

CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)

NO. RUJUKAN PERMOHONAN : 209/2015 (UTS)

LIST OF DRAWINGS

NO.	DRAWING NO.	DRAWING TITLE
1.	MSAR/NL05/JKR/DL-01	DRAWING LIST
2.	MSAR/NL05/LP-189(V)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 1 OF 5)
3.	MSAR/NL05/LP-189(R)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 1 OF 5)
4.	MSAR/NL05/LP-190(V)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 2 OF 5)
5.	MSAR/NL05/LP-190(R)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 2 OF 5)
6.	MSAR/NL05/LP-191(V)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 3 OF 5)
7.	MSAR/NL05/LP-191(R)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 3 OF 5)
8.	MSAR/NL05/LP-192(V)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 4 OF 5)
9.	MSAR/NL05/LP-192(R)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 4 OF 5)
10.	MSAR/NL05/LP-193(V)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 5 OF 5)
11.	MSAR/NL05/LP-193(R)	PROPOSED FIBER OPTIC ALIGNMENT (SHEET 5 OF 5)
12.	MSAR/NL05/JKR/RD/DT/01	TYPICAL ROAD SECTION
13.	MSAR/NL05/JKR/DT/01	CABLE ARRANGEMENT & MARKER POST DETAILS
14.	MSAR/NL05/JKR/DT/02	TYPICAL MANHOLE & SPLICING DETAILS
15.	MSAR/NL05/JKR/TMP/DT/01	TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE - SHEET 1
16.	MSAR/NL05/JKR/TMP/DT/02	TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE - SHEET 2
17.	MSAR/NL05/JKR/TMP/DT/03	TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE - SHEET 3
18.	MSAR/NL05/JKR/TMP/DT/04	TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE - SHEET 4

SUBMISSION DRAWING

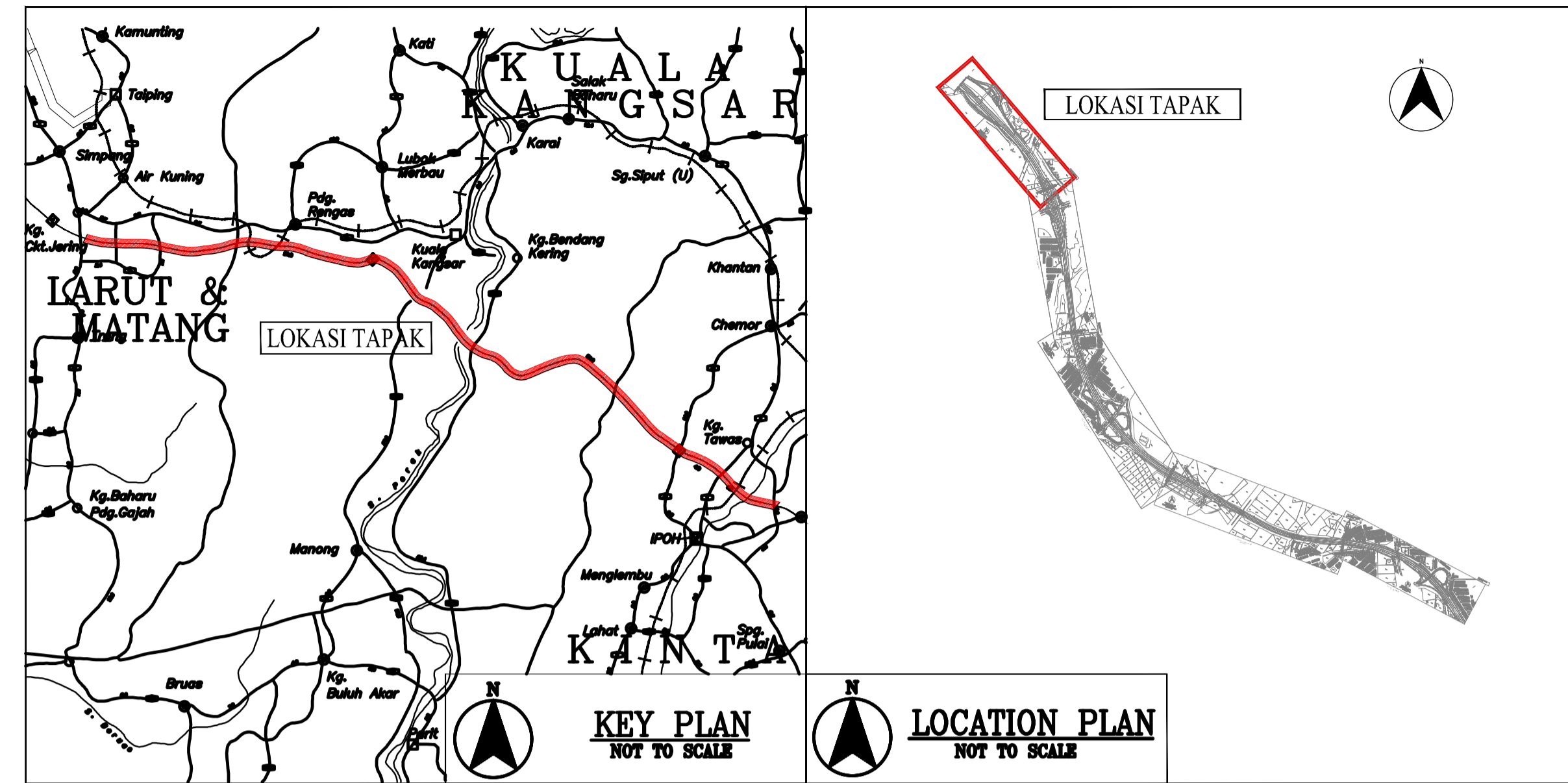
				PROJECT OWNER :  MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2720 3040 FAX : (603) 2700 4272	LICENSED LAND SURVEYOR :  JALAI JOHARI CONSULTANTS SDN BHD 11C-13A, Lada Galeri, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 7761 FAX : (603) 2701 7760	DESIGNATED DESIGN CONSULTANT (C&S)  KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 200501024042 (706174-M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pke88@gmail.com Website: www.kct.consulting	 Ir. TAN KIAN CHUAN C18378 MALAYSIA I, Ir. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.	DRAWN BY : N.M.Cheong CHECKED BY : Brandon/Nadzirah/Amzar APPROVED BY : Ir. K.C.TAN SCALE : AS SHOWN DATE : JAN.2026	PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG) DRAWING TITLE : DRAWING LIST PLAN NO. : MSAR/NL05/JKR/DL-01 REVISION : 0
REVISE	DATE	DETAIL	APPROVE						



GAMBAR A

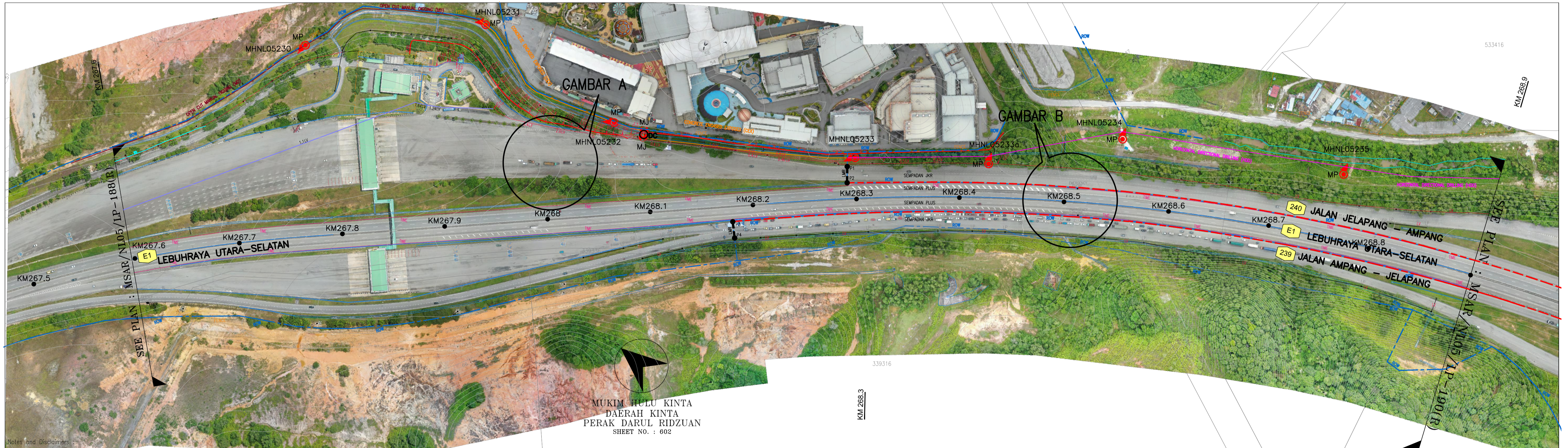


GAMBAR B



KEY PLAN
NOT TO SCALE

LOCATION PLAN
NOT TO SCALE



MUKIM HULU KINTA
DAERAH KINTA
PERAK DARUL RIDZUAN
SHEET NO. : 602

LAYOUT PLAN (E1_KM267.6 - KM268.9)
SCALE 1 : 2000

LEGEND :	
	FENCE
	WATER PIPE
	POWER CABLE
	DIGI CABLE
	SEMPADAN JKR
	TIME CABLE
	MAXIS CABLE
	CELCOM CABLE
	TELECOM CABLE
	GAS
	HIGH MAST
	LAMP POST
	SIGN BOARD
	BUILDING
	PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)
	PROPOSED MANHOLE
	PROPOSED FIBRE OPTIC CABLE MARKER POST

NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
- THE FIBRE OPTIC CABLE INSTALLATION AT THIS STRETCH (KM 268.3 – KM 275.0) WILL BE CARRIED OUT WITHIN JABATAN KERJA RAYA (JKR) PERAK RIGHT OF WAY (ROW)

SUBMISSION DRAWING

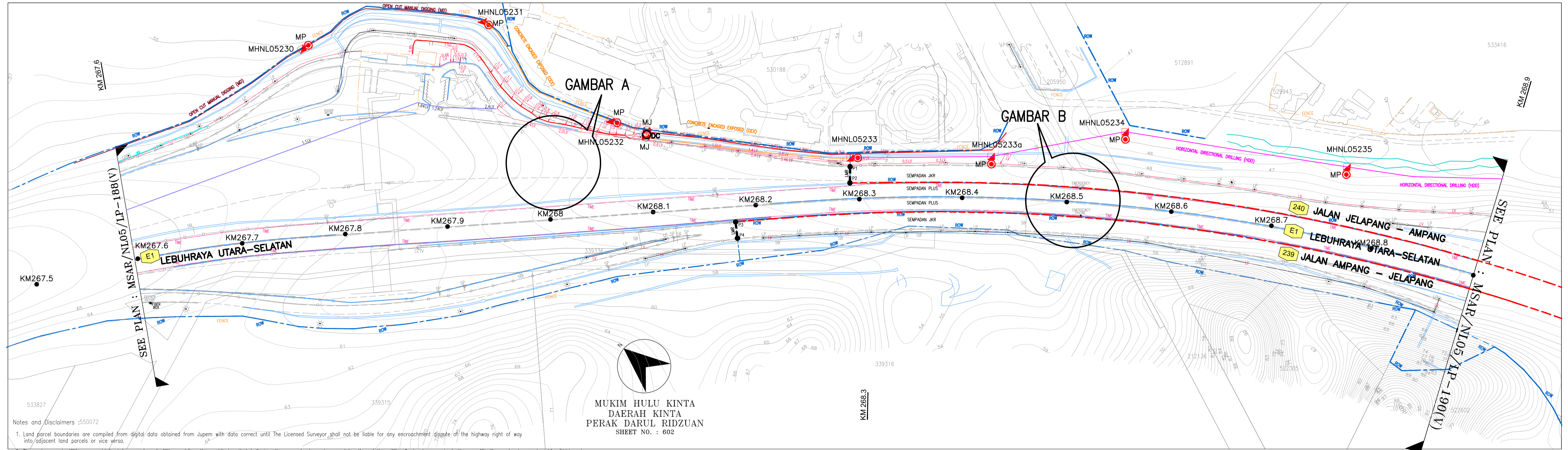
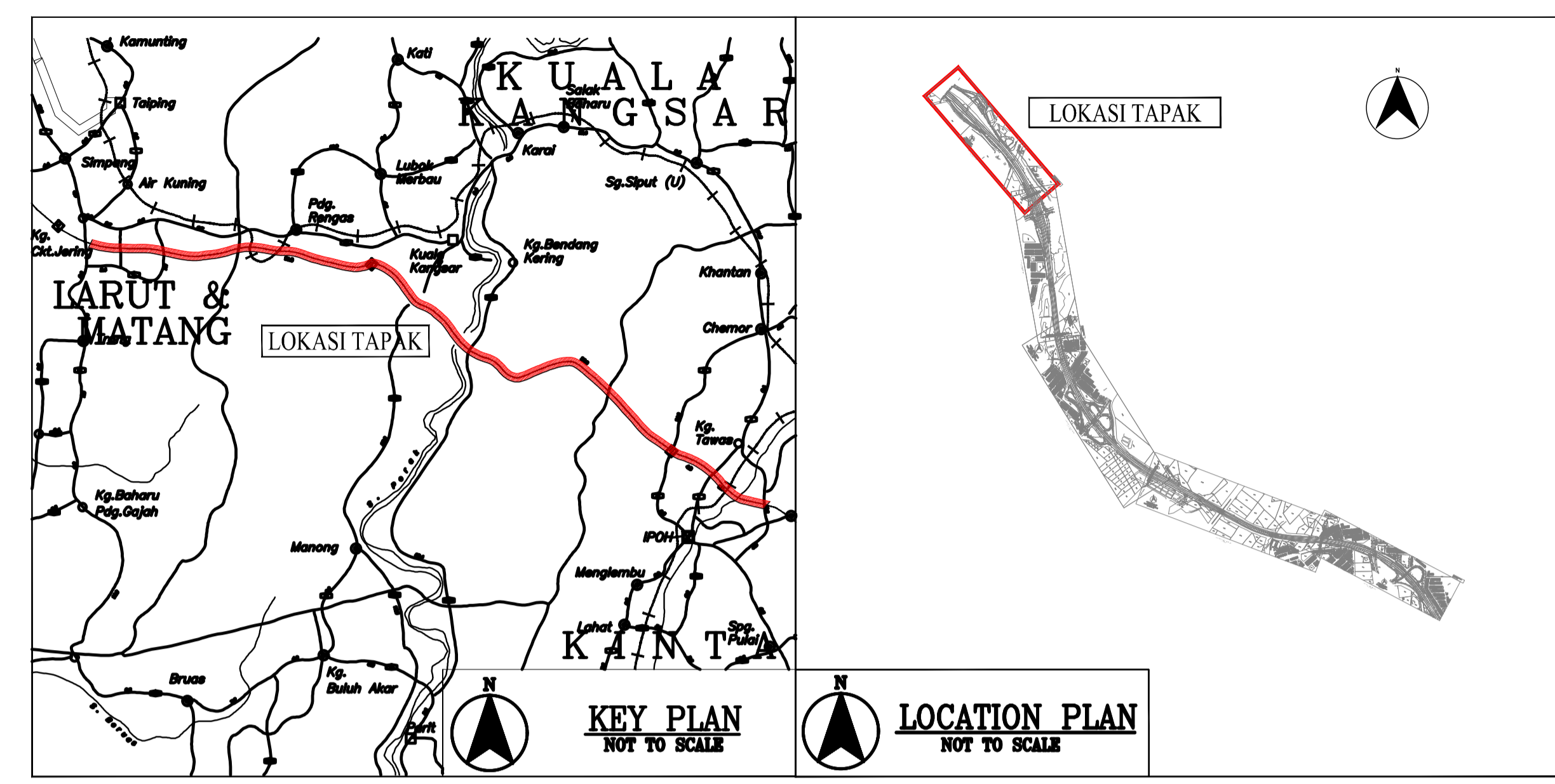
1	MAY.26	UTILITIES MAPPING	KCT	<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur. TEL : (603) 2720 3040 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Johari Consultants SDN BHD SRI JALAL JOHARI, ILS Lot 5099 (Street Order No. 49) (Total 1991) Gated Suburban City, Ampang</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lova Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>KCT CONSULTING ENGINEERS</p> <p>IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 200591024042 (706174-M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pect8@gmail.com Website: www.kct.consulting</p>	<p>PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE</p> <p>Ir. TAN KIAN CHUAN C18378 MALAYSIA</p> <p>I, Ir. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : N.M.Cheong</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : AS SHOWN</p> <p>DATE : MAR.2023</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 1 OF 5)</p> <p>PLAN NO. : MSAR/NL05/1P-189(R)</p>	<p>REVISION : 01</p>
	REVISION	DATE						DETAIL	APPROVE	



GAMBAR A



GAMBAR B



Notes and Disclaimers : 550072
 1. Land parcel boundaries are compiled from digital data obtained from Jupem with data correct until The Licensed Surveyor shall not be liable for any encroachment diggle of the highway right of way into adjacent land parcels or vice versa.
 2. The underground utilities were obtained from surface facilities and/or other objects that indicate the approximate underground location of the utility. Contractors need further verifications prior to any trenching/HDD works. The Licensed Surveyor shall not be responsible for any misrepresentation of the underground utilities.
 3. All levels are orthometric heights based on the Malaysian Geoid Datum. The Licensed Surveyor shall not be responsible for any discrepancies in the height values obtained from other datums to the one used above.

LAYOUT PLAN (E1_KM267.6 - KM268.9)
 SCALE 1 : 2000

LEGEND :	
FENCE	WATER PIPE
ROW	POWER CABLE
SEMPADAN JKR	TIME CABLE
PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)	MAXIS CABLE
PROPOSED MANHOLE	CELCOM CABLE
PROPOSED FIBRE OPTIC CABLE MARKER POST	DIGI CABLE
	TELECOM CABLE
	GAS
HIGH MAST	LAMP POST
SIGN BOARD	BUILDING

NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
- THE FIBRE OPTIC CABLE INSTALLATION AT THIS STRETCH (KM 268.3 - KM 275.0) WILL BE CARRIED OUT WITHIN JABATAN KERJA RAYA (JKR) PERAK RIGHT OF WAY (ROW)

SUBMISSION DRAWING

1 MAY.26 UTILITIES MAPPING ADDED.MH232-234/5 REV KCT	PROJECT OWNER : MSA RESOURCES SDN BHD Unit A-16-8, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur. TEL : (603) 2720 3040 FAX : (603) 2700 4272	LICENSED LAND SURVEYOR : JALAL JOHARI, ILS 100-134, Leva Suites, No. 45, Jalan 54/26, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 7761 FAX : (603) 2701 7760	DESIGNATED DESIGN CONSULTANT (C&S): IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 200501024042 (706174-M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pkt88@gmail.com Website: www.kctconsulting	IR. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.	DRAWN BY : N.M.Cheong CHECKED BY : Brandon/Nadzirah/Amzar APPROVED BY : Ir. K.C.TAN SCALE : AS SHOWN DATE : MAR.2023	PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JCS (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG) DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 1 OF 5) PLAN NO. : MSAR/NL05/LP-189(V)	REVISION : 0 1
	REVISION : 0 1						



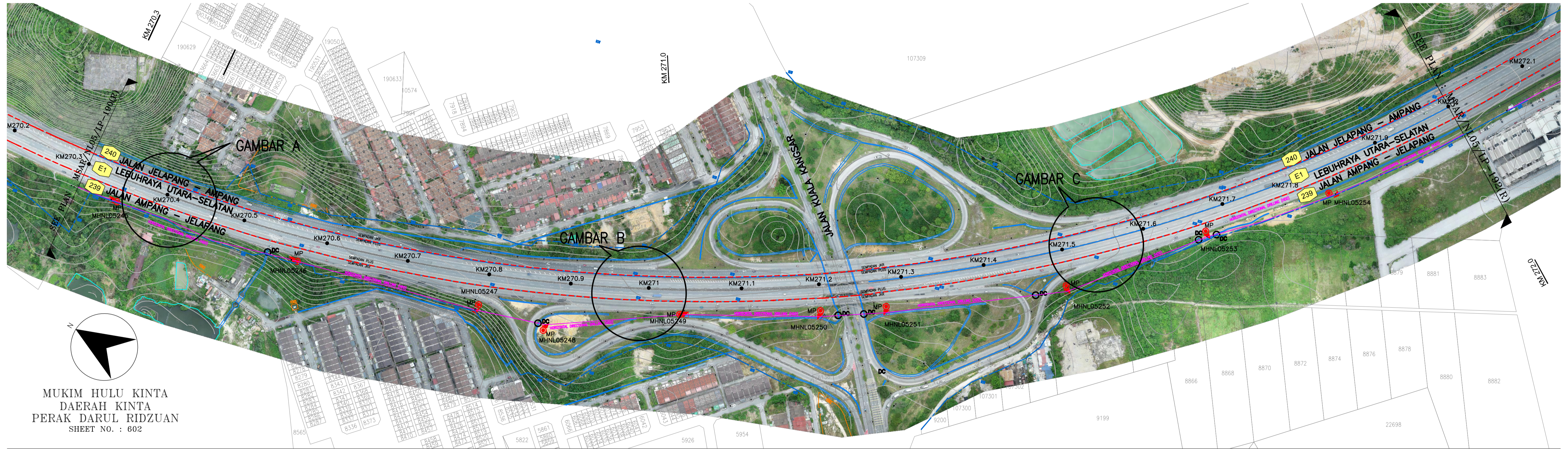
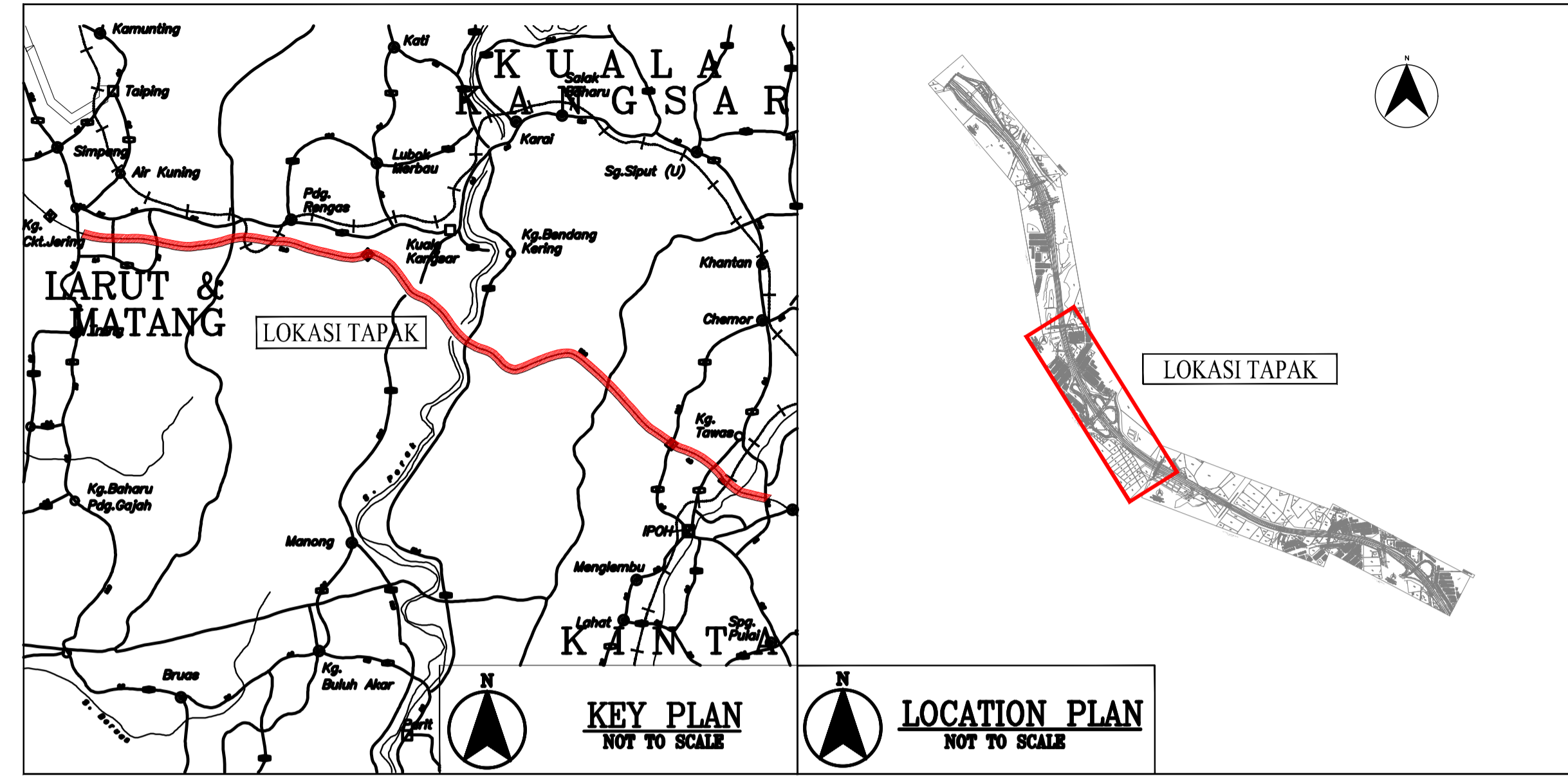
GAMBAR A



GAMBAR B



GAMBAR C



MUKIM HULU KINTA
DAERAH KINTA
PERAK DARUL RIDZUAN
SHEET NO. : 602

LAYOUT PLAN (E1_KM270.3 - KM272.0)
SCALE 1 : 2500

<p>LEGEND :</p> <ul style="list-style-type: none"> FENCE ROW SEMPADAN JKR WATER PIPE POWER CABLE TIME CABLE MAXIS CABLE CELCOM CABLE DIGI CABLE TELECOM CABLE GAS HIGH MAST SIGN BOARD LAMP POST BUILDING 	<p>PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)</p> <p>PROPOSED MANHOLE</p> <p>PROPOSED FIBRE OPTIC CABLE MARKER POST</p>
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NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
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SUBMISSION DRAWING

<p>1 APR.26 MH 247-253 REV. KCT</p>	<p>PROJECT OWNER : MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 59000 Kuala Lumpur. TEL : (603) 2720 3040 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR : JALAL JOHARI CONSULTANTS SDN BHD Sri JALAL JOHARI, ILLS Land Survey Licensed Under Act 65 (Revised 1981) Civil Engineering (L10) (M)</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S): KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 200501024042 (706174-M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pkec88@gmail.com Website: www.kct.consulting</p>	<p>PROFESSIONAL ENGINEER CIVIL Ir. TAN KIAN CHUAN C18378 MALAYSIA</p>	<p>DRAWN BY : N.M.Cheong CHECKED BY : Brandon/Nadzirah/Amzar APPROVED BY : Ir. K.C.TAN SCALE : AS SHOWN DATE : MAR.2023</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 3 OF 5)</p> <p>PLAN NO. : MSAR/NL05/LP-191(R)</p>	<p>REVISION : 0 1</p>
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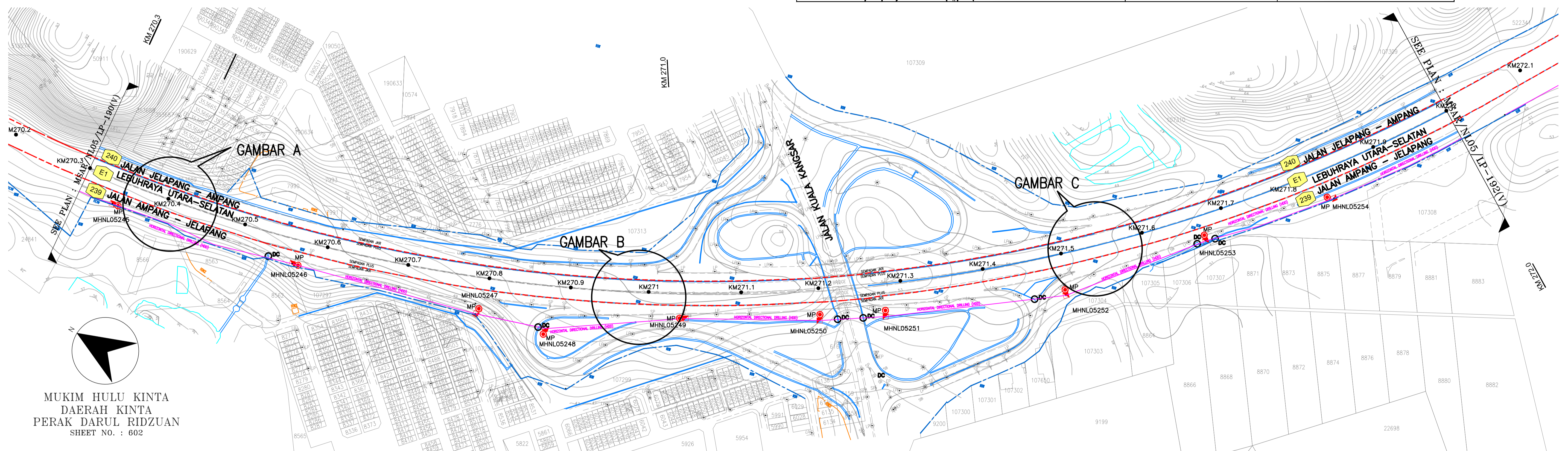
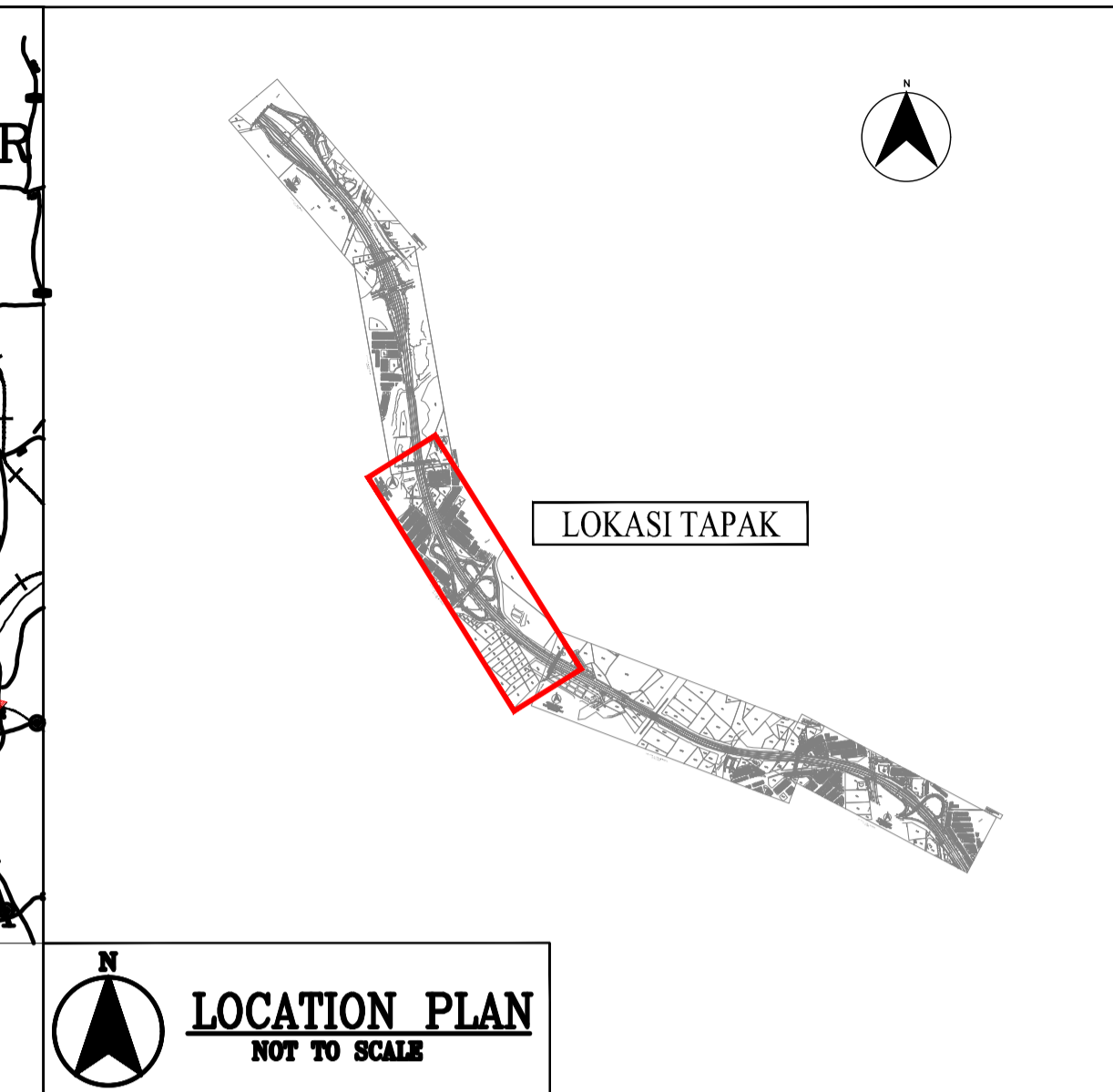
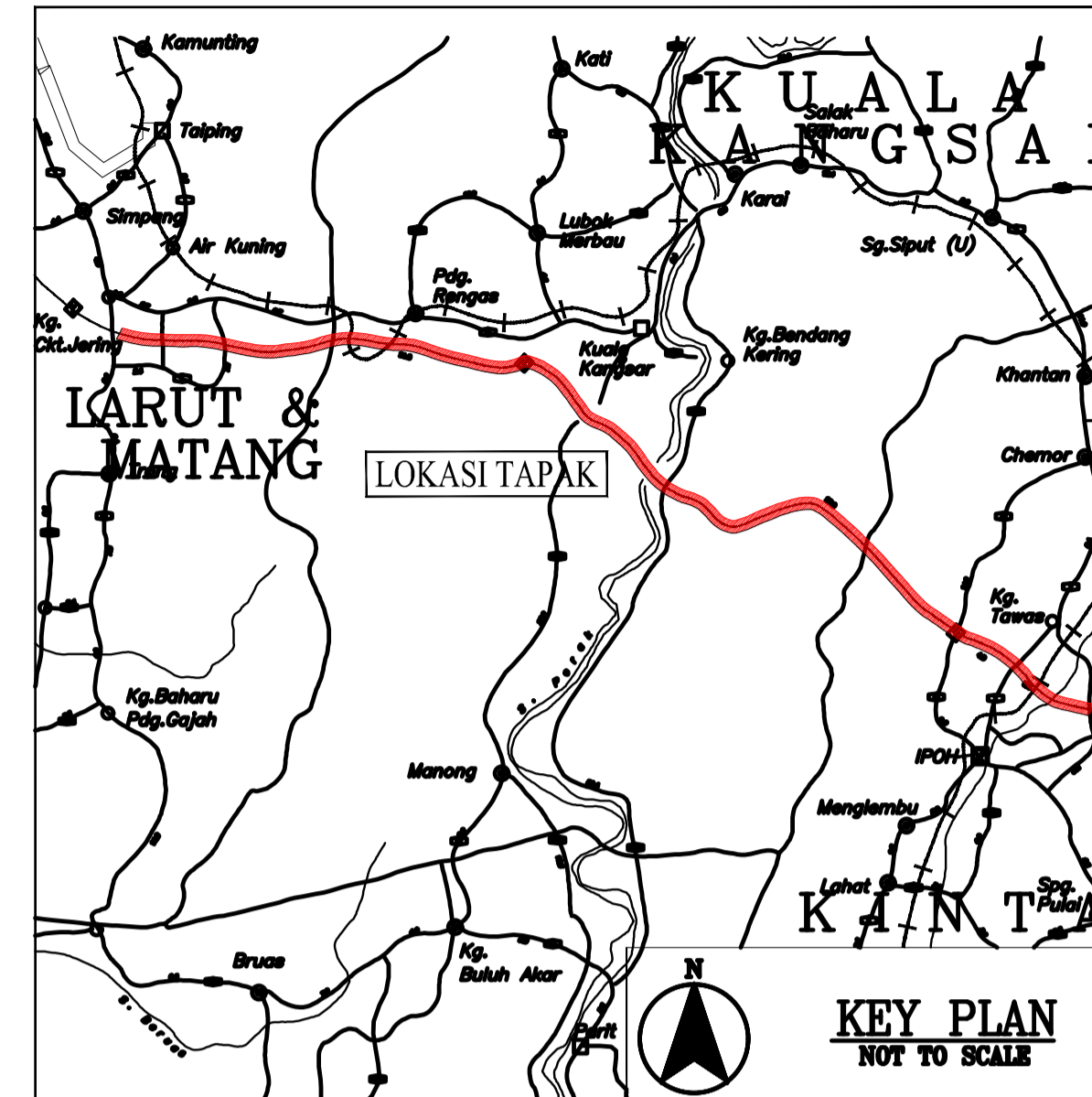
GAMBAR A



GAMBAR B



GAMBAR C



LAYOUT PLAN (E1_KM270.3 - KM272.0)
SCALE 1 : 2500

LEGEND :			
	FENCE		WATER PIPE
	ROW		POWER CABLE
	SEMPADAN JKR		TIME CABLE
	PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)		CELCOM CABLE
	PROPOSED MANHOLE		DIGI CABLE
	PROPOSED FIBRE OPTIC CABLE MARKER POST		TELECOM CABLE
			MAXIS CABLE
			HIGH MAST
			LAMP POST
			SIGN BOARD
			BUILDING

NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
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SUBMISSION DRAWING

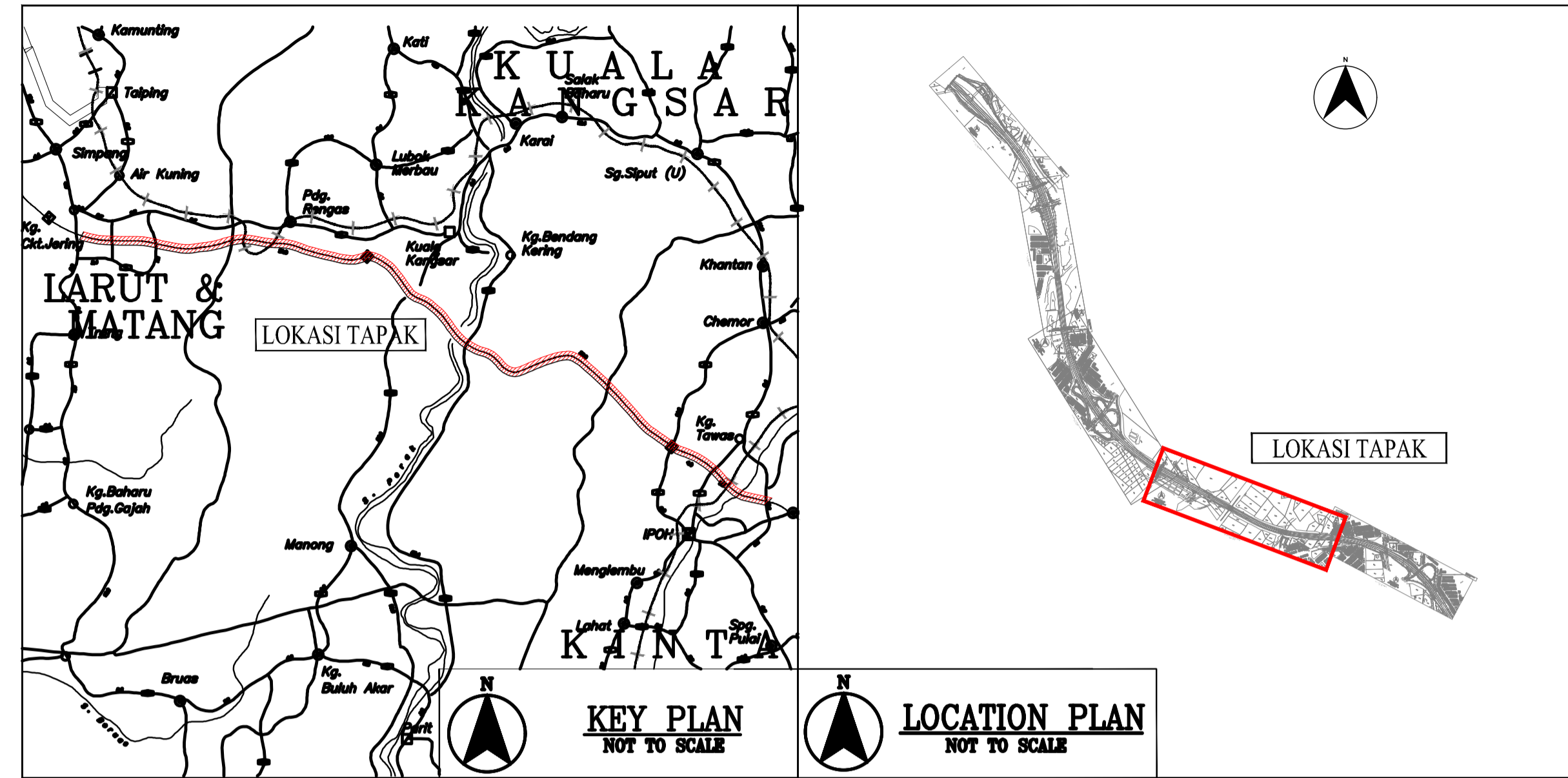
1 REVISION DATE DETAIL APPROVE	APR.26 MH 247-253 REV. KCT	PROJECT OWNER :	LICENSED LAND SURVEYOR :	DESIGNATED DESIGN CONSULTANT (C&S) :	DRAWN BY :	PROJECT :
		 MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur. TEL : (603) 2720 3040 FAX : (603) 2700 4272	 JALAL JOHARI CONSULTANTS SDN BHD Sr. JALAL JOHARI, LLS Land Survey (Licensed under Act 428 (Revised 1993) (Licence No: 1001/2010)	 KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 20091024042 (706174-N) 609, Blok A, Phase Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No 03-7665-2778, Fax No 03-7665-2779 E-mail: plect@kct.com Website: www.kct.consulting	Ir. N.M. Cheong BRANDON/Nadzirah/Amzar Ir. K.C. TAN AS SHOWN MAR. 2023	CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG) DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 3 OF 5) PLAN NO. : MSAR/NL05/LP-191(V)



GAMBAR A



GAMBAR B



LAYOUT PLAN (E1_KM272.0 - KM273.8)
SCALE 1 : 2500

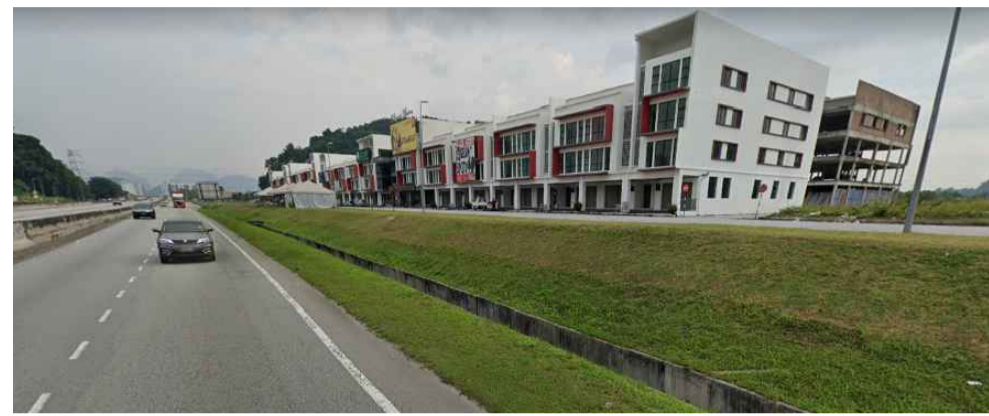
LEGEND :	
FENCE	WATER PIPE
ROW	POWER CABLE
SEMPADAN JKR	TIME CABLE
PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)	CELCOM CABLE
PROPOSED MANHOLE	DIGI CABLE
PROPOSED FIBRE OPTIC CABLE MARKER POST	TELECOM CABLE
	GAS
	HIGH MAST
	LAMP POST
	SIGN BOARD
	BUILDING

NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
- THE FIBRE OPTIC CABLE INSTALLATION AT THIS STRETCH (KM 268.3 – KM 275.0) WILL BE CARRIED OUT WITHIN JABATAN KERJA RAYA (JKR) PERAK RIGHT OF WAY (ROW)

SUBMISSION DRAWING

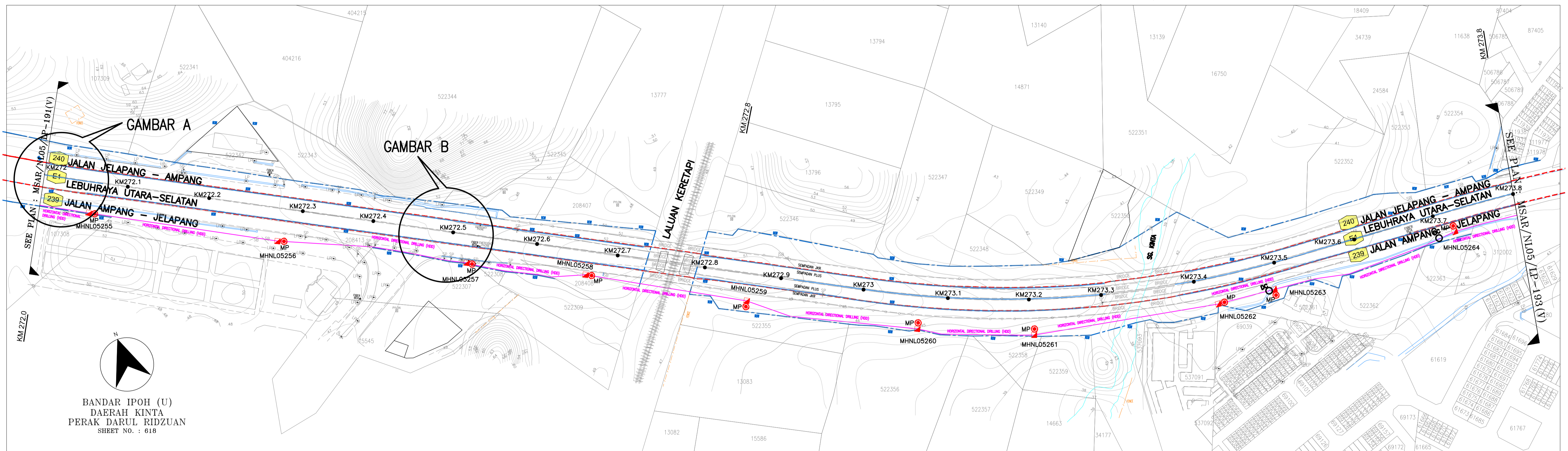
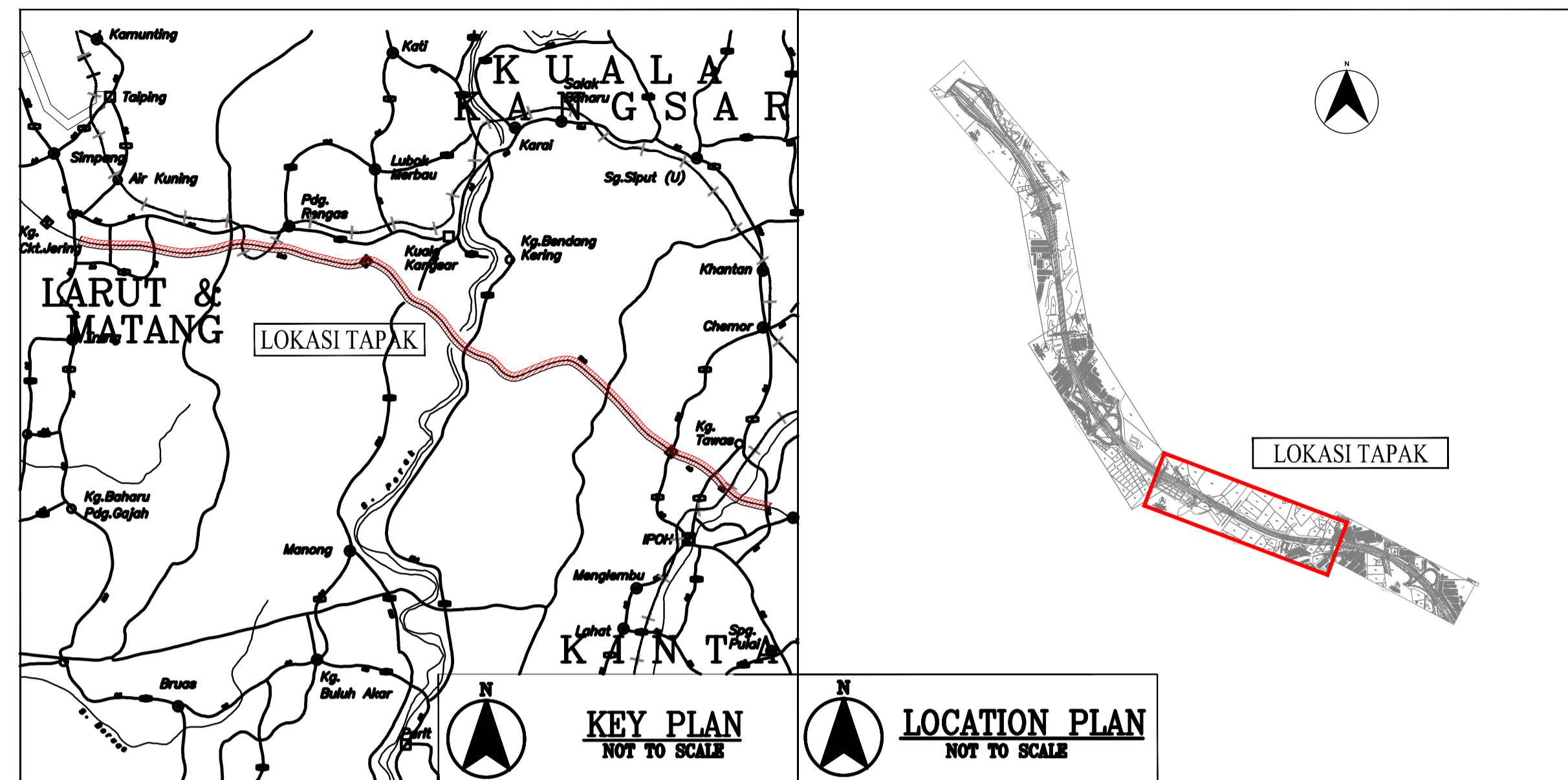
<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2722 3940 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Jalal Johari Consultants SDN BHD Sri JALAL JOHARI, LLS Land Survey Licensed Under Act 438 (Revised 1991) Certified International Utility Engineer</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 2761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 20850124442 (706174-N) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778; Fax No:03-7665-2779 E-mail: pkc@kct.com Website: www.kct.consulting</p>	<p>PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE CIVIL Ir. TAN KIAN CHUAN C18378 MALAYSIA</p>	<p>DRAWN BY : N.M.Cheong</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : AS SHOWN</p> <p>DATE : MAR.2023</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 4 OF 5)</p> <p>PLAN NO. : MSAR/NL05/LP-192(R)</p> <p>REVISION : 0</p>
<p>REVISE</p>	<p>DATE</p>	<p>DETAIL</p>	<p>APPROVE</p>		



GAMBAR A



GAMBAR B



LAYOUT PLAN (E1_KM272.0 - KM273.8)
SCALE 1 : 2500

LEGEND :	
	FENCE
	ROW
	SEMPADAN JKR
	WATER PIPE
	POWER CABLE
	TIME CABLE
	MAXIS CABLE
	CELCOM CABLE
	DIGI CABLE
	TELECOM CABLE
	GAS
	HIGH MAST
	SIGN BOARD
	LAMP POST
	BUILDING
	PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)
	PROPOSED MANHOLE
	PROPOSED FIBRE OPTIC CABLE MARKER POST

NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
- THE FIBRE OPTIC CABLE INSTALLATION AT THIS STRETCH (KM 268.3 - KM 275.0) WILL BE CARRIED OUT WITHIN JABATAN KERJA RAYA (JKR) PERAK RIGHT OF WAY (ROW)

SUBMISSION DRAWING

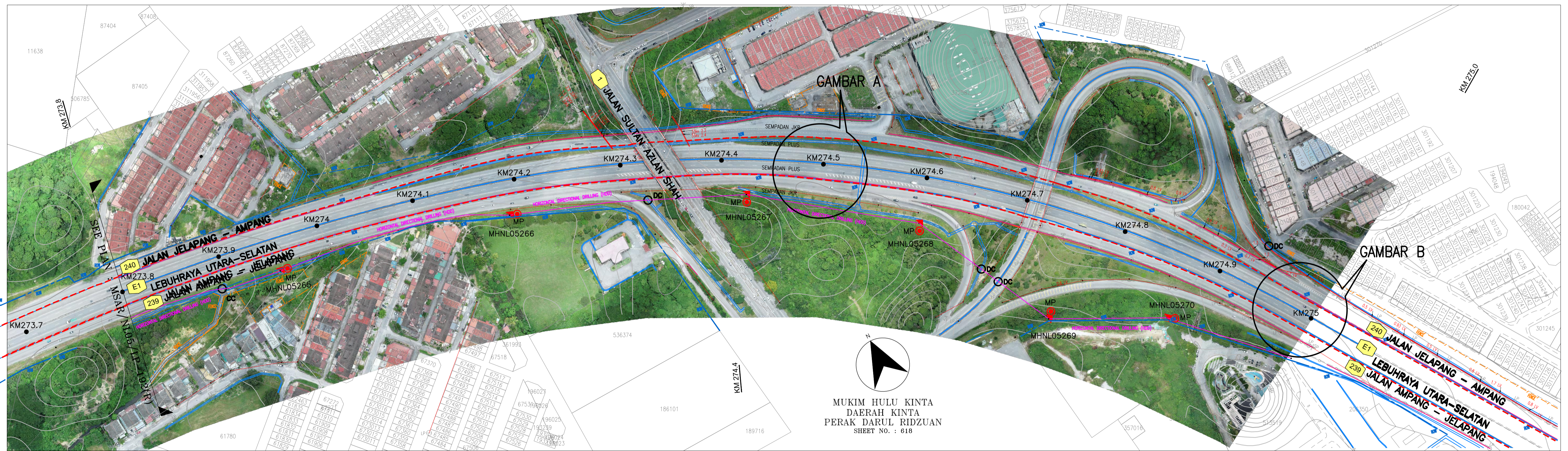
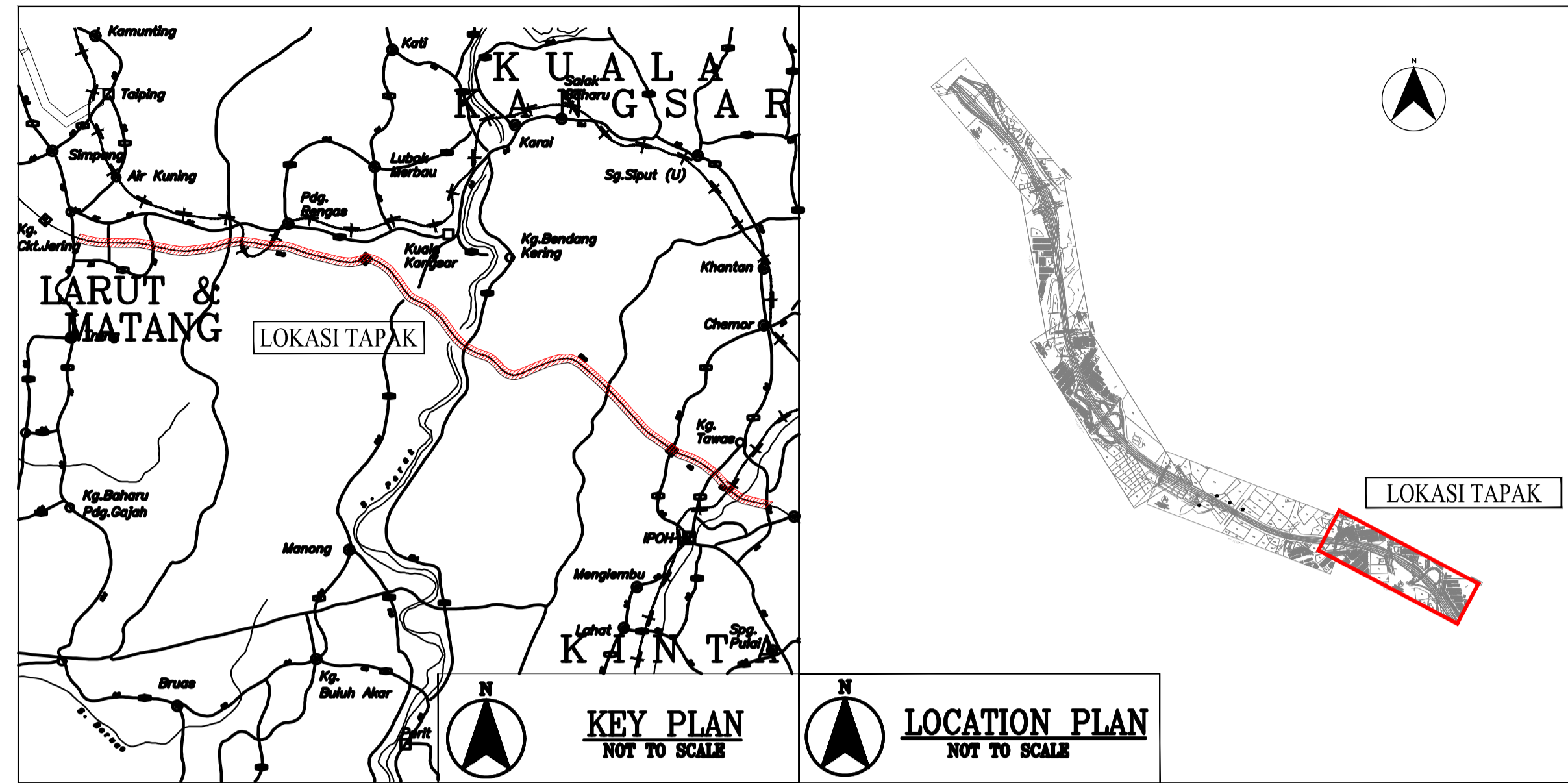
REVISE	DATE	DETAIL	APPROVE	<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit 4-16-8, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2720 3040 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Jahari Consultants Sf. JALAL JOHARI, LLS Level Survey (Control Under Act 408, Enacted 1991) Gazetted Under Survey (Sf) License</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur, TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>KCT CONSULTING ENGINEERS</p> <p>IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 20050102/04/2 (7/04/14-M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No: 03-7665-2778, Fax No: 03-7665-2779 E-mail: pkec88@gmail.com Website: www.kct.consulting</p>	<p>IR. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGN SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : N.M.Cheong</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : AS SHOWN</p> <p>DATE : MAR. 2023</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 4 OF 5)</p> <p>PLAN NO. : MSAR/NL05/LP-192(V)</p> <p>REVISION : 0</p>
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GAMBAR A



GAMBAR B



LEGEND :	
	FENCE
	WATER PIPE
	POWER CABLE
	TIME CABLE
	SEMPADAN JKR
	MAXIS CABLE
	CELCOM CABLE
	DIGI CABLE
	TELECOM CABLE
	GAS
	HIGH MAST
	LAMP POST
	SIGN BOARD
	BUILDING
	PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)
	PROPOSED MANHOLE
	PROPOSED FIBRE OPTIC CABLE MARKER POST

NOTE :

- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
- THE FIBRE OPTIC CABLE INSTALLATION AT THIS STRETCH (KM 268.3 - KM 275.0) WILL BE CARRIED OUT WITHIN JABATAN KERJA RAYA (JKR) PERAK RIGHT OF WAY (ROW)

SUBMISSION DRAWING

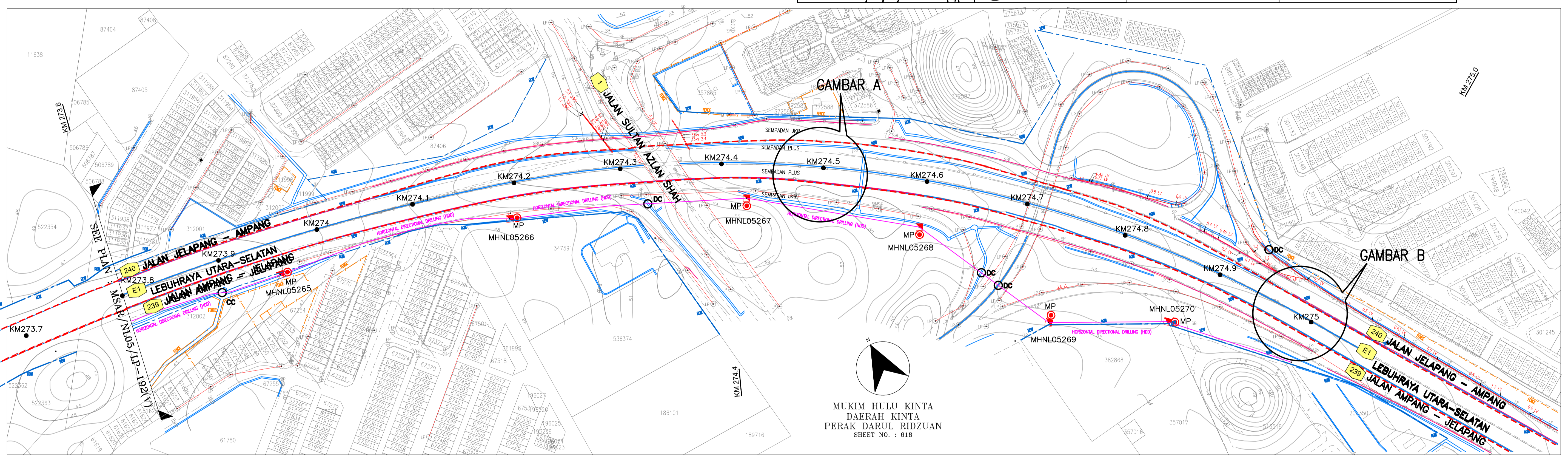
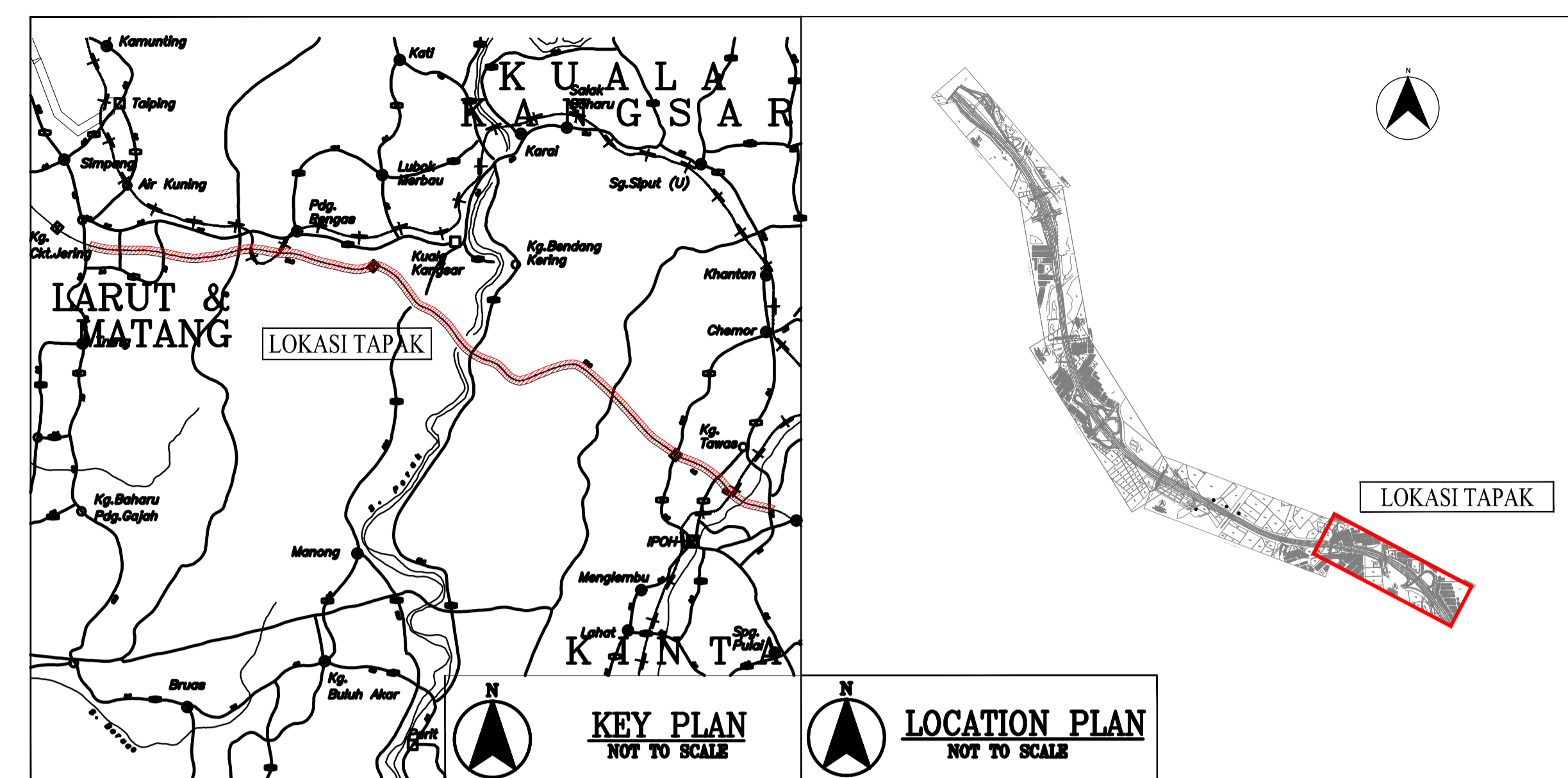
<p>1 APR.26 MH 268-270 REV. KCT</p>	<p>PROJECT OWNER : MSA RESOURCES SDN BHD Unit A-16-8, Level 16, Tower A, Menara UOA Bangsar, 59000 Kuala Lumpur, TEL : (603) 2720 3040 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR : Jalai Johari Consultants Sf. JALAI JOHARI, LLS No. 45, Jalan 34/76, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S): KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 200501024042 (706174-31) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pkct88@gmail.com Website: www.kctconsulting</p>	<p>PROFESSIONAL ENGINEER CIVIL Ir. TAN KIAN CHUAN C18378 MALAYSIA</p>	<p>DRAWN BY : N.M.Cheong CHECKED BY : Brandon/Nadzirah/Amzar APPROVED BY : Ir. K.C.TAN SCALE : AS SHOWN DATE : MAR.2023</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 5 OF 5)</p> <p>PLAN NO. : MSAR/NL05/LP-193(R)</p>	<p>REVISION : 0 1</p>
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GAMBAR A



GAMBAR B



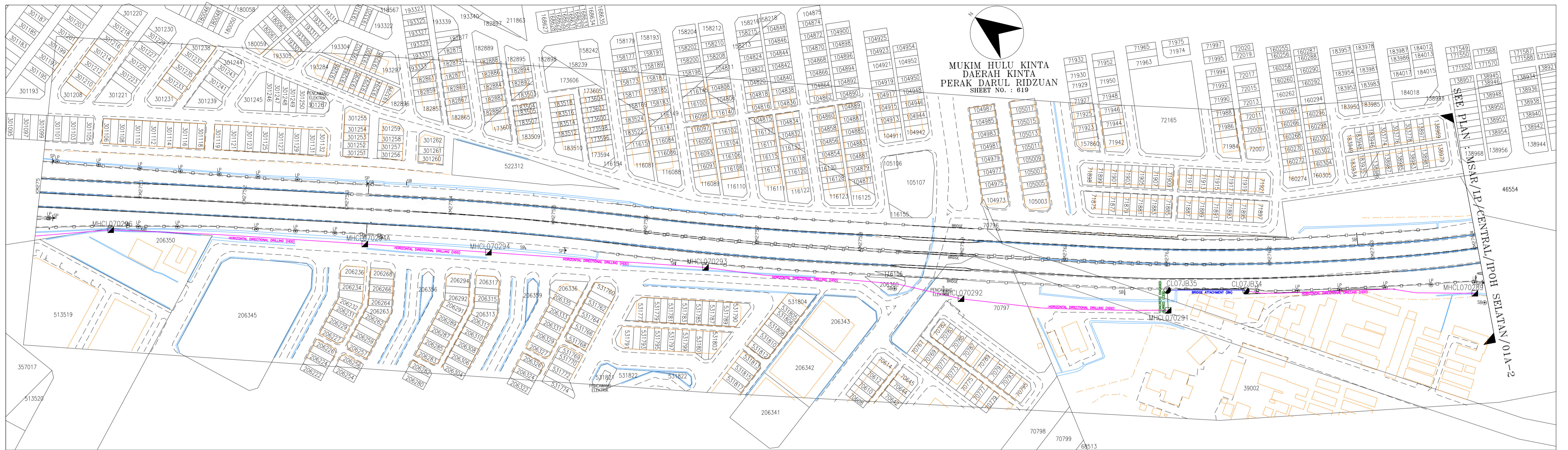
LAYOUT PLAN (E1_KM273.8 - KM275.0)
SCALE 1 : 2000

<p>PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)</p> <p>PROPOSED MANHOLE</p> <p>PROPOSED FIBRE OPTIC CABLE MARKER POST</p>

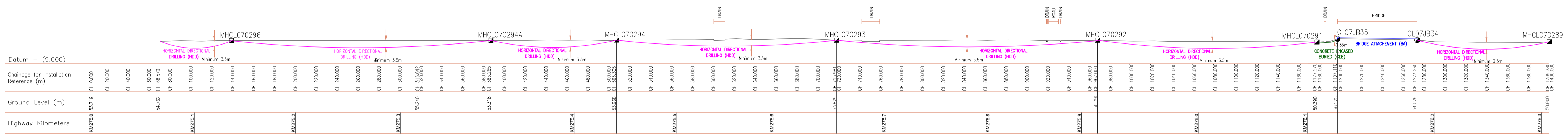
- NOTE :
- Digital Terrain Model (DTM) data were used to generate and interpolate the contour levels depicted on the provided survey drawing. From the Digital Surface Model (DSM), only ground information has been classified or extracted. Consequently, contour trimming on the building footprint and other features, particularly outside R.O.W., was not performed.
 - THE FIBRE OPTIC CABLE INSTALLATION AT THIS STRETCH (KM 268.3 - KM 275.0) WILL BE CARRIED OUT WITHIN JABATAN KERJA RAYA (JKR) PERAK RIGHT OF WAY (ROW)

SUBMISSION DRAWING

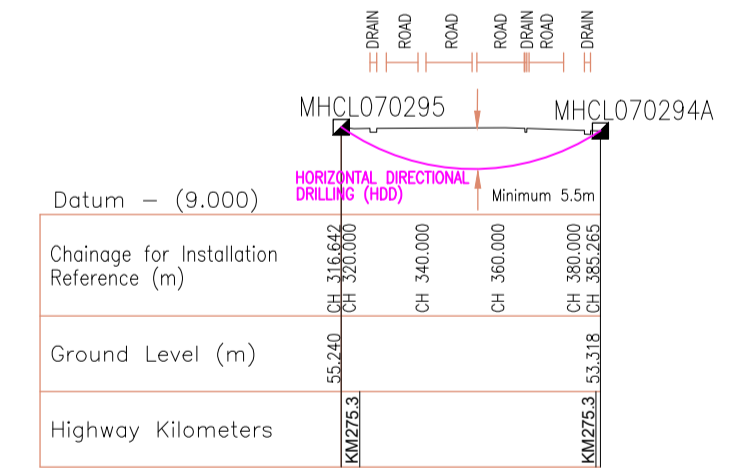
<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur. TEL : (603) 2720 3040 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Jalal Johari Consultants Sdn Bhd Sri JALAL JOHARI, LLS Land Survey (Licensed under Act 601 (Revised 1981)) Jerdang, Seremban, Negeri Sembilan</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Leka Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 208501024042/706174-M1 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pke88@gmail.com Website: www.kct.consulting</p>	<p>PROFESSIONAL ENGINEER WITH PRACTISING CERTIFICATE CIVIL Ir. TAN KIAN CHUAN C18378 MALAYSIA</p>	<p>DRAWN BY : N.M.Cheong CHECKED BY : Brandon/Naazirah/Amzar APPROVED BY : Ir. K.C.TAN SCALE : AS SHOWN DATE : MAR.2023</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : PROPOSED FIBER OPTIC ALIGNMENT (SHEET 5 OF 5)</p> <p>PLAN NO. : MSAR/NL05/LP-193(V)</p>
<p>1 APR.26 MH 268-270 REV. KCT</p>	<p>REVISION DATE DETAIL APPROVE</p>	<p>REVISION : 0 1</p>			



LAYOUT PLAN (E1_KM 275.0 - KM 276.4)
SCALE 1 : 2000



HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:2000



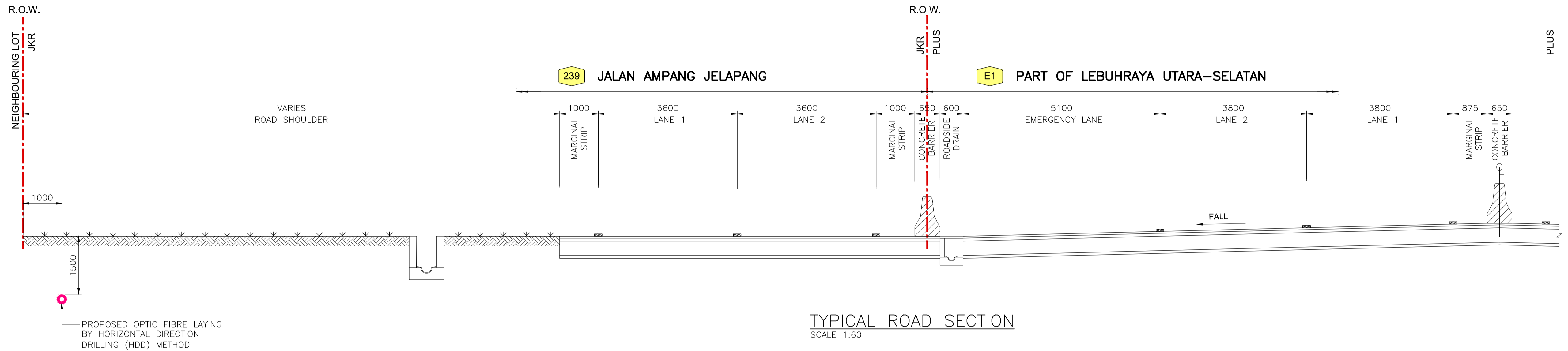
CROSS SECTION (PERPENDICULAR HDD)
HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:2000
LONGITUDINAL SECTION (E1_KM 275.0-KM 276.4)

LEGEND :

— FENCE	— WATER PIPE	— CELCOM CABLE	☀ HIGH MAST	⊕ LAMP POST
— ROW	— POWER CABLE	— DIGI CABLE	⊙ SIGN BOARD	□ BUILDING
— TIME CABLE	— Maxis CABLE	— TELECOM CABLE	○ PROPOSED MANHOLE	○ TRAFFIC MANAGEMENT PLAN (TMP)
— PROPOSED HORIZONTAL DIRECTIONAL DRILLING (HDD)	○ PROPOSED OPEN CUT MACHINE (OCM)	○ PROPOSED OPEN CUT MANUAL DIGGING (MD)	○ PROPOSED CONCRETE ENCASED EXPOSED (CEX)	○ PROPOSED BRIDGE ATTACHMENT (BA)
○ PROPOSED VEHICULAR BOX CULVERT ATTACHMENT (VBC)	○ PROPOSED JOINT BOX	○ DC DRAINAGE CROSSING	○ CC CULVERT CROSSING	○ TMS TEMPORARY MATERIAL STORAGE
	○ FENCING OPENING	○ FEDB FIBRE EXTERNAL DISTRIBUTION BOX		○ SLOPE AREA

<p>REVISIONS:</p> <table border="1"> <thead> <tr> <th>REVISE</th> <th>DATE</th> <th>DETAIL</th> <th>APPROVE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISE	DATE	DETAIL	APPROVE					<p>LICENSED LAND SURVEYOR :</p> <p>Jalal Johari Consultants SDN BHD</p> <p>Sr JALAL JOHARI, LLS Lain Survei (Lainland Under Act 476 (Revised 1995)) Sri Lela Survei (Lainland Under Act 476 (Revised 1995))</p> <p>JALAL JOHARI CONSULTANTS SDN BHD 1G-13A, Leava Galleria No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur, TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>PROJECT OWNER :</p> <p>MOHD SORIAN BIN MOHD ARSHAD (IC No : 580108-08-6381)</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UDA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2720 3040 FAX : (603) 2700 4272</p>	<p>PROJECT MANAGEMENT CONSULTANT (TECHNICAL) :</p> <p>Ir. ABUL RAHIM BIN OSMAN</p> <p>JURUTERA PERUNDING MIHARA No. 23B, Jalan BP7/12, Bandar Bukit Puchong, 47120 Puchong, Selangor Darul Ehsan. TEL : (603) 8090 0773 FAX : (603) 8066 8564</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S) :</p> <p>Ir. LEE HEUK PING</p> <p>SLP PERUNDING SDN BHD (144094-A) CONSULTING ENGINEERS 8a, Lorong Datuk Sulaiman Satu Taman Tun Dr. Ismail, 60000 Kuala Lumpur Tel No: (603) 77286887, Fax No: (603) 77278372</p>	<p>DRAWN BY : IERA</p> <p>CHECKED BY : MIMI</p> <p>APPROVED BY : FCYU</p> <p>SCALE :</p> <p>DATE : JAN 2023</p>	<p>PROJECT : PERMOHONAN IZIN LALU LARI BAGI PEMASANGAN KABEL FIBER OPTIK DAN PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR DI SEPANJANG LEBUHRAYA</p> <p>PACKAGE CLO7 - NSE (E1) KM 275 - KM 339.3 (CENTRAL LOOP)</p> <p>UNTUK TETAPAN : MSA RESOURCES SDN. BHD.</p> <p>DRAWING TITLE : E1_PROPOSED FIBER OPTIC ALIGNMENT KM 275.0-KM 276.4</p> <p>PLAN NO. : MSAR/LP/CENTRAL/IPOH SELATAN/01A-1(R)</p> <p>REVISION : 01</p>
REVISE	DATE	DETAIL	APPROVE											

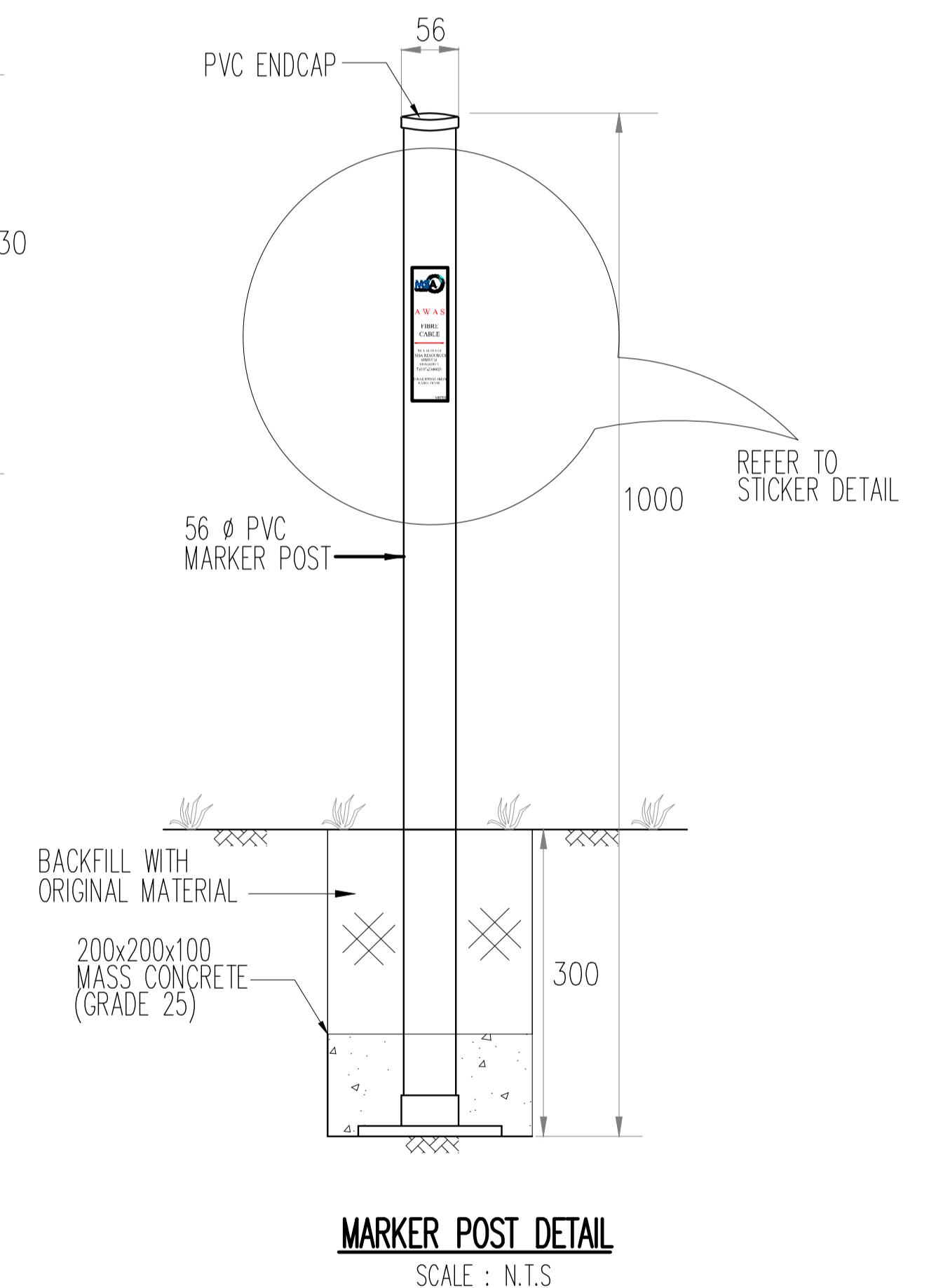
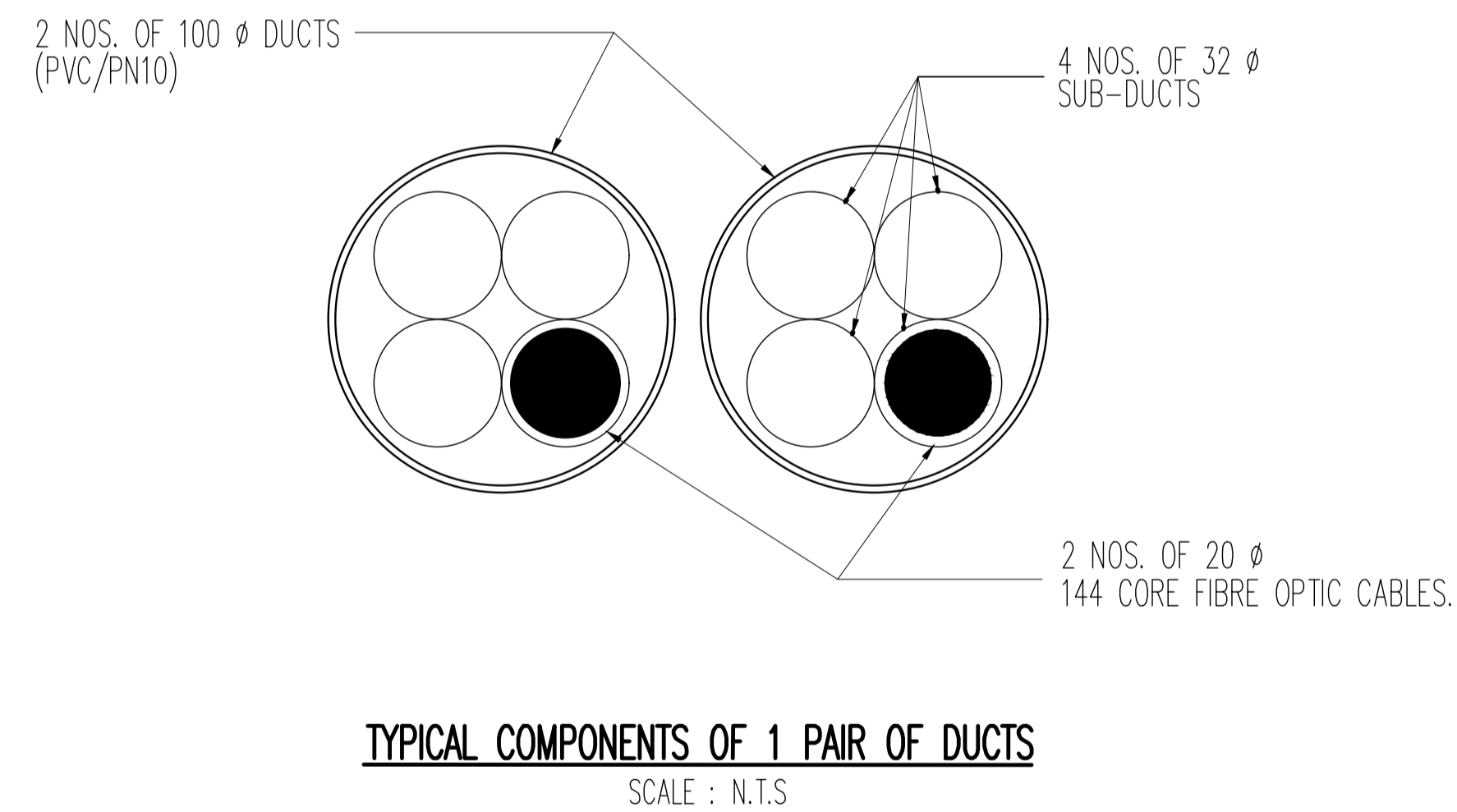
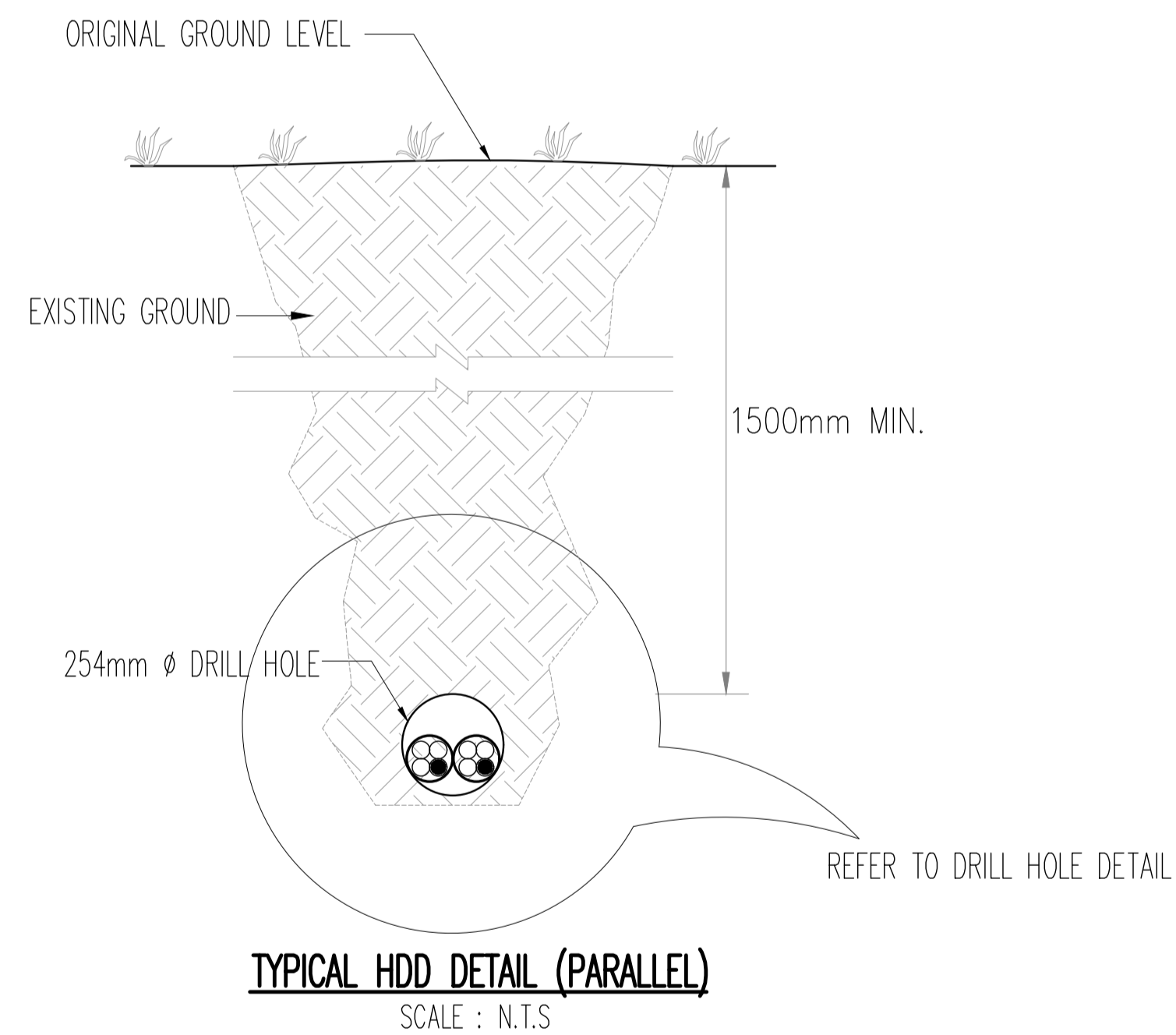
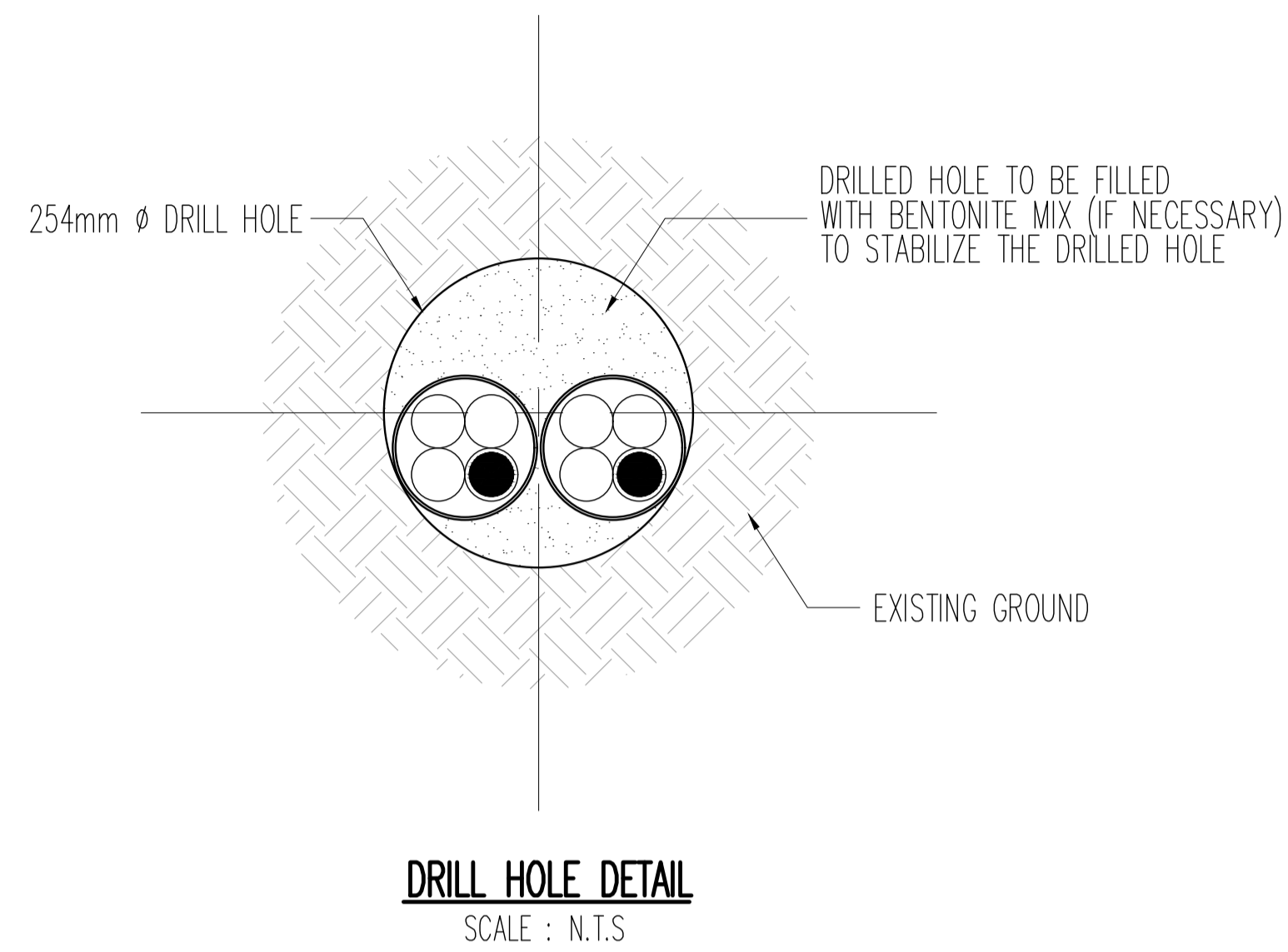
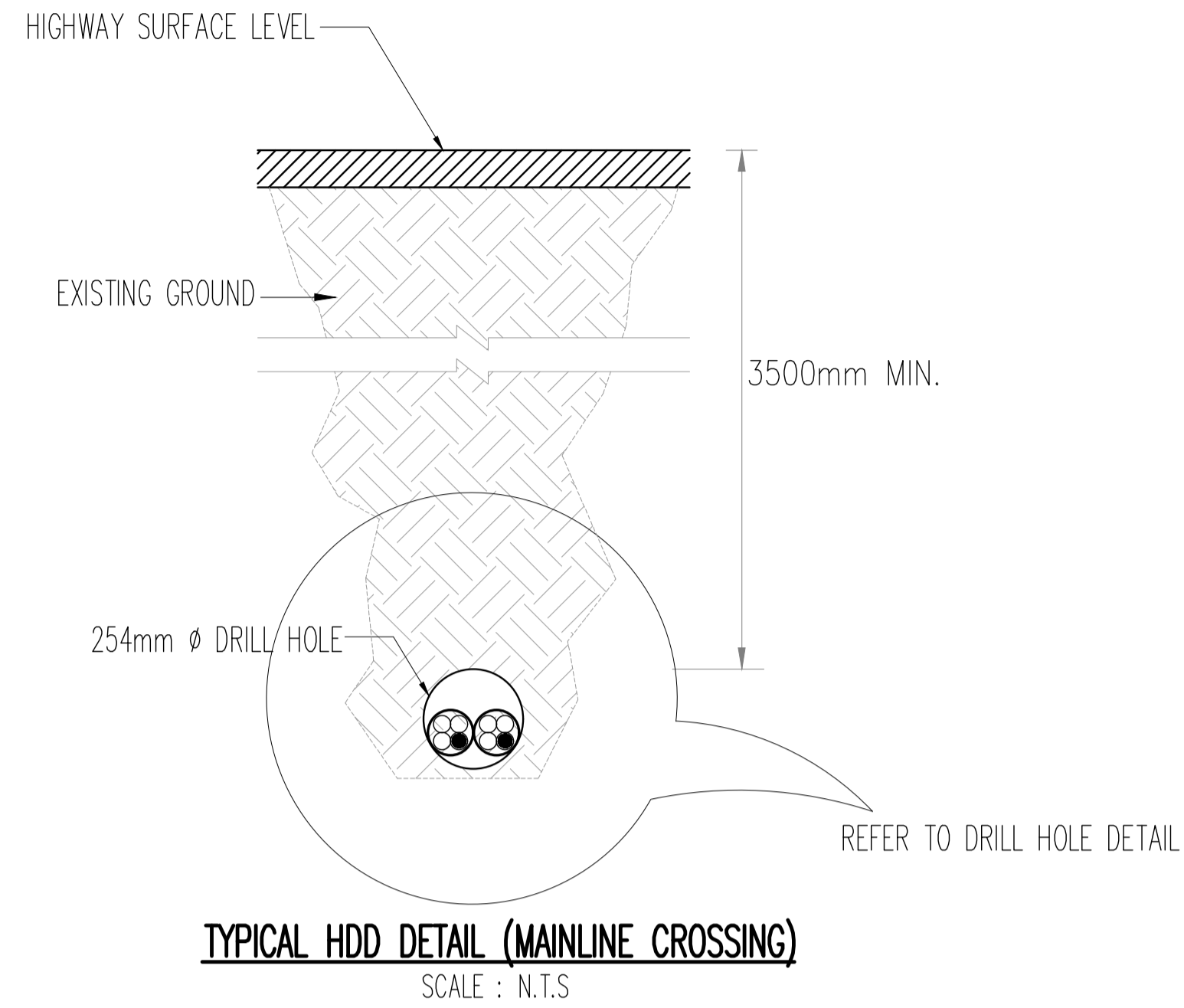
CONSTRUCTION DRAWING



TYPICAL ROAD SECTION
SCALE 1:60

SUBMISSION DRAWING

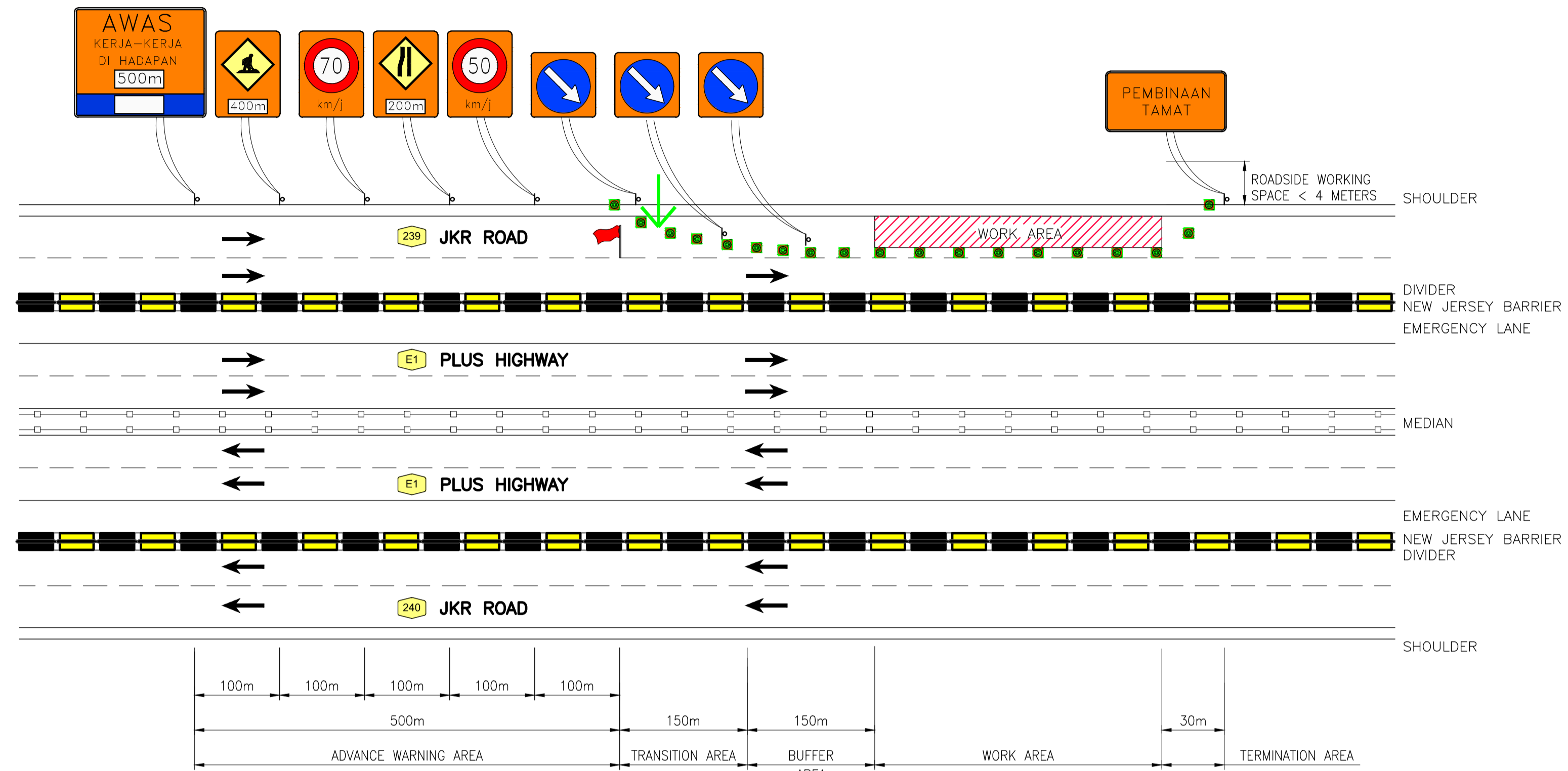
REVISION	DATE	DETAIL	APPROVE	<p>PROJECT OWNER :</p>  <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2700 3940 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p>  <p>Sr JALAL JOHARI, LLS Land Surveyor (Licensed Under Act 408 (Revised 1991)) General Survey and City Mapping</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur, TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p>  <p>KCT CONSULTING ENGINEERS</p> <p>IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 24658134042 (706174M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pkec88@gmail.com Website: www.kct.consulting</p>	 <p>IR. TAN KIAN CHUAN C18378 MALAYSIA</p> <p>I, Ir. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : cnm</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : AS SHOWN</p> <p>DATE : JAN.2026</p>	<p>PROJECT :</p> <p>CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : TYPICAL ROAD SECTION</p> <p>PLAN NO. : MSAR/NL04/RD/DT01</p> <p>REVISION : 0</p>
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- NOTES:
1. ALL DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 2. MARKER POST TO BE PROVIDED AT EVERY MANHOLE AND BEND / CHANGE OF DIRECTION OF CABLE ROUTE.

SUBMISSION DRAWING

REVISION	DATE	DETAIL	APPROVE	<p>PROJECT OWNER :</p>  <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2720 3840 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p>  <p>Jalal Johari Consultants SDN BHD Sri JALAL JOHARI, LLS Land Survey Licensed Under Act 458 (Revised 1981) Gedung Indragiri, 100, Rempas JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur, TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p>  <p>KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 2065H124042 (706174-M) 609, Blok A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pke188@gmail.com Website: www.kct.consulting</p>	 <p>IR. TAN KIAN CHUAN C18378 MALAYSIA</p> <p>I, Ir. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : N.M.Cheong</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : AS SHOWN</p> <p>DATE : JAN.2025</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : CABLE ARRANGEMENT & MARKER POST DETAILS</p> <p>PLAN NO. : MSAR/NL05/JKR/DT/01</p> <p>REVISION : 0</p>
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**TEMPORARY LANE CLOSURE ON SLOW LANE OF DUAL CARRIAGEWAY (RURAL HIGH SPEED)
IF ROADSIDE WORKING SPACE IS LESS THAN 4 METERS**

NOTES

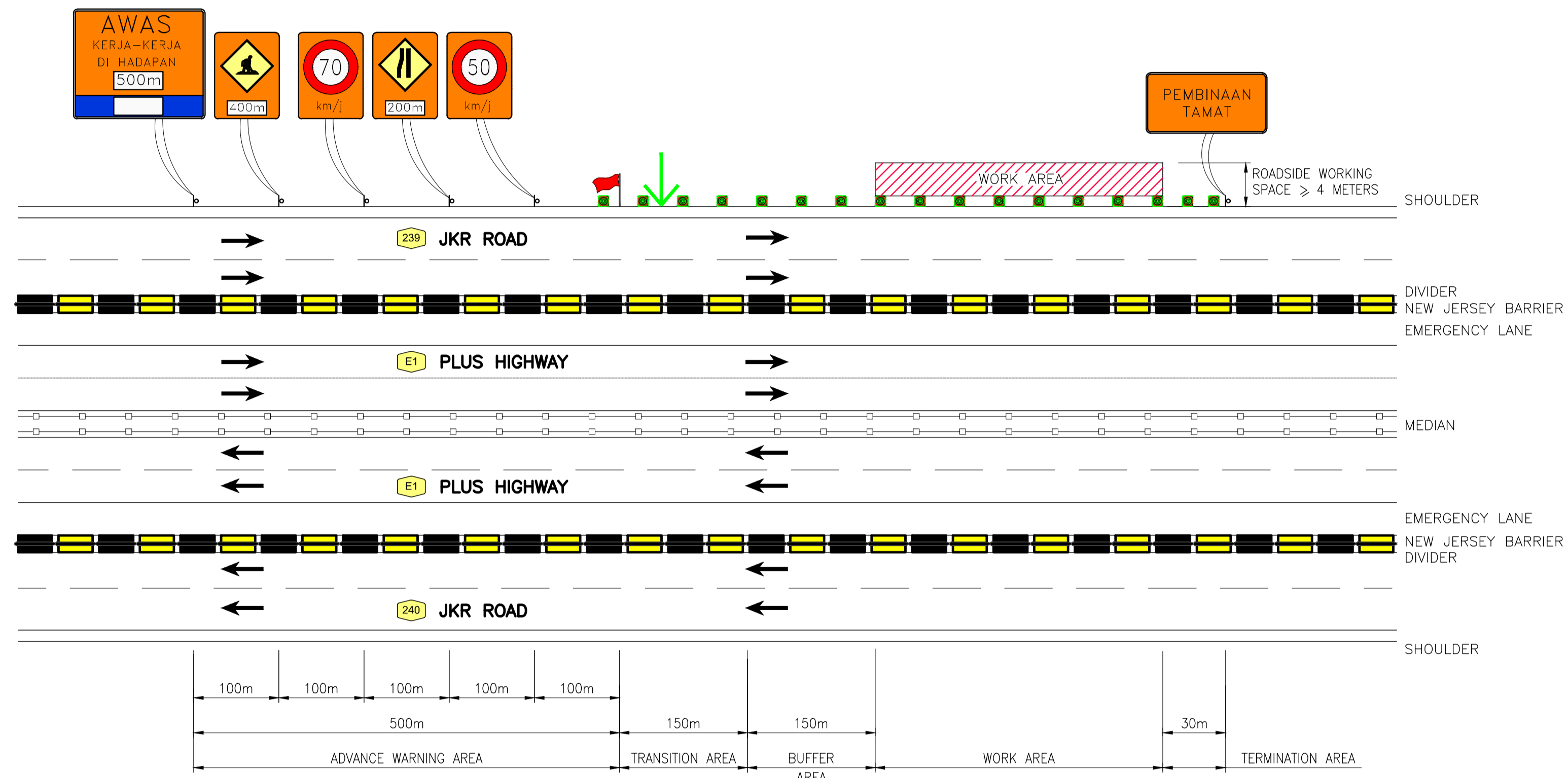
1. TRAFFIC GUIDANCE CONE SHALL BE INSTALLED EVERY 15m c/c AT STRAIGHT AND 5m c/c AT TAPER OR CURVE.
2. FLASHING LIGHT (BLINKERS) SHALL BE INSTALLED EVERY 30m c/c AT STRAIGHT AND 10m c/c AT TAPER OR CURVE.
3. FOR NIGHT WORKS, THE CONTRACTOR SHALL INSTALL A RELIABLE FLOOD LIGHT SYSTEM (ANTI-GLARE FEATURE).
4. PROVIDE A SAFE ENTRANCE AND EXIT FOR CONSTRUCTION VEHICLES WHICH SHALL BE MANNED BY FLAGMAN.

SPEED LIMIT (kph)	1ST REDUCTION SPEED (kph)	2ND REDUCTION SPEED (kph)
90	70	50
80	60	40
70	50	30
60	40	30
50	30	-

LEGEND :			
	TRAFFIC FLOW		TRAFFIC GUIDANCE CONE
	FLASHING ARROW		FLAGMAN
	CONCRETE BARRIER		GUARDRAIL
	WORK AREA		

SUBMISSION DRAWING

REVISION	DATE	DETAIL	APPROVE	<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2700 3940 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Jalal Johari Consultants Sdn Bhd Sri JALAL JOHARI, LLS Land Survey Licensed Under Act 408 (Revised 1991) General Incorporated 1999 Register JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur, TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>KCT CONSULTING ENGINEERS IR. TAN KIAN CHUAN 206581034042 (70615-LM) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778; Fax No:03-7665-2779 E-mail: pkec88@gmail.com Website: www.kct.consulting</p>	<p>Ir. TAN KIAN CHUAN C18378 MALAYSIA</p> <p>HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : Lucy</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : N.T.S.</p> <p>DATE : JAN.2026</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE - SHEET 1</p> <p>PLAN NO. : MSAR/NL05JKR/TMP/D701</p> <p>REVISION : 0</p>
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**TEMPORARY LANE CLOSURE ON SLOW LANE OF DUAL CARRIAGEWAY (RURAL HIGH SPEED)
IF ROADSIDE WORKING SPACE IS MORE THAN 4 METERS**

NOTES

1. TRAFFIC GUIDANCE CONE SHALL BE INSTALLED EVERY 15m c/c AT STRAIGHT AND 5m c/c AT TAPER OR CURVE.
2. FLASHING LIGHT (BLINKERS) SHALL BE INSTALLED EVERY 30m c/c AT STRAIGHT AND 10m c/c AT TAPER OR CURVE.
3. FOR NIGHT WORKS, THE CONTRACTOR SHALL INSTALL A RELIABLE FLOOD LIGHT SYSTEM (ANTI-GLARE FEATURE).
4. PROVIDE A SAFE ENTRANCE AND EXIT FOR CONSTRUCTION VEHICLES WHICH SHALL BE MANNED BY FLAGMAN.

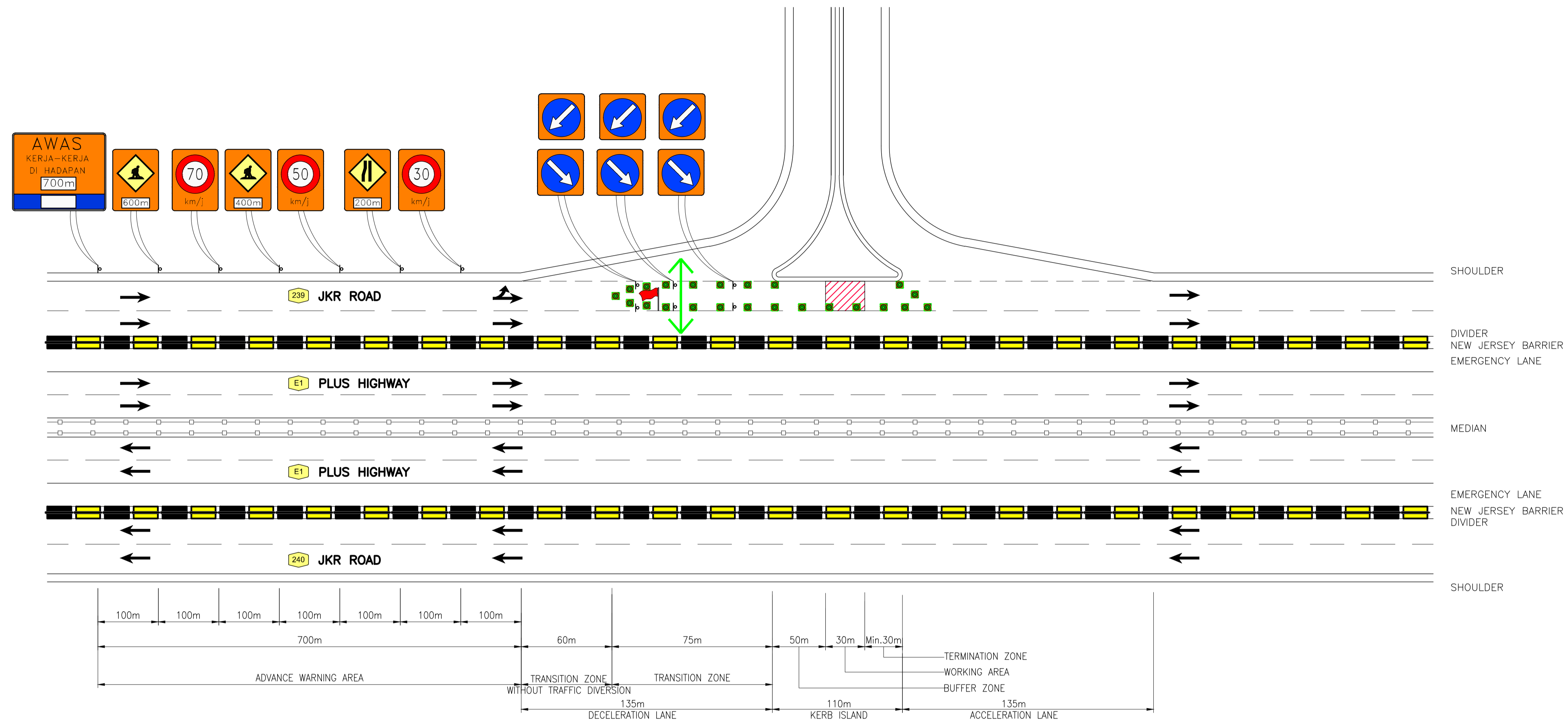
SPEED LIMIT (kph)	1ST REDUCTION SPEED (kph)	2ND REDUCTION SPEED (kph)
90	70	50
80	60	40
70	50	30
60	40	30
50	30	-

LEGEND :

	TRAFFIC FLOW		TRAFFIC GUIDANCE CONE		CONCRETE BARRIER		GUARDRAIL
	FLASHING ARROW		FLAGMAN		WORK AREA		

SUBMISSION DRAWING

REVISIONS	DATE	DETAIL	APPROVE	<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2700 3940 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Jahari Consultants SRI JALAL JOHARI, LLS Land Survey Licensed Under Act 458 (Revised 1981) Gedung Underpass 189, Bangsar</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur. TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>KCT CONSULTING ENGINEERS</p> <p>IR. TAN KIAN CHUAN Perunding KCT Sdn. Bhd. 21065H124042 (706174-M) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pke188@gmail.com Website: www.kct.consulting</p>	<p>PROFESSIONAL ENGINEER With Practising Certificate CIVIL Ir. TAN KIAN CHUAN C18378 MALAYSIA</p> <p>I, Ir. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : Lucy</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : N.T.S.</p> <p>DATE : JAN.2026</p>	<p>PROJECT :</p> <p>CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE - SHEET 2</p> <p>PLAN NO. : MSAR/NL05JKR/TMP/DT/02</p>	<p>REVISION : 0</p>
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**TEMPORARY LANE CLOSURE ON SLOW LANE OF DUAL CARRIAGEWAY (RURAL HIGH SPEED)
FOR WORKING AREA AT KERB ISLAND**

NOTES

1. TRAFFIC GUIDANCE CONE SHALL BE INSTALLED EVERY 15m c/c AT STRAIGHT AND 5m c/c AT TAPER OR CURVE.
2. FLASHING LIGHT (BLINKERS) SHALL BE INSTALLED EVERY 30m c/c AT STRAIGHT AND 10m c/c AT TAPER OR CURVE.
3. FOR NIGHT WORKS, THE CONTRACTOR SHALL INSTALL A RELIABLE FLOOD LIGHT SYSTEM (ANTI-GLARE FEATURE).
4. PROVIDE A SAFE ENTRANCE AND EXIT FOR CONSTRUCTION VEHICLES WHICH SHALL BE MANNED BY FLAGMAN.

SPEED LIMIT (kph)	1ST REDUCTION SPEED (kph)	2ND REDUCTION SPEED (kph)
90	70	50
80	60	40
70	50	30
60	40	30
50	30	-

LEGEND :

	TRAFFIC FLOW		TRAFFIC GUIDANCE CONE		CONCRETE BARRIER		GUARDRAIL
	FLASHING ARROW		FLAGMAN		WORK AREA		

SUBMISSION DRAWING

REVISE	DATE	DETAIL	APPROVE	<p>PROJECT OWNER :</p> <p>MSA RESOURCES SDN BHD Unit A-16-B, Level 16, Tower A, Menara UOA Bangsar, 5, Jalan Bangsar Utama 1, Bangsar, 59000 Kuala Lumpur, TEL : (603) 2700 3940 FAX : (603) 2700 4272</p>	<p>LICENSED LAND SURVEYOR :</p> <p>Jalal Johari Consultants Sdn Bhd Sri JALAL JOHARI, LLS Land Surveyor (Licensed Under Act 408 (Revised 1991) General Incorporation (1989) Register</p> <p>JALAL JOHARI CONSULTANTS SDN BHD UG-13A, Lexa Galleria, No. 45, Jalan 34/26, 53300 Wangsa Maju, Kuala Lumpur, TEL : (603) 2701 7761 FAX : (603) 2701 7760</p>	<p>DESIGNATED DESIGN CONSULTANT (C&S)</p> <p>KCT CONSULTING ENGINEERS</p> <p>IR. TAN KIAN CHUAN 20658124042 (70615-LM) 609, Block A, Phileo Damansara 1, Jalan 16/11, Seksyen 16, 46350, Petaling Jaya, Selangor Darul Ehsan, Malaysia. Tel No:03-7665-2778, Fax No:03-7665-2779 E-mail: pke88@gmail.com Website: www.kct.consulting</p>	<p>PROFESSIONAL ENGINEER With Practising Certificate CIVIL Ir. TAN KIAN CHUAN C18378 MALAYSIA</p> <p>I, Ir. TAN KIAN CHUAN, PROFESSIONAL ENGINEER (REG. NO. C18378) HEREBY CONFIRM THAT THE DESIGNS SHOWN IN THIS CALCULATIONS/ DRAWINGS/SPECIFICATIONS WERE DESIGNED BY ME OR UNDER MY DIRECTION AND SUPERVISION AND TO THE BEST OF MY KNOWLEDGE, COMPLY WITH THE RELEVANT ENGINEERING STANDARDS AND CODES OF PRACTICE, AND LOCAL AUTHORITIES BY LAW AND REGULATIONS.</p>	<p>DRAWN BY : Lucy</p> <p>CHECKED BY : Brandon/Nadzirah/Amzar</p> <p>APPROVED BY : Ir. K.C.TAN</p> <p>SCALE : N.T.S.</p> <p>DATE : JAN.2026</p>	<p>PROJECT : CADANGAN MENJALANKAN KERJA-KERJA PEMASANGAN LURANG JC9 (PRECAST) DAN JAJARAN SESALUR KABEL GENTIAN OPTIK UNTUK KERJA NAIK-TARAF PENYEDIAAN - PENYEDIAAN RANGKAIAN PERKHIDMATAN JALUR LEBAR MSA RESOURCES SDN. BHD. (NL05 - FT239 JALAN AMPANG - JELAPANG)</p> <p>DRAWING TITLE : TRAFFIC MANAGEMENT PLAN (TMP) TEMPORARY LANE CLOSURE AT KERB ISLAND</p> <p>PLAN NO. : MSAR/NL05JKR/TMP/DT/03</p> <p>REVISION : 0</p>
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