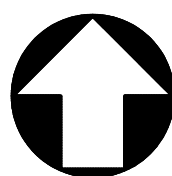


BIRD IN HAND 3 PTY LTD

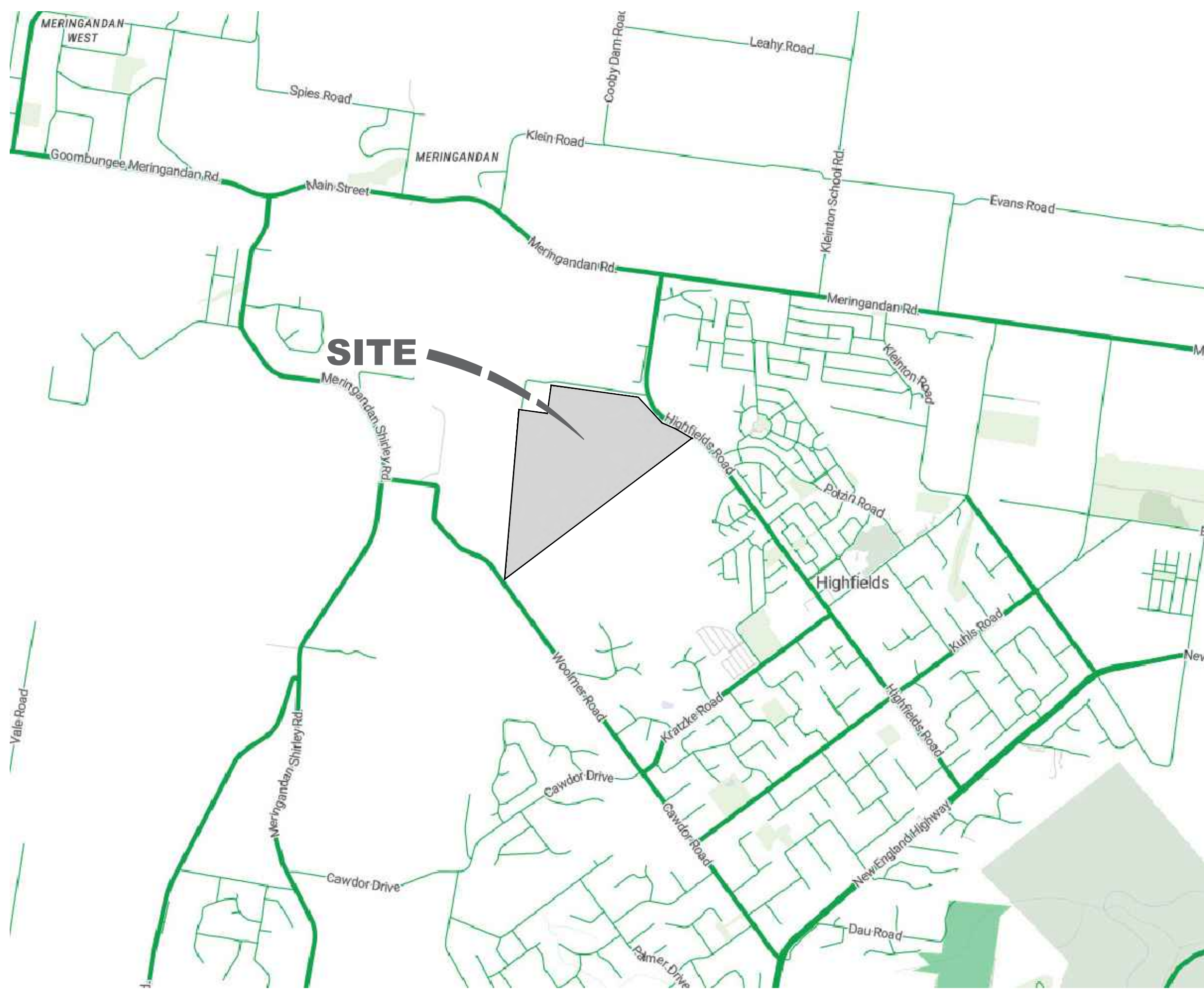
BOTANIC HIGHFIELDS

STAGE 1

BROWNE ROAD, HIGHFIELDS



LOCALITY PLAN



LOCALITY PLAN
SCALE N.T.S.

DRAWING INDEX

SHEET NO.	REVISION	SHEET TITLE
GS562-01-001	1	LOCALITY PLAN AND DRAWING INDEX
GS562-01-002	0	CONSTRUCTION NOTES
GS562-01-010	0	OVERALL LAYOUT AND STAGING PLAN
GS562-01-020	0	STAGE 1 DEVELOPMENT LAYOUT
GS562-01-100	0	EARTHWORKS LAYOUT PLAN
GS562-01-101	0	EARTHWORKS TYPICAL SECTIONS
GS562-01-110	0	EARTHWORKS TYPICAL RETAINING WALL AND BATTER DETAILS
GS562-01-111	0	EARTHWORKS TYPICAL FRONT RETAINING WALL ARRANGEMENT AND DETAILS
GS562-01-200	0	ROADS AND FOOTPATHS DETAIL PLAN
GS562-01-210	0	TYPICAL SECTIONS AND SERVICE ALLOCATIONS
GS652-01-220	0	ROAD 01 LONGITUDINAL SECTION SHEET 1 OF 2
GS562-01-221	0	ROAD 01 LONGITUDINAL SECTION SHEET 2 OF 2
GS562-01-222	0	ROAD 01 CROSS SECTIONS SHEET 1 OF 2
GS562-01-223	0	ROAD 01 CROSS SECTIONS SHEET 2 OF 2
GS562-01-224	0	ROAD 02 LONGITUDINAL SECTION AND CROSS SECTIONS
GS562-01-225	0	ROAD 03 LONGITUDINAL SECTION AND CROSS SECTIONS
GS562-01-250	0	INTERSECTION DETAILS SHEET 1 OF 2
GS562-01-251	0	INTERSECTION DETAILS SHEET 2 OF 2
GS562-01-260	0	PAVEMENT DESIGN AND MISCELLANEOUS DETAILS
GS562-01-270	0	SIGNAGE AND LINEMARKING PLAN
GS562-01-280	0	KOALA FENCE DETAILS
GS562-01-300	0	STORMWATER DRAINAGE CATCHMENT PLAN
GS562-01-310	0	STORMWATER DRAINAGE LAYOUT PLAN
GS562-01-320	0	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2
GS562-01-321	0	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 2
GS562-01-330	0	STORMWATER DRAINAGE CALCULATION TABLES
GS562-01-340	0	STORMWATER CHANNEL 1 LAYOUT PLAN AND LONGITUDINAL SECTION
GS562-01-400	1	SEWERAGE RETICULATION LAYOUT PLAN
GS562-01-410	1	SEWERAGE RETICULATION LONGITUDINAL SECTIONS SHEET 1 OF 3
GS562-01-411	1	SEWERAGE RETICULATION LONGITUDINAL SECTIONS SHEET 2 OF 3
GS562-01-412	0	SEWERAGE RETICULATION LONGITUDINAL SECTIONS SHEET 3 OF 3
GS562-01-500	0	WATER RETICULATION LAYOUT PLAN
GS562-01-600	0	EROSION AND SEDIMENT CONTROL LAYOUT PLAN
GS562-01-605	0	EROSION AND SEDIMENT CONTROL SEDIMENT BASIN LAYOUT PLAN
GS562-01-610	0	EROSION AND SEDIMENT CONTROL DETAILS AND NOTES

ISSUED
FOR CONSTRUCTION

REV.	DATE	DRAWN	APPD	DESCRIPTION
1	09/05/24	DET	LWK	1200MM DIA TRUNK LINE MANHOLES
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

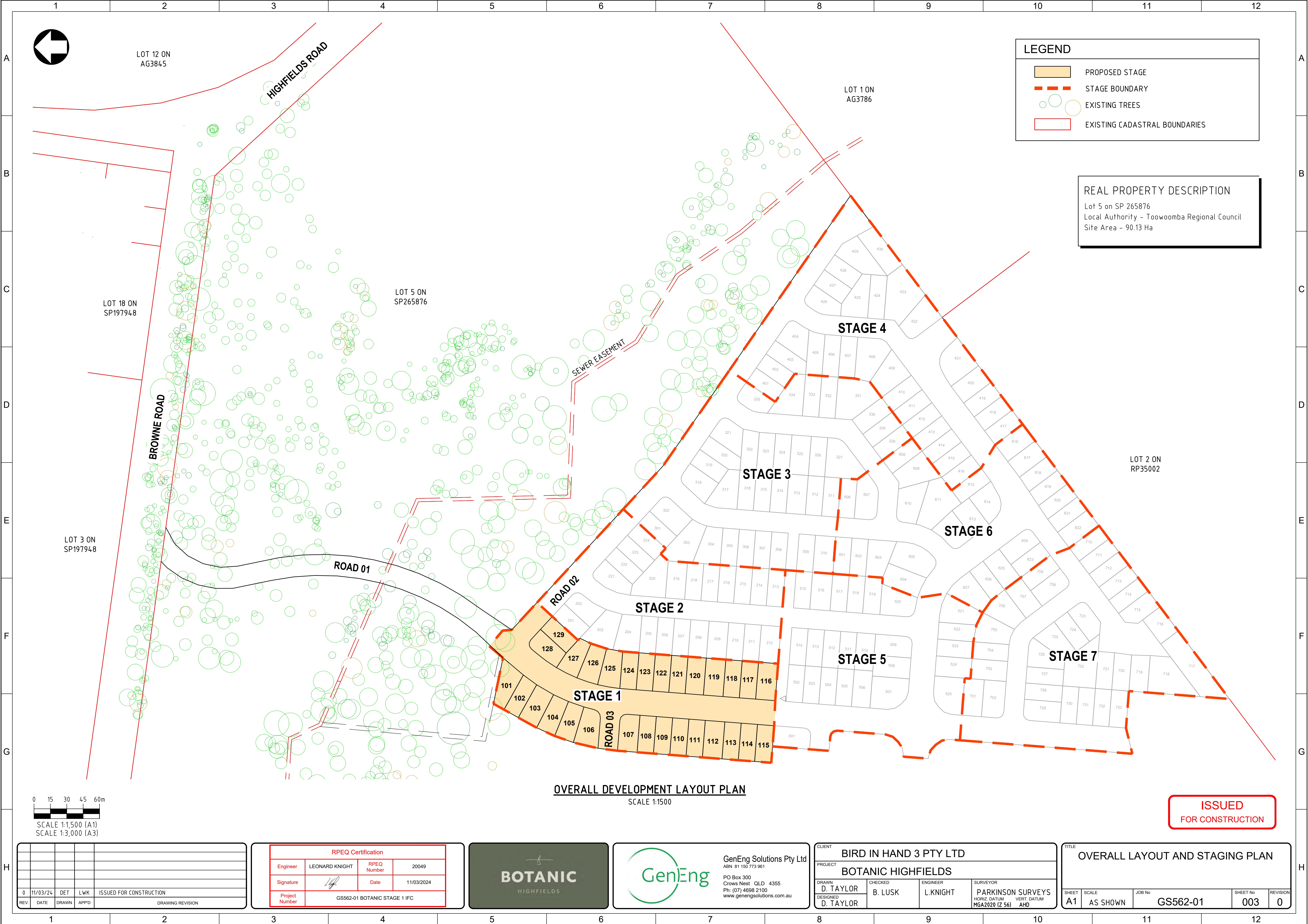


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Crows Nest QLD 4355
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www.genengsolutions.com.au

CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ DATUM MGA2020 (Z 56) VERT DATUM AHD

TITLE LOCALITY PLAN AND DRAWING INDEX				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 001	1

[illegible]



LEGEND

PROPOSED STAGE

STAGE BOUNDARY

EXISTING TREES

EXISTING CADASTRAL BOUNDARIES

REAL PROPERTY DESCRIPTION

Lot 5 on SP 265876
Local Authority - Toowoomba Regional Council
Site Area - 90.13 Ha

OVERALL DEVELOPMENT LAYOUT PLAN
SCALE 1:1500

ISSUED
FOR CONSTRUCTION

0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

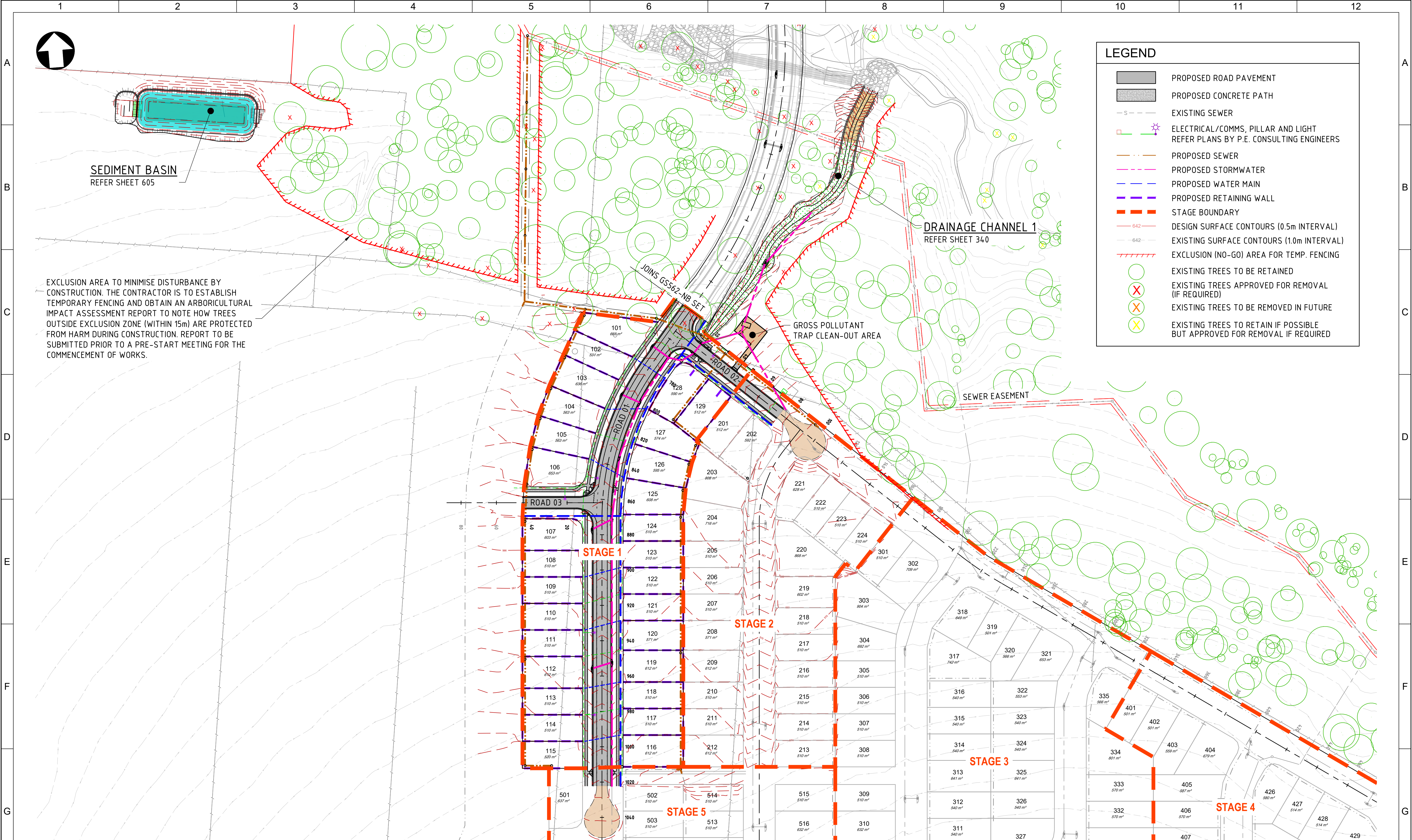
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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PROJECT BOTANIC HIGHFIELDS			
DRAWN D. TAYLOR	CHECKED B. LUSK	ENGINEER L. KNIGHT	SURVEYOR PARKINSON SURVEYS HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD
DESIGNED D. TAYLOR			

TITLE OVERALL LAYOUT AND STAGING PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 003	REVISION 0



LEGEND

PROPOSED ROAD PAVEMENT

PROPOSED CONCRETE PATH

- - -

- - -

- - -

- - -

- - -

- - -

642

642

- - -

X

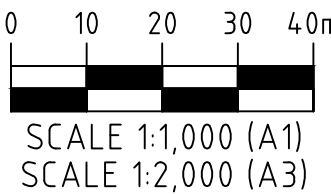
X

X

EXCLUSION AREA TO MINIMISE DISTURBANCE BY CONSTRUCTION. THE CONTRACTOR IS TO ESTABLISH TEMPORARY FENCING AND OBTAIN AN ARBORICULTURAL IMPACT ASSESSMENT REPORT TO NOTE HOW TREES OUTSIDE EXCLUSION ZONE (WITHIN 15m) ARE PROTECTED FROM HARM DURING CONSTRUCTION. REPORT TO BE SUBMITTED PRIOR TO A PRE-START MEETING FOR THE COMMENCEMENT OF WORKS.

STAGE 1 DEVELOPMENT LAYOUT PLAN
SCALE 1:1000

ISSUED
FOR CONSTRUCTION



0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

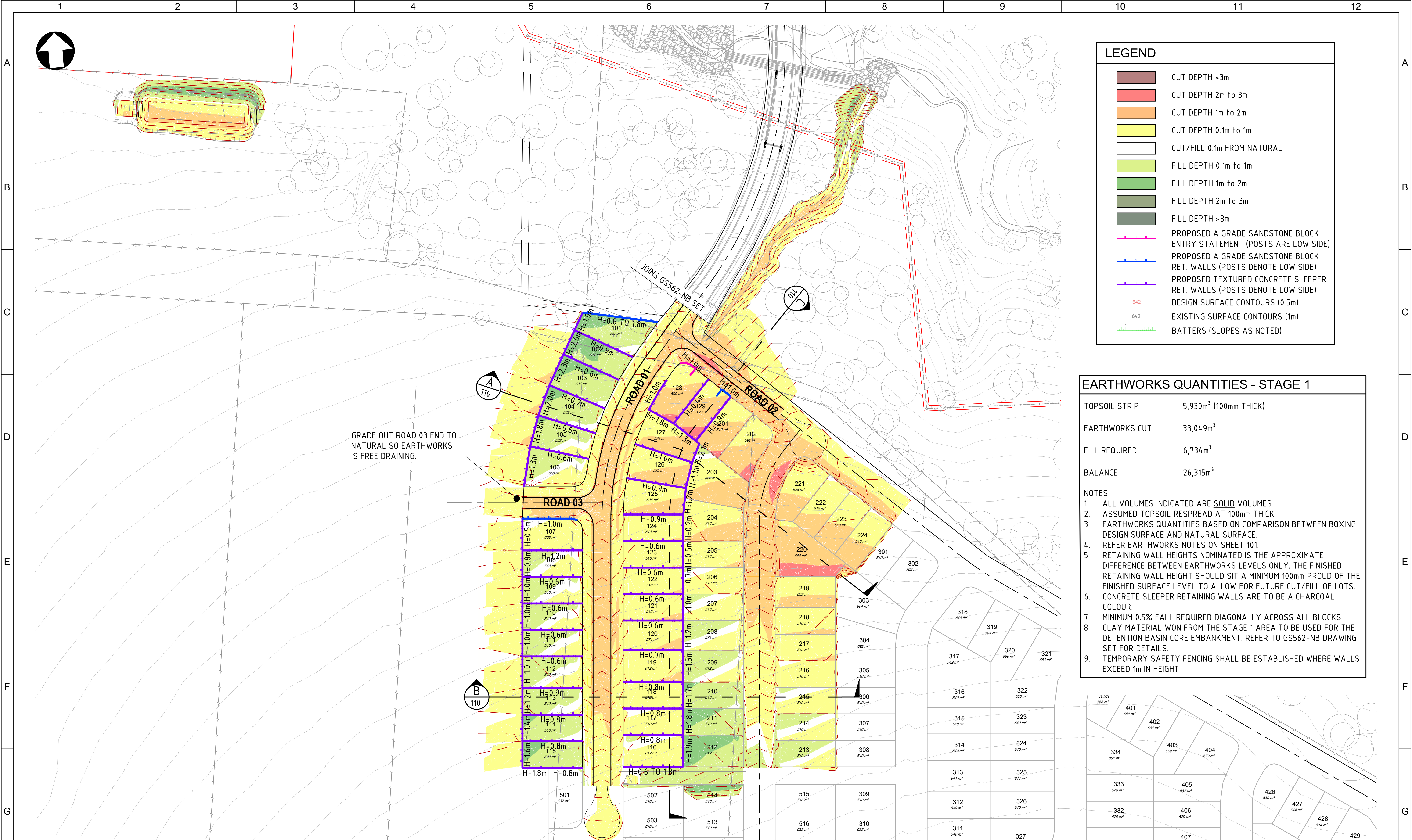
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

BOTANIC
HIGHFIELDS

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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM VERT. DATUM MGA2020 (Z 56) AHD

TITLE STAGE 1 DEVELOPMENT LAYOUT				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 020	REVISION 0



LEGEND	
	CUT DEPTH >3m
	CUT DEPTH 2m to 3m
	CUT DEPTH 1m to 2m
	CUT DEPTH 0.1m to 1m
	CUT/FILL 0.1m FROM NATURAL
	FILL DEPTH 0.1m to 1m
	FILL DEPTH 1m to 2m
	FILL DEPTH 2m to 3m
	FILL DEPTH >3m
	PROPOSED A GRADE SANDSTONE BLOCK ENTRY STATEMENT (POSTS ARE LOW SIDE)
	PROPOSED A GRADE SANDSTONE BLOCK RET. WALLS (POSTS DENOTE LOW SIDE)
	PROPOSED TEXTURED CONCRETE SLEEPER RET. WALLS (POSTS DENOTE LOW SIDE)
	DESIGN SURFACE CONTOURS (0.5m)
	EXISTING SURFACE CONTOURS (1m)
	BATTERS (SLOPES AS NOTED)

EARTHWORKS QUANTITIES - STAGE 1

TOPSOIL STRIP 5,930m³ (100mm THICK)

EARTHWORKS CUT 33,049m³

FILL REQUIRED 6,734m³

BALANCE 26,315m³

NOTES:

- ALL VOLUMES INDICATED ARE SOLID VOLUMES
- ASSUMED TOPSOIL RESPREAD AT 100mm THICK
- EARTHWORKS QUANTITIES BASED ON COMPARISON BETWEEN BOXING DESIGN SURFACE AND NATURAL SURFACE.
- REFER EARTHWORKS NOTES ON SHEET 101.
- RETAINING WALL HEIGHTS NOMINATED IS THE APPROXIMATE DIFFERENCE BETWEEN EARTHWORKS LEVELS ONLY. THE FINISHED RETAINING WALL HEIGHT SHOULD SIT A MINIMUM 100mm PROUD OF THE FINISHED SURFACE LEVEL TO ALLOW FOR FUTURE CUT/FILL OF LOTS. CONCRETE SLEEPER RETAINING WALLS ARE TO BE A CHARCOAL COLOUR.
- MINIMUM 0.5% FALL REQUIRED DIAGONALLY ACROSS ALL BLOCKS.
- CLAY MATERIAL WON FROM THE STAGE 1 AREA TO BE USED FOR THE DETENTION BASIN CORE EMBANKMENT. REFER TO GS562-NB DRAWING SET FOR DETAILS.
- TEMPORARY SAFETY FENCING SHALL BE ESTABLISHED WHERE WALLS EXCEED 1m IN HEIGHT.

EARTHWORKS LAYOUT PLAN

SCALE 1:1000

0 10 20 30 40m
SCALE 1:1,000 (A1)
SCALE 1:2,000 (A3)

ISSUED
FOR CONSTRUCTION

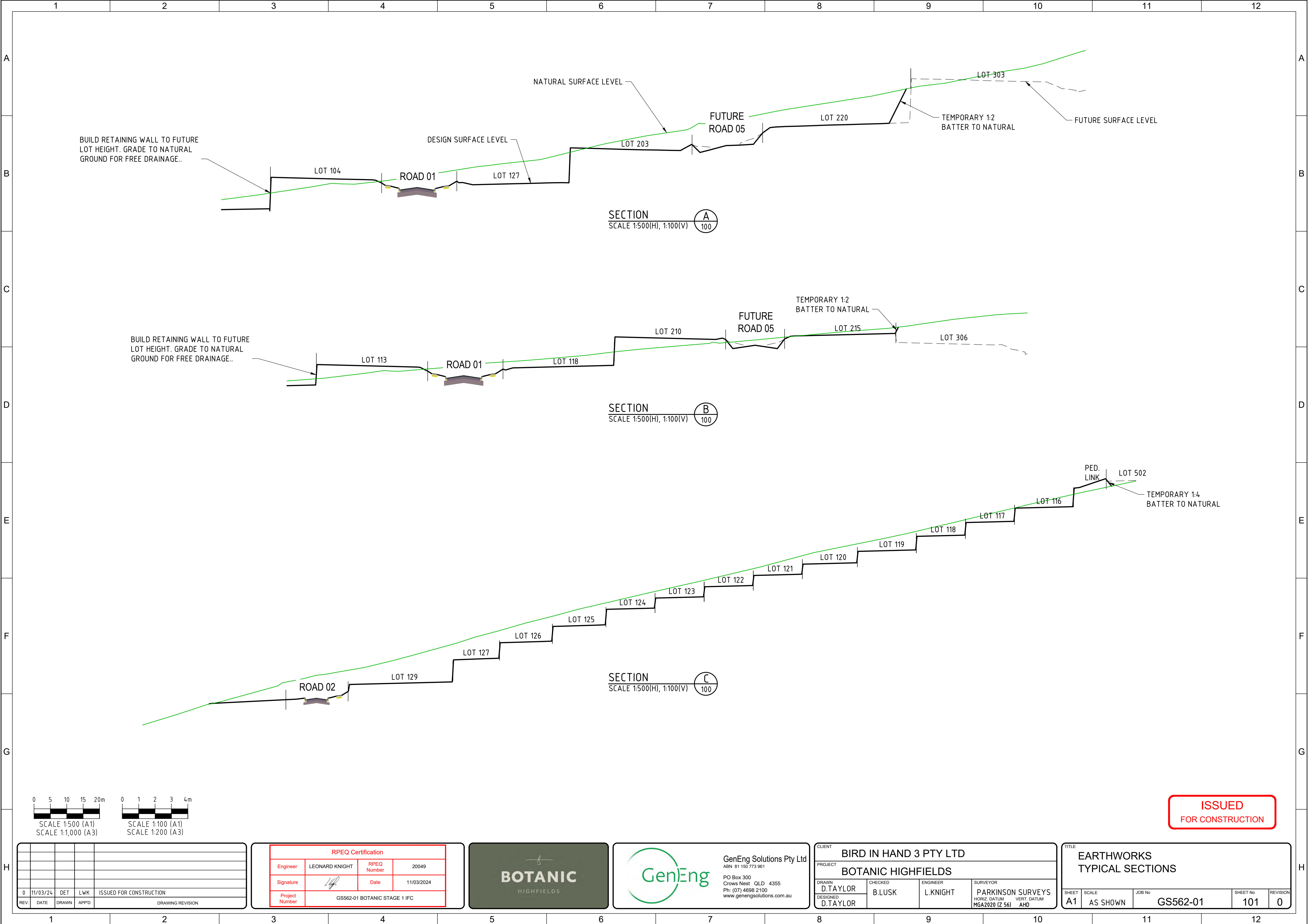
REV.	DATE	DRAWN	APPD.	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE EARTHWORKS LAYOUT PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 100	REVISION 0



BUILD RETAINING WALL TO FUTURE LOT HEIGHT. GRADE TO NATURAL GROUND FOR FREE DRAINAGE..

DESIGN SURFACE LEVEL

NATURAL SURFACE LEVEL

FUTURE ROAD 05

TEMPORARY 1:2 BATTER TO NATURAL

FUTURE SURFACE LEVEL

SECTION A
SCALE 1:500(H), 1:100(V)

BUILD RETAINING WALL TO FUTURE LOT HEIGHT. GRADE TO NATURAL GROUND FOR FREE DRAINAGE..

ROAD 01

FUTURE ROAD 05

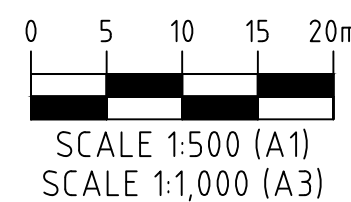
TEMPORARY 1:2 BATTER TO NATURAL

SECTION B
SCALE 1:500(H), 1:100(V)

PED. LINK

TEMPORARY 1:4 BATTER TO NATURAL

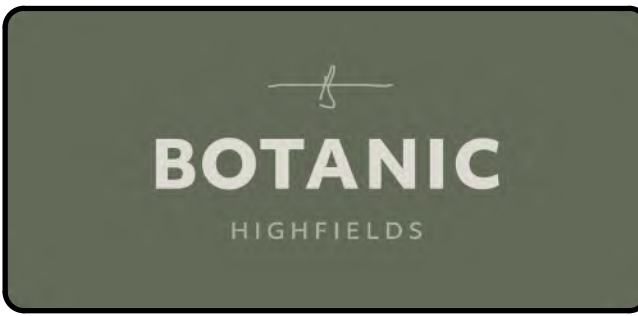
SECTION C
SCALE 1:500(H), 1:100(V)



ISSUED FOR CONSTRUCTION

REV.	DATE	DRAWN	APPD.	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



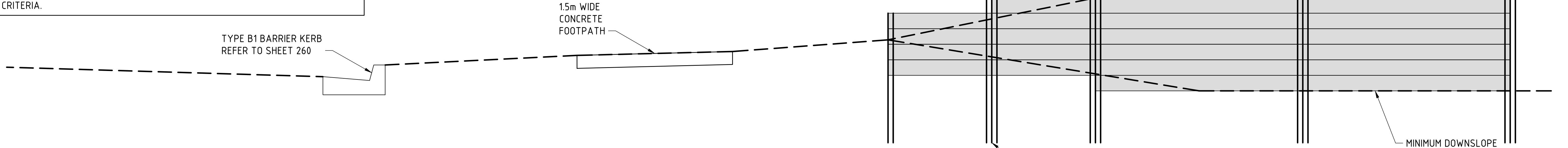
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DESIGNED D.TAYLOR		VERT. DATUM AHD	

TITLE EARTHWORKS TYPICAL SECTIONS				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 101	REVISION 0

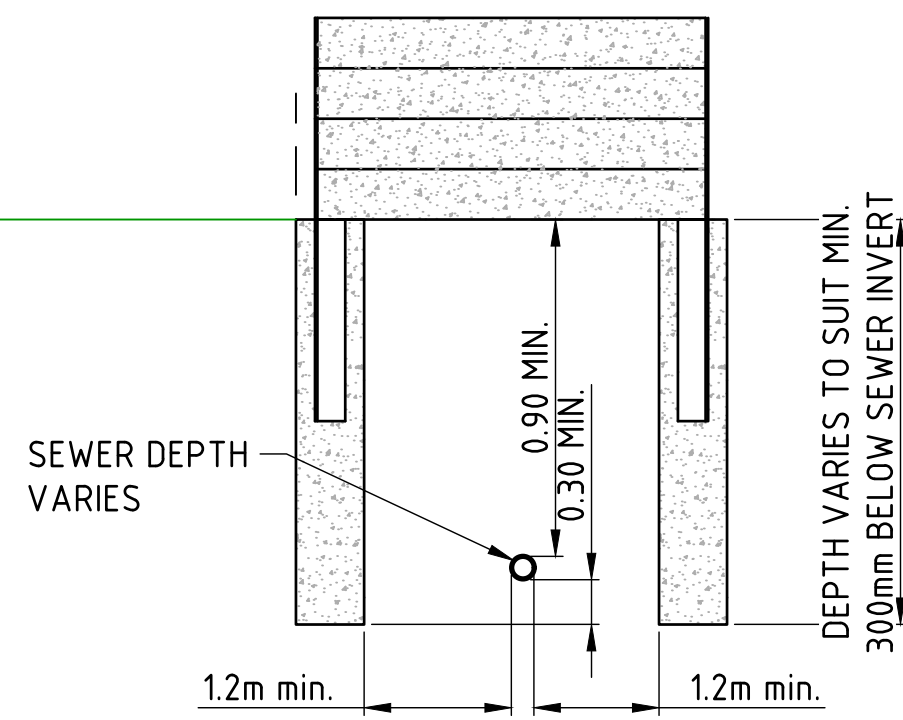
NOTES:
RETAINING WALL DESIGN AND CERTIFICATION IS PROVIDED BASED ON THE FOLLOWING PERFORMANCE CRITERIA:

- WALL DESIGN BASED ON USE OF PROPRIETARY CONCRETE SLEEPER RETAINING WALL SYSTEM OR SIMILAR
- PROTECTION OF ADJACENT SEWER SERVICES TO MEET THE REQUIREMENTS OF QDC MP14.
- PERPENDICULAR CROSSING OF SEWER WITH RETAINING WALL - FOOTINGS TO EXTEND MINIMUM OF 300 mm BELOW THE INVERT OF THE SEWER. REFER DETAIL.
- PARALLEL RETAINING WALL ADJACENT TO SEWER - RETAINING WALL FOOTINGS TO EXTEND SO THAT ZONE OF INFLUENCE IS A MINIMUM OF 300mm BELOW THE INVERT OF THE SEWER. DESIGN IS BASED ON A SOIL FRICTION ANGLE OF 25°. REFER DETAIL.
- CONTRACTOR TO PROVIDE FORM 15 AND FORM 16 DURING CONSTRUCTION, CERTIFYING THAT THE RETAINING WALL MEETS THE NOMINATED PERFORMANCE CRITERIA.



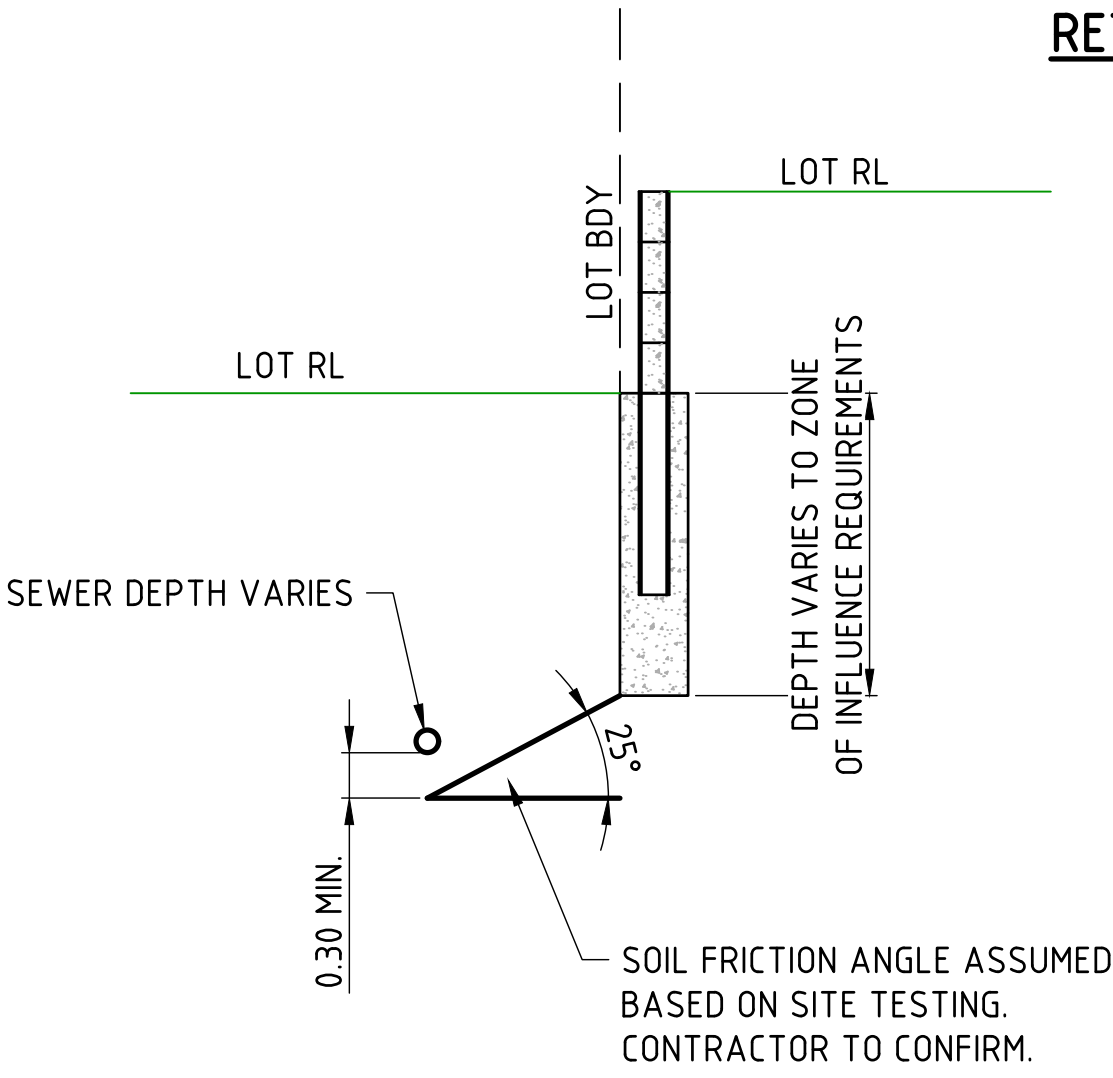
RETAINING WALL BOUNDARY STEP-DOWN DETAILS

SCALE 1:50



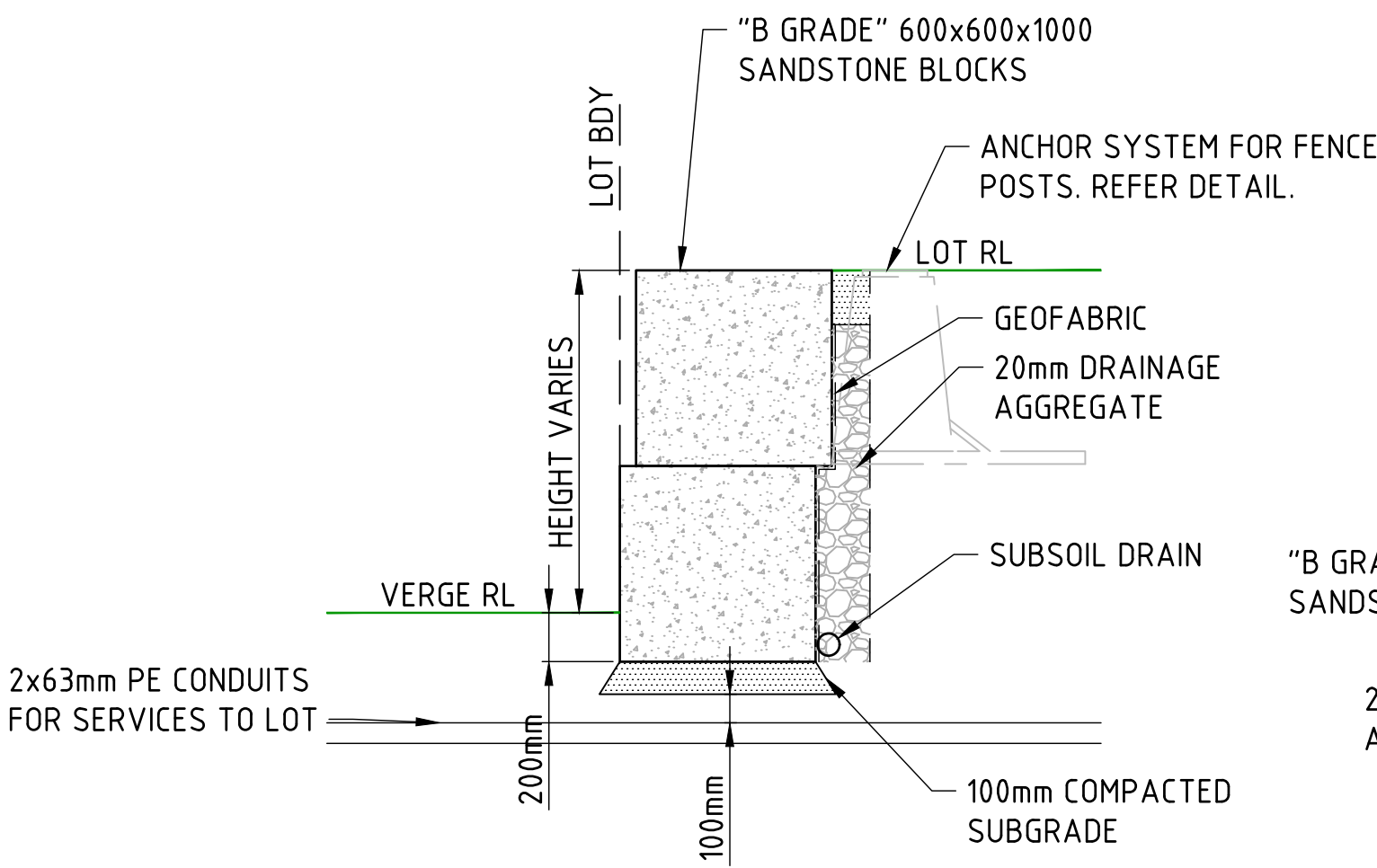
RETAINING WALL FOOTING DETAILS
PERPENDICULAR TO SEWER

SCALE N.T.S



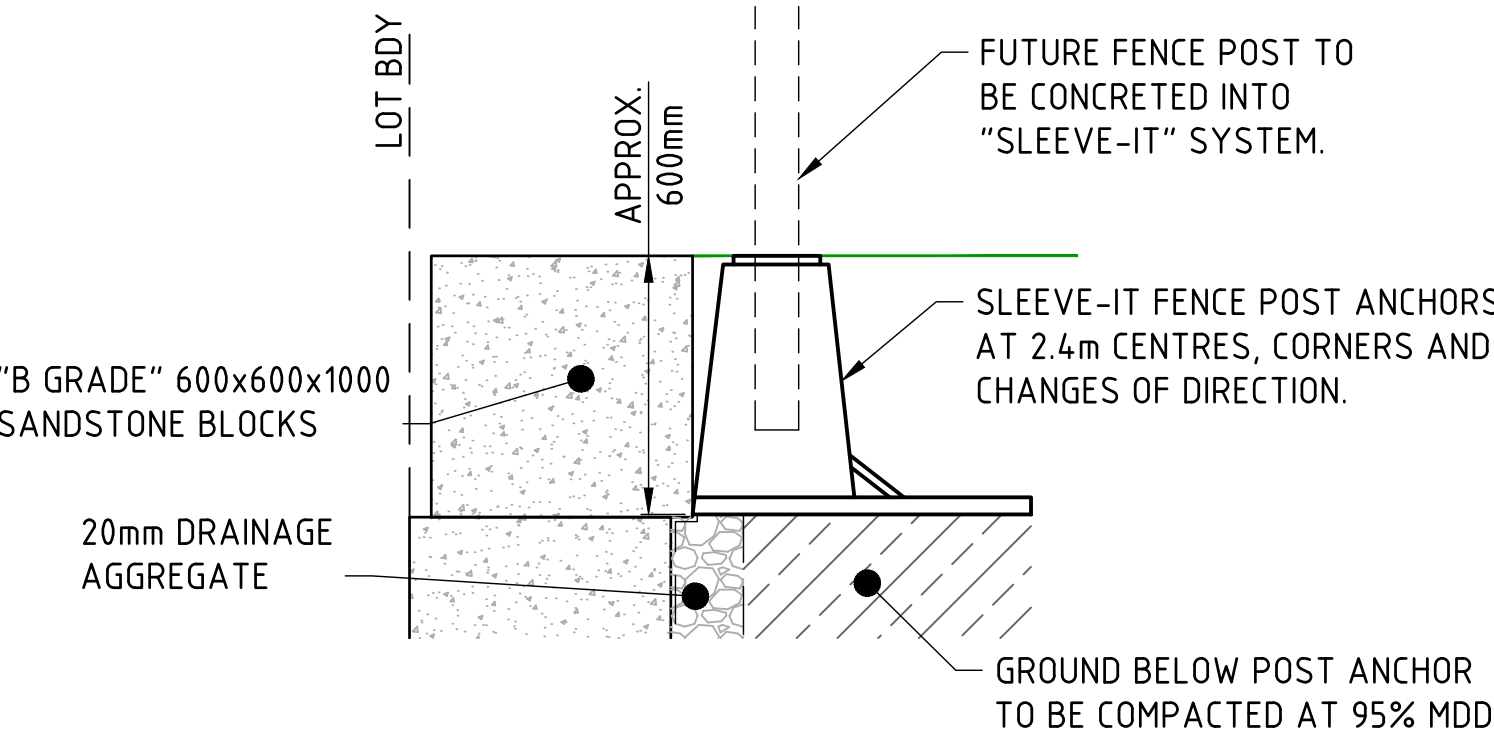
RETAINING WALL FOOTING DETAILS
PARALLEL TO SEWER

SCALE N.T.S



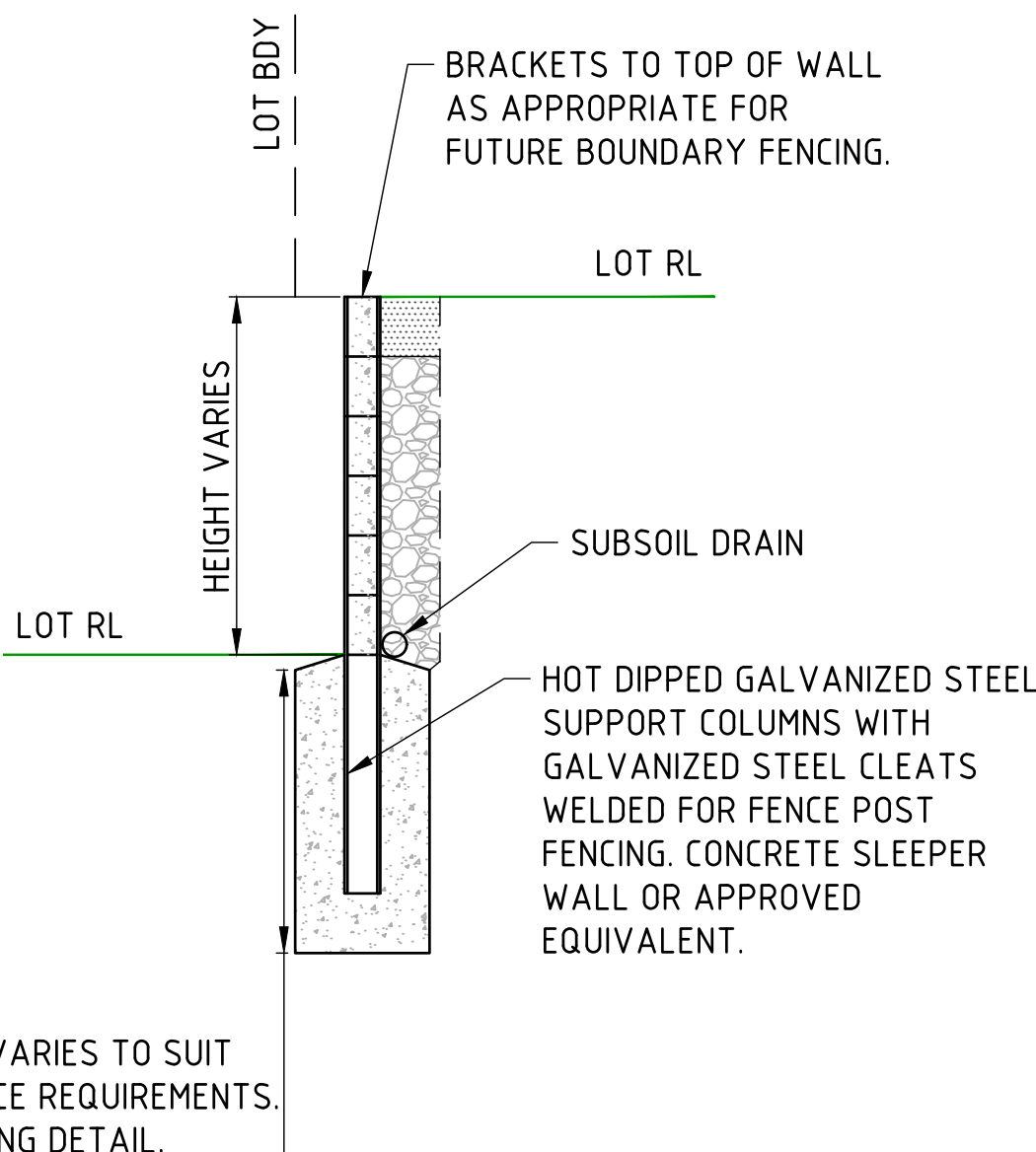
SANDSTONE BLOCK WALL AND
SERVICE CONDUIT DETAIL

SCALE N.T.S



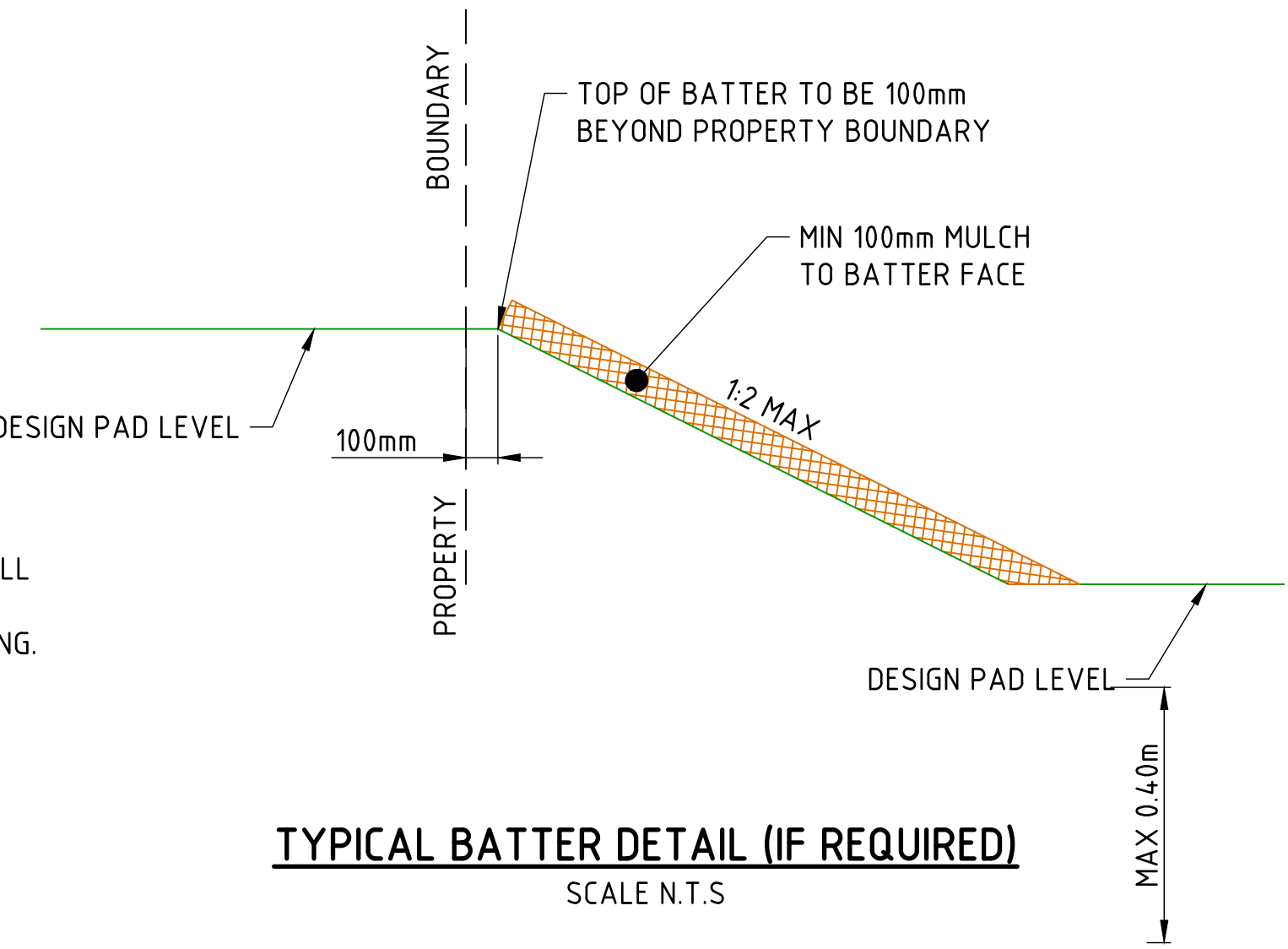
ANCHOR FOR FUTURE FENCE POSTS
TO SANDSTONE BLOCK WALL DETAIL

SCALE N.T.S



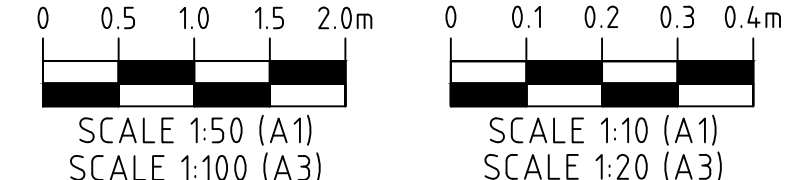
INDICATIVE CONCRETE SLEEPER
RETAINING WALL FOOTING DETAILS

SCALE N.T.S



TYPICAL BATTER DETAIL (IF REQUIRED)

SCALE N.T.S



ISSUED
FOR CONSTRUCTION

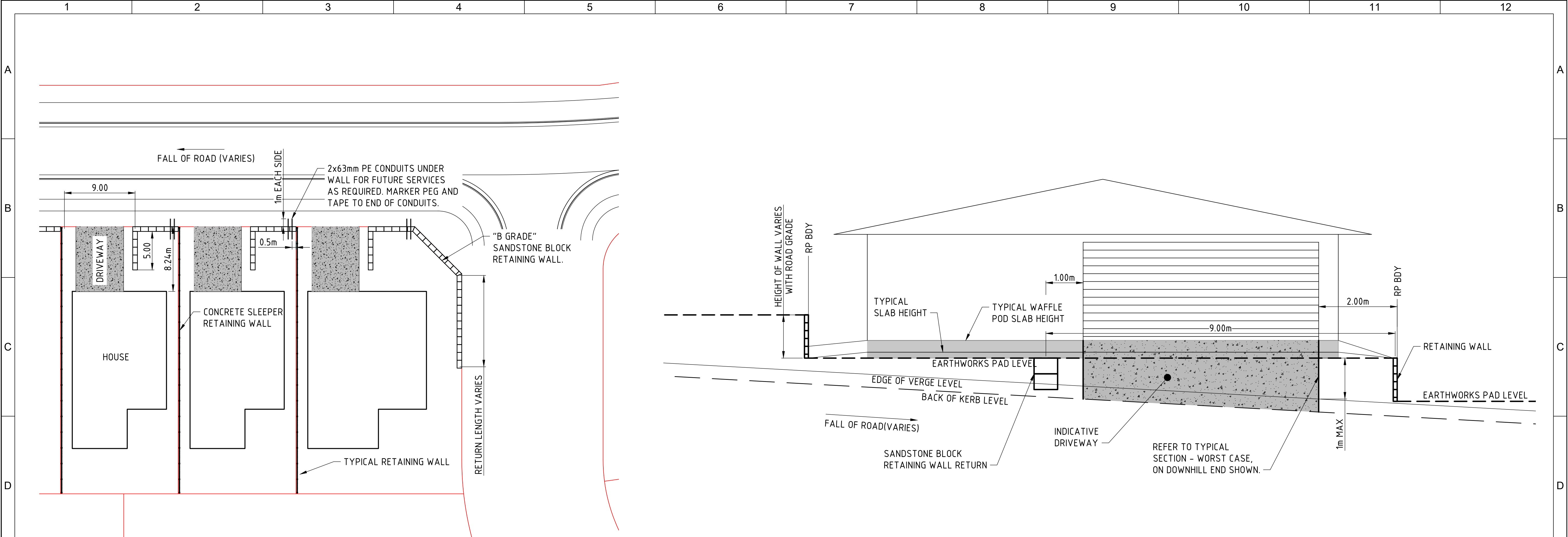
REV	DATE	DRAWN	APPD	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



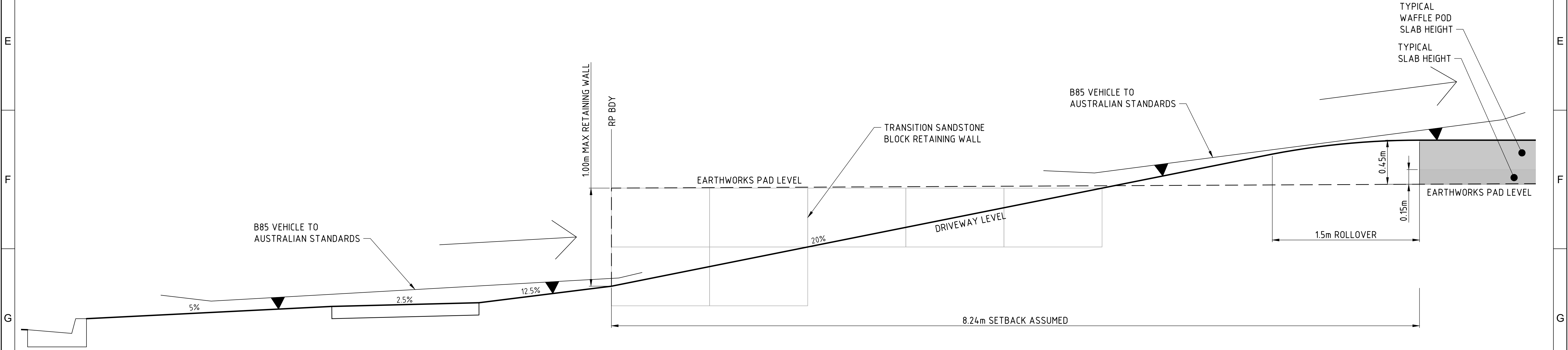
CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE EARTHWORKS TYPICAL RETAINING WALL AND BATTER DETAILS			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 110
			REVISION 0



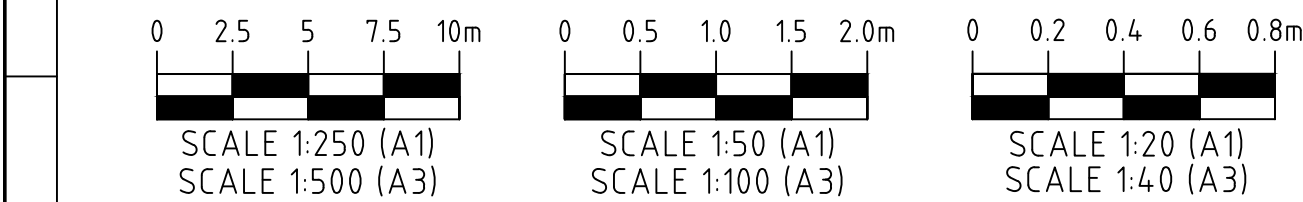
TYPICAL HOUSE LAYOUT PLAN
SCALE 1:250

ELEVATION - TYPICAL EARTHWORKS AND DRIVEWAY ARRANGEMENT
SCALE 1:50



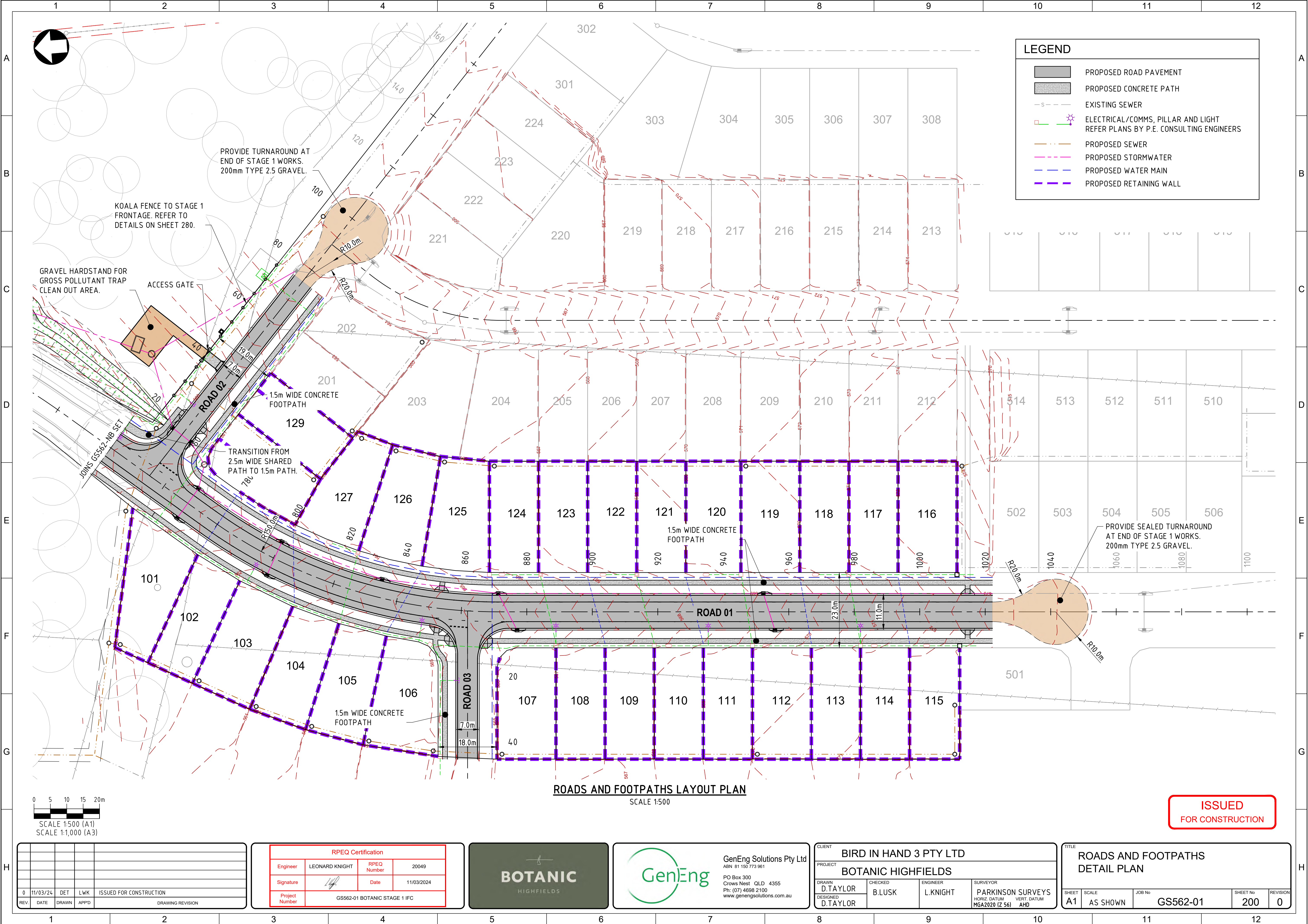
TYPICAL CROSS SECTION - WORST CASE
SCALE 1:20

ISSUED
FOR CONSTRUCTION



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ROADS AND FOOTPATHS LAYOUT PLAN
SCALE 1:500

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SCALE 1:500 (A1)
SCALE 1:1,000 (A3)

ISSUED
FOR CONSTRUCTION

REV.	DATE	DRAWN	APP'D	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

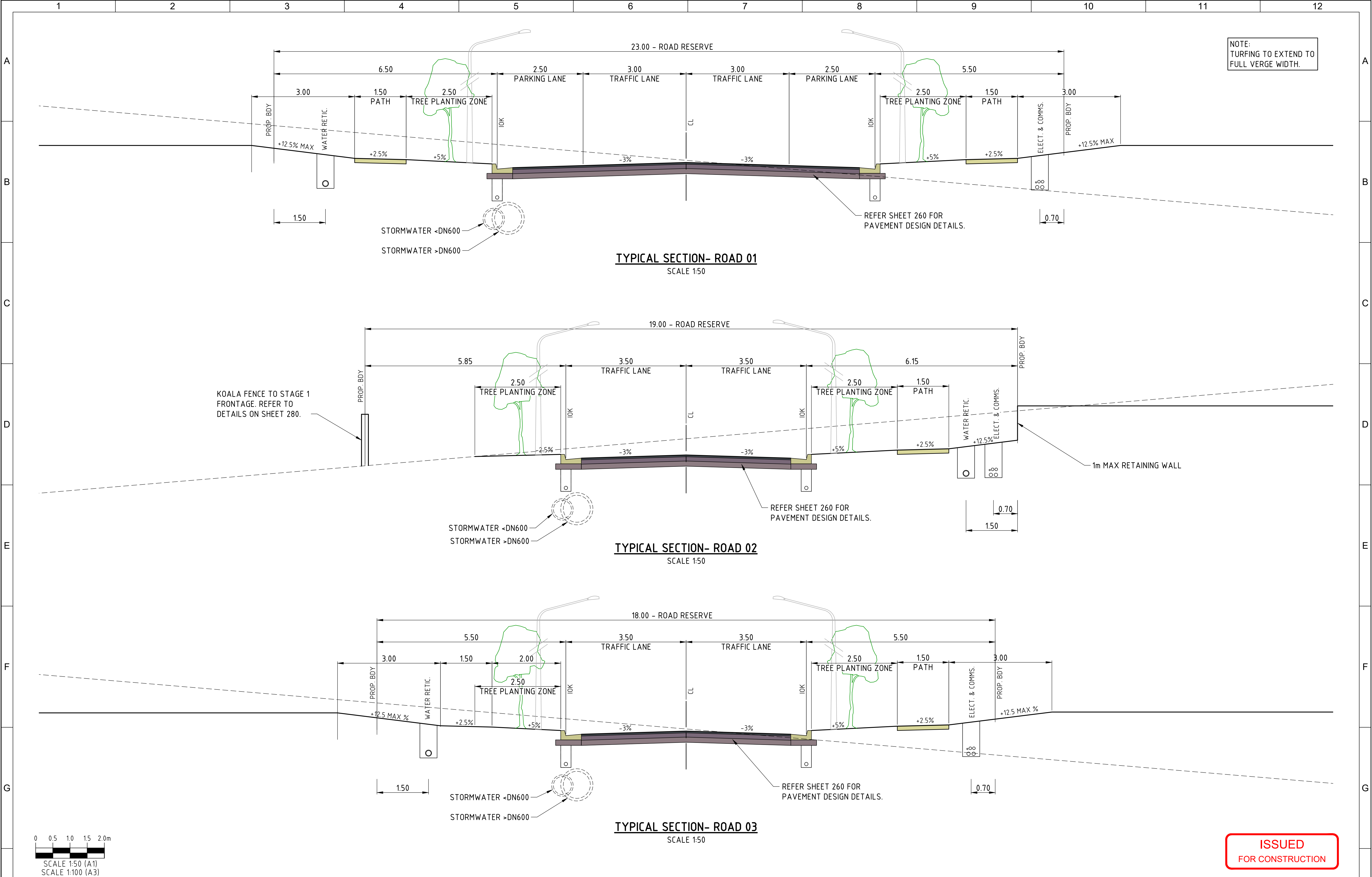
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



GenEng Solutions Pty Ltd
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Crows Nest QLD 4355
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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE ROADS AND FOOTPATHS DETAIL PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 200	REVISION 0



ISSUED
FOR CONSTRUCTION

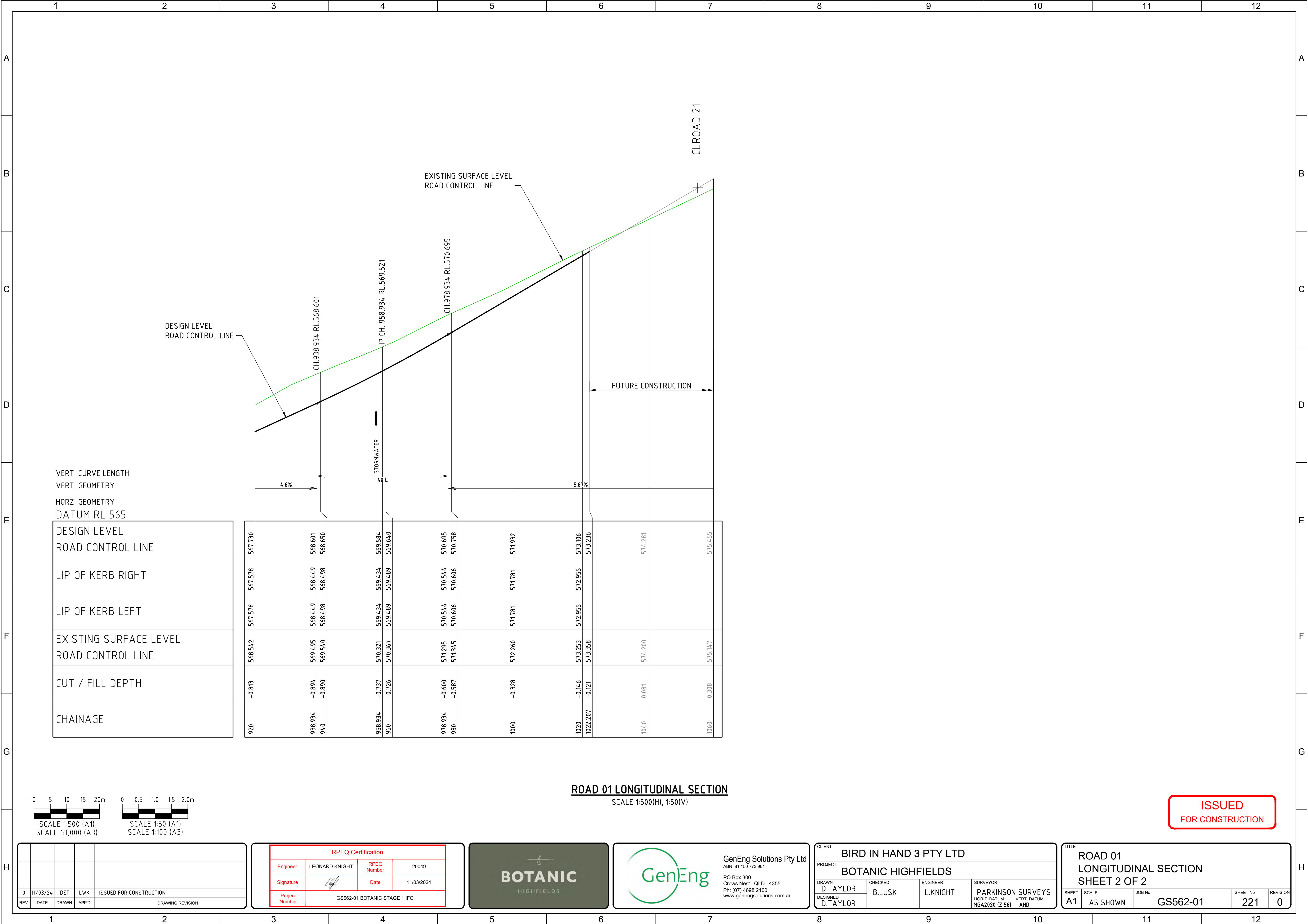
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE TYPICAL SECTIONS AND SERVICE ALLOCATIONS				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 210	REVISION 0

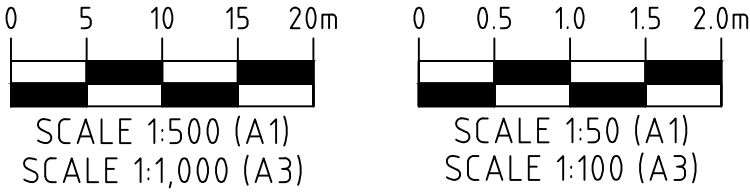


VERT. CURVE LENGTH
VERT. GEOMETRY
HORZ. GEOMETRY
DATUM RL 565

DESIGN LEVEL ROAD CONTROL LINE	567.730	568.601	568.650	569.584	570.695	571.932	573.106	574.281	575.455
LIP OF KERB RIGHT	567.578	568.449	568.498	569.434	570.544	571.781	572.955		
LIP OF KERB LEFT	567.578	568.449	568.498	569.434	570.544	571.781	572.955		
EXISTING SURFACE LEVEL ROAD CONTROL LINE	568.542	569.495	569.540	570.321	571.295	572.260	573.253	574.200	575.147
CUT / FILL DEPTH	-0.813	-0.894	-0.890	-0.737	-0.600	-0.328	-0.146	0.081	0.308
CHAINAGE	920	938.934	940	958.934	960	978.934	980	1000	1020

920	567.730	568.601	568.650	569.584	570.695	571.932	573.106	574.281	575.455
938.934	567.578	568.449	568.498	569.434	570.544	571.781	572.955		
940	567.578	568.449	568.498	569.434	570.544	571.781	572.955		
958.934	568.542	569.495	569.540	570.321	571.295	572.260	573.253	574.200	575.147
960	-0.813	-0.894	-0.890	-0.737	-0.600	-0.328	-0.146	0.081	0.308
978.934	567.578	568.449	568.498	569.434	570.544	571.781	572.955		
980	567.578	568.449	568.498	569.434	570.544	571.781	572.955		
1000	568.542	569.495	569.540	570.321	571.295	572.260	573.253	574.200	575.147
1020	-0.813	-0.894	-0.890	-0.737	-0.600	-0.328	-0.146	0.081	0.308
1060	567.578	568.449	568.498	569.434	570.544	571.781	572.955		

ROAD 01 LONGITUDINAL SECTION
SCALE 1:500(H), 1:50(V)



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FOR CONSTRUCTION

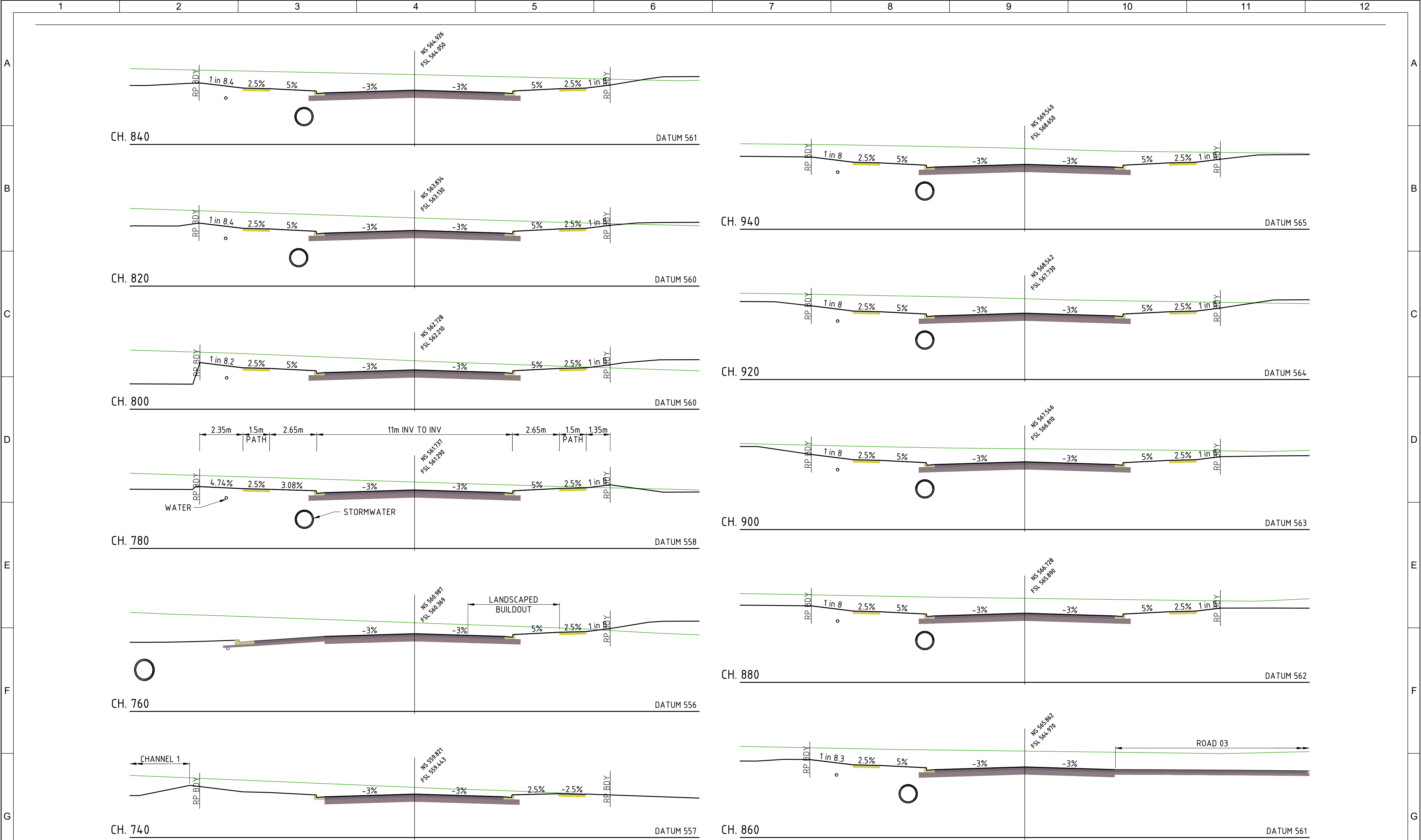
REV	DATE	DRAWN	APPD	ISSUED FOR CONSTRUCTION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE ROAD 01 LONGITUDINAL SECTION SHEET 2 OF 2			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 221 REVISION 0



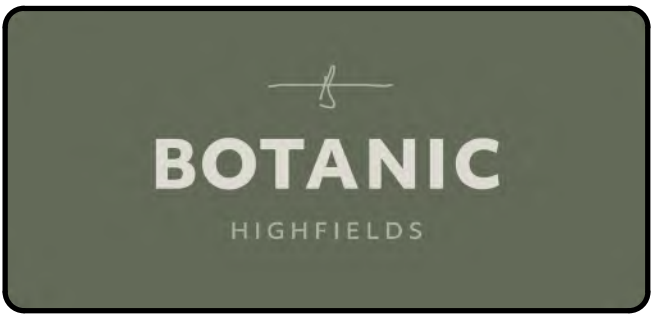
ROAD 01 CROSS SECTIONS
SCALE 1:100



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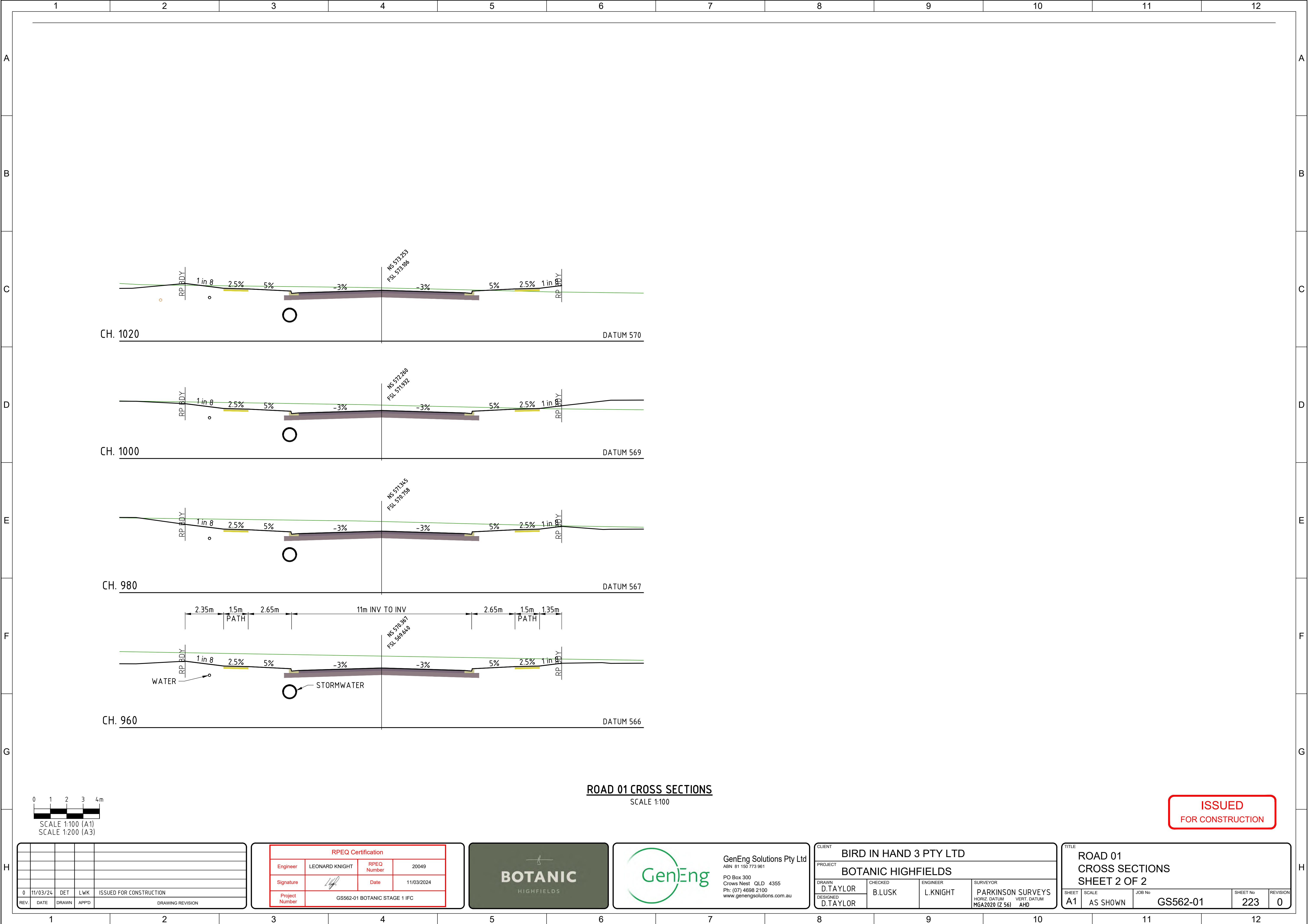
REV	DATE	DRAWN	APPD	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR	MGA2020 (Z 56) AHD		

TITLE ROAD 01 CROSS SECTIONS SHEET 1 OF 2			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 222
			REVISION 0



ROAD 01 CROSS SECTIONS
SCALE 1:100

ISSUED
FOR CONSTRUCTION

0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APP'D	DRAWING REVISION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

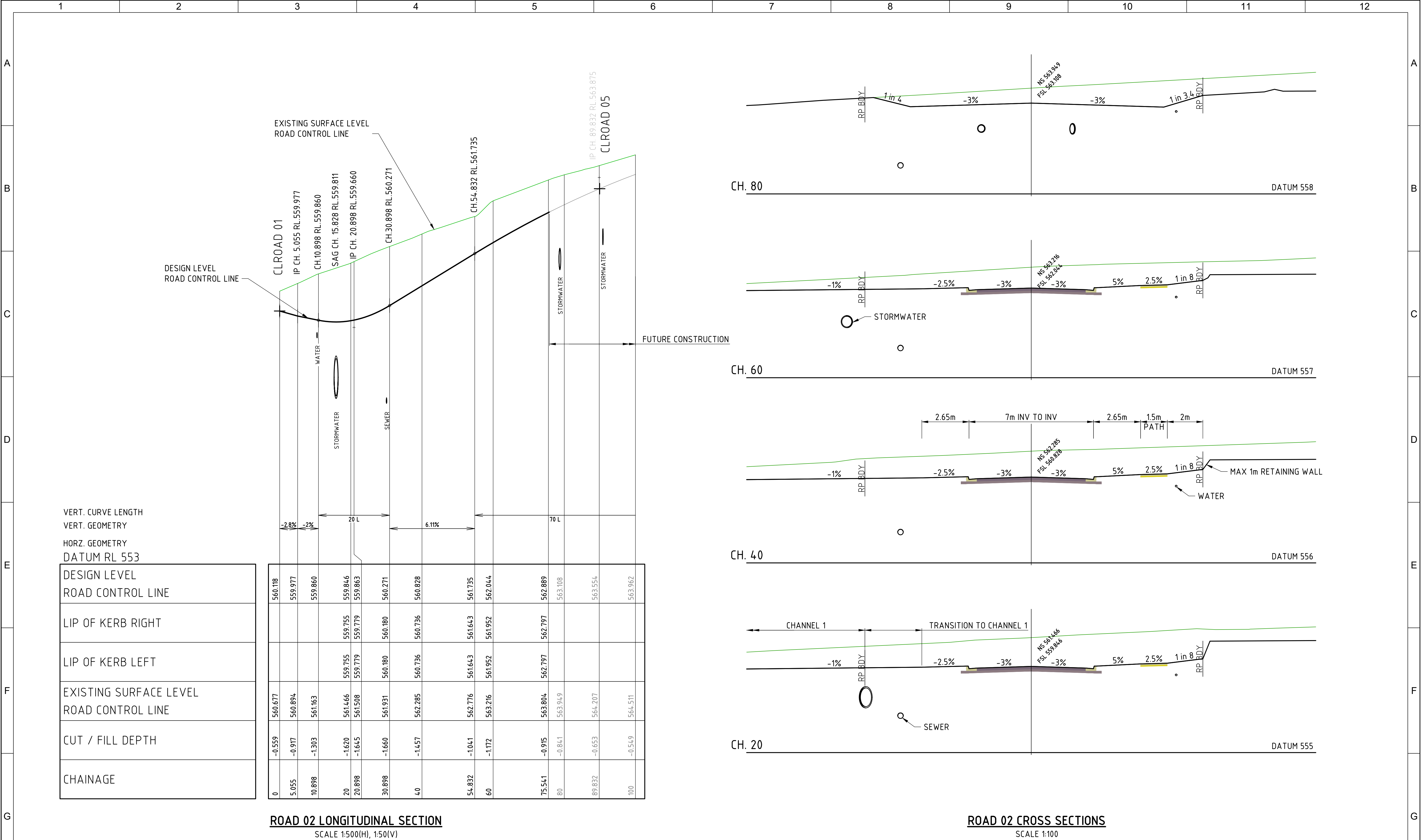


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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE ROAD 01 CROSS SECTIONS SHEET 2 OF 2				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 223	REVISION 0



0 5 10 15 20m

SCALE 1:500 (A1)

SCALE 1:1,000 (A3)

0 1 2 3 4m

SCALE 1:100 (A1)

SCALE 1:200 (A3)

0 0.5 1.0 1.5 2.0m

SCALE 1:50 (A1)

SCALE 1:100 (A3)

REV	DATE	DRAWN	APPD	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification

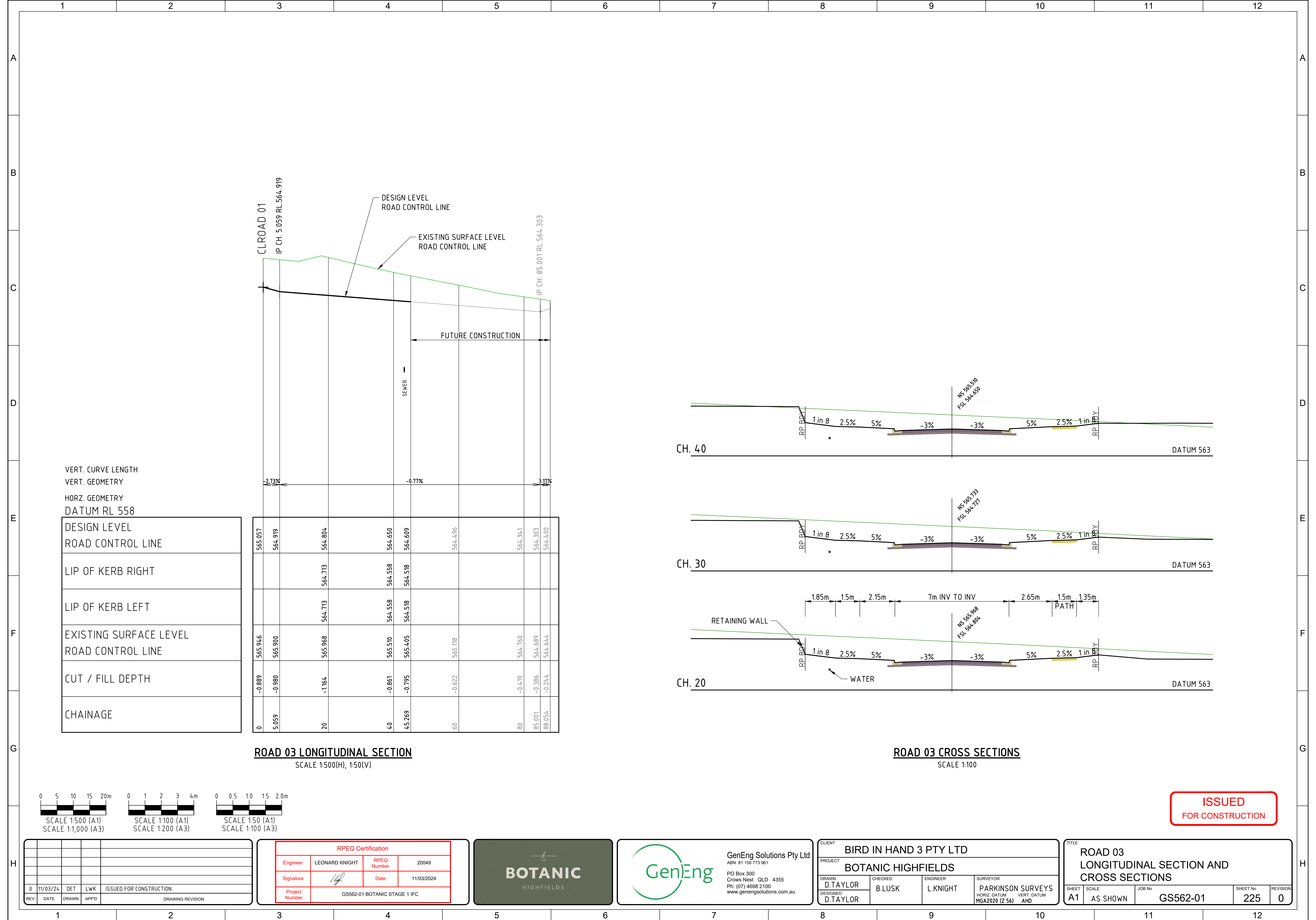
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR	HORIZ. DATUM MGA2020 (Z 56)		VERT. DATUM AHD

TITLE ROAD 02 LONGITUDINAL SECTION AND CROSS SECTIONS		SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 224	REVISION 0
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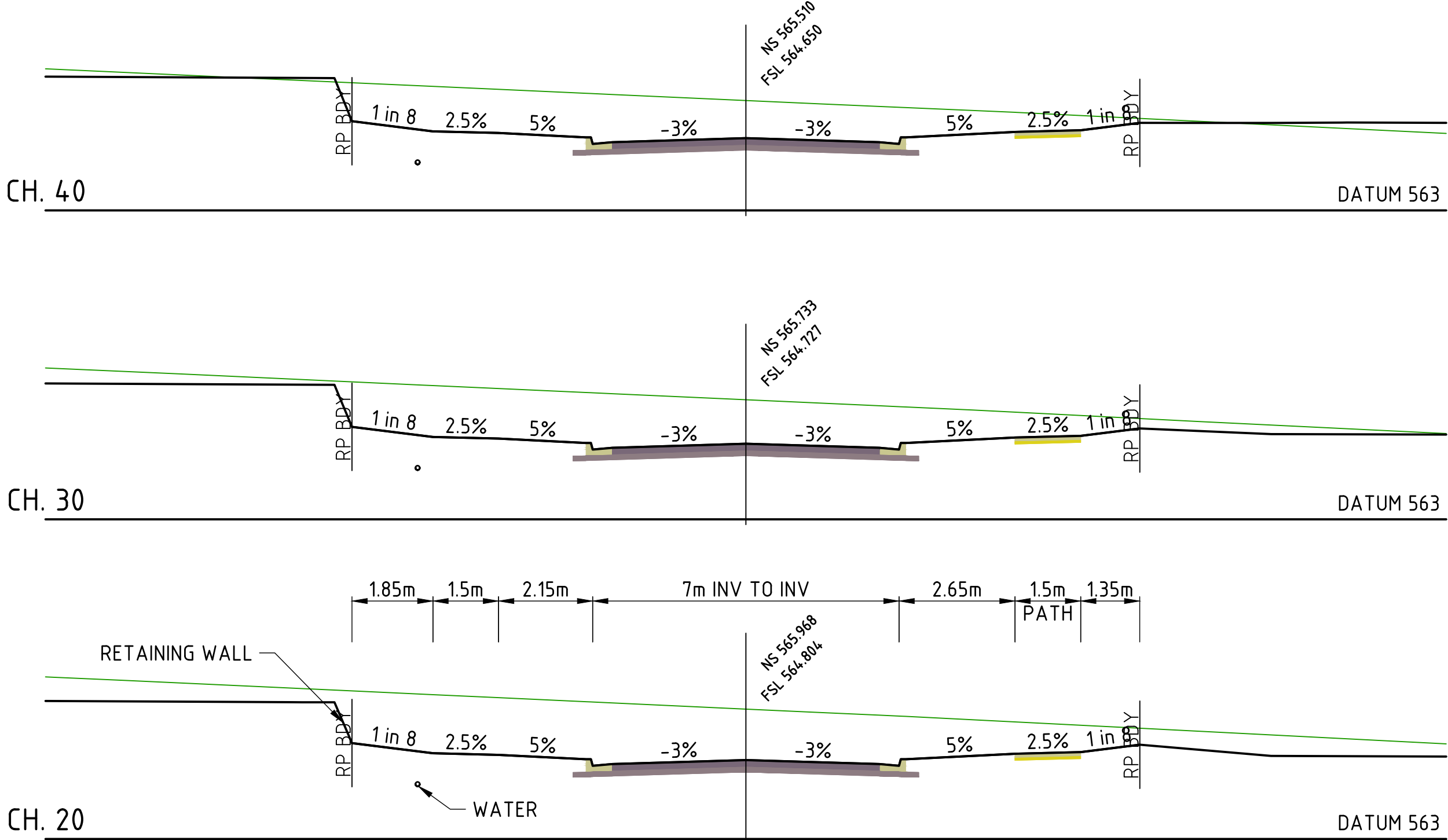
ISSUED
FOR CONSTRUCTION



VERT. CURVE LENGTH
VERT. GEOMETRY
HORZ. GEOMETRY
DATUM RL 558

DESIGN LEVEL ROAD CONTROL LINE	565.057	564.919	564.804	564.650	564.609	564.496	564.341	564.303	564.400
LIP OF KERB RIGHT			564.713	564.558	564.518				
LIP OF KERB LEFT			564.713	564.558	564.518				
EXISTING SURFACE LEVEL ROAD CONTROL LINE	565.946	565.900	565.968	565.510	565.405	565.118	564.760	564.689	564.644
CUT / FILL DEPTH	-0.889	-0.980	-1.164	-0.861	-0.795	-0.622	-0.419	-0.386	-0.244
CHAINAGE	0	5.059	20	40	45.269	60	80	85.001	88.054

ROAD 03 LONGITUDINAL SECTION
SCALE 1:500(H), 1:50(V)



ROAD 03 CROSS SECTIONS
SCALE 1:100



ISSUED
FOR CONSTRUCTION

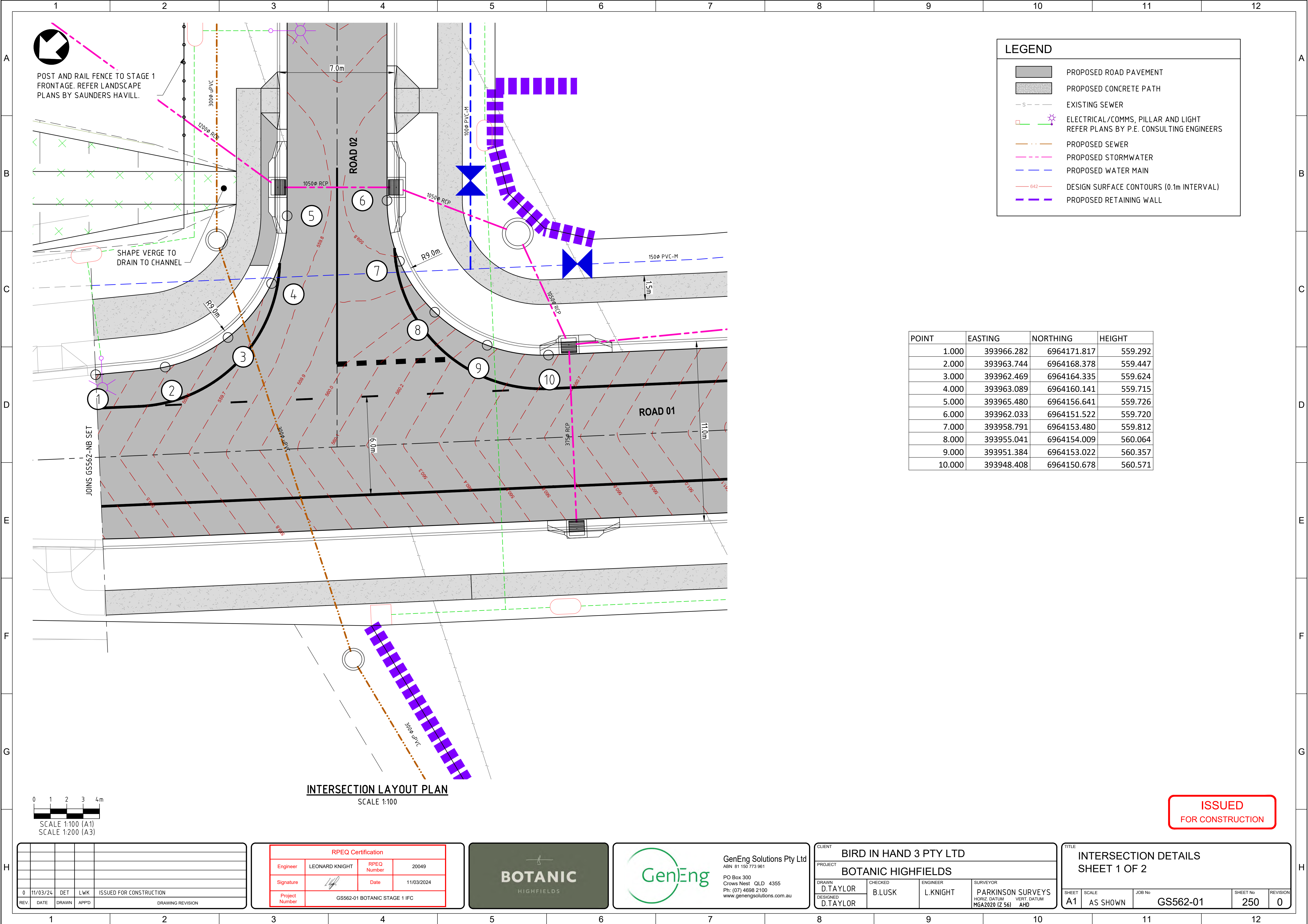
REV	DATE	DRAWN	APPD	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



CLIENT			
BIRD IN HAND 3 PTY LTD			
PROJECT			
BOTANIC HIGHFIELDS			
DRAWN	CHECKED	ENGINEER	SURVEYOR
D.TAYLOR	B.LUSK	L.KNIGHT	PARKINSON SURVEYS
DESIGNED			
D.TAYLOR			

TITLE			
ROAD 03 LONGITUDINAL SECTION AND CROSS SECTIONS			
SHEET	SCALE	JOB No	SHEET No
A1	AS SHOWN	GS562-01	225
			REVISION
			0



LEGEND

PROPOSED ROAD PAVEMENT

PROPOSED CONCRETE PATH

S

642

POINT	EASTING	NORTHING	HEIGHT
1.000	393966.282	6964171.817	559.292
2.000	393963.744	6964168.378	559.447
3.000	393962.469	6964164.335	559.624
4.000	393963.089	6964160.141	559.715
5.000	393965.480	6964156.641	559.726
6.000	393962.033	6964151.522	559.720
7.000	393958.791	6964153.480	559.812
8.000	393955.041	6964154.009	560.064
9.000	393951.384	6964153.022	560.357
10.000	393948.408	6964150.678	560.571

INTERSECTION LAYOUT PLAN
SCALE 1:100



ISSUED
FOR CONSTRUCTION

REV	DATE	DRAWN	APPD	REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

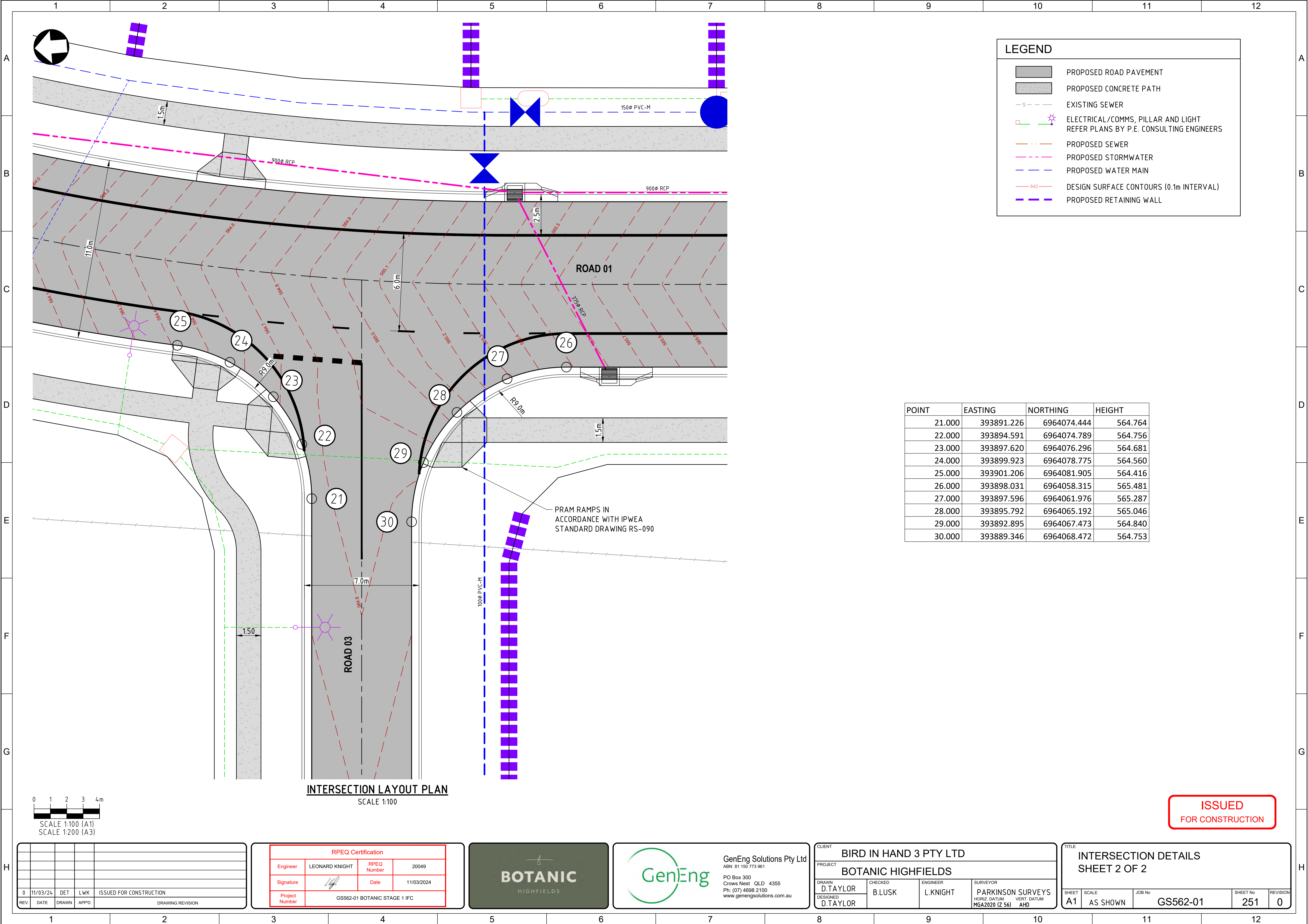
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ DATUM MGA2020 (Z 56) VERT DATUM AHD

TITLE INTERSECTION DETAILS SHEET 1 OF 2				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 250	REVISION 0



LEGEND

PROPOSED ROAD PAVEMENT

PROPOSED CONCRETE PATH

-S-

EXISTING SEWER

ELECTRICAL/COMMS, PILLAR AND LIGHT
REFER PLANS BY P.E. CONSULTING ENGINEERS

PROPOSED SEWER

PROPOSED STORMWATER

PROPOSED WATER MAIN

642

DESIGN SURFACE CONTOURS (0.1m INTERVAL)

PROPOSED RETAINING WALL

POINT	EASTING	NORTHING	HEIGHT
21.000	393891.226	6964074.444	564.764
22.000	393894.591	6964074.789	564.756
23.000	393897.620	6964076.296	564.681
24.000	393899.923	6964078.775	564.560
25.000	393901.206	6964081.905	564.416
26.000	393898.031	6964058.315	565.481
27.000	393897.596	6964061.976	565.287
28.000	393895.792	6964065.192	565.046
29.000	393892.895	6964067.473	564.840
30.000	393889.346	6964068.472	564.753

INTERSECTION LAYOUT PLAN
SCALE 1:100

ISSUED
FOR CONSTRUCTION

0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

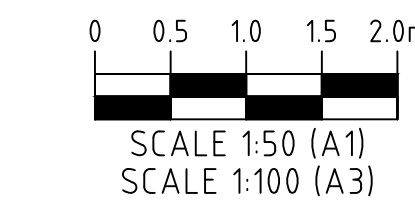
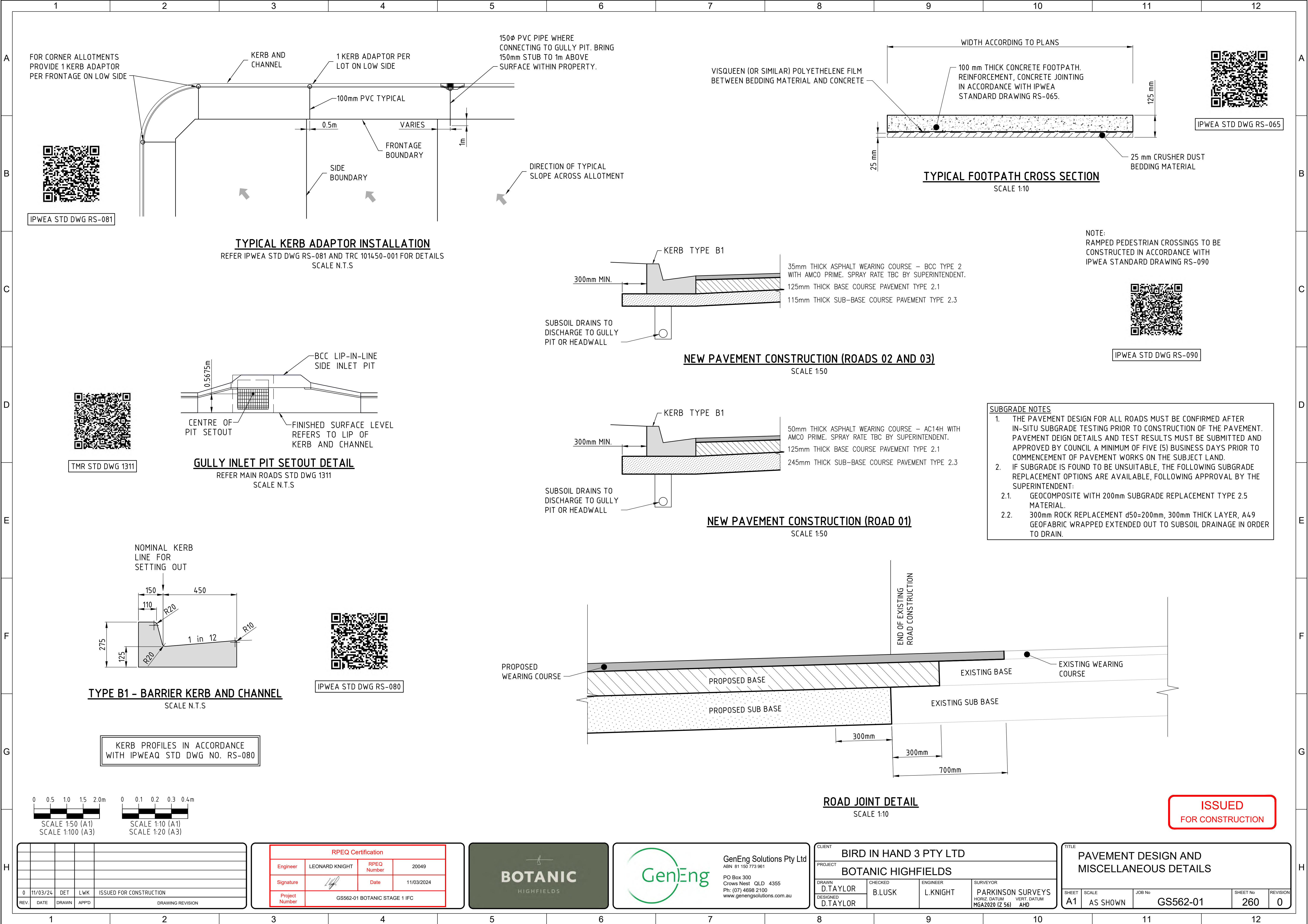
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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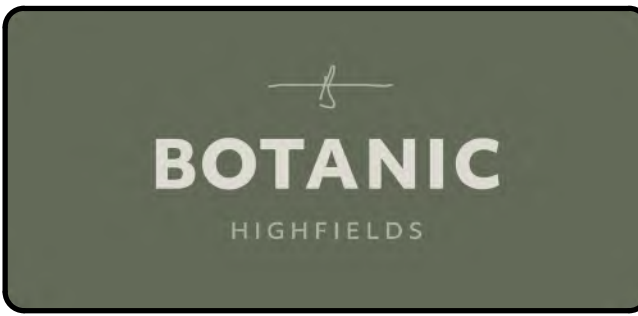
CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE INTERSECTION DETAILS SHEET 2 OF 2				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 251	REVISION 0



0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

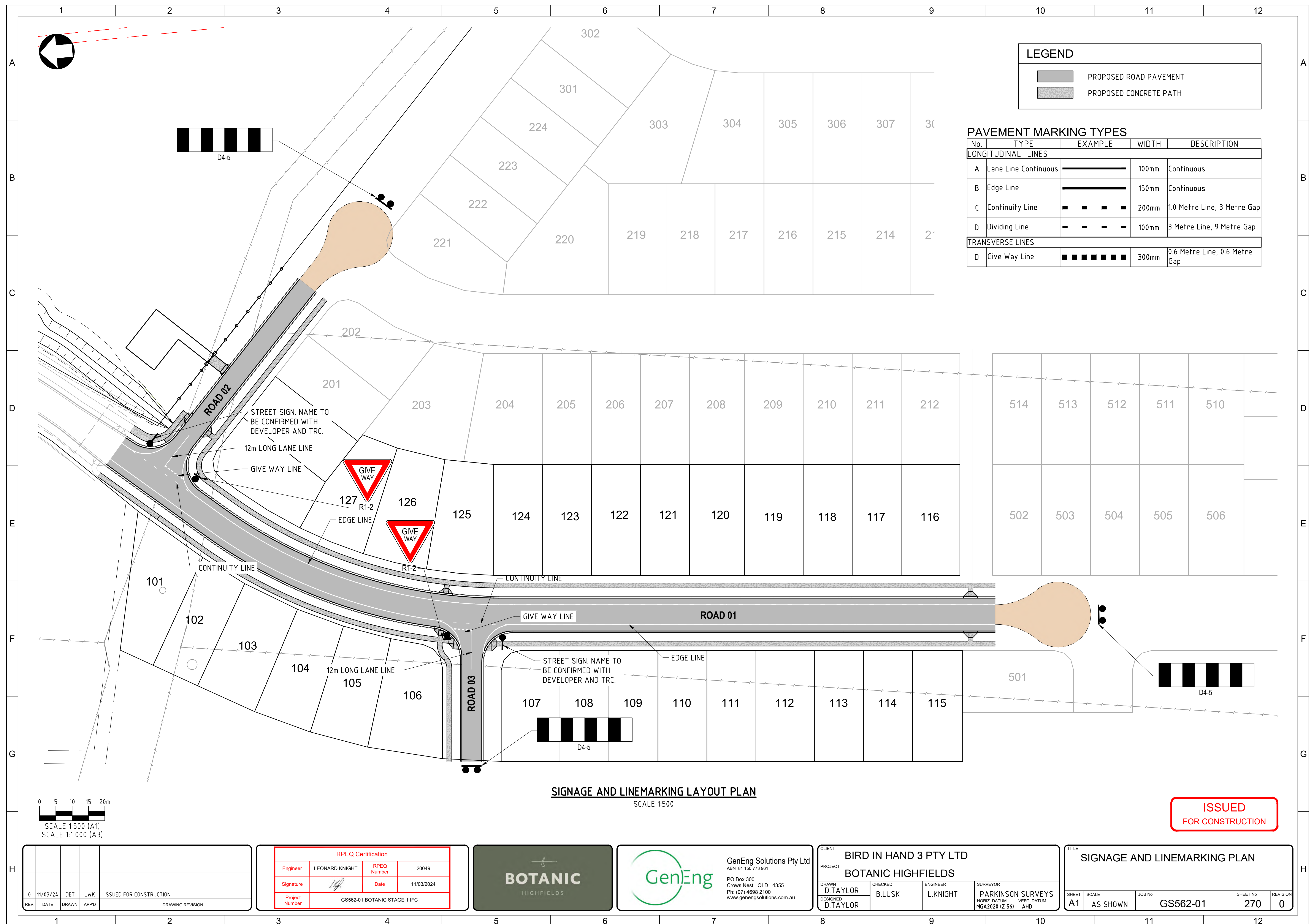
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

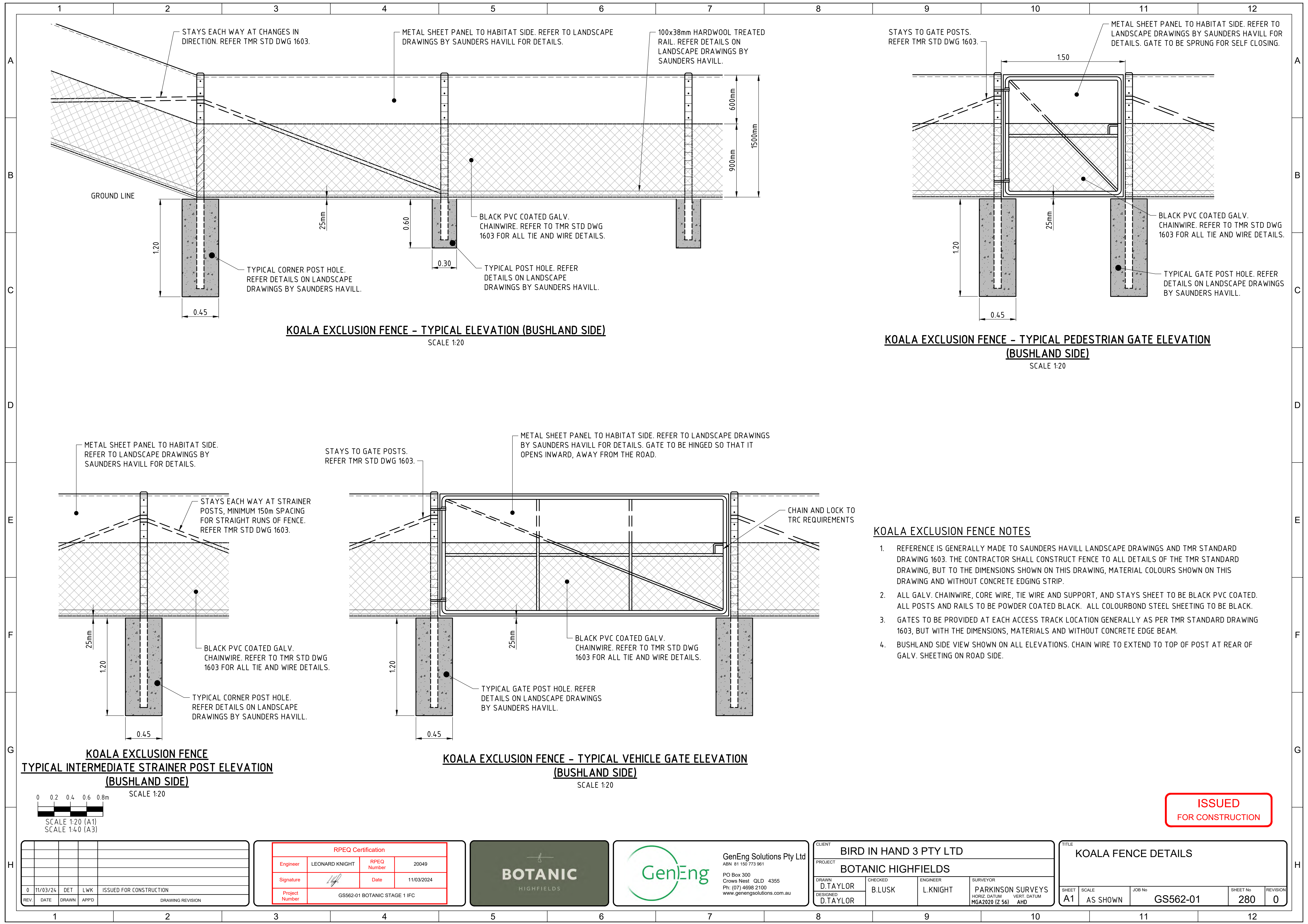


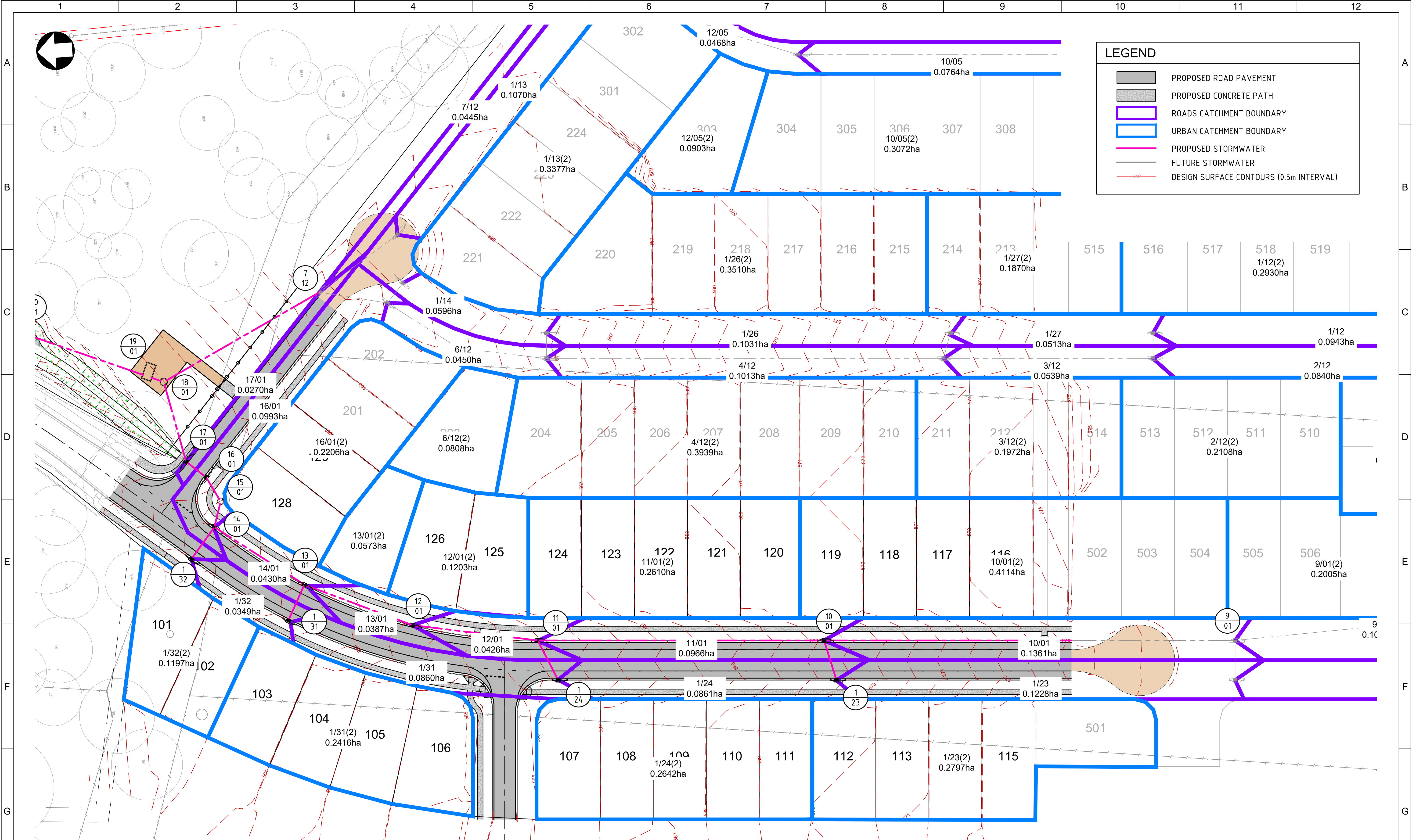
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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ DATUM MGA2020 (Z 56) VERT DATUM AHD

TITLE PAVEMENT DESIGN AND MISCELLANEOUS DETAILS				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 260	REVISION 0

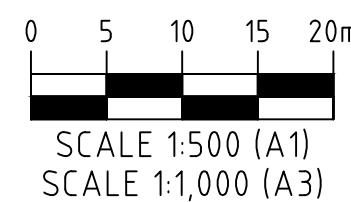






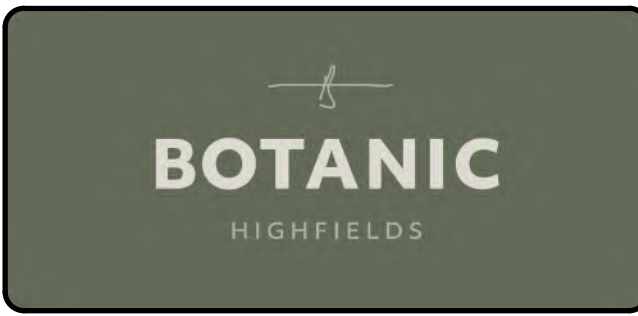
STORMWATER CATCHMENT PLAN
SCALE 1:500

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FOR CONSTRUCTION



REV.	DATE	DRAWN	APPD.	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

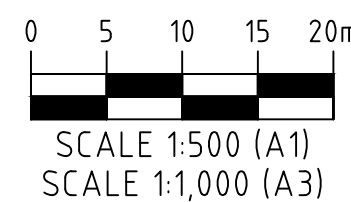
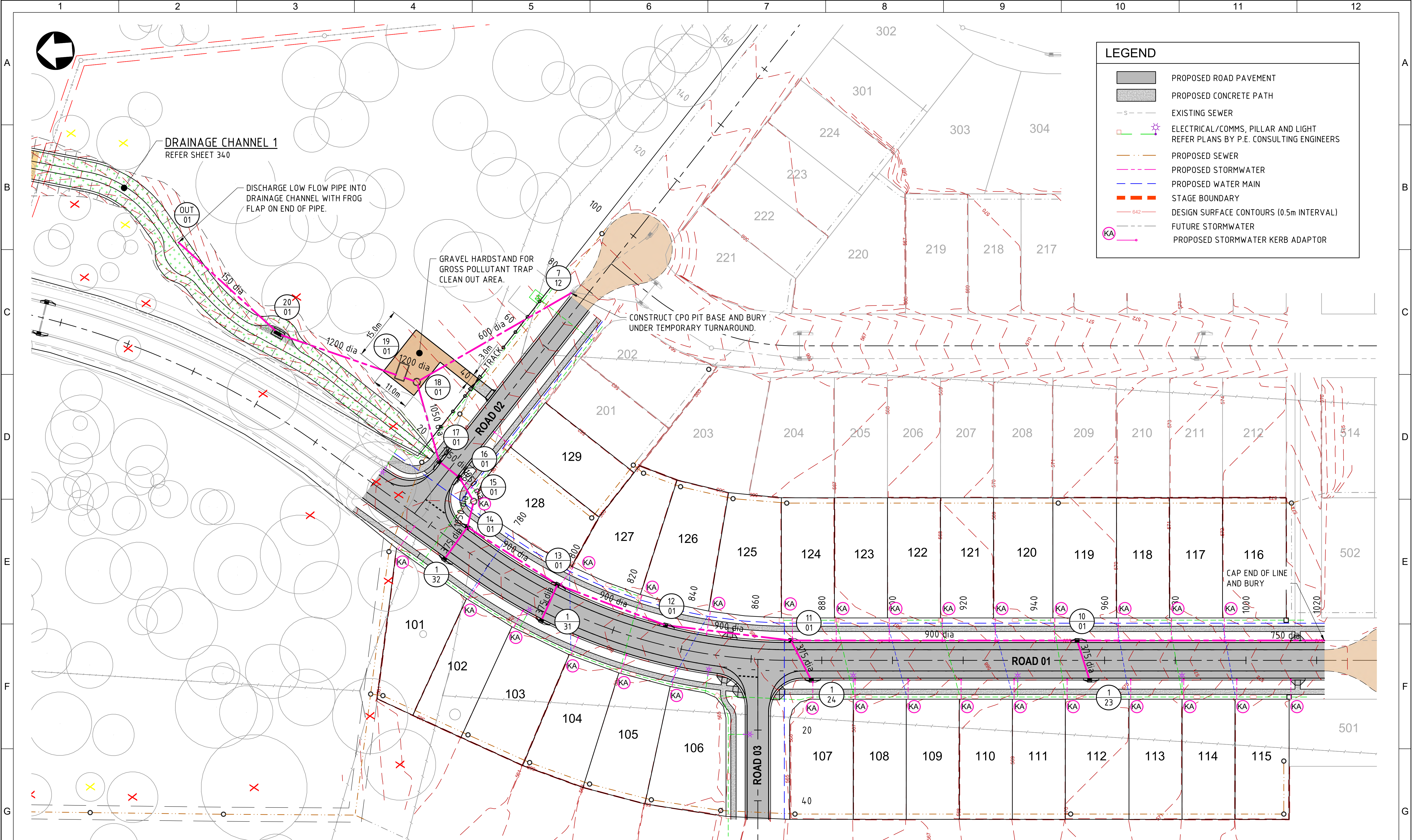
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

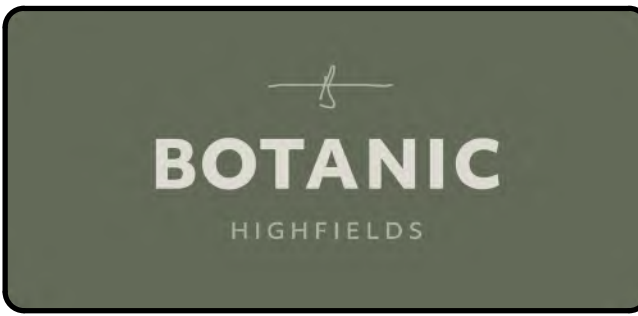
TITLE STORMWATER DRAINAGE CATCHMENT PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 300	REVISION 0



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FOR CONSTRUCTION

REV.	DATE	DRAWN	APPD.	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

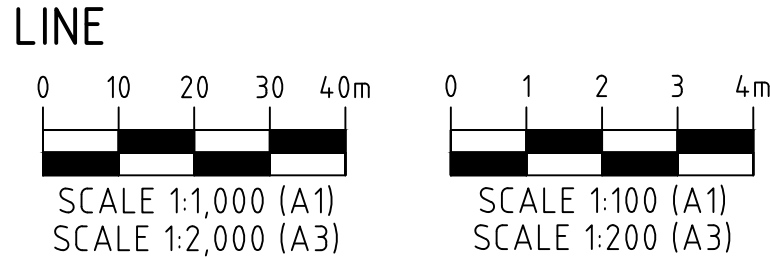
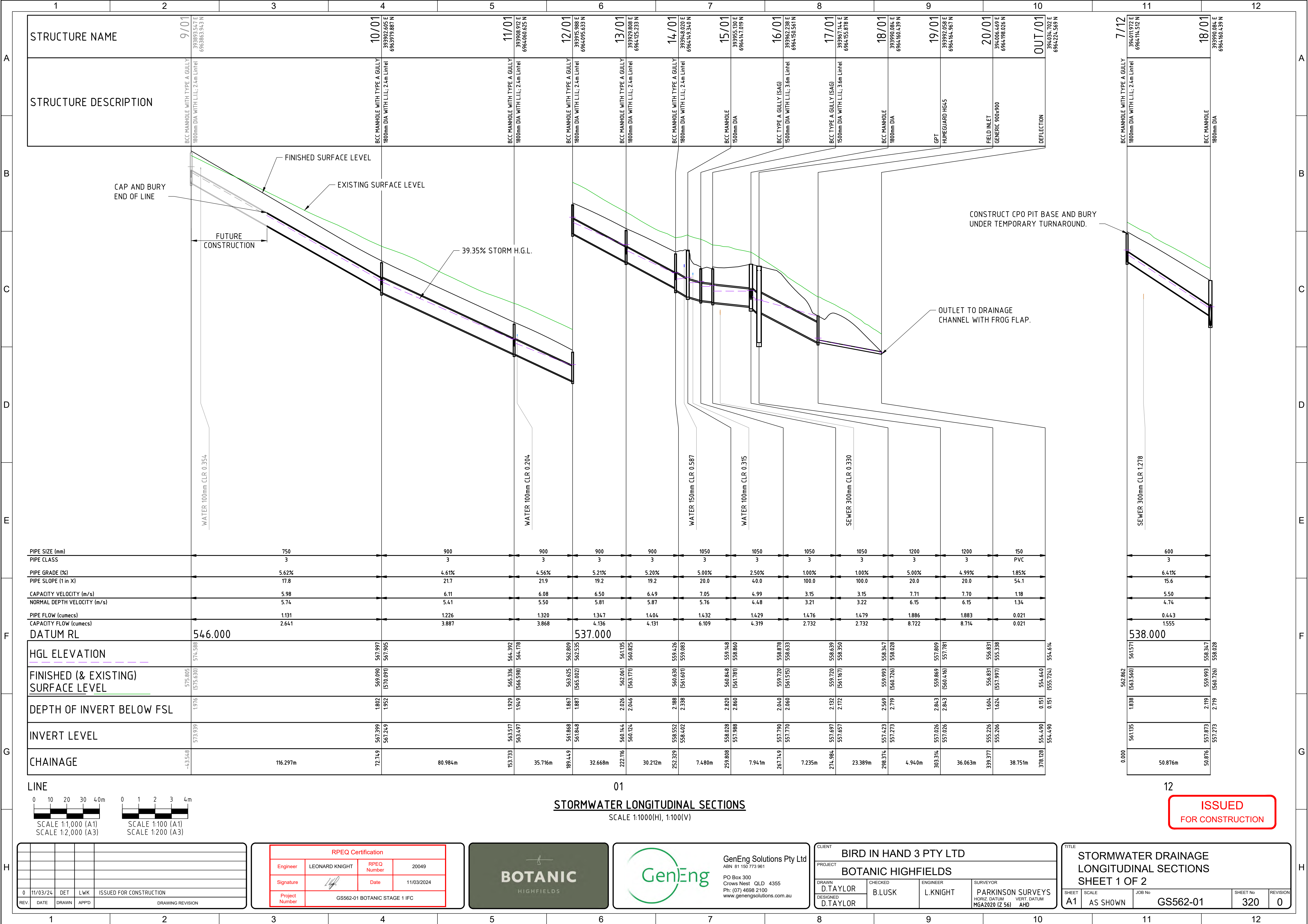
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		




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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE STORMWATER DRAINAGE LAYOUT PLAN			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 310
			REVISION 0



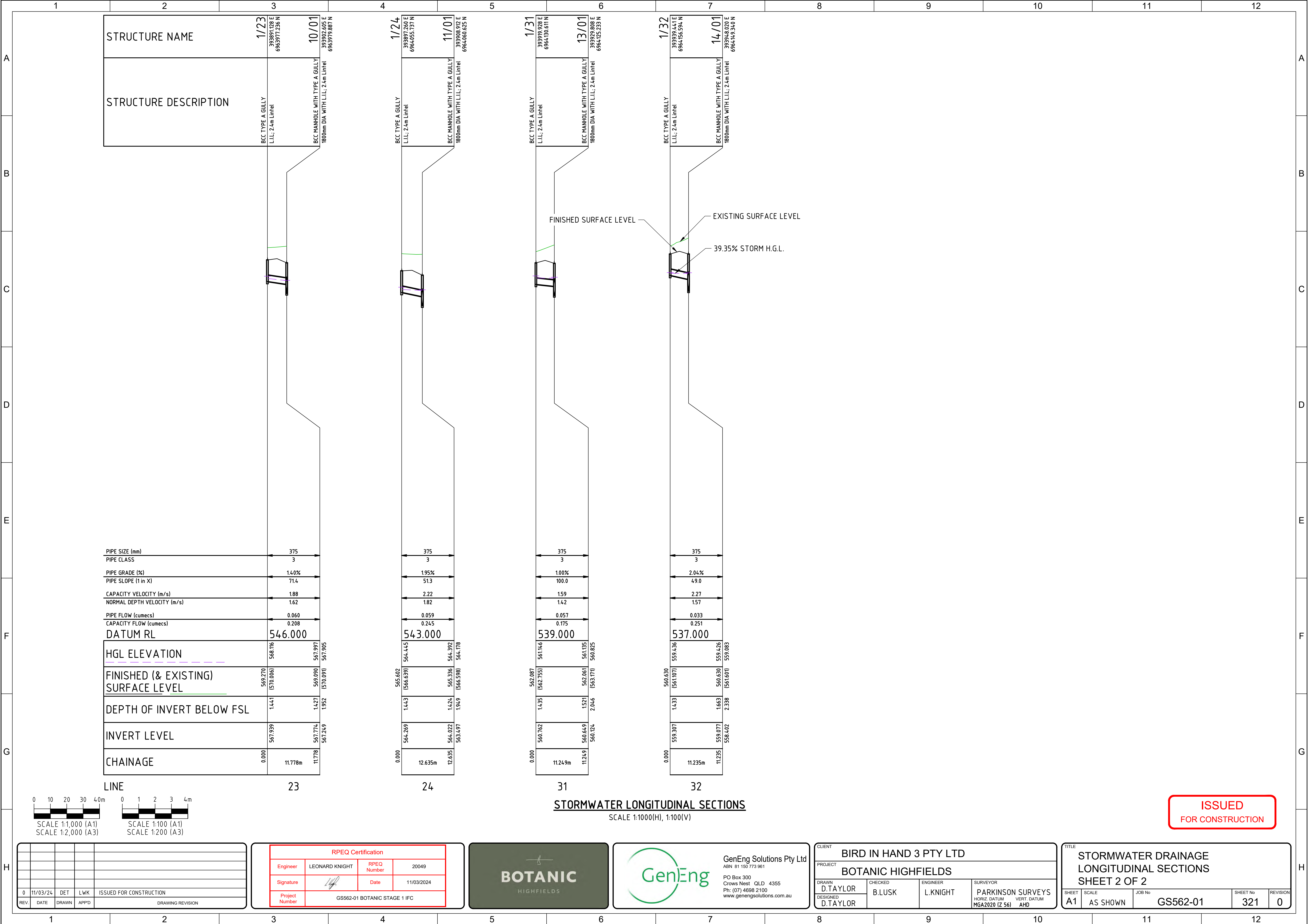
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APP'D	DRAWING REVISION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR	MG2020 (Z 56) AHD		

TITLE STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 320
			REVISION 0



STRUCTURE NAME	1/23	10/01
STRUCTURE DESCRIPTION	BCC TYPE A GULLY L.L.I.; 2.4m Lintel	BCC MANHOLE WITH TYPE A GULLY 1800mm DIA WITH L.L.I.; 2.4m Lintel
393991.28 E 696397.236 N		393902.605 E 696397.9887 N
PIPE SIZE (mm)	375	
PIPE CLASS	3	
PIPE GRADE (%)	1.40%	
PIPE SLOPE (1 in X)	71.4	
CAPACITY VELOCITY (m/s)	1.88	
NORMAL DEPTH VELOCITY (m/s)	1.62	
PIPE FLOW (cumecs)	0.060	
CAPACITY FLOW (cumecs)	0.208	
DATUM RL	546.000	
HGL ELEVATION	568.116	567.997
FINISHED (& EXISTING) SURFACE LEVEL	569.270 (570.006)	569.090 (570.091)
DEPTH OF INVERT BELOW FSL	1.441	1.427
INVERT LEVEL	567.939	567.774
CHAINAGE	0.000	11.778m

1/24	11/01
BCC TYPE A GULLY L.L.I.; 2.4m Lintel	BCC MANHOLE WITH TYPE A GULLY 1800mm DIA WITH L.L.I.; 2.4m Lintel
393897.260 E 696405.737 N	393908.912 E 696406.625 N
PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	1.95%
PIPE SLOPE (1 in X)	51.3
CAPACITY VELOCITY (m/s)	2.22
NORMAL DEPTH VELOCITY (m/s)	1.82
PIPE FLOW (cumecs)	0.059
CAPACITY FLOW (cumecs)	0.245
DATUM RL	543.000
HGL ELEVATION	564.445
FINISHED (& EXISTING) SURFACE LEVEL	566.639 (566.639)
DEPTH OF INVERT BELOW FSL	1.443
INVERT LEVEL	564.269
CHAINAGE	0.000

1/31	13/01
BCC TYPE A GULLY L.L.I.; 2.4m Lintel	BCC MANHOLE WITH TYPE A GULLY 1800mm DIA WITH L.L.I.; 2.4m Lintel
393919.928 E 6964130.611 N	393929.808 E 6964125.233 N
PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	1.00%
PIPE SLOPE (1 in X)	100.0
CAPACITY VELOCITY (m/s)	1.59
NORMAL DEPTH VELOCITY (m/s)	1.42
PIPE FLOW (cumecs)	0.057
CAPACITY FLOW (cumecs)	0.175
DATUM RL	539.000
HGL ELEVATION	561.146
FINISHED (& EXISTING) SURFACE LEVEL	562.551 (562.551)
DEPTH OF INVERT BELOW FSL	1.435
INVERT LEVEL	560.762
CHAINAGE	0.000

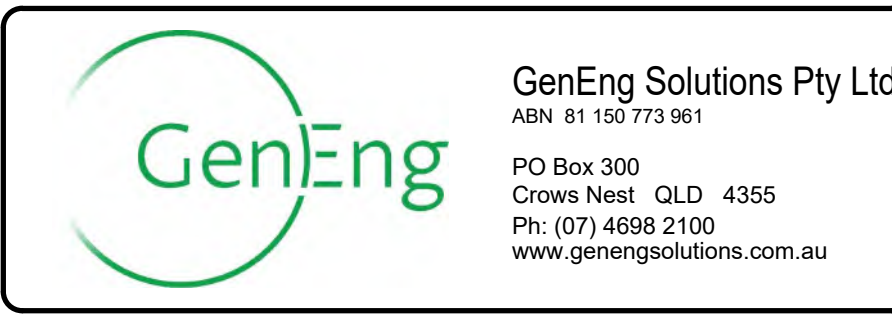
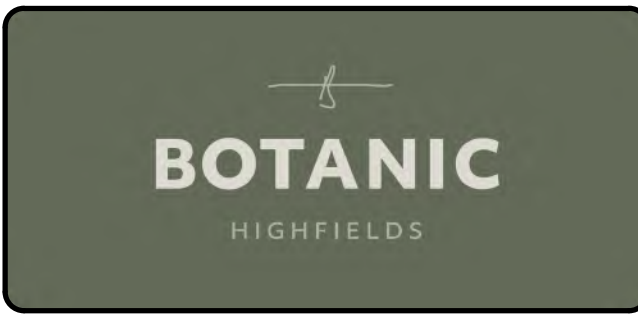
1/32	14/01
BCC TYPE A GULLY L.L.I.; 2.4m Lintel	BCC MANHOLE WITH TYPE A GULLY 1800mm DIA WITH L.L.I.; 2.4m Lintel
393939.441 E 6964156.594 N	393948.020 E 6964149.340 N
PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	2.04%
PIPE SLOPE (1 in X)	49.0
CAPACITY VELOCITY (m/s)	2.27
NORMAL DEPTH VELOCITY (m/s)	1.57
PIPE FLOW (cumecs)	0.033
CAPACITY FLOW (cumecs)	0.251
DATUM RL	537.000
HGL ELEVATION	559.436
FINISHED (& EXISTING) SURFACE LEVEL	561.007 (561.007)
DEPTH OF INVERT BELOW FSL	1.433
INVERT LEVEL	559.307
CHAINAGE	0.000

STORMWATER LONGITUDINAL SECTIONS
SCALE 1:1000(H), 1:100(V)

ISSUED
FOR CONSTRUCTION

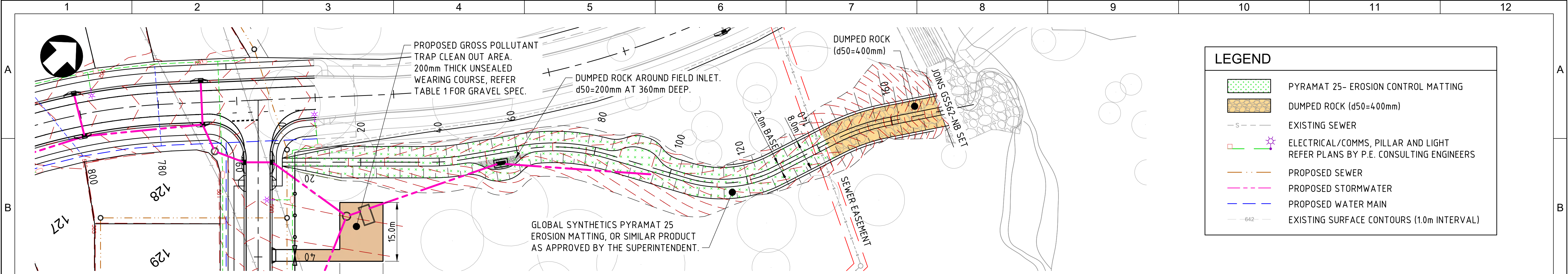
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



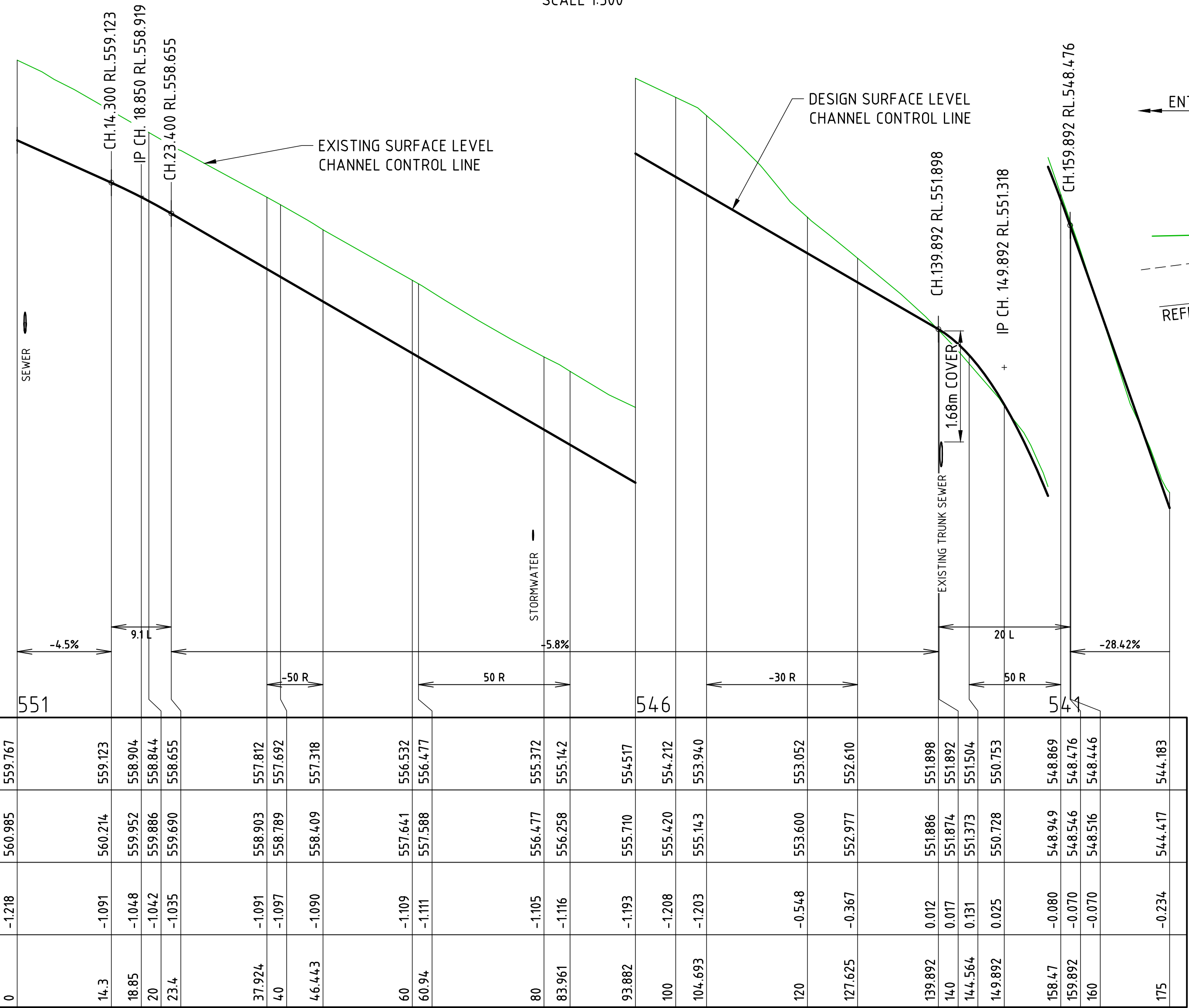
CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR	HORIZ. DATUM MGA2020 (Z 56)		

TITLE STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 2			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 321
			REVISION 0

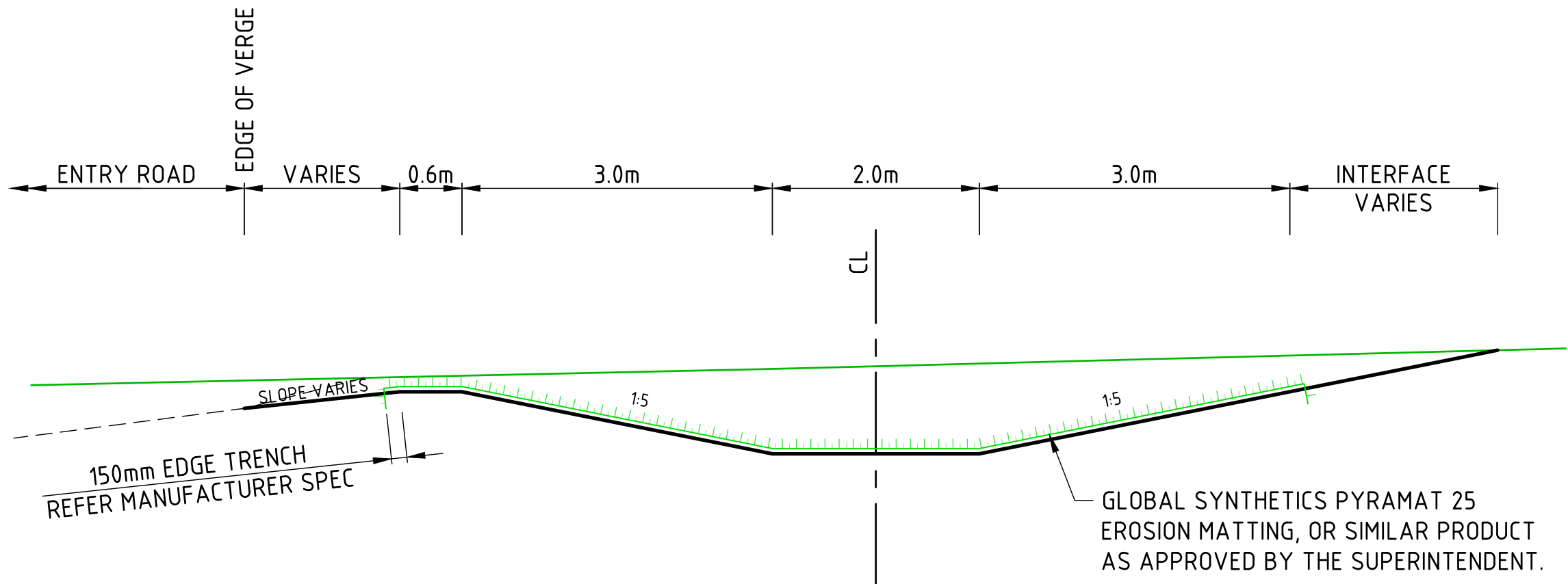


CHANNEL 1 LAYOUT PLAN
SCALE 1:500

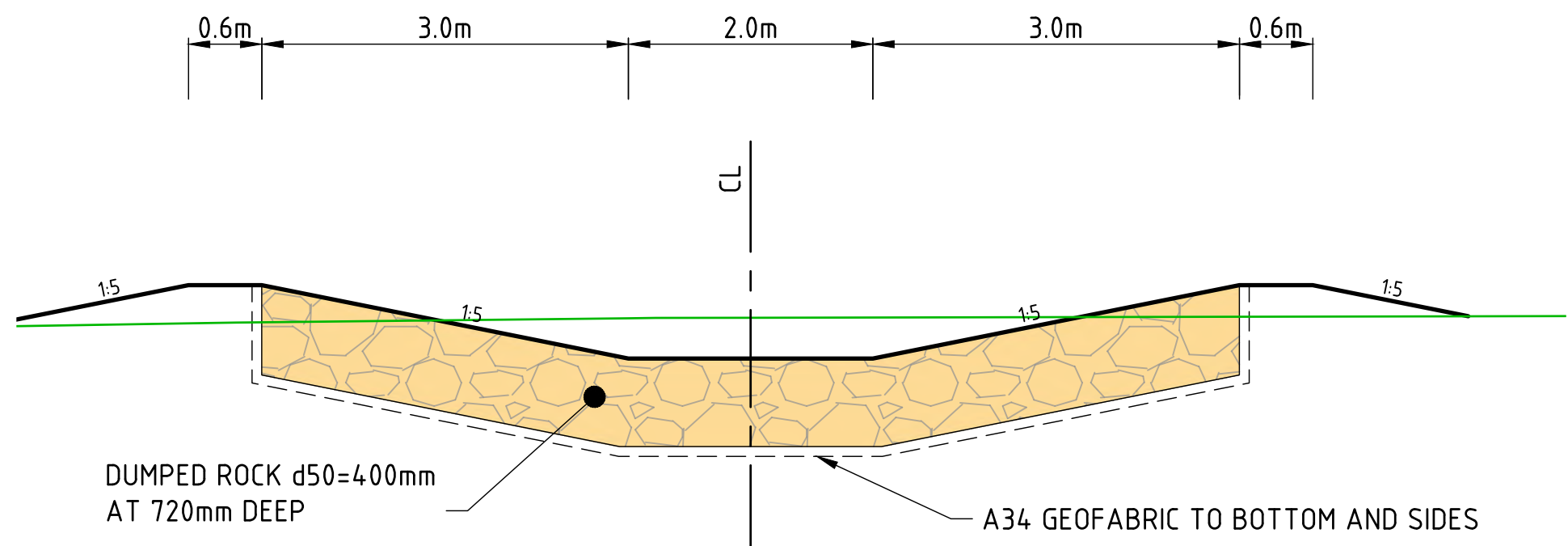
TABLE 1 - Unsealed Wearing Course Pavement Specifications		
Lower Limit	Sieve Size	Upper Limit
100	37.5	100
95	26.5	100
80	19	100
55	9.5	85
40	4.75	75
30	2.36	60
20	0.425	40
10	0.075	25
120	Shrinkage product (linear x % passing 0.425 sieve)	240
16	Grading coefficient (% pass 4.75mm/100)	34
0.4	Dust ratio (% pass 0.075mm/S pass 0.425mm)	0.6
6	Plasticity index	12
30	CBR	



CHANNEL 1 LONGITUDINAL SECTION
SCALE 1:500(H), 1:50(V)



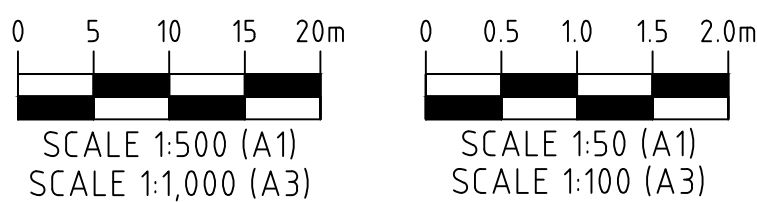
CHANNEL 1 TYPICAL SECTION - CH 0 TO 142
SCALE 1:50



CHANNEL 1 TYPICAL SECTION CH 142 TO END
SCALE 1:50

VERT. CURVE LENGTH
VERT. GEOMETRY
HORZ. GEOMETRY
DATUM RL

DESIGN LEVEL CHANNEL CONTROL LINE
EXISTING SURFACE LEVEL CHANNEL CONTROL LINE
CUT / FILL DEPTH
CHAINAGE



ISSUED
FOR CONSTRUCTION

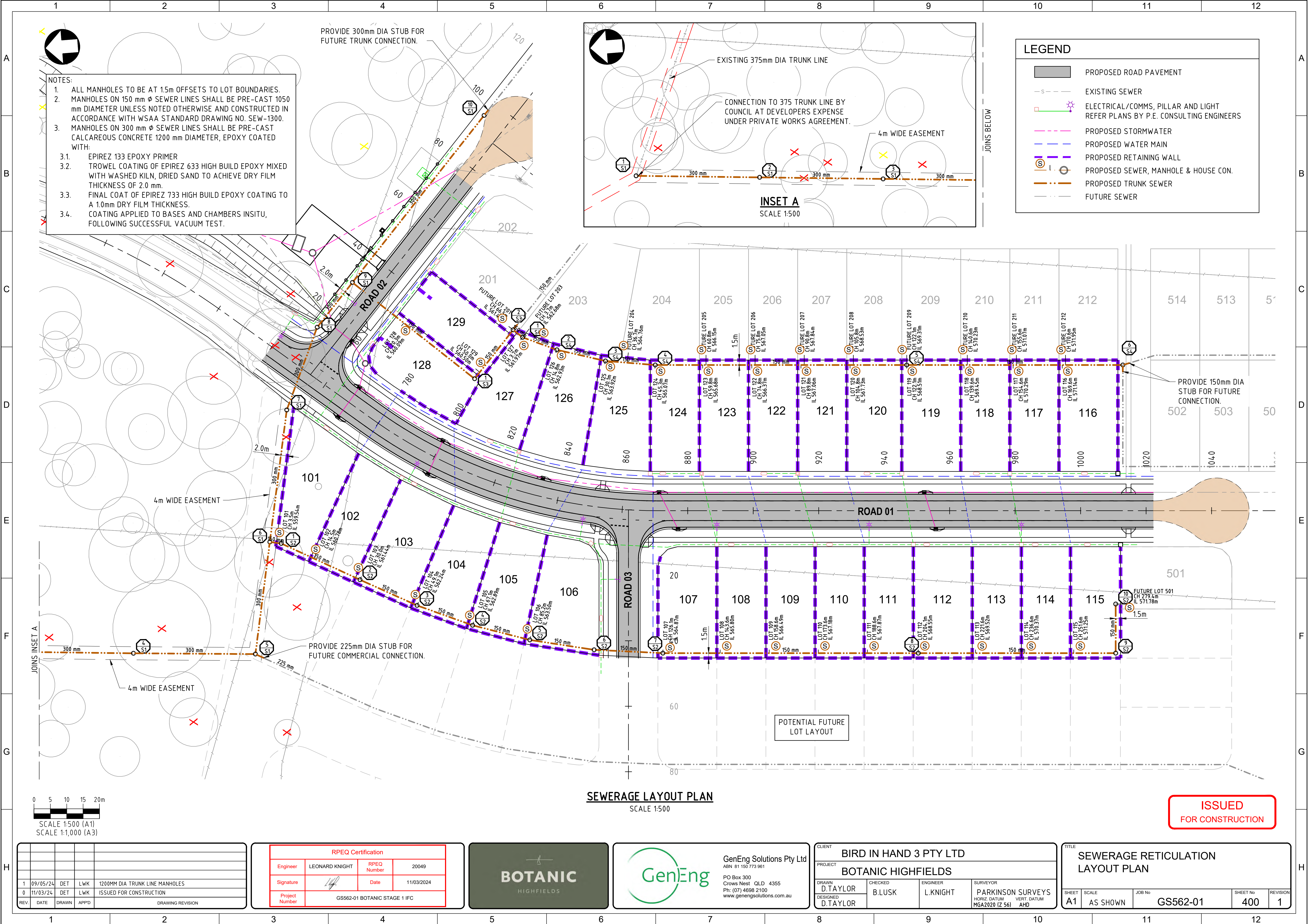
REV	DATE	DRAWN	APPD	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

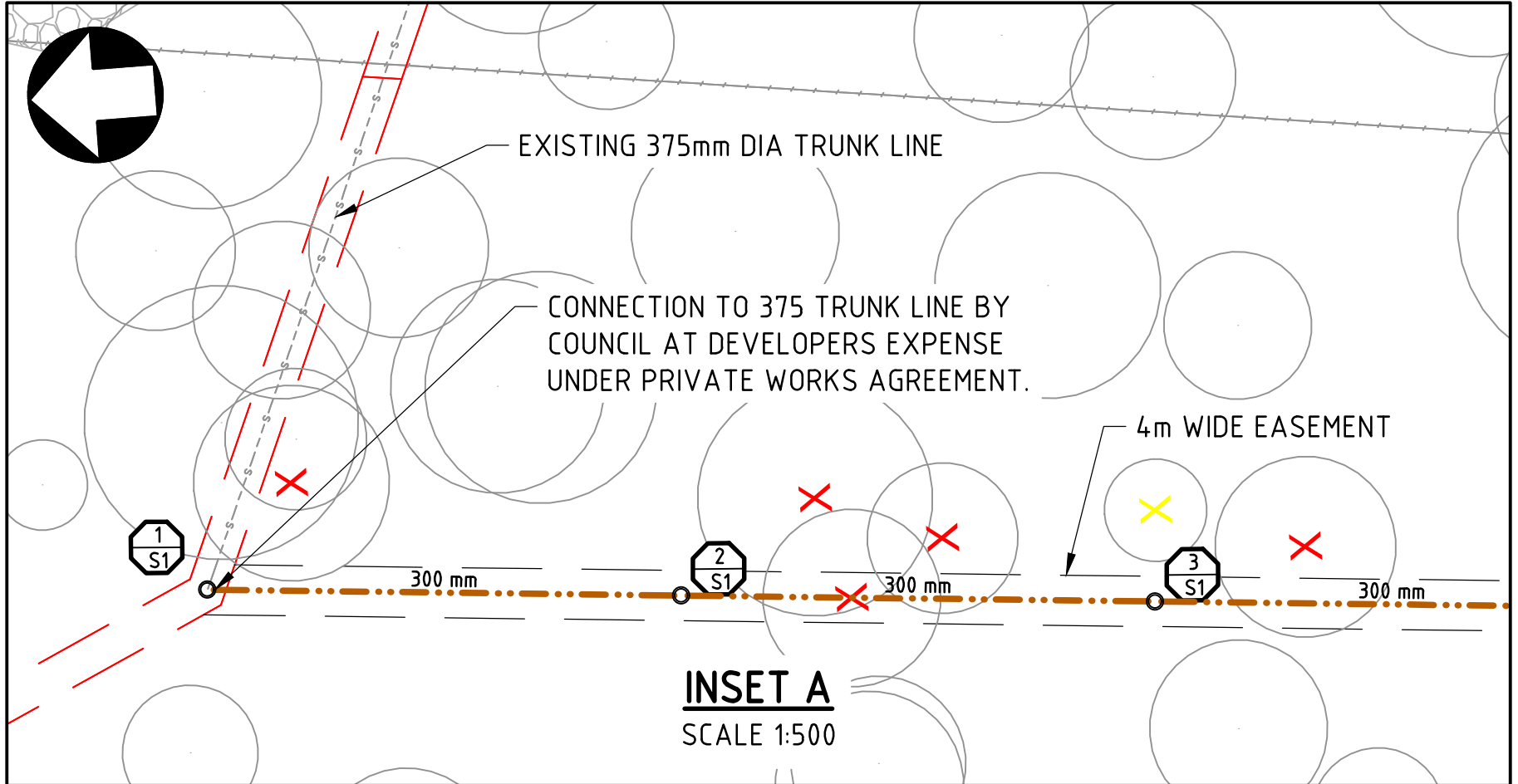


CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR	HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD		

TITLE STORMWATER CHANNEL 1 LAYOUT PLAN AND LONGITUDINAL SECTIONS			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 340
			REVISION 0



- NOTES:
1. ALL MANHOLES TO BE AT 1.5m OFFSETS TO LOT BOUNDARIES.
 2. MANHOLES ON 150 mm ϕ SEWER LINES SHALL BE PRE-CAST 1050 mm DIAMETER UNLESS NOTED OTHERWISE AND CONSTRUCTED IN ACCORDANCE WITH WSAA STANDARD DRAWING NO. SEW-1300.
 3. MANHOLES ON 300 mm ϕ SEWER LINES SHALL BE PRE-CAST CALCAREOUS CONCRETE 1200 mm DIAMETER, EPOXY COATED WITH:
 - 3.1. EPIREZ 133 EPOXY PRIMER
 - 3.2. TROWEL COATING OF EPIREZ 633 HIGH BUILD EPOXY MIXED WITH WASHED KILN, DRIED SAND TO ACHIEVE DRY FILM THICKNESS OF 2.0 mm.
 - 3.3. FINAL COAT OF EPIREZ 733 HIGH BUILD EPOXY COATING TO A 1.0mm DRY FILM THICKNESS.
 - 3.4. COATING APPLIED TO BASES AND CHAMBERS INSITU, FOLLOWING SUCCESSFUL VACUUM TEST.



LEGEND	
	PROPOSED ROAD PAVEMENT
	EXISTING SEWER
	ELECTRICAL/COMMS, PILLAR AND LIGHT REFER PLANS BY P.E. CONSULTING ENGINEERS
	PROPOSED STORMWATER
	PROPOSED WATER MAIN
	PROPOSED RETAINING WALL
	PROPOSED SEWER, MANHOLE & HOUSE CON.
	PROPOSED TRUNK SEWER
	FUTURE SEWER

SEWERAGE LAYOUT PLAN
SCALE 1:500

**ISSUED
FOR CONSTRUCTION**

REV.	DATE	DRAWN	APPD.	DRAWING REVISION
1	09/05/24	DET	LWK	1200MM DIA TRUNK LINE MANHOLES
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

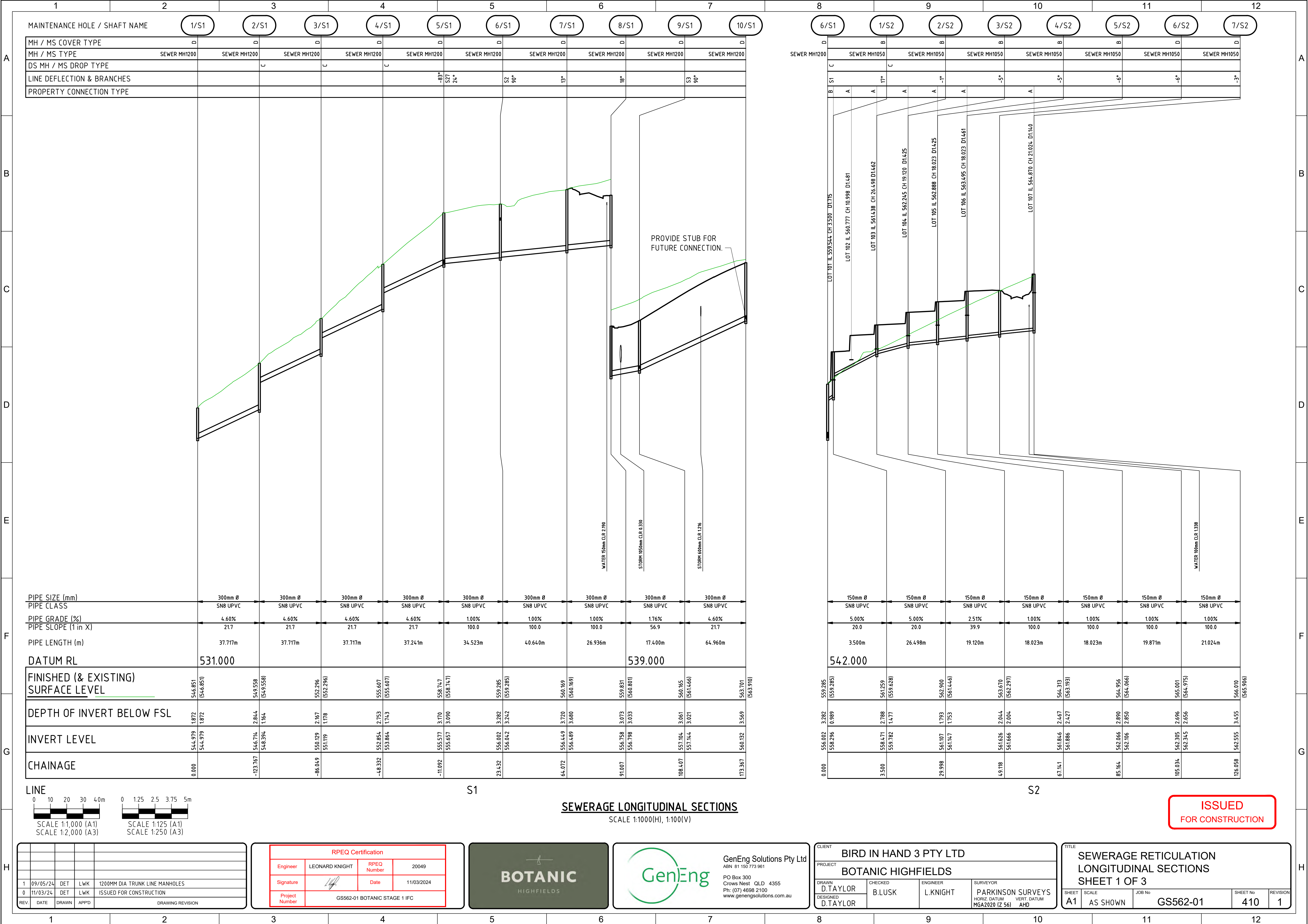
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

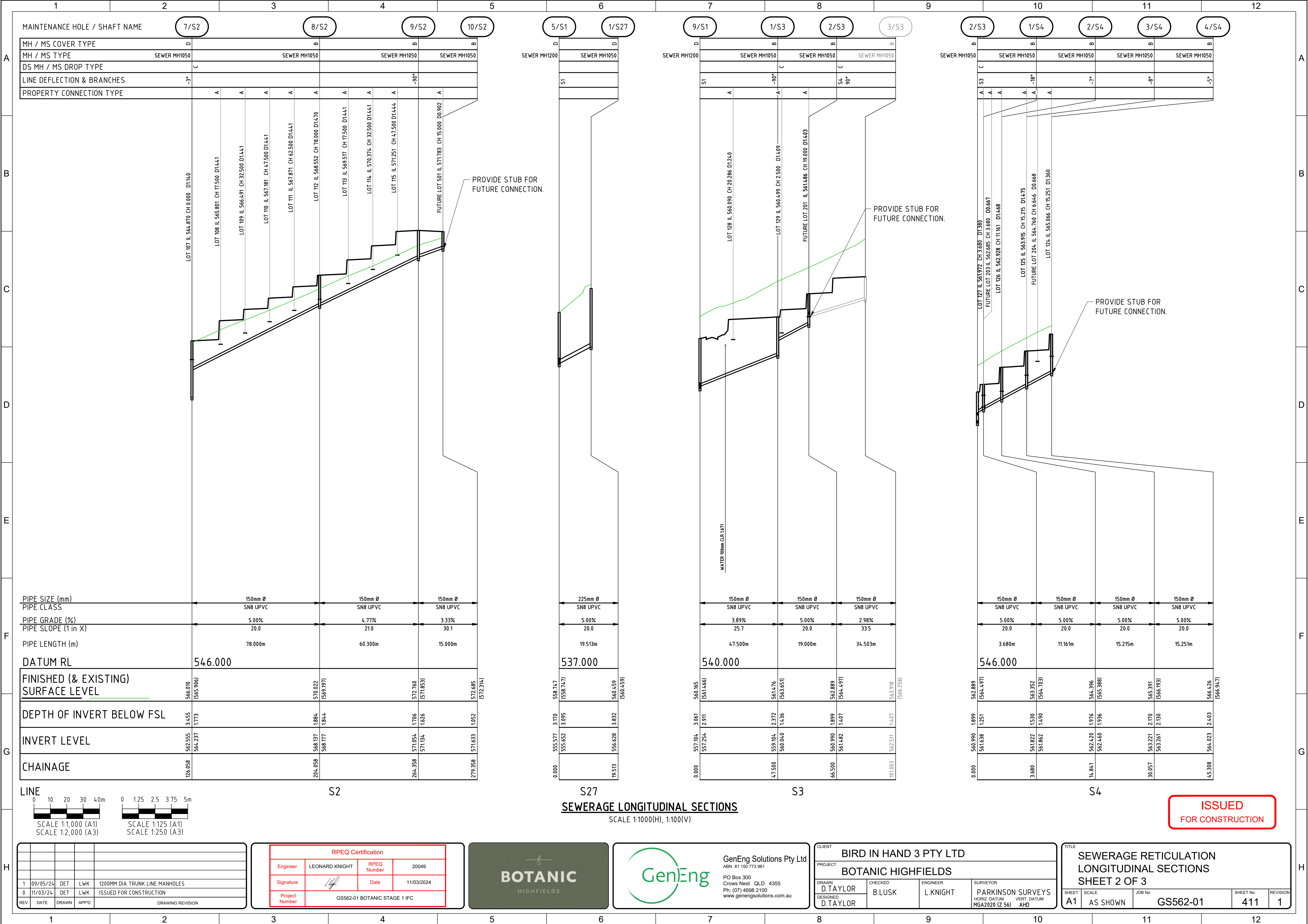


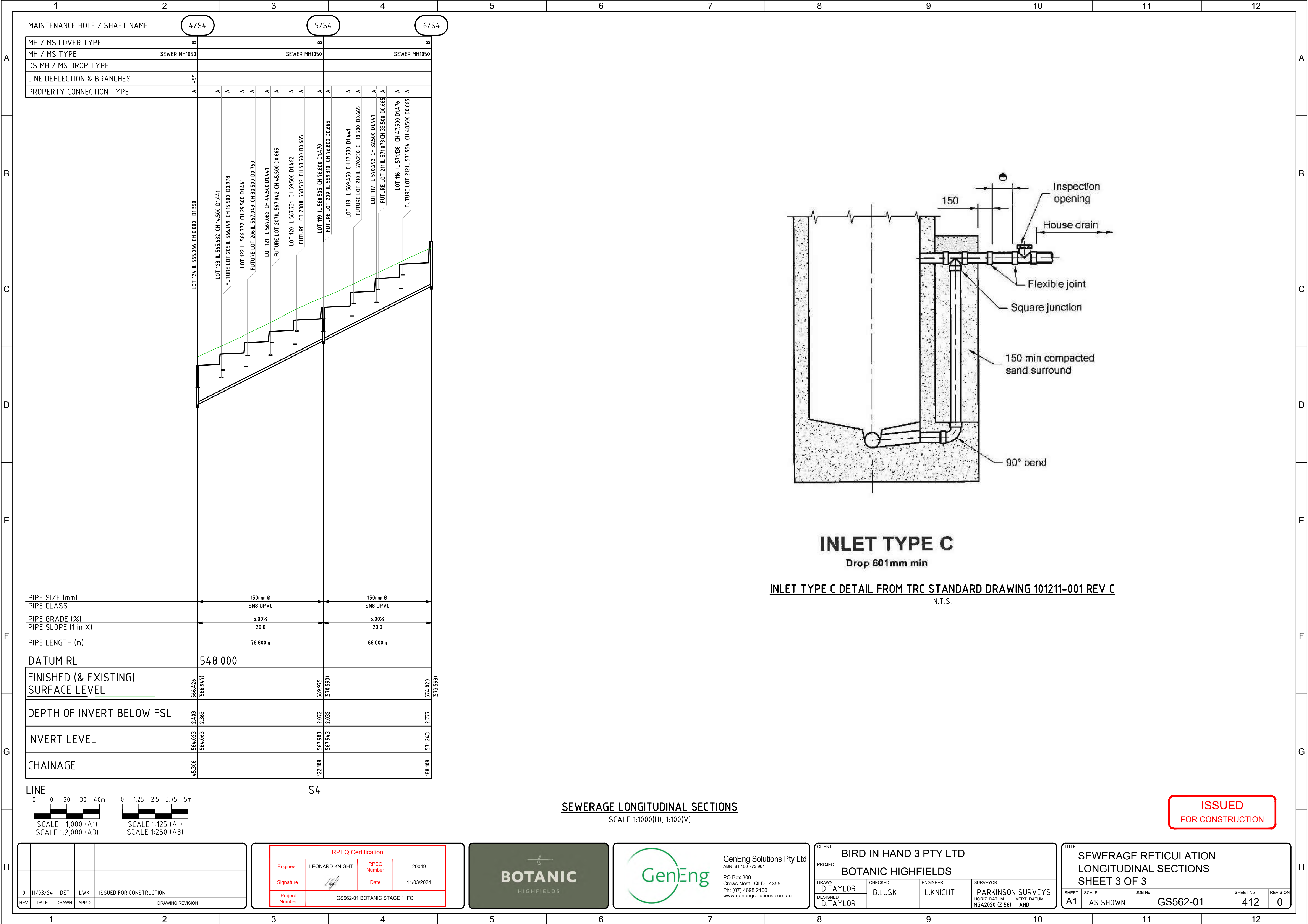
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ABN 81 150 773 961
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Crow's Nest QLD 4355
Ph: (07) 4898 2100
www.genengsolutions.com.au

CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR	HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD		

TITLE SEWERAGE RETICULATION LAYOUT PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 400	REVISION 1

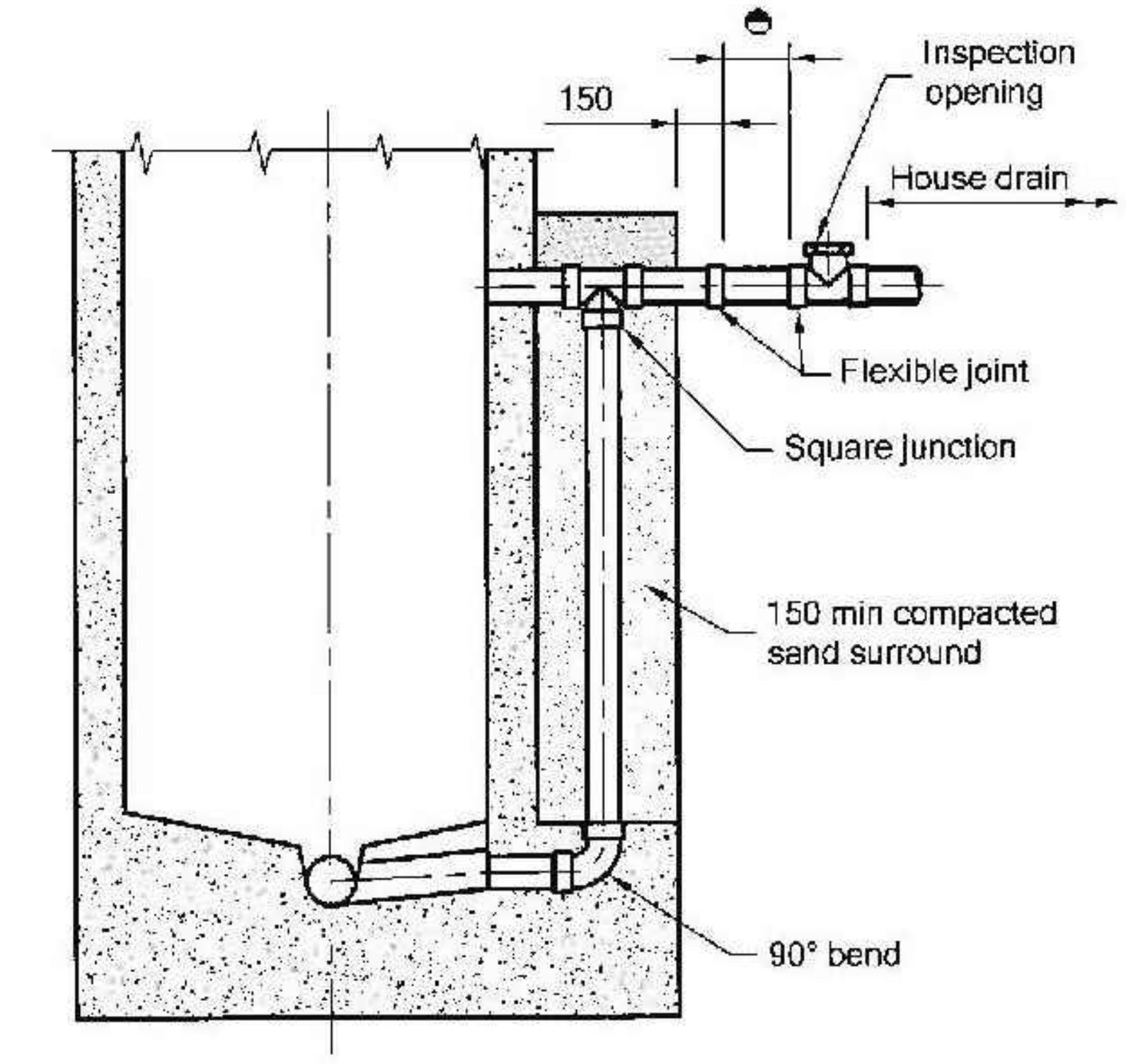
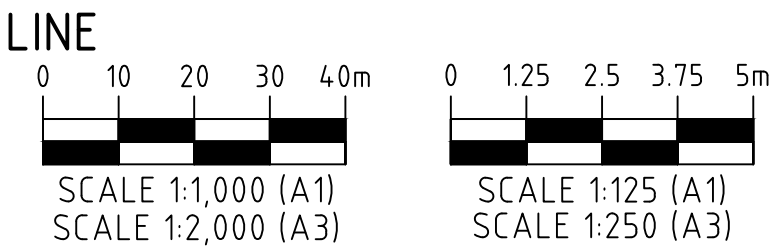






MAINTENANCE HOLE / SHAFT NAME				4/S4	5/S4	6/S4
MH / MS COVER TYPE				B	B	B
MH / MS TYPE				SEWER MH1050	SEWER MH1050	SEWER MH1050
DS MH / MS DROP TYPE						
LINE DEFLECTION & BRANCHES				-5°		
PROPERTY CONNECTION TYPE				A	A	A

PIPE SIZE (mm)	150mm Ø		150mm Ø
PIPE CLASS	SN8 UPVC		SN8 UPVC
PIPE GRADE (%)	5.00%		5.00%
PIPE SLOPE (1 in X)	20.0		20.0
PIPE LENGTH (m)	76.800m		66.000m
DATUM RL	548.000		
FINISHED (& EXISTING) SURFACE LEVEL	566.426 (566.947)	569.975 (570.590)	574.020 (573.598)
DEPTH OF INVERT BELOW FSL	2.403 2.363	2.072 2.032	2.777
INVERT LEVEL	564.023 564.063	567.903 567.943	571.243
CHAINAGE	45.308	122.108	188.108



INLET TYPE C
Drop 601mm min

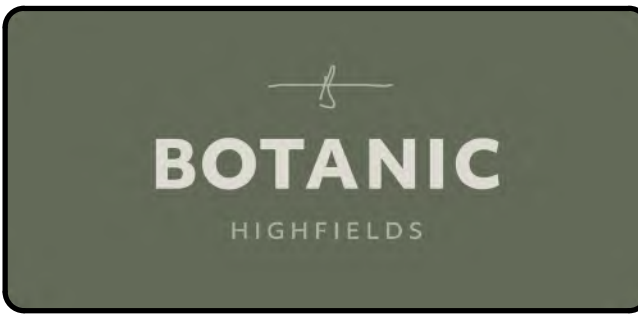
INLET TYPE C DETAIL FROM TRC STANDARD DRAWING 101211-001 REV C
N.T.S.

SEWERAGE LONGITUDINAL SECTIONS
SCALE 1:1000(H), 1:100(V)

ISSUED
FOR CONSTRUCTION

0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

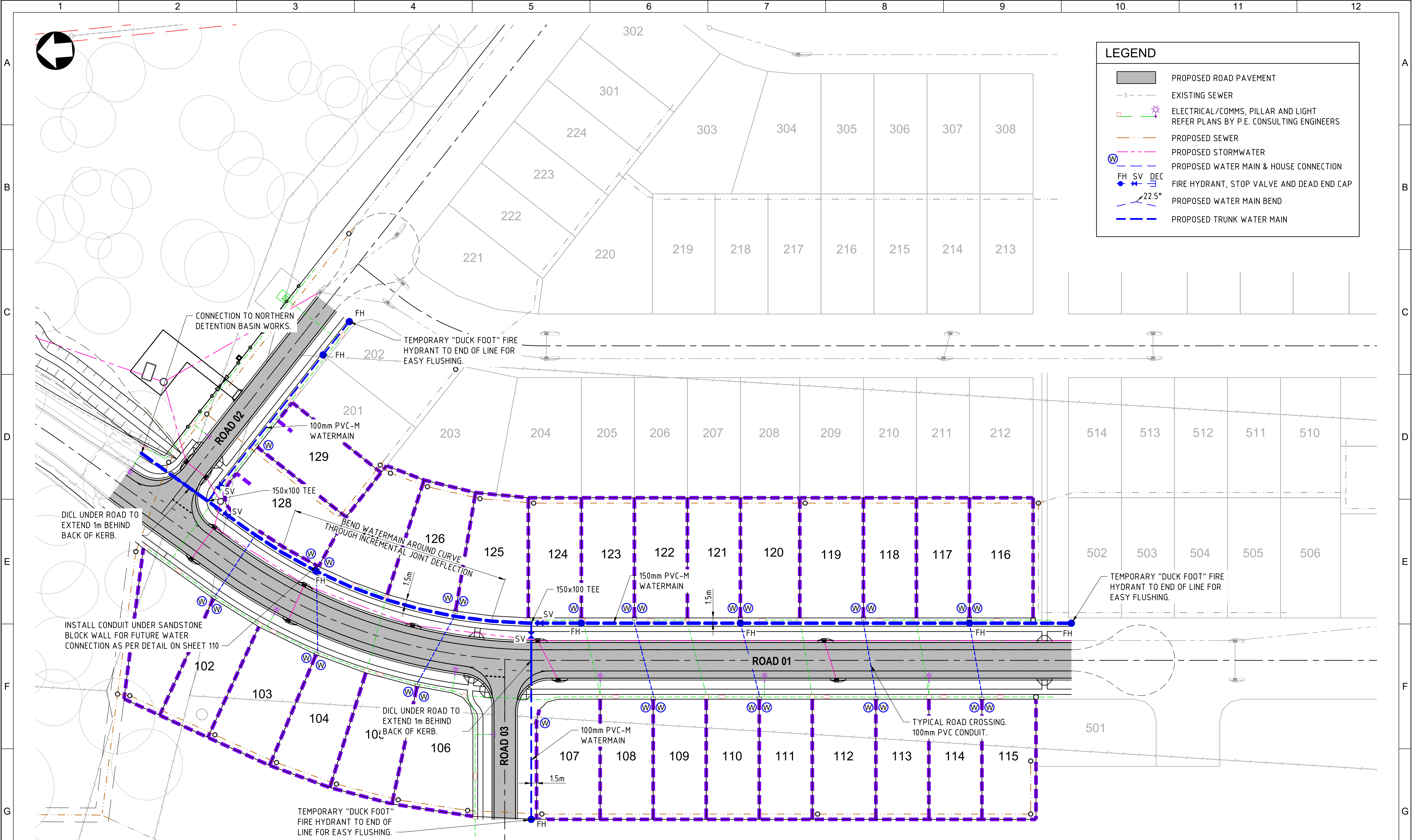


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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE SEWERAGE RETICULATION LONGITUDINAL SECTIONS SHEET 3 OF 3			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 412 REVISION 0



LEGEND

PROPOSED ROAD PAVEMENT

EXISTING SEWER

ELECTRICAL/COMMS, PILLAR AND LIGHT
REFER PLANS BY P.E. CONSULTING ENGINEERS

PROPOSED SEWER

PROPOSED STORMWATER

PROPOSED WATER MAIN & HOUSE CONNECTION

FH

SV

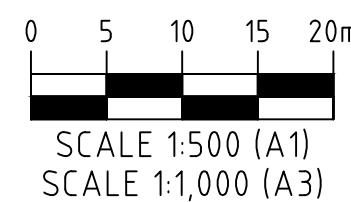
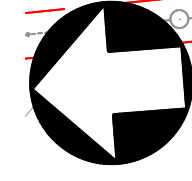
DEC

FIRE HYDRANT, STOP VALVE AND DEAD END CAP

22.5°

PROPOSED WATER MAIN BEND

PROPOSED TRUNK WATER MAIN



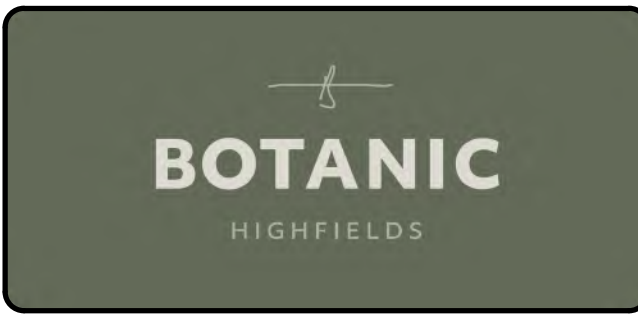
SCALE 1:500 (A1)
SCALE 1:1,000 (A3)

WATER RETICULATION LAYOUT PLAN
SCALE 1:500

ISSUED
FOR CONSTRUCTION

REV	DATE	DRAWN	APPD	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

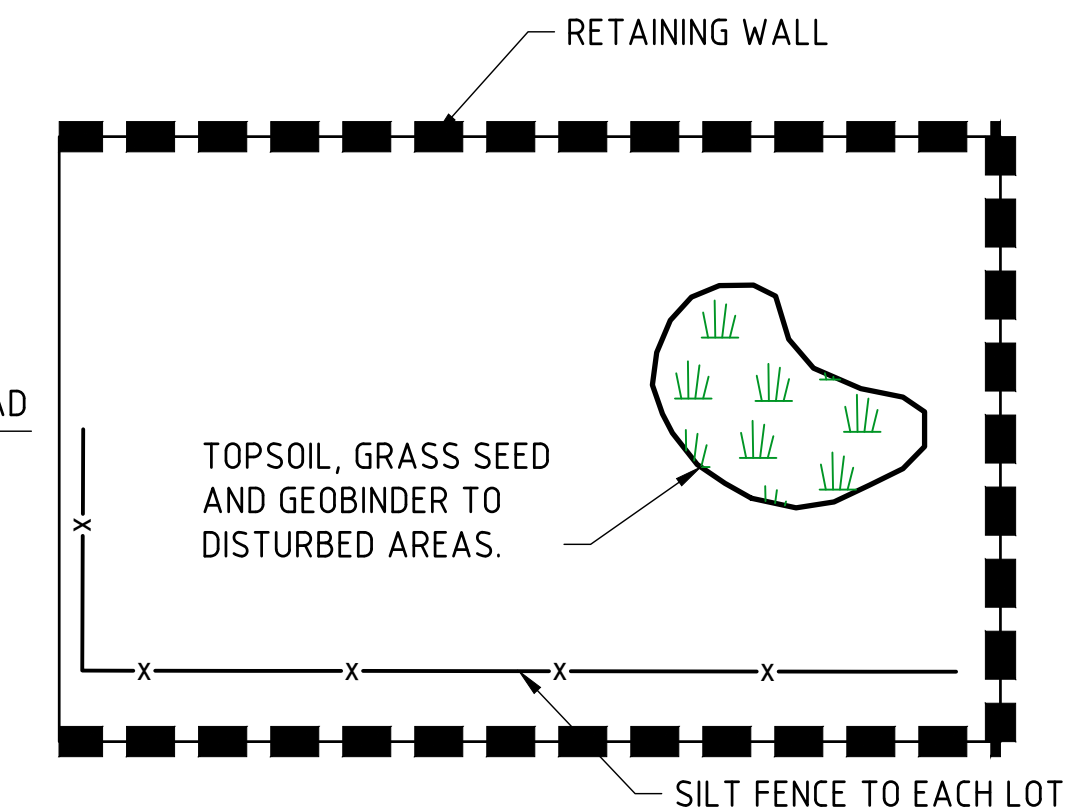
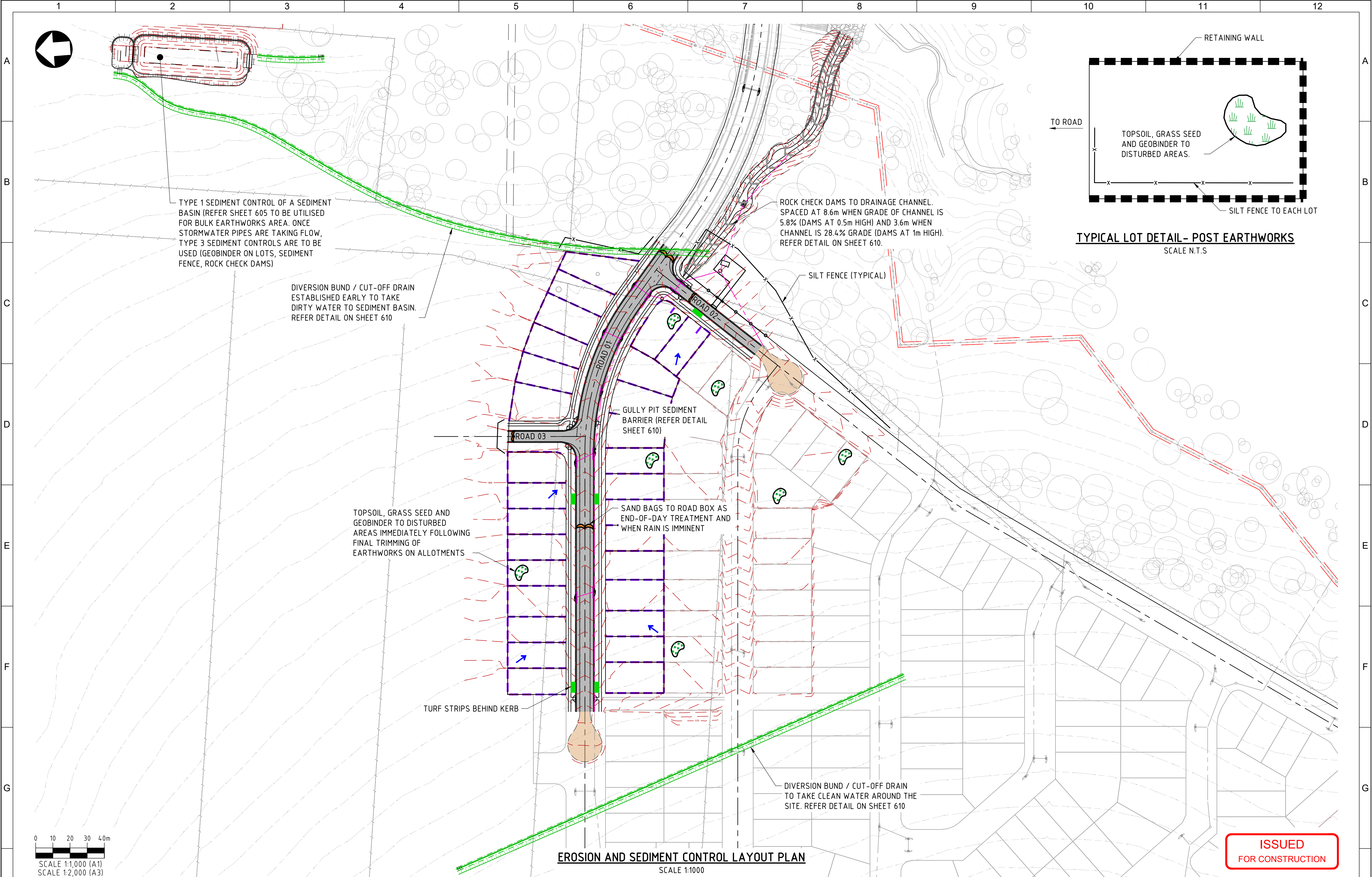
RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE WATER RETICULATION LAYOUT PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 500	REVISION 0



TYPICAL LOT DETAIL - POST EARTHWORKS
SCALE N.T.S.

EROSION AND SEDIMENT CONTROL LAYOUT PLAN
SCALE 1:1000

**ISSUED
FOR CONSTRUCTION**

0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION
REV.	DATE	DRAWN	APPD	DRAWING REVISION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		

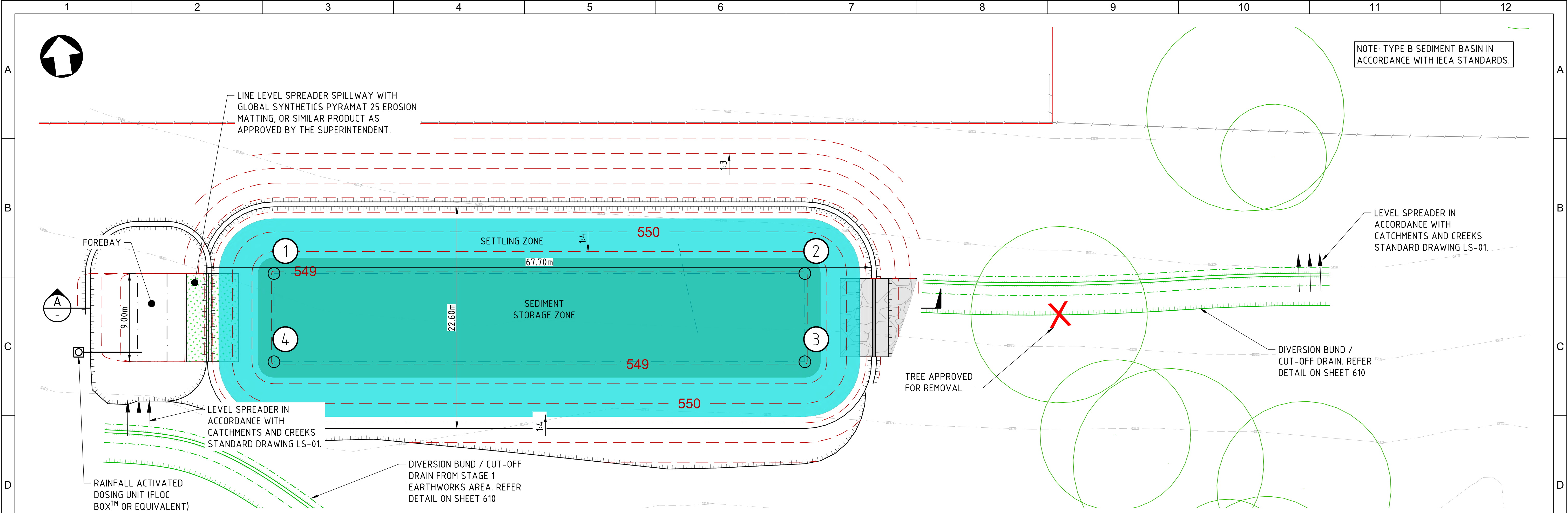


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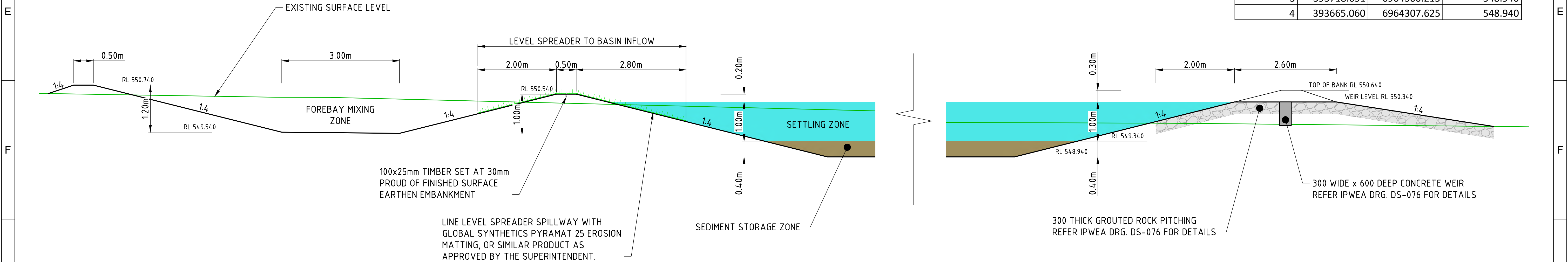
CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE EROSION AND SEDIMENT CONTROL LAYOUT PLAN				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 600	REVISION 0

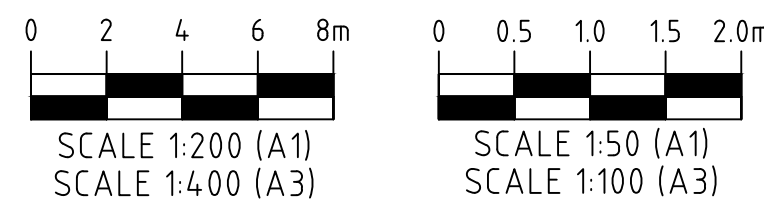


SEDIMENT BASIN LAYOUT PLAN
SCALE 1:200

POINT	EASTING	NORTHING	HEIGHT
1	393666.293	6964316.540	548.940
2	393719.883	6964309.130	548.940
3	393718.651	6964300.215	548.940
4	393665.060	6964307.625	548.940



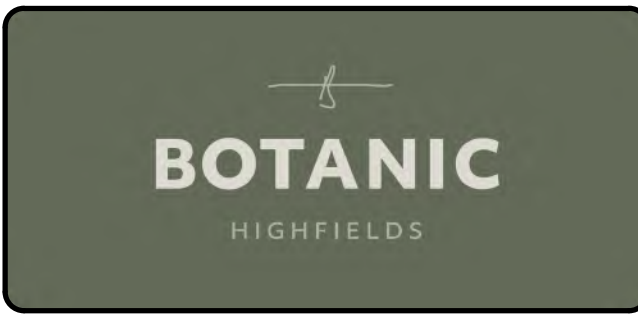
SECTION A-A
SCALE 1:50



ISSUED FOR CONSTRUCTION

REV.	DATE	DRAWN	APPD.	DRAWING REVISION
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



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CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR		HORIZ. DATUM MGA2020 (Z 56)	VERT. DATUM AHD

TITLE EROSION AND SEDIMENT CONTROL SEDIMENT BASIN LAYOUT PLAN			
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 605
			REVISION 0

EROSION AND SEDIMENT CONTROL ASSESSMENT

1. ASSESSMENT OF EROSION RISK WAS CARRIED OUT IN ACCORDANCE WITH URBAN STORMWATER QUALITY PLANNING GUIDELINES 2010. ASSESSMENT DETERMINED THE SITE AS A HIGH RISK SITE.
2. SOIL LOSS, CALCULATED VIA THE RUSLE EQUATION IS EXPECTED TO BE 86 t/ha/year ASSUMING THE LOTS ARE NOT YET CUT TO FINAL LEVEL. SOIL LOSS IS THEN EXPECTED TO REDUCE TO 14 t/ha/year WHEN FINAL SURFACE LEVEL IS SET. IN ACCORDANCE WITH IECA, TYPE 1 TREATMENTS ARE REQUIRED INITIALLY, THEN REDUCED TO TYPE 3 CONTROLS ONLY WHEN LOTS AND ROADS ARE CUT. GEOBINDERS MUST BE USED ON COMPLETION OF EARTHWORKS BEFORE MOVING TO TYPE 3 CONTROLS.
3. DESIGN REPRESENTS ONE POSSIBLE COMPLIANT SOLUTION. THE CONTRACTOR MAY PRESENT ALTERNATIVE PROPOSALS TO THE SUPERINTENDENT FOR APPROVAL.

STAGING

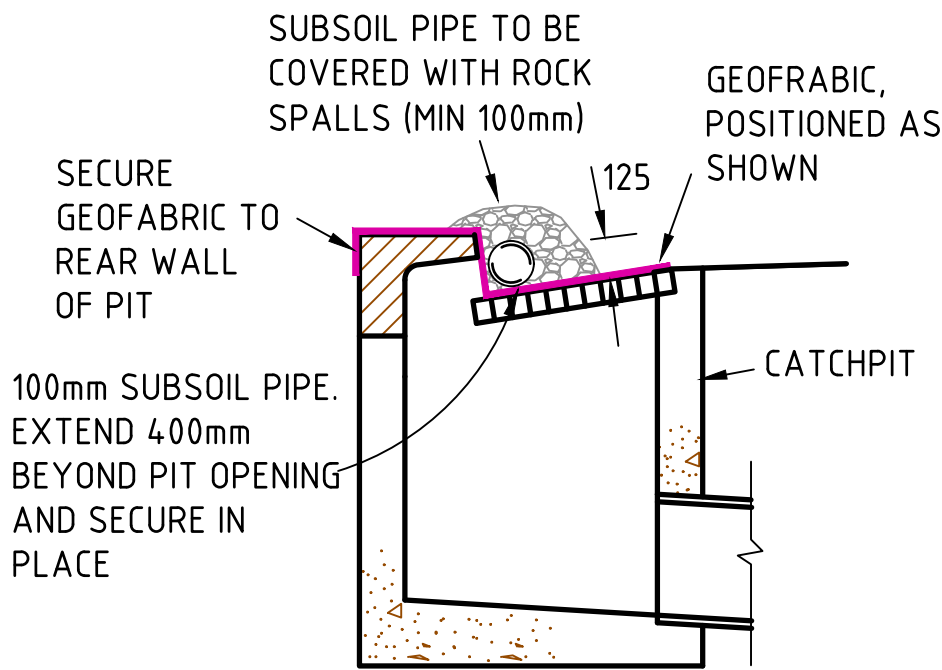
1. EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCEMENT OF EARTHWORKS.
2. SITE STRIPPING OF GROUNDCOVER AND TOPSOIL SHALL BE MINIMISED SO THAT ONLY SMALL AREAS ARE EXPOSED AT ANY ONE TIME.
3. THE SEDIMENT BASIN IN THE NORTH WEST CORNER OF THE SITE WILL FORM THE EROSION AND SEDIMENT CONTROL STRATEGY IN THE BULK EARTHWORKS STAGE OF CONSTRUCTION.
4. FOLLOWING EARTHWORKS AND FINAL TRIMMING OF LOTS, GEOBINDER IS TO BE APPLIED TO MINIMISE EROSION.
5. SEDIMENT FENCES, ROCK CHECK DAMS, GULLY PIT BARRIERS AND SAND BAGS ARE TO FORM THE EROSION AND SEDIMENT CONTROL STRATEGY ONCE THE DIVERSION DRAIN TO THE SEDIMENT BASIN IS CUT OFF.
6. DISTURBED AREAS ARE TO BE REINSTATED AS SOON AS POSSIBLE AFTER CONSTRUCTION LEVELS ARE ACHIEVED.
7. EROSION CONTROL STRUCTURES ARE TO REMAIN IN PLACE UNTIL VEGETATION IS APPROPRIATELY ESTABLISHED.

GENERAL NOTES

ALL SEDIMENT AND EROSION CONTROL MEASURES IMPLEMENTED DURING THE CONSTRUCTION ARE TO BE IN ACCORDANCE WITH LOCAL/STATE AUTHORITY REQUIREMENTS.

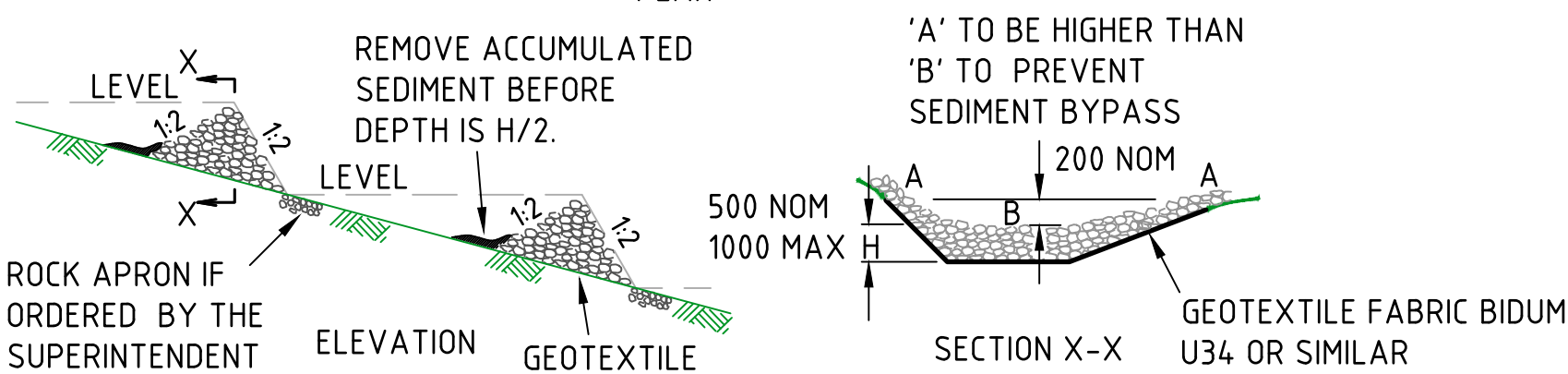
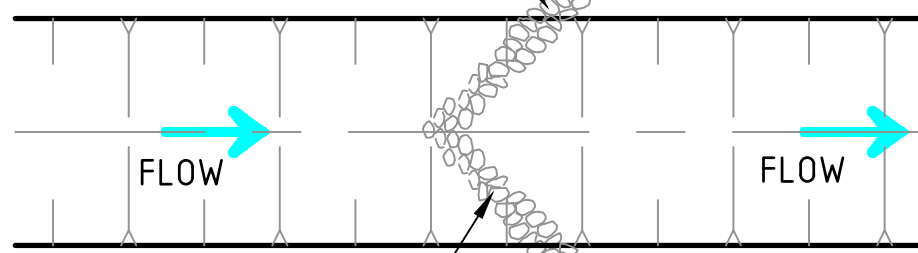
THE GUIDELINES PROVIDE THE NECESSARY REQUIREMENTS AND STANDARD DRAWINGS (SD) AS REFERENCED INDIVIDUALLY BELOW.

1. GENERAL
- (A) TEMPORARY DRAINAGE CONTROL. FLOW SHOULD BE DIVERTED AROUND THE WORK SITE WHERE POSSIBLE. (SD 5-5 & 5-6)
- (B) ALL DRAINAGE, EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND BE OPERATIONAL BEFORE COMMENCING UP-SLOPE EARTHWORKS.
- (C) ALL SEDIMENT & EROSION CONTROL DEVICES MUST BE REGULARLY INSPECTED AND MAINTAINED BY THE CONTRACTOR. INSPECTIONS SHOULD OCCUR ON A WEEKLY BASIS (MINIMUM), ALONG WITH BEFORE AND AFTER SIGNIFICANT RUNOFF PRODUCING STORMS.
- (D) ALL DISTURBED LAND MUST BE RENDERED EROSION-PROOF BY THE ESTABLISHMENT OF 70% EFFECTIVE GROUND COVER WITHIN 28 DAYS OF FINAL EARTHWORKS TRIM.
- (E) IN AREAS WHERE RUNOFF TURBIDITY IS TO BE CONTROLLED, EXPOSED SURFACES TO BE EITHER MULCHED, COVERED WITH EROSION CONTROL BLANKETS OR TURFED, IF EARTHWORKS ARE EXPECTED TO BE DELAYED FOR MORE THAN 14 DAYS.
2. SEDIMENT CONTROL FENCE (SD 6-7)
- (A) NOT TO BE LOCATED IN AREAS OF CONCENTRATED FLOW.
- (B) NORMALLY LOCATED ALONG THE CONTOUR WITH A MAXIMUM CATCHMENT AREA 0.6 HA PER 100M LENGTH OF FENCE.
- (C) WOVEN FABRICS ARE PREFERRED, NON-WOVEN FABRICS MAY BE USED ON SMALL WORK SITES, I.E. OPERATIONAL PERIOD LESS THAN 6 MONTHS OR ON SITES WHERE SIGNIFICANT SEDIMENT RUNOFF IS NOT EXPECTED.
- (D) FENCES ARE REQUIRED 2M MIN FROM TOE OF CUT OR FILL BATTERS. WHERE NOT PRACTICAL, ONE FENCE CAN BE AT THE TOE WITH A SECOND FENCE 1M MIN AWAY. FENCE SHOULD NOT BE LOCATED PARALLEL WITH TOE IF CONCENTRATION OF FLOW WILL OCCUR BEHIND THE FENCE.
3. TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP (SD 6-9).
- (A) ADJACENT STORMWATER RUNOFF TO BE DIVERTED AWAY FROM ENTRY/EXIT.
- (B) WHEEL-WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.
4. SEDIMENT BASIN TYPE B
- THE CONCENTRATION OF TOTAL SUSPENDED SOLIDS RELEASED FROM TYPE B BASINS MUST NOT EXCEED 50 mg/L FOR THE DESIGN RAINFALL EVENT (1 YEAR ARI).
5. SAFETY ISSUES MUST BE CONSIDERED AT ALL TIMES - INCORPORATE TRAFFIC CONTROL DEVICES.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN ADDRESSED AS STIPULATED.
7. TEMPORARY STOCKPILES TO HAVE 2:1 SIDE BATTERS (MAXIMUM) AND BE SHAPED TO ENSURE RUN-OFF IS TREATED AND MANAGED TO THE SATISFACTION OF THE SUPERINTENDENT. ALL EXPOSED STOCKPILE SURFACES TO BE GRASS SEEDED. SEDIMENT FENCES AND CUT-OFF DRAINS MAY BE REQUIRED.
8. ADDITIONAL OR DIFFERENT SEDIMENT & EROSION CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION PHASE TO COMPLY WITH THE ABOVE.



GULLY PIT SEDIMENT BARRIER
N.T.S.

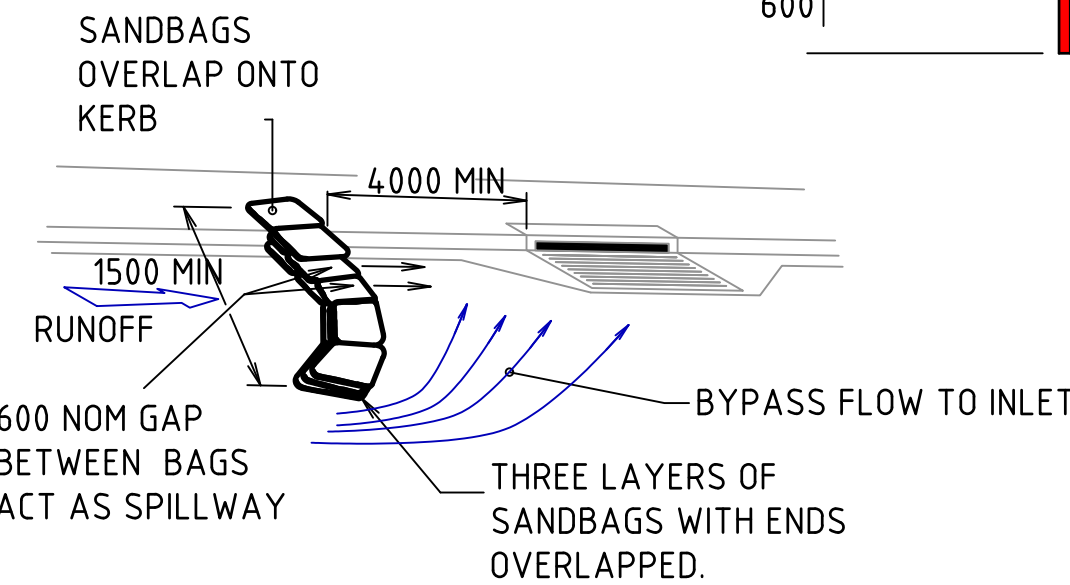
UNBOUND PAVEMENT MATERIAL (GRAVEL) TO GRADING 'B', TABLE 9 OF QUEENSLAND TRANSPORT SPECIFICATION MRSS11.04 - EXCLUDE MATERIAL FINER THAN AS SIEVE 2.36mm



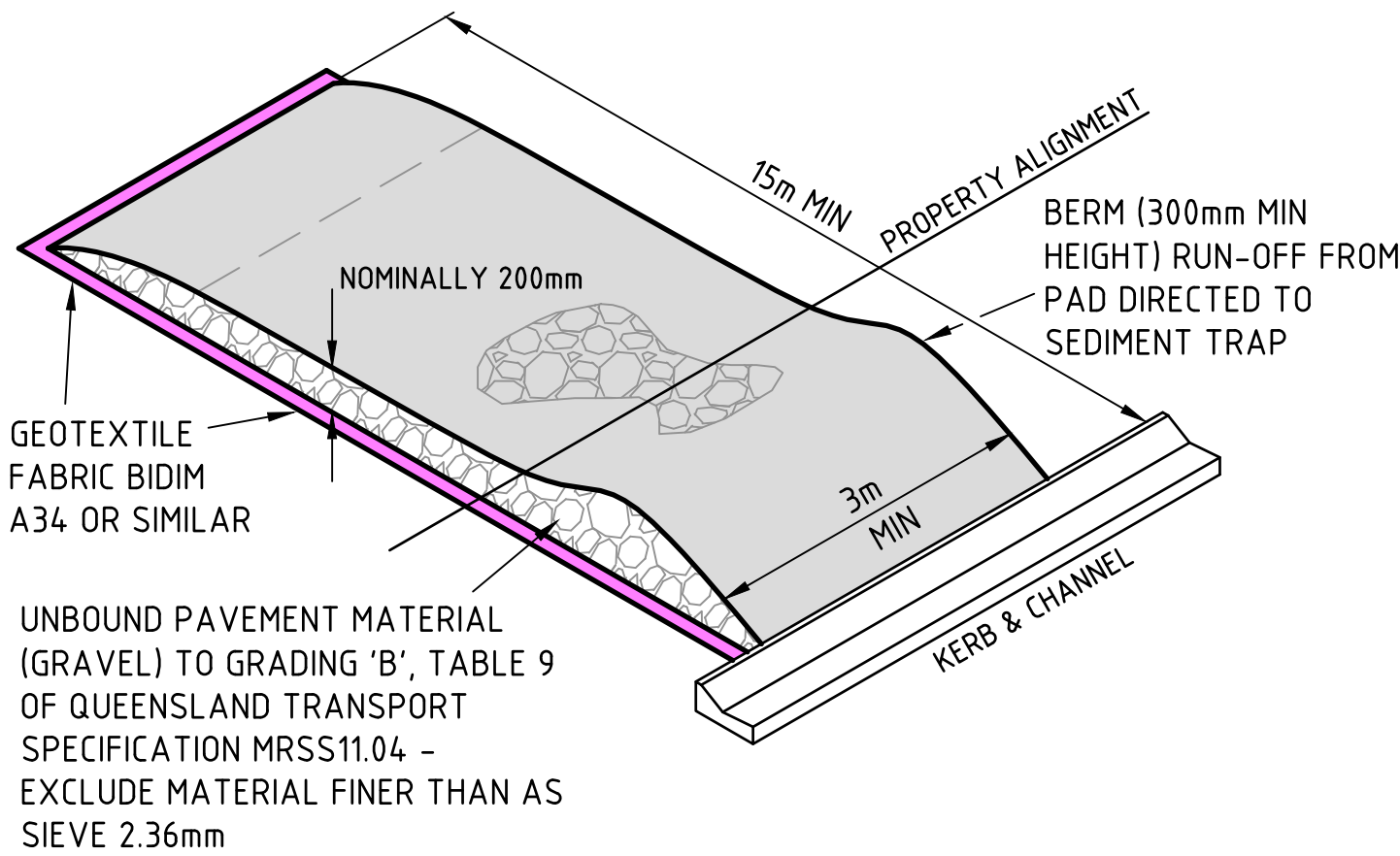
TEMPORARY CHECK DAMS - FLOW CONTROL

N.T.S.

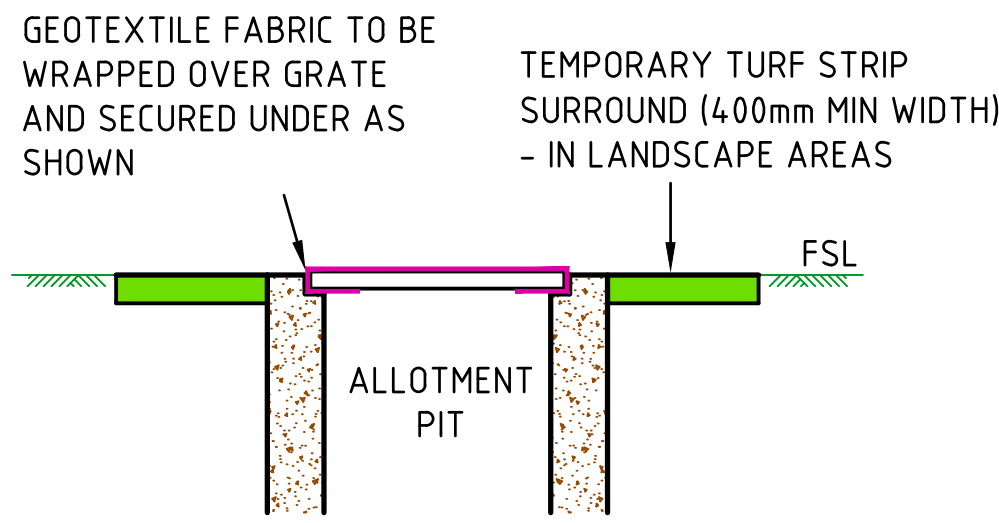
NOTE:
CHECK DAM CATCHMENT AREA LIMITED TO 4.00 Ha.
DEVICE IS INTENDED FOR VELOCITY CONTROL ONLY
- SEDIMENT COLLECTION IS A SECONDARY PURPOSE.



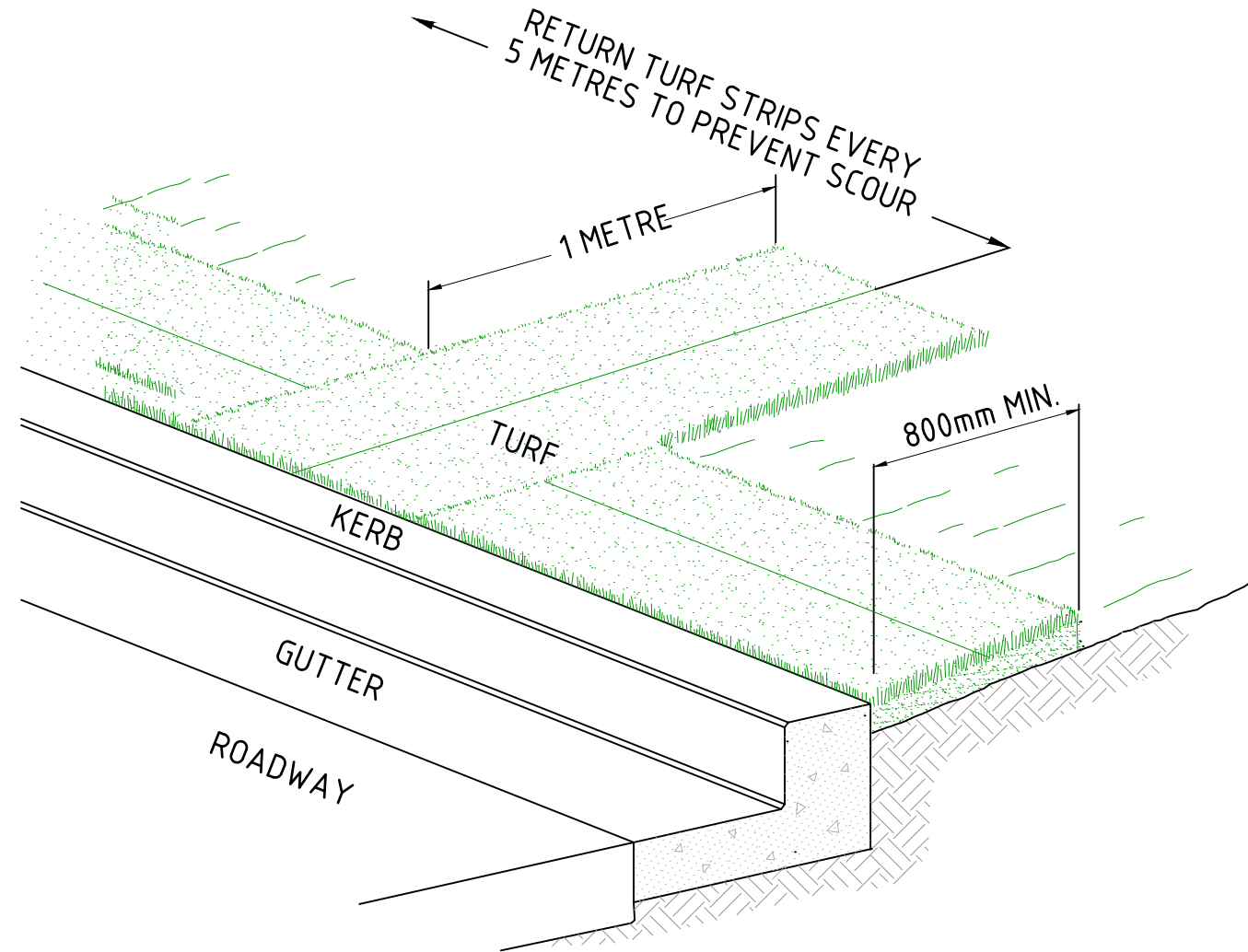
CHECK DAM (SANDBAG) DETAIL
N.T.S.



TEMPORARY CONSTRUCTION ACCESS / EXIT
N.T.S.



ALLOTMENT PIT PROTECTION
N.T.S.

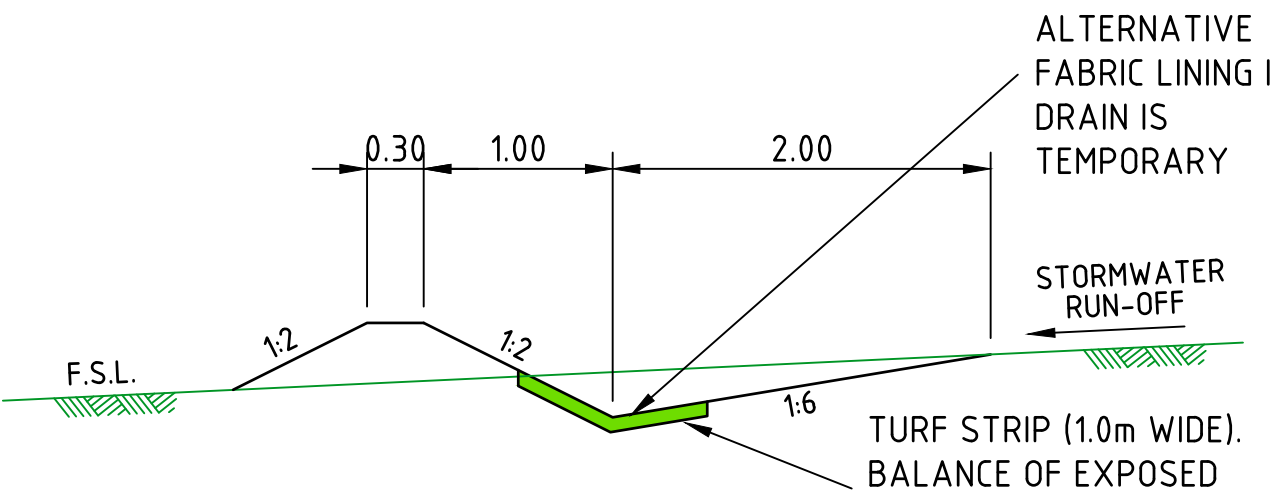


TURF FILTER STRIP DETAIL

N.T.S.

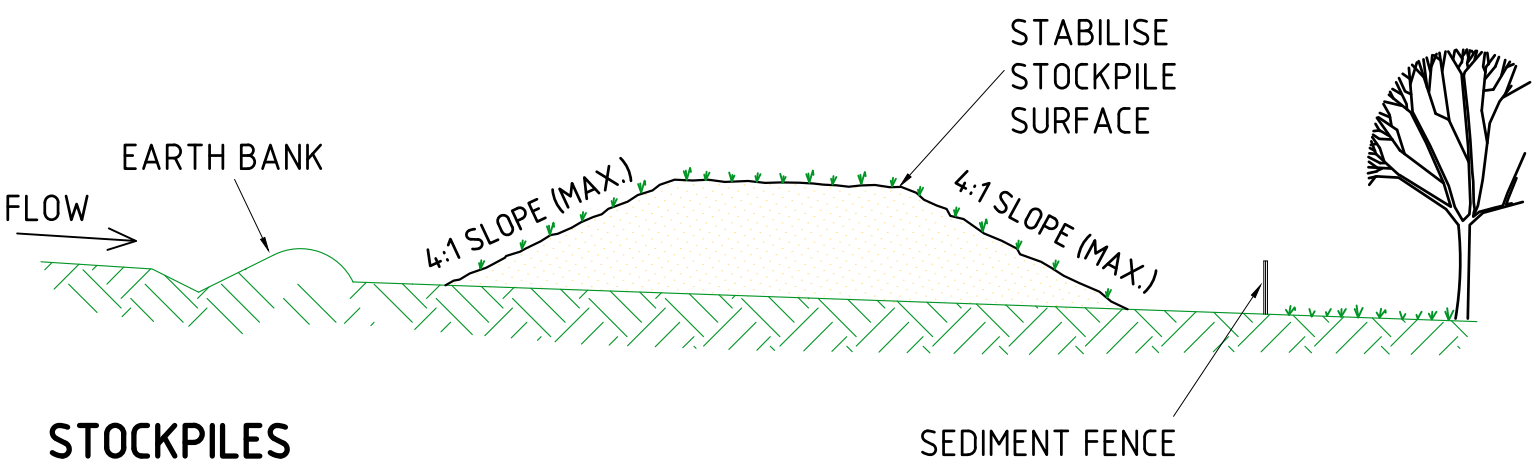
CONSTRUCTION NOTES

1. INSTALL A 2 x 400mm MINIMUM WIDE ROLL OF TURF ON THE VERGE NEXT TO THE KERB AND AT THE SAME LEVEL AS THE TOP OF THE KERB.
2. LAY 1.8m LONG TURF STRIPS NORMAL TO THE KERB EVERY 5 METRES.



DIVERSION / CUT-OFF DRAINS

N.T.S.



STOCKPILES

N.T.S.

CONSTRUCTION NOTES

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2 METRES DOWNSLOPE.

ISSUED
FOR CONSTRUCTION

REV.	DATE	DRAWN	APPD	DRAWING REVISION	
0	11/03/24	DET	LWK	ISSUED FOR CONSTRUCTION	

RPEQ Certification			
Engineer	LEONARD KNIGHT	RPEQ Number	20049
Signature		Date	11/03/2024
Project Number	GS562-01 BOTANIC STAGE 1 IFC		



CLIENT BIRD IN HAND 3 PTY LTD			
PROJECT BOTANIC HIGHFIELDS			
DRAWN D.TAYLOR	CHECKED B.LUSK	ENGINEER L.KNIGHT	SURVEYOR PARKINSON SURVEYS
DESIGNED D.TAYLOR			HORIZ. DATUM MGA2020 (Z 56) VERT. DATUM AHD

TITLE EROSION AND SEDIMENT CONTROL DETAILS AND NOTES				
SHEET A1	SCALE AS SHOWN	JOB No GS562-01	SHEET No 610	REVISION 0