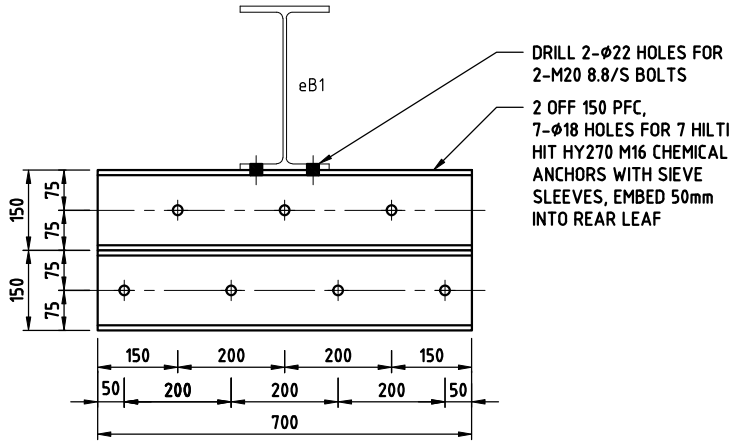
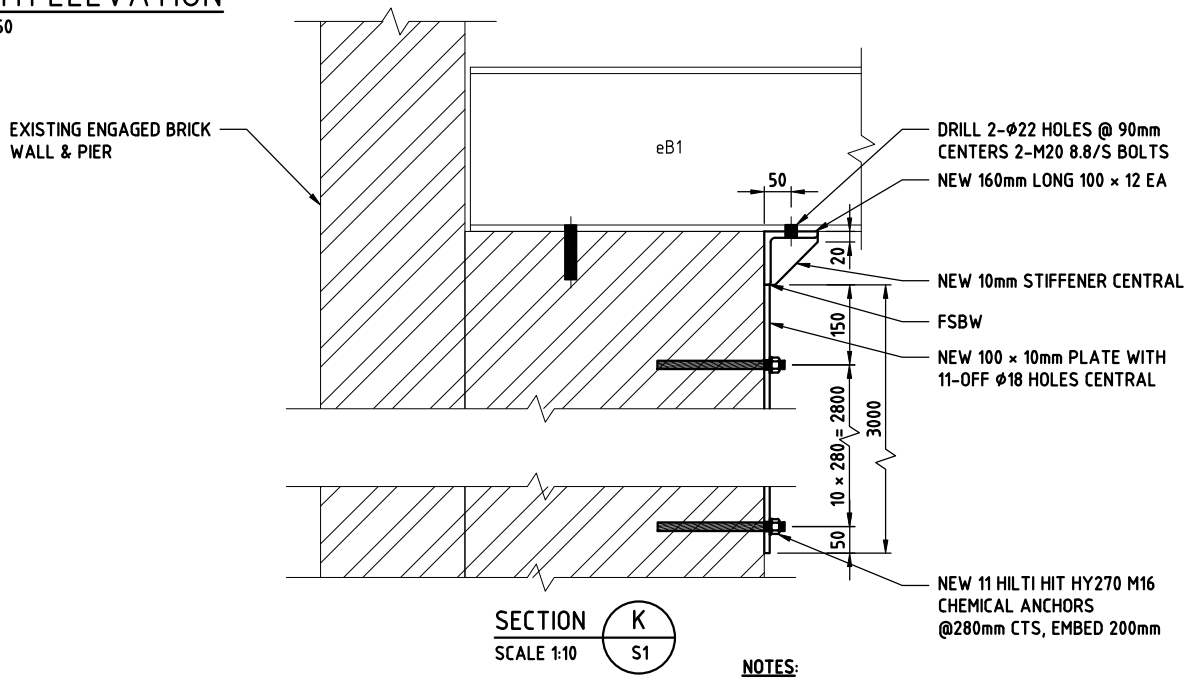
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304



SOUTH ELEVATION
SCALE 1:50



SECTION J / S1
SCALE 1:10



SECTION K / S1
SCALE 1:10

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS SHEET 2 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S2

Revision B

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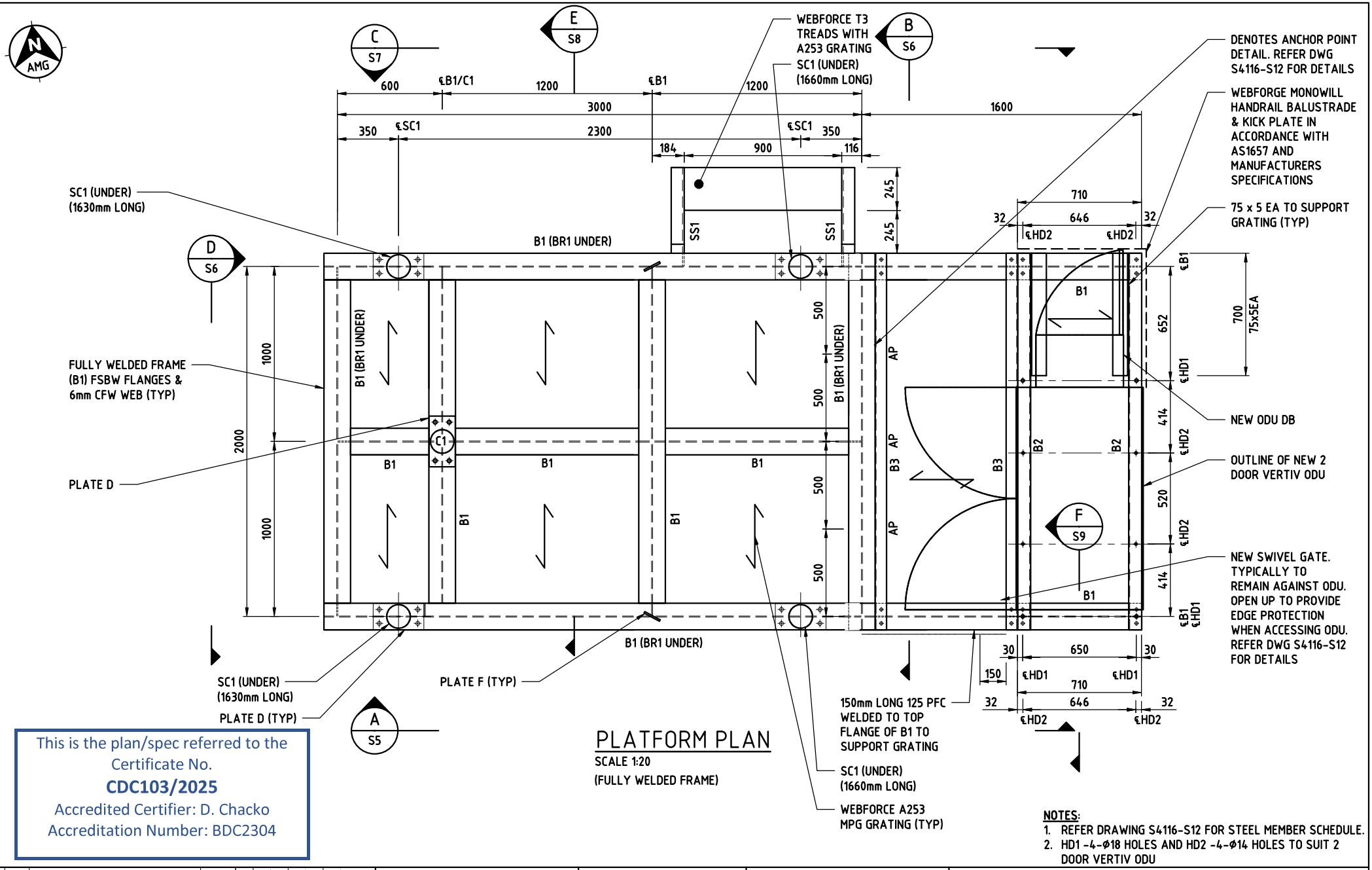
20 10 0 10 20 30 40 50mm

A3



PLATFORM PLAN

SCALE 1:20

(FULLY WELDED FRAME)

This is the plan/spec referred to the Certificate No.

CDC103/2025

Accredited Certifier: D. Chacko

Accreditation Number: BDC2304

NOTES:

1. REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE.
2. HD1 -4-Ø18 HOLES AND HD2 -4-Ø14 HOLES TO SUIT 2 DOOR VERTIV ODU

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS SHEET 3 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S3

Revision B

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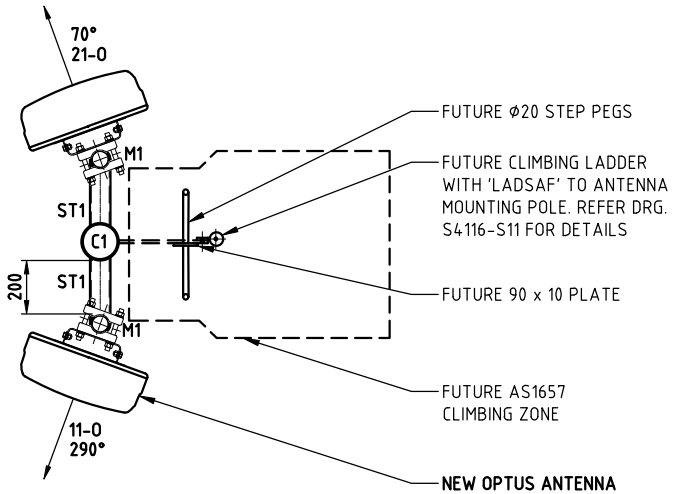
20 10 0 10 20 30 40 50mm

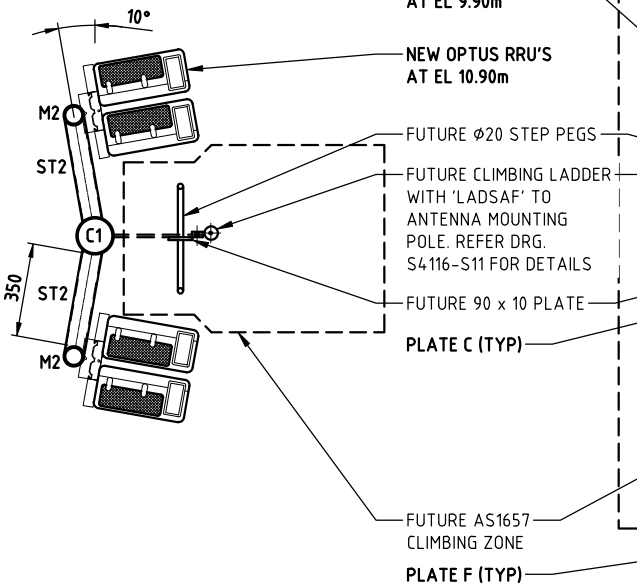
A3

CLIMBING LADDER, STEP PEGS AND LADSAF NOT TO BE INSTALLED



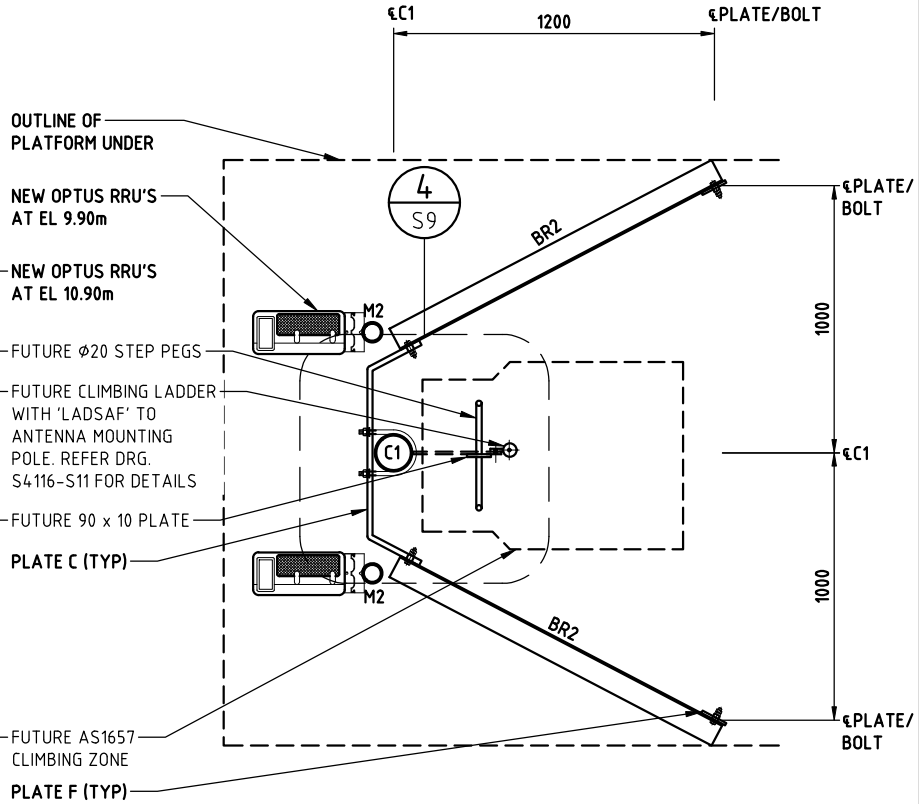
ANTENNA MOUNT DETAIL

SCALE 1:20



RRU MOUNT DETAIL

SCALE 1:20



BRACING DETAIL

SCALE 1:20

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Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS SHEET 4 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S4

Revision B

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20 10 0 10 20 30 40 50mm

A3

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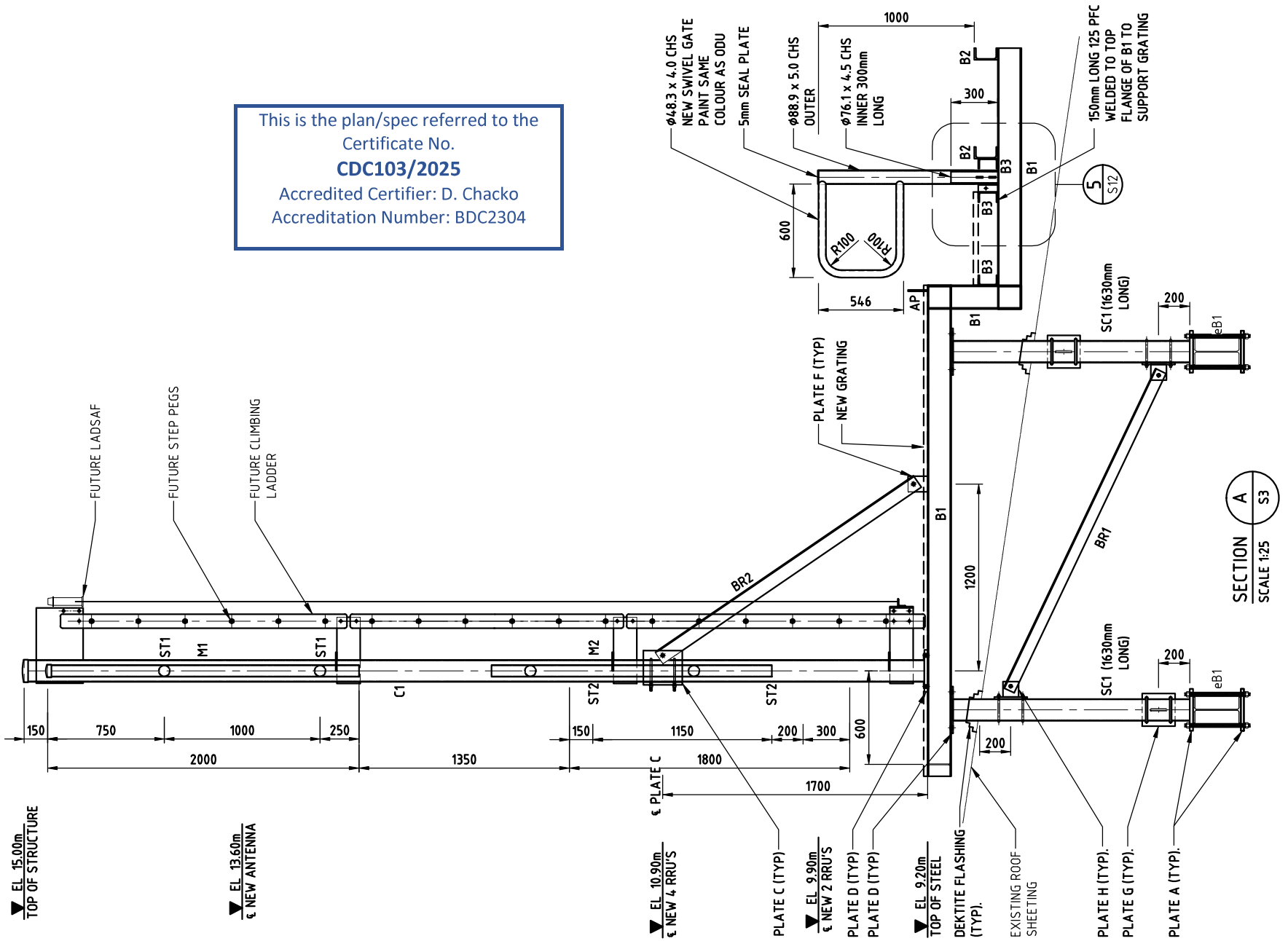
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304



CLIMBING LADDER, STEP PEGS AND LADSAF NOT TO BE INSTALLED

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS
SHEET 5 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S5

Revision B

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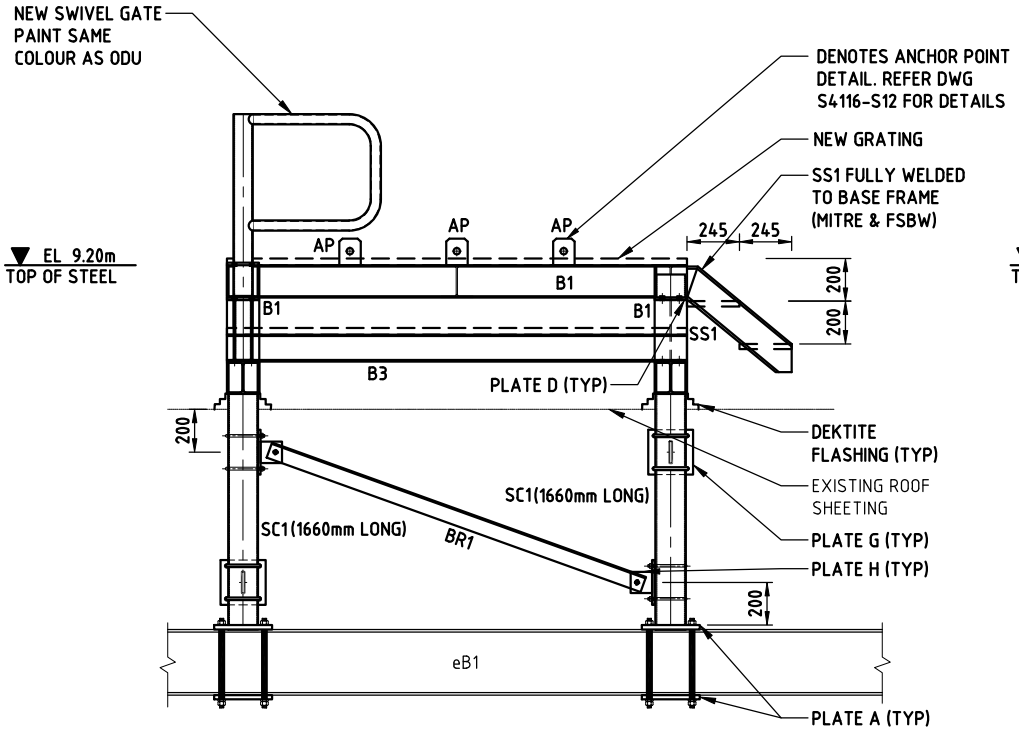
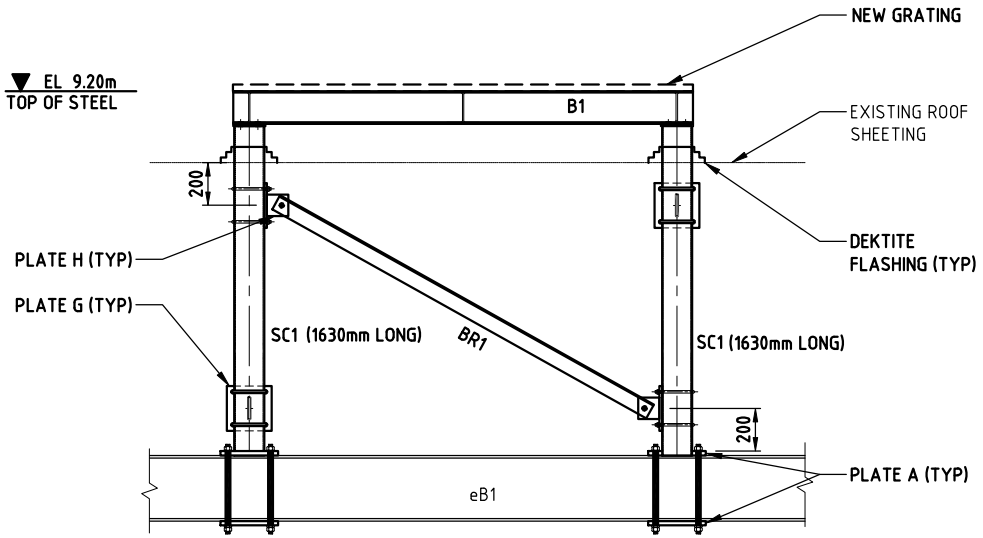
A3



SECTION B
SCALE 1:25 S3



SECTION D
SCALE 1:25 S3

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS SHEET 6 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S6

Revision B

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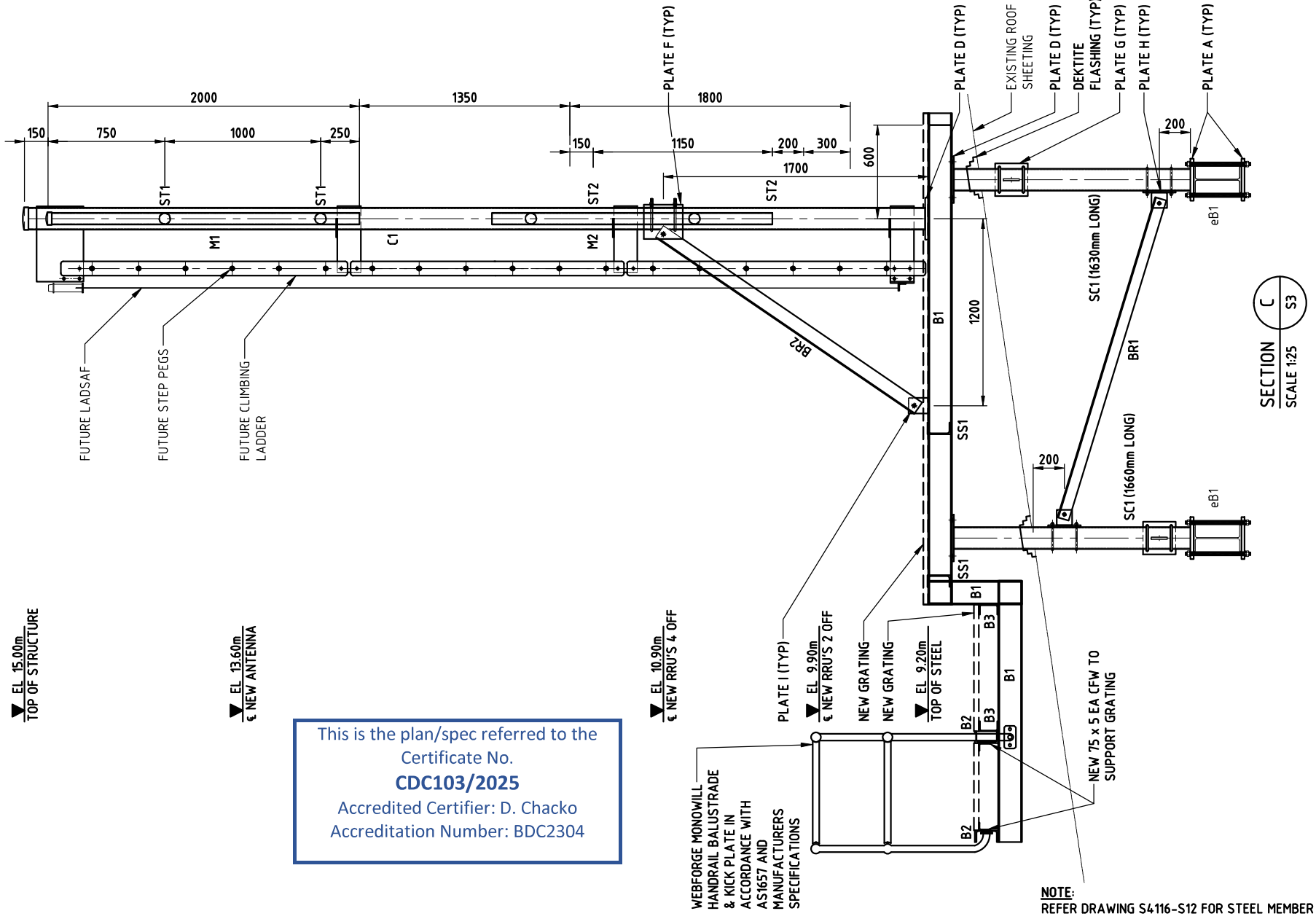
A3



CLIMBING LADDER, STEP PEGS AND LADSAF NOT TO BE INSTALLED

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

NOTE:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project:
MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title:
NEW STEELWORK DETAILS SHEET 7 OF 12

Drawing Status: FOR CONSTRUCTION
Drawing No. S4116-S7
Revision B

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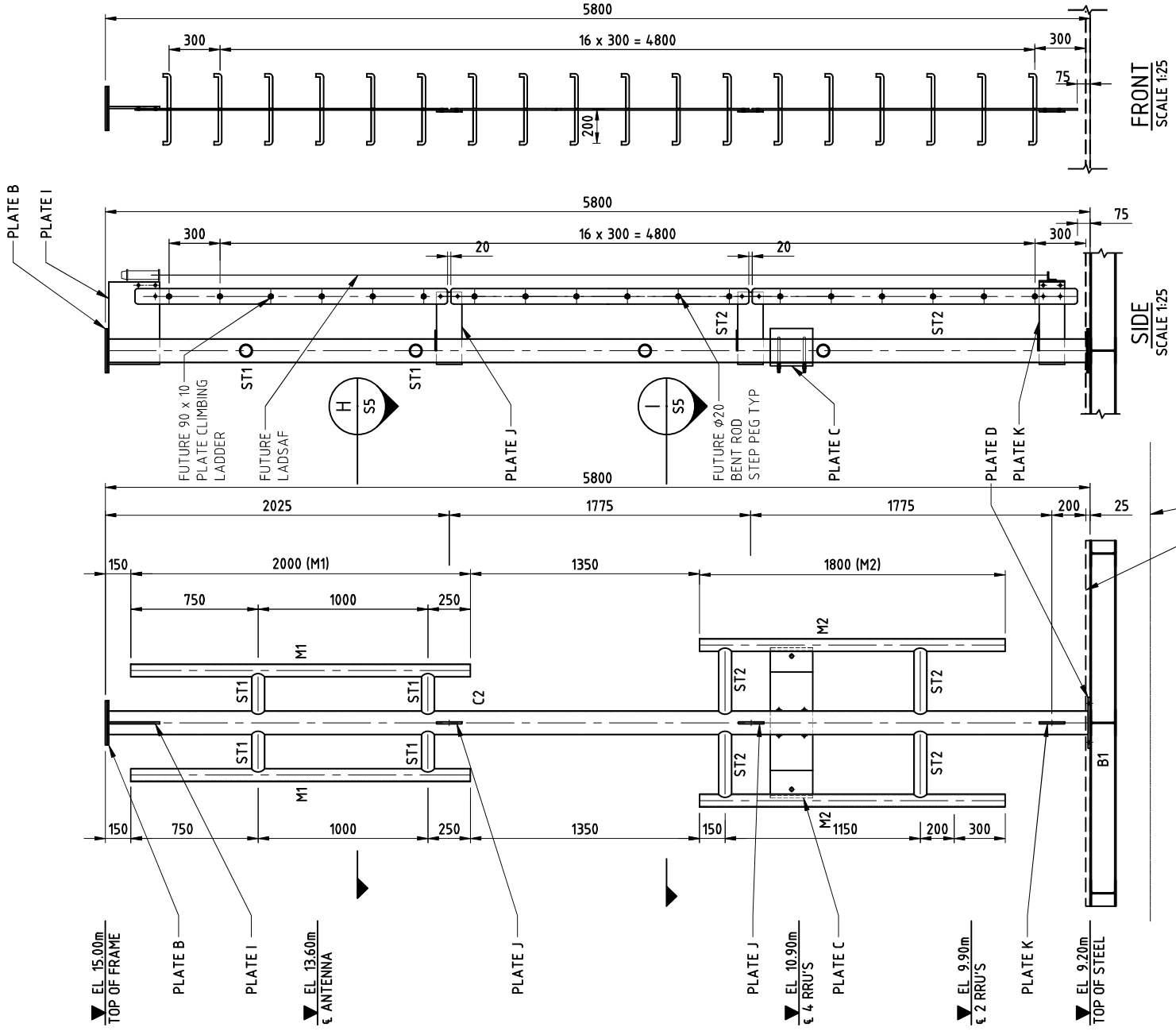
A3



CLIMBING LADDER, STEP PEGS AND LADSAF NOT TO BE INSTALLED

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project:
MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title:
NEW STEELWORK DETAILS SHEET 8 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S8

Revision B

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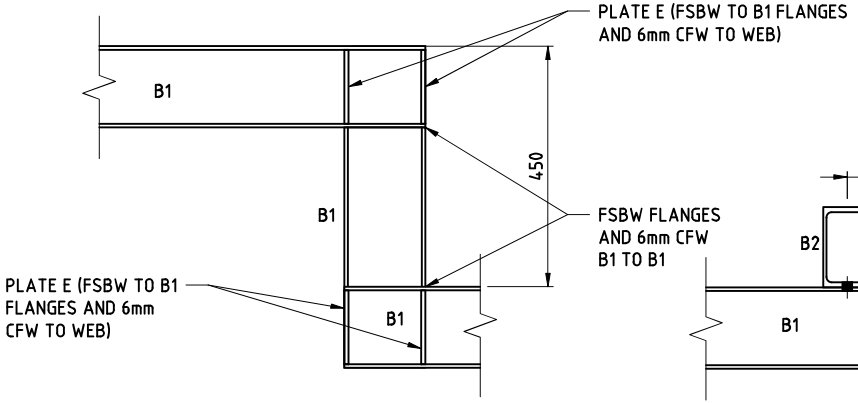
A3



DETAIL 1 / S2
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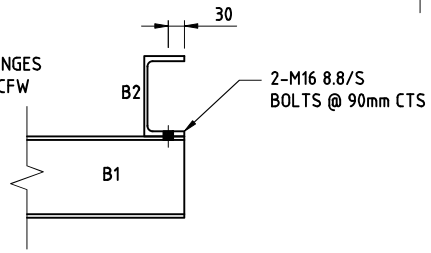
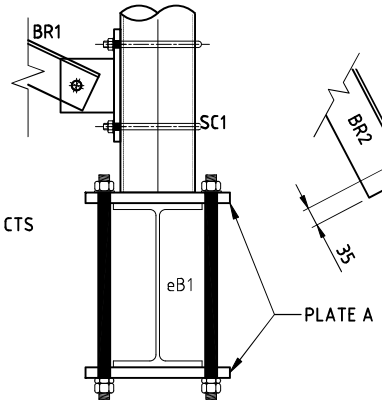
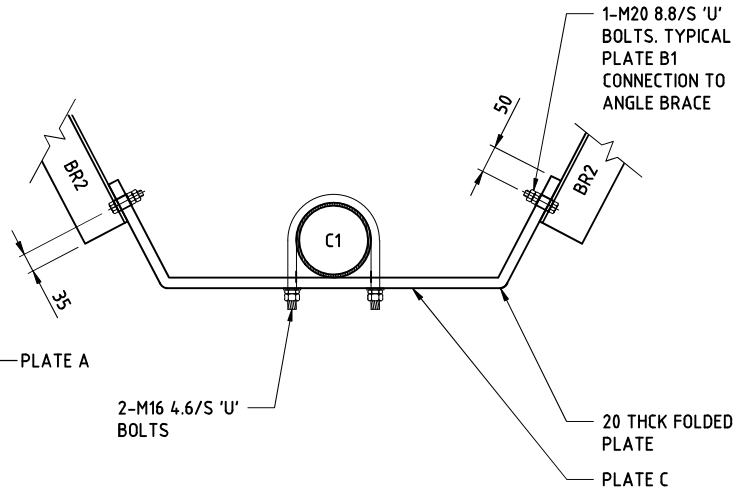


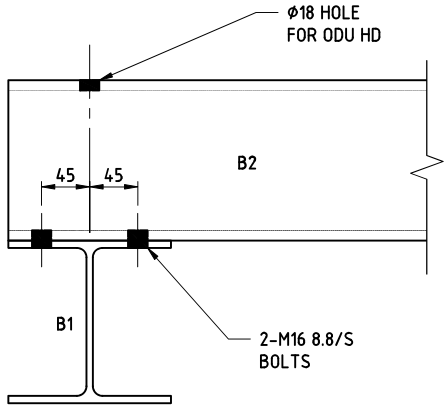
DETAIL 2 / S2
SCALE 1:10



DETAIL 3 / S2
SCALE 1:10

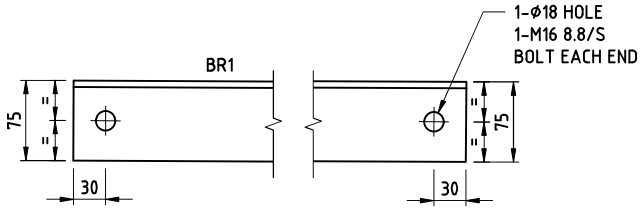


DETAIL 4 / S4
SCALE 1:10

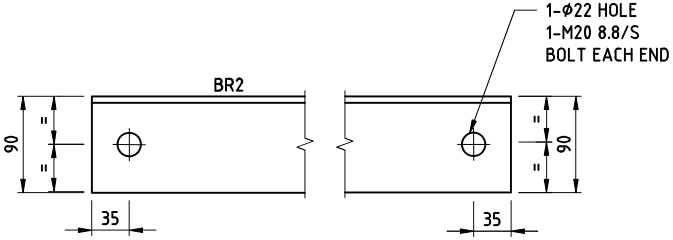


SECTION F / S3
SCALE 1:5

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304



BR1 DETAIL
SCALE 1:5



BR2 DETAIL
SCALE 1:5

NOTES:
REFER DRAWING S4116-S12 FOR STEEL MEMBER SCHEDULE

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS
SHEET 9 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S9

Revision B

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:35 PM

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20 10 0 10 20 30 40 50mm

A3

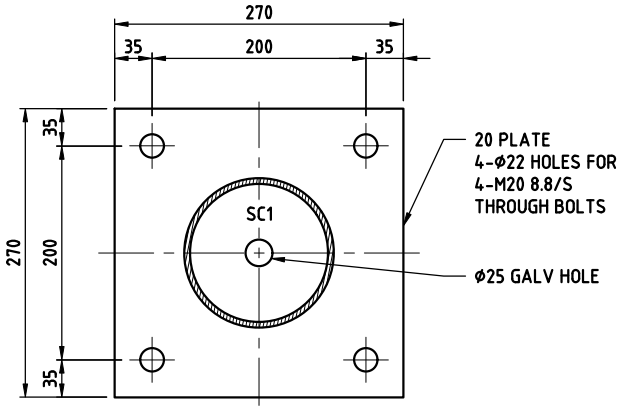

PLATE A
SCALE 1:5

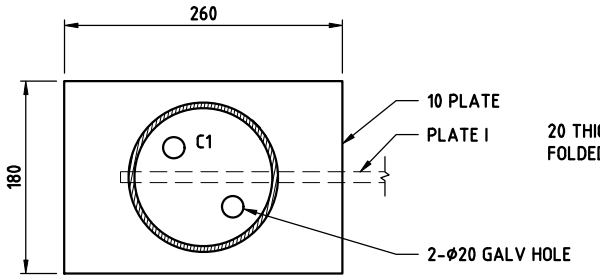

PLATE B
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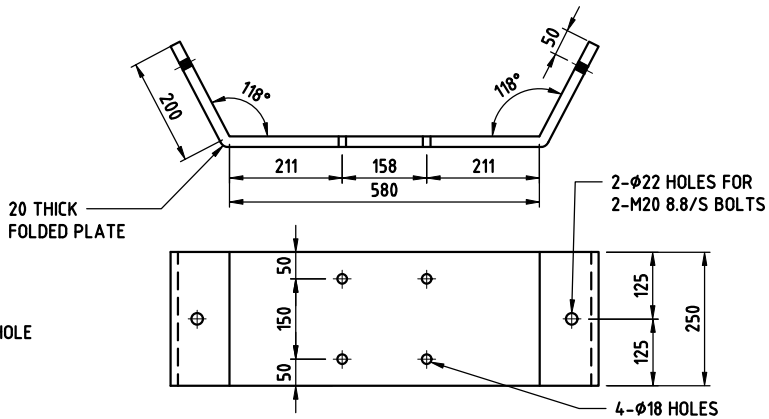

PLATE C
SCALE 1:10

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CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

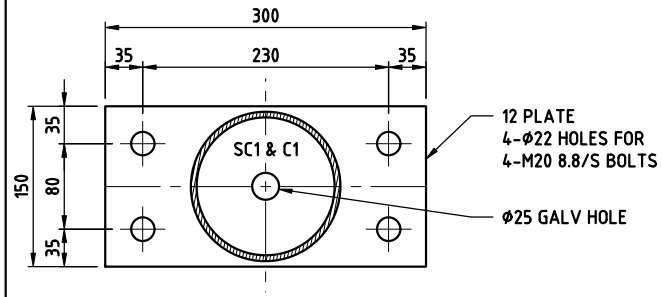

PLATE D
SCALE 1:5

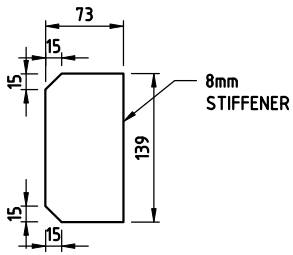

PLATE E
SCALE 1:5

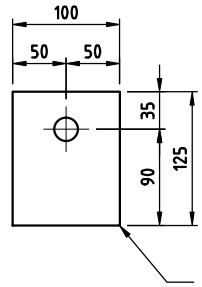

PLATE F
SCALE 1:5

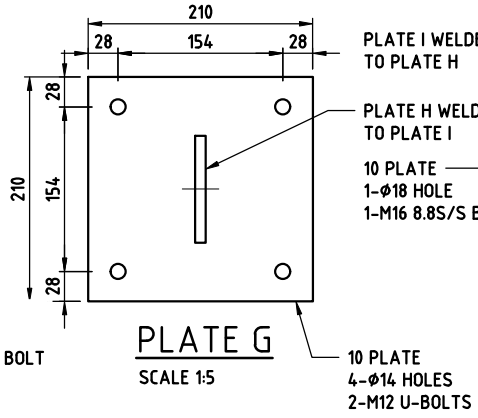

PLATE G
SCALE 1:5

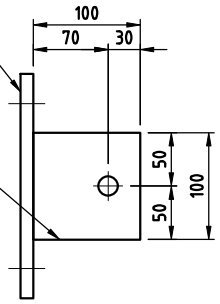

PLATE H
SCALE 1:5

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project:
MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title:
NEW STEELWORK DETAILS
SHEET 10 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S10

Revision B

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:35 PM

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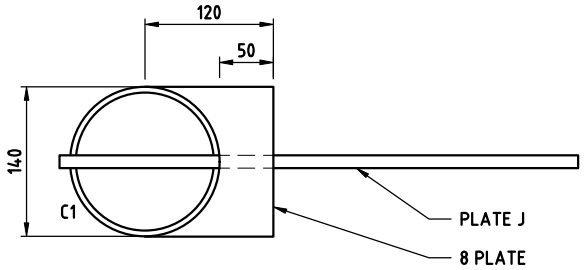
A3



STIFFENER PLATE
SCALE 1:5

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

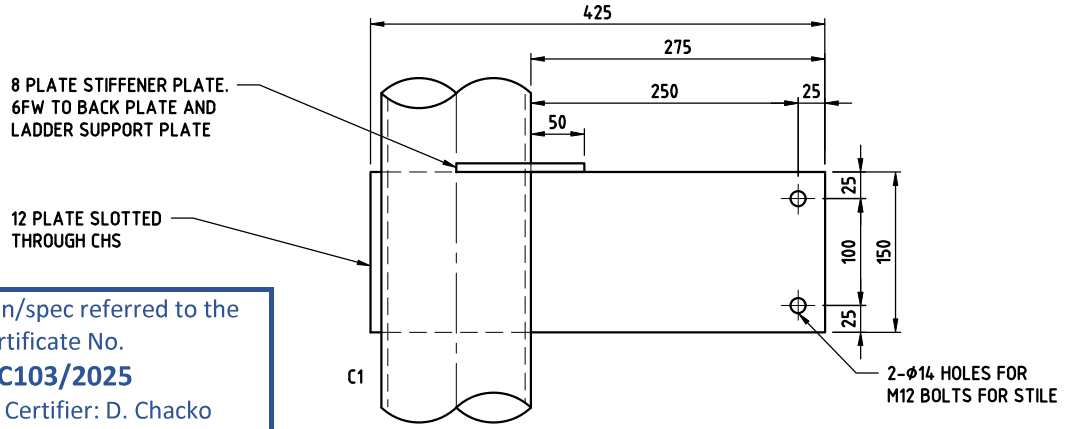


PLATE J (INTERMEDIATE CONNECTION)
SCALE 1:5

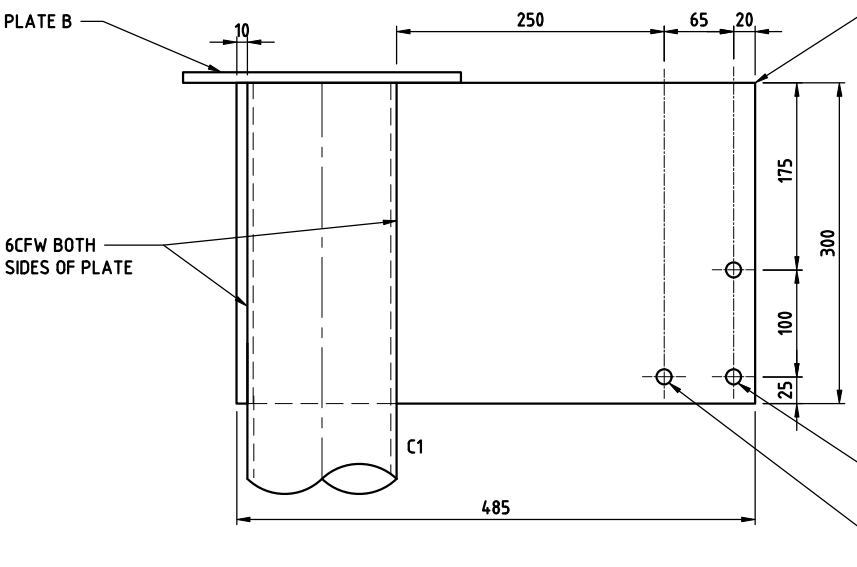


PLATE I (TOP CONNECTION)
SCALE 1:5

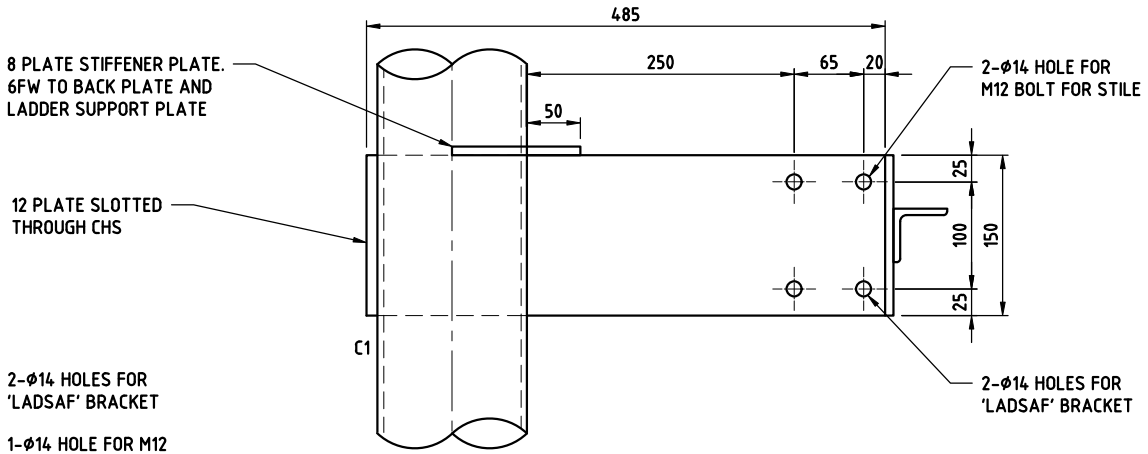


PLATE K (BOTTOM CONNECTION)
SCALE 1:5

ALL PLATES TO BE INSTALLED.
CLIMBING LADDER, STEP PEGS AND
LADSAF NO TO BE INSTALLED

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project:
MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title:
NEW STEELWORK DETAILS SHEET 11 OF 12

Drawing Status: FOR CONSTRUCTION
Drawing No. S4116-S11
Revision B

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A3

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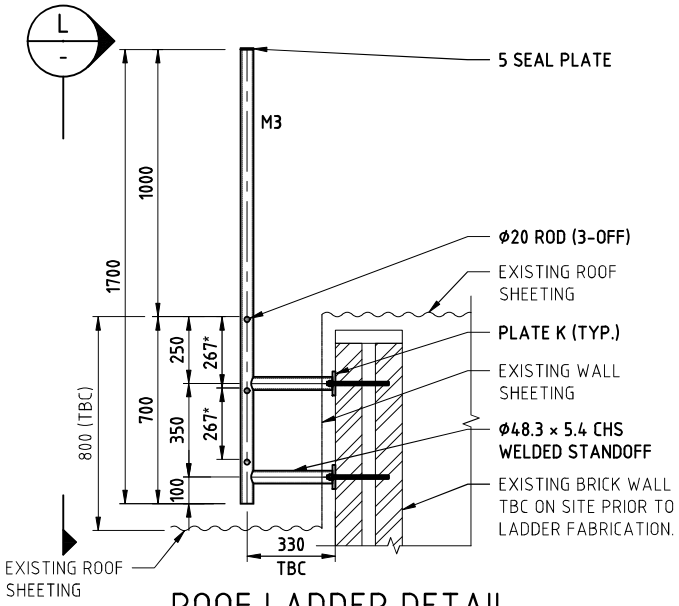
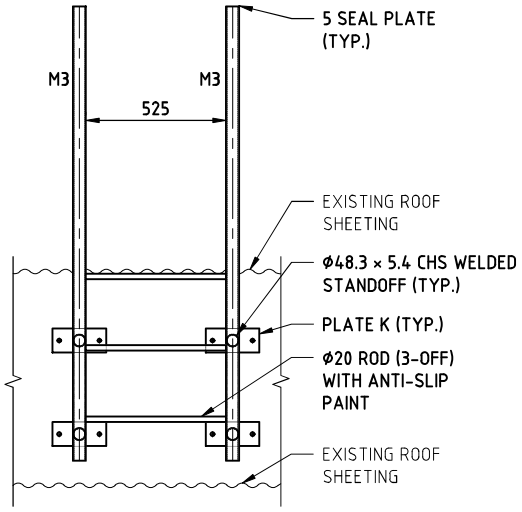


ROOF LADDER DETAIL

SCALE 1:20

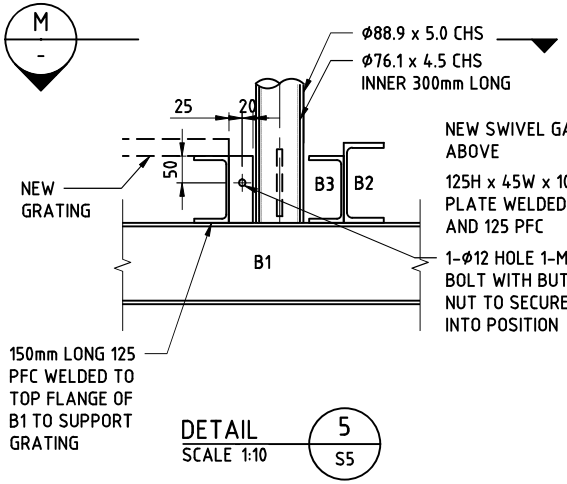
* LADDER RISE OF 267 IS BASED UPON ASSUMED ROOF STEP OF 800mm, WILL NEED TO BE ADJUSTED IF ROOF STEP IS DIFFERENT



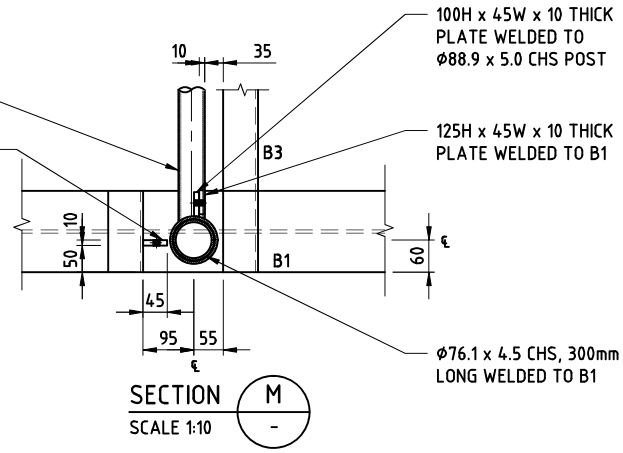
SECTION L / - SCALE 1:20

STEEL MEMBER SCHEDULE

MARK	MEMBER SIZE	STATUS	REMARKS	LENGTHS (mm)	QUANTITY
eB1	310UB46	EXISTING	BEAM	-	2
B1	150UC23	NEW	BEAM	VARIES	13
B2	150 PFC	NEW	BEAM	2150	2
B3	125 PFC	NEW	BEAM	2150	2
C1	Ø139.7 x 5.4 CHS	NEW	CLIMBING POLE	5800	1
M1	Ø76.1 x 5.4 CHS	NEW	ANTENNA MOUNT	2000	2
M2	Ø76.1 x 5.4 CHS	NEW	RRU MOUNT	1800	2
M3	Ø48.3 x 5.4 CHS	NEW	LADDER MOUNT	1700	2
ST1	Ø76.1 x 5.4 CHS	NEW	STAND-OFF MOUNT	200	4
ST2	Ø76.1 x 5.4 CHS	NEW	STAND-OFF MOUNT	350	4
BR1	75 x 5 EA	NEW	BRACING	VARIES	4
BR2	90 x 6 EA	NEW	BRACING	2010 (EST)	2
SC1	Ø139.7 x 5.4 CHS	NEW	STUB COLUMN	1630/1660	4
SS1	150 PFC	NEW	STAIR STRINGER	490	2



DETAIL 5 / S5 SCALE 1:10



SECTION M / - SCALE 1:10

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Accredited Certifier: D. Chacko
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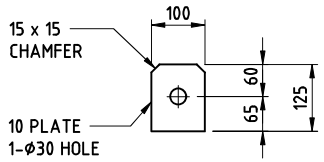

ANCHOR POINT DETAIL

SCALE 1:10
DENOTES 'AP' ON PLAN

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
B	30.10.24	ISSUED FOR CONSTRUCTION (SHROUD REMOVED FROM PROPOSAL)	CPS TECH	ML	ML	ML	ML
A	10.06.24	ISSUED FOR CONSTRUCTION	CPS TECH	ML	ML	ML	ML

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: NEW STEELWORK DETAILS
SHEET 12 OF 12

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-S12

Revision B

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20 10 0 10 20 30 40 50mm

A3

1. GENERAL

ALL ELECTRICAL WORKS SHALL BE IN ACCORDANCE:

- LATEST OPTUS D&C SPECIFICATIONS
- AS/NZS 3000, AS/NZS 3008, AS/NZS 1768, AS/NZS 3015, AS/NZS 3010, AS/NZS 4961, AS/NZS 1939, AS/NZS 2648, AS/NZS 3017 AND AS/ACIF S009 (LATEST EDITIONS AND AMENDMENTS AT TIME OF CONSTRUCTION SHALL APPLY)
- ALL COMPONENTS INSTALLATION MANUALS AND WARRANTY CONDITIONS AS SPECIFIED
- NSW SERVICE INSTALLATIONS RULES
- ANY OTHER RELEVANT NATIONAL/STATE RULES AND REGULATIONS

CONTRACTOR SHALL:

-COMPLY WITH ALL LOCAL, STATE AND TERRITORY WORK, HEALTH AND SAFETY REGULATIONS AND LEGISLATIONS
-APPLY REASONABLE MEASURES AND STEPS TO ACCESS AND OBTAIN INFORMATION ON SERVICES PRESENT ON SITE PRIOR TO COMMENCING ANY WORK (CONSTRUCTION AND/OR EXCAVATION) VIA BYDA SEARCH, UNDERGROUND SERVICES SEARCH SURVEY OR ANY OTHER LEGITIMATE MEANS/SOURCES
-MAKE THEMSELVES AWARE OF ALL SITE CONDITIONS AND SAFETY REQUIREMENTS PRIOR TO COMMENCING WORK ON SITE
-REINSTATE AND MAKE GOOD OF ALL DISTURBED KERBS, SURFACES, GUTTERS, INVERTS, VEHICLE CROSSING AND PAVEMENTS DURING UNDERGROUND WIRING INSTALLATIONS
-ENSURE REASONABLE AND ADEQUATE CLEARANCE ESTABLISHED BETWEEN NEW ELECTRICAL INSTALLATIONS AND EXISTING SERVICES (UNDERGROUND, OVERHEAD, SURFACE MOUNTED, RISER, ETC.) AS PER AS/NZS 3000
-ENSURE FAULT CURRENT RATINGS OF PROTECTIVE EQUIPMENT INSTALLED ARE ADEQUATE FOR PROSPECTIVE FAULT LEVELS
-ENSURE CABLE PULLING TENSION AND MINIMUM INSTALLED BENDING RADIUS AS PER CABLE SPECIFICATIONS AND CABLE ROUTES SHALL BE AS DIRECT AS POSSIBLE
-ENSURE ALL EXPOSED CABLE, CONDUITS AND NON-METALLIC FASTENERS BE UV RESISTANT AND ADEQUATELY SECURED TO SURFACE, CABLE TRAY OR STRUCTURE
-ENSURE NO OBSTRUCTIONS PRESENT WITHIN CONDUIT DURING CABLE PULLING
-PROVIDE PERMANENT, INDELIBLE, LEGIBLE, WITH ACCURATE DIMENSIONS, SUPPLY ARRANGEMENT DIAGRAM(S) PLAN IN OPTUS ISOLATION BOARD, INDICATING CABLES SIZE, TYPE, LENGTH, METHOD OF INSTALLATIONS AND DIRECTIONS

2. MAINS SUPPLY

OPTUS POINT OF SUPPLY NEW 40A THREE PHASES MCCB AT EXISTING MAIN SWITCHBOARD. 40A THREE PHASES AC POWER SUPPLY SHALL BE ORIGINATED FROM THIS POINT OF SUPPLY.
PROPERTY AC POWER SUPPLY SHUT DOWN WILL BE REQUIRED. ALTERNATIVE TEMPORARY SUPPLY AND ADEQUATE FUEL SHALL BE PROVIDED BY OPTUS CONTRACTOR FOR DURATION OF ENTIRE SHUT DOWN PERIOD. OPTUS CONTRACTOR SHALL COORDINATE SHUT DOWN WITH PROPERTY OWNER / MANAGEMENT.

3. EXISTING MAIN SWITCHBOARD

OPTUS CONTRACTOR SHALL INSTALL 40A 3P MCCB x160 HAGER Isc 25kA AT ESSENTIAL SERVICES SECTION.
OPTUS CONTRACTOR SHALL INSTALL CHECK METER PANEL AT BOTTOM OF SAME SECTION OF MSB WITH 40A 3P MCB TYPE C, 10kA. SPARE SPACES AVAILABLE FOR MCCB, MCB AND CHECK METER.
OPTUS INTERNAL WIRING SHALL BE OF MINIMUM 16mm^2 SDI.
OPTUS SAFETY EARTH AND NEUTRAL SHALL BE TAKEN FROM EXISTING MEN LINK IN EXISTING MSB.
OPTUS CONTRACTOR SHALL ENSURE FAULT CURRENT RATINGS OF INSTALLED PROTECTIVE EQUIPMENT ARE ADEQUATE FOR PROSPECTIVE FAULT LEVELS.
OPTUS CONTRACTOR SHALL PROVIDE ELECTRICAL COMPLIANCE CERTIFICATE FOR COMPLETED ELECTRICAL WORKS.
OPTUS CONTRACTOR SHALL PROVIDE PHOTOS OF ALL COMPLETED ELECTRICAL WORK SHOWING, LEGIBLE, SITE CIRCUIT BREAKERS RATINGS, SPD SIZE AND SETTING, METERING (NMI NUMBER), MAIN ELECTRICAL EARTHING ELECTRODE LABEL AND ANY TRENCHING AND CONDUIT RUN.

4. SUBMAINS

A - INSTALL NEW 1x4C 16mm^2 XLPE/PVC + E CABLE AS OPTUS SURFACE MOUNTED SUBMAIN RUNNING FROM EXISTING MSB TO NEW OPTUS CHANGEOVER BOARD, ADJACENT TO EXISTING MSB.
OPTUS SUBMAINS SHALL BE INSTALLED SURFACE MOUNTED IN 50mm HD uPVC CONDUIT.
APPROXIMATE OPTUS SUBMAINS LENGTH, 5m. VOLTAGE DROP 0.11% FOR 40A THREE PHASES LOAD.

B- INSTALL NEW 1x4C 16mm^2 XLPE/PVC + E CABLE AS OPTUS SURFACE MOUNTED SUBMAIN RUNNING FROM NEW OPTUS CHANGEOVER BOARD TO NEW OPTUS OPTUS ISOLATION BOARD ON ODU AT ROOFTOP LEVEL.
OPTUS SUBMAINS SHALL BE INSTALLED SURFACE MOUNTED IN 50mm HD uPVC CONDUIT.
APPROXIMATE OPTUS SUBMAINS LENGTH, 40m. VOLTAGE DROP 0.85% FOR 40A THREE PHASES LOAD.

5. NEW CONNECTION APPLICATION

ELECTRICITY METERING SOLUTION FOR THIS SITE IS CHECK METER WITH 40 THREE PHASES AC POWER LIMIT.

6. OPTUS CHANGEOVER BOARD

NEW OPTUS WALL MOUNTED CHANGEOVER BOARD SHALL HOST THE FOLLOWINGS:
- INSTALL NEW 1 x 40A THREE PHASE ISOLATOR
- INSTALL NEW 1 x 50A THREE PHASE TYPE-C MCB AS GENERATOR MAIN SWITCH
- INSTALL NEW 63A THREE PHASE CHANGEOVER SWITCH
- INSTALL NEW 1 x 40A THREE PHASE TYPE-C MCB TO PROTECT OPTUS SUBMAINS B
- INTERNAL OPTUS CHANGEOVER BOARD SHALL BE OF MINIMUM 16mm^2 SDI

7. OPTUS ISOLATION BOARD

NEW OPTUS EXTERNAL DISTRIBUTION BOARD ON NEW OPTUS ODU SHALL HOST THE FOLLOWINGS:
- INSTALL NEW 1 x 40A THREE PHASE DB ISOLATOR
- INTERNAL OPTUS DISTRIBUTION BOARD SHALL BE OF MINIMUM 16mm^2 SDI

8. LABELLING

FIX STANDARD LABELS TO ALL FUSES, METERS AND SWITCH POSITIONS IN EXISTING MSB AND IN NEW OPTUS CHANGEOVER AND ISOLATION BOARDS. LABELS TO BE BLACK LETTERING ON WHITE BACKGROUND "TRAFFOLYTE". LETTERING TO BE MINIMUM 10mm HIGH. TEXT TO READ "OPTUS".
PROVIDE A LAMINATED COPY OF AC INFRASTRUCTURE SITE LAYOUT - SLD AND (MUD MAP) INDICATING CABLE SIZES TYPE, LENGTH, METHOD OF INSTALLATIONS AND DIRECTION WITH A REFERENCE TO NORTH FOR FUTURE REFERENCE TO BE LEFT IN NEW OPTUS ISOLATION BOARD.

9. EARTHING

NEW EQUIPMENT EARTHING SHALL BE INSTALLED AS PER SITE SPECIFIC EARTHING SYSTEM ON DRAWINGS S4116-E3 AND IN ACCORDANCE WITH:
- OSD-020 (OPTUS EARTHING SPECIFICATIONS)
- OSD-713 (OUTDOOR CABINET GENERAL EARTHING)
- OSD-800 (TYPICAL ROOFTOP SITE EARTHING PLAN)
- OSD-810 (TYPICAL ROOFTOP EARTHING DETAILS AT ANTENNAS)
- OSD-820 (TYPICAL ROOFTOP SITE EARTHING AT SHELTER)
- OSD-830 (EARTH BAR DETAILS)
- OSD-831 (SINGLE POINT EARTH BAR DETAILS)
- ALL REFERENCE OPTUS STANDARD DOCUMENTATION
- MANUFACTURER'S SPECIFICATIONS

INSTALL 1 OFF 3m DEEP EARTH ELECTRODES. IF DRILLING REQUIRED, INSTALL ELECTRODES IN 75mm BOREHOLE FILLED WITH GEM. REFER TO DRAWINGS PER S4116-E3 FOR DETAILS. EARTH RESISTANCE TEST SHALL BE CONDUCTED ON COMPLETION. CONTRACTOR SHALL PROVIDE EARTH RESISTANCE TEST REPORT. IF 5 OHMs TARGET CANNOT BE ACHIEVED REPORT FINDINGS TO CPS TECH FOR FURTHER DIRECTIONS.

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

10. GENERATOR SUPPLY

GENERATOR INLET SOCKET SHALL BE 50A 5-PIN CLIPSAL COMPATIBLE. REFER TO OSD-620 FOR MANUAL CHANGEOVER SWITCH DETAILS.
INSTALL NEW 50A THREE PHASE MCB TYPE C FOR OPTUS GENSET SUBMAINS (REFER TO DRAWING S4116-E2 FOR DETAILS). OPTUS CONTRACTOR SHALL INSTALL GENERATOR INLET SUBMAINS BETWEEN CHANGE-OVER SWITCH AND GENERATOR INLET RATED FOR 50A (REFER TO AS/NZS 3008.1.1 FOR CABLE SIZING).
THE CONTRACTOR SHALL ENSURE ALL EQUIPMENT AND WIRINGS COMPLY WITH AS/NZS 3010 FOR ALTERNATING GENERATOR SUPPLY. CORRECT SWITCHING OF AUXILIARY (PORTABLE GENERATOR) SUPPLY NEUTRAL ODU CHANGE OVER SWITCH VIA THE INLET PLUG WILL REQUIRE TO BE CONFIGURED AS PER AS/NZS 3010.

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SITE POWER DETAILS

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-E1

Revision A

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:35 PM

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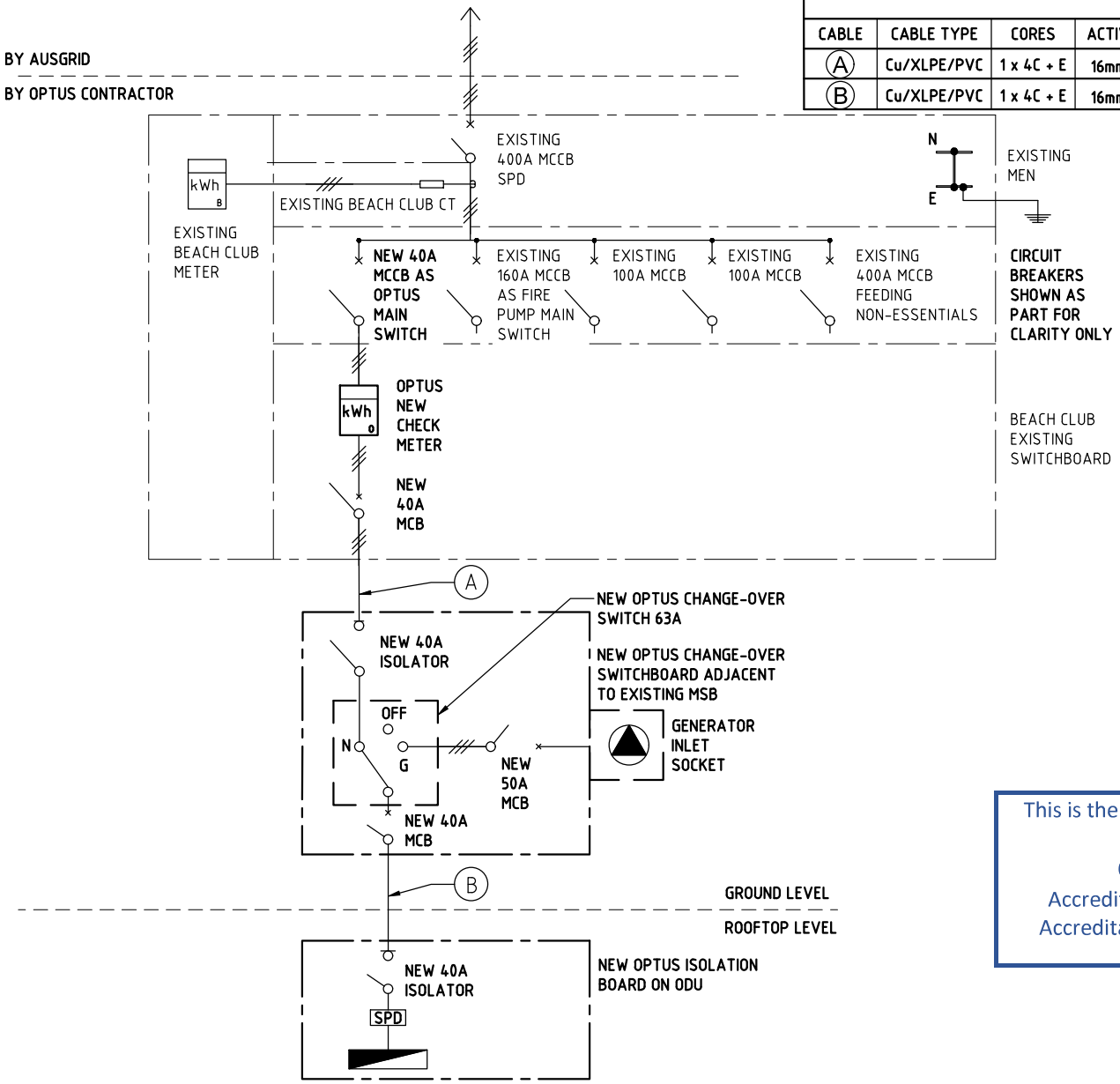
20 10 0 10 20 30 40 50mm

A3

CABLE SCHEDULE

CABLE	CABLE TYPE	CORES	ACTIVE	NEUTRAL	EARTH	CABLE LENGTH	INSTALLATION METHOD	COMMENTS
(A)	Cu/XLPE/PVC	1 x 4C + E	16mm²	16mm²	6mm²	5m	SM IN 50mm uPVC HD CONDUIT	BY OPTUS CONTRACTOR
(B)	Cu/XLPE/PVC	1 x 4C + E	16mm²	16mm²	6mm²	40m	SM IN 50mm uPVC HD CONDUIT	BY OPTUS CONTRACTOR



SINGLE LINE DIAGRAM

NTS

LEGEND

N	NEUTRAL
E	EARTH
MEN	MULTIPLE EARTHED NEUTRAL
SPD	SURGE PROTECTION DEVICE
	CIRCUIT BREAKER
	3 PHASES
	2 PHASES
	SINGLE PHASE
	ISOLATOR
	FUSE
	EARTH CONNECTION
	RESIDUAL CURRENT DEVICE
	TRANSFORMER
kWh	METER
	GENERATOR INLET SOCKET

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

NOTES:
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH S4116-E1.
2. CABLE LENGTHS GIVEN ARE INDICATIVE ONLY. EXACT CABLE ROUTES AND LENGTHS SHALL BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
3. OPTUS INTERNAL ELECTRICAL ENCLOSURE WIRING AND METERING SHALL BE MINIMUM 16mm² SDI.

Rev	Date	Revision Details						
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH Consultant	JM CAD	HA Designer	HA Verifier	RP Approver	

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SINGLE LINE DIAGRAM

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-E2

Revision A

CAD File: D:\Optus sites\S4116 Collaroy\FFC\S4116_FC.dwg Date: 04.12.2024 3:35 PM

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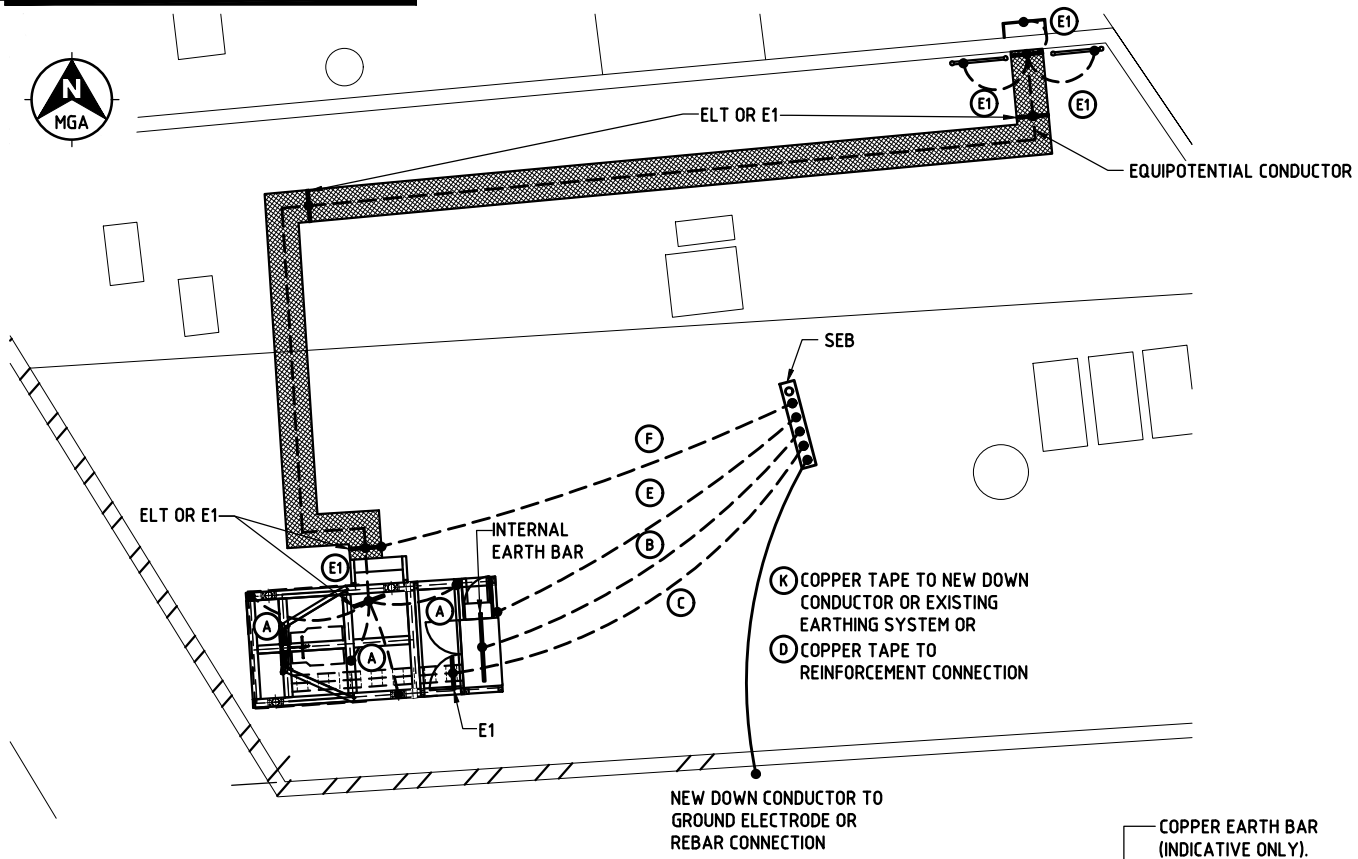
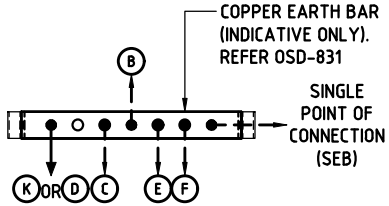
20 10 0 10 20 30 40 50mm

A3

ATTENTION!
IF CADWELDING IS NOT PERMITTED OR POSSIBLE:
1. USE BOLTED CLAMP CONNECTION TO ELECTRODES AS DETAILED ON OSD-760.
2. RUN 35mm² CABLES TO NEAREST ELECTRODE INSTEAD OF TAPE.
3. MAKE 2-HOLE LUG CONNECTIONS TO FENCE POSTS (WITH TAPPED HOLES).



EARTHING PLAN
SCALE 1:100



SERVICE EARTH BAR
NTS

ITEM	DESCRIPTION	CONNECTION REF No.
A	ANTENNA FRAME TO EQUIPOTENTIAL CONDUCTOR OR EXISTING LIGHTNING PROTECTION TAPE	-
B	INTERNAL EARTH TAPE TO SEB	-
C	FEB TO SEB	-
D	REINFORCEMENT CONNECTION TO SEB	-
E	STEEL BASE FRAME/SUPPORT STEELWORK TO SEB	-
F	EQUIPOTENTIAL CONDUCTOR TO SEB	-
K	DOWN CONDUCTOR OR EXISTING PROTECTION TAPE TO SEB	-

NOTES:
1. EARTHING ELECTRODE SHALL BE 13mm DIAMETER COPPER BONDED HARDENED STEEL RODS.
2. IF DRILLING REQUIRED, INSTALL ELECTRODES IN 75mm MINIMUM DIAMETER HOLES AND BACKFILL IT WITH APPROPRIATE EARTHING ENHANCING COMPOUND MATERIAL AS PER OPTUS OSD-020.
3. ODU INTERIOR EARTHING BAR SHALL BE REINSTALLED BY ODU SUPPLIER.
4. FOR PAINTING STRUCTURES, CONTRACTOR SHELL REMOVE THE PAINT LOCALLY (LEAVING THE GALVANISING INTACT) BEFORE INSTALLING EARTHING BAR SUPPORTS.
5. INSTALL 3 OFF EARTH BAR/ELTs FOR EACH ANTENNA FEEDER CABLE RUN. ONE AT ANTENNA, ONE AT ODU, ONE INTERMEDIATE LOCATED BEFORE BEND (NEAREST TO ANTENNA).
6. EARTH KITS SHALL BE INSTALLED ON FEEDER CABLES BEFORE BENDS AND TAILS RUN TANGENTIALLY TO EARTH BAR OR ELT.
7. METALLIC ITEMS, SUCH AS HANDRAILS, WITHIN 2 METERS OF OPTUS EQUIPMENT, ANTENNAS, CABLE LADDER etc. SHALL BE ELECTRICALLY BONDED AND CONNECTED TO OPTUS EARTHING SYSTEM.
8. ALL ITEMS BE EARTHED GENERALLY AS SHOWN ON THIS DRAWING.
9. REFER TO STANDARD DRAWING OSD-830 FOR EARTH BAR DETAILS.
10. USE REINFORCEMENT CONNECTION IF DOWN CONDUCTOR INSTALLATION IS NOT PRACTICABLE OR NOT PERMITTED BY SITE PROVIDER.

LEGEND:
- EARTHING ELECTRODE IN INSPECTION SLEEVE
- EARTHING ELECTRODE IN TRAFFICABLE INSPECTION SLEEVE
- 35mm² STRANDED COPPER GREEN/YELLOW PVC
- 25 x 3mm COPPER TAPE

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: SITE EARTHING PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-E3

Revision A

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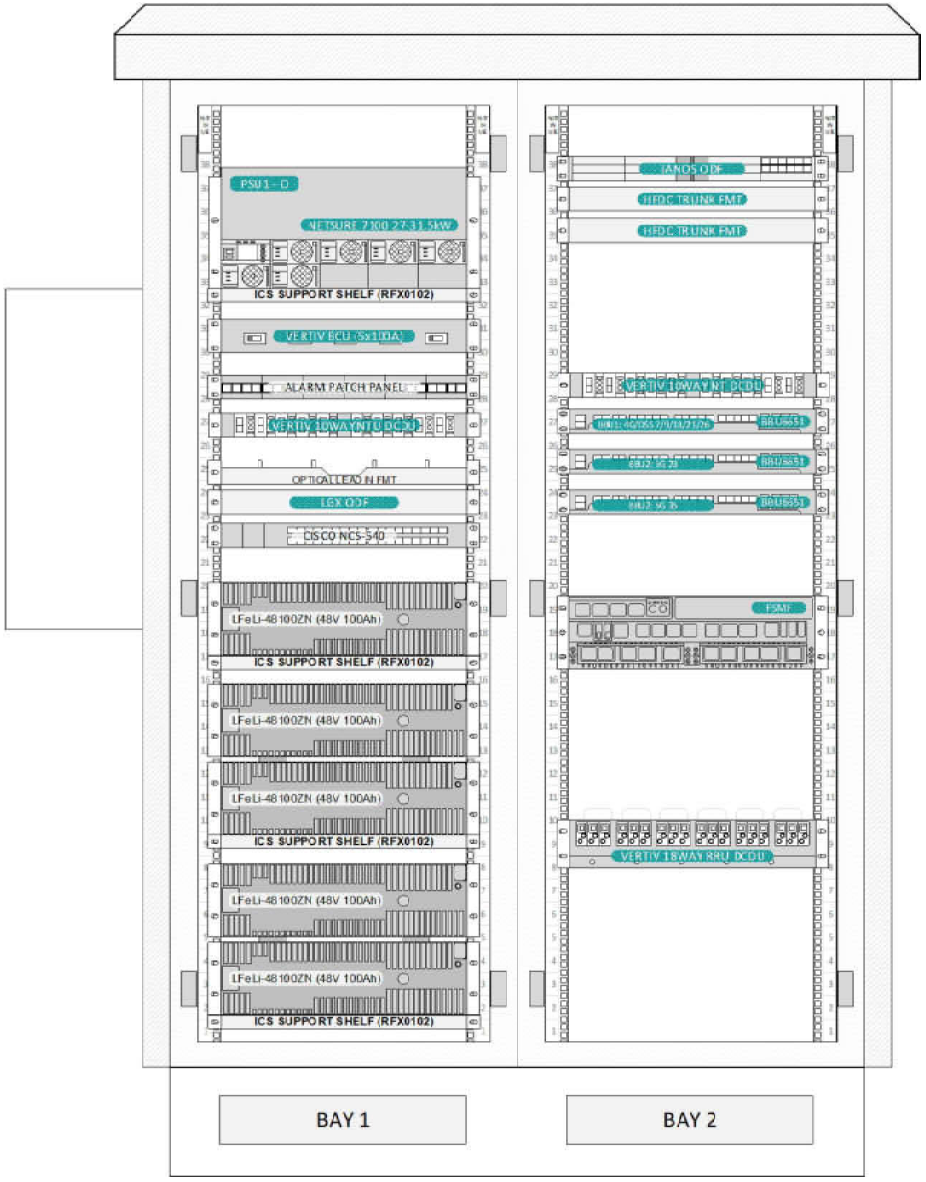
DC SCOPE:

1. INSTALL 1 x 27kW VERTIV DC POWER SYSTEM.
2. INSTALL 6 x 3kW RECTIFIERS.
3. INSTALL 5x 100Ah Li BATTERY STRINGS.



OPTUS ODU (2-BAY) RACK CONFIGURATION

NOT TO SCALE

This is the plan/spec referred to the Certificate No.
CDC103/2025
Accredited Certifier: D. Chacko
Accreditation Number: BDC2304

Rev	Date	Revision Details	Consultant	CAD	Designer	Verifier	Approver
A	22.10.24	ISSUED FOR CONSTRUCTION	CPS TECH	JM	HA	HA	RP

CPS TECHNOLOGY & INFRASTRUCTURE

Client: OPTUS

Project: MOBILE NETWORK AUSTRALIA
SITE No:- S4116
COLLAROY BEACH 2
1058 PITTWATER RD, COLLAROY

Drawing Title: ODU LAYOUT PLAN

Drawing Status: FOR CONSTRUCTION

Drawing No. S4116-F1

Revision A

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20 10 0 10 20 30 40 50mm

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