



ServiceStream

23 February 2022

Property and Development Manager
Kosciuszko Thredbo Pty Ltd
PO Box 92 Thredbo NSW 2625

Per Email: Andrew.Harrigan@evt.com

Dear Andrew,

**RE: PROPOSED UPGRADE TO OPTUS INSTALLATION - CATSHED WORKSHOP FRIDAY DRIVE,
THREDBO VILLAGE THREDBO NSW 2625 | OPTUS REFERENCE – S8596 THREDBO CBD**

ServiceStream has been engaged by Optus to upgrade their existing telecommunications network to provide improved coverage throughout Australia.

As part of this work Optus propose to carry out the following work on the Optus installation at the above property:

- The removal of four (4) existing panel antennas
- The installation of four (4) new panel antennas (each no more than 2.8m long)
- The installation of four (4) new Remote Radio Units (RRUs)
- The installation, relocation and removal of ancillary equipment including RRUs, antenna mounts, feeders, cabling, combiners, mast head amplifiers and other associated equipment, and the works within the existing equipment shelter.

This work is permitted under the existing lease with Lessor consent as per Clauses 4.9(a).

I have attached plans for the proposed upgrade works and requesting your approval by signing the second page of this letter and returning it to me via email.

Yours sincerely

Bijal Sisodiya

0428 156 431

Service Stream - bijal.sisodiya@servicestream.com.au

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ServiceStream

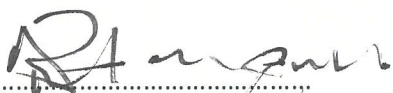
**RE: PROPOSED UPGRADE TO OPTUS INSTALLATION - CATSHED WORKSHOP FRIDAY DRIVE,
THREDBO VILLAGE THREDBO NSW 2625 | OPTUS REFERENCE – S8596 THREDBO CBD**

In accordance with the provisions of the Lease Agreement between:

LESSOR: Kosciuszko Thredbo Pty Ltd

LESSEE - Optus,

Consent is hereby given to the proposed works as outlined in the Optus drawings reference:
S8596_Thredbo CBD_RLM-01122021_RSD5 (OO) v2

Signed: 

Date: 9.3.2022.

Name: Andrew Hamigan

Position: Property + Development
Manager

On behalf of Kosciuszko Thredbo Pty Ltd

8 February 2022

Service Stream
Level 3, Zenith Tower B
821 Pacific Hwy,
Chatswood, NSW 2067

Lessor's

Owners Consent to Lodge Development Application with Department of Planning and Environment

I Andrew Hanigan being the representative for the property owner of Catshed Workshop, Friday Drive, Thredbo Village, Thredbo NSW 2625 authorise Service Stream, and their authorised representative, to submit a Planning Application for the installation of a new Optus Telecommunications Facility at the above address.

Property owner

Lessor

Kosciuszko Thredbo Pty Ltd

Authorised officer

Andrew Hanigan

Contact email

andrew.hanigan@cut.com

Contact number

0422 422 860

Signed:

Andrew Hanigan

Date:

9.3.2022

PROPOSED SU-RSD-5 OPTUS ONLY DESIGN SOLUTION
AS PER ROAMS EMAIL DATED 26-NOV-2021.

INSTALL NEW 1 x HUAWAI ASI4517R1 12P PANEL
ANTENNA FOR SECTOR 41-0 ON EXISTING SPARE
FACE MOUNT ON EXISTING HEADFRAME

INSTALL NEW 2 x COM2a & 2 x COM3 BEHIND NEW
ANTENNA ON EXISTING SPARE FACE MOUNT ON
EXISTING HEADFRAME FOR SECTOR 41-0

INSTALL NEW 1 x L7 RRU5301, 1 x U9 RRU5909,
1 x L18 RRU5901, 1 x UL21 RRU3971, 1 x L26 RRU3281
FOR SECTOR 41-0 ON EXISTING (RELOCATED)
SPARE FACE MOUNT ON EXISTING HEADFRAME

EXISTING OPTUS ROAM CIRCULAR HEADFRAME

OPTUS 4G ANTENNA SCOPE: SECTOR 1, 2 & 3:

REPLACE EXISTING 12P-Large R2V4PX10R WITH PROPOSED
28P-Large R2V4PX10R-EC (3 OFF, 1 PER SECTOR)
(11-0, 21-0 & 31-0) ON EXISTING MOUNTS

RELOCATE EXISTING SPARE FACE MOUNT
(BETWEEN SECTOR 11-0 & SECTOR 21-0) TO
RIGHT HAND SIDE OF NEW SECTOR 41-0 ANTENNA

MGA ZONE
E 55
N 616 500
AT 5 959 659
€ MONOPOLE

EXISTING MONOPOLE/SHELTER SLAB
FOUNDATION (ROAM DESIGNED)

EXISTING OPTUS 25.0m HIGH
ROAM STEEL MONOPOLE

EXISTING 4 x Ø150 CONDUITS UP TO
THE PORT HOLE AT BASE OF POLE
TO FACILITATE FIBRE CABLE RUN

EXISTING OPTUS PHASE 8.0 EQUIPMENT
SHELTER WITH GABLED ROOF ON 4.50 SQ.
PLINTHS TO ROAM DESIGNED SLAB FOUNDATION

PROPOSED SETOUT PLAN

STEEL WORK:

REUSE EXISTING HEADFRAME, ANTENNA &
RRU MOUNTS

DETAIL
SCALE 1:50



OPTUS FUTURE RRU SCOPE: SECTOR 1, 2, 3 & 4:

INSTALL FUTURE RRU'S (1 OFF) PER SECTOR ON EXISTING
RRU MOUNT

OPTUS 4G ANTENNA SCOPE: SECTOR 4:

REPLACE EXISTING 12P-Large RRV4-65D-R6 WITH PROPOSED 28P
LARGE RRV4-65D-R6-EC (1 OFF, 41-0) ON EXISTING MOUNT

INSTALL NEW OPTUS Ø630
PARABOLIC DISH A33D06HS WITH
302.97° BEARING AT 15m HEIGHT ON
NEW MOUNT (OSD-340). INSTALL
NEW 1 x ODU XMC-2 BEHIND DISH

EXISTING SECTOR 31-0
TAILS STRAP-MOUNTED TO
EXISTING FACE MOUNT

INSTALL 1 x LDF4-50 FEEDER
IN EXISTING Ø150 CONDUIT
AND RUN INSIDE THE POLE
FOR NEW PARABOLIC DISH

INSTALL NEW 1 x 9/18 TRUNK
CABLE IN EXISTING Ø150 CONDUIT
AND RUN INSIDE THE POLE FOR
NEW RRU'S FOR SECTOR 41-0

EXISTING OPTUS FIBRE
SUPPLY TO EXISTING
OPTUS FIBRE PIT

EXISTING OPTUS
ELECTRICAL SUPPLY
FROM TRANSFORMER

EXISTING 1 OFF GPS
ANTENNA EXISTING SHELTER

OPTUS 5G GPS SCOPE:
REUSE EXISTING OPTUS ERICSSON GPS
ANTENNA (1 OFF)

OPTUS CABLING SCOPE: SECTOR 1, 2, 3 & 4:
REUSE EXISTING 9/18" HYBRID CABLES (1 OFF) PER
SECTOR IN EXISTING U/G CONDUIT

OPTUS 3G & 4G ANCILLARIES & RRU SCOPE:
SECTOR 1, 2, 3 & 4

RETAIN EXISTING RRU4480(700/900)(1 OFF), ERICSSON
RRU4480(182/1)(1 OFF), ERICSSON RRU4415(2600)(1 OFF) PER
SECTOR ON EXISTING RRU MOUNT.

RETAIN EXISTING 850 REJ FILTERS (2 OFF), RF SWITCH (1 OFF) &
COM190 HB COMBINER (1 OFF) PER SECTOR ON EXISTING MOUNT

INSTALL PROPOSED RRU863(NR35)(1 OFF) ON EXISTING MOUNTS
SECTOR 1, 2 & 3

RETAIN EXISTING HUAWAI RRU3936 (U900) (1 OFF) AND RRU3982
(U2100) (1 OFF) PER SECTOR ON EXISTING RRU MOUNT

SECTOR 4				SECTOR 1			
RETAIN EXISTING RRU5909 (U900) (1 OFF) & RRU5904 (U2100) (1 OFF)				PER SECTOR ON EXISTING RRU MOUNT			
Rev	Date	Revision Details	Approver	Rev	Date	Revision Details	Approver
A	22/01/15	ISSUED FOR CONSTRUCTION	Consultant CAD Designer	Verifier			
B	22/01/15	SITE LOCATION DATA REVISION					
C	02/03/16	SHELTER LAYOUT REVISION					
D	21/03/16	FIBRE AND ELECTRICAL DETAILS ADDED					
E	22/01/16	COORDINATES & ELECTRICAL SUPPLY ROUTE REVISION					



ANTENNA LEGEND



RLM CHECKLIST		YES	NO	N/A
DESIGN CONSIDERATION		✓		
50mm SEPARATION ACHIEVED ON ALL SECTORS		✓		
50mm SEPARATION ACHIEVED ON ALL SECTORS		✓		
HEADFRAME CHANGE			✓	
OPTUS ANTENNAS RELOCATED			✓	
OPTUS ANCILLARIES RELOCATED			✓	
CHANGE IN FEEDER LENGTH			✓	

OPTUS ANTENNA AZIMUTHS:
SECTOR 1: 60°
SECTOR 2: 120°
SECTOR 3: 200°
SECTOR 4: 300°

PROPOSED HIGH BAND
TAIL LENGTH
SECTOR 1: 2.0 m (approx)
SECTOR 2: 2.0 m (approx)
SECTOR 3: 2.0 m (approx)
SECTOR 4: 2.0 m (approx)

AC SUPPLY:
EXISTING 40A 3P SUPPLY TO BE REPLACED
WITH 80A 3P SUPPLY.

NOTES:
1. REFER TO DRAWING S8596-A1 FOR ANTENNA SYSTEM CONFIGURATION.
2. ALL ANTENNA ORIENTATIONS ARE IN DEGREES RELATIVE TO MGA NORTH.
3. STRUCTURAL ADEQUACY OF EXISTING ROAM STEEL POLE AND
HEADFRAME HAS BEEN CONFIRMED BY ROAM
RJI1899-RPT-1 (REV B) & RJI1899-RPT-2 IF
MOUNT ASSESSMENT REPORTS DATED 26/11

Project: MOBILE NETWORK
-AUSTRALIA-

SITE NO:- S8596
THREDBO CBD
VILLAGE THREDBO

Client:

OPTUS



SITE LAYOUT AND SETOUT PLAN

Drawing No.	Revision
S8596-G3	A

PROPOSED PSD-5 OPTUS ONLY DESIGN SOLUTION AS PER ROAM'S EMAIL DATED 26-NOV-2021.

OPTUS 4G ANCILLARIES & RRU SCOPE SECTOR 1, 2, 3 & 4
INSTALL FUTURE RRU'S (1 OFF) PER SECTOR ON EXISTING RRU MOUNT

OPTUS	PROPOSED HIGH BAND	TAIL LENGTH
SECTOR 1	2.0 m (approx)	2.0 m (approx)
SECTOR 2	2.0 m (approx)	2.0 m (approx)
SECTOR 3	2.0 m (approx)	2.0 m (approx)
SECTOR 4	2.0 m (approx)	2.0 m (approx)

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

NOTE:
EXISTING ANTENNAS AS SHOWN ARE INDICATIVE
ONLY AND ARE BASED ON INFORMATION SUPPLIED
BY OTHERS AND/OR BY INSPECTION ON SITE.

OPTUS 3G & 4G ANCILLARIES & RRU SCOPE:
SECTOR 1, 2, 3 & 4
RETAIN EXISTING RRU4480(700/900)(1 OFF), ERICSSON RRU4480(1821)(1 OFF), ERICSSON RRU4415(2600)(1 OFF) PER SECTOR ON EXISTING RRU MOUNT.
RETAIN EXISTING 850 REJ FILTER'S (2 OFF), RF SWITCH (1 OFF) & COM19D HB COMBINER (1 OFF) PER SECTOR ON EXISTING MOUNT
INSTALL PROPOSED RRU8863(1835)(1 OFF) ON EXISTING MOUNTS
SECTOR 1, 2 & 3
RETAIN EXISTING HUawei RRU3936 (U900) (1 OFF) AND RRU3982 (U2100) (1 OFF) PER SECTOR ON EXISTING RRU MOUNT
SECTOR 4
RETAIN EXISTING RRU5909 (U900) (1 OFF) & RRU5904 (U2100) (1 OFF) PER SECTOR ON EXISTING RRU MOUNT

CAD File: C:\Users\j\aminh\DRIVE\DESKTOP\AMIN\2020-July\20-07-2020\VN\S8596 - Thredbo CBD\S8596-FC.dwg Date: 28/07/20

ACCESS TO ANTENNA USING EW/PIRANE.

OPTUS ANTENNA AZIMUTHS:
SECTOR 1: 60°
SECTOR 2: 120°
SECTOR 3: 200°
SECTOR 4: 300°

AC SUPPLY:
EXISTING 40A 3P SUPPLY TO BE REPLACED WITH 80A 3P SUPPLY.

NOTES:

- REFER TO DRAWING S8596-A1 FOR ANTENNA SYSTEM CONFIGURATION.
- ALL ANTENNA ORIENTATIONS ARE IN DEGREES RELATIVE TO MGA NORTH.
- STRUCTURAL ADEQUACY OF EXISTING RRU HEADFRAME HAS BEEN CONFIRMED BY RJ11899-RPT-1 (REV B) & RJ11899-RPT-1 MOUNT ASSESSMENT REPORTS DATED 12/07/2020.



Drawing Title:

SITE ELEVATION

Drawing No. **S8596-G4**
Revision **A**

Drawing Status: **DRAFT**

Project: **MOBILE NETWORK AUSTRALIA**

OPTUS

SITE No:- S8596
THREDBO CBD
VILLAGE THREDBO

Client:

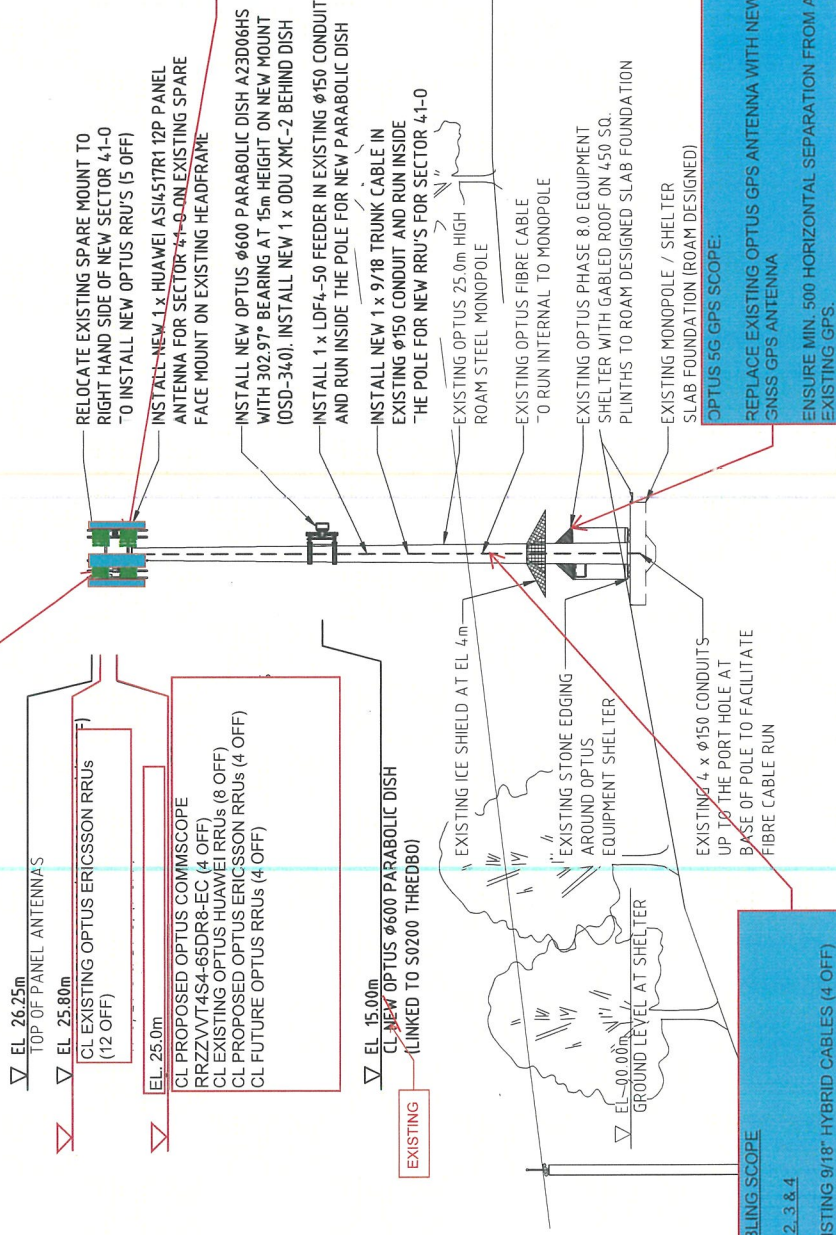


Rev	Date	Revision Details	Consultant	CAU	Designer	Verifier	Approver
A	04/09/19	FOR CONSTRUCTION (OPTUS RANCAP PROJECT)	CATALYST	JM	VN	CO	MA
A	25/09/18	AS BUILT	CATALYST	JM	--	CO	KH
A	10/04/18	FOR CONSTRUCTION (RANCAP UPGRADE PROJECT)	CATALYST	JM	--	CO	KH
A	03/04/18	AS BUILT	CATALYST	DR	BW	JK	PB
B	21/03/16	EARTHWORKS DETAILS ADDED	CATALYST	DR	BW	TL	PB
A	22/09/15	ISSUED FOR CONSTRUCTION	CATALYST	DR	BW	JK	PB

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PROPOSED NORTH EAST ELEVATION

SCALE 1:250



OPTUS CABLING SCOPE
SECTOR 1, 2, 3 & 4
RE USE EXISTING 9/18" HYBRID CABLES (4 OFF)

STEEL WORK:
REUSE EXISTING HEADFRAME, ANTENNA & RRU MOUNTS

Notes:

Equipment upgrade:

1. Optus 3G Huawei equipment U9 and U21 to remain as is. Reuse 2x BBU3910/5900 for U9, U21. No change to 3G equipment.
2. Reuse existing 2x Ericsson BBU6630 for L7/9, L18/21, L26.
3. Reuse existing 2x Ericsson BBU6630 for NR35.

PSU

4. Existing Optus Huawei 18kW PSU with 6x 3kW rectifiers and 5x AG12v-100 battery strings to be reused. Install new 1x 125A CB for iDCDP1 FeedA for NR35.

5. Optus approval number: custom solution, no auto approval number. Only 1-off existing PSU to be reused due to limited AC power capacity. 1-off existing PSU is sufficient for proposed 5G upgrade works.

iDCDP

6. Existing 15-way iDCDP1 to be reused for Optus U9, U21, NR35. Rearrange U9 and U21 CB as per iDCDP schematic. Install 3x new 32A CB for NR35. Refer to iDCDP schematic layout drawing.
7. Existing 15-way iDCDP2 to be reused for L7/9, L18/21, L26. Install pole fillers in CB5 and CB10. Replace CB for L7/9 with new 4x 40A CB.

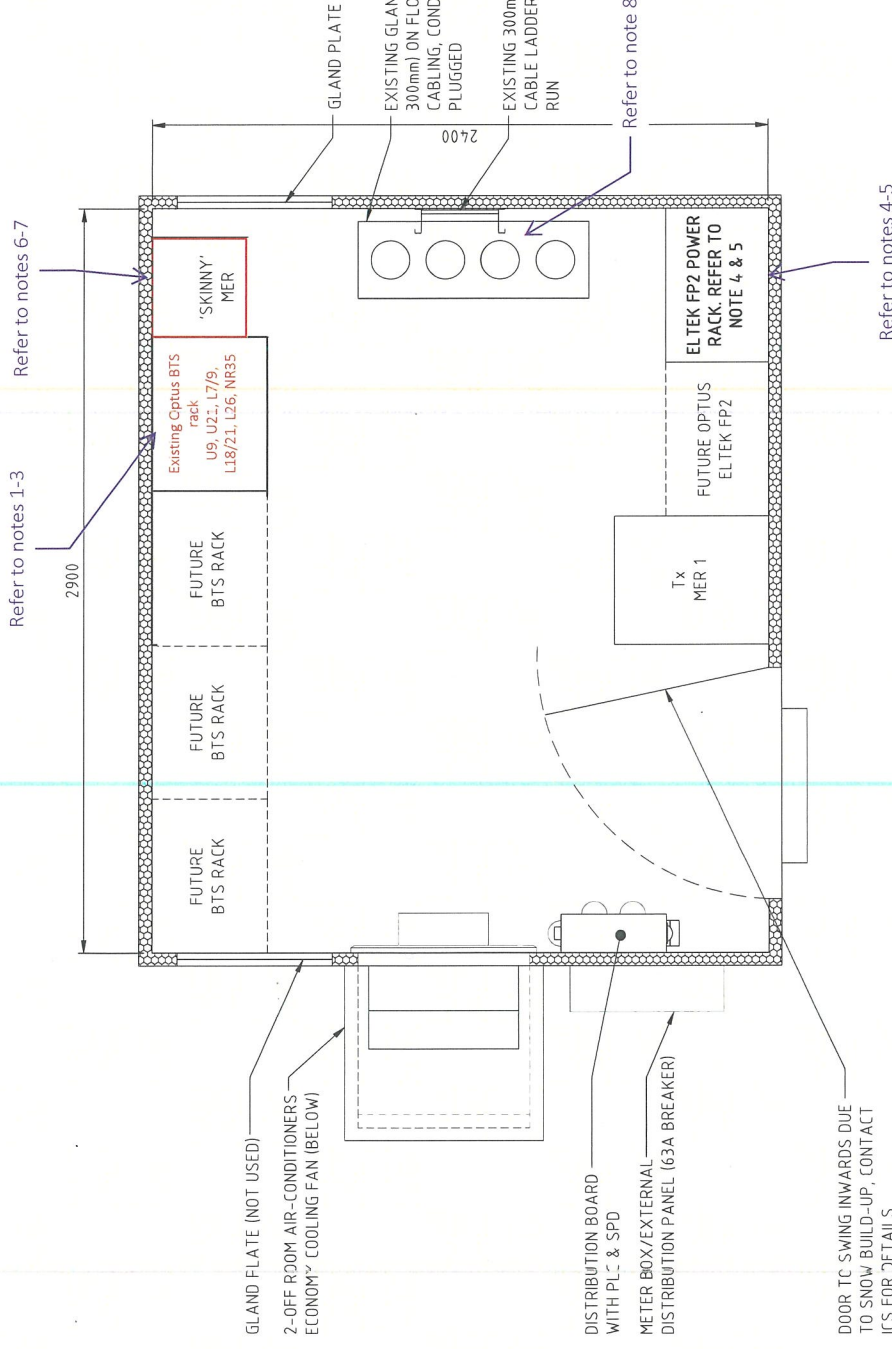
GLAND PLATE (NOT USED)

8. Existing 300mm WID⁹ 9. All external alarms (Environmental etc.) to be migrated from UMTS to LTE CABLE LADDER FOR BBU RUN

10. All 3G controlled RET's to be migrated to 4G RRU as required
11. Remove Krone panel, install RJ45 patch panel and migrate all alarms to patch panel

AC upgrade

12. Existing supply is 40A 3 phase and is sufficient for 5G upgrade works



SHELTER PLAN

SCALE 1:20

Client:



Project:

MOBILE NETWORK AUSTRALIA
SITE No:- S8596
THREDBO CBD (CAT SHED)
VILLAGE THREDBO

Drawing Title

EQUIPMENT SHELTER
LAYOUT PLAN

Drawing No. S8596-F1
Revision A