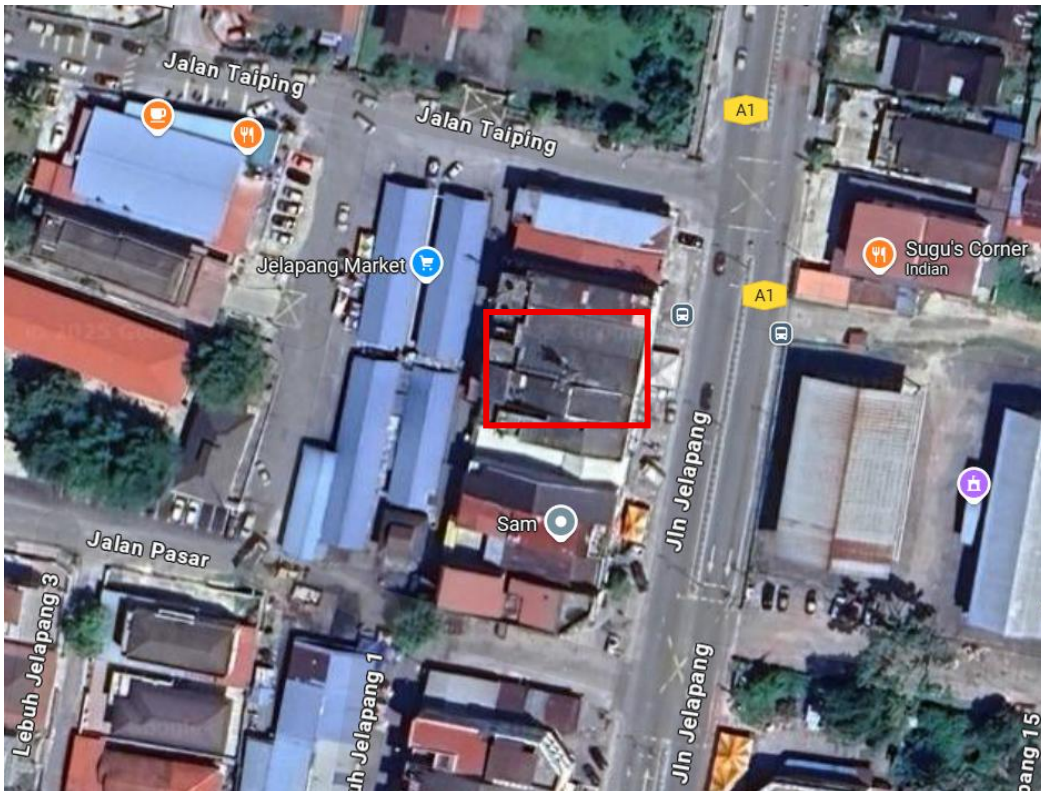


# Maxis UMobile 5G Project – Technical Proposal

Company Name	:	MAXIS BROADBAND SDN BHD
Company Address	:	Level 9, Menara Maxis, Kuala Lumpur City Center, 50088, Kuala Lumpur
Date	:	30/07/2025



Project & Site Name	:	UMOBILE TWAS
Site LRD	:	TWAS
Address	:	Coliseum Square, 8, Jln Sultan Nazrin Shah
District	:	IPOH
Postcode & State	:	31350, PERAK
GPS Coordinate	:	4.638264131947713, 101.06346631852279
FTTx LRD	:	N/A
Home pass / Premise pass	:	N/A

UG Build (m)	250	UG Cable (m)	280
Aerial Build (m)	N/A	Aerial CABLE (m)	N/A
<b>Total Civil Build (m)</b>	<b>250</b>	Coil at MH (m)	10
		<b>Total Cable (m)</b>	<b>290</b>



## Table of Contents

- 1. POC3 Summary & Details**
  - 1.1. POC3 Summary
  - 1.2. POC3 Photos
- 2. OSP / ISP Summary & Details (OSP 2)**
  - 2.1. Propose Route Details & Site Map
  - 2.2. OSP / ISP BOQ
  - 2.3. Civil Works Details (Manhole & Pole)
  - 2.4. Photo Illustration
- 3. Link Attenuation Calculation Reference**
- 4. Appendices**
  - 4.1. OSP Civil Design
  - 4.2. OSP SLD Design
  - 4.3. Costing BOQ

# 1. POC3 Summary & Details

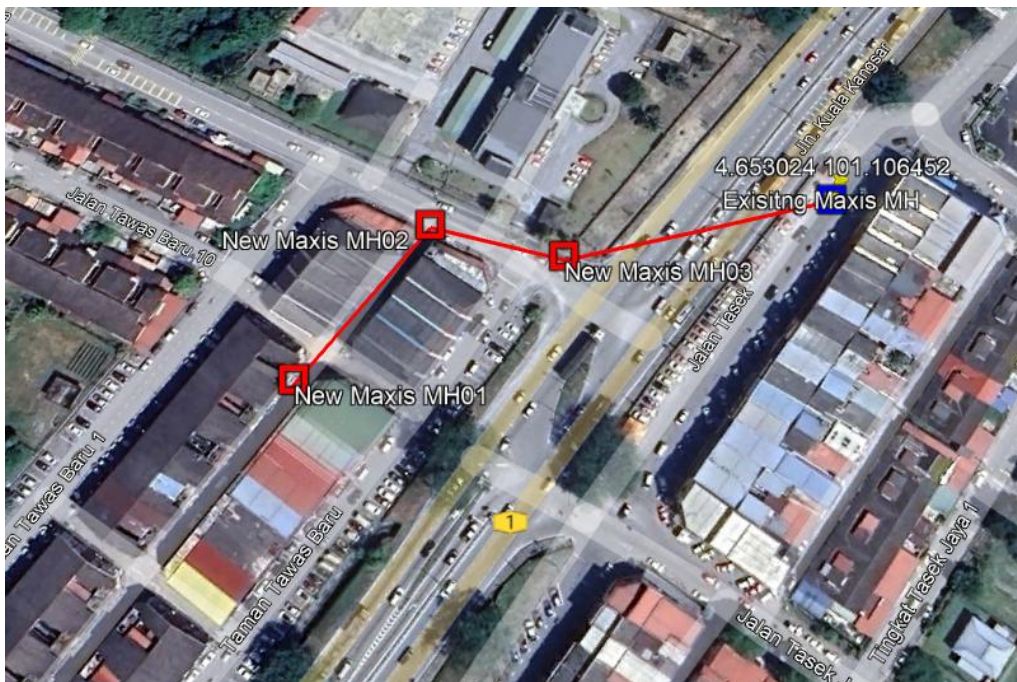
## 1.1. POC3 Summary



Site LRD	:	JTSK
Structure Type	:	Cabin
GPS Coordinate	:	4°38'41.78" N 101°5'20.886" E
Site / Building Name	:	N/A
Address	:	Jln. Kuala Kangsar, 30010 Ipoh, Perak
POC3 Model	:	

## 2. OSP / ISP Summary & Details (OSP 2)

### 2.1. Propose Route Details & Site Map



<b>LRD Point A</b>	TWAS	<b>LRD Point B</b>	EXISTING MH MAXIS
<b>Address</b>	Coliseum Square, 8, Jln Sultan Nazrin Shah	<b>Address</b>	Coliseum Square, 8, Jln Sultan Nazrin Shah
<b>GPS Coordinates</b>	4.652480, 101.104780	<b>GPS Coordinates</b>	4.65302209, 101.106409
<b>New Civil Build (M)</b>	250	<b>Existing Civil Build (M)</b>	N/A
<b>New Build Cable (M)</b>	290	<b>Existing Cable (M)</b>	N/A

<b>Local Council &amp; Authority approval Requirement</b>	: JKR IPOH : 100m MAJLIS BANDARAYA IPOH: 150M
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## 2.2. OSP & ISP BOQ

<b>Overall Proposed OSP Civil Infrastructure Design Distance</b>		<b>Unit</b>	<b>Quantity</b>
1	Horizontal Directional Drilling with 1-way duct	M	250
2	Horizontal Directional Drilling with 2-way duct	M	N/A
3	Open trench on grass verge (GV) with 1-way duct	M	N/A
4	Open trench on grass verge (GV) with 2-way duct	M	N/A
5	Open trench on carriage way (CW) with 1-way duct	M	N/A
6	Open trench on carriage way (CW) with 2-way duct	M	N/A
7	Micro trenching 1-way (3-way x 40 mm HDPE sub-duct)	M	N/A
8	Micro trenching 1-way (2-way x 25 mm GI Pipe for main road crossing)	M	N/A

<b>Overall Propose Manhole / Handhole</b>		<b>Unit</b>	<b>Quantity</b>
1	Manhole JB30	Ea	2
2	Manhole JB30 Modified	Ea	N/A
3	Manhole JRC7	Ea	N/A
4	PIT/Cheezy PIT	Ea	N/A

<b>Overall Propose Pole / Overhead</b>		<b>Unit</b>	<b>Quantity</b>
1	7.5 m Pole – Concrete/Iron	Ea	N/A
2	9 m Pole – Concrete/Iron	Ea	N/A
3	G.I Riser	Ea	N/A

<b>Overall Cable Infrastructure Design Distance</b>		<b>Unit</b>	<b>Quantity</b>
1	1 Core Optical Fiber Cable	M	N/A
2	48 Core Optical Fiber Cable UG/IB/ID	M	N/A
3	96 Core Optical Fiber Cable UG/IB	M	N/A
4	144 Core Optical Fiber Cable UG/IB/ID	M	290

<b>Overall Optic Splice Design</b>		<b>Unit</b>	<b>Quantity</b>
1	Total Joint Closure	Ea	1

### 2.3. Civil Work's Detail (Manhole & Pole)

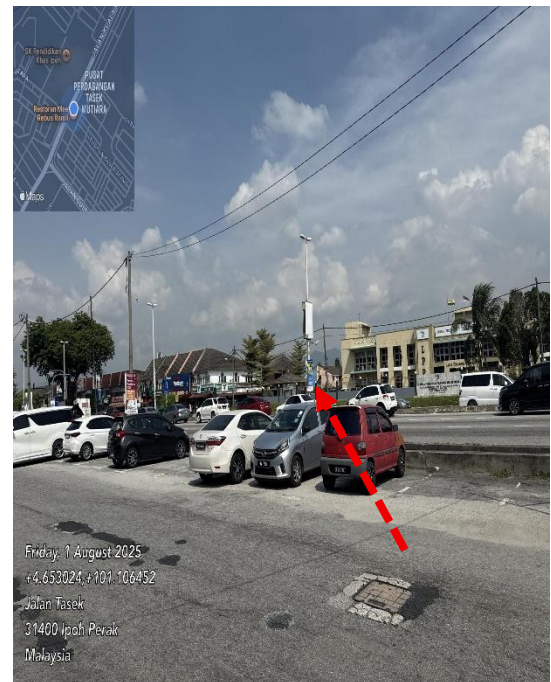
Overall Existing Manhole & Pole		GPS Coordinate		Distance
No.	Manhole & Pole ID	Latitude	Longitude	Meter
1	Ext BMH	4.652547	101.105142	
2	N/A	N/A	N/A	N/A
3	N/A	N/A	N/A	N/A

Overall Propose Manhole & Pole		GPS Coordinate		Distance
No.	Manhole & Pole ID	Latitude	Longitude	Meter
1	Prop MH01 JB30	4.652956	101.105450	
2	Prop MH02 JB30	4.652872	101.105783	N/A
3				N/A

### 2.4. OSP/ISP Photo Illustration.



**PICTURE 1 : Ext Maxis MH**



**Picture 2 – PROPOSE HDD & MH 02**



Picture 3 – Prop MH 02 and HDD



Picture 4 – Prop MH 01 and HDD



Picture 3 – HDD towards Ext BMH



**3. Link Attenuation Calculation Reference**

S = Total splice count in a single link

L = Total length of cable in a single link

C = Total connector count in a single link.

**A) FIBER LOSS FOR 1310 nm WAVELENGTH**

$$\text{TOTAL LOSS} = 0.15 (S) + 0.35 (L) + (C)$$

**B) FIBER LOSS FOR 1550 nm WAVELENGTH**

$$\text{TOTAL LOSS} = 0.10 (S) + 0.25 (L) + 0.5 (C)$$

**MAXIMUM END TO END VALUE FOR 1310 nm = \*\*\*\* dBm**

**MAXIMUM END TO END VALUE FOR 1550 nm = \*\*\*\* dBm**

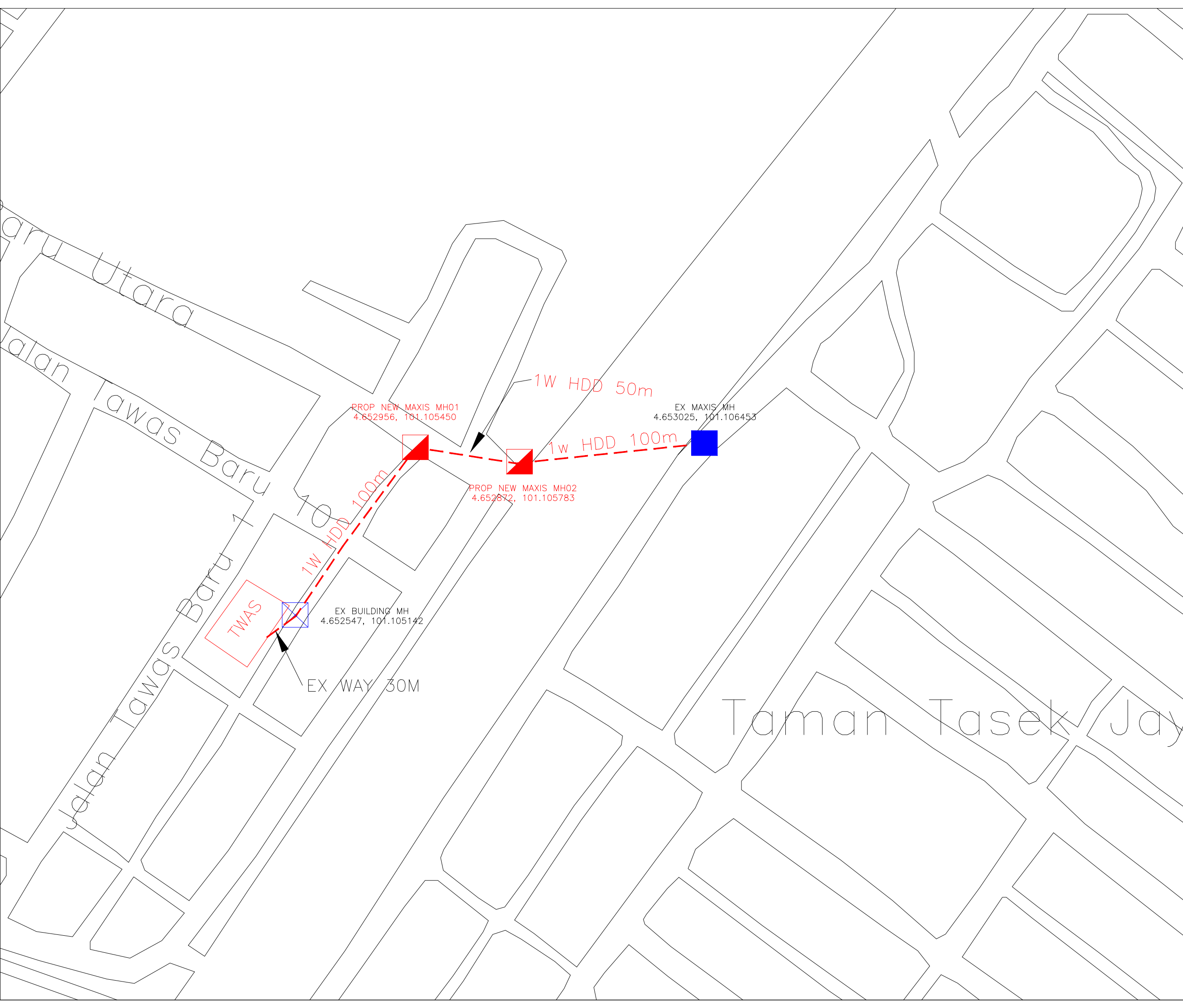


#### **4. Appendices**

4.1. OSP Civil Design

4.2. OSP SLD Design

4.3. Costing BOQ



SITE MAPS DESIGN	
SITE NAME:	TWAS
PROJECT TITLE:	UM5G - TWAS
DWG ID:	UM5G/TWAS/01
DATE:	05/08/2025
SHEET:	1/1
SUMMARY NOTES	
TOTAL CUSTOMER :	1
TOTAL FDC :	N/A
TOTAL FDP:	N/A
TOTAL PROPOSED JOINT:	1
TOTAL PROPOSED MH:	2
TOTAL PROPOSED POLE:	N/A
TOTAL PROPOSED UG CABLE (m):	250
TOTAL PROPOSED OH CABLE (m):	N/A
LEGENDS	
EXISTING FDC	
PROPOSED FDP	
EXISTING FDP	
PROPOSED MANHOLE	
EXISTING MANHOLE	
PROPOSED PIT/HANDHOLE	
EXISTING PIT/HANDHOLE	
PROPOSED G.i / DUCT RISER	
EXISTING G.i / DUCT RISER	
PROPOSED POLE	
EXISTING POLE	
PROPOSED CLOSURE / JOINT	
EXISTING PEDESTAL	
EXISTING UG DUCTWAY	
PROPOSED UG TRENCHING	
EXISTING AERIALCABLE	
PROPOSED AERIAL CABLE	
JKR BOUNDARY	
LOCAL COUNCIL BOUNDARY	
DESIGN BY: BINASAT SDN BHD	
MAXIS BROADBAND SDN BHD	
CHECKED BY :	
CHECKED DATE :	
APPROVED/REJECTED BY :	
APPROVED/REJECTED BY :	

SITE MAPS DESIGN	
SITE NAME:	TWAS
PROJECT TITLE:	UM5G - TWAS
DWG ID:	UM5G/TWAS/01
DATE:	05/08/2025
SHEET:	1/1

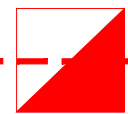
SUMMARY NOTES	
TOTAL CUSTOMER :	1
TOTAL FDC :	N/A
TOTAL FDP:	N/A
TOTAL PROPOSED JOINT:	1
TOTAL PROPOSED MH:	2
TOTAL PROPOSED POLE:	N/A
TOTAL PROPOSED UG CABLE (m):	250
TOTAL PROPOSED OH CABLE (m):	N/A

LEGENDS	
EXISTING FDC	
PROPOSED FDP	
EXISTING FDP	
PROPOSED MANHOLE	
EXISTING MANHOLE	
PROPOSED PIT/HANDHOLE	
EXISTING PIT/HANDHOLE	
PROPOSED G.i / DUCT RISER	
EXISTING G.i / DUCT RISER	
PROPOSED POLE	
EXISTING POLE	
PROPOSED CLOSURE / JOINT	
EXISTING PEDESTAL	
EXISTING UG DUCTWAY	
PROPOSED UG TRENCHING	
EXISTING AERIALCABLE	
PROPOSED AERIAL CABLE	
JKR BOUNDARY	
LOCAL COUNCIL BOUNDARY	

EX MAXIS MH  
4.653025, 101.106453

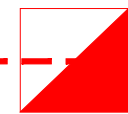


100m



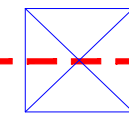
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50m



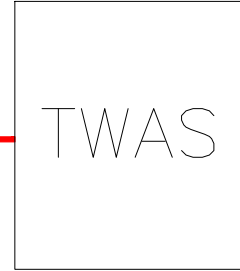
PROP NEW MAXIS MH01  
4.652956, 101.105450

100m



EX BUILDING MH  
4.652547, 101.105142

30m



DESIGN BY: BINASAT SDN BHD



MAXIS BROADBAND SDN BHD

CHECKED BY :	
CHECKED DATE :	
APPROVED/REJECTED BY :	
APPROVED/REJECTED BY :	