

1. ALL WORKS IN THIS CONTRACT ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD DRAWINGS AND SPECIFICATIONS OF THE RELEVANT RESPONSIBLE AUTHORITIES. ANY DISPUTE THAT ARISES AT ANY TIME UNTIL THE RESPONSIBLE AUTHORITIES ACCEPT THE WORKS FOR FUTURE CARE AND MAINTENANCE, THE STANDARD DRAWING AND SPECIFICATION WILL TAKE PRECEDENCE OVER THE CONSTRUCTION PLAN.

3. ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE APPROVED CONSTRUCTION MANAGEMENT PLAN.
4. ALL TREES, SHRUBS ETC ARE TO BE RETAINED UNLESS OTHERWISE INDICATED.

5. DURING THE CONSTRUCTION AND MAINTENANCE PERIOD SILT FENCES ARE TO BE PLACED DOWNSTREAM OF ALL EXPOSED AREAS, AND SILT BARRIERS ARE TO BE PLACED UPSTREAM OF ALL PITS. THE SILT FENCES AND SILT BARRIERS ARE TO BE CHECKED AND MAINTAINED UNTIL THE END OF THE MAINTENANCE PERIOD.

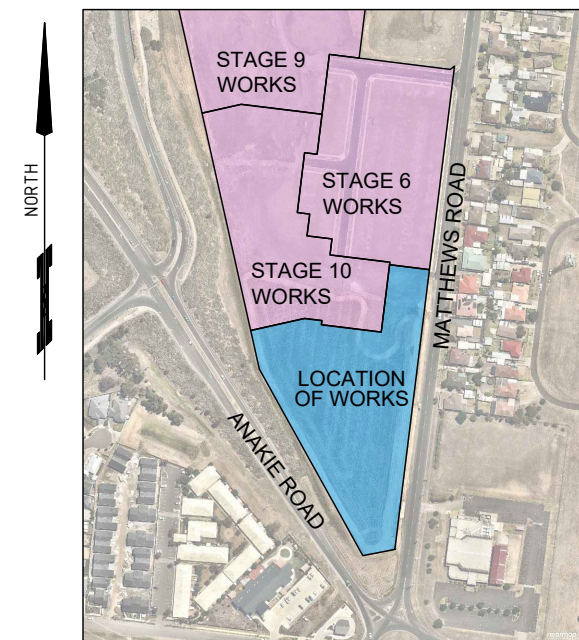
6. ALL AREAS OF THE SUBDIVISION EXPOSED OF VEGETATION, INCLUDING NATURESTRIPS, LOTS AND RESERVE ARE TO BE FULLY GRASSED BY HYDROMULCHING, WATERING AND MAINTAINED UNTIL THE END OF THE MAINTENANCE PERIOD.

7. THE CONTRACTOR SHALL:

- THE CONTRACTOR SHALL:
 - a) GIVE 5 DAYS NOTICE IN WRITING TO COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORKS.
 - b) NOTIFY COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE 24 HOURS PRIOR TO WORKING ON ANY WEEKEND.
 - c) BE FULLY AWARE OF ALL SITE CONDITIONS PRIOR TO TENDERING.
 - d) BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE SERVICES.
 - e) BE RESPONSIBLE FOR THE INSTALLATION OF ALL SERVICES REQUIRED FOR THE PROJECT.
 - f) ENSURE THAT ALL SERVICES ARE INSTALLED TO THE SPECIFIED OFFSETS AND MEETS MINIMUM COVER REQUIREMENTS. ALL SURFACE FIXTURES, PITS, VALVES, FIREPLUGS, ETC. SHALL BE INSTALLED A MINIMUM OF 6.0m FROM ANY SIDE BOUNDARY IN THE ROAD RESERVE AND SHALL MATCH THE REQUIRED FINISHED SURFACE LEVEL. THIS APPLIES TO ALL SERVICES REQUIRED FOR THE PROJECT IRRESPECTIVE IF THEY ARE INSTALLED BY THE CONTRACTOR OR OTHERWISE.
 - g) COMPLY WITH THE REQUIREMENTS OF THE MINES ACT 1958 AND RELEVANT REGULATIONS INCLUDING NOTIFICATION IN WRITING (CLAUSE 385) TO THE CHIEF MINING INSPECTOR OF THE INTENTION TO COMMENCE EXCAVATION OPERATIONS WHERE ANY TRENCH IS 15m OR MORE IN DEPTH.
 - h) GIVE 24 HOURS NOTICE TO COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE PRIOR TO BACKFILLING OF ANY PIPE TRENCHES OR LAYING OF ANY PAVEMENT OR CONCRETE WORKS SO THAT THE WORKS CAN BE CHECKED AND APPROVED.
 - i) COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY (CONFINED SPACES) REGULATIONS AND CODE OF PRACTICE FOR CONFINED SPACES.
 - j) BE RESPONSIBLE FOR THE INSTALLATION AND/OR ANY OTHER REQUIRED TESTING OF THE PAVEMENT MATERIAL BY AN APPROVED GEOTECHNICAL CONSULTANT AS AND WHEN DIRECTED BY COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
8. ANY WORKS WITHIN ROADWAYS SHALL SATISFY COUNCIL'S "REQUIREMENTS FOR OCCUPANCY OF ROAD RESERVE". CONTACT COGG TRAFFIC MANAGEMENT OFFICER ON TELEPHONE (03) 52724384. FOR FURTHER SPECIFIC DETAILS RELATING TO THE WORKS OF THE TRANSPORT MANAGEMENT PLAN IS TO BE FORWARDED TO THE COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE PRIOR TO WORKS COMMENCING.
9. ALL REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE THE SURVEY PEGS, ANY REINSTATEMENT OF BOUNDARY PEGS FOR CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. BEWARE OF VALUING WORKS FOR 6 MONTHS FROM THE ISSUED DATE OF THE SURVEY AND ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF WORKS AND ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY.
10. ALL DIMENSIONS ARE IN METRES AND LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.)
11. ALL SEWER MANHOLES LOCATED UNDER NEW FOOTPATH TO HAVE OFFSET COVER ROTATED AND LEVELS ADJUSTED SO THAT THE COVERS ARE ENTIRELY LOCATED UNDER THE FOOTPATH WITH APPROPRIATELY POSITIONED JOINTS IN PATH AND FLUSH WITH SURFACE.

- SUBSOIL DRAINS ARE TO BE CONSTRUCTED BEHIND THE KERB AND CHANNEL OR AS DIRECTED BY THE COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE AND ARE TO BE IN ACCORDANCE WITH THE IDM.
13. WHERE DRAINAGE LINES EXIST BEHIND THE KERB AND CHANNEL SUBSOIL DRAINAGE IS NOT REQUIRED HOWEVER A 1m LENGTH OF SUBSOIL DRAIN INCLUDING FILTER SOCK IS REQUIRED BOTH SIDES OF DRAINAGE PITS.
14. ALL FOOTPATHS ARE TO BE A MINIMUM OF 125mm THICK WITH SL72 REINFORCEMENT AND BEDDED ON A MINIMUM OF 100mm COMPACTED CLASS 3 FCR WITH THE BEDDING TO EXTEND 75mm BEYOND THE EDGES OF THE PROPOSED FOOTPATH PRIOR TO THE PLACEMENT OF THE TIMBERS AND BOARDS. CONTRACTION OR EXPANSION JOINTS ARE TO BE CONSTRUCTED BETWEEN 10 TO 15 METER INTERVALS.
15. WHERE FILLING IS REQUIRED UNDER THE FOOTPATH BEDDING MATERIAL THEN CLASS 4 FCR IS TO BE USED UNLESS OTHERWISE APPROVED BY THE COGG SUBDIVISIONS ENGINEER.
16. CONCRETE FOR KERB AND CHANNEL USED IN EXTRUSION MACHINES SHALL HAVE A MINIMUM CEMENT CONTENT OF 320 KG/M3.
17. CONCRETE FOR STORMWATER PITS AND ANY OTHER STORMWATER RELATED STRUCTURE IS TO HAVE A MINIMUM STRENGTH OF 32 MPA AT 28 DAYS.
18. CONCRETE FOR ALL OTHER APPLICATIONS IS TO HAVE A MINIMUM STRENGTH OF 25 MPA AT 28 DAYS.
19. TO ALLOW FOR A CONTINUOUS CONCRETE KERB AND CHANNEL POUR THE STORMWATER PIT CONCRETE SURROUND IS TO BE IN PLACE PRIOR TO THE POUR COMMENCING. IF THE PIT SURROUNDS ARE NOT IN PLACE THEN THE INITIAL KERB AND CHANNEL POUR IS TO STOP ONE METRE EITHER SIDE OF EVERY PIT.
20. PRIOR TO ANY FILLING ON LOTS ALL TOPSOIL IS TO BE REMOVED AND STOCKPILED. THE FILL MUST BE APPROVED AND CONSOLIDATED IN 150mm COMPACTED LAYERS TO A DRY DENSITY OF 95% STANDARD COMPACTION IN ACCORDANCE WITH AS15189. THE TOPSOIL IS THEN TO BE UNIFORMLY REPLACED TO A COMPACTED DEPTH OF 100mm. COMPACTION TESTING WILL BE REQUIRED AT THE DISCRETION OF THE COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
21. ALLOTMENTS SHALL BE GRADED TO AN EVEN SURFACE AT THE COMPLETION OF ALL WORKS AND SHALL HAVE A MINIMUM GRADE OF 1 IN 200 (IDM) TO THEIR NOMINATED DRAINAGE CONNECTION POINTS. ALL SURPLUS SPILL, BOXTHORN, FENCING, CONSTRUCTION WASTE AND OTHER RUBBISH SHALL BE REMOVED FROM SITE AT THE COMPLETION OF WORKS.
22. BATTER SLOPES ON LOTS SHALL BE A MAXIMUM OF 1 IN 6 FOR FILL AND 1 IN 3 FOR CUT UNLESS OTHERWISE SHOWN.
23. TIMBER RAIL AND POST (0.6m HIGH) OR AS APPROVED BY COUNCIL PARKS/RECREATION AND OPEN SPACE/ENVIRONMENT DEPARTMENTS ARE TO BE PLACED ACROSS THE RESERVE FRONTAGE, REFER TO COUNCIL STANDARD DRAWING COGG 709. A DEMOUNTABLE SECTION FOR VEHICLE ACCESS TO COUNCIL STANDARDS, REFER STANDARD DRAWING COGG702 & COGG673.
24. STREET SIGNS ARE TO BE LOCATED AS INDICATED ON THE PLANS AND INSTALLED IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2. MOUNTING HEIGHT IS TO BE TO THE UNDERSIDE OF THE SIGN AND IS TO BE A MINIMUM OF 2.1m AND MAXIMUM OF 3.0m.
25. 'NO THROUGH ROAD' SIGN IS TO BE INSTALLED BELOW THE STREET SIGN WHERE APPLICABLE.
26. ALL REINFORCEMENT USED IN CONCRETE WORKS FOR FOOTPATH DRIVEWAYS AND ROADS IS TO BE ADEQUATELY SUPPORTED BY APPROPRIATE SIZED BAR CHAIRS PRIOR TO THE POURING/PLACEMENT OF CONCRETE.
27. AT THE TERMINATION OF STAGED PAVEMENT CONSTRUCTION, A CONCRETE EDGE STRIP 200mm X 200mm AND SUBSOIL DRAIN IS TO BE INSTALLED ACROSS THE WIDTH OF THE PAVEMENT AND A CHEVRON MARKER SIGN IS TO BE INSTALLED ACROSS THE FULL WIDTH OF THE ROAD RESERVE. APPROPRIATE RETAINING WALLS/FENCING IS TO BE PROVIDED AS DIRECTED BY COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
28. WHERE LINE MARKING NEEDS TO BE REMOVED, THESE LINES ARE TO BE PERMANENTLY REMOVED EITHER BY GRINDING THE OLD LINES OFF OR BY PLACING A SEAL AND GRIT TREATMENT (USING THE 'FLOCON' SYSTEM) OVER THE UNWANTED LINES.
29. LOT NUMBERS SHALL BE STENCILED IN 50mm HIGH FIGURES WITH WHITE PAINT ON THE FACE OF THE KERB AND CHANNEL.
30. CIVIL CONTRACTOR TO CONTACT SUPERINTENDENT MINIMUM OF 7 DAYS PRIOR TO POURING ANY KERB & CHANNEL TO ENSURE THAT DRIVEWAY LOCATIONS HAVE NOT ALTERED.

1. PIPE DRAINAGE WITHIN ROADWAYS TO BE REINFORCED CONCRETE PIPES - CLASS 2 UNLESS OTHERWISE SHOWN.
2. ALL REINFORCED CONCRETE PIPES ARE TO BE RUBBER RING JOINTED.
3. PIPES IN EASEMENTS ARE TO BE RUBBER RING JOINTED OR UPVC SEWER CLASS PIPES WITH SOLVENT CEMENT JOINTS.
4. ALL DRAINAGE PITS IN COUNCIL ROAD RESERVES, DRAINAGE RESERVES AND RECREATION RESERVES ARE TO HAVE LIDS THAT ARE AT LEAST CLASS D (HEAVY DUTY) IN ACCORDANCE WITH AUSTRALIAN STANDARD AS 3996.
5. ALL PITS ARE TO BE SET OUT FROM SURVEY CO-ORDINATES USING SET OUT POINTS DETAILED IN THE COGG STANDARD DRAWINGS OR AS SPECIFIED IN THIS DRAWING SET.
6. ALL PIPES UNDER FOOTPATHS, DRIVEWAYS AND BEHIND BACK OF KERB SHALL BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 95% MODIFIED COMPACTION IN 150mm MAXIMUM LAYERS.
7. CONTRACTOR TO USE 2% CEMENT STABILISED SAND FROM THE BOTTOM OF THE STORMWATER PIPE TO THE SPRINGLINE WHEN DRAINAGE IS CONSTRUCTED UNDER THE ROAD. CLASS 3 CRUSHED ROCK TO BE USED FOR BACKFILL FROM THE SPRINGLINE TO THE PAVEMENT SUB-BASE.
8. PIPEWORK AT ALL PITS TO BE WELL ALIGNED TO ENSURE FLOW IS GUIDED DIRECTLY TO OUTLET PIPE.
9. ALL PIPELINES ARE TO BE INSPECTED VIA CCTV AT PRACTICAL COMPLETION AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
10. PROPERTY INLET PITS TO BE LOCATED 1M FROM THE LOW CORNER UNLESS OTHERWISE SHOWN.
11. HOUSE DRAINS ARE TO BE 100mm DIAMETER SEWER CLASS PVC SOCKETED PIPES LOCATED 6.5m FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN. OPTION "No. 1" IS TO CONNECT TO A PIT, "No.2" IS TO CONNECT TO THE UNDERGROUND DRAINAGE PIPE AND "No.3" IS TO KERB (MINIMUM 1.0m AWAY FROM EDGE OF VEHICLE LAYBACK).
12. HOUSE DRAINS ARE TO BE A MINIMUM OF 0.5m BELOW FINISHED SURFACE AT THE LOT BOUNDARY UNLESS OTHERWISE SHOWN.
13. EASEMENT DRAIN CONNECTION TO BE A MINIMUM OF 0.5m BELOW FINISHED SURFACE UNLESS OTHERWISE SHOWN.
14. WHEN USING 150mm DIAMETER UPVC SEWER CLASS PIPES IN EASEMENTS FOR PRIVATELY OWNED PROPERTIES, THE HOUSE DRAINS ARE TO BE CONNECTED USING STANDARD T-PIECE FITTINGS.
15. WHEN USING 225mm DIAMETER OR LARGER UPVC PIPES, HOUSE DRAINS ARE TO BE CONNECTED IN A SIMILAR WAY TO CONCRETE PIPES SUBJECT TO THE INLET BEING CORE DRILLED.
16. WATER AND GAS SERVICE CONDUITS SHALL BE LOCATED CLEAR OF ALL DRIVEWAY CROSSINGS AND SHALL EXTEND FROM THE POINT OF SUPPLY TO AT LEAST 500mm INSIDE THE HOUSE LOT TO BE SERVICED AND LEFT EXPOSED UNTIL INSPECTED BY COGG SUBDIVISIONS ENGINEER.
WATER CONDUITS ARE TO BE LOCATED AT LEAST 6.5m FROM SIDE BOUNDARY.
GAS CONDUITS ARE TO BE LOCATED 2m FROM "NON-DRIVEWAY" SIDE BOUNDARY OF LOT TO BE SERVICED.
CONDUIT TRENCHES ARE TO BE BACKFILLED WITH CLASS 3 FCR. NEXT TO WATER CONDUIT IS PREFERRED.
17. THE LOCATION OF HOUSE DRAINS (H) AND SERVICE CONDUITS (W, G, T, AND E) ARE TO BE NEATLY ETCHED ON THE KERB FACE WITH 50mm HIGH LETTERS.
18. IN ROAD RESERVE EXISTING OPEN DRAINS ARE TO BE CLEANED OUT TO AN APPROVED BASE AND ANY SPOIL IS TO BE REMOVED FROM THE SITE. STRUCTURAL FILL (CLASS 4 MINIMUM) IS TO BE PLACED IN NOT MORE THAN 150mm LAYERS AND COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION. COMPACTION TESTS ARE TO BE PROVIDED TO THE SATISFACTION OF COGG SUBDIVISIONS ENGINEER OR REPRESENTATIVE.
19. ALL SUMPS IN PRE-CAST CONCRETE PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE, UNLESS APPROVED OTHERWISE BY THE COUNCIL WORKS INSPECTOR.
20. ALL DRAINAGE PIT LIDS ARE TO BE FIBRE REINFORCED PLASTIC (FRP) OR APPROVED EQUIVALENT TO THE REQUIRED CLASS LOADING. ALL DRAINAGE PITS WITHIN THE PAVEMENT ARE TO BE CLASS D GATIC.
21. BEDDING, LAYING, JOINTING, AND BACKFILLING OF ALL STORMPRO PIPES TO COMPLETED IN ACCORDANCE WITH AS/NZS 2566.2.



MELWYS REF:431 G9
N.T.S



ISSUE		ISSUED FOR		DATE		No.		AMENDMENT		DATE		DRAWN		APPROVED		DESIGNED		K.BOOH		DATE		FEBRUARY 2020		<div><p>ABN 11 125 568 461 Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4600 Fax +61 3 5202 4691 Email: victoria@cardno.com.au Web: www.cardno.com</p><p>JAS-ANZ Accredited: Quality ISO 9001 - CHAS AS/NZS 4801 - Environment ISO 14001</p></div>	CLIENT		<div><p>PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG</p></div>	PROJECT		CIVIL DRAWING	
00		FOR APPROVAL		28-02-2020		A		FOR CONSTRUCTION		22-06-2020		GR.		N.T.		DRAWN:		G.ROACHE		SCALE:		N.T.S			DRAWING TITLE:			INDEX AND NOTES			
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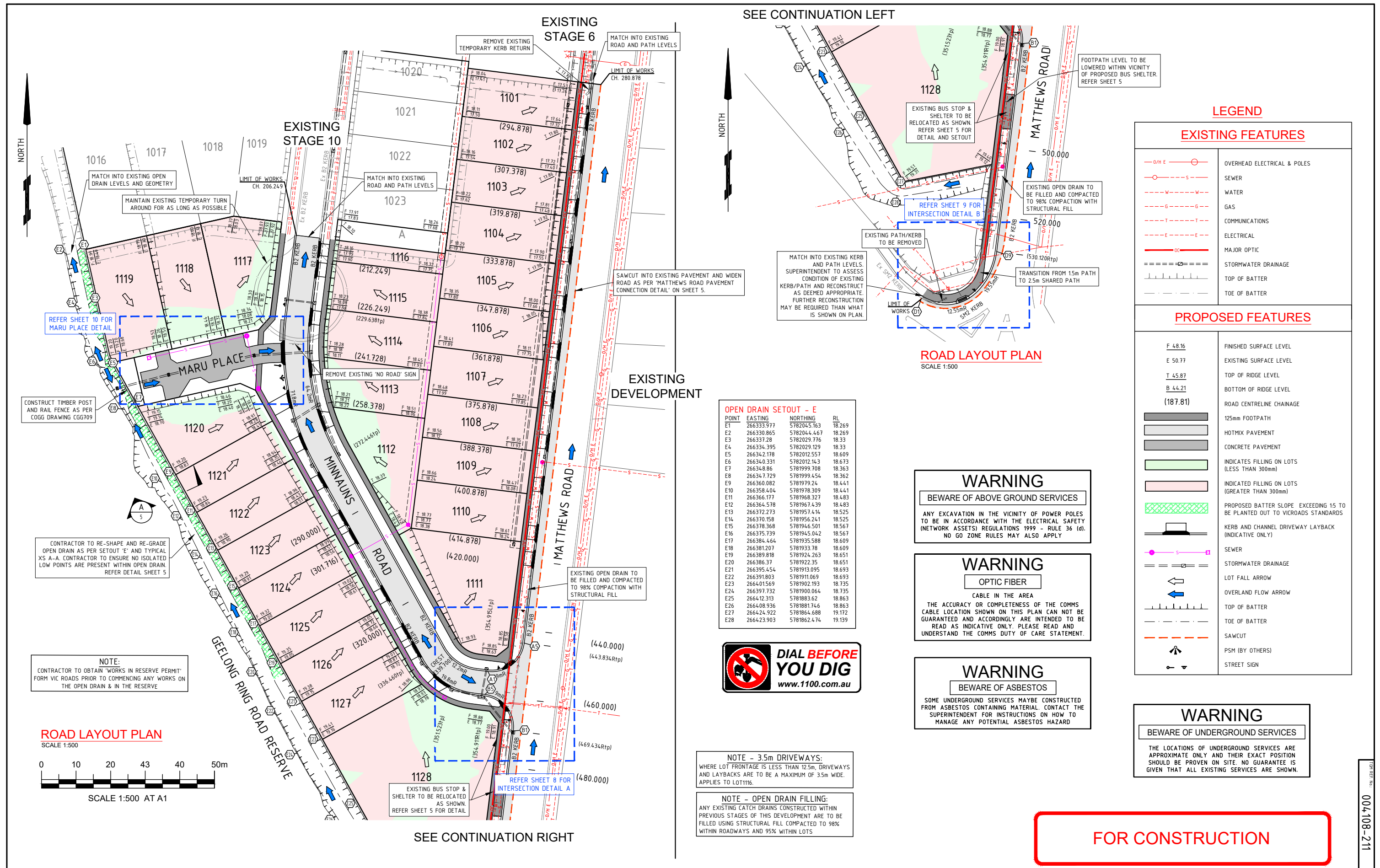
PHALARIS PARK

STAGE 11
MATTHEWS ROAD, Vic 3221.

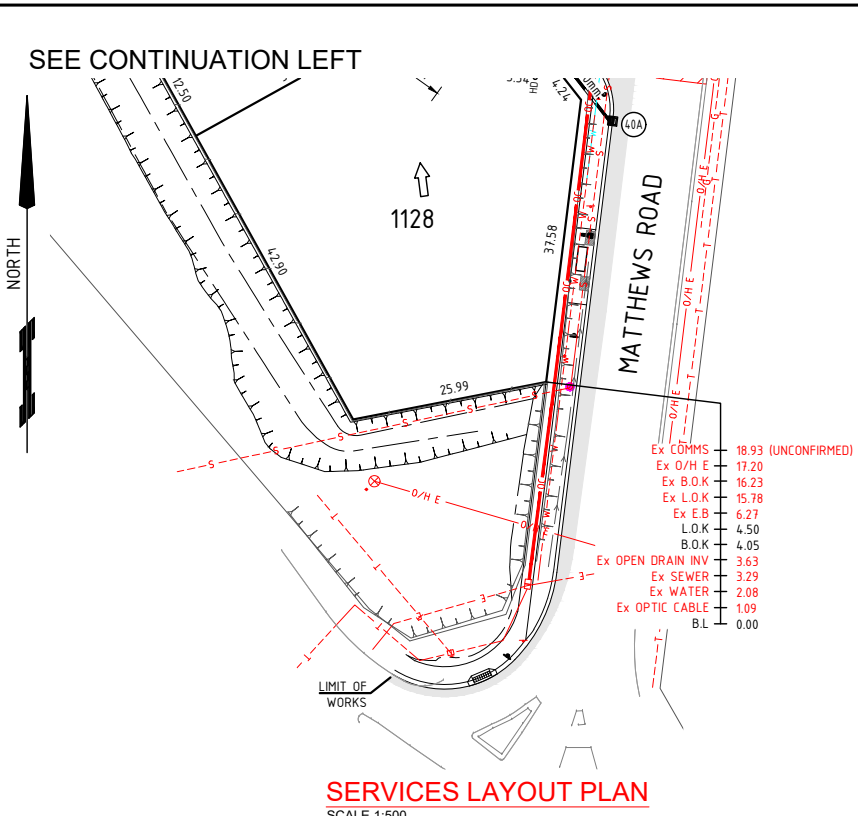
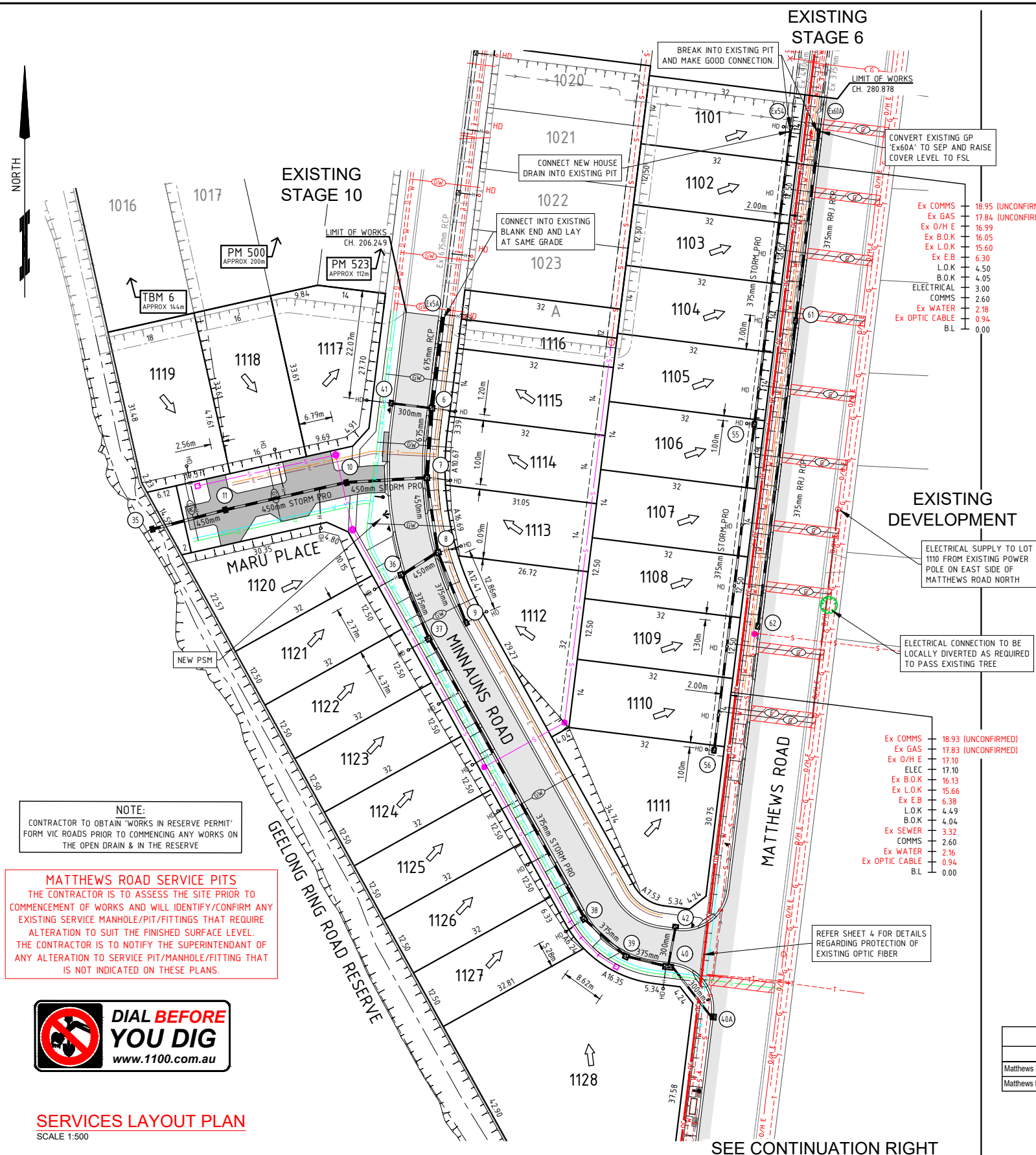
INDEX

SHEET 1	REV A	INDEX AND NOTES
SHEET 2	REV A	ROAD LAYOUT PLAN
SHEET 3	REV A	SERVICES LAYOUT PLAN
SHEET 4	REV A	MATTHEWS ROAD SERVICES DETAIL PLAN
SHEET 5	REV A	TYPICAL DETAILS
SHEET 6	REV A	ROAD LONGITUDINAL SECTION - MINNAUNS ROAD
SHEET 7	REV A	ROAD LONGITUDINAL SECTION - MATTHEWS ROAD
SHEET 8	REV A	INTERSECTION DETAIL A & KERB LONGITUDINAL SECTIONS
SHEET 9	REV A	INTERSECTION DETAIL B & KERB LONGITUDINAL SECTION
SHEET 10	REV A	CONCRETE COURT DETAIL
SHEET 11	REV A	ROAD CROSS SECTIONS - MINNAUNS ROAD
SHEET 12	REV A	ROAD CROSS SECTIONS - MINNAUNS ROAD
SHEET 13	REV A	ROAD CROSS SECTIONS - MINNAUNS ROAD
SHEET 14	REV A	ROAD CROSS SECTIONS - MATTHEWS ROAD
SHEET 15	REV A	ROAD CROSS SECTIONS - MATTHEWS ROAD
SHEET 16	REV A	ROAD CROSS SECTIONS - MATTHEWS ROAD
SHEET 17	REV A	ROAD CROSS SECTIONS - MATTHEWS ROAD
SHEET 18	REV A	DRAINAGE LONGITUDINAL SECTIONS
SHEET 19	REV A	DRAINAGE LONGITUDINAL SECTIONS
SHEET 20	REV A	PIT SCHEDULE & TYPICAL TRENCHING DETAILS
SHEET 21	REV A	SIGNAGE AND LINEMARKING PLAN

FOR CONSTRUCTION



ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	K. BOON	DATE:	FEBRUARY 2020
00	FOR APPROVAL	28-02-2020	A			GR.	N.T.	DRAWN	G. ROACHE	SCALE:	REFER SHEET
01	FOR APPROVAL	31-03-2020	A	FOR CONSTRUCTION	22-06-2020			SURVEY:	CARDNO TGM GEELONG	SHEET SIZE:	A1
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								JAB-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001			
								Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220			
								Phone +61 3 5202 4000 Fax +61 3 5202 4891			
								Email: victoria@cardno.com.au Web: www.cardno.com			
								CLIENT:	Phalaris Park.		
								PROJECT:	PHALARIS PARK ESTATE		
									STAGE 11		
									MATTHEWS ROAD		
									LOVELY BANKS, VIC, 3221		
									CITY OF GREATER GEELONG		
									CIVIL DRAWING		
									DRAWING TITLE:		
									ROAD LAYOUT PLAN		
									TGM REF. No:		
									004108-211		
									SHEET:		
									2 OF 21		
									REV:		
									A		



LEGEND

EXISTING FEATURES

OVERHEAD ELECTRICAL & POLES

SEWER

WATER

GAS

COMMUNICATIONS

ELECTRICAL

MAJOR OPTIC

FENCELINE

STORMWATER DRAINAGE

HOUSE DRAIN

TOP OF BATTER

TOE OF BATTER

TREE

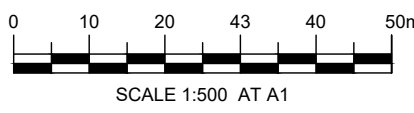
PROPOSED FEATURESKERB AND CHANNEL DRIVEWAY LAYBACK (INDICATIVE ONLY)SEWERGASELECTRICALCOMMUNICATIONSWATERSTORMWATER DRAINAGE/PITHOUSE CONNECTIONTHRUST BORELOT FALL ARROWTOP OF BATTERTOE OF BATTERPSM (BY OTHERS)TEMPORARY BENCH MARKGAS/WATER CONDUIT

NOTE:
CONTRACTOR TO OBTAIN "WORKS IN RESERVE PERMIT" FORM VIC ROADS PRIOR TO COMMENCING ANY WORKS ON THE OPEN DRAIN & IN THE RESERVE

MATTHEWS ROAD SERVICE PITS
THE CONTRACTOR IS TO ASSESS THE SITE PRIOR TO COMMENCEMENT OF WORKS AND WILL IDENTIFY/CONFIRM ANY EXISTING SERVICE MANHOLE/PIT/FITTINGS THAT REQUIRE ALTERATION TO SUIT THE FINISHED SURFACE LEVEL. THE CONTRACTOR IS TO NOTIFY THE SUPERINTENDANT OF ANY ALTERATION TO SERVICE PIT/MANHOLE/FITTING THAT IS NOT INDICATED ON THESE PLANS.



SERVICES LAYOUT PLAN
SCALE 1:500



FOR CONSTRUCTION

PERMANENT SURVEY MARKS (SMES)			
DESCRIPTION	MGA94 ZONE 55 EASTING	MGA94 ZONE 55 NORTHING	AHD LEVEL
MOORPANYAL PM 23	26644.1205	5781775.039	19.784
MOORPANYAL PM 465	266261.91	5782387.14	18.71
MORANGHURK PM 30	266675.676	5783709.249	22.241

SURVEY CONTROL POINTS			
DATE OF SURVEY: 13/11/2019			
DESCRIPTION	PLANE EASTING	PLANE NORTHING	AHD LEVEL
MOORPANYAL PM 500	266426.34	5782257.79	16.78
MOORPANYAL PM 523	266419.58	5782171.78	17.09
TBM 6 - ROD	266305.44	5782196.28	17.86

PROPOSED SERVICE OFFSET LOCATIONS						
	WATER	GAS	COMMS	ELEC. LV	ELEC. HV	SEWER
Matthews Road (CH280.878 - CH388.378)	-	-	2.6m W	3.0m W & 17.1m W	-	-
Matthews Road (CH388.378 - 450.000)	-	-	2.6m W	17.1m W	-	-
Minnauna Road	2.7m W	2.1m W	1.9m E	2.4m E	-	1.0m W
Maru Place	2.7m S	2.1m S	1.9m N	2.4m N	-	1.0m N

EXISTING SERVICE OFFSET LOCATIONS							
	WATER	GAS	COMMS	ELEC. LV	ELEC. HV	SEWER	MAJOR OPTIC
Matthews Road (CH280.878 - CH388.378)	2.1-2.2m W	17.8m* W	18.9m* W	-	-	-	17.0-17.1m W
Matthews Road (CH388.378 - END)	2.1-2.2m W	17.8m* W	18.9m* W	-	-	3.3m W	17.0-17.2m W

NOTE: SERVICES NOTED WITH (*) ARE UNCONFIRMED

WARNING

BEWARE OF ABOVE GROUND SERVICES

ANY EXCAVATION IN THE VICINITY OF POWER POLES TO BE IN ACCORDANCE WITH THE ELECTRICAL SAFETY (NETWORK ASSETS) REGULATIONS 1999 - RULE 36 (d). NO GO ZONE RULES MAY ALSO APPLY

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

WARNING

OPTIC FIBER

CABLE IN THE AREA

THE ACCURACY OR COMPLETENESS OF THE COMMS CABLE LOCATION SHOWN ON THIS PLAN CAN NOT BE GUARANTEED AND ACCORDINGLY ARE INTENDED TO BE READ AS INDICATIVE ONLY. PLEASE READ AND UNDERSTAND THE COMMS DUTY OF CARE STATEMENT.

WARNING

BEWARE OF ASBESTOS

SOME UNDERGROUND SERVICES MAYBE CONSTRUCTED FROM ASBESTOS CONTAINING MATERIAL. CONTACT THE SUPERINTENDENT FOR INSTRUCTIONS ON HOW TO MANAGE ANY POTENTIAL ASBESTOS HAZARD

NOTE:

- STRUCTURAL FILL TO BE PLACED IN 150mm LAYERS AND COMPACTED TO 95% COMPACTION WITH GEOTECHNICAL TESTING AND LEVELS TO BE RECORDED AND REPORTED TO THE SUPERINTENDENT AND FORWARDED TO COUNCIL.
- SEWER MANHOLES ARE TO BE CONSTRUCTED / POSITIONED SO THAT THE COVER IS CENTRALLY LOCATED WITHIN THE FOOTPATH.
- GAS TAPPING / PROPERTY CONNECTIONS FOR LOTS 1101 - 1110 TO BE THRUST BORED UNDER EXISTING MATTHEWS RD

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PROJECT:

PHALARIS PARK ESTATE
STAGE 11
MATTHEWS ROAD
LOVELY BANKS, VIC, 3221
CITY OF GREATER GEELONG

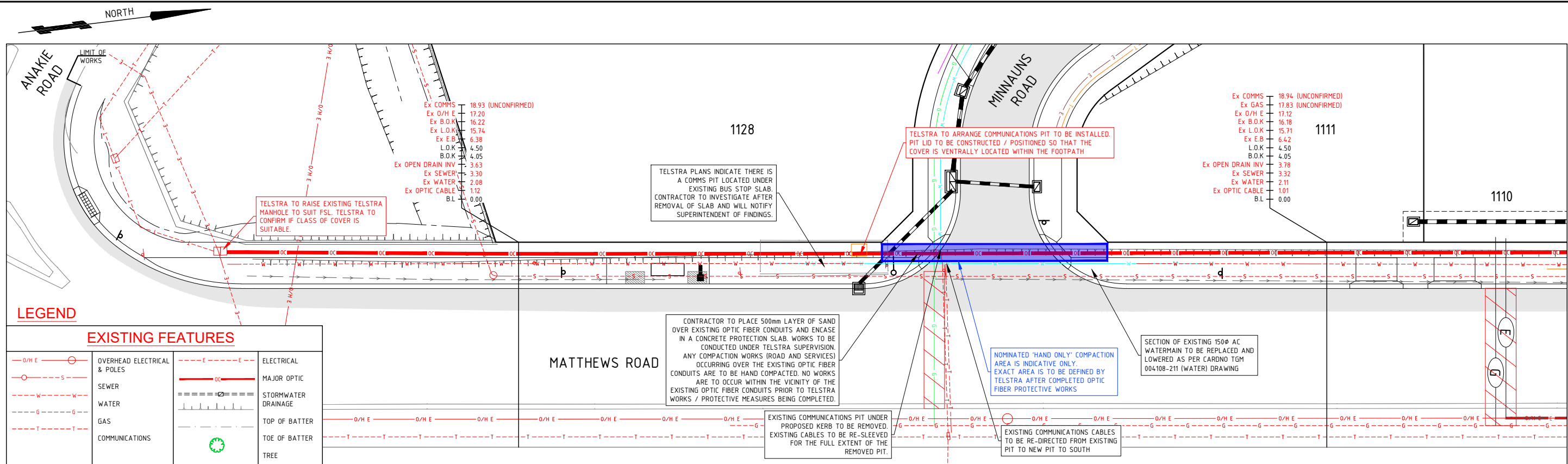
CIVIL DRAWING

DRAWING TITLE:
SERVICES LAYOUT PLAN

TGM REF. No.: 004108-211

SHEET: 3 OF 21

REV: A



MATTHEWS ROAD SERVICES DETAIL PLAN
SCALE 1:200

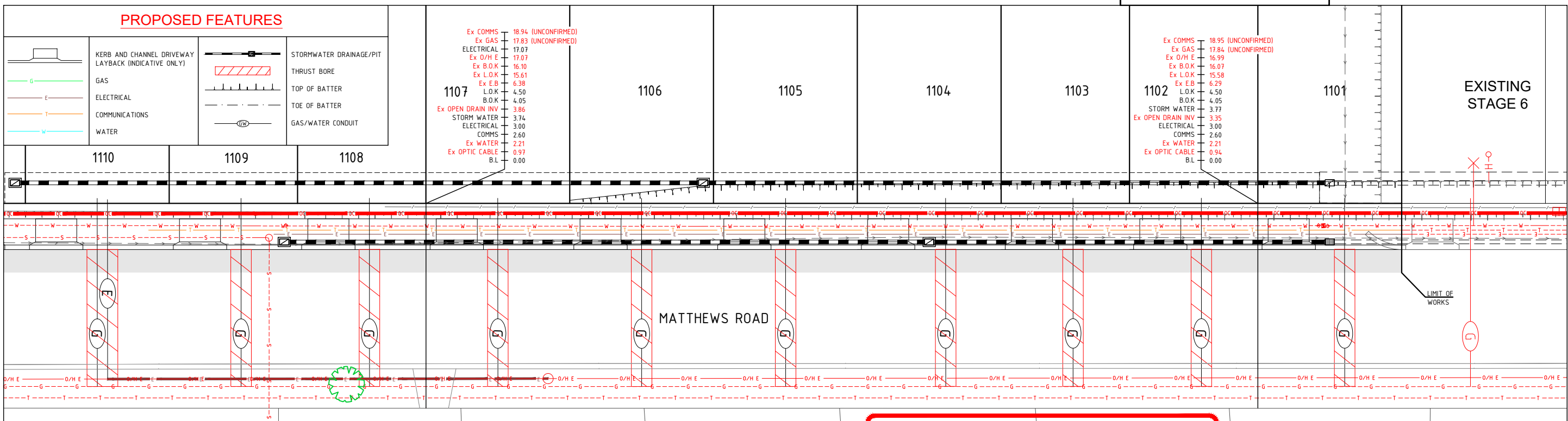
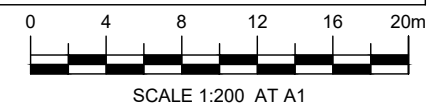


WARNING
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WARNING
OPTIC FIBER
CABLE IN THE AREA
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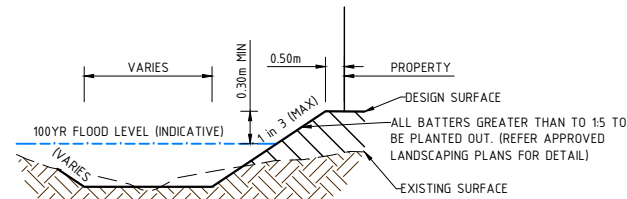


MATTHEWS ROAD SERVICES DETAIL PLAN
SCALE 1:200

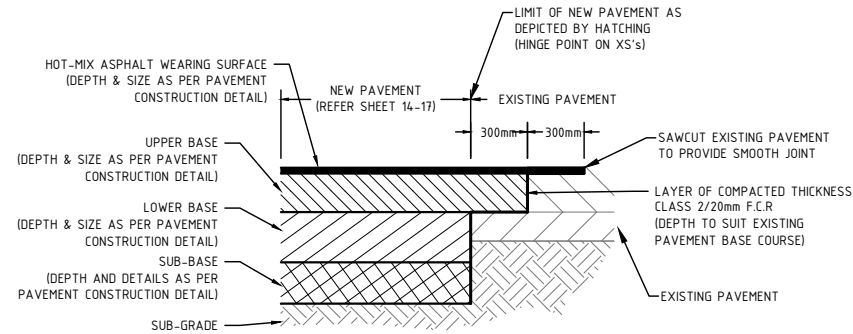
FOR CONSTRUCTION



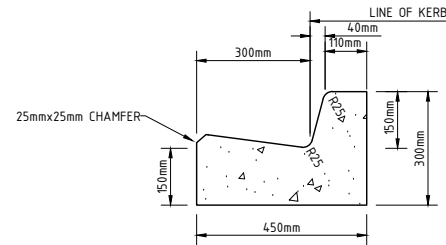
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00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	K. BOON	1:200	FEBRUARY 2020	PHALARIS PARK	PHALARIS PARK ESTATE	MATTHEWS ROAD SERVICES	004108-211	4
01	FOR APPROVAL	31-03-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	G. ROACHE	1:200	FEBRUARY 2020	PHALARIS PARK	PHALARIS PARK ESTATE	MATTHEWS ROAD SERVICES	004108-211	21



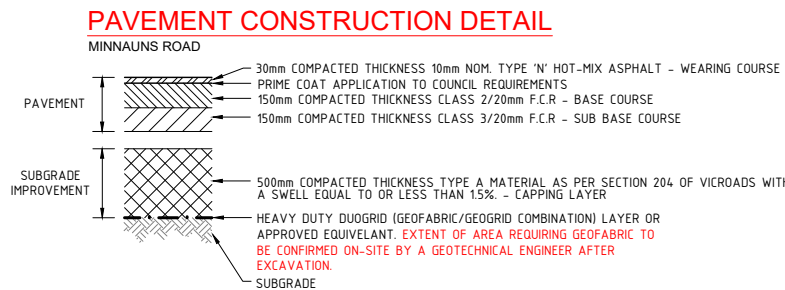
OPEN DRAIN DETAIL: A-A
NOT TO SCALE



MATTHEWS ROAD PAVEMENT CONNECTION DETAIL
SCALE NTS

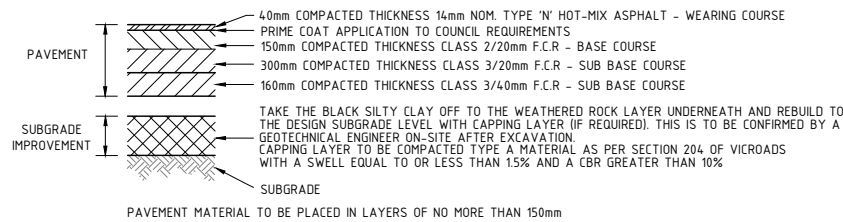


'B2' KERB DETAIL
NOT TO SCALE

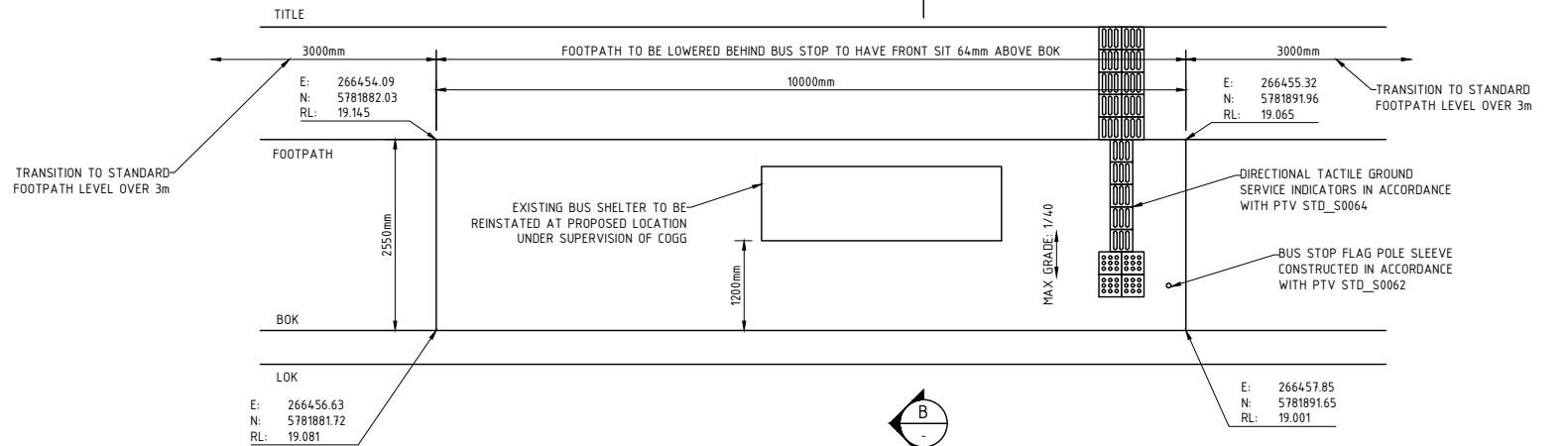


NOTE:
CONTRACTOR TO OBTAIN 'WORKS IN RESERVE PERMIT' FORM VIC ROADS PRIOR TO COMMENCING ANY WORKS ON THE OPEN DRAIN & IN THE RESERVE

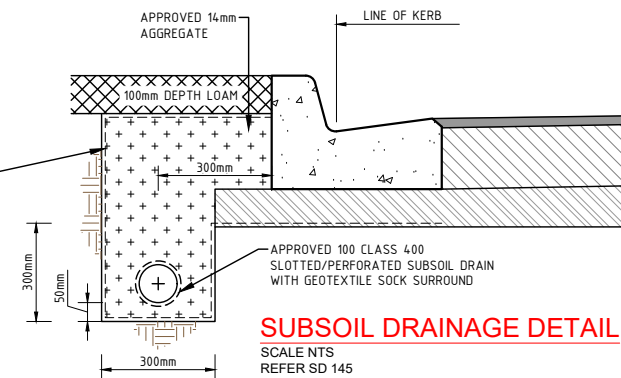
PAVEMENT CONSTRUCTION DETAIL
MATTHEWS ROAD



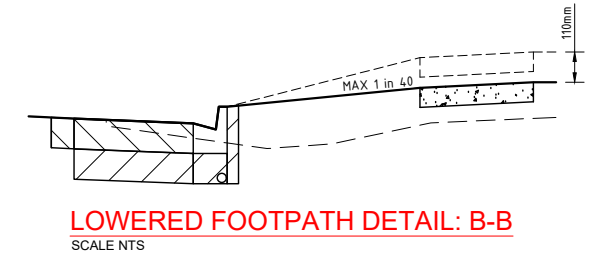
FOR CONSTRUCTION



TYPICAL BUS STOP DETAIL ARRANGEMENT
NOT TO SCALE
REFER PTV STD_S0069
REFER PTV STD_S0064
REFER PTV STD_S0062



SUBSOIL DRAINAGE DETAIL
SCALE NTS
REFER SD 145



LOWERED FOOTPATH DETAIL: B-B
SCALE NTS



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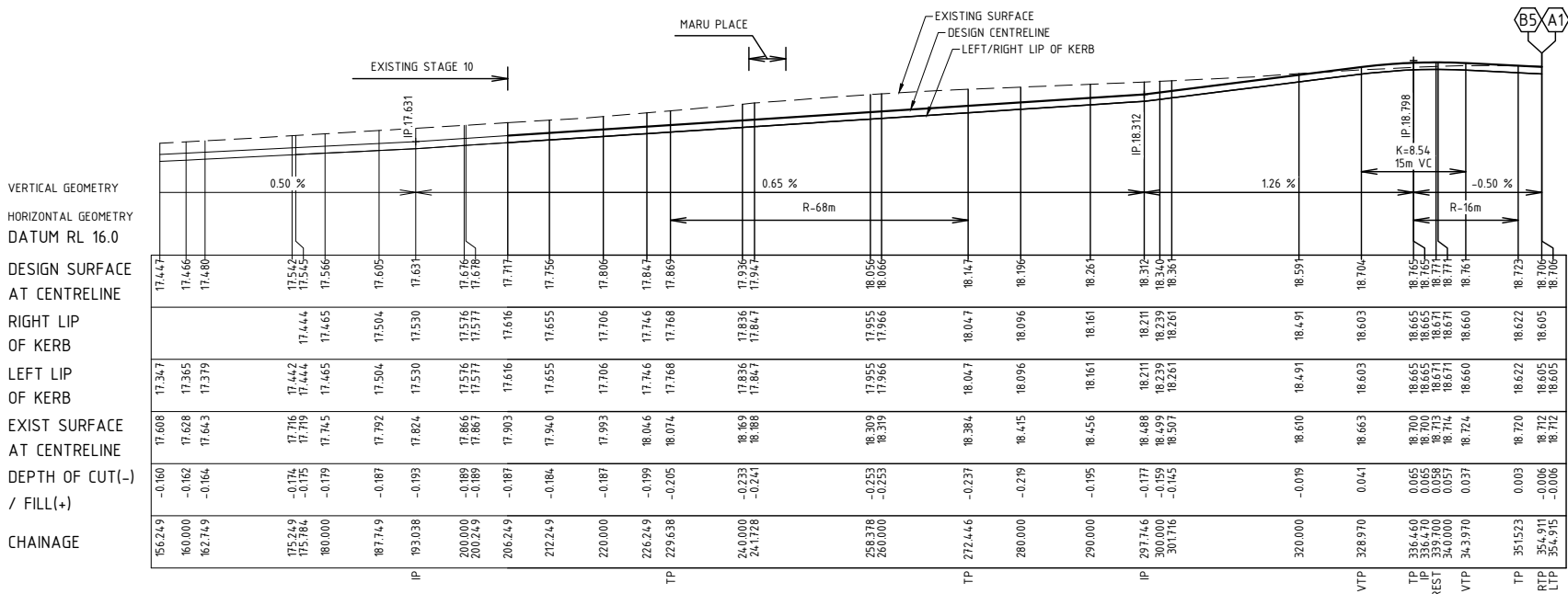
WARNING
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ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	K. BOON	DATE:	FEBRUARY 2020
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	DRAWN	G. ROACHE	SCALE:	N.T.S.
01	FOR APPROVAL	31-03-2020						SURVEY:	CARDNO TGM GEELONG	SHEET SIZE:	A1
								CHECKED:		APPROVED:	
								POS NO:	PS834027D	VERSION:	V1
								PERMIT NO:	1123/2004/A		
WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION											

FOR CONSTRUCTION

LTP = LEFT TANGENT POINT
RTP = RIGHT TANGENT POINT
TP = TANGENT POINT
CREST = HIGH POINT
SAG = LOW POINT
IP = INTERSECTION POINT
B1 = TANGENT POINT NUMBER



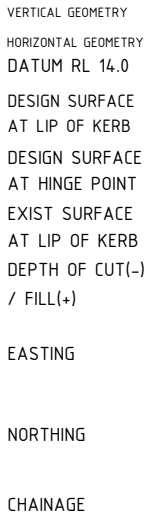
MINNAUNS ROAD - LONGITUDINAL SECTION

HORZ 1:500
VERT 1:50

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	DATE	CLIENT	PROJECT	DRAWING TITLE	TGP REF. No.	SHEET	OF	REV.	APP.
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	K. BOON	H 1:500 V 1:50	FEBRUARY 2020	Cardno	PHALARIS PARK ESTATE	ROAD LONGITUDINAL SECTION	004108-211	6	21	A	
01	FOR APPROVAL	31-03-2020						G. ROACHE	A1		Phalaris Park.	STAGE 11	MINNAUNS ROAD					
CHECKED:									APPROVED:									
POS NO: PS834027D VERSION: V1 PERMIT NO: 1123/2004/A									WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION									
JAS-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001									THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD (R) SYSTEMS AND REMAINS THE PROPERTY OF TGM GROUP Pty Ltd. IT MAY NOT BE REPRODUCED IN ANY FORMAT WITHOUT WRITTEN PERMISSION.									

FOR CONSTRUCTION

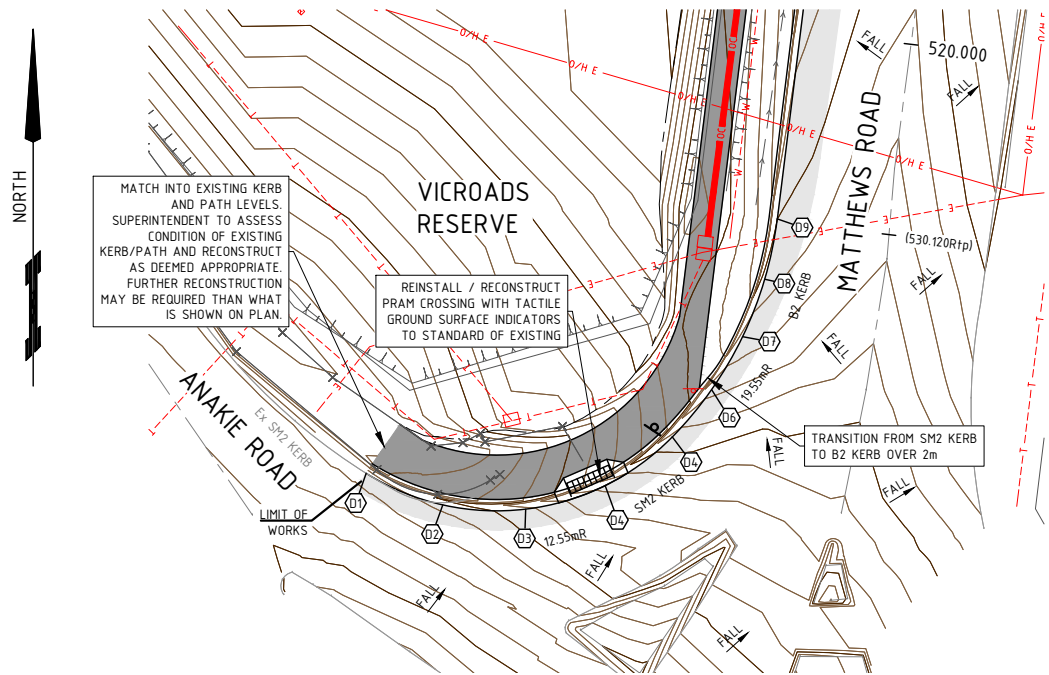
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RTP = RIGHT TANGENT POINT
TP = TANGENT POINT
CREST = HIGH POINT
SAG = LOW POINT
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B1 = TANGENT POINT NUMBER



MATTHEWS ROAD - LONGITUDINAL SECTION

HORZ 1:500
VERT 1:50

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	K.B.OON	DATE:	FEBRUARY 2020	CLIENT:	PROJECT:	
00 01	FOR APPROVAL FOR APPROVAL	28-02-2020 31-03-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	DRAWN G.R.OACHE	SCALE: H 1500 V 150	 ABN 11 125 568 461 Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4000 Fax +61 3 5202 4001 Email: victoria@cardno.com.au Web: www.cardno.com.au	 PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG			
								SURVEY: CARDNO TGM GEELONG	SHEET SIZE: A1			DRAWING TITLE: ROAD LONGITUDINAL SECTION MATTHEWS ROAD		
								CHECKED: 	APPROVED: 				TOR REF No: 004108-211	
								POS. NO: PS834027D	VERSION: V1					SHEET: 7 OF 21 REV A
								PERMIT NO: 1123/2004/A						
WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION. JAS-ANZ Accredited: Quality ISO 9001 - CHAS AS/NZS 4801 - Environment ISO 14001										Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4000 Fax +61 3 5202 4001 Email: victoria@cardno.com.au Web: www.cardno.com.au		THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD AND SYSTEMS AND REMAINS THE PROPERTY OF THE GROUP Pty Ltd. It MAY NOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION.		



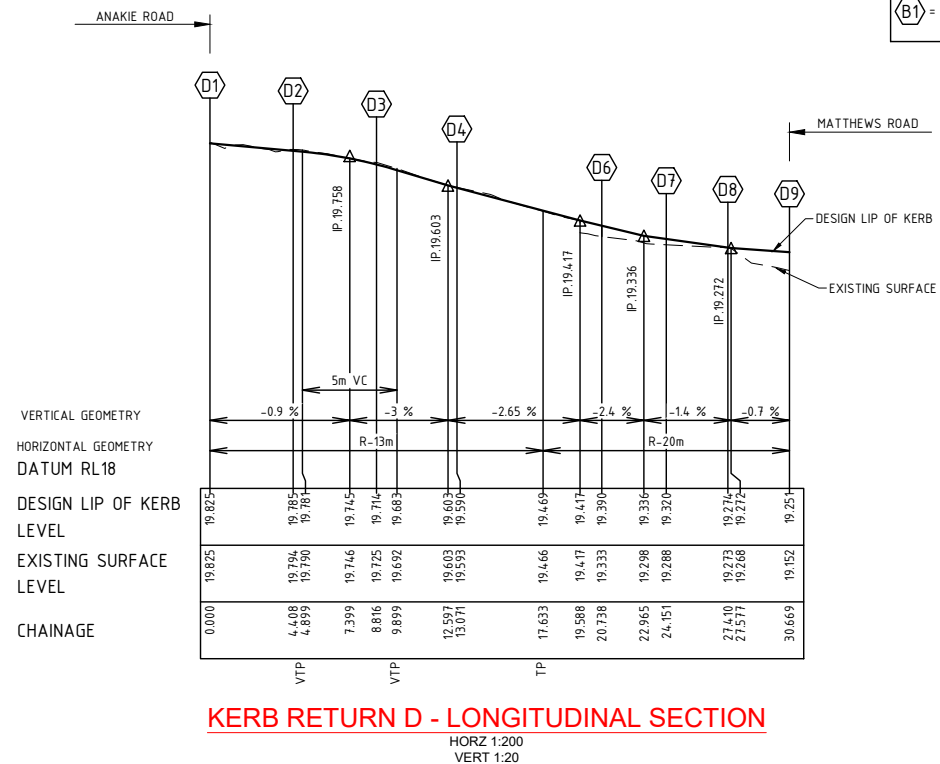
INTERSECTION DETAIL - B
SCALE 1:200



LEGEND

EXISTING FEATURES		PROPOSED	
	OVERHEAD ELECTRICAL & POLES		CENTERLINE CHAINAGS
	SEWER		KERB AND CHANNEL DRIVEWAY LAYBACK (INDICATIVE ONLY)
	WATER		HOTMIX PAVEMENT
	GAS		125mm FOOTPATH
	COMMUNICATIONS		TOP OF BATTER
	ELECTRICAL		TOE OF BATTER
	MAJOR OPTIC		DESIGN CONTOURS (0.05m)
	ROAD CENTERLINE		
	TOP OF BATTER		

FOR CONSTRUCTION



KERB RETURN D - LONGITUDINAL SECTION

HORZ 1:200
VERT 1:20

WARNING

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WARNING

OPTIC FIBER

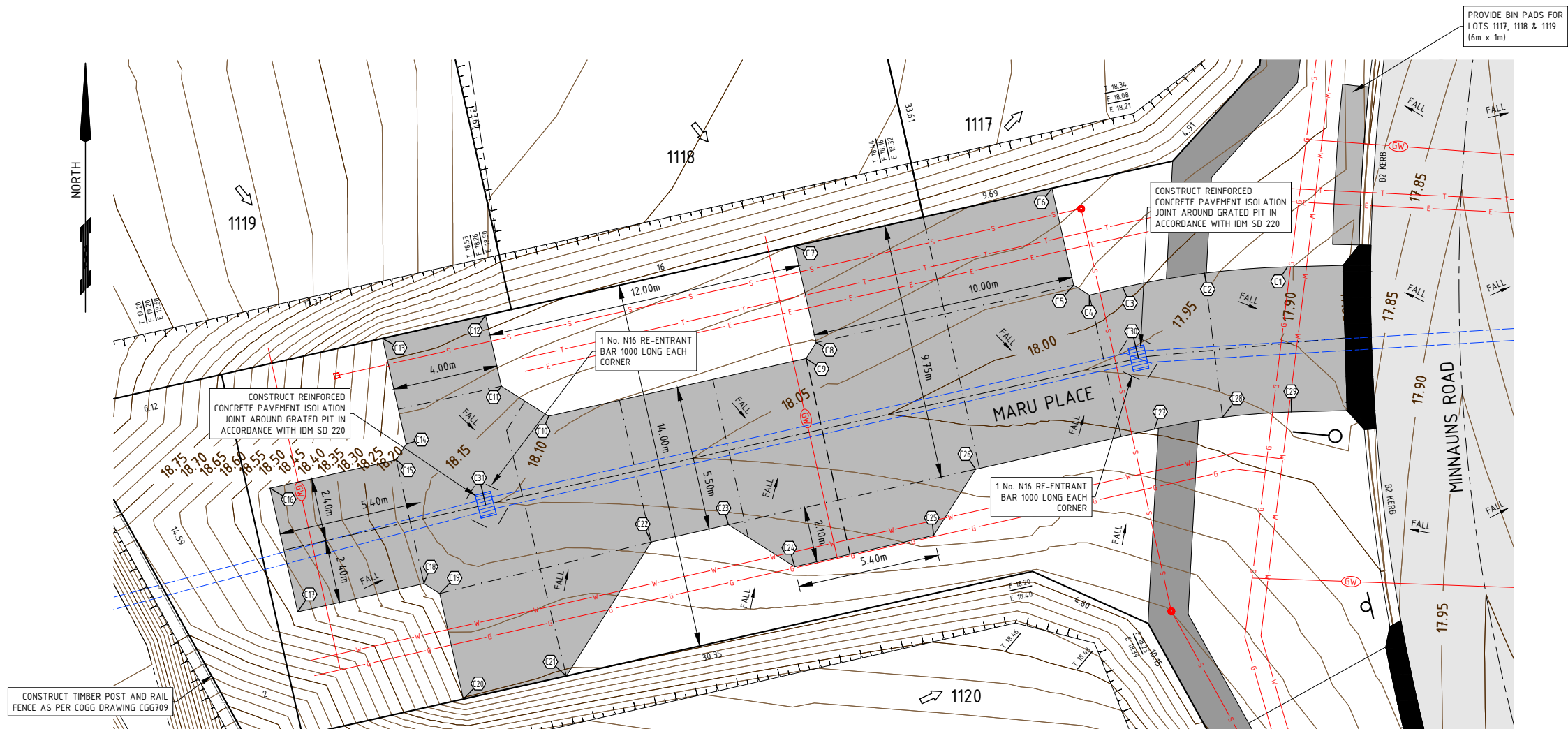
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00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	K. BOON	REFER SHEET	PHALARIS PARK ESTATE	STAGE 11	CIVIL DRAWING
01	FOR APPROVAL	31-03-2020						G. ROACHE	A1	PHALARIS PARK ESTATE	STAGE 11	INTERSECTION DETAIL B & KERB LONGITUDINAL SECTION
										CITY OF GREATER GEELONG		
										TGM REF. No: 004108-211		



LEGEND

PROPOSED

	TOE OF RIDGE LEVELS
	EXISTING SURFACE LEVELS
	FINISHED SURFACE LEVELS
	CENTERLINE CHAINAGES
	KERB AND CHANNEL DRIVEWAY LAYBACK (INDICATIVE ONLY)
	HOTMIX PAVEMENT
	125mm FOOTPATH
	CONCRETE PAVEMENT
	ELECTRICAL
	GAS
	COMMS
	WATER
	SEWER
	DRAINAGE PIPE/PIT
	LOT FALL ARROWS
	TOE OF BATTER
	TOP OF BATTER
	DESIGN CONTOURS (0.05m)
	ROAD CROWN
	SAWN WEAKENED PLANE JOINT (REFER IDM SD 225)
	CONSTRUCTION JOINT (REFER IDM SD 225)
	TIMBER POST AND RAIL FENCE WITH GATE

MARU PLACE DETAIL

SCALE 1:100

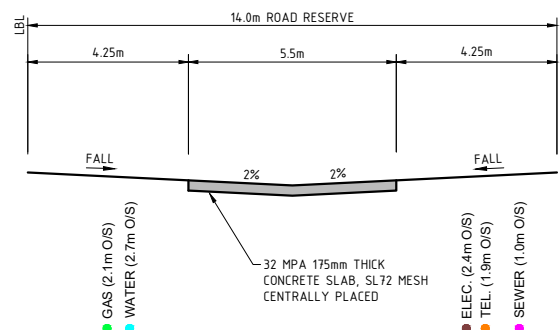


SCALE 1:100 AT A1

WARNING

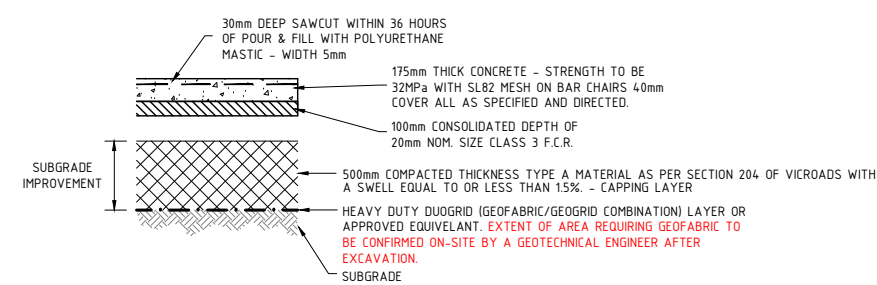
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TYPICAL CROSS SECTION - MARU PLACE

N.T.S



MARU PLACE CONCTETE PAVEMENT DETAIL

N.T.S

FOR CONSTRUCTION

CONCRETE COURT SETOUT: C

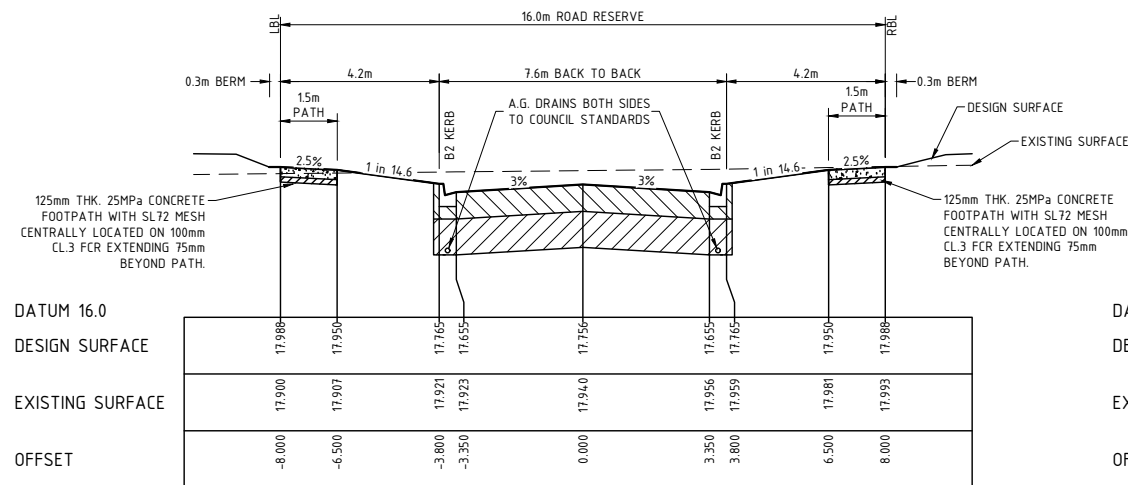
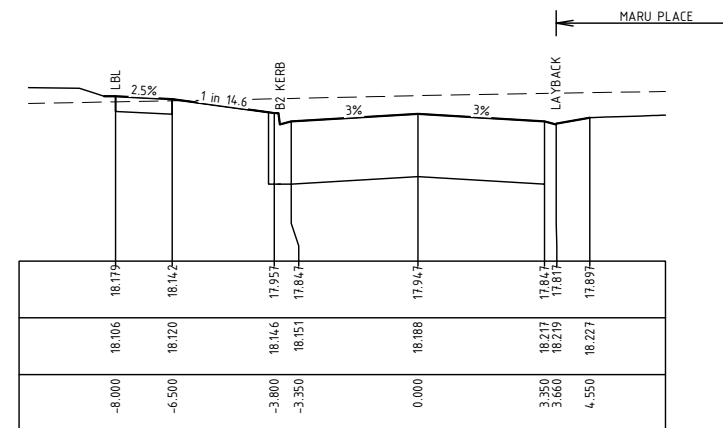
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C2	266387.686	5782018.249	17.96
C3	266384.583	5782017.708	18.017
C4	266383.322	5782017.418	18.04
C5	266382.726	5782017.794	18.054
C6	266381.903	5782021.463	18.126
C7	266372.145	5782019.275	18.199
C8	266372.966	5782015.616	18.098
C9	266372.587	5782015.018	18.079
C10	266362.83	5782012.83	18.106
C11	266361.038	5782013.966	18.176
C12	266360.436	5782016.649	18.268
C13	266356.533	5782015.774	18.27
C14	266357.43	5782011.773	18.17
C15	266357.052	5782011.176	18.186
C16	266352.27	5782010.104	18.492
C17	266353.321	5782005.42	18.562
C18	266358.102	5782006.492	18.199
C19	266358.699	5782006.114	18.18
C20	266359.596	5782002.113	18.251
C21	266363.501	5782002.991	18.254
C22	266366.717	5782008.065	18.138
C23	266369.644	5782008.722	18.112
C24	266372.152	5782007.132	18.142
C25	266377.422	5782008.314	18.088
C26	266379.011	5782010.822	18.031
C27	266385.787	5782012.342	17.994
C28	266388.368	5782012.791	17.968
C29	266390.981	5782012.991	17.941
C30	266385.185	5782015.025	17.936
C31	266360.442	5782009.476	18.103

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	CLIENT	PROJECT	DRAWING TITLE	TGP REF. No.	SHEET	OF	REV.	A
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	K. BOON	REFER SHEET	Cardno TGM	PHALARIS PARK ESTATE	CONCRETE COURT DETAIL	004108-211	10	21	A	A
01	FOR APPROVAL	31-03-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	G. ROACHE	A1	Cardno TGM	STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG	CONCRETE COURT DETAIL	004108-211	10	21	A	A

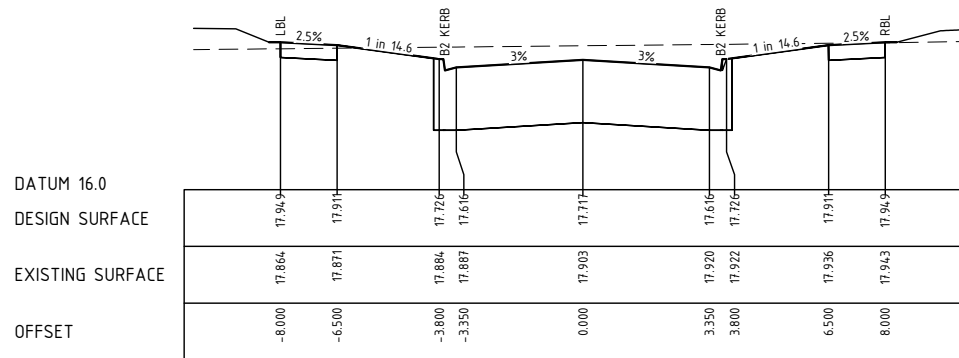
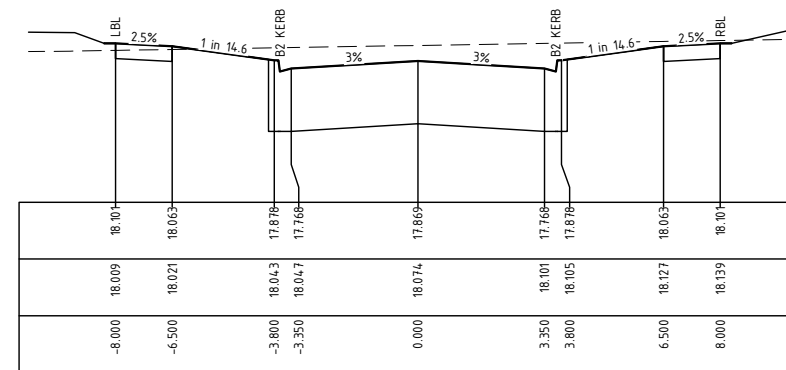
FOR CONSTRUCTION

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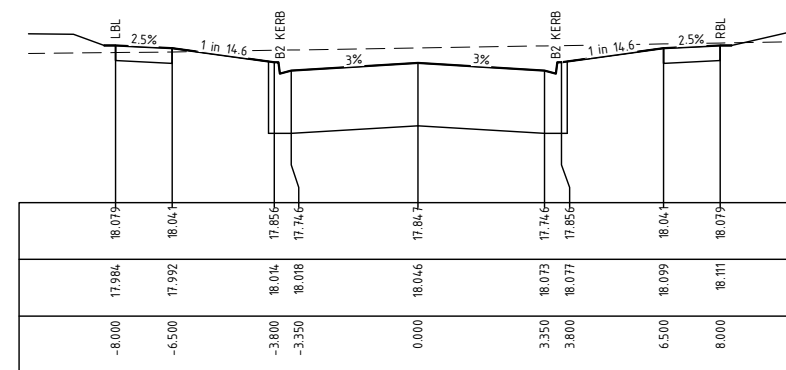
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DESIGN SURFACE
EXISTING SURFACE
OFFSET



DATUM 16.0
DESIGN SURFACE
EXISTING SURFACE
OFFSET



DATUM 16.0
DESIGN SURFACE
EXISTING SURFACE
OFFSET



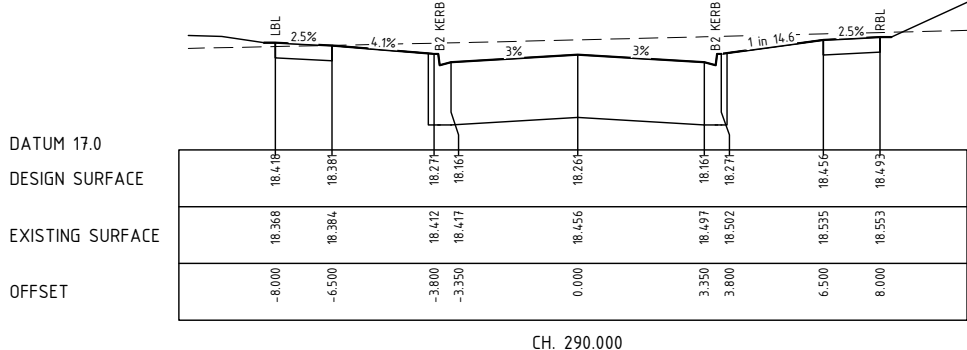
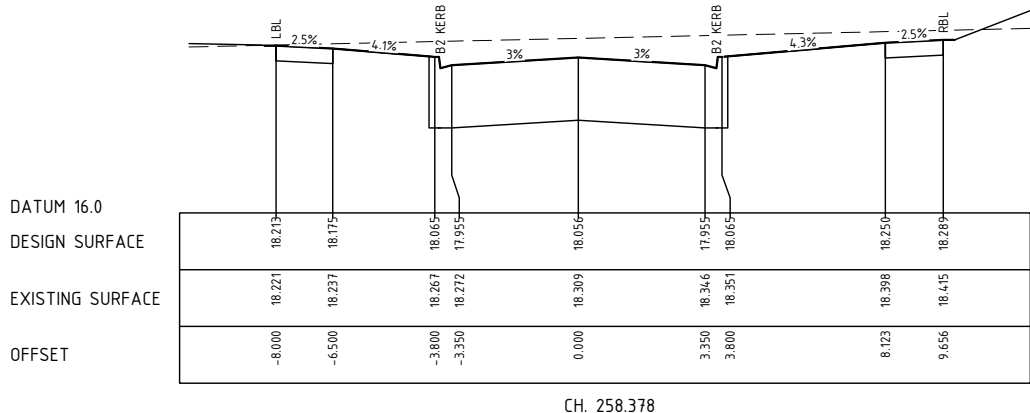
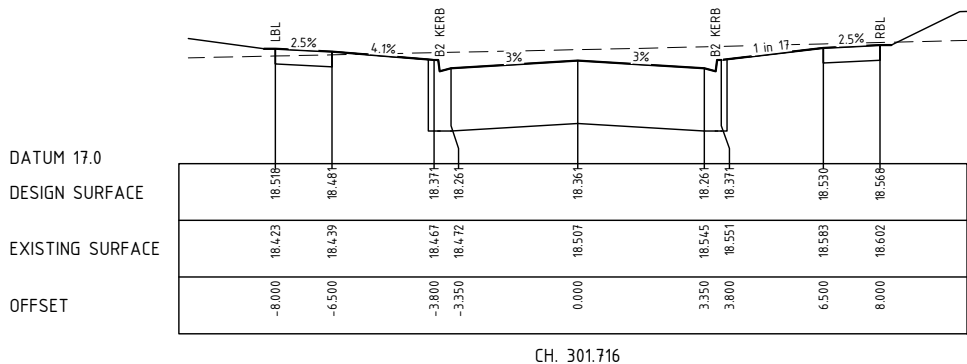
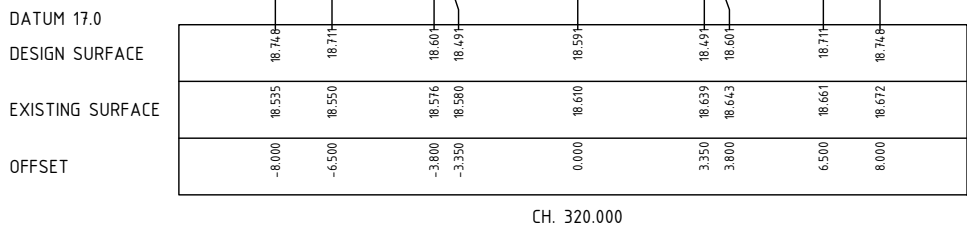
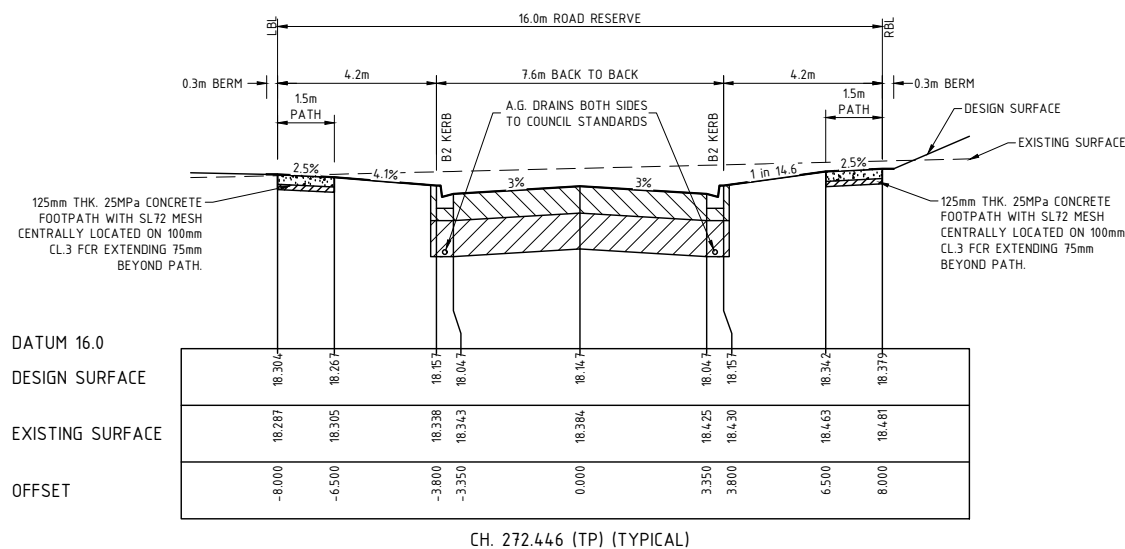
MINNAUNS ROAD - CROSS SECTIONS

HORZ 1:100
VERT 1:50

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	CLIENT	PROJECT	CIVIL DRAWING
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	K. BOON	H 1:100 V 1:50	Phalaris Park.	PHALARIS PARK ESTATE	DRAWING TITLE:
01	FOR APPROVAL	31-03-2020						G. ROACHE	SHEET SIZE: A1		STAGE 11	ROAD CROSS SECTIONS
								CARDNO TGM GEELONG			MATTHEWS ROAD	MINNAUNS ROAD
								CHECKED: [Signature]	APPROVED: [Signature]		LOVELY BANKS, VIC, 3221	TGP REF. No. 004108-211
								POS NO: PS834027D VERSION: V1 PERMIT NO: 1123/2004/A			CITY OF GREATER GEELONG	SHEET: 11 OF 21 REV: A
WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION									THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD (R) SYSTEMS AND REMAINS THE PROPERTY OF TGM GROUP Pty Ltd. IT MAY NOT BE REPRODUCED IN ANY FORMAT WITHOUT WRITTEN PERMISSION			
JAS-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001									ABN 11 125 568 461 Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4800 Fax +61 3 5202 4891 Email: victoria@cardno.com.au Web: www.cardno.com			

FOR CONSTRUCTION

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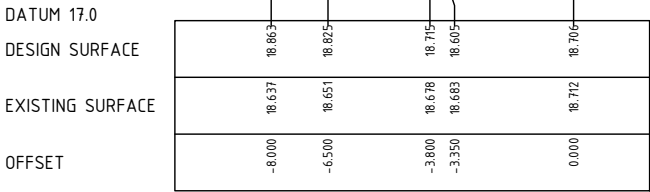
MINNAUNS ROAD - CROSS SECTIONS

HORZ 1:100
VERT 1:50

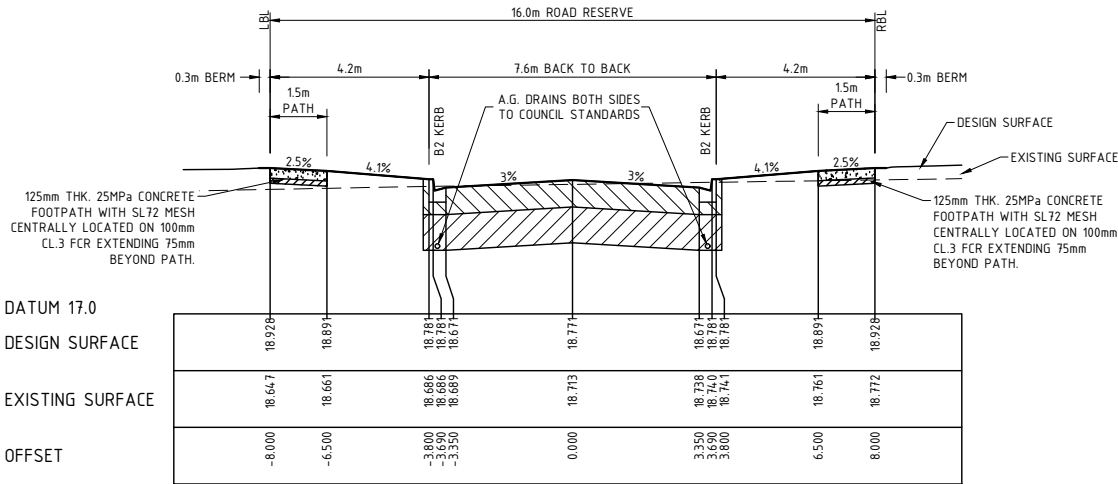
ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	CLIENT	PROJECT	CIVIL DRAWING
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	K. BOON	H 1:100 V 1:50	Phalaris Park.	PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG	DRAWING TITLE: ROAD CROSS SECTIONS MINNAUNS ROAD
01	FOR APPROVAL	31-03-2020	A					G. ROACHE	A1			TGP REF. No.: 004108-211
								CARDNO TGM GEELONG				SHEET: 12 OF 21
								CHECKED: [Signature]	APPROVED: [Signature]			REV: A
								POS NO: PS834027D	PERMIT NO: 1123/2004/A			
								WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION				
								ABN 11 125 568 461 Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4800 Fax +61 3 5202 4891 Email: victoria@cardno.com.au Web: www.cardno.com				
								JAS-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001				

FOR CONSTRUCTION

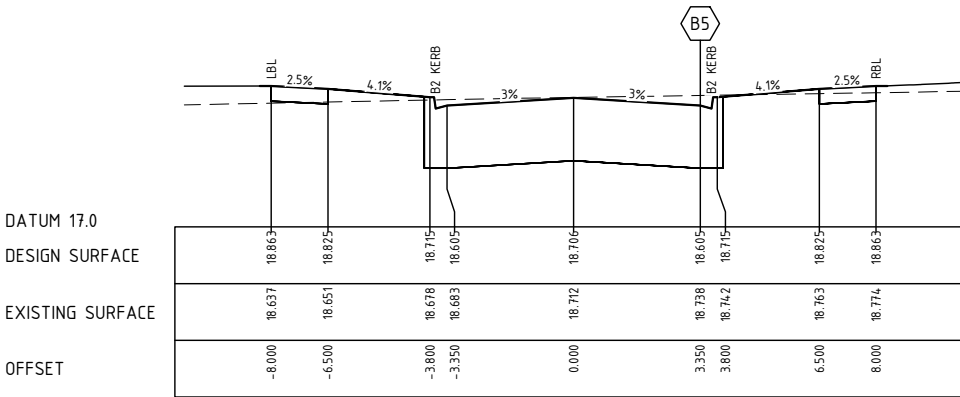
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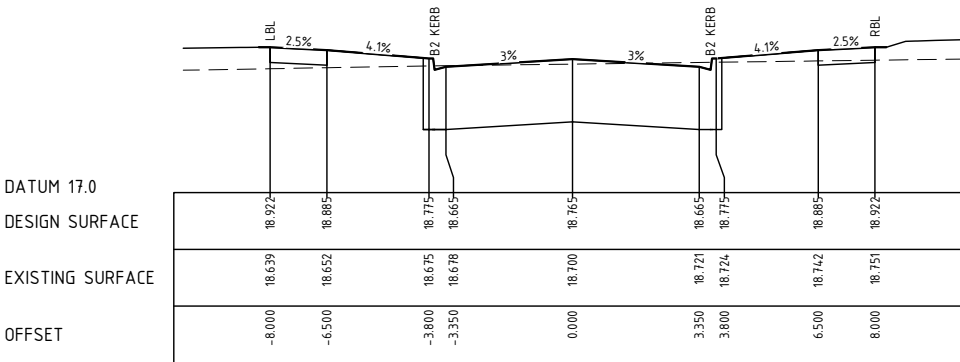
CH. 354.915 (LTP)



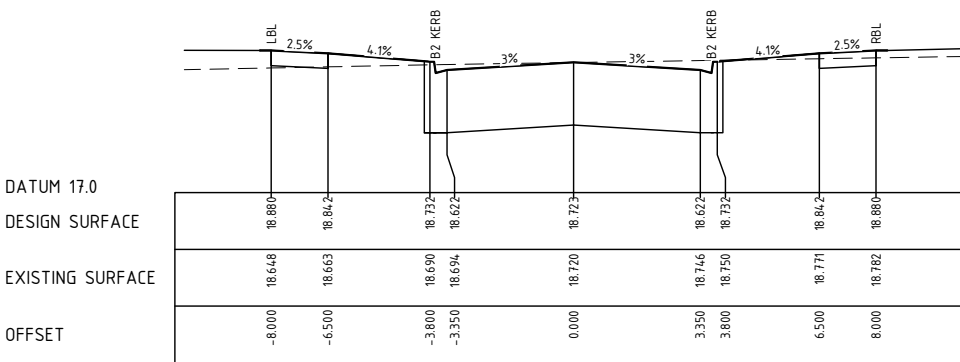
CH. 339.7.00 (CREST) (TYPICAL)



CH. 354.911 (RTP)



CH. 336.460 (TP)



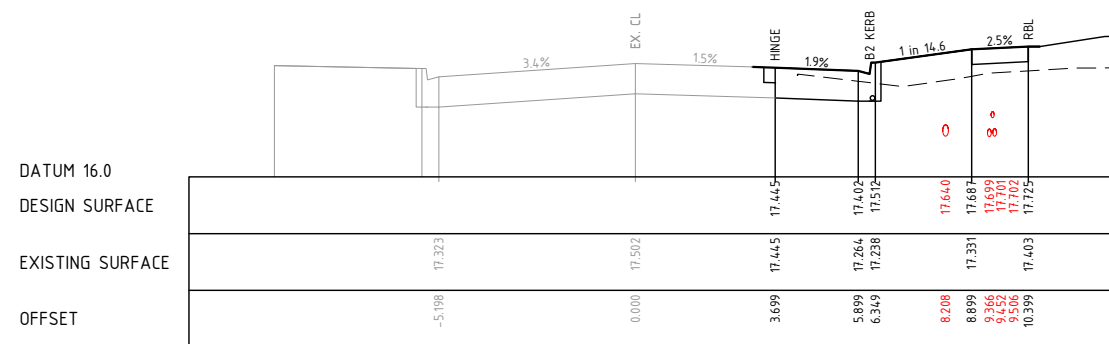
CH. 351.523 (TP)

MINNAUNS ROAD - CROSS SECTIONS

HORZ 1:100
VERT 1:50

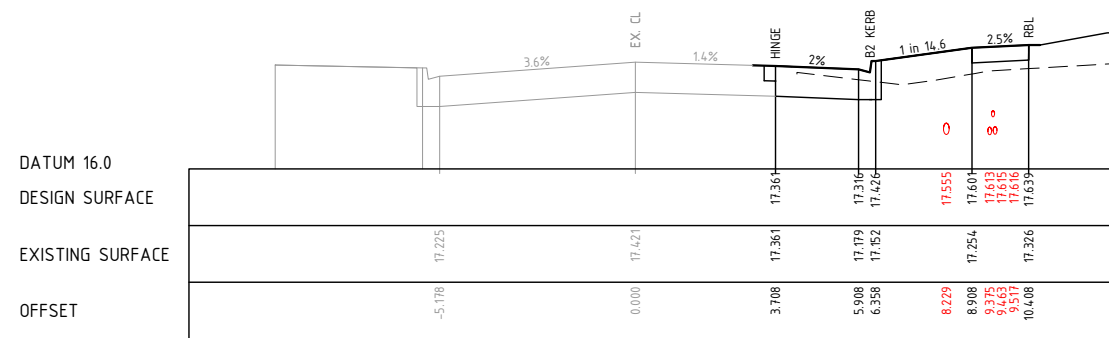
ISSUE		ISSUED FOR		DATE	No.	AMENDMENT		DATE	DRAWN	APPROVED	DESIGNED	K. BOON		DATE:	FEBRUARY 2020		<div>CLIENT:</div> <div></div> <div>PROJECT:</div> <div>PHALARIS PARK ESTATE</div> <div>STAGE 11</div> <div>MATTHEWS ROAD</div> <div>LOVELY BANKS, VIC, 3221</div> <div>CITY OF GREATER GEELONG</div>	<div></div> <div>Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220</div> <div>Phone +61 3 5202 4000 Fax +61 3 5202 4001</div> <div>Email: victoria@cardno.com.au Web: www.cardno.com</div> <div>WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION.</div> <div>JAS-ANZ Accredited: Quality ISO 9001 - CHAS AS/NZS 4801 - Environment ISO 14001</div>	<div>THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD IN SYSTEMS AND REPAINS THE PROPERTY OF TGM GROUP Pty Ltd. IT MAY NOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION.</div>	<div>TOR REF No:</div> <div>004108-211</div>	<div>SHEET</div> <div>13</div> <div>OF</div> <div>21</div> <div>REV</div> <div>A</div>
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	DRAWN	G.ROACHE	SCALE:	H: 1/100 V: 1/50										
01	FOR APPROVAL	31-03-2020						SURVEY:	CARDNO TGM GEELONG	SHEET SIZE:	A1										
								CHECKED:		APPROVED:											
								POS. NO:	PS834027D	VERSION:	V1	PERMIT NO:	1123/2004/A								

FOR CONSTRUCTION



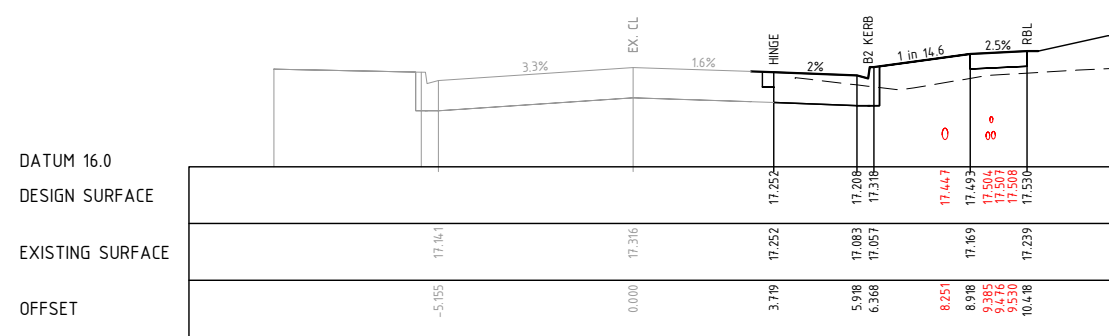
CH. 307.378

EX. WATER OL 16.689
EX. TEL. OL 16.633
EX. TEL. OL 16.633
EX. TEL. OL 16.633



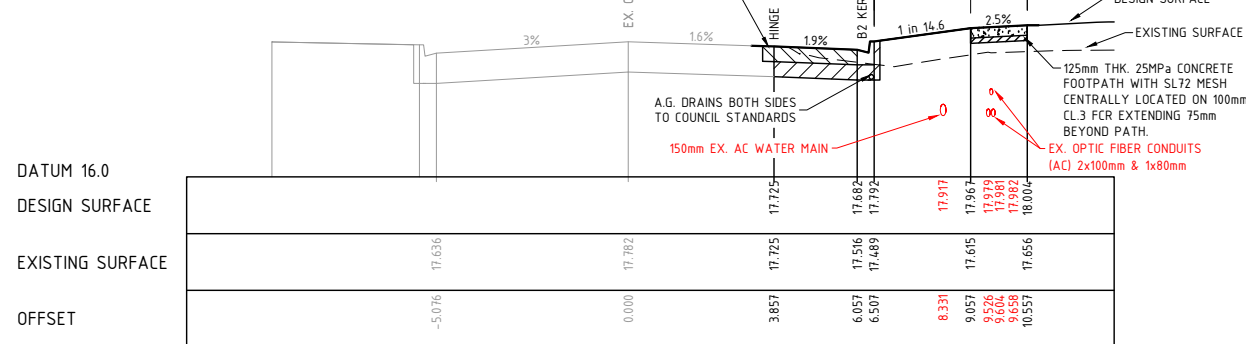
CH. 294.878

EX. WATER OL 16.605
EX. TEL. OL 16.551
EX. TEL. OL 16.551
EX. TEL. OL 16.558



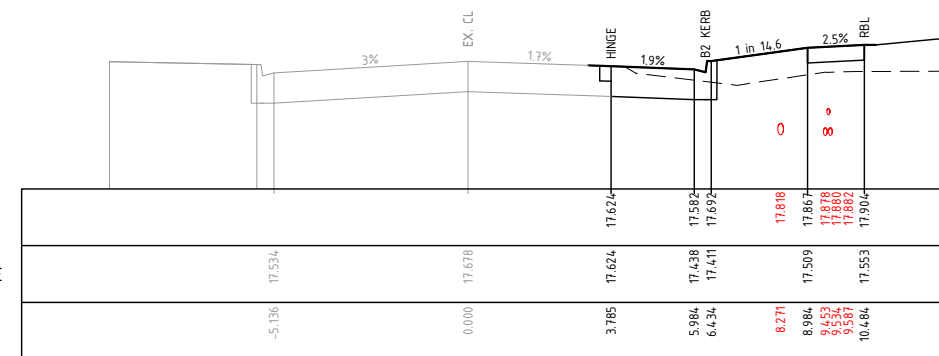
CH. 280.878 (START)

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EX. TEL. OL 16.460
EX. TEL. OL 16.460
EX. TEL. OL 16.468



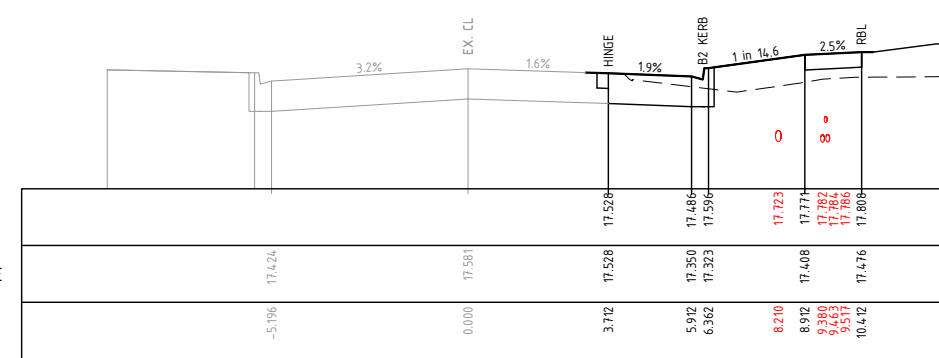
CH. 347.878 (TYPICAL)

EX. WATER OL 16.961
EX. TEL. OL 16.898
EX. TEL. OL 17.366
EX. TEL. OL 16.898



CH. 333.878

EX. WATER OL 16.867
EX. TEL. OL 16.806
EX. TEL. OL 17.061
EX. TEL. OL 16.808



CH. 319.878

EX. WATER OL 16.773
EX. TEL. OL 16.715
EX. TEL. OL 16.566
EX. TEL. OL 16.718

LTP = LEFT TANGENT POINT
RTP = RIGHT TANGENT POINT
TP = TANGENT POINT
CREST = HIGH POINT
SAG = LOW POINT
IP = INTERSECTION POINT
B1 = TANGENT POINT NUMBER

MATTHEWS ROAD - CROSS SECTIONS

HORZ 1:100
VERT 1:50

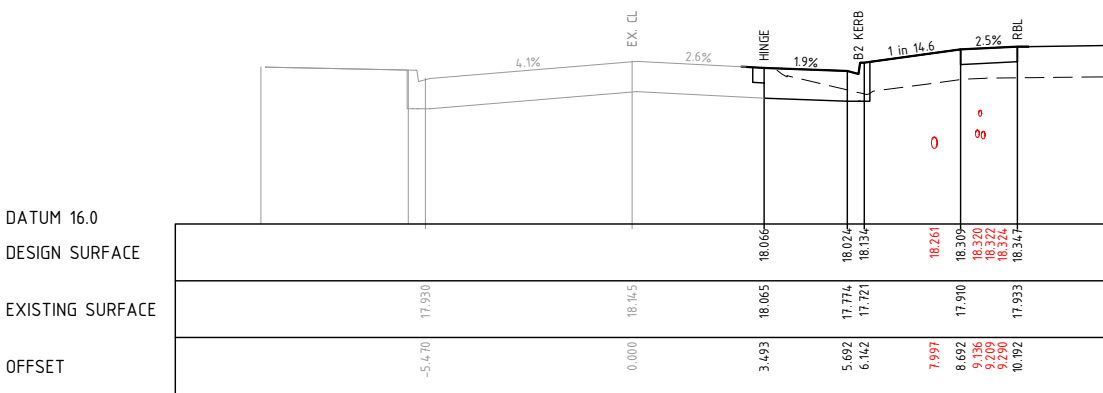
ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	DATE	CLIENT	PROJECT	CIVIL DRAWING
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	K. BOON	H 1:100 V 1:50	FEBRUARY 2020	Phalaris Park.	PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG	DRAWING TITLE: ROAD CROSS SECTIONS MATTHEWS ROAD
01	FOR APPROVAL	31-03-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	G. ROACHE	A1				
CHECKED:									APPROVED:				
POS NO: PS834027D VERSION: V1 PERMIT NO: 1123/2004/A									WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION				
JAB-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001									THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD (R) SYSTEMS AND REMAINS THE PROPERTY OF TGM GROUP Pty Ltd. IT MAY NOT BE REPRODUCED IN ANY FORMAT WITHOUT WRITTEN PERMISSION				

004108-211

14 OF 21

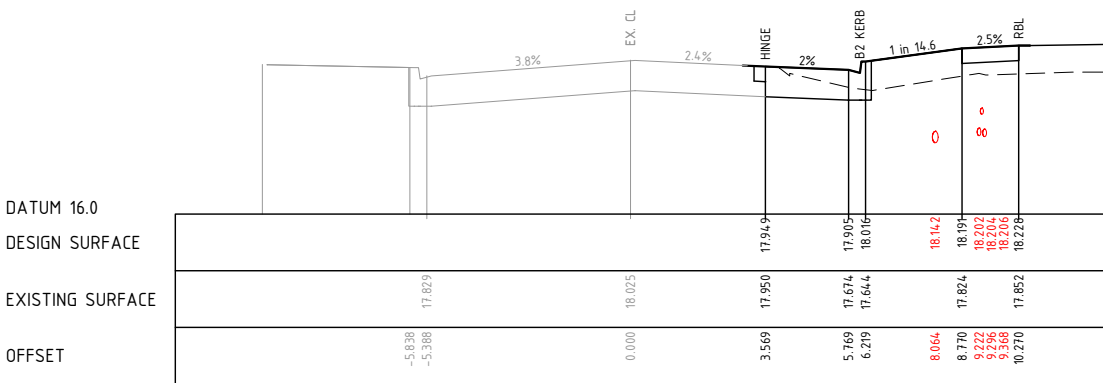
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FOR CONSTRUCTION



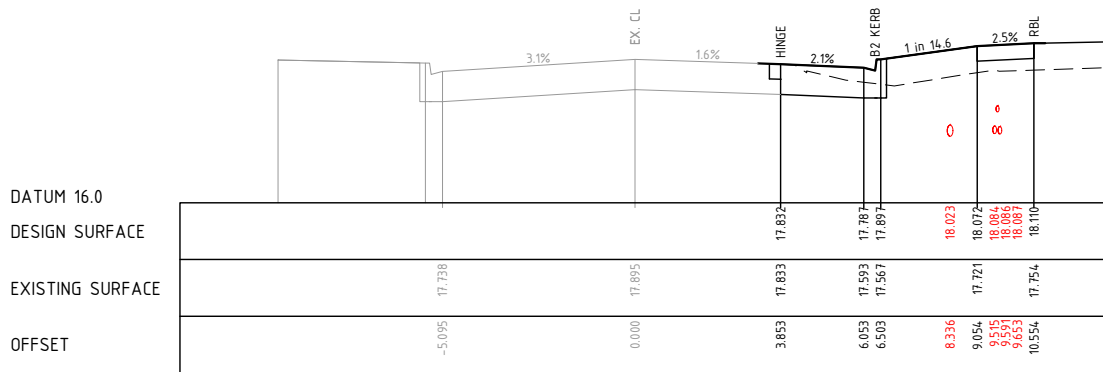
CH. 388.378

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EX. TEL. OL 17.243
EX. TEL. OL 17.226
EX. TEL. OL 17.226



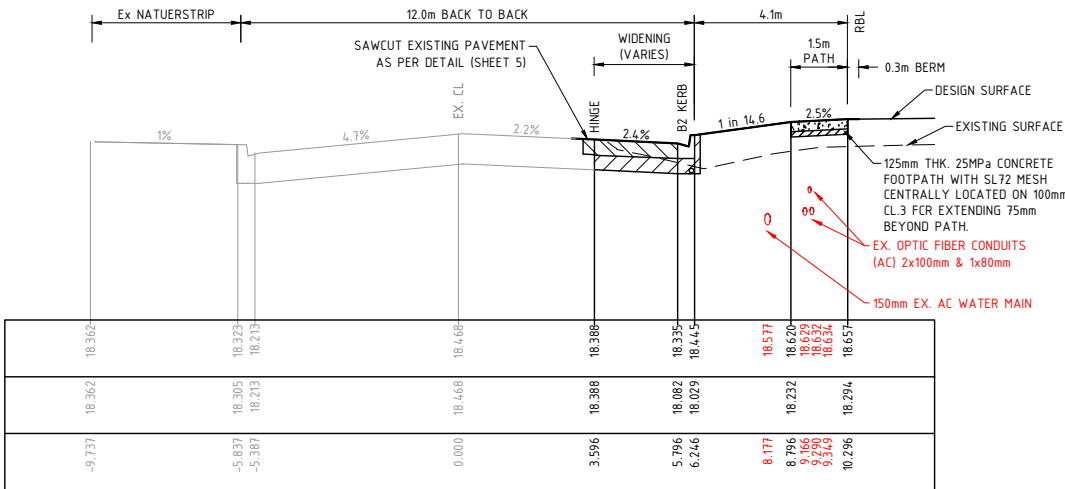
CH. 375.878

EX. WATER OL 17.093
EX. TEL. OL 17.136
EX. TEL. OL 17.120
EX. TEL. OL 17.124



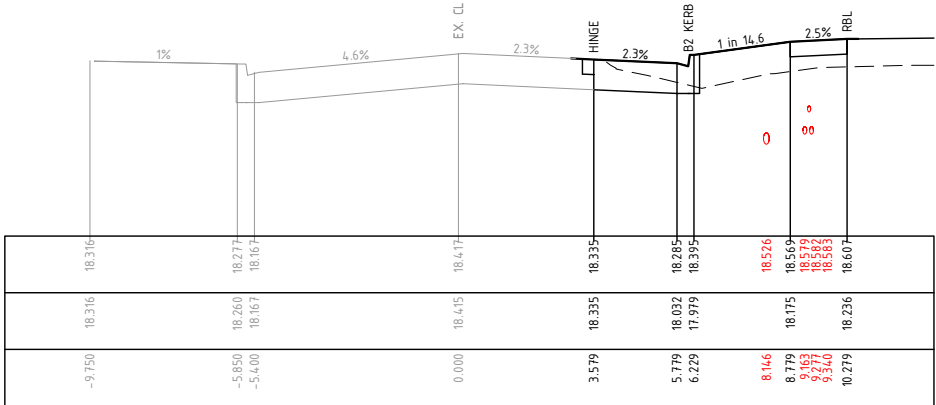
CH. 361.878

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EX. TEL. OL 17.205
EX. TEL. OL 17.189
EX. TEL. OL 17.189



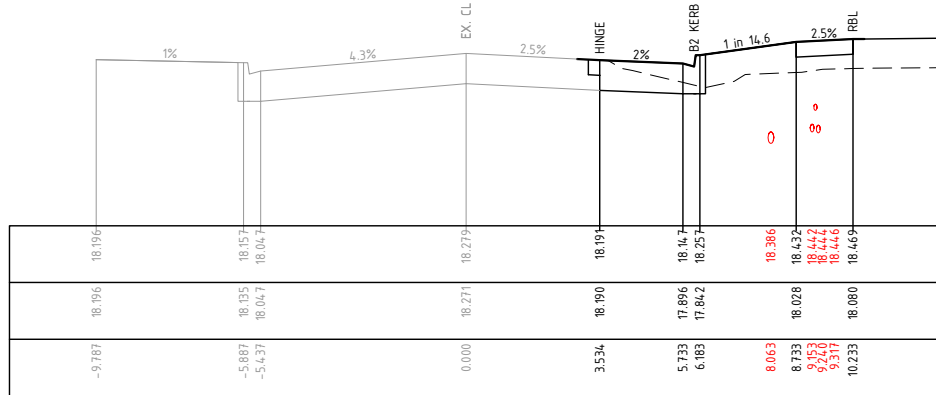
CH. 420.000 (TYPICAL)

EX. WATER OL 17.410
EX. TEL. OL 17.486
EX. TEL. OL 17.762
EX. TEL. OL 17.451



CH. 414.878

EX. WATER OL 17.364
EX. TEL. OL 17.447
EX. TEL. OL 17.721
EX. TEL. OL 17.447



CH. 400.878

EX. WATER OL 17.241
EX. TEL. OL 17.309
EX. TEL. OL 17.309
EX. TEL. OL 17.309

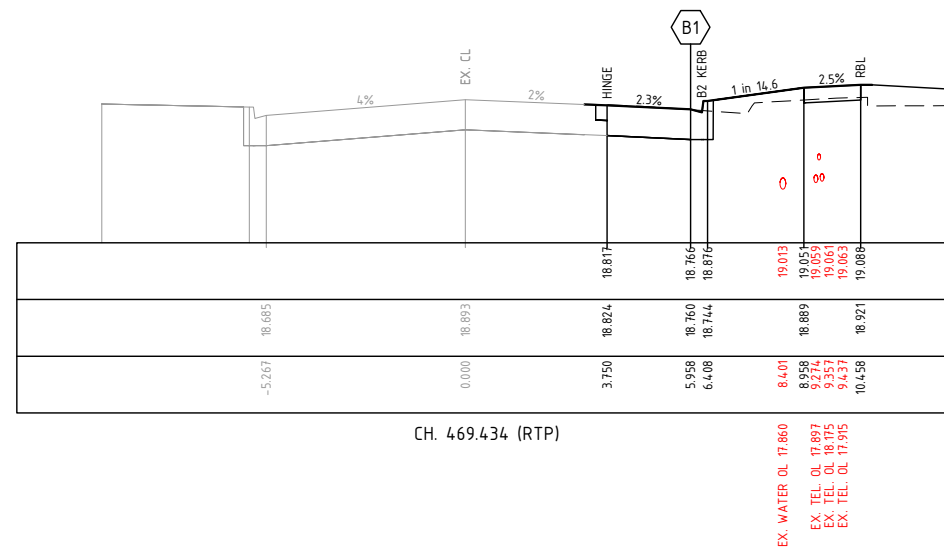
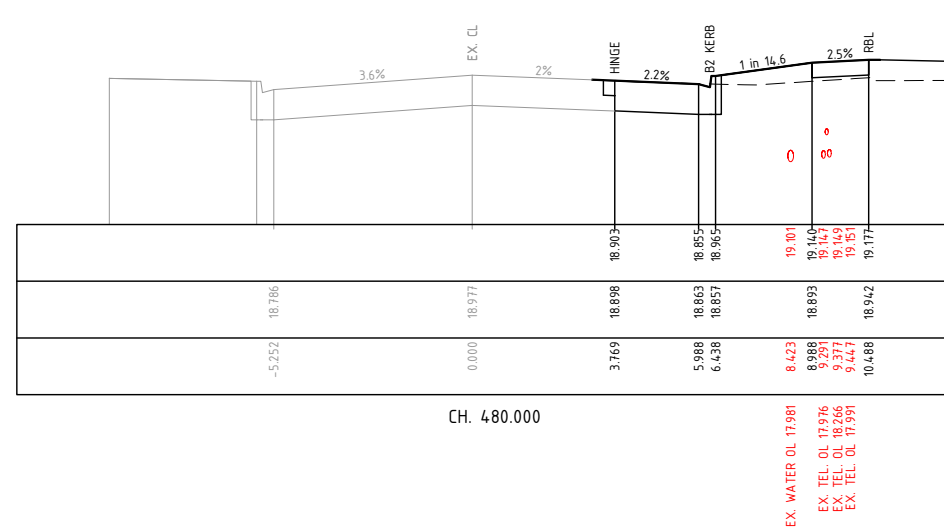
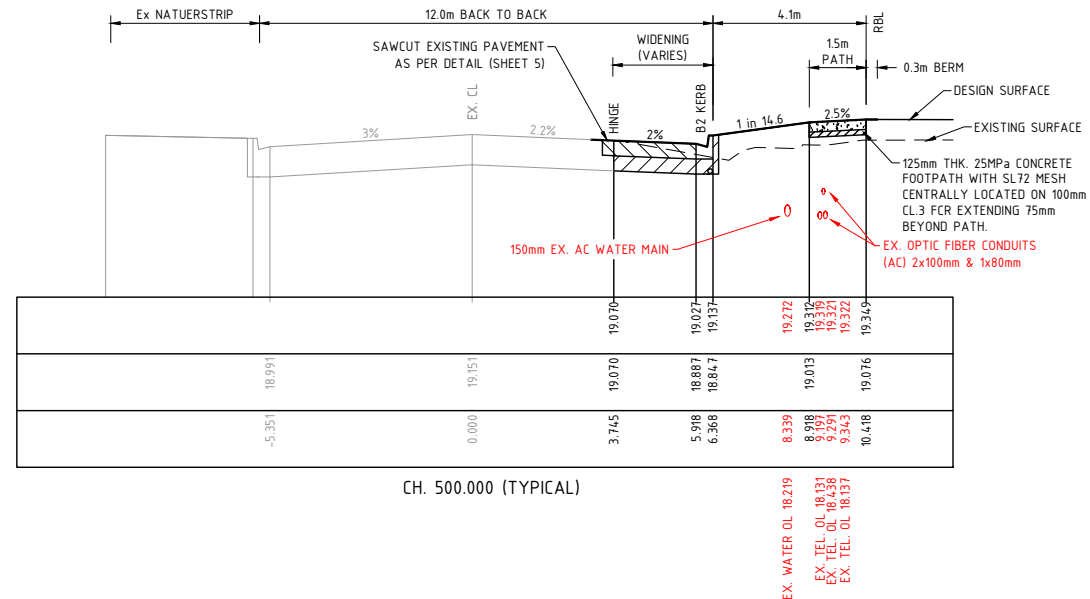
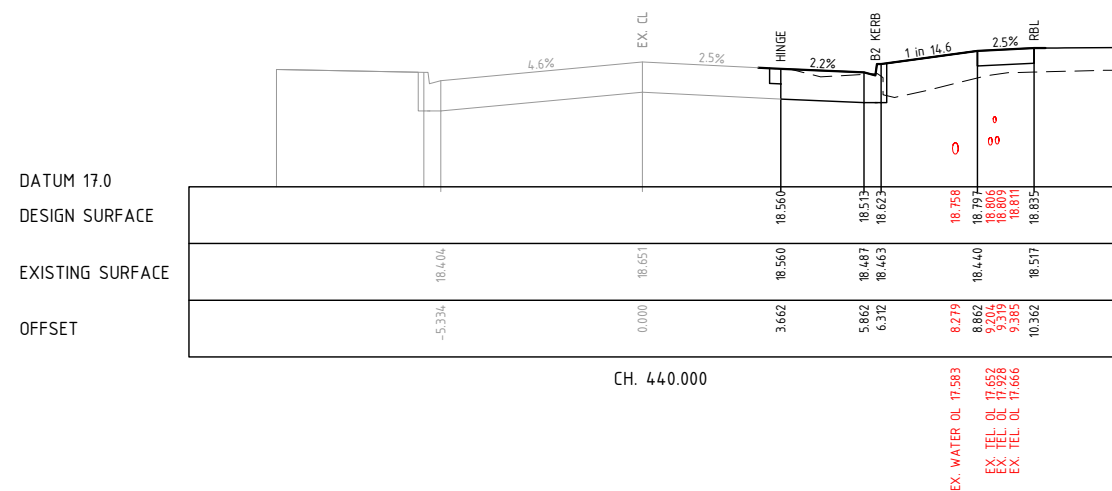
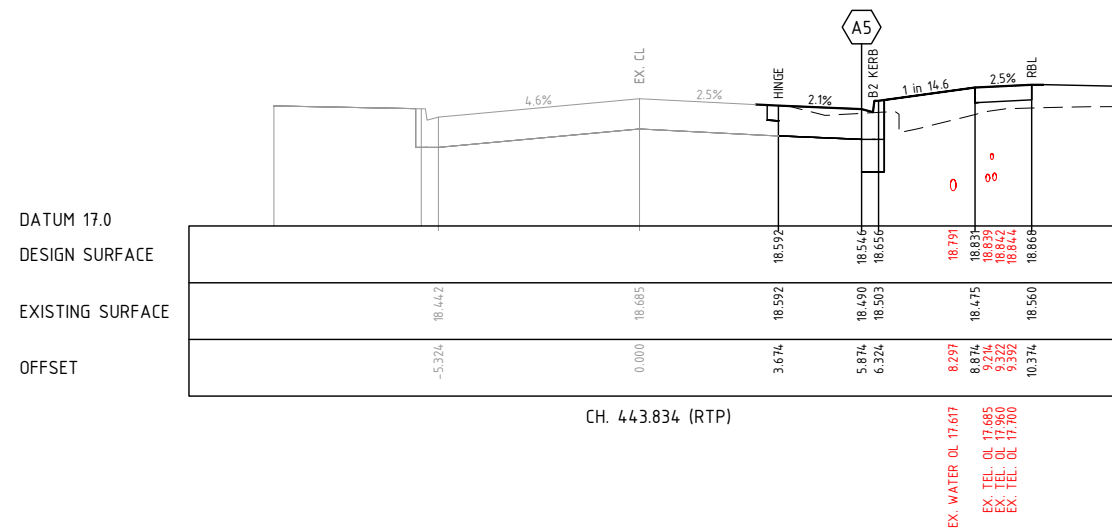
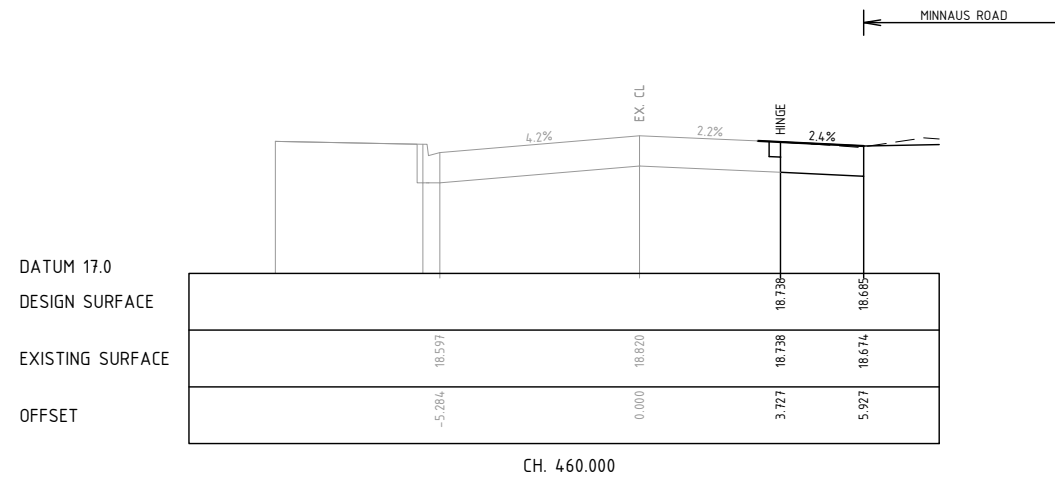
LTP = LEFT TANGENT POINT
RTP = RIGHT TANGENT POINT
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CREST = HIGH POINT
SAG = LOW POINT
IP = INTERSECTION POINT
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MATTHEWS ROAD - CROSS SECTIONS

HORZ 1:100
VERT 1:50

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	CLIENT	PROJECT	CIVIL DRAWING
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	K. BOON	H 1:100 V 1:50	PHALARIS PARK ESTATE	STAGE 11	DRAWING TITLE:
01	FOR APPROVAL	31-03-2020						G. ROACHE	SHEET SIZE: A1	MATTHEWS ROAD	LOVELY BANKS, VIC, 3221	ROAD CROSS SECTIONS
								CARDNO TGM GEELONG				MATTHEWS ROAD
								CHECKED: [Signature]	APPROVED: [Signature]			TGP REF. No:
								POS NO: PS834027D	VERSION: V1			004108-211
								PERMIT NO: 1123/2004/A				SHEET: 15 OF 21
								WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION				REV: A
								ABN 11 125 568 461				
								Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220				
								Phone +61 3 5202 4800 Fax +61 3 5202 4891				
								Email: victoria@cardno.com.au Web: www.cardno.com				
								JAS-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001				
								THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD (R) SYSTEMS AND REMAINS THE PROPERTY OF TGM GROUP Pty Ltd. IT MAY NOT BE REPRODUCED IN ANY FORMAT WITHOUT WRITTEN PERMISSION				

FOR CONSTRUCTION



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MATTHEWS ROAD - CROSS SECTIONS

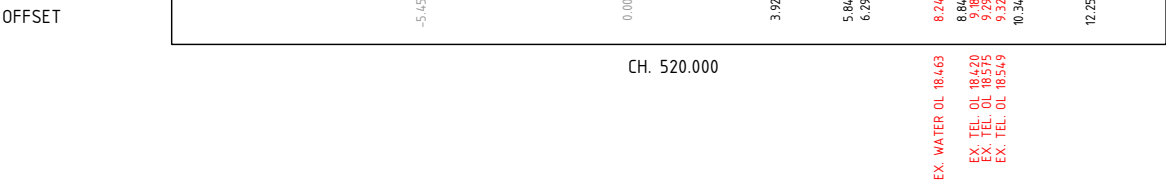
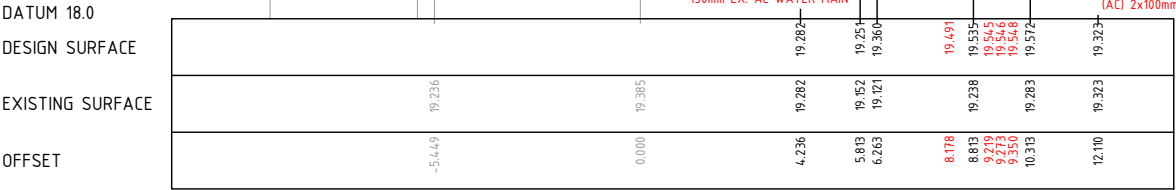
HORZ 1:100
VERT 1:50

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	DATE	CLIENT	PROJECT	CIVIL DRAWING
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	K. BOON	H 1:100 V 1:50	FEBRUARY 2020	Cardno TGM	PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG	DRAWING TITLE: ROAD CROSS SECTIONS MATTHEWS ROAD
01	FOR APPROVAL	31-03-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	G. ROACHE	SHEET SIZE: A1				
WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION													
JAB-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001													
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TGM REF. No.: 004108-211													
SHEET 16 OF 21 REV. A													

FOR CONSTRUCTION

LTP = LEFT TANGENT POINT
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CREST = HIGH POINT
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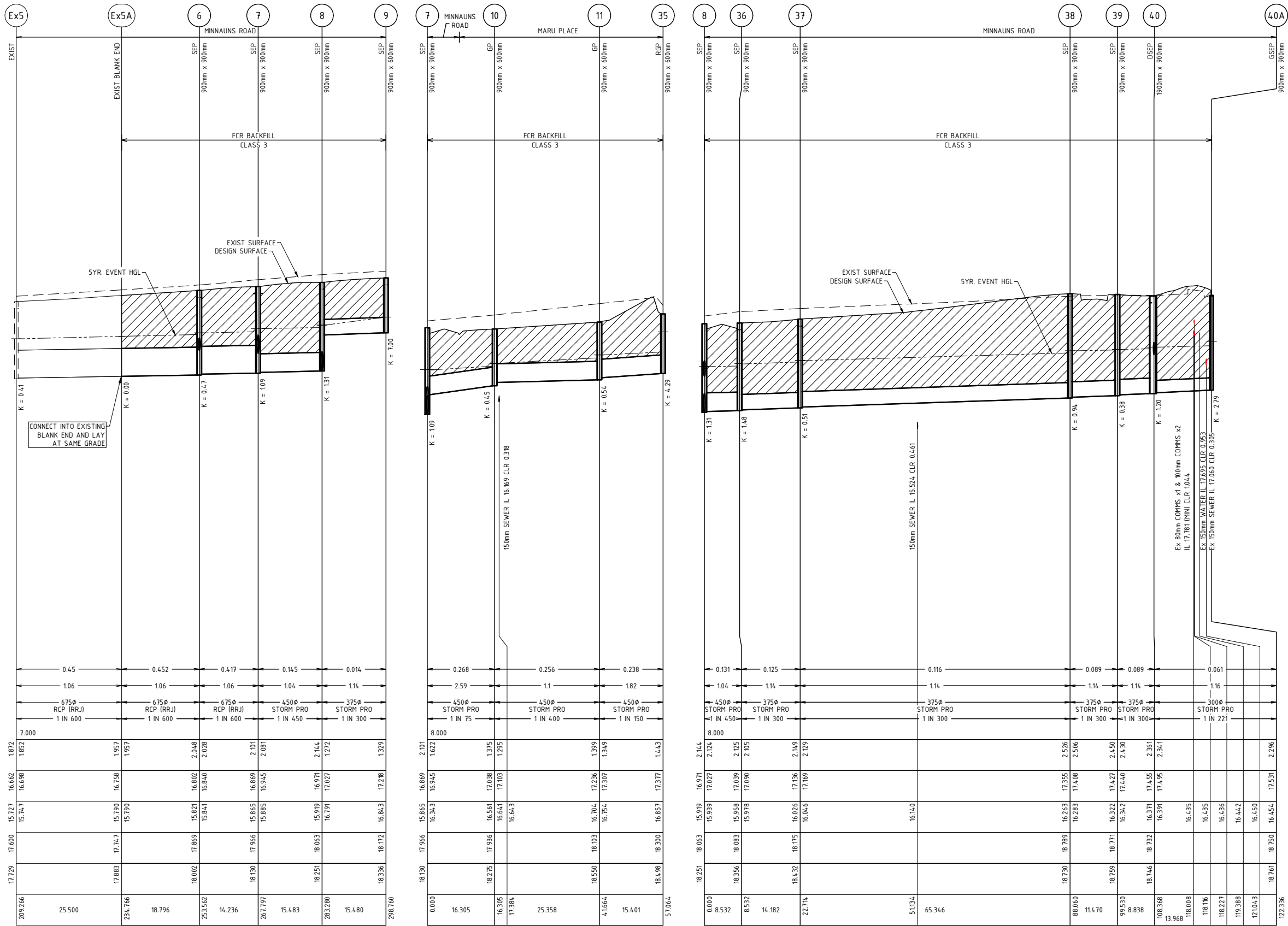
 = TANGENT POINT NUMBER



MATTHEWS ROAD - CROSS SECTIONS

HORZ 1:100
VERT 1:50

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	K. BOON	DATE:	FEBRUARY 2020	CLIENT:	PROJECT:
00 01	FOR APPROVAL FOR APPROVAL	28-02-2020 31-03-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	DRAWN G. ROACHE	SCALE: H 1:100 V 1:50	 ABN 11 125 568 461 Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4000 Fax +61 3 5202 4001 Email: victoria@cardno.com.au Web: www.cardno.com.au JAS-ANZ Accredited: Quality ISO 9001 - CHAS AS/NZS 4801 - Environment ISO 14001	 PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG		
								SURVEY: CARDNO TGM GEELONG	SHEET SIZE: A1				
								CHECKED: 	APPROVED: 				
								POS. NO: PS834027D	VERSION: V1			PERMIT NO: 1123/2004/A	
								WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION.					
THIS ELECTRONIC DRAWING IS PRODUCED BY AUTOCAD AND SYSTEMS AND REMAINS THE PROPERTY OF TGM GROUP Pty Ltd. It MAY NOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION.													
<div></div>												DRAWING TITLE: ROAD CROSS SECTIONS MATTHEWS ROAD	
TOR REF No: 004108-211												SHEET: 17 OF 21 REV: A	



DRAINAGE LONGITUDINAL SECTIONS

HORZ 1:500
VERT 1:50

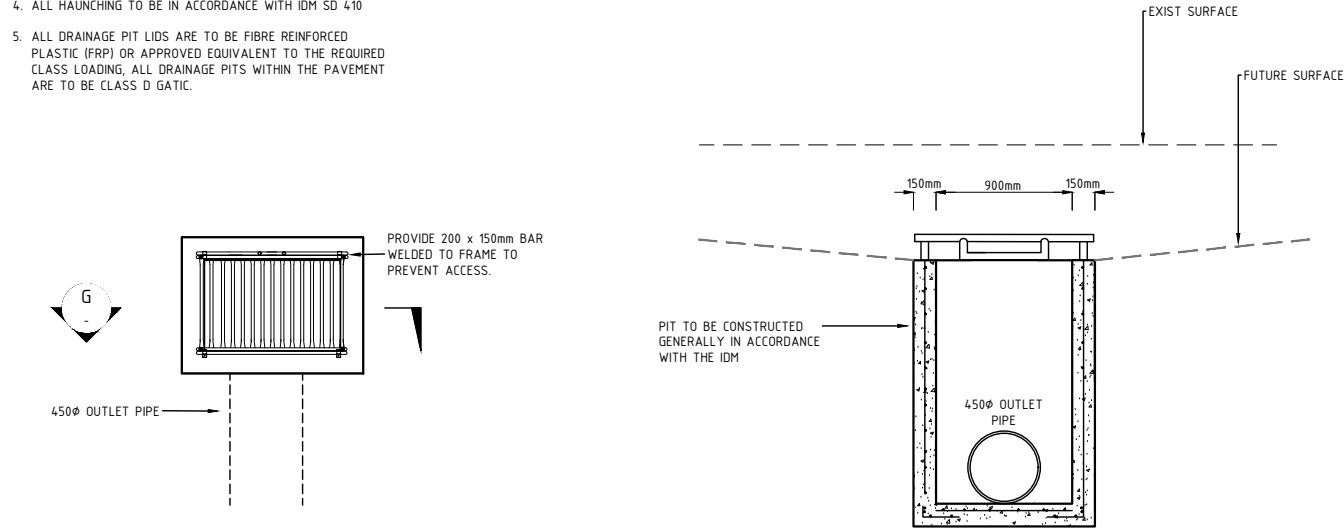
FOR CONSTRUCTION

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	DATE	CLIENT	PROJECT	DRAWING TITLE	TGP REF. No.	SHEET	REV
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	K. BOON	H 1:500 V 1:50	FEBRUARY 2020	Phalaris Park.	PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG	DRAINAGE LONGITUDINAL SECTIONS	004108-211	18	21
01	FOR APPROVAL	31-03-2020	A					G. ROACHE	A1							A
CHECKED:									APPROVED:							
POS NO: PS834027D VERSION: V1 PERMIT NO: 1123/2004/A									SHEET SIZE: A1							
WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION									SHEET: 18 OF 21							

PIT SCHEDULE

PIT NAME	TYPE	EASTING	NORTHING	WD	LEN	FROM PIT	INLET DIA	INLET INV	OUTLET DIA	OUTLET INV	PIT RL	PIT DEPTH	COVER CLASS	REMARKS
Ex5A	B.E.	266404.777	5782048.885	0	0	6	675	15.790	675	15.790	17.747	1.957	---	EXISTING BLANK END
6	SEPx	266402.473	5782030.231	900	900	7	675	15.841	675	15.821	17.869	2.048	CLASS D	Refer IDM SD 430
7	SEPx	266401.453	5782016.038	900	900	8	450	15.885	675	15.865	17.966	2.101	CLASS D	Refer IDM SD 430
8	SEPx	266403.759	5782000.738	900	900	9	375	16.791	450	15.919	18.063	2.144	CLASS D	Refer IDM SD 430
9	SEP	266409.673	5781986.439	900	600	36	450	15.939	375	16.843	18.172	1.329	CLASS D	Refer IDM SD 430
10	GP	266385.185	5782015.025	900	600	11	450	16.641	450	16.561	17.936	1.375	CLASS D	Refer IDM SD 455
11	GP	266360.442	5782009.476	900	600	35	450	16.754	450	16.704	18.103	1.399	CLASS D	Refer IDM SD 455
35	RGP	266345.555	5782005.532	900	600				450	16.857	18.300	1.443	CLASS D	Refer detail below
36	SEPx	266396.517	5781996.294	900	900	37	375	15.978	450	15.958	18.083	2.125	CLASS D	Refer IDM SD 430
37	SEPx	266402.067	5781983.248	900	900	38	375	16.046	375	16.026	18.175	2.149	CLASS D	Refer IDM SD 430
38	SEPx	266433.795	5781926.122	900	900	39	375	16.283	375	16.263	18.789	2.526	CLASS D	Refer IDM SD 430
39	SEPx	266442.315	5781918.501	900	900	40	375	16.342	375	16.322	18.771	2.450	CLASS D	Refer IDM SD 430
40	DSEPx	266450.880	5781916.387	1900	900	40A	300	16.391	375	16.371	18.732	2.361	CLASS D	Refer IDM SD 445
40A	GSEPx	266459.933	5781906.049	900	900	42	300	17.314	300	16.454	18.750	2.296	CLASS D	Refer IDM SD 475
Ex54	JP	266475.942	5782087.457	900	600	55	375	16.184	450	16.134	17.754	1.620	CLASS B	BREAK INTO EXISTING PIT
55	JP	266468.465	5782026.921	900	600	56	375	16.641	375	16.591	18.053	1.462	CLASS B	Refer IDM SD 425
56	JP	266460.251	5781960.426	900	600				375	17.088	18.626	1.539	CLASS D	Refer IDM SD 425
Ex60A	SEP	266481.645	5782086.752	900	600	61	375	15.641	375	15.591	17.393	1.802	CLASS D	Break into ex. pit & convert to SEP and raise cover level to suit. Refer IDM SD 430
61	SEP	266476.868	5782048.051	900	600	62	375	16.050	375	16.000	17.664	1.663	CLASS D	Refer IDM SD 430
62	SEP	266469.146	5781985.533	900	600				375	16.574	18.168	1.594	CLASS D	Refer IDM SD 430
41	SEP	266394.335	5782031.236	900	600				300	16.500	17.869	1.369	CLASS D	Refer IDM SD 430
42	SEP	266452.384	5781924.464	900	600				300	17.369	18.730	1.361	CLASS D	Refer IDM SD 430

- NOTE:
- ALL SETOUT POINTS QUOTED TO CENTRE OF 900x600 PIT
e.g.:
 - SEP PITS NOTED WITH 'x' TO BE HAUNCHED TO A 900x600 (INTERNAL) OPENING WITH APPROPRIATE COVER.
 - DSEP PITS NOTED WITH 'xx' TO BE HAUNCHED TO A 1900x600 (INTERNAL) OPENING WITH APPROPRIATE COVER.
 - ALL HAUNCHING TO BE IN ACCORDANCE WITH IDM SD 410
 - ALL DRAINAGE PIT LIDS ARE TO BE FIBRE REINFORCED PLASTIC (FRP) OR APPROVED EQUIVALENT TO THE REQUIRED CLASS LOADING, ALL DRAINAGE PITS WITHIN THE PAVEMENT ARE TO BE CLASS D GATIC.

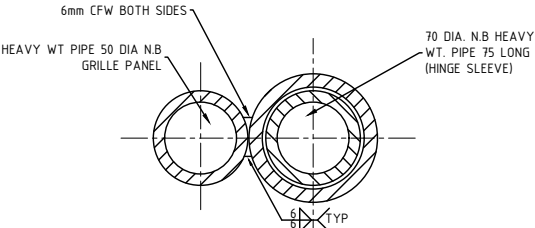


PIT 35 DETAIL

N.T.S.

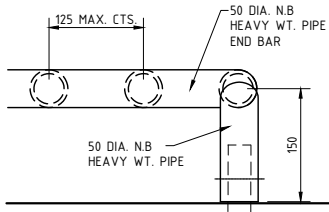
SECTION G

N.T.S.



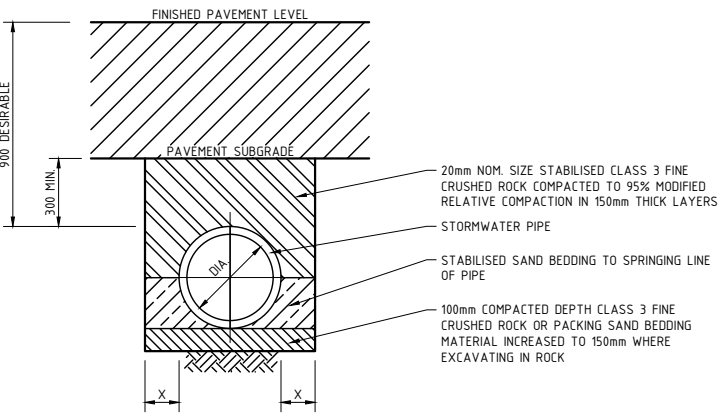
HINGE DETAIL

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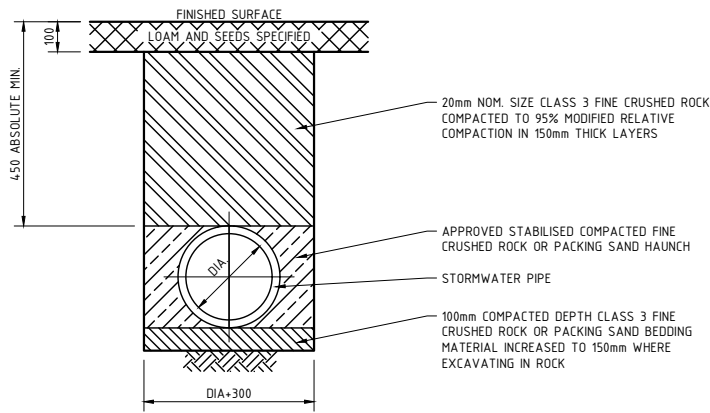
END BAR DETAIL

N.T.S.



UNDER ROAD PAVEMENT BACKFILL DETAIL

NTS



BEHIND KERB

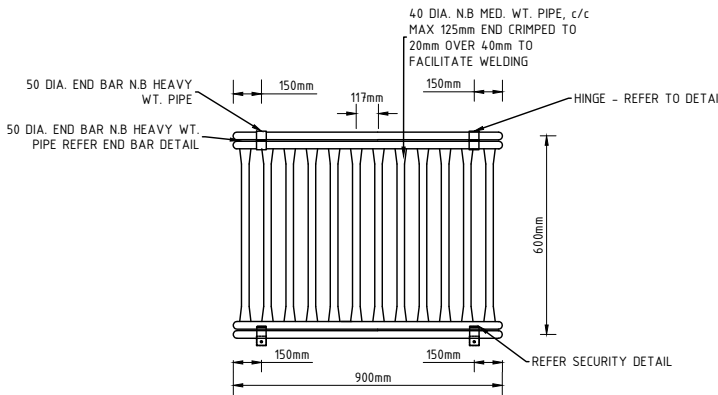
NTS

NOTES:

- TRENCHING DETAILS INDICATIVE ONLY AND SHOULD BE INSTALLED TO MANUFACTURERS SPECIFICATIONS OR AS/NZS 3725-2007 FOR REINFORCED CONCRETE PIPES AND AS/NZS 2566.2-2002 FOR RIBBED POLYPROPYLENE PIPES.
- WHERE PIPE IS BEHIND KERB AND CHANNEL, INSTALL ONE METRE (1m) MINIMUM OF APPROVED 900 CLASS 400 SLOTTED/ PERFORATED SUBSOL DRAIN WITH GEOTEXTILE SOCK SURROUND INTO PIT IN LIEU OF SUB-SOIL DRAINAGE BEHIND KERB.
- BACKFILL DESIGN TO BE IN ACCORDANCE WITH CEMENT & CONCRETE ASSOCIATION OF AUSTRALIA 'PIPE CLASS' REQUIREMENTS. BACKFILL UNDER ROAD PAVEMENT TO BE STABILISED WHERE CCAA INFORMATION IS NOT AVAILABLE.
- APPROVAL MAY BE GIVEN FOR USE OF BACKFILL MATERIAL OTHER THAN CRUSHED ROCK WHERE IT CAN BE DEMONSTRATED THAT A MINIMUM OF 95% MODIFIED RELATIVE COMPACTION CAN BE ACHIEVED.
- CEMENT, CONCRETE OR CEMENT STABILISED CRUSHED ROCK TO BE USED WHERE SETTLEMENT OF TRENCH WILL EFFECT INFRASTRUCTURE.
- ALL EXCAVATIONS TO COMPLY WITH THE EXCAVATION CODE OF PRACTICE 2018-05, O.H.&S. REGULATIONS 2017 & O.H.&S. ACT 2004.
- BITUMEN ROAD SURFACE SHALL BE CUT WITH A SAW.

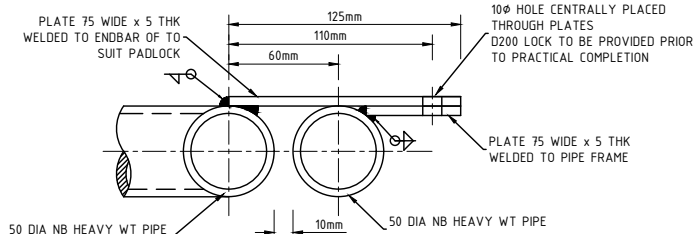
ALL MEASUREMENTS IN MILLIMETRES

FOR CONSTRUCTION



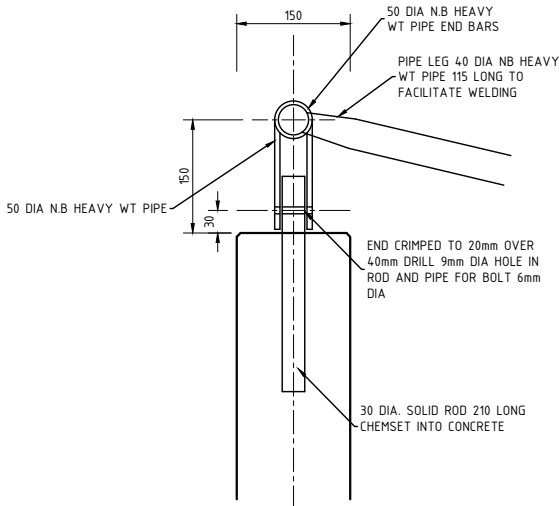
PANEL DETAIL

N.T.S.



SECURITY DETAIL

N.T.S.



OUTLET PIT FRAME SEATING DETAIL

N.T.S.

ISSUE	ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	K. BOON	DATE	FEBRUARY 2020
00	FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	GR.	N.T.	DRAWN	G. ROACHE	SCALE	1:10
01	FOR APPROVAL	31-03-2020						SURVEY	CARDNO TGM GEELONG	SHEET SIZE	A1
								CHECKED		APPROVED	
								POS NO.	PS834027D	VERSION	V1
								PERMIT NO.	1123/2004/A		
								WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED AND APPROVED FOR CONSTRUCTION			

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JAS-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001

Phalaris Park.

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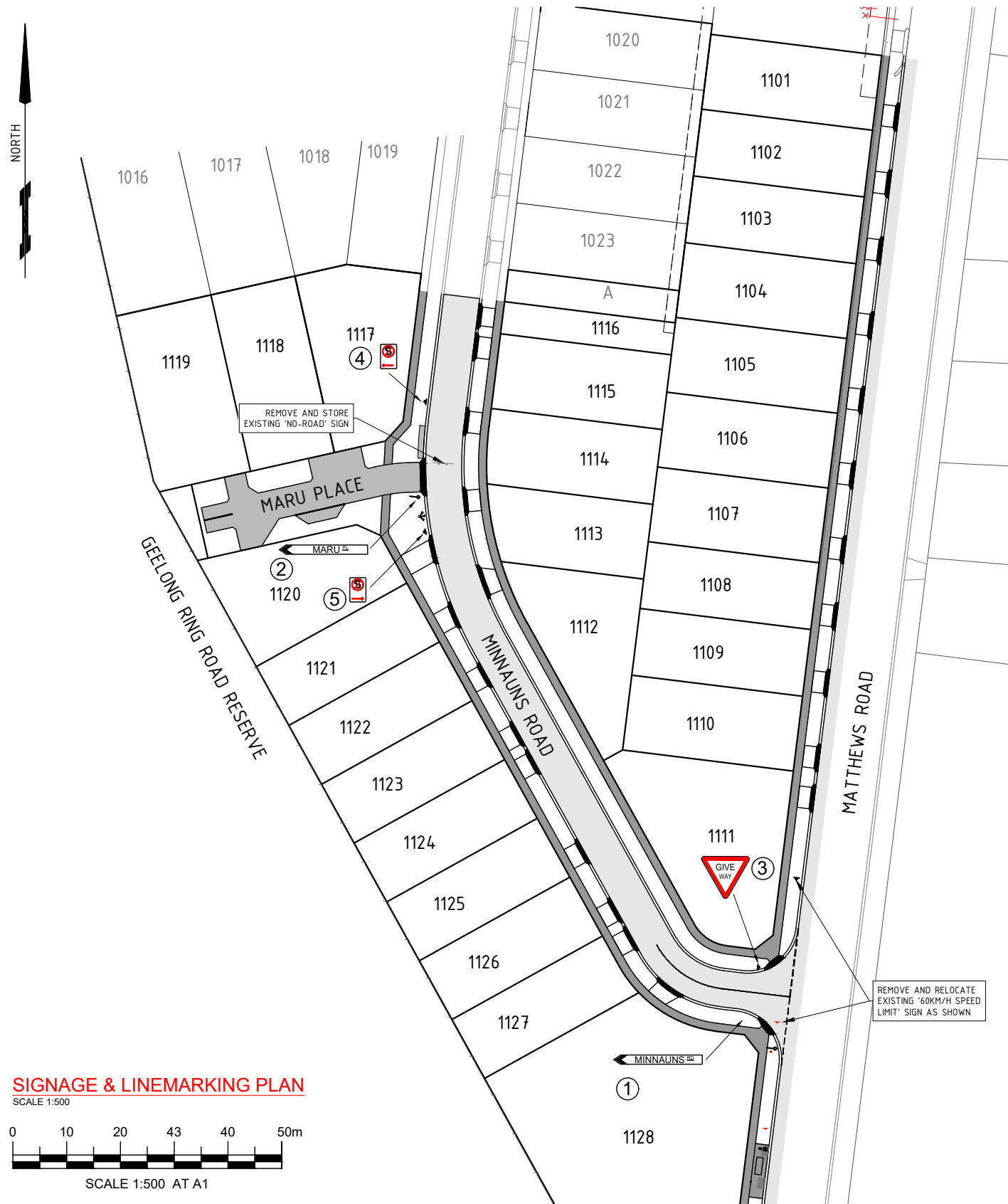
PHALARIS PARK ESTATE
STAGE 11
MATTHEWS ROAD
LOVELY BANKS, VIC, 3221
CITY OF GREATER GEELONG

CIVIL DRAWING

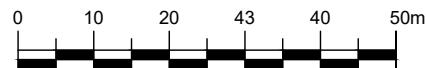
DRAWING TITLE:
PIT SCHEDULE & TYPICAL TRENCHING DETAILS

TGM REF. No: **004108-211**

SHEET **20** OF **21** REV **A**



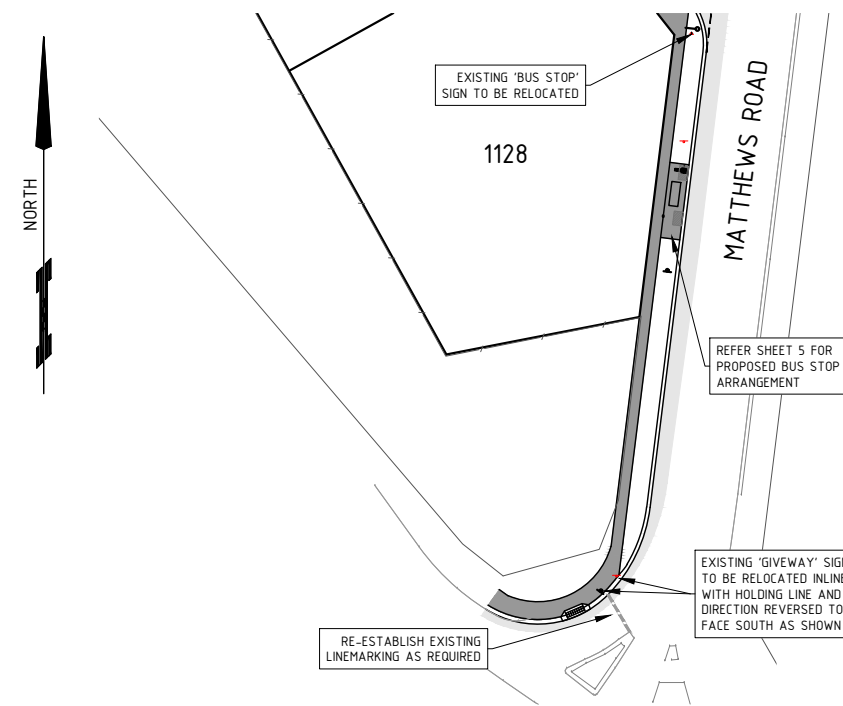
SIGNAGE & LINEMARKING PLAN
SCALE 1:500



SCALE 1:500 AT A1

SEE CONTINUATION RIGHT

SEE CONTINUATION LEFT



SIGNAGE & LINEMARKING PLAN
SCALE 1:500

LEGEND

PROPOSED	
	HOTMIX PAVEMENT
	125mm FOOTPATH
	CONCRETE PAVEMENT
	STREET SIGN
	LINEMARKING

SIGNAGE SCHEDULE

① x 1		G5 SERIES	STREET NAME
② x 1		G5 SERIES	STREET NAME
③ x 1		R1-2	GIVE WAY
④ x 1		P1	NO STOPPING
⑤ x 1		P3	NO STOPPING

FOR CONSTRUCTION



WARNING

BEWARE OF ASBESTOS

SOME UNDERGROUND SERVICES MAYBE CONSTRUCTED FROM ASBESTOS CONTAINING MATERIAL. CONTACT THE SUPERINTENDENT FOR INSTRUCTIONS ON HOW TO MANAGE ANY POTENTIAL ASBESTOS HAZARD

WARNING

OPTIC FIBER

CABLE IN THE AREA
THE ACCURACY OR COMPLETENESS OF THE COMMS CABLE LOCATION SHOWN ON THIS PLAN CAN NOT BE GUARANTEED AND ACCORDINGLY ARE INTENDED TO BE READ AS INDICATIVE ONLY. PLEASE READ AND UNDERSTAND THE COMMS DUTY OF CARE STATEMENT.

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

WARNING

BEWARE OF ABOVE GROUND SERVICES

ANY EXCAVATION IN THE VICINITY OF POWER POLES TO BE IN ACCORDANCE WITH THE ELECTRICAL SAFETY (NETWORK ASSETS) REGULATIONS 1999 - RULE 36 (d). NO GO ZONE RULES MAY ALSO APPLY

ISSUE		ISSUED FOR	DATE	No.	AMENDMENT	DATE	DRAWN	APPROVED	DESIGNED	SCALE	CLIENT	PROJECT	CIVIL DRAWING	
00		FOR APPROVAL	28-02-2020	A	FOR CONSTRUCTION	22-06-2020	G.R.	N.T.	DRAWN: K. BOON	REFER SHEET	 ABN 11 125 568 461 Level 1, 27-31 Myers Street (PO Box 1137) Geelong, VIC Australia 3220 Phone +61 3 5202 4000 Fax +61 3 5202 4691 Email: victoria@cardno.com.au Web: www.cardno.com JAS-ANZ Accredited: Quality ISO 9001 - CHMS AS/NZS 4801 - Environment ISO 14001	 PHALARIS PARK ESTATE STAGE 11 MATTHEWS ROAD LOVELY BANKS, VIC, 3221 CITY OF GREATER GEELONG	DRAWING TITLE: SIGNAGE AND LINEMARKING PLAN	
01		FOR APPROVAL	31-03-2020						SURVEY: CARDNO TGM GEELONG	SHEET SIZE: A1			TGP REF. No.: 004108-211	
									CHECKED: 	APPROVED: 			SHEET: 21 OF 21 REV: A	
									POS. NO: PS6340270	VERSION: V1			PERMIT NO: 1123/2004/A	
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