

CLIENT: COMMON GROUND PROPERTY P/L




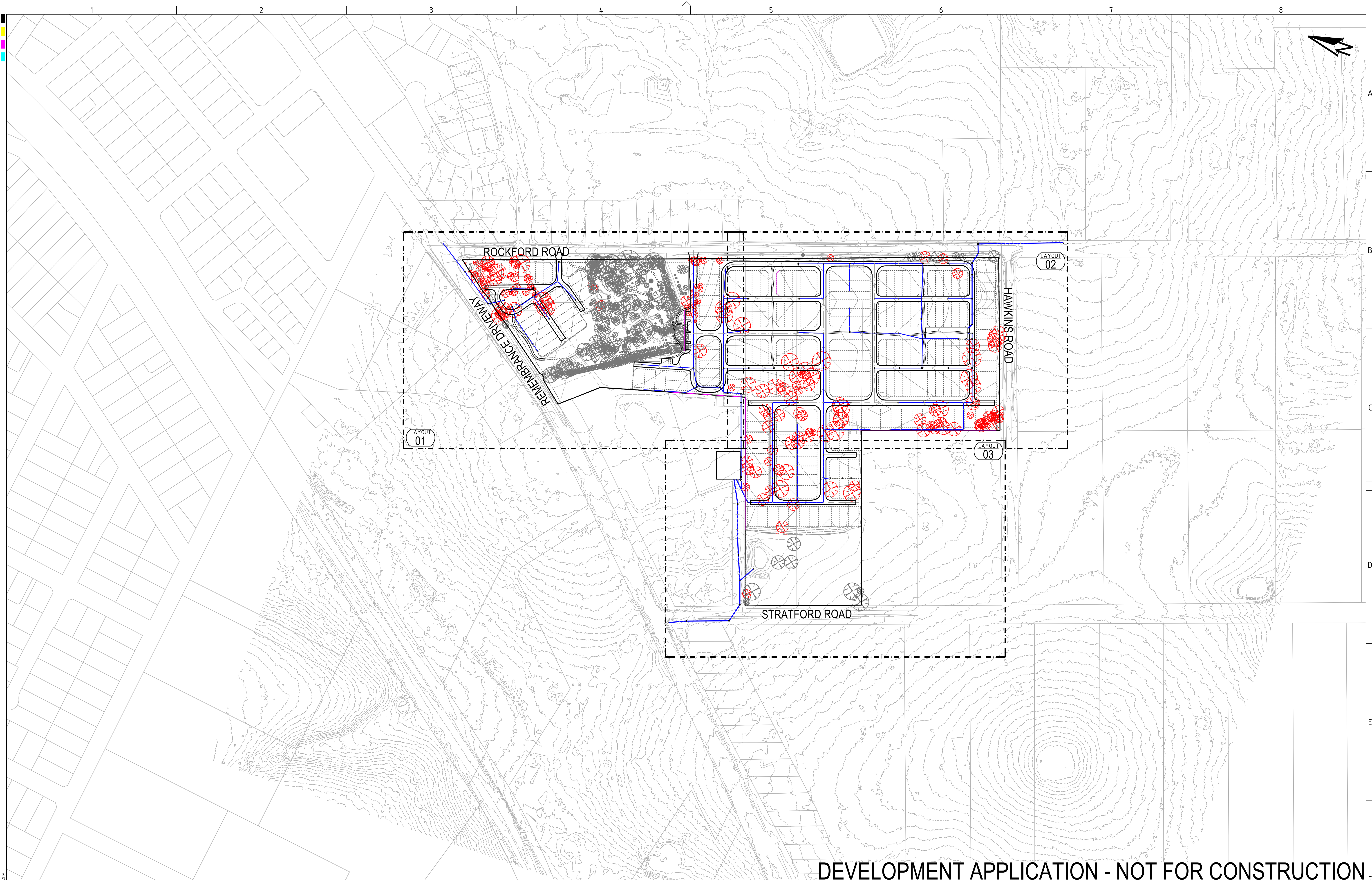
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

DRAWINGS LIST		
DWG NO.	REV	DWG TITLE
GENERAL		
PS04-A000	C	COVER SHEET
PS04-A010	C	VIEWPORT REFERENCE PLAN
PS04-A050	C	DEVELOPMENT OVERVIEW PLAN
CONSTRUCTION MANAGEMENT WORKS		
PS04-B300	C	SEDIMENT & EROSION CONTROL PLAN
PS04-B310	A	SEDIMENT & EROSION CONTROL DETAILS
EARTHWORKS		
PS04-C100	C	EARTHWORKS GRADING PLAN - LAYOUT 1
PS04-C101	B	EARTHWORKS GRADING PLAN - LAYOUT 2
PS04-C102	B	EARTHWORKS GRADING PLAN - LAYOUT 3
PS04-C500	C	EARTHWORKS CUT - FILL PLAN
PS04-C600	B	EARTHWORKS SECTION A
ROADWORKS		
PS04-D100	C	ROADWORKS PLAN - LAYOUT 1
PS04-D101	C	ROADWORKS PLAN - LAYOUT 2
PS04-D102	B	ROADWORKS PLAN - LAYOUT 3
PS04-D200	C	ACCESS ROAD 1 (21-MSC01) LONG. SECTION AND TYPICAL CROSS SECTION
PS04-D201	B	ACCESS ROAD 2 (21-MSC02) LONG. SECTION AND TYPICAL CROSS SECTION
PS04-D203	B	ACCESS ROAD 3 (21-MSC03) LONG. SECTION AND TYPICAL CROSS SECTION
PS04-D205	C	ACCESS ROAD 5 (21-MSC05) LONG. SECTION AND TYPICAL CROSS SECTION (SHEET 1)
PS04-D206	C	ACCESS ROAD 9 (21-MSC05) LONG. SECTION AND TYPICAL CROSS SECTION (SHEET 2)
PS04-D207	B	ACCESS ROAD 6 (21-MSC06) LONG. SECTIONS AND TYPICAL CROSS SECTION
PS04-D208	C	ACCESS ROAD 7 (21-MSC07) & 8 (21-MSC08) LONG. SECTIONS AND TYPICAL CROSS SECTION
PS04-D209	B	ACCESS ROAD 9 (21-MSC09) & 10 (21-MSC10) LONG. SECTIONS AND TYPICAL CROSS SECTION
PS04-D210	B	ACCESS ROAD 12 (21-MSC12) LONG. SECTION AND TYPICAL CROSS SECTION
PS04-D211	B	ACCESS ROAD 13 (21-MSC13) & 14 (21-MSC14) LONG. SECTIONS AND TYPICAL CROSS SECTIONS
PS04-D212	B	ACCESS ROAD 15 (21-MSC15) LONG. SECTION AND TYPICAL CROSS SECTION
PS04-D213	B	ACCESS LANE 1 (21-MSL01) & 2 (21-MSL02) LONG. SECTIONS AND TYPICAL CROSS SECTION
PS04-D214	B	ACCESS LANE 3 (21-MSL03) & 4 (21-MSL04) LONG. SECTIONS AND TYPICAL CROSS SECTION
PS04-D215	B	ACCESS LANE 7 (21-MSL07) LONG. SECTION AND TYPICAL CROSS SECTION
DRAINAGE WORKS		
PS04-E100	C	DRAINAGE PLAN - LAYOUT 1
PS04-E101	C	DRAINAGE PLAN - LAYOUT 2
PS04-E102	C	DRAINAGE PLAN - LAYOUT 3
PS04-E200	B	TYPICAL DRAINAGE DETAILS
PS04-E600	C	OSD CATCHMENT PLAN, MODEL AND RESULTS
PS04-E700	C	WATER QUALITY CATCHMENT PLAN, MODEL AND RESULTS
FINAL CIVIL WORKS		
PS04-G300	B	ACCESS FOOTPATH PLAN
PS04-G310	B	ACCESS FOOTPATH 1 (21-MSP01) LONGITUDINAL SECTION
PS04-G311	B	ACCESS FOOTPATH 2 (21-MSP02) & 3 (21-MSP03) LONG. SECTIONS

1. THIS PLAN IS FOR DEVELOPMENT APPLICATION PURPOSE AND NOT FOR CONSTRUCTION. DESIGN TO BE REVIEWED AND UPDATED FOR CONSTRUCTION CERTIFICATE.
2. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH, AND THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE RELEVANT AUSTRALIAN STANDARDS, COUNCIL SPECIFICATIONS, AND ALL PROJECT CONSULTANT'S PLANS AND REPORTS.
3. INTERNAL SURVEY INFORMATION SHOWN BASED ON DATA PROVIDED BY AUSTRALIAN SURVEYS SOLUTION.
4. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
5. EXISTING SURFACE CONTOURS BASED ON SURVEY AND LIDAR SURFACES.
6. FINAL SURFACE CONTOURS ARE BASED ON PROPOSED AND EXISTING SURFACE.
7. ALL BATTERS TO BE MAXIMUM 1V:4H.

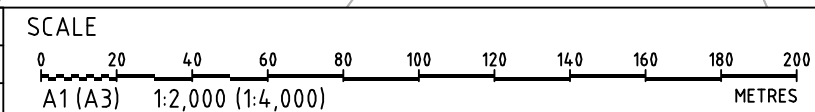
DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPROVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	DRAWING TITLE					
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL RFI	31/07/2020	RK	CG/AVG	JF	JF				JF	COMMON GROUND PROPERTY P/L	COVER SHEET					
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF					 martens & Associates Pty Ltd Consulting Engineers Environment Water Geotechnical Civil	PROJECT NO.		PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF						P1907155	PS04	R03	PS04-A000	C	
												DRAWING ID: P1907155-PS04-R03-A000					
												PROJECT NO. PS04					
												PLANSET NO. R03					
												RELEASE NO. PS04-A000					
												DRAWING NO. PS04-A000					
												REVISION C					
DISCLAIMER & COPYRIGHT								PROJECT NAME / PLANSET TITLE									
This plan must not be used for construction unless signed as approved by principal certifying authority.								STRATFORD HOUSE LIFESTYLE VILLAGE									
All measurements in millimetres unless otherwise specified.								PRELIMINARY ROADS DRAINAGE DESIGN									
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DRAWING ID: P1907155-PS04-R03-A000																	



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C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REF	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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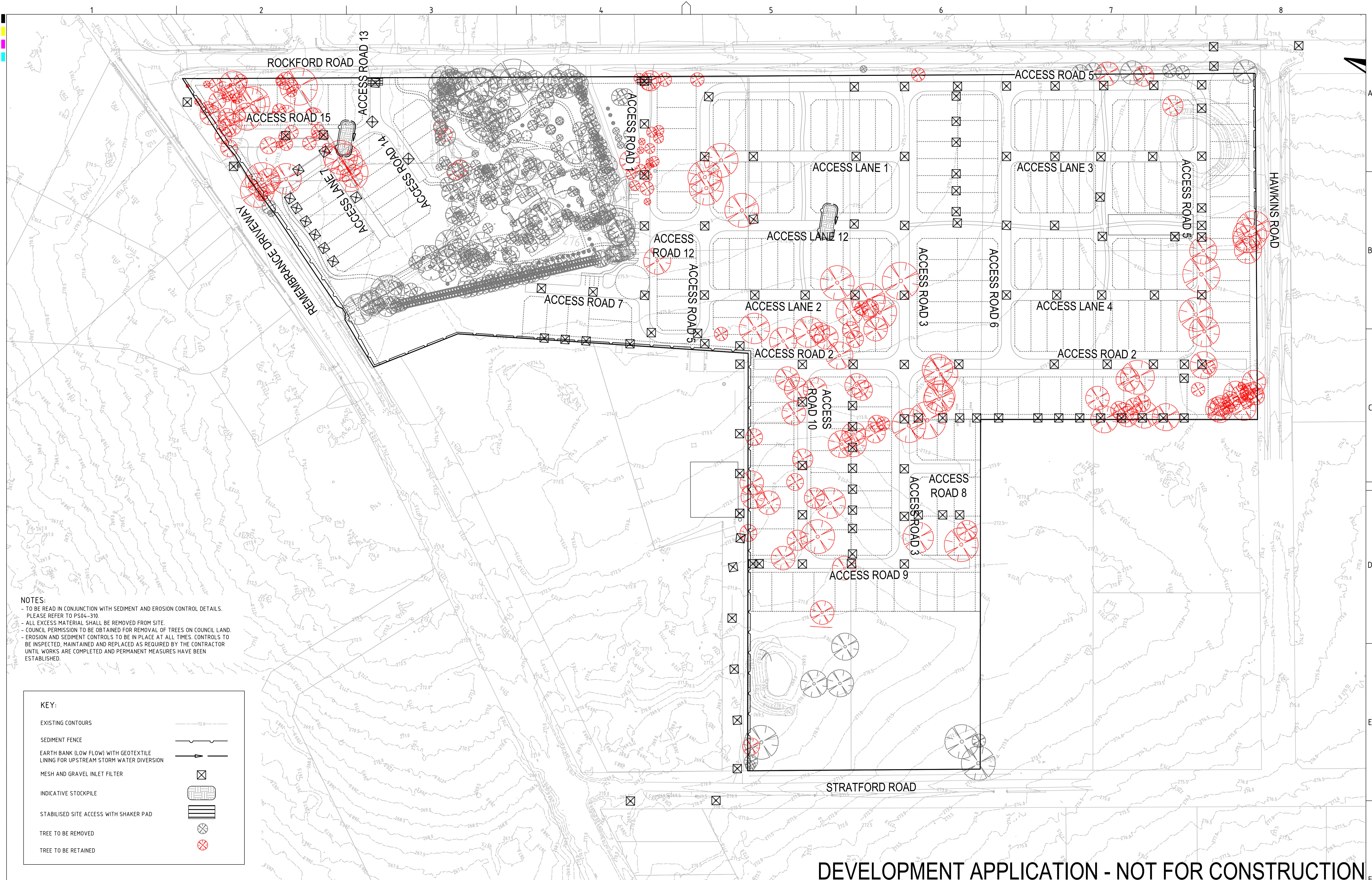
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262



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DRAWING TITLE				
VIEWPORT REFERENCE PLAN				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-A010	C

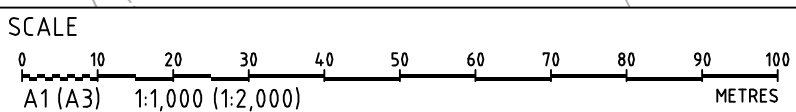


NOTES:
- TO BE READ IN CONJUNCTION WITH SEDIMENT AND EROSION CONTROL DETAILS.
PLEASE REFER TO PS04-310.
- ALL EXCESS MATERIAL SHALL BE REMOVED FROM SITE.
- COUNCIL PERMISSION TO BE OBTAINED FOR REMOVAL OF TREES ON COUNCIL LAND.
- EROSION AND SEDIMENT CONTROLS TO BE IN PLACE AT ALL TIMES. CONTROLS TO
BE INSPECTED, MAINTAINED AND REPLACED AS REQUIRED BY THE CONTRACTOR
UNTIL WORKS ARE COMPLETED AND PERMANENT MEASURES HAVE BEEN
ESTABLISHED.

KEY:

- EXISTING CONTOURS
- SEDIMENT FENCE
- EARTH BANK (LOW FLOW) WITH GEOTEXTILE LINING FOR UPSTREAM STORM WATER DIVERSION
- MESH AND GRAVEL INLET FILTER
- INDICATIVE STOCKPILE
- STABILISED SITE ACCESS WITH SHAKER PAD
- TREE TO BE REMOVED
- TREE TO BE RETAINED

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B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID
MGA

DATUM
mAHd

PROJECT MANAGER
JF

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STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN

STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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DRAWING TITLE				
SEDIMENT & EROSION CONTROL PLAN				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-B300	C

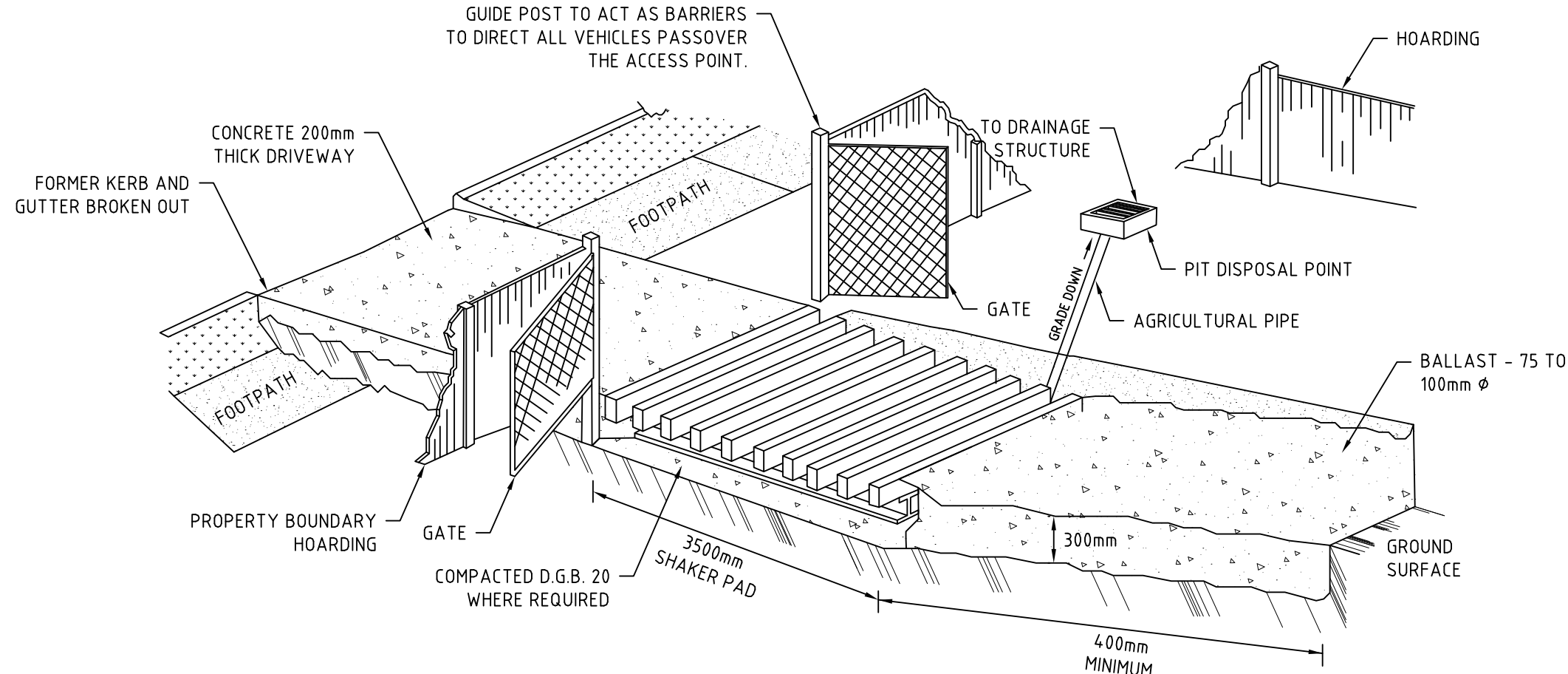
DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

STABILISED ACCESS POINT

TYPE II SAP

THE TYPE II SAP DESIGN IS MORE DEFINED IN THAT IT REQUIRES AN AREA OF BALLAST WITHIN THE SITE COMBINED WITH A SHAKER PAD; ADJACENT THE SHAKER PAD AND IN THE PUBLIC WAY IS A TEMPORARY (CONCRETE) VEHICULAR CROSSING. (SEE DIAGRAM)

STABILISED ACCESS POINT - TYPE 2



IN BOTH TYPE I AND TYPE II SAP'S, THE TEMPORARY VEHICULAR CROSSING MUST:

- CONNECT TO AN EXISTING GUTTER LAYBACK (WHERE THE KERB AND GUTTER EXIST). IF A GUTTER LAYBACK DOES NOT EXIST THEN THE CONNECTION MUST BE MADE TO THE GUTTER BY REMOVING THE ADJACENT KERB SECTION ONLY.
- CONNECT TO A DISH CROSSING (WHERE KERB AND GUTTER DOES NOT EXIST). IF A DISH CROSSING DOES NOT EXIST, THEN IT MUST BE CONSTRUCTED IN ACCORDANCE WITH DETAILS CONTAINED IN COUNCIL'S ISSUED FOOTPATH CROSSING LEVELS.

IT SHOULD BE NOTED THAT THESE TYPES OF SAPS ARE CONSIDERED TO BE APPLICABLE FOR THE MAJORITY OF ACTIVITIES HOWEVER SOME SITES MAY REQUIRE SPECIAL CONSIDERATION.

SHAKER PAD (CATTLE GRID)

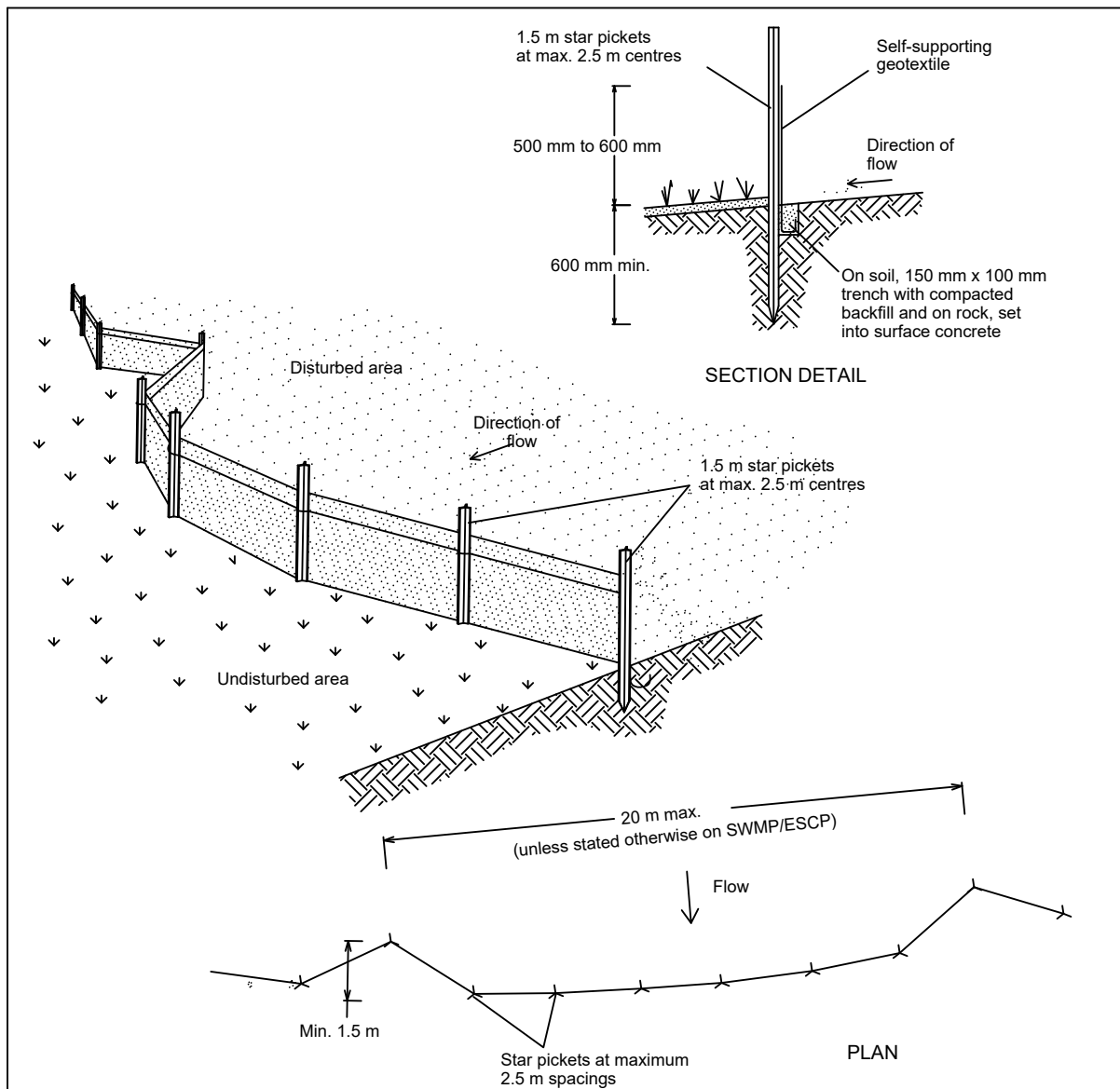
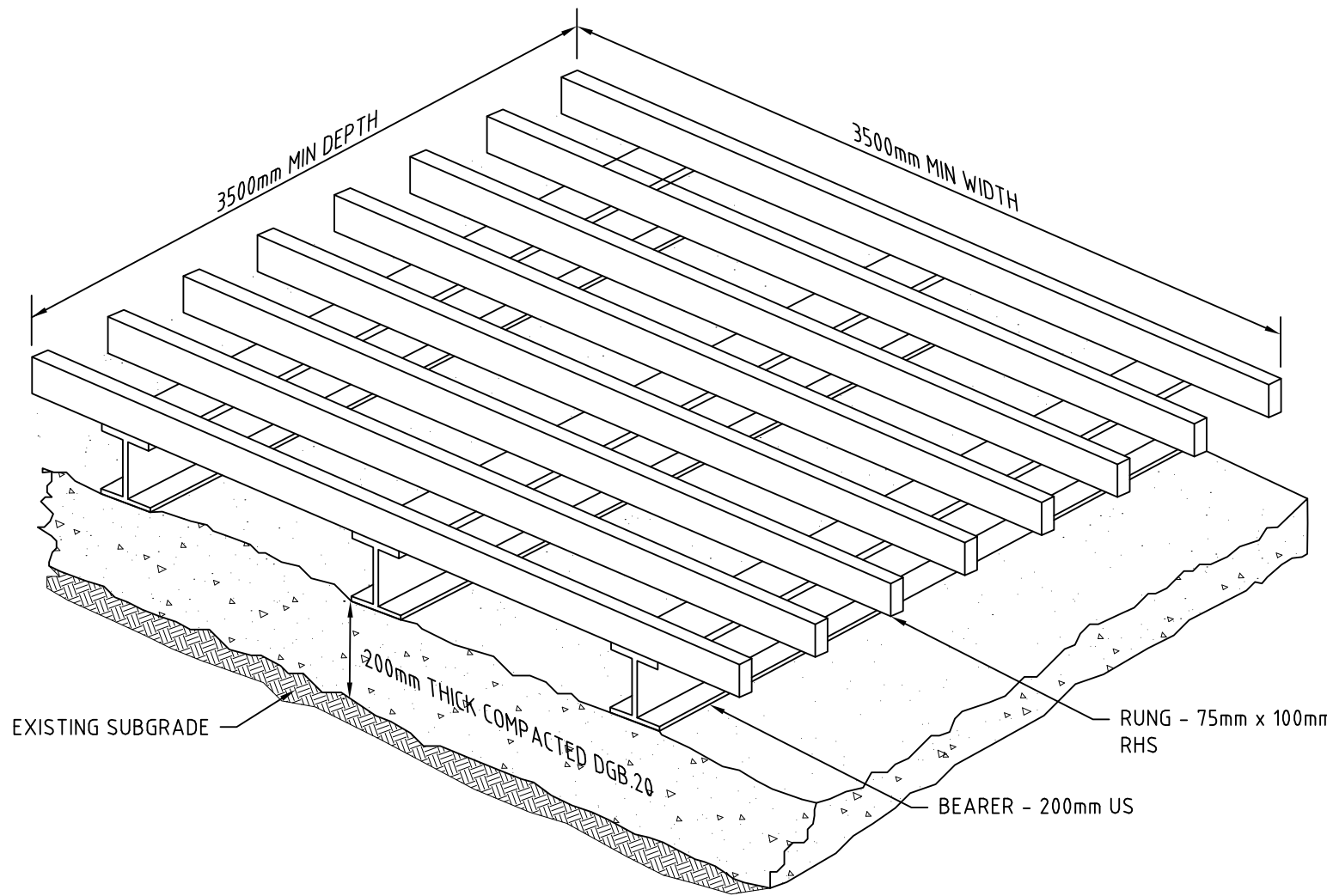
A CORRECTLY DESIGNED AND INSTALLED SHAKER PAD WILL ASSIST IN PREVENTING SEDIMENT TRANSFER FROM A SITE. ANY STABILISED ACCESS POINT (SAP) CAN BE DESIGNED WITH A SHAKER PAD (COMPULSOPRY IN TYPE II SAP'S)

SHAKER PADS CAN BE DESIGNED AND CONSTRUCTED TO ENABLE RE-USE ON FUTURE PROJECTS.

THE SHAKER PAD:

- MUST BE DESIGNED AND CERTIFIED BY A PRACTICING STRUCTURAL ENGINEER. THE CERTIFIED DESIGN SHOULD BE SUBMITTED WITH THE RELEVANT APPLICATION.
- CAN BE CONSTRUCTED FROM ANY SUITABLE MATERIAL.
- MUST BE LOCATED ON A SUITABLY PREPARED AND COMPACTED SUB-GRADE/BASE MATERIAL.
- MUST BE SITUATED SUCH THAT THE RUNGS OF THE SHAKER PAD ARE LEVEL WITH THE ADJOINING NATURAL SURFACE.
- MUST BE A MINIMUM OF 3.5m IN LENGTH.
- MUST BE A MINIMUM OF 3.5m IN WIDTH.
- MUST HAVE CLEAR SPACING BETWEEN RUNGS OF 200 - 250mm.
- RUNGS MUST HAVE A MAXIMUM WIDTH (BEARING AREA) OF 75mm.
- MUST HAVE A MINIMUM CLEAR DEPTH OF 300mm IE FORM THE ROP OF THE RUNG TO THE FINISHED SUB-GRADE/BASE LEVEL.

THE SHAKER PAD MUST BE PROVIDED WITH SUITABLE BARRIERS AT THE SIDES TO ENSURE THAT ALL TYERS OF VEHICLES LEAVING THE SITE TRAVERSE THE DEVICE.

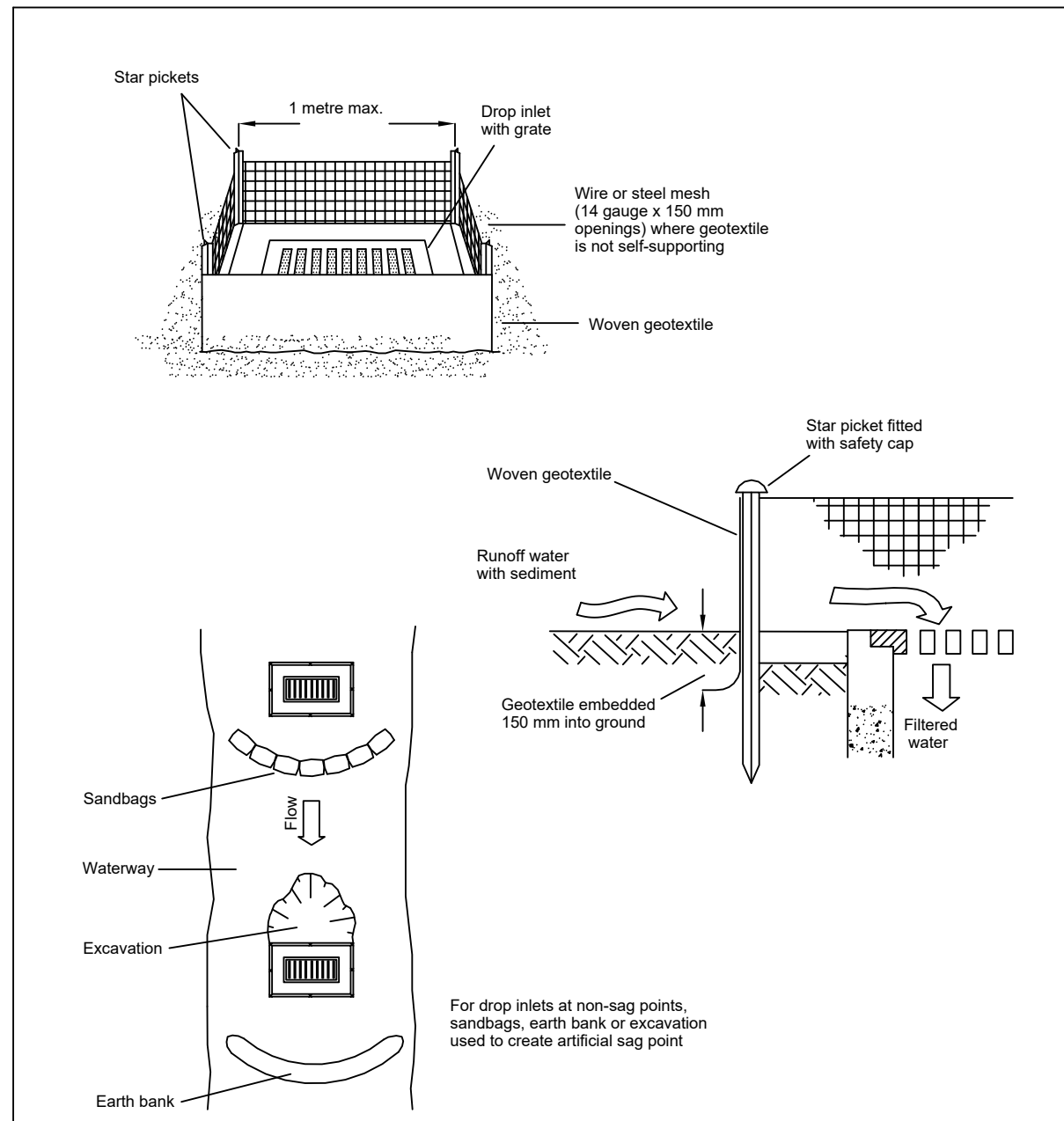


Construction Notes

- Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
- Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
- Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
- Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory.
- Join sections of fabric at a support post with a 150-mm overlap.
- Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

SEDIMENT FENCE

SD 6-8

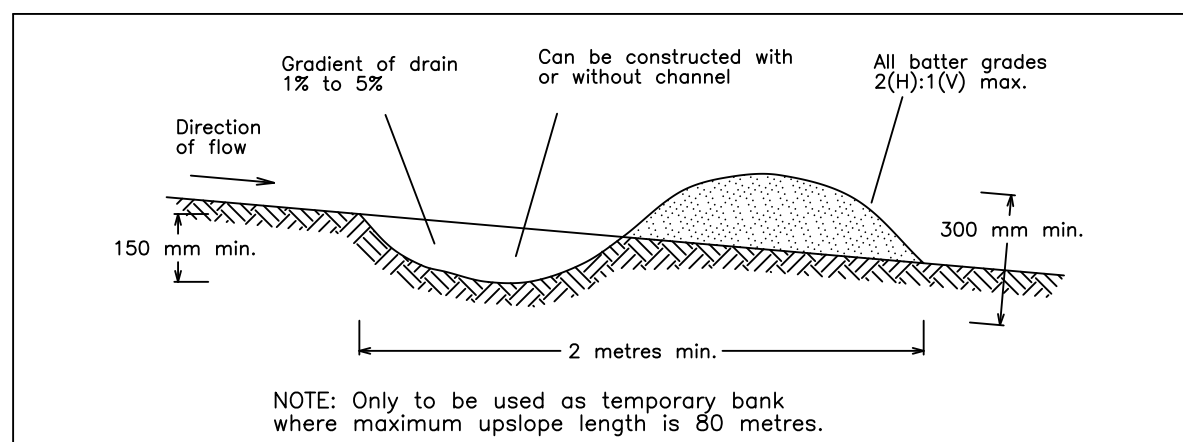


Construction Notes

- Fabricate a sediment barrier made from geotextile or straw bales.
- Follow Standard Drawing 6-7 and Standard Drawing 6-8 for installation procedures for the straw bales or geofabric. Reduce the picket spacing to 1 metre centres.
- In waterways, artificial sag points can be created with sandbags or earth banks as shown in the drawing.
- Do not cover the inlet with geotextile unless the design is adequate to allow for all waters to bypass it.

GEOTEXTILE INLET FILTER

SD 6-12

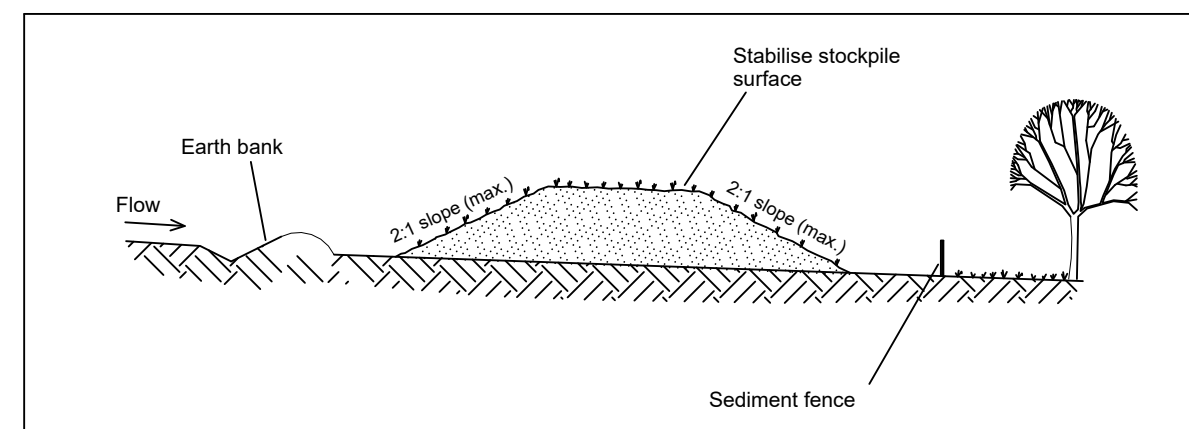


Construction Notes

- Build with gradients between 1 percent and 5 percent.
- Avoid removing trees and shrubs if possible - work around them.
- Ensure the structures are free of projections or other irregularities that could impede water flow.
- Build the drains with circular, parabolic or trapezoidal cross sections, not V shaped.
- Ensure the banks are properly compacted to prevent failure.
- Complete permanent or temporary stabilisation within 10 days of construction.

EARTH BANK (LOW FLOW)

SD 5-5



Construction Notes

- Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
- Construct on the contour as low, flat, elongated mounds.
- Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
- 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.
- 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.

STOCKPILES

SD 4-1

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

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A1 / A3 LANDSCAPE (A1LC_v02.0.01)

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF	

GRID	DATUM	PROJECT MANAGER	CLIENT
		JF	

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PRECISE PLANNING
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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DRAWING TITLE				
SEDIMENT & EROSION CONTROL DETAILS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-B310	A

DRAWING ID: P1907155-PS04-R03-B310

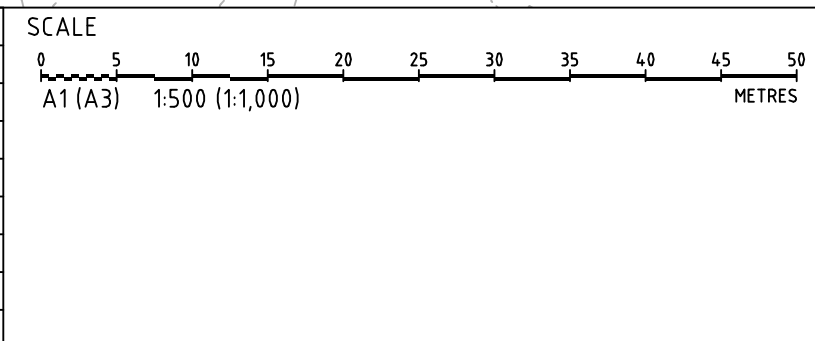
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100



KEY

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EARTHWORKS HINGE
- INTERFACE
- EDGE OF RETAINING WALL
- LIMIT OF WORKS
- SITE BOUNDARY

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C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REF	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
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MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

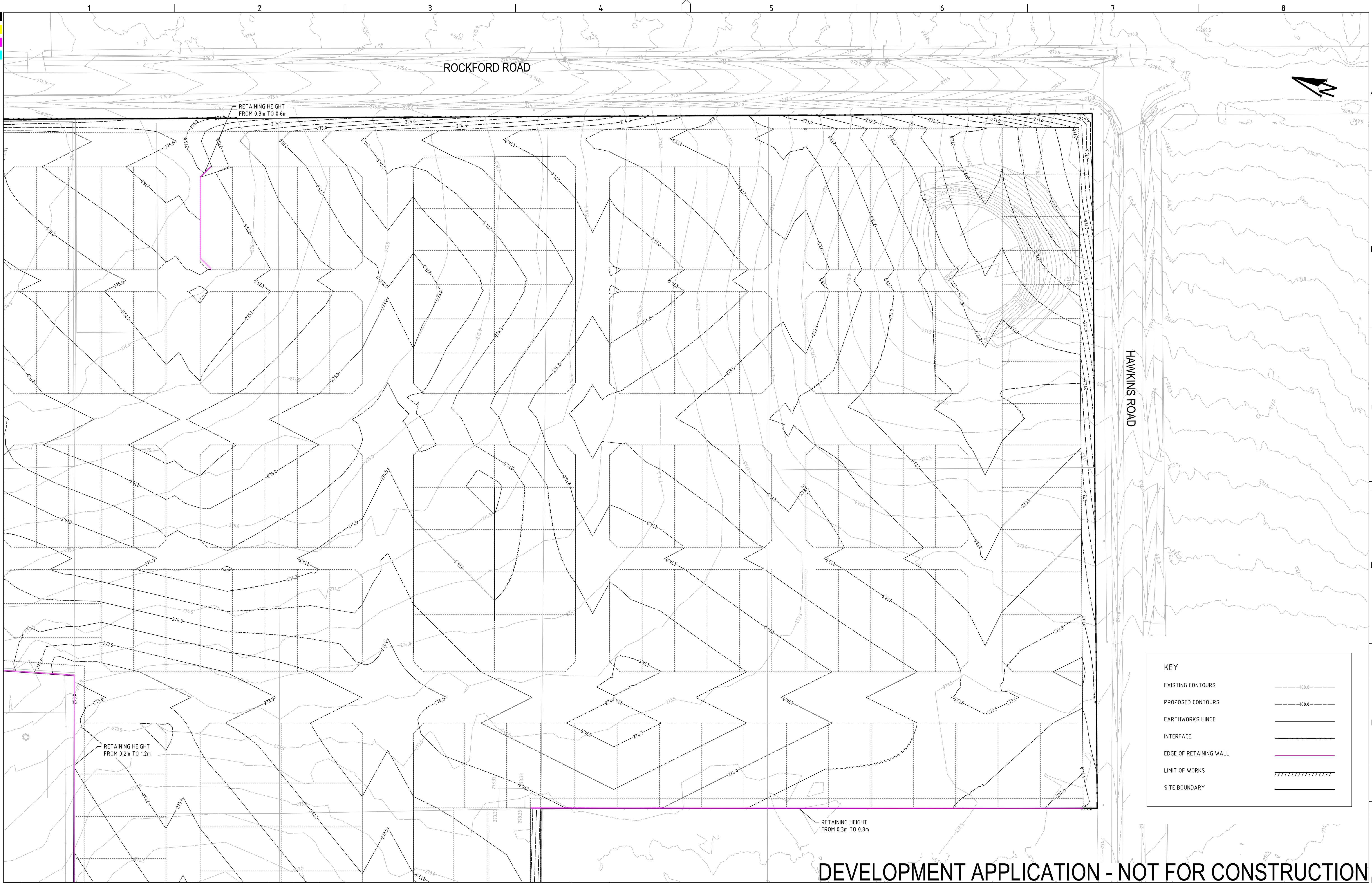
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DRAWING TITLE				
EARTHWORKS GRADING PLAN - LAYOUT 1				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-C100	C

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION



KEY

EXISTING CONTOURS

100.0

PROPOSED CONTOURS

100.0

EARTHWORKS HINGE

INTERFACE

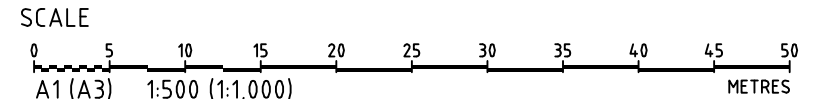
EDGE OF RETAINING WALL

LIMIT OF WORKS

SITE BOUNDARY

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

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GRID

MGA

DATUM

mAHD

PROJECT MANAGER

JF

CLIENT

COMMON GROUND PROPERTY P/L

PROJECT NAME/PLANSET TITLE

STRATFORD HOUSE LIFESTYLE VILLAGE

PRELIMINARY ROADS DRAINAGE DESIGN

STRATFORD HOUSE PRECINCT, TAHMOOR, NSW

LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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DRAWING TITLE				
EARTHWORKS GRADING PLAN - LAYOUT 2				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-C101	C



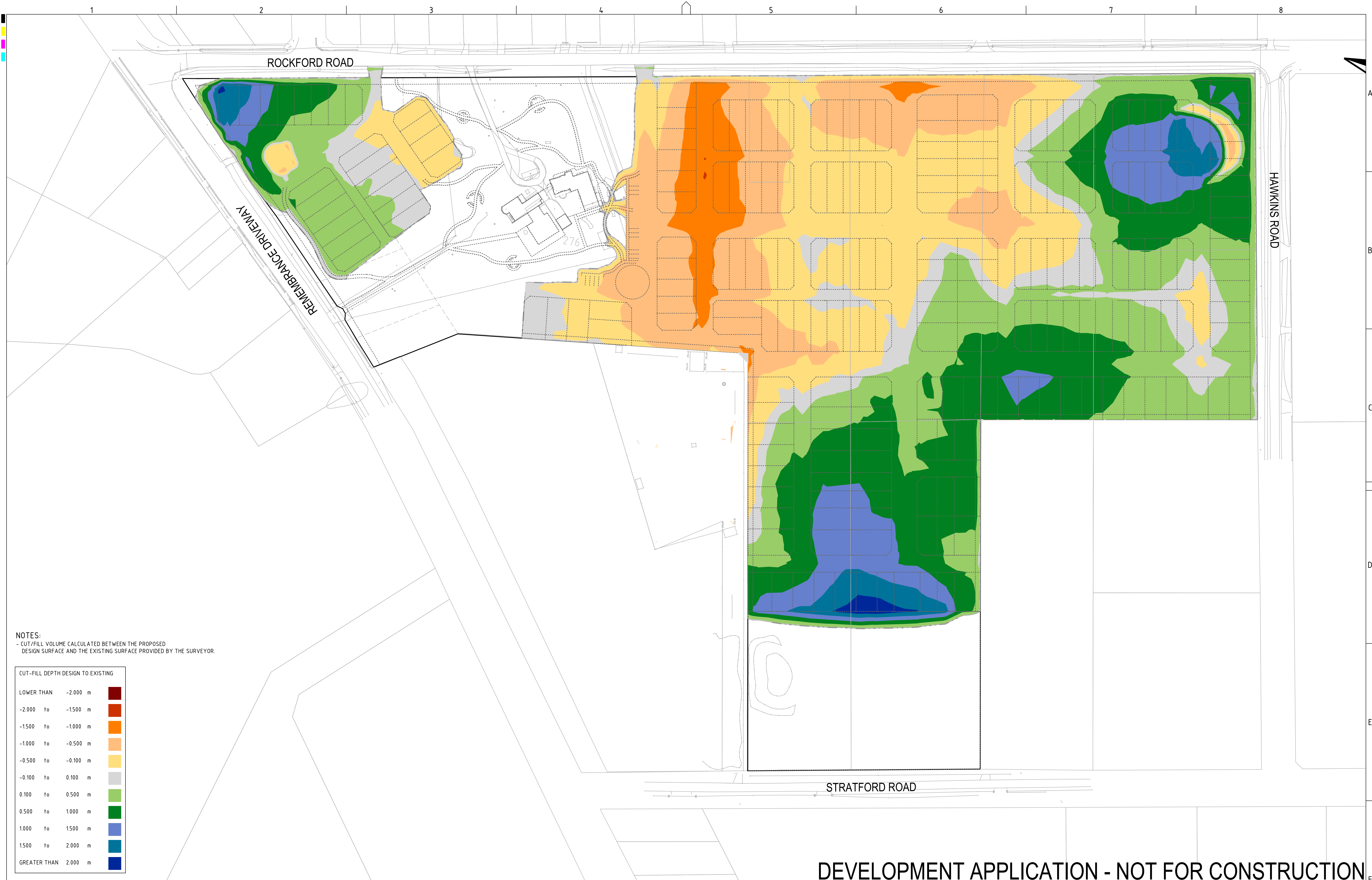
DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

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PRINTED: ---- - USER: RK01 AH0007HA

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

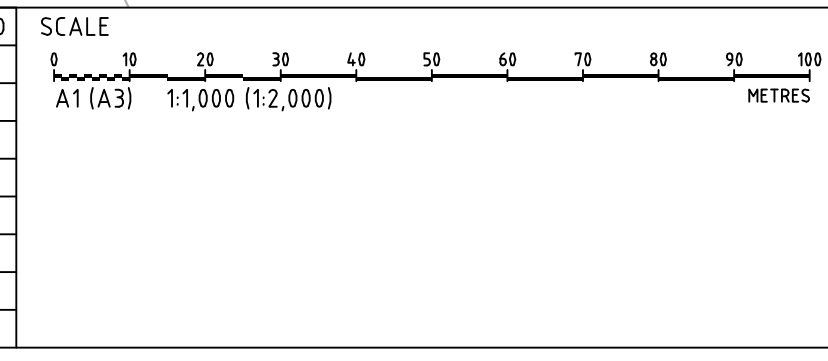
DRAWING ID: P1907155-PS04-R03-C102



NOTES:
- CUT/FILL VOLUME CALCULATED BETWEEN THE PROPOSED DESIGN SURFACE AND THE EXISTING SURFACE PROVIDED BY THE SURVEYOR.

CUT-FILL DEPTH DESIGN TO EXISTING		
LOWER THAN	-2.000 m	
-2.000 to	-1.500 m	
-1.500 to	-1.000 m	
-1.000 to	-0.500 m	
-0.500 to	-0.100 m	
-0.100 to	0.100 m	
0.100 to	0.500 m	
0.500 to	1.000 m	
1.000 to	1.500 m	
1.500 to	2.000 m	
GREATER THAN	2.000 m	

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
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B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
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DATUM
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN

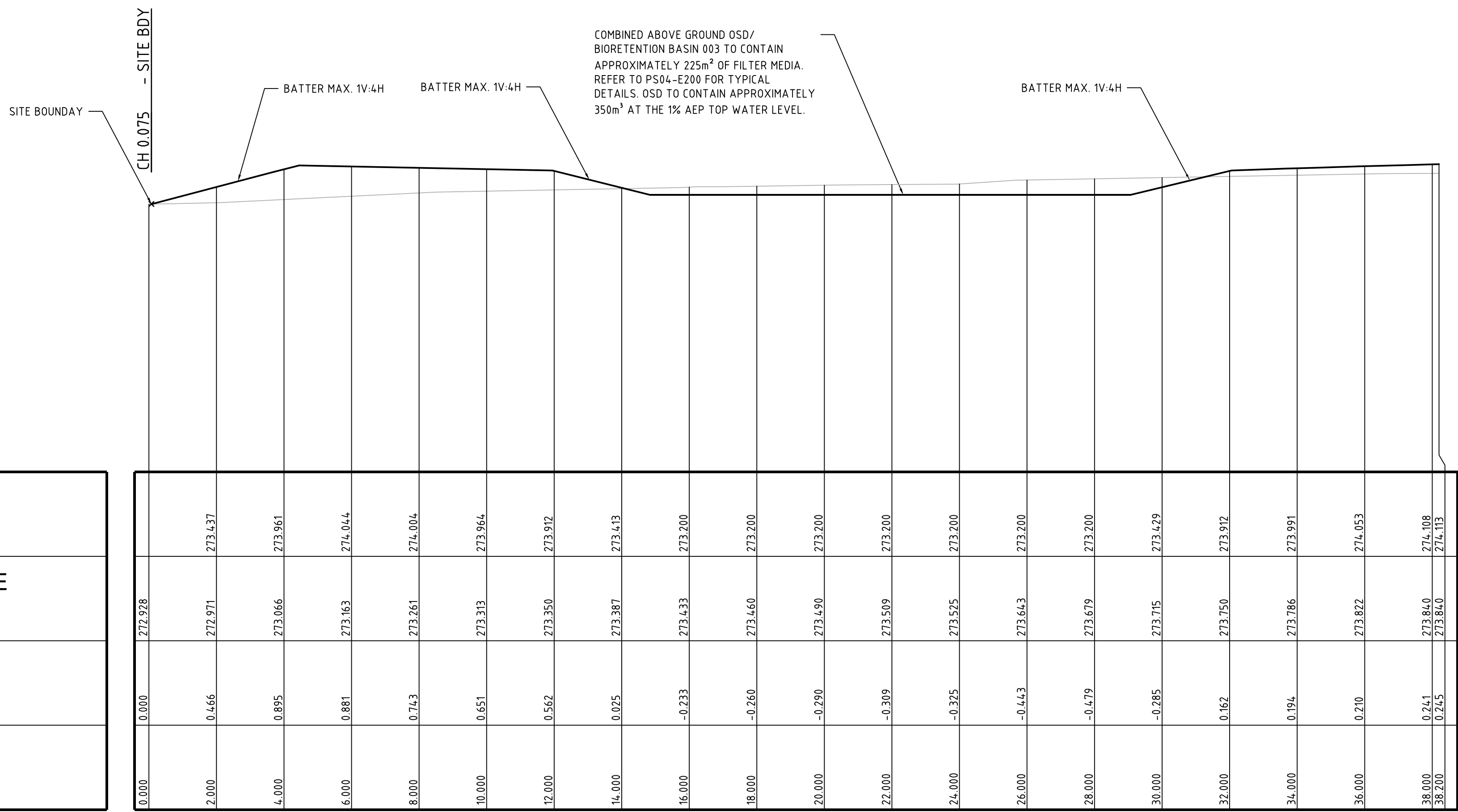
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

Consulting Engineers
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Water
Geotechnical
Civil

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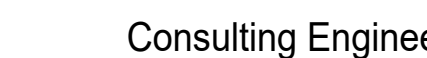

DRAWING TITLE				
EARTHWORKS CUT - FILL PLAN				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-C500	C

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION



SECTION A
SCALE: HORIZONTAL - 1:100
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

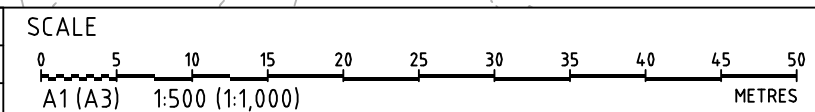
REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	 <div>Consulting Engineers Environment Water Geotechnical Civil</div>	DRAWING TITLE						
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF		MGA	mAHD	JF	COMMON GROUND PROPERTY P/L		PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION		
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF						STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN	P1907155	PS04	R03	PS04-C600	B		
								DISCLAIMER & COPYRIGHT This plan must not be used for construction unless signed as approved by principal certifying authority. All measurements in millimetres unless otherwise specified. This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd. (C) Copyright Martens & Associates Pty Ltd				PROJECT NAME/PLANSET TITLE STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN STRATFORD HOUSE PRECINCT 1, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262				Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au			
A1 / A3 LANDSCAPE (A1LC_v02.0.01)												DRAWING ID: P1907155-PS04-R03-C600							



NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.

KEY	
FINAL SURFACE CONTOURS	— 272.00 —
ACCESS ROAD ALIGNMENT	— — — —
ROLLING KERB	— RK —
EDGE OF CARRIAGEWAY	— — — —
FOOTPATH	— — — —
LIMIT OF WORKS	
SITE BOUNDARY	— — — —

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL RFI	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262



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DRAWING TITLE				
ROADWORKS PLAN - LAYOUT 1				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D100	C

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

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A1 / A3 LANDSCAPE (A1LC_v02.0.01)

DRAWING ID: P1907155-PS04-R03-D100



NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.

KEY

FINAL SURFACE CONTOURS

ACCESS ROAD ALIGNMENT

ROLLING KERB

EDGE OF CARRIAGEWAY

FOOTPATH

LIMIT OF WORKS

SITE BOUNDARY

— 272.00 —

— —

— RK —

— —

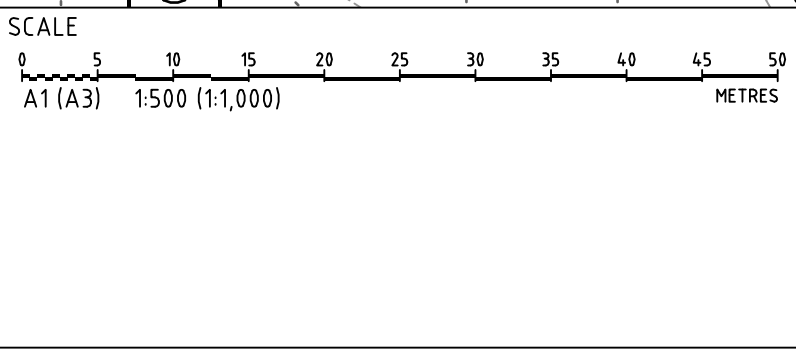
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DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL RFI	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID
MGA

DATUM
mAHD

PROJECT MANAGER
JF

CLIENT
COMMON GROUND PROPERTY P/L

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PROJECT NAME/PLANSET TITLE

STRATFORD HOUSE LIFESTYLE VILLAGE

PRELIMINARY ROADS DRAINAGE DESIGN

STRATFORD HOUSE PRECINCT, TAHMOOR, NSW

LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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DRAWING TITLE				
ROADWORKS PLAN - LAYOUT 2				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D101	C

PRINTED: 11/12/2019 14:05:24

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

DRAWING ID: P1907155-PS04-R03-D101



NOTE:
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KEY

FINAL SURFACE CONTOURS

ACCESS ROAD ALIGNMENT

ROLLING KERB



EDGE OF CARRIAGEWAY

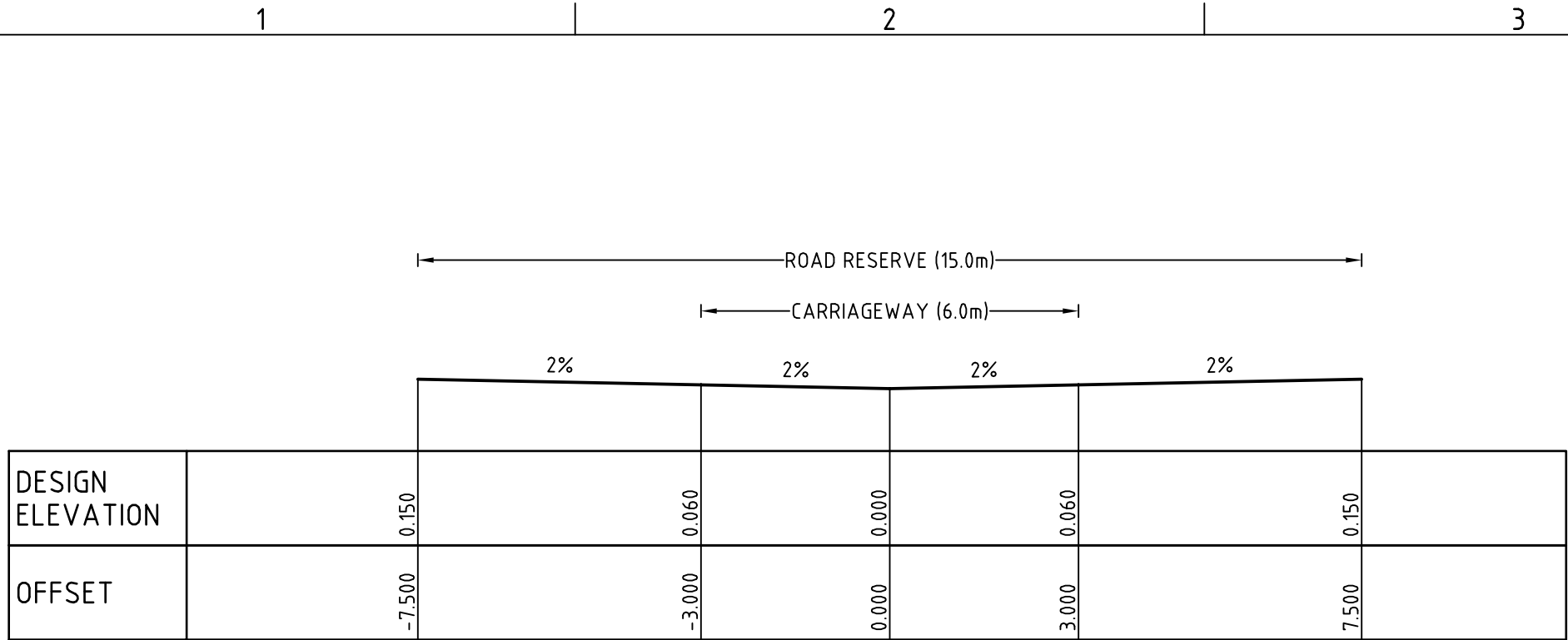
FOOTPATH

LIMIT OF WORKS

SITE BOUNDARY

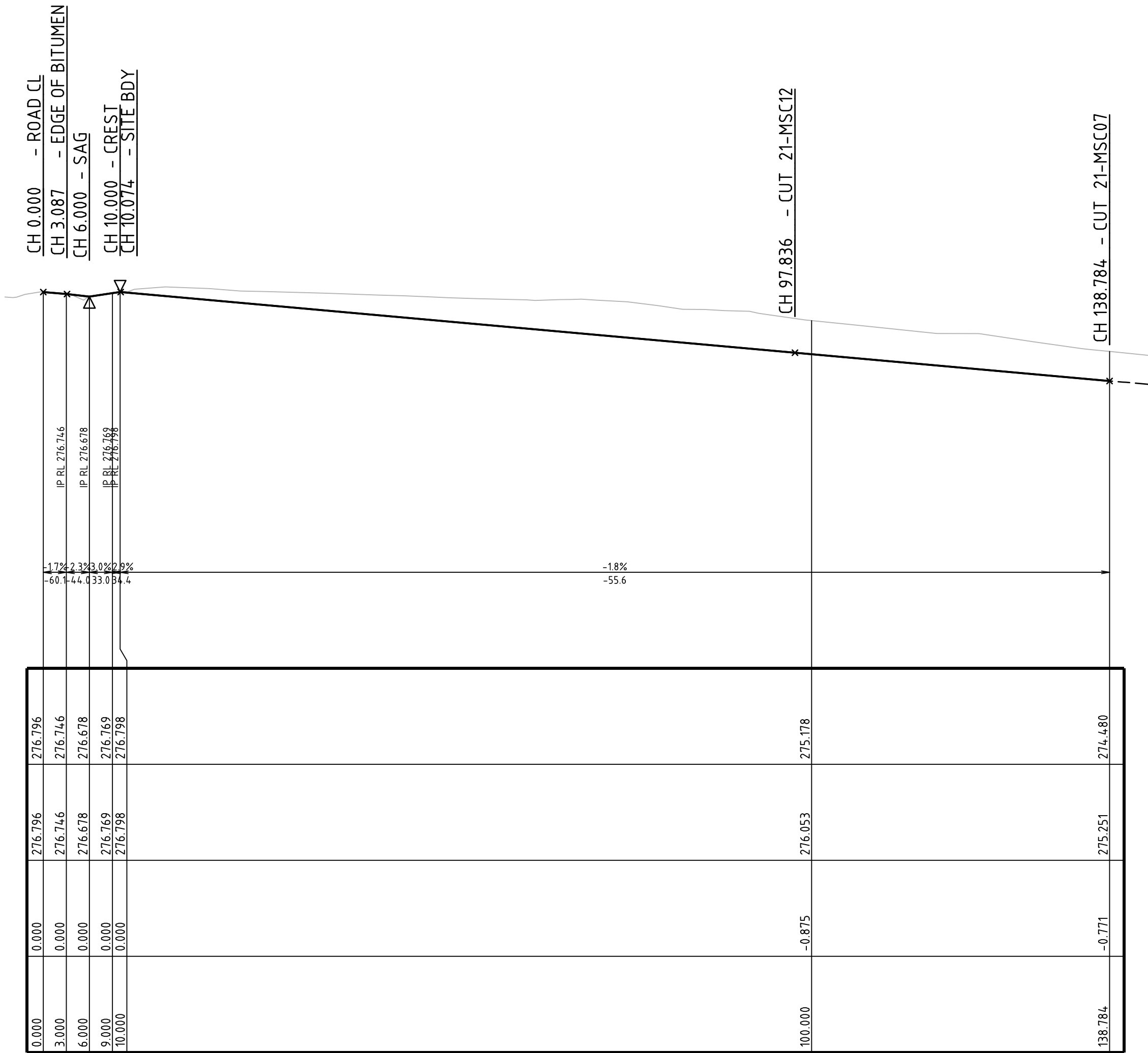
DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	<div>SCALE</div> <div></div>	GRID	DATUM	PROJECT MANAGER	CLIENT	<div>Consulting Engineers</div> <div>Environment Water Geotechnical Civil</div> <div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au</div>	<div>DRAWING TITLE</div> <div>ROADWORKS PLAN - LAYOUT 3</div> <div><div>PROJECT NO.</div><div>P1907155</div><div>PLANSET NO.</div><div>PS04</div><div>RELEASE NO.</div><div>R03</div><div>DRAWING NO.</div><div>PS04-D102</div><div>REVISION</div><div>B</div></div> <div>DRAWING ID: P1907155-PS04-R03-D102</div>					
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF		MGA	mAHD	JF	COMMON GROUND PROPERTY P/L							
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF		<div>DISCLAIMER & COPYRIGHT</div> <div>This plan must not be used for construction unless signed as approved by principal certifying authority.</div> <div>All measurements in millimetres unless otherwise specified.</div> <div>This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd</div> <div>(C) Copyright Martens & Associates Pty Ltd</div>			PROJECT NAME/PLANSET TITLE						STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN	
							A1 / A3 LANDSCAPE [A1LC_v02.0.0]											



ACCESS ROAD 1 TYPICAL CROSS SECTION

SCALE 1:100

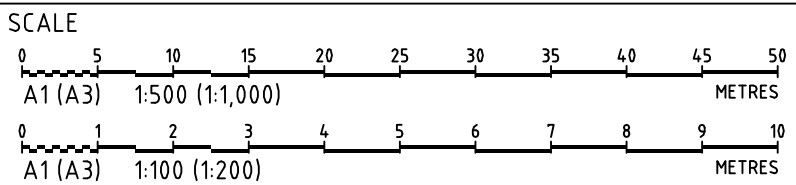


ACCESS ROAD 1 (21-MSC01) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REF	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262



Consulting Engineers
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Civil

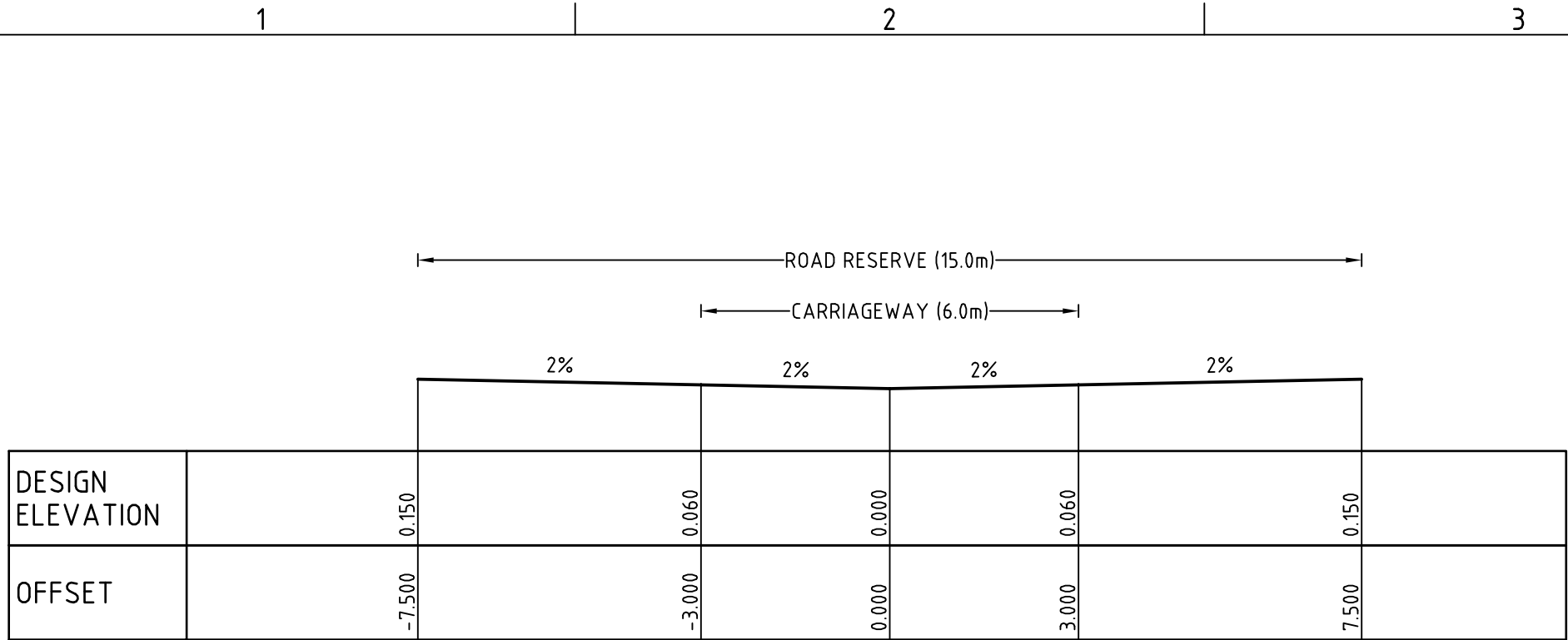
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DRAWING TITLE				
ACCESS ROAD 1 (21-MSC01) LONG. SECTION AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D200	C

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USER: RITA.MARTENS

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

DRAWING ID: P1907155-PS04-R03-D200



ACCESS ROAD 2 TYPICAL CROSS SECTION

SCALE 1:100



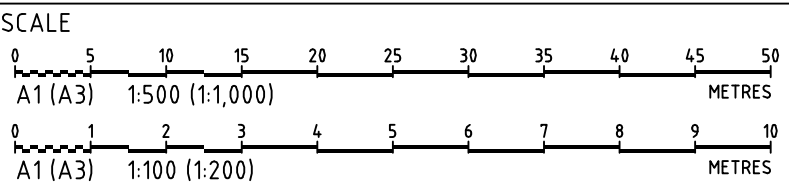
ACCESS ROAD 2 (21-MSC02) LONG. SECTION

SCALE: HORIZONTAL - 1:500

VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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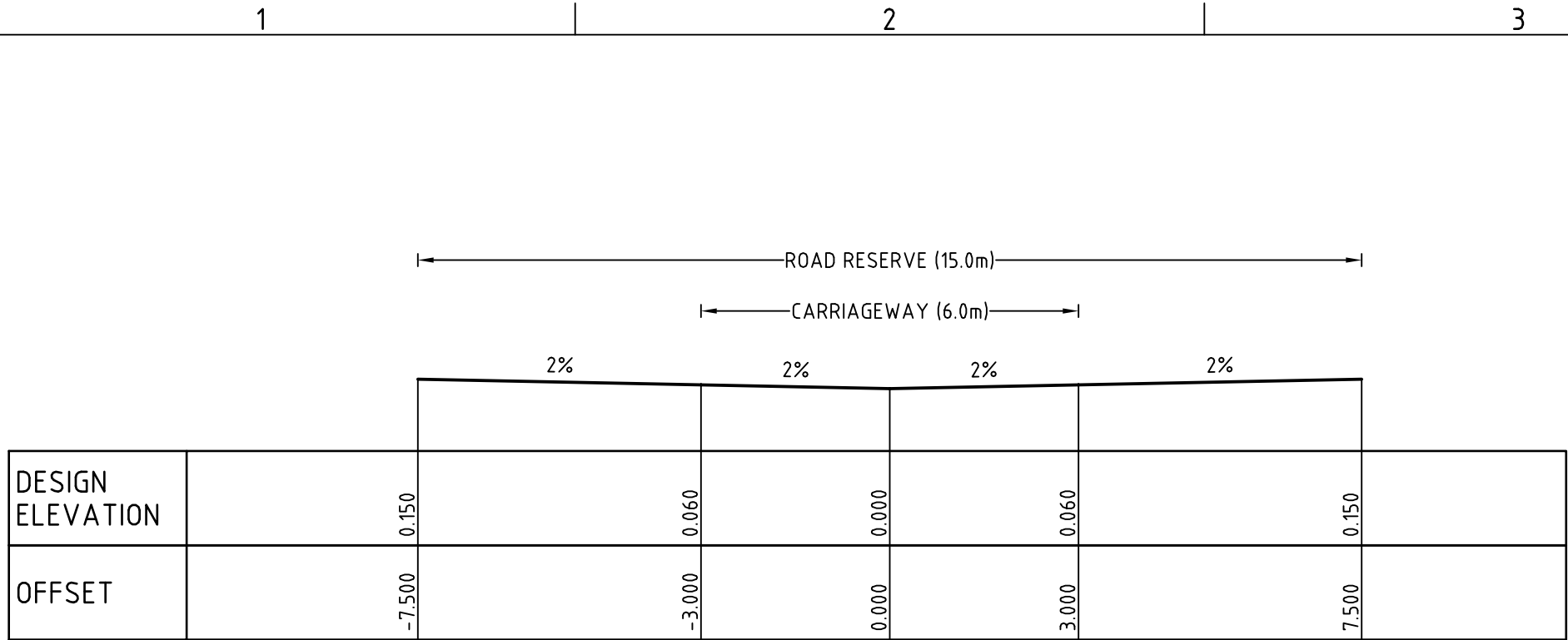
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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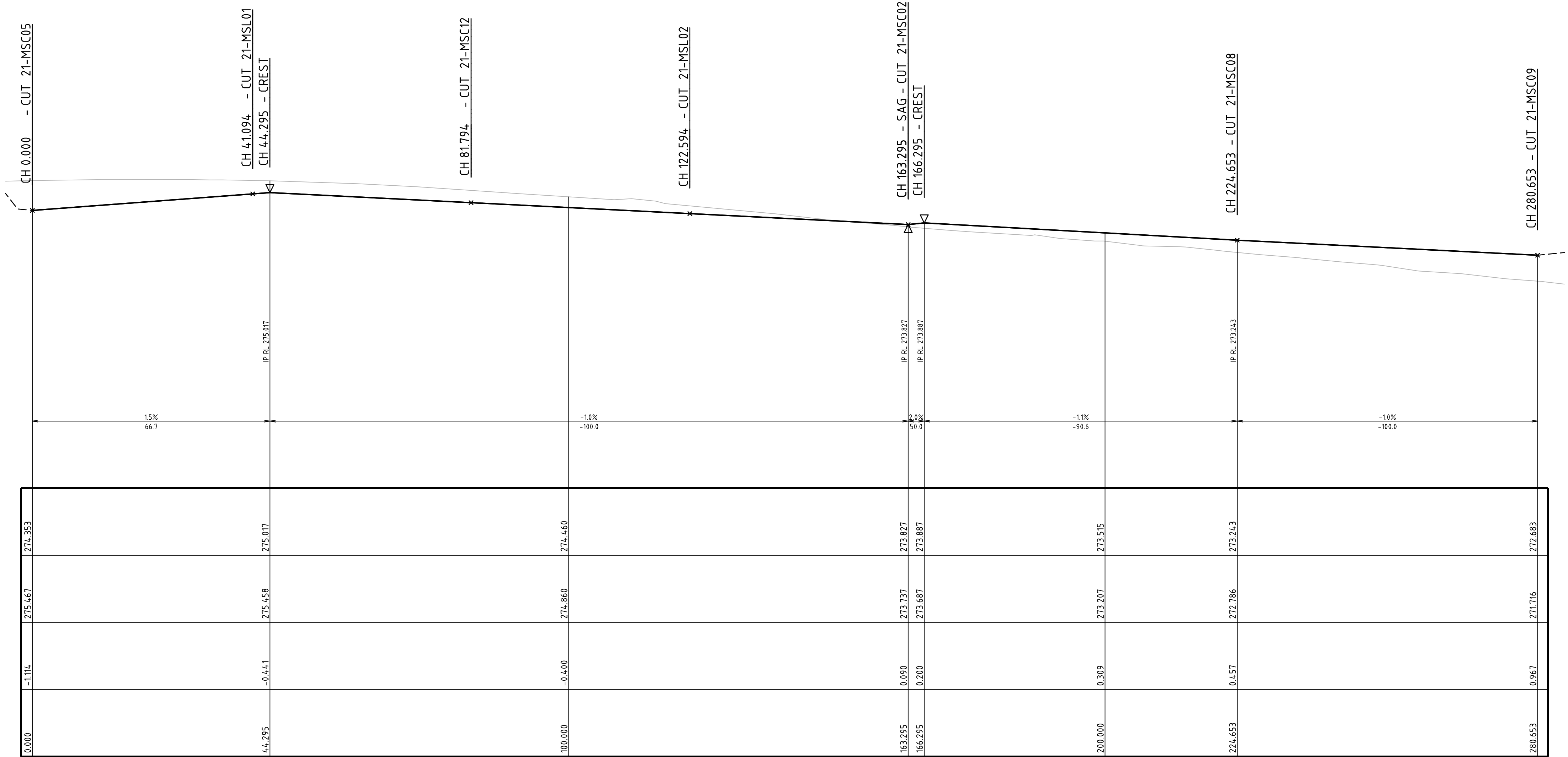
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DRAWING TITLE				
ACCESS ROAD 2 (21-MSC02) LONG. SECTION AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D201	B



ACCESS ROAD 3 TYPICAL CROSS SECTION

SCALE 1:100



ACCESS ROAD 3 (21-MSC03) LONG. SECTION

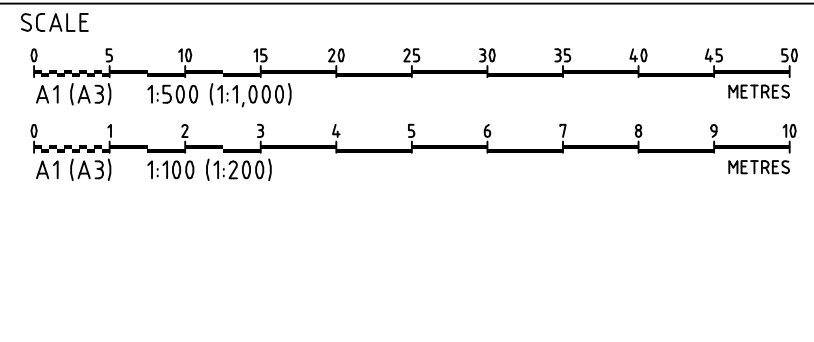
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VERTICAL - 1:100

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%)
VERTICAL GRADE (1 IN ...)
HORIZONTAL CURVE RADIUS (m)
DATUM RL 264.000

DESIGN SURFACE LEVELS
EXISTING SURFACE LEVELS
CUT / FILL DEPTH
CHAINAGE

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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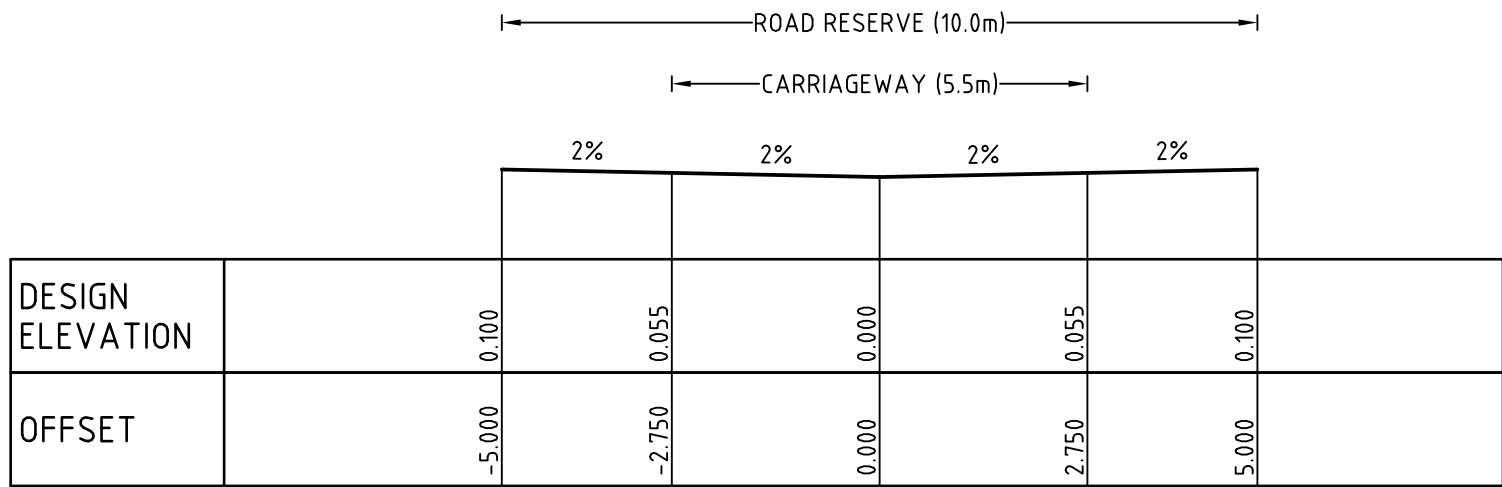
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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DRAWING TITLE				
ACCESS ROAD 3 (21-MSC03) LONG. SECTION AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D203	B



ACCESS ROAD 5 TYPICAL CROSS SECTION

SCALE 1:100

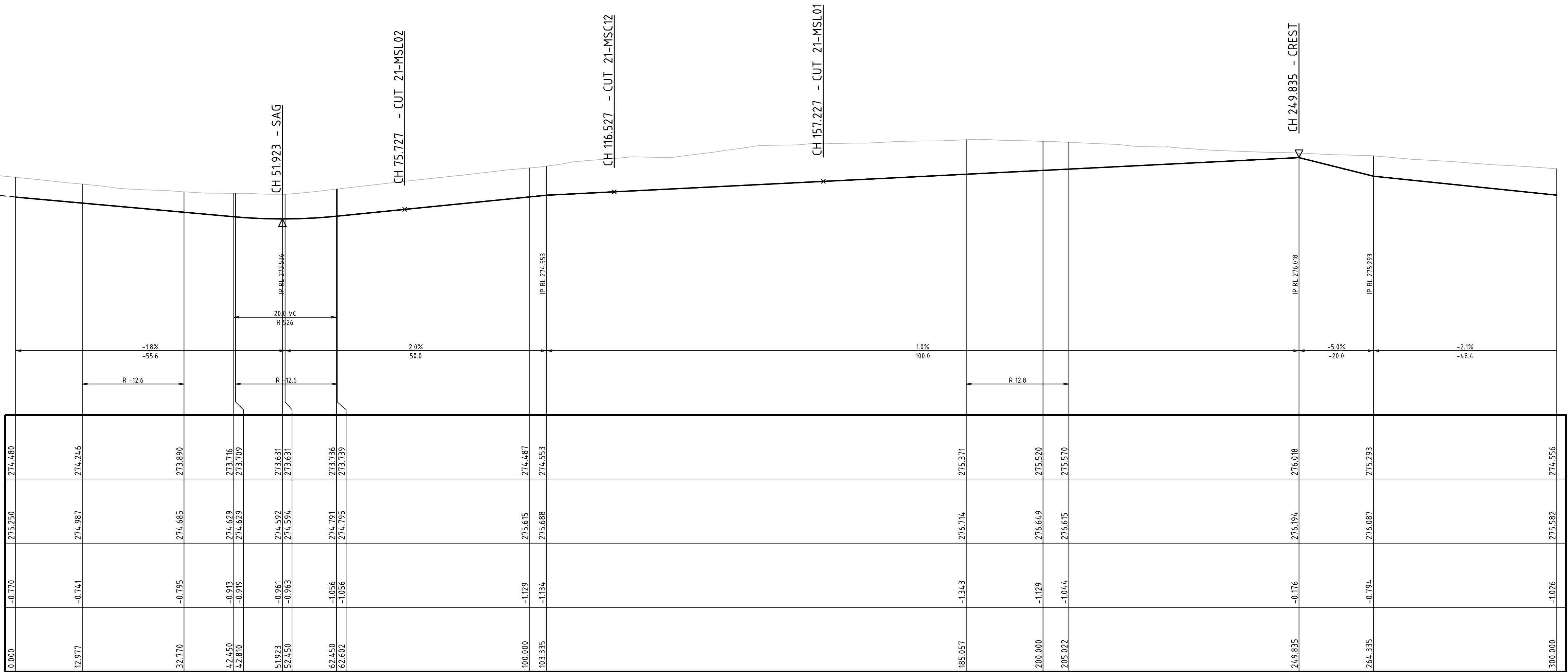
VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%)
VERTICAL GRADE (1 IN ...)
HORIZONTAL CURVE RADIUS (m)
DATUM RL 266.000

DESIGN SURFACE
LEVELS

EXISTING SURFACE
LEVELS

CUT / FILL DEPTH

CHAINAGE

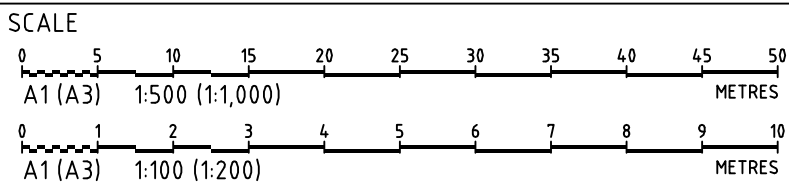


ACCESS ROAD 5 (21-MSL05) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REF	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT 1, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262



Consulting Engineers

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Water
Geotechnical
Civil

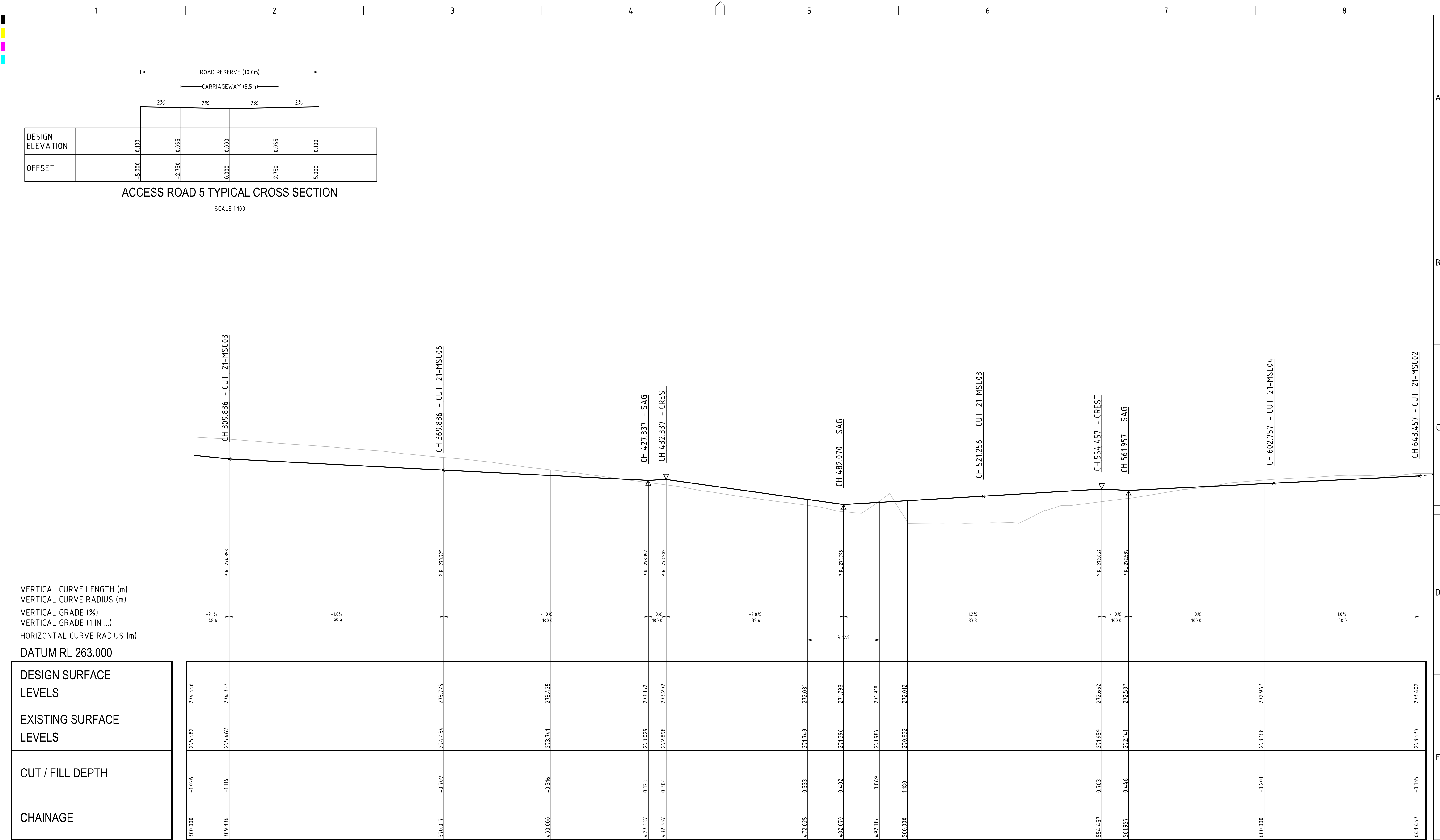
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DRAWING TITLE				
ACCESS ROAD 5 (21-MSL05) LONG. SECTION AND TYPICAL CROSS SECTION (SHEET 1)				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D205	C

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A1 / A3 LANDSCAPE (A1/C_02.0.01)

DRAWING ID: P1907155-PS04-R03-D205



REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL RFI	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF

SCALE
0 5 10 15 20 25 30 35 40 45 50
A1 (A3) 1:500 (1:1,000) METRES
0 1 2 3 4 5 6 7 8 9 10
A1 (A3) 1:100 (1:200) METRES

GRID
MGA


DATUM
mAHD

PROJECT MANAGER
JF

CLIENT
COMMON GROUND PROPERTY P/L

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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT 1, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262



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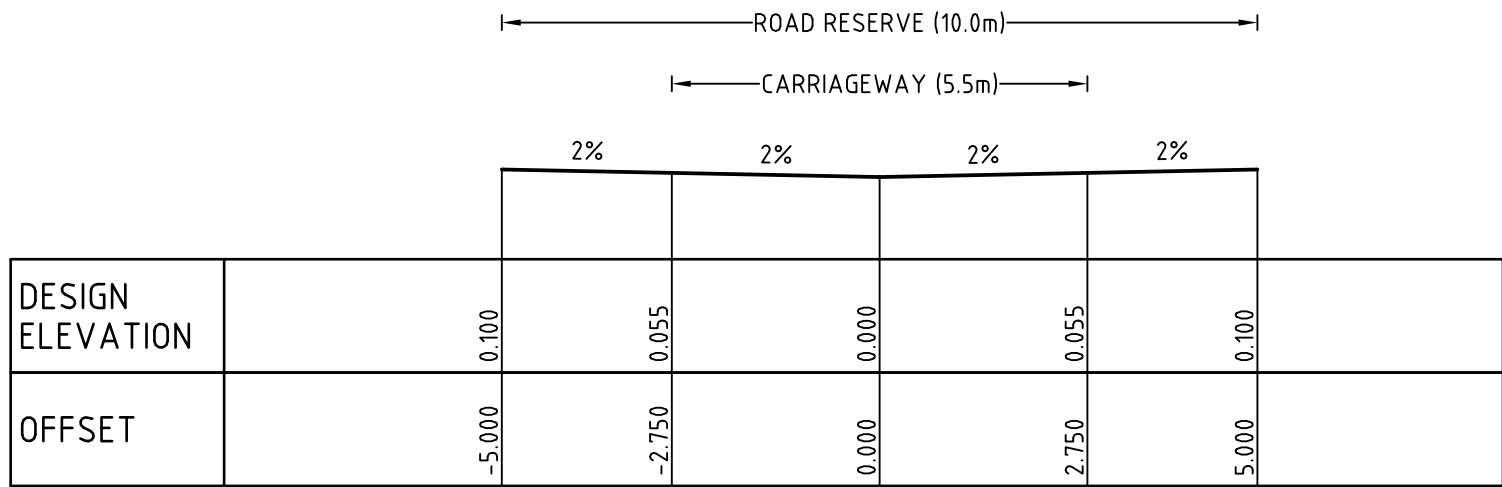
DRAWING TITLE
ACCESS ROAD 5 (21-MSC05) LONG. SECTION
AND TYPICAL CROSS SECTION
(SHEET 2)

PROJECT NO. P1907155	PLANSET NO. PS04	RELEASE NO. R03	DRAWING NO. PS04-D206	REVISION C
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A1 / A3 LANDSCAPE (A1L_C_02.0.01)

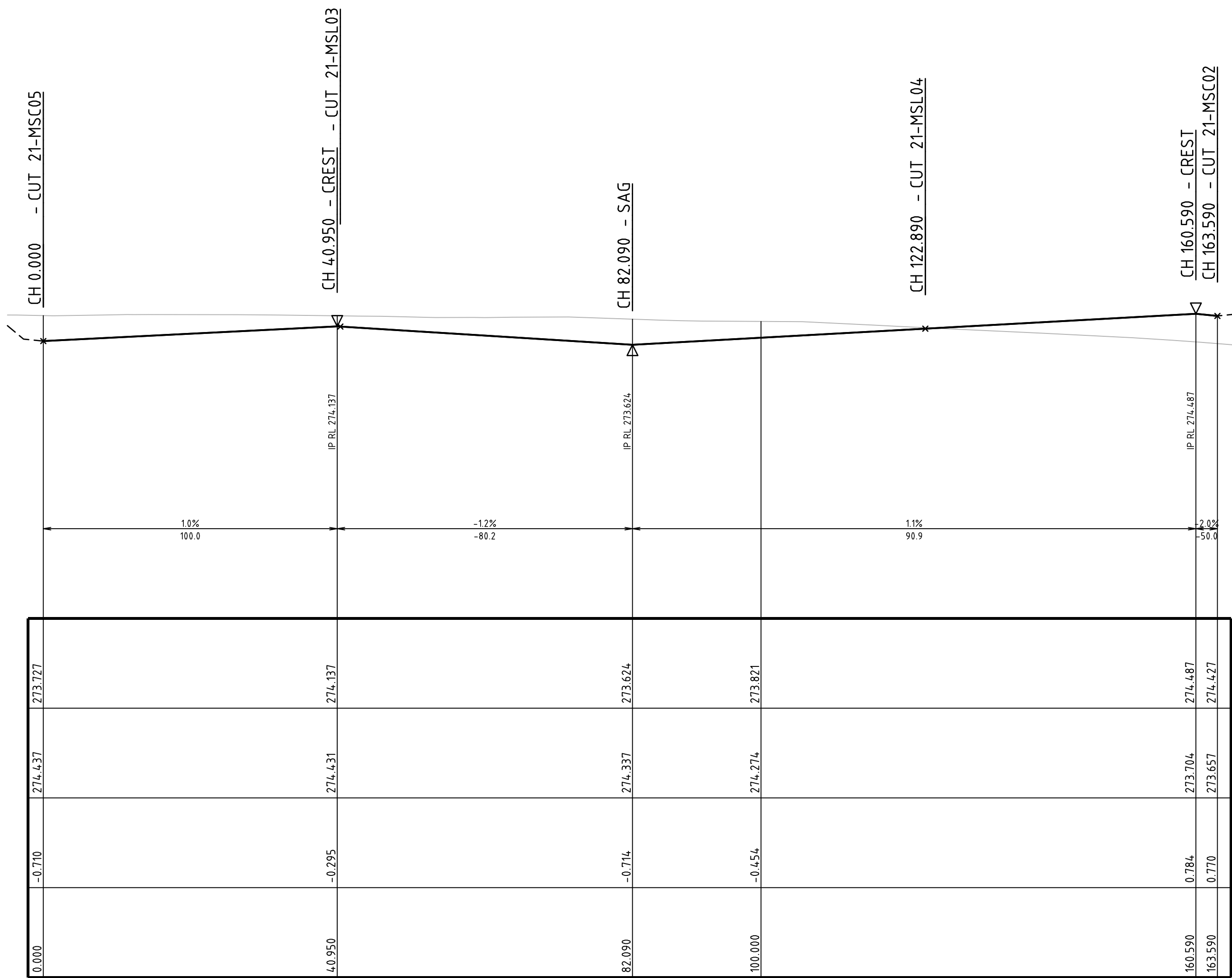
DRAWING ID: P1907155-PS04-R03-D206

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION



ACCESS ROAD 6 TYPICAL CROSS SECTION

SCALE 1:100

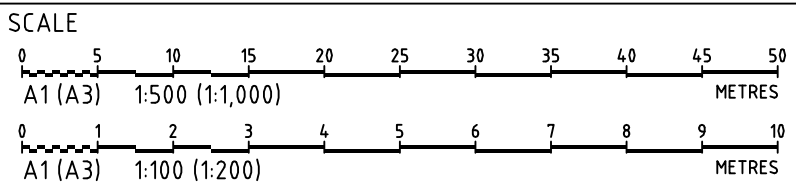


ACCESS ROAD 6 (21-MSC06) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF

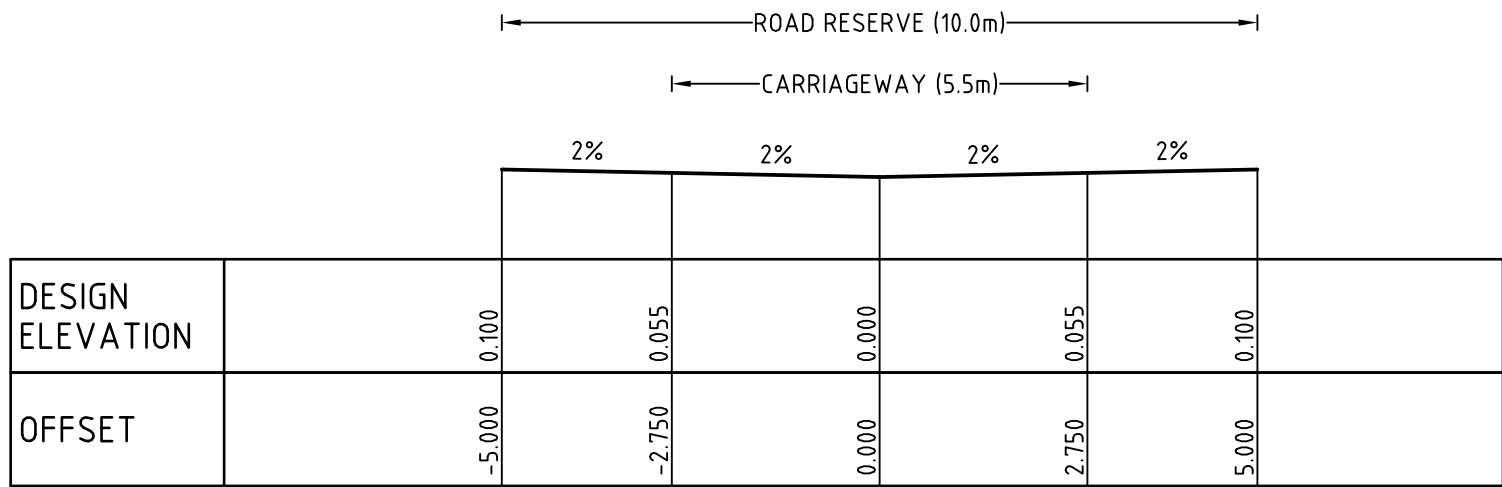


GRID	DATUM	PROJECT MANAGER
MGA	mAHD	JF
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CLIENT
COMMON GROUND PROPERTY P/L
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

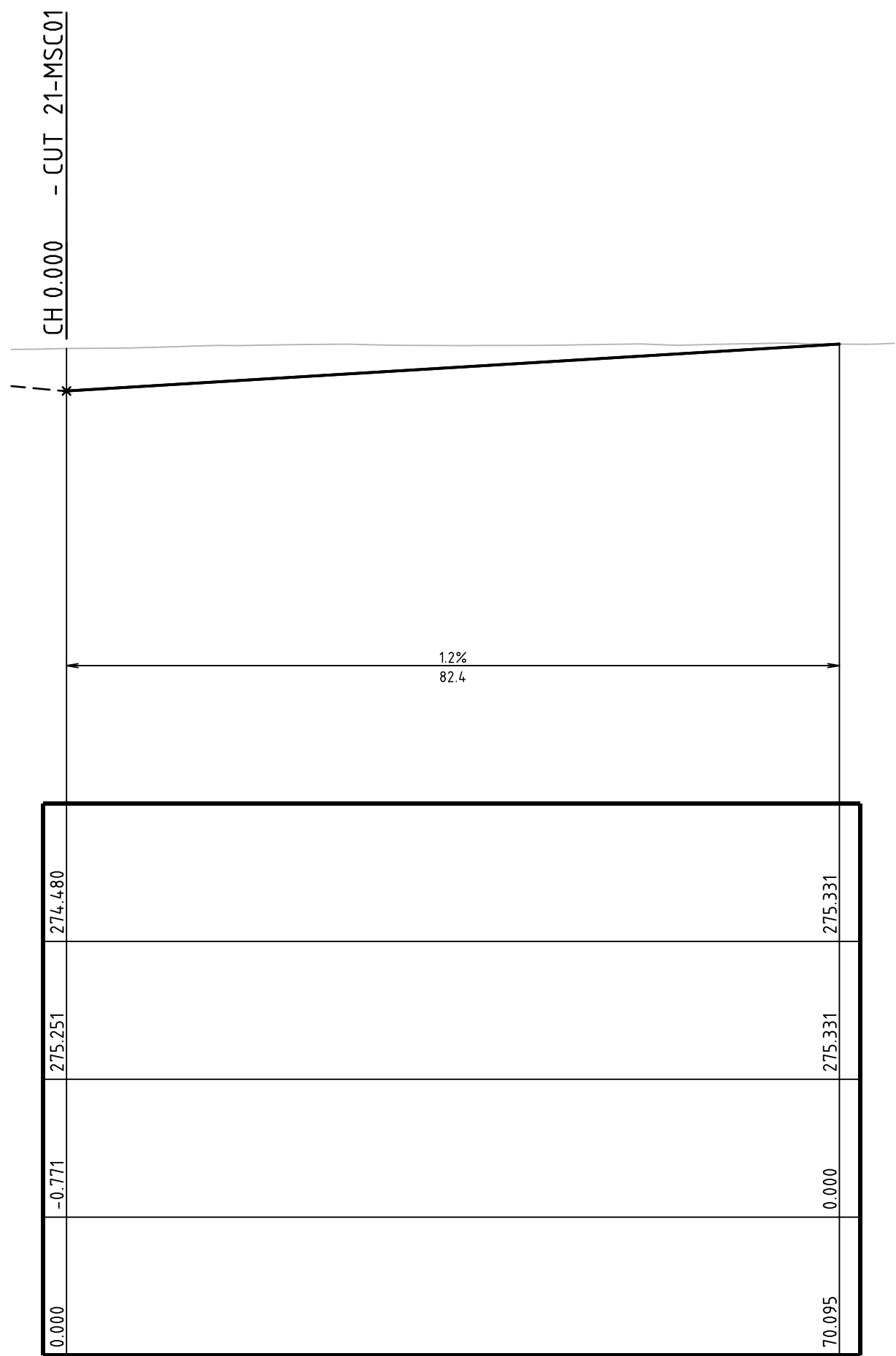
	Consulting Engineers	
	Environment	Water
	Geotechnical	Civil
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Email: mail@martens.com.au Internet: www.martens.com.au		

DRAWING TITLE				
ACCESS ROAD 6 (21-MSC06) LONG. SECTION AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D207	B



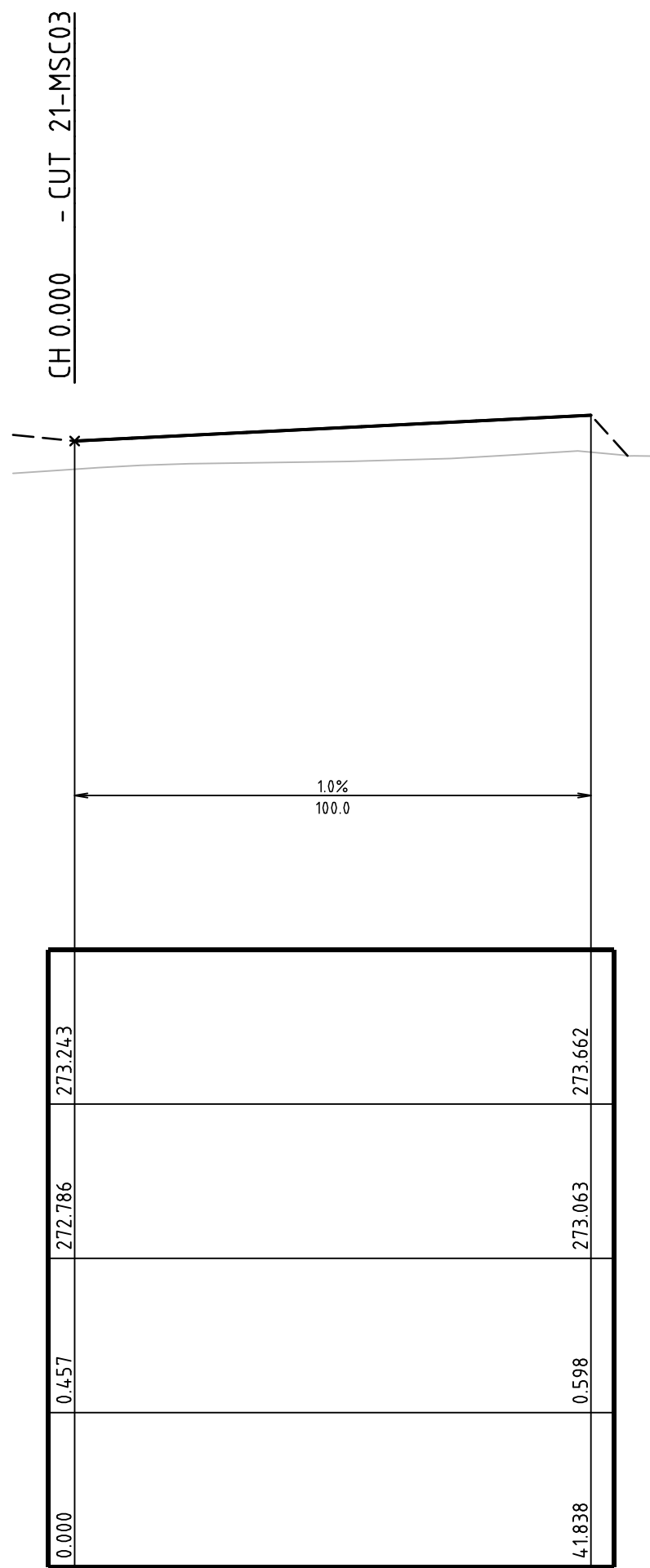
ACCESS ROAD 7 & 8 TYPICAL CROSS SECTION

SCALE 1:100



ACCESS ROAD 7 (21-MSC07) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

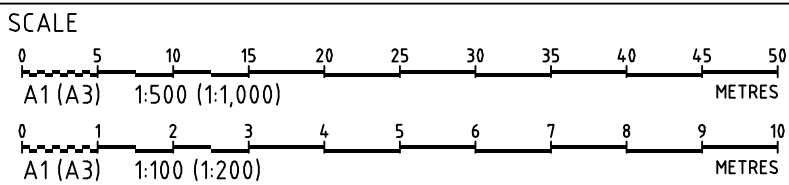


ACCESS ROAD 8 (21-MSC08) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REF	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

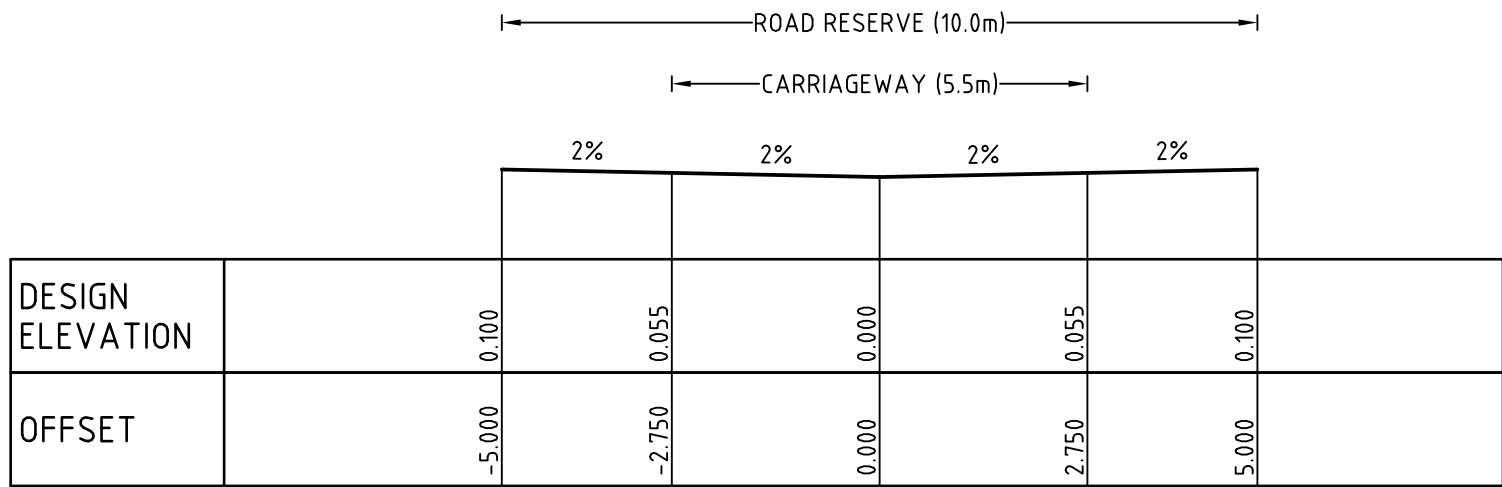
Consulting Engineers

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Email: mail@martens.com.au Internet: www.martens.com.au

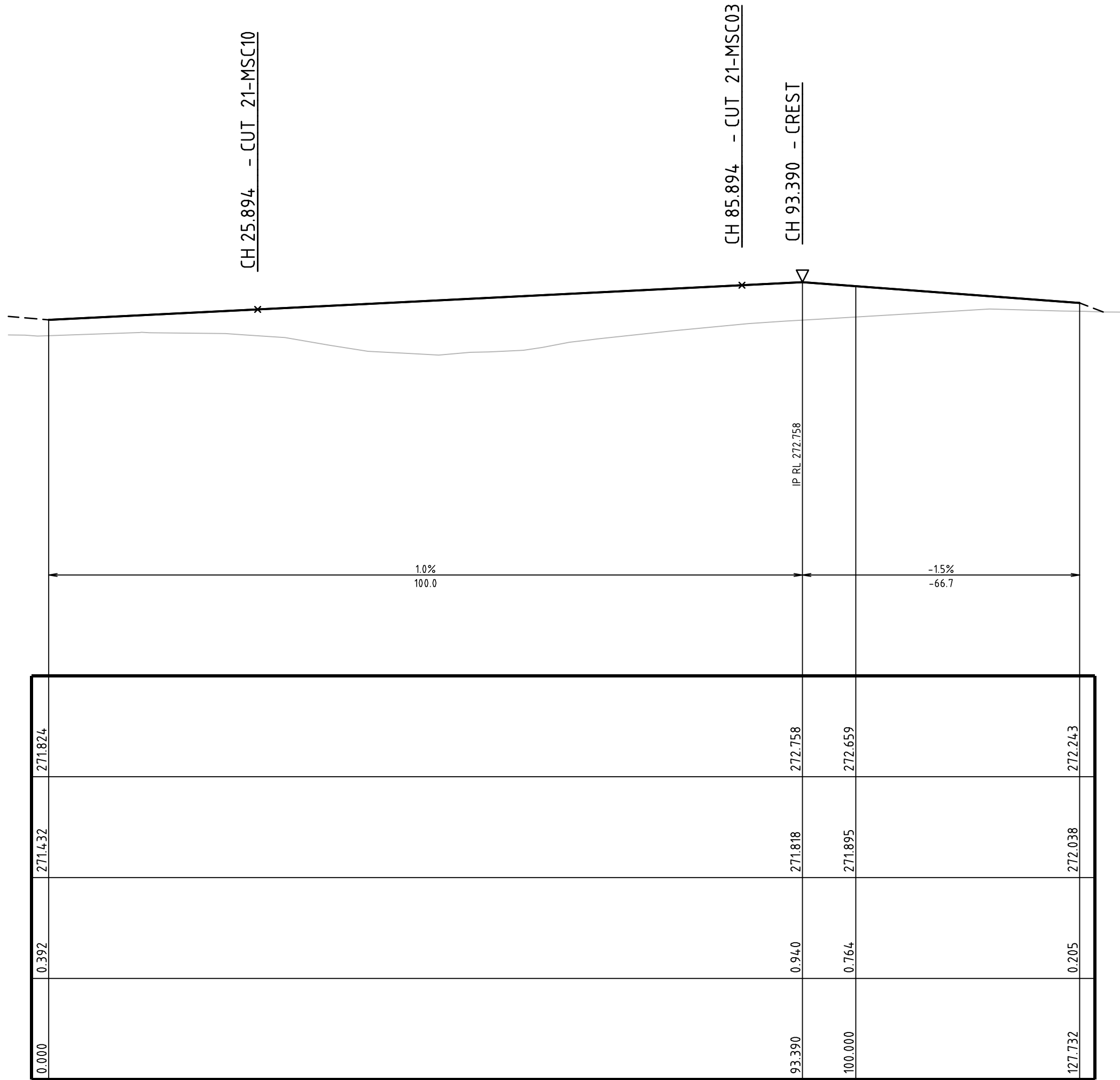
DRAWING TITLE				
ACCESS ROAD 7 (21-MSC07) & 8 (21-MSC08) LONG. SECTIONS AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D208	C

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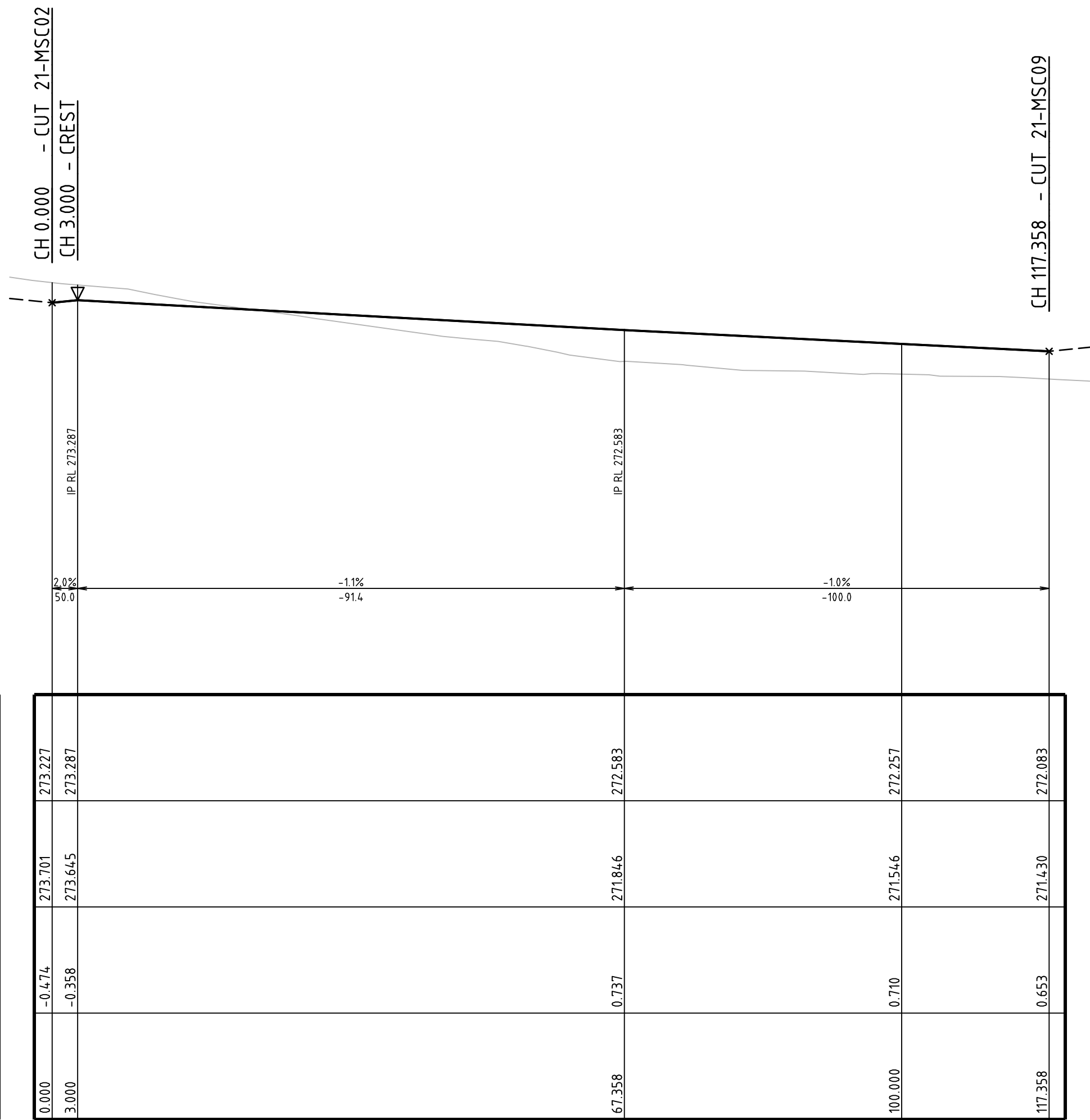
ACCESS ROAD 9 & 10 TYPICAL CROSS SECTION

SCALE 1:100



ACCESS ROAD 9 (21-MS09) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

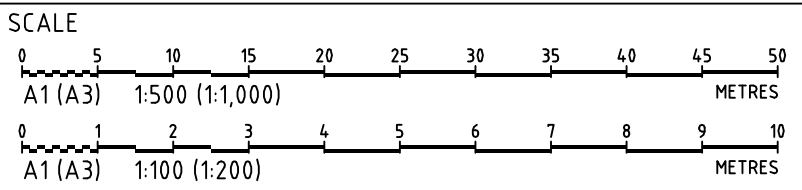


ACCESS ROAD 10 (21-MS10) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER
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PROJECT NAME/PLANSET TITLE
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PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

Consulting Engineers

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Geotechnical
Civil

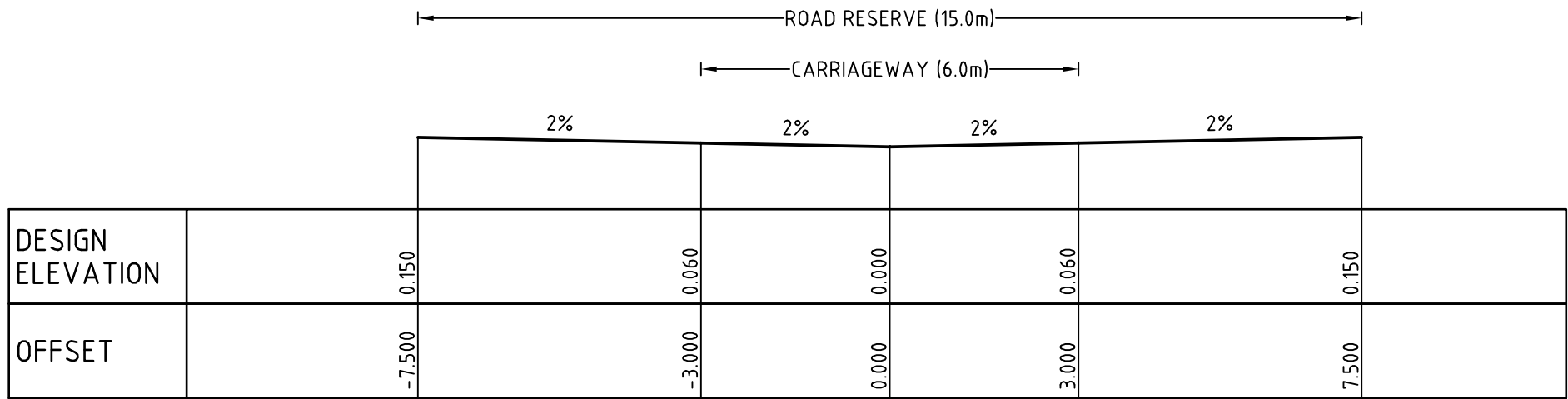
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DRAWING TITLE				
ACCESS ROAD 9 (21-MS09) & 10 (21-MS10) LONG. SECTIONS AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D209	B

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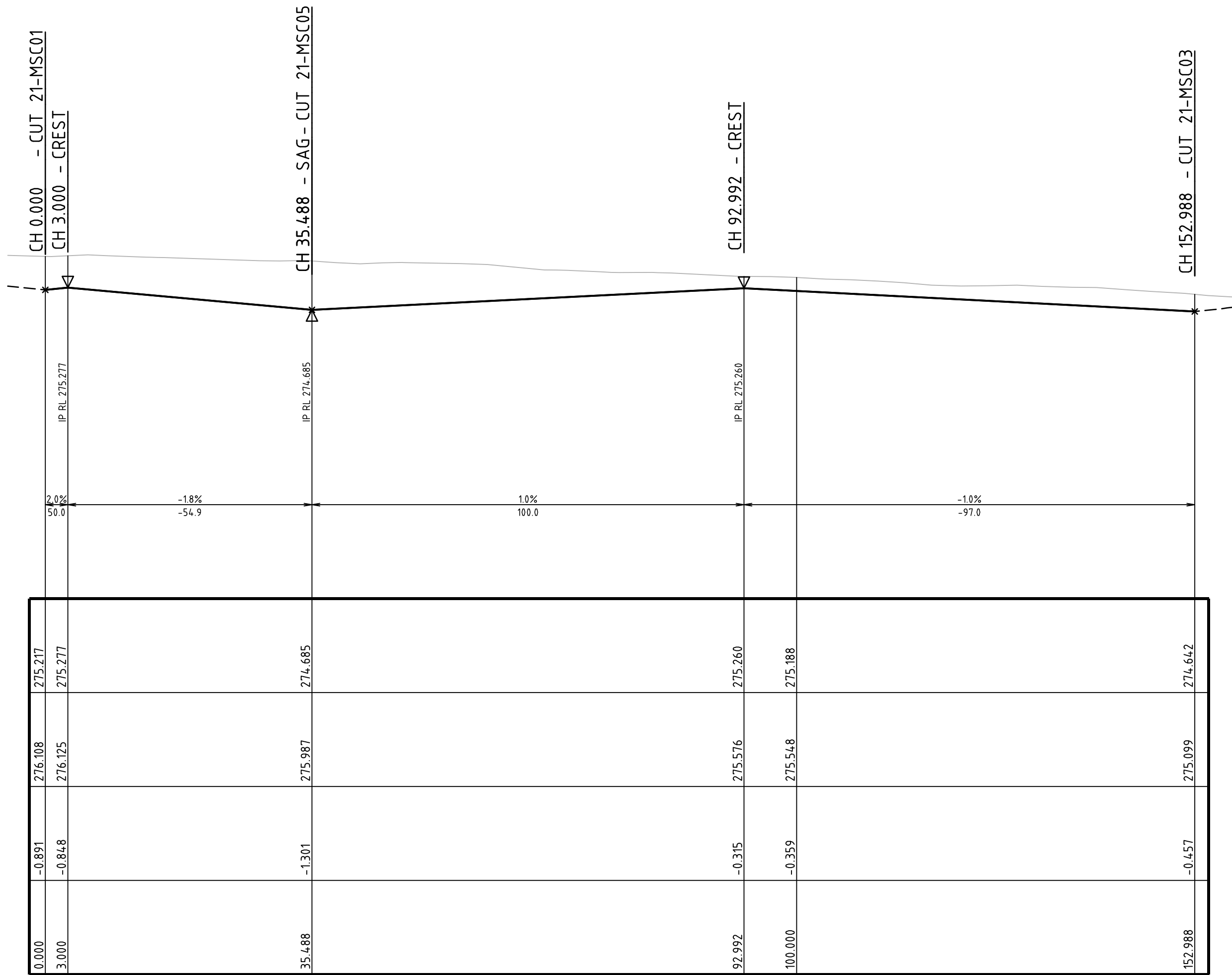
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DRAWING ID: P1907155-PS04-R03-D209



ACCESS ROAD 12 TYPICAL CROSS SECTION

SCALE 1:100

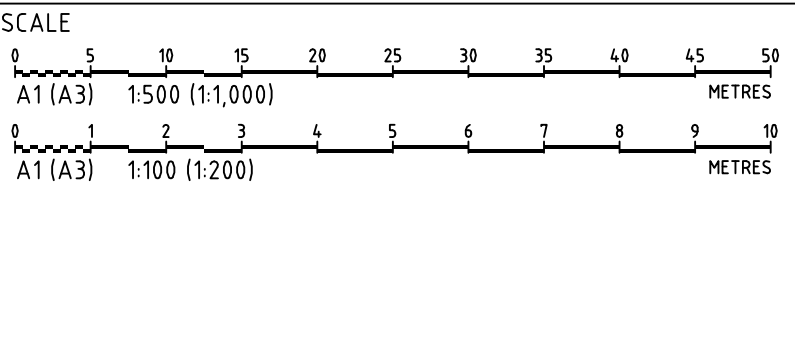


ACCESS ROAD 12 (21-MSC12) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF

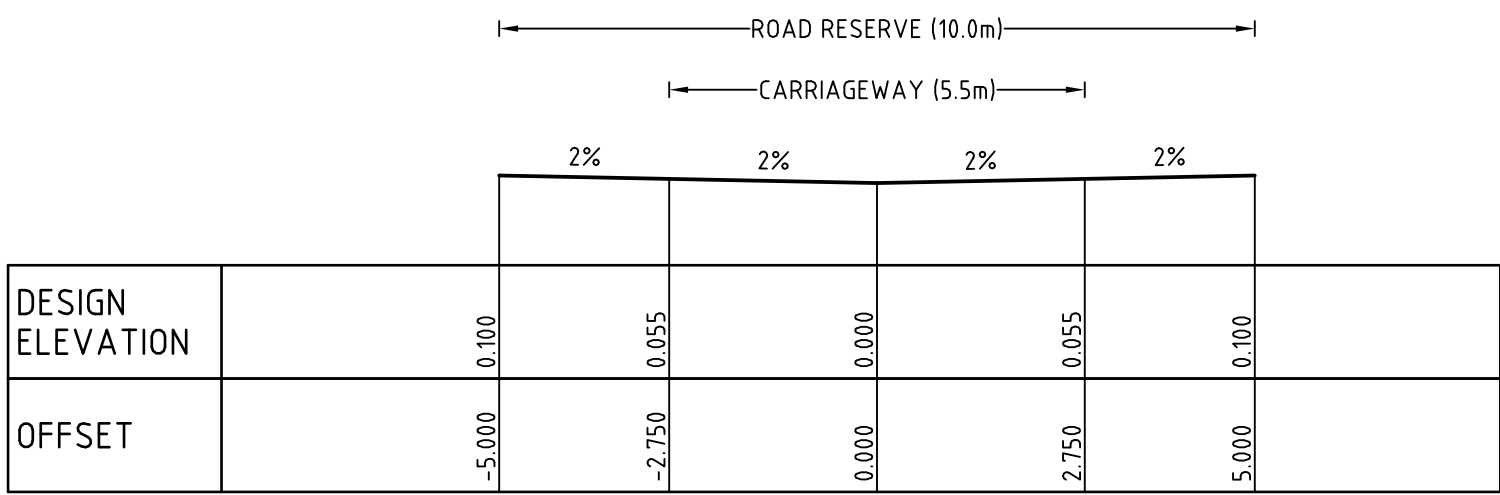


GRID
MGA
DATUM
mAHD
PROJECT MANAGER
JF
CLIENT
COMMON GROUND PROPERTY P/L
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262
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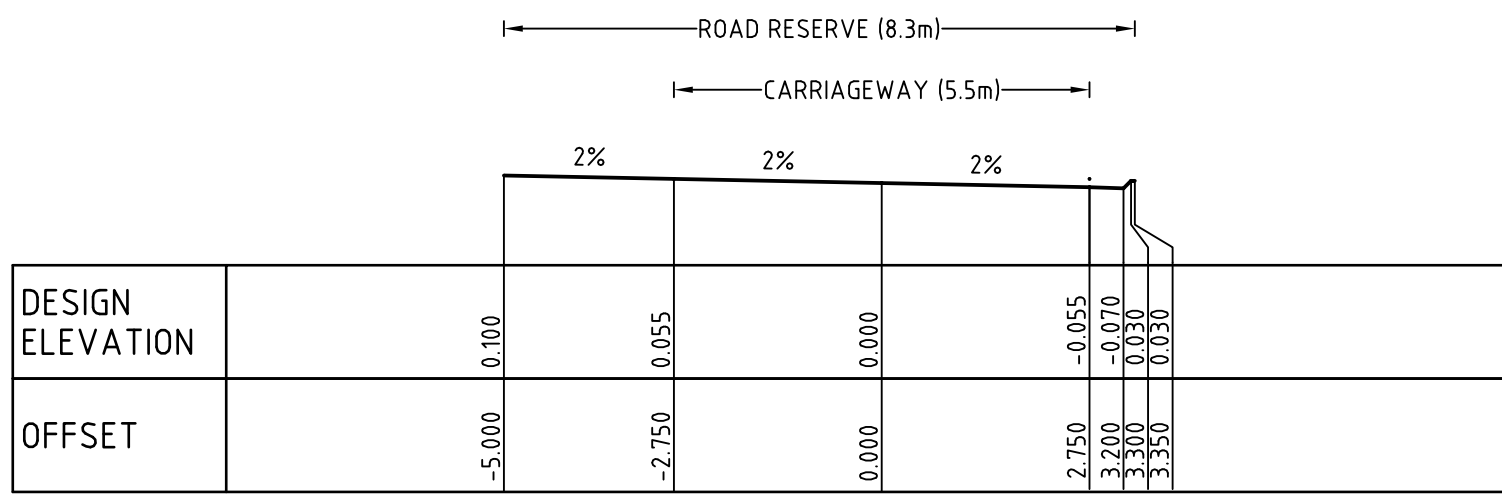
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D210	B

DRAWING TITLE ACCESS ROAD 12 (21-MSC12) LONG. SECTION AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D210	B



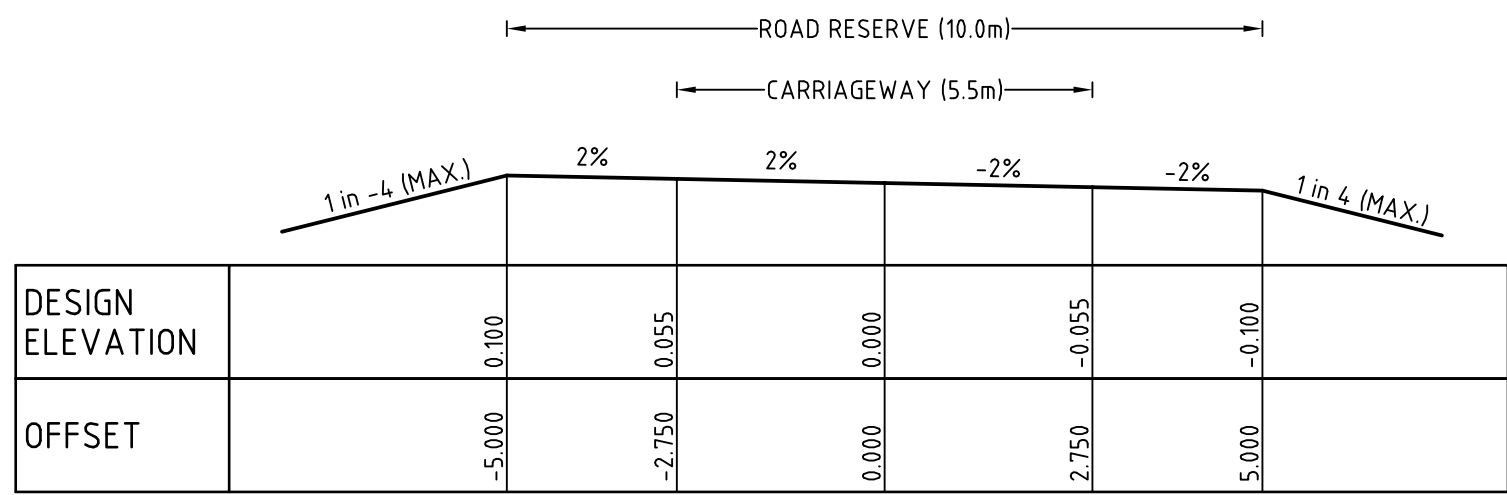
ACCESS ROAD 13 (CH 0 - 60) & 14 TYPICAL CROSS SECTION

SCALE 1:100



ACCESS ROAD 13 TYPICAL CROSS SECTION (CH 60 - 90)

SCALE 1:100

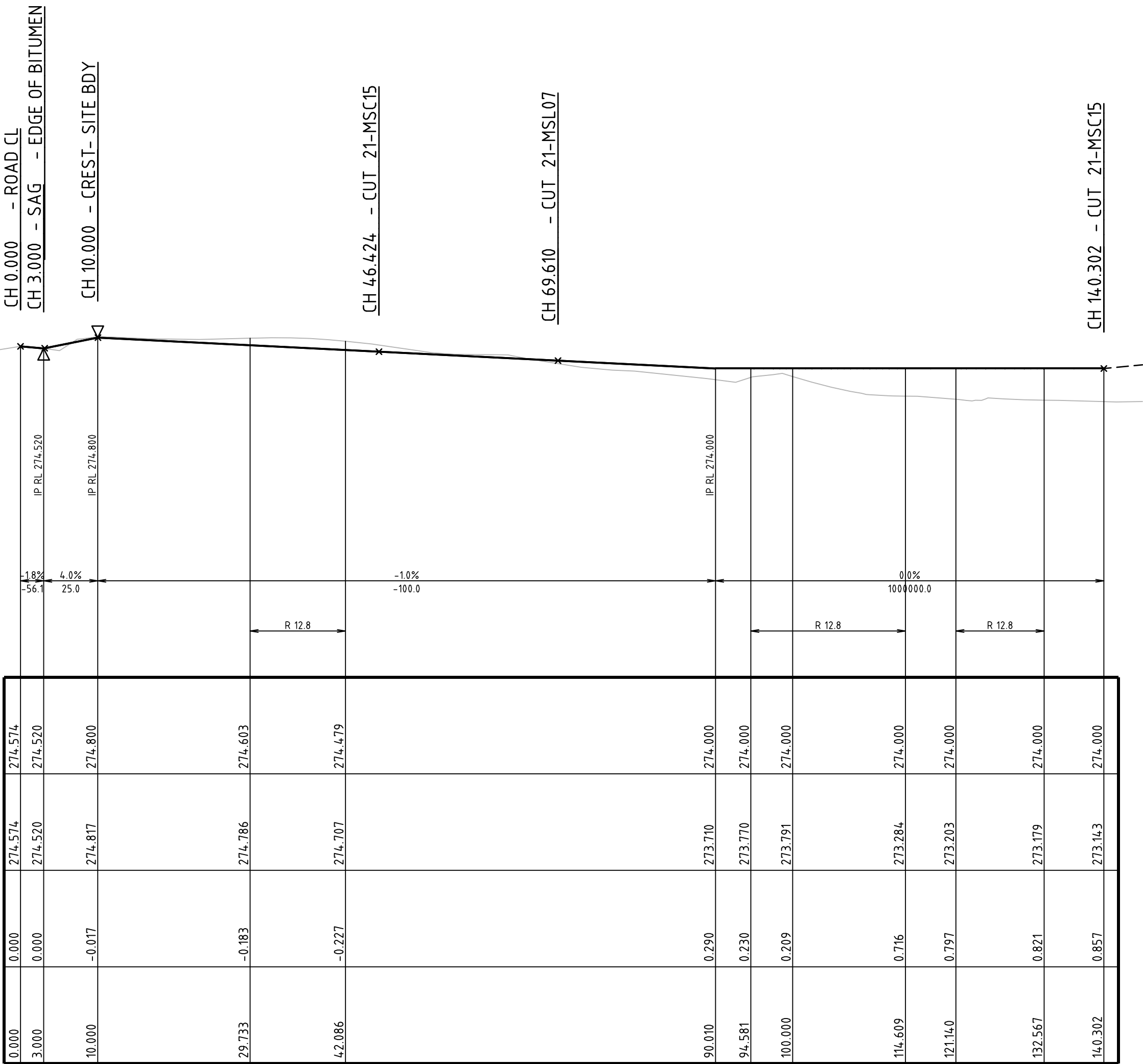


ACCESS ROAD 13 (CH 90 - 141.981) TYPICAL CROSS SECTION

SCALE 1:100

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%)
VERTICAL GRADE (1 IN ...)
HORIZONTAL CURVE RADIUS (m)
DATUM RL 266.000

DESIGN SURFACE LEVELS
EXISTING SURFACE LEVELS
CUT / FILL DEPTH
CHAINAGE

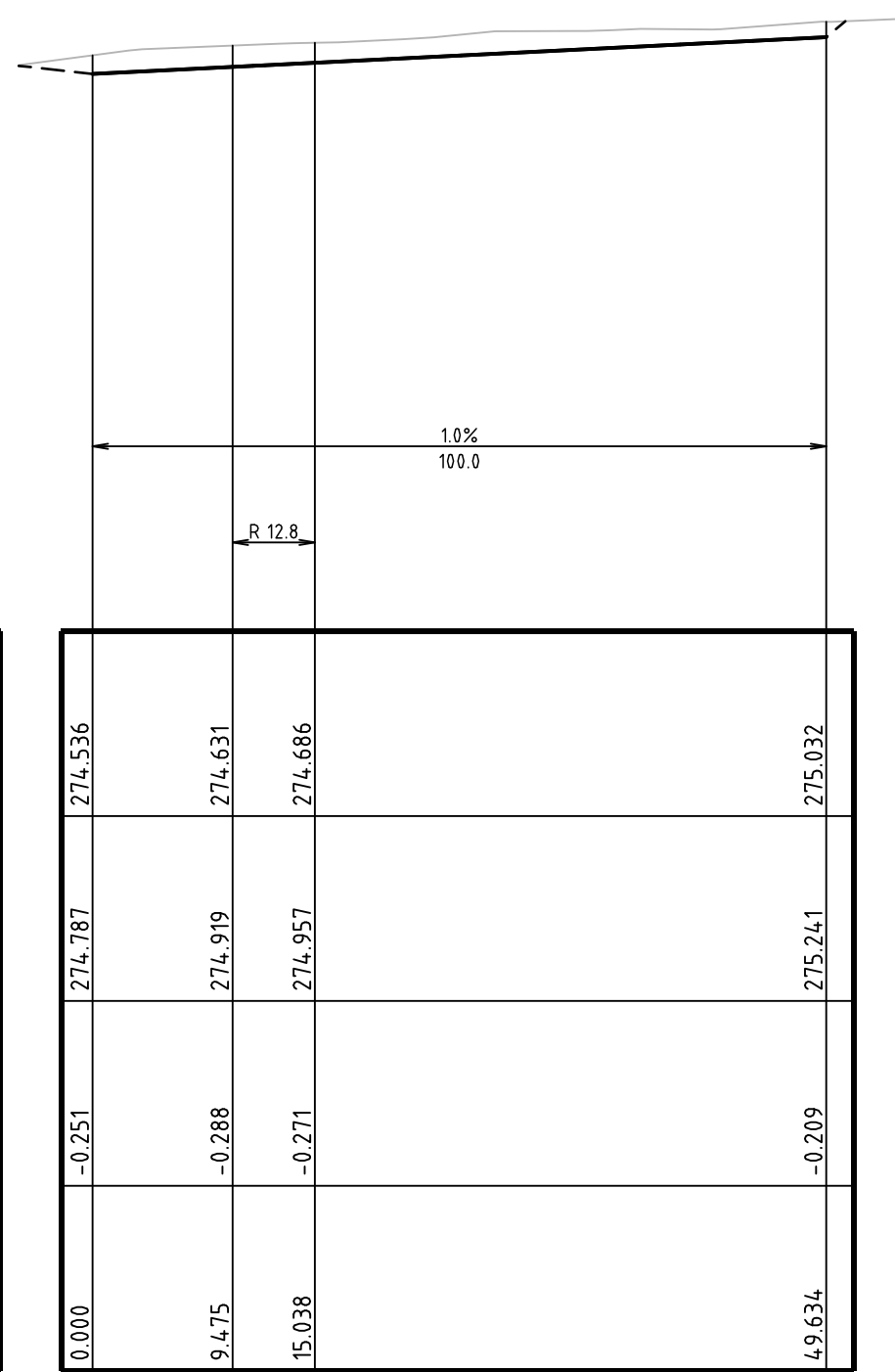


ACCESS ROAD 13 (21-MS13) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%)
VERTICAL GRADE (1 IN ...)
HORIZONTAL CURVE RADIUS (m)
DATUM RL 267.000

DESIGN SURFACE LEVELS
EXISTING SURFACE LEVELS
CUT / FILL DEPTH
CHAINAGE

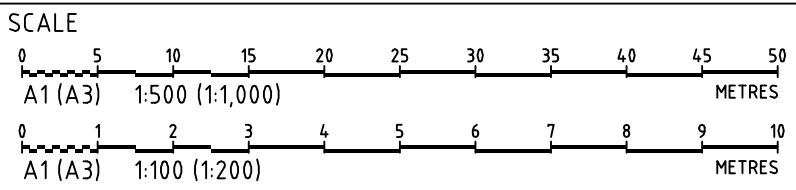


ACCESS ROAD 14 (21-MS14) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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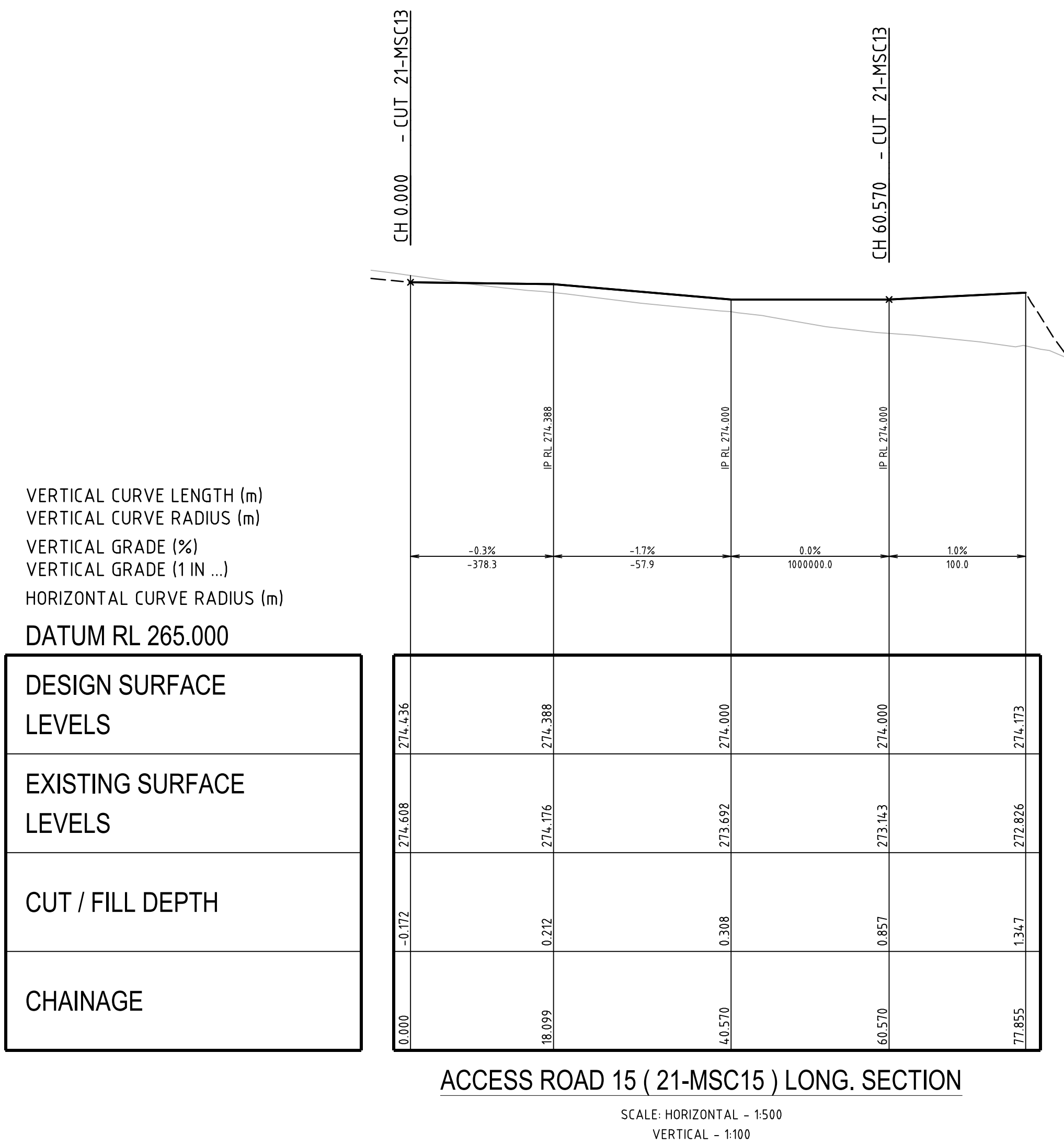
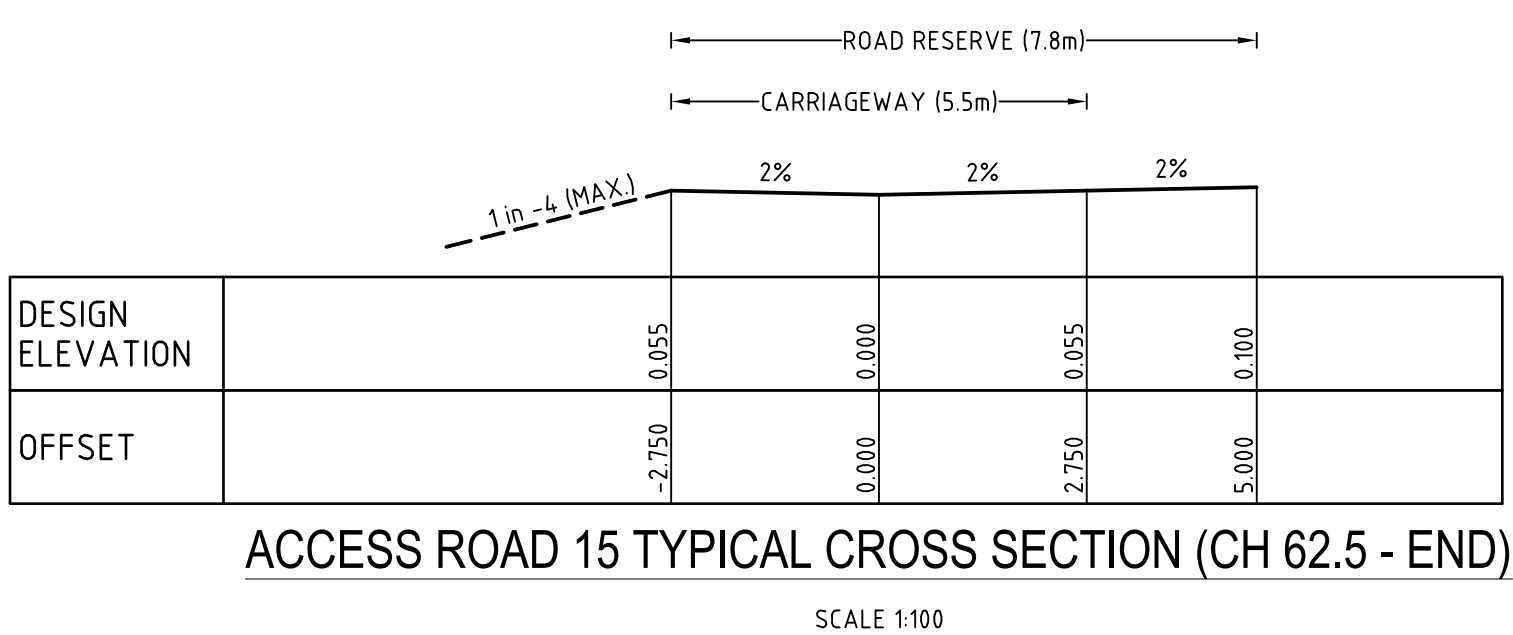
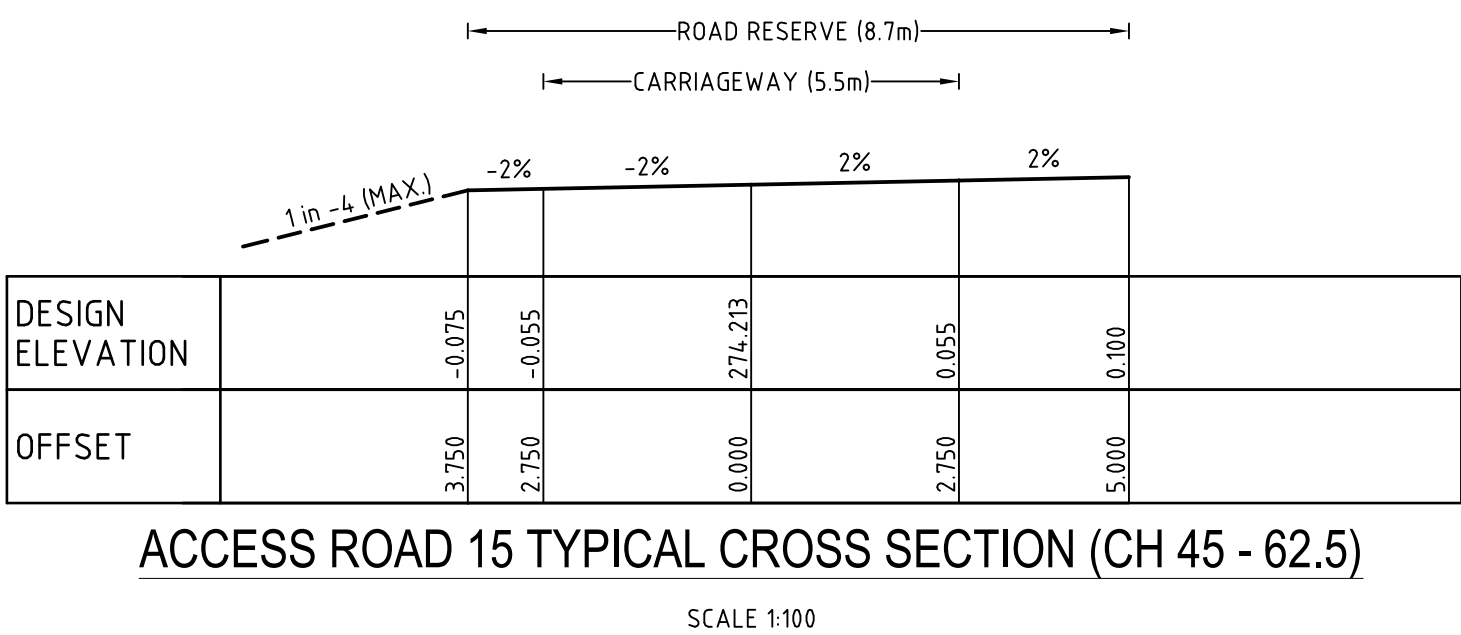
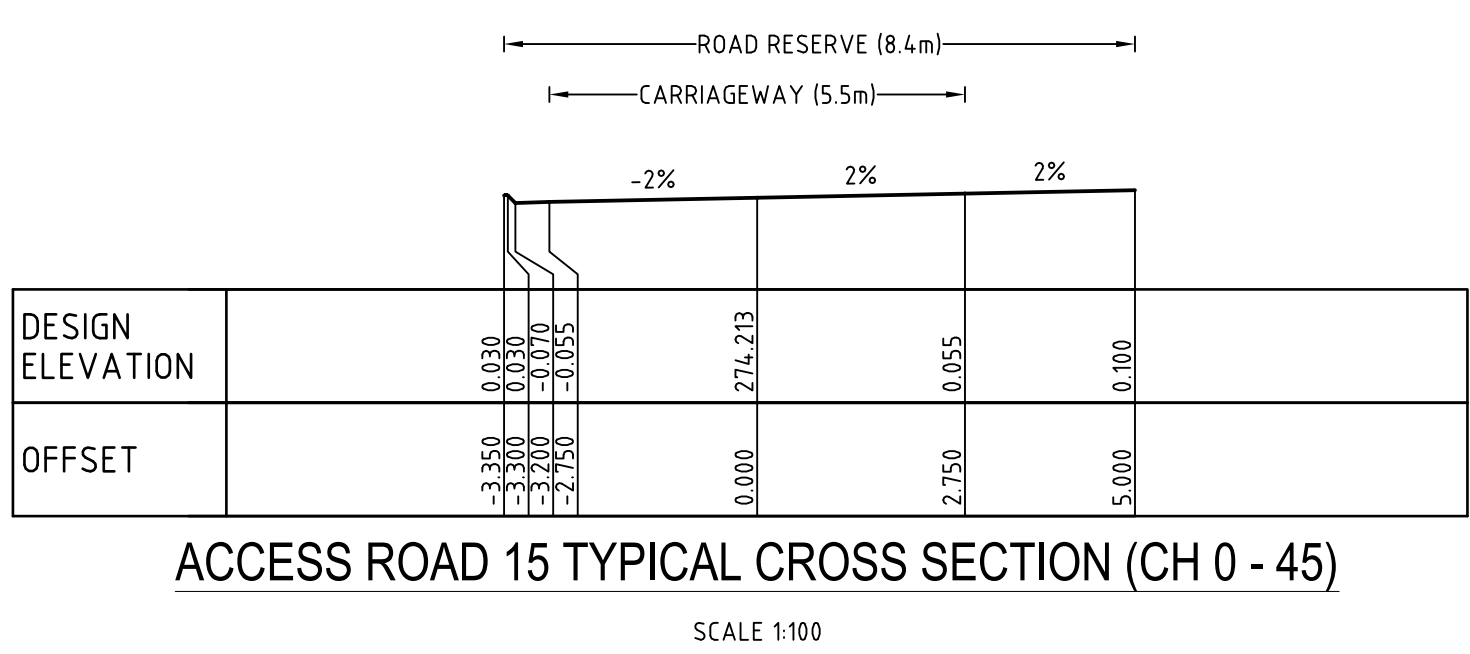
PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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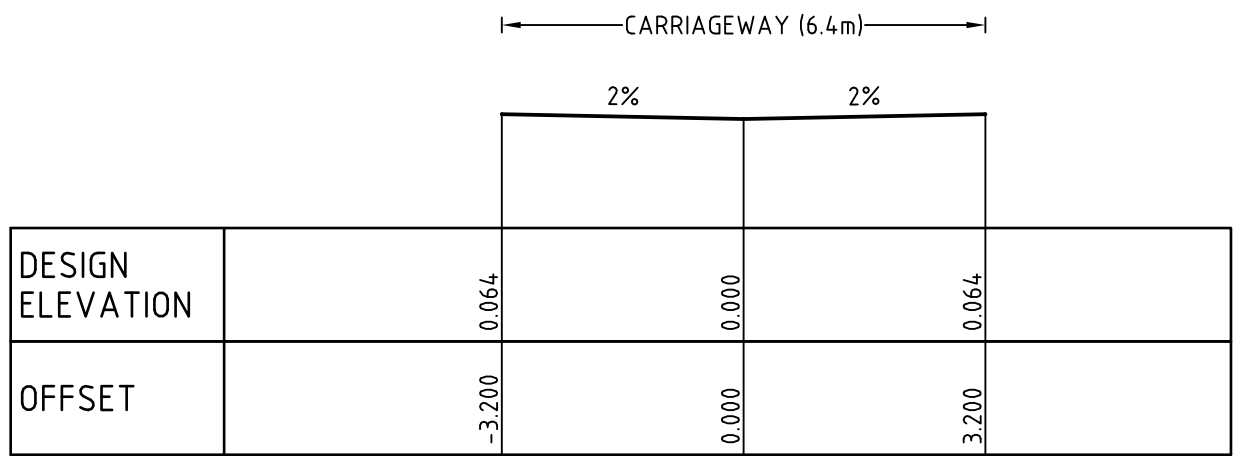
DRAWING TITLE				
ACCESS ROAD 13 (21-MS13) & 14 (21-MS14) LONG. SECTIONS AND TYPICAL CROSS SECTIONS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D211	B

DRAWING ID: P1907155-PS04-R03-D211

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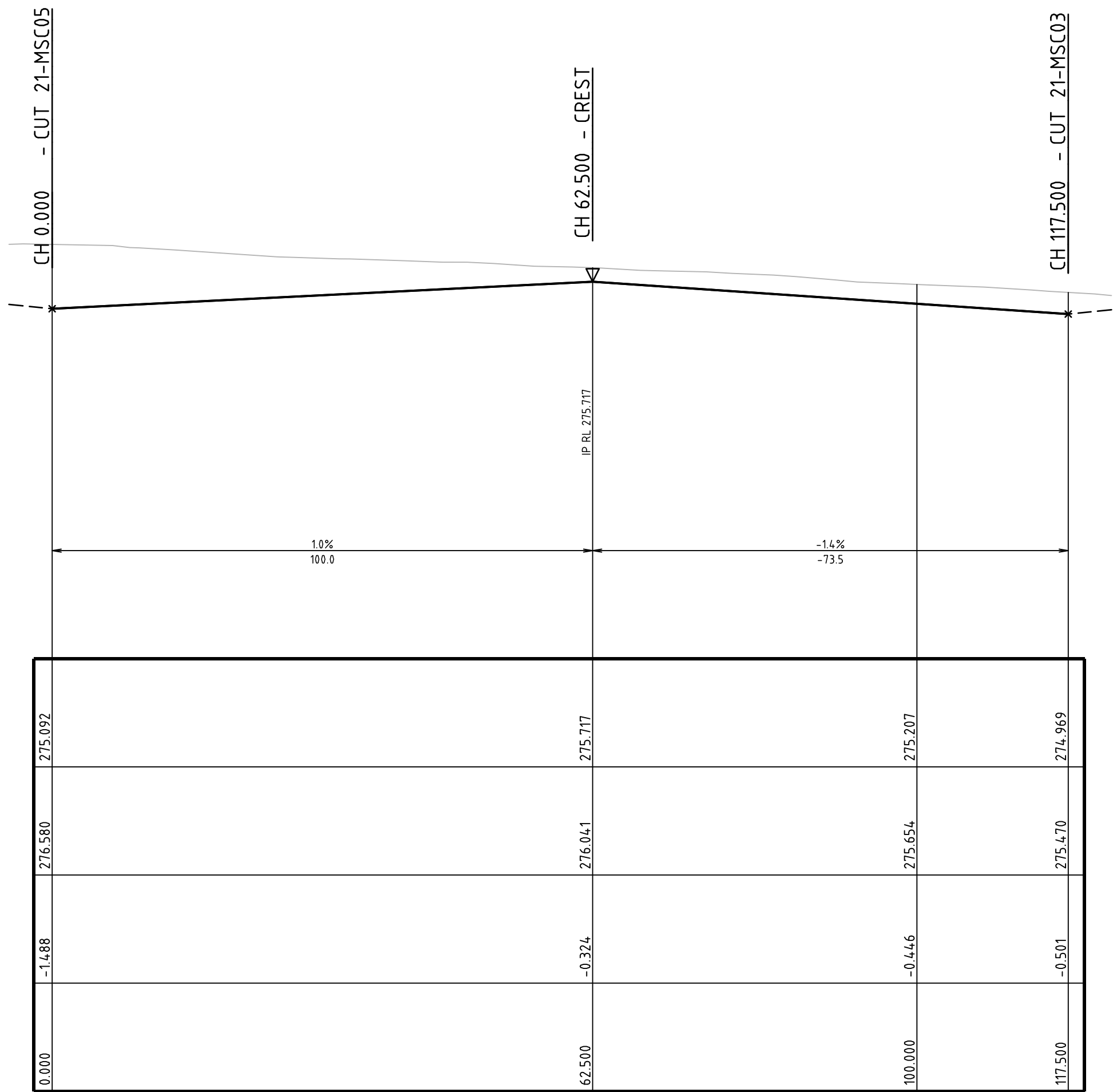


DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION



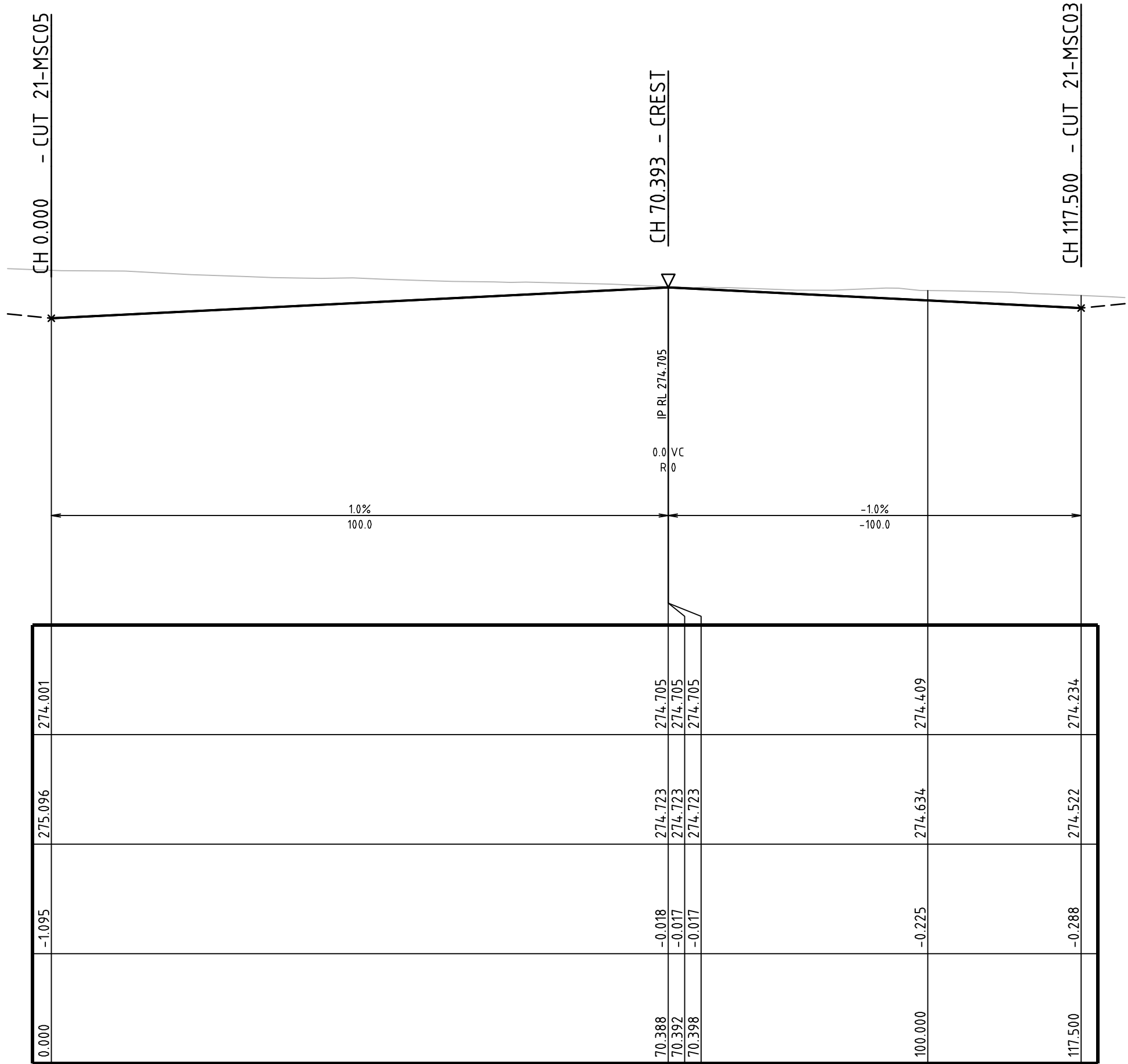
ACCESS LANE 1 & 2 TYPICAL CROSS SECTION

SCALE 1:100



ACCESS LANE 1 (21-MSL01) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100



ACCESS LANE 2 (21-MSL02) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%)
VERTICAL GRADE (1 IN ...)
HORIZONTAL CURVE RADIUS (m)
DATUM RL 267.000

DESIGN SURFACE LEVELS

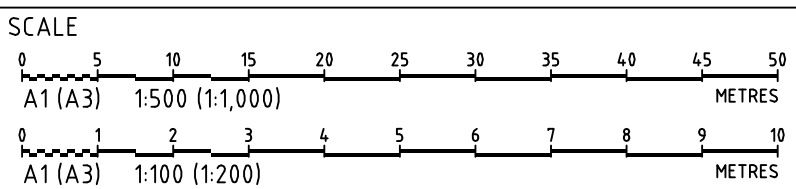
EXISTING SURFACE LEVELS

CUT / FILL DEPTH

CHAINAGE

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
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GRID	DATUM	PROJECT MANAGER
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

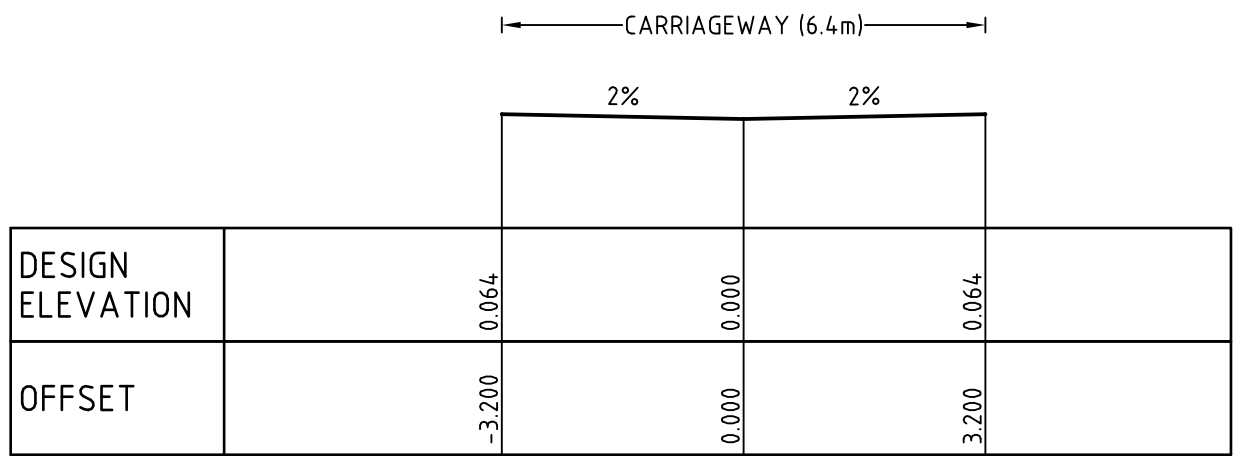


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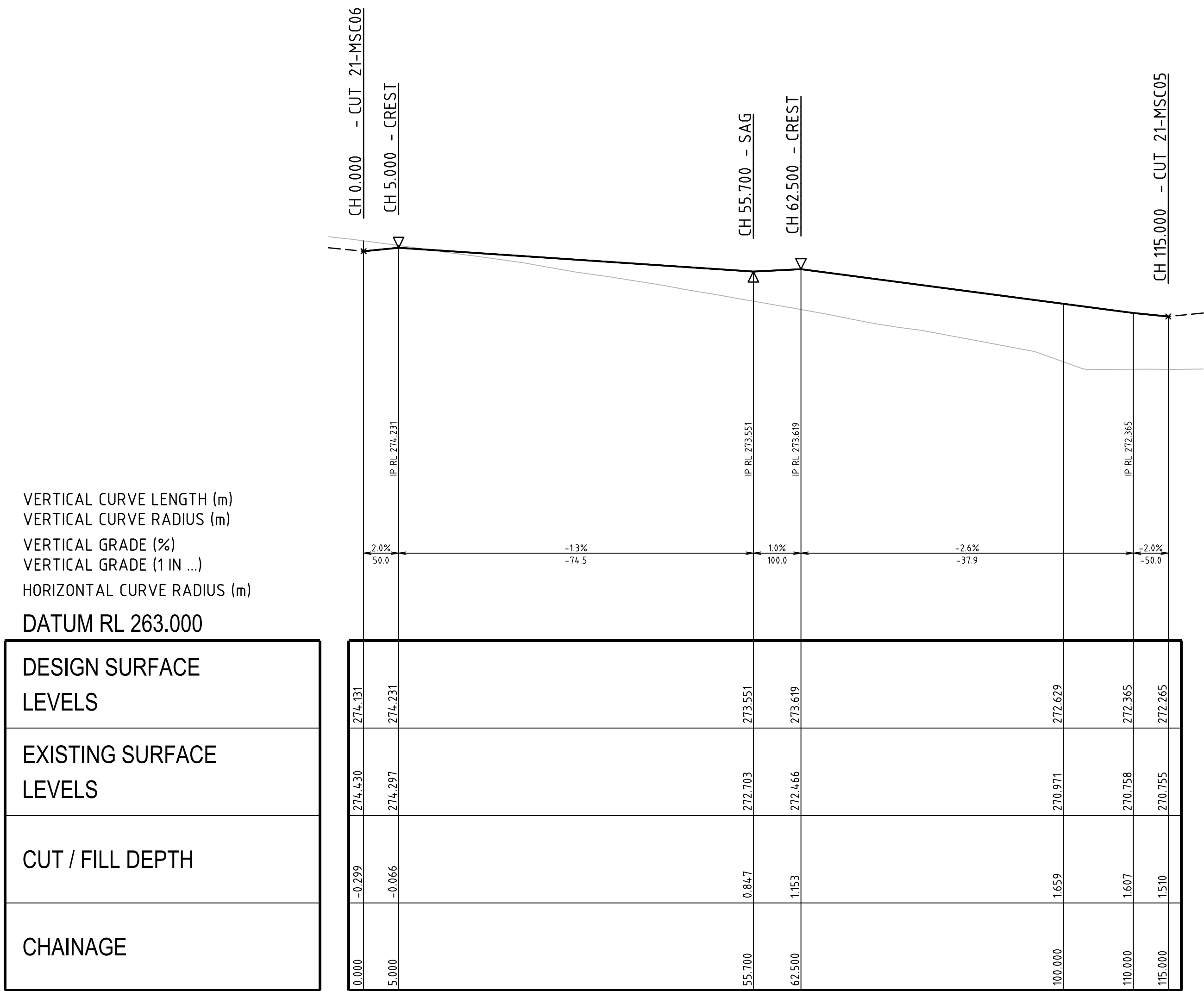
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PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D213	B

DRAWING ID: P1907155-PS04-R03-D213



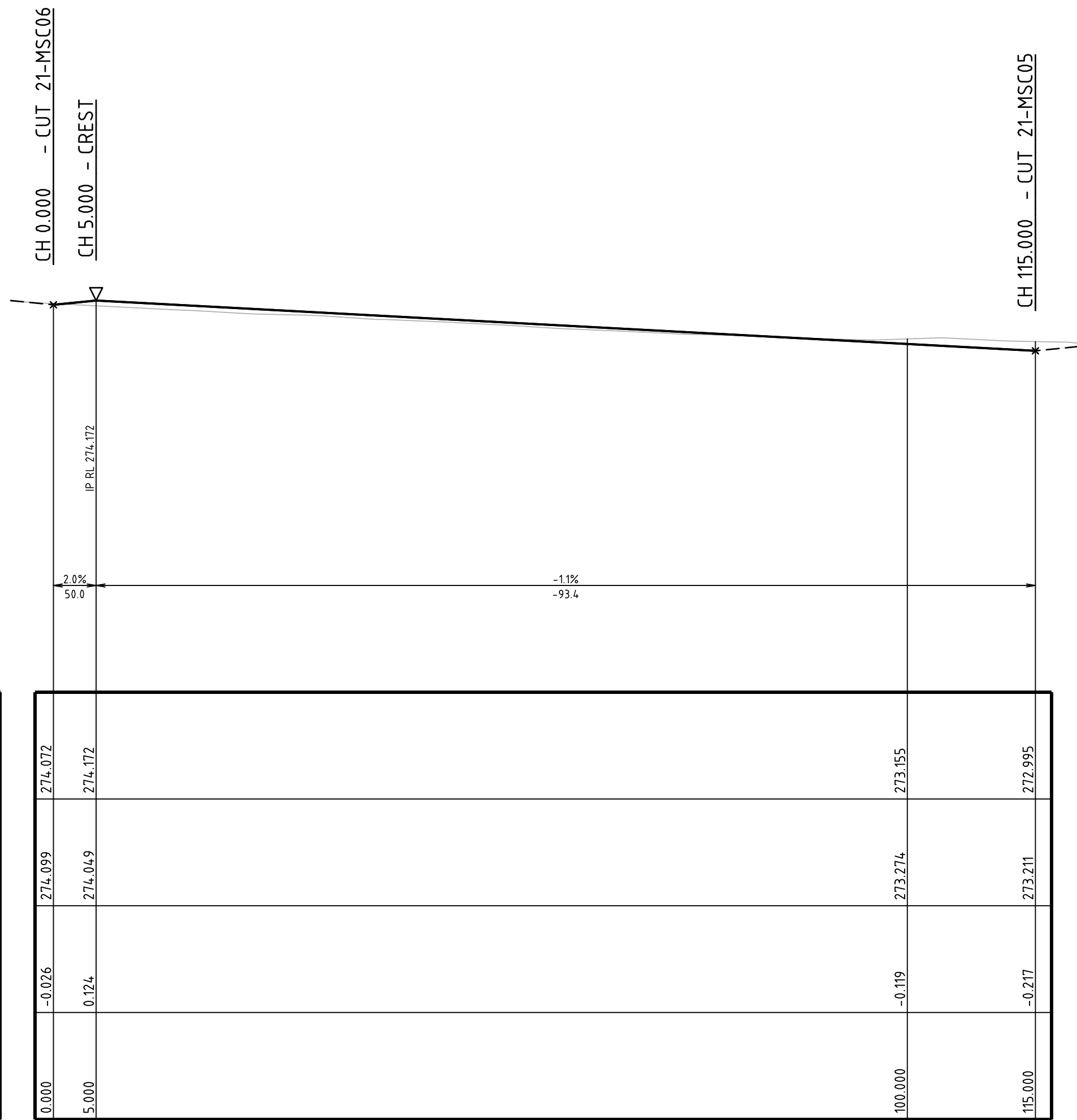
ACCESS LANE 3 & 4 TYPICAL CROSS SECTION

SCALE 1:100



ACCESS LANE 3 (21-MSL03) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

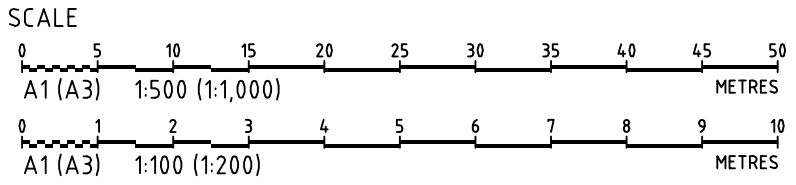


ACCESS LANE 4 (21-MSL04) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

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DRAWING TITLE				
ACCESS LANE 3 (21-MSL03) & 4 (21-MSL04) LONG. SECTIONS AND TYPICAL CROSS SECTION				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-D214	B




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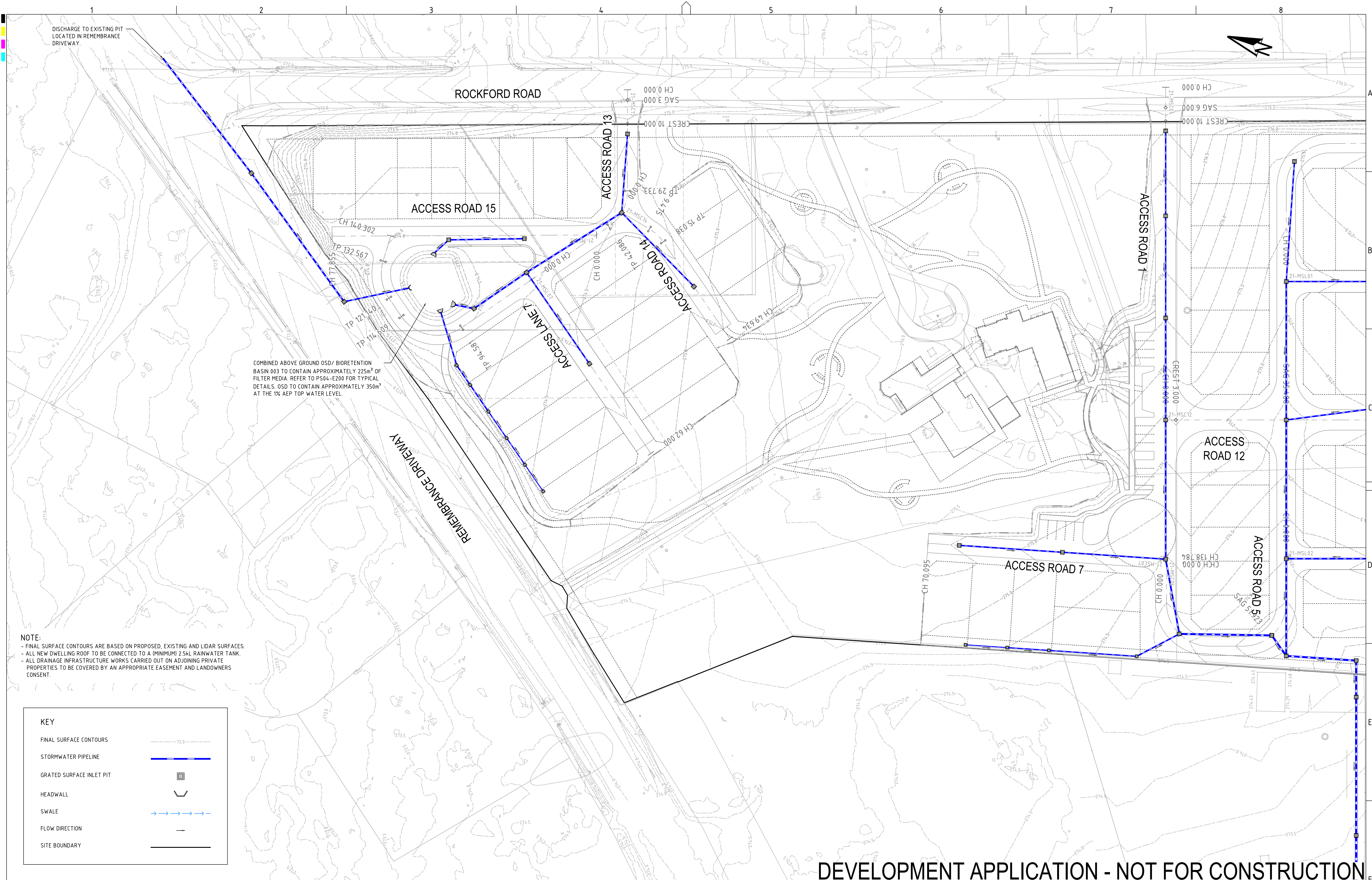


DESIGN SURFACE LEVELS
EXISTING SURFACE LEVELS
CUT / FILL DEPTH
CHAINAGE

0.000	0.077	274.127	274.204
5.000	0.058	274.247	274.304
62.000	0.141	274.733	274.874

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPROVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	<div><div>Consulting Engineers</div><div>Environment Water Geotechnical Civil</div><div>Suite 201, 20 George St, Hornby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au</div></div>	DRAWING TITLE ACCESS LANE 7 (21-MSL07) LONG. SECTION AND TYPICAL CROSS SECTION				
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF	<div><div>A1 (A3) 1:500 (1:1,000)</div></div>	MGA	mAHD	JF	COMMON GROUND PROPERTY P/L						
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF	<div><div>A1 (A3) 1:100 (1:200)</div></div>	DISCLAIMER & COPYRIGHT This plan must not be used for construction unless signed as approved by principal certifying authority. All measurements in millimetres unless otherwise specified. This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd. (C) Copyright Martens & Associates Pty Ltd		PROJECT NAME/PLANSET TITLE STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN STRATFORD HOUSE PRECINCT, TAIHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262							
A1 / A3 LANDSCAPE (A1/L3_v02.0.01)													PROJECT NO. P1907155	PLANSET NO. PS04	RELEASE NO. R03	DRAWING NO. PS04-D215	REVISION B



NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.
- ALL NEW DWELLING ROOF TO BE CONNECTED TO A (MINIMUM) 25KL RAINWATER TANK.
- ALL DRAINAGE INFRASTRUCTURE WORKS CARRIED OUT ON ADJOINING PRIVATE PROPERTIES TO BE COVERED BY AN APPROPRIATE EASEMENT AND LANDOWNERS CONSENT.

KEY

FINAL SURFACE CONTOURS

STORMWATER PIPELINE

GRATED SURFACE INLET PIT

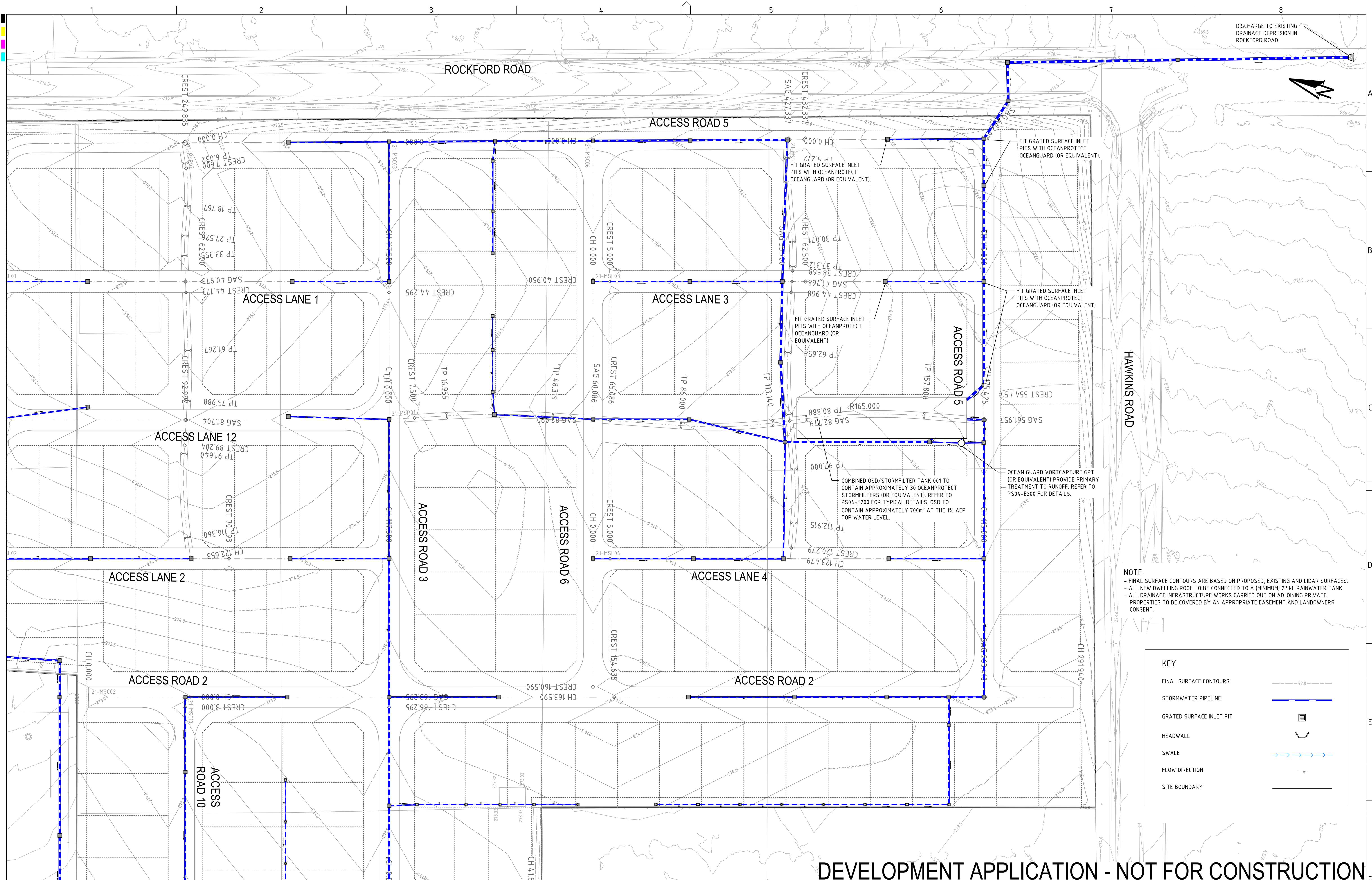
HEADWALL

SWALE

FLOW DIRECTION

SITE BOUNDARY

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	<div>SCALE</div> <div></div>	GRID	DATUM	PROJECT MANAGER	CLIENT	<div></div> <div>Consulting Engineers</div> <div>Environment Water Geotechnical Civil</div> <div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au</div>	DRAWING TITLE					
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REVIEW	31/07/2020	RK	CG/AVG	SA	JF		MGA	mAHD	JF	COMMON GROUND PROPERTY P/L		DRAINAGE PLAN - LAYOUT 1					
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF		DISCLAIMER & COPYRIGHT					PROJECT NAME/PLANSET TITLE					
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF		This plan must not be used for construction unless signed as approved by principal certifying authority. All measurements in millimetres unless otherwise specified. This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd. (C) Copyright Martens & Associates Pty Ltd					STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN					
													STRATFORD HOUSE PRECINCT, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262					
PRINTED: 11/12/2019 14:02:24 A1 / A3 LANDSCAPE (A1L1C_02.0.01)															PROJECT NO. PLANSET NO. RELEASE NO. DRAWING NO. REVISION P1907155 PS04 R03 PS04-E100 C			
															DRAWING ID: P1907155-PS04-R03-E100			



NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.
- ALL NEW DWELLING ROOF TO BE CONNECTED TO A (MINIMUM) 2.5kL RAINWATER TANK.
- ALL DRAINAGE INFRASTRUCTURE WORKS CARRIED OUT ON ADJOINING PRIVATE PROPERTIES TO BE COVERED BY AN APPROPRIATE EASEMENT AND LANDOWNERS CONSENT.

KEY

FINAL SURFACE CONTOURS

STORMWATER PIPELINE

GRATED SURFACE INLET PIT

HEADWALL

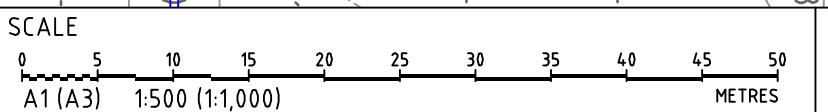
SWALE

FLOW DIRECTION

SITE BOUNDARY

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REQ	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID
MGA

DATUM
mAHd

PROJECT MANAGER
JF

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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN

STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

martens

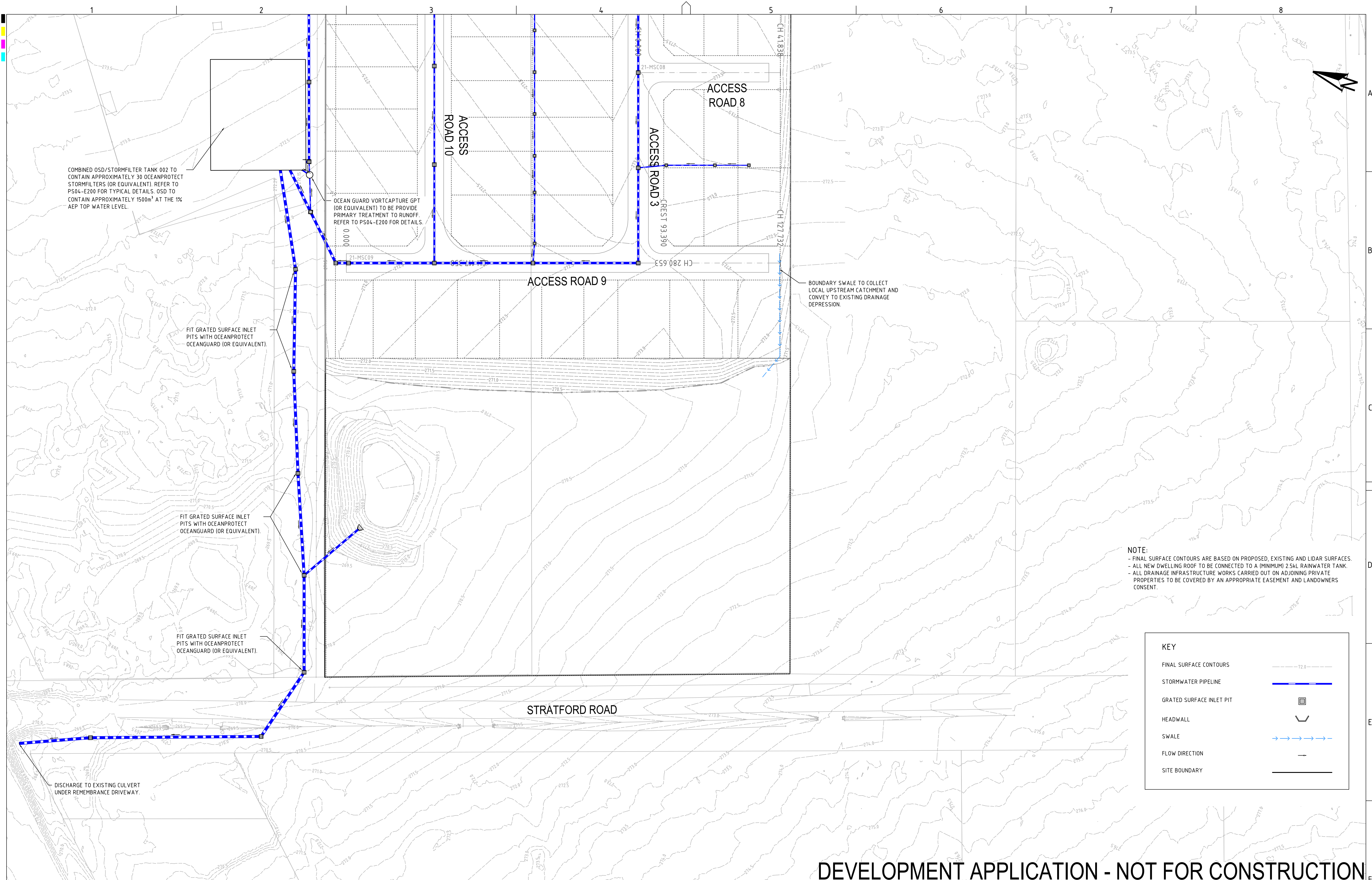
& Associates Pty Ltd

Consulting Engineers
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DRAWING TITLE				
DRAINAGE PLAN - LAYOUT 2				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-E101	C

A1 / A3 LANDSCAPE (A1/LC_v02.0.01) DRAWING ID: P1907155-PS04-R03-E101



COMBINED OSD/STORMFILTER TANK 002 TO CONTAIN APPROXIMATELY 30 OCEANPROTECT STORMFILTERS (OR EQUIVALENT). REFER TO PS04-E200 FOR TYPICAL DETAILS. OSD TO CONTAIN APPROXIMATELY 1500m³ AT THE 1% AEP TOP WATER LEVEL.

OCEAN GUARD VORTCAPTURE GPT (OR EQUIVALENT) TO BE PROVIDE PRIMARY TREATMENT TO RUNOFF. REFER TO PS04-E200 FOR DETAILS.

FIT GRATED SURFACE INLET PITS WITH OCEANPROTECT OCEANGUARD (OR EQUIVALENT).

FIT GRATED SURFACE INLET PITS WITH OCEANPROTECT OCEANGUARD (OR EQUIVALENT).

FIT GRATED SURFACE INLET PITS WITH OCEANPROTECT OCEANGUARD (OR EQUIVALENT).

BOUNDARY SWALE TO COLLECT LOCAL UPSTREAM CATCHMENT AND CONVEY TO EXISTING DRAINAGE DEPRESSION.

DISCHARGE TO EXISTING CULVERT UNDER REMEMBRANCE DRIVEWAY.

NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.
- ALL NEW DWELLING ROOF TO BE CONNECTED TO A (MINIMUM) 25kL RAINWATER TANK.
- ALL DRAINAGE INFRASTRUCTURE WORKS CARRIED OUT ON ADJOINING PRIVATE PROPERTIES TO BE COVERED BY AN APPROPRIATE EASEMENT AND LANDOWNERS CONSENT.

KEY

FINAL SURFACE CONTOURS

STORMWATER PIPELINE

GRATED SURFACE INLET PIT

HEADWALL

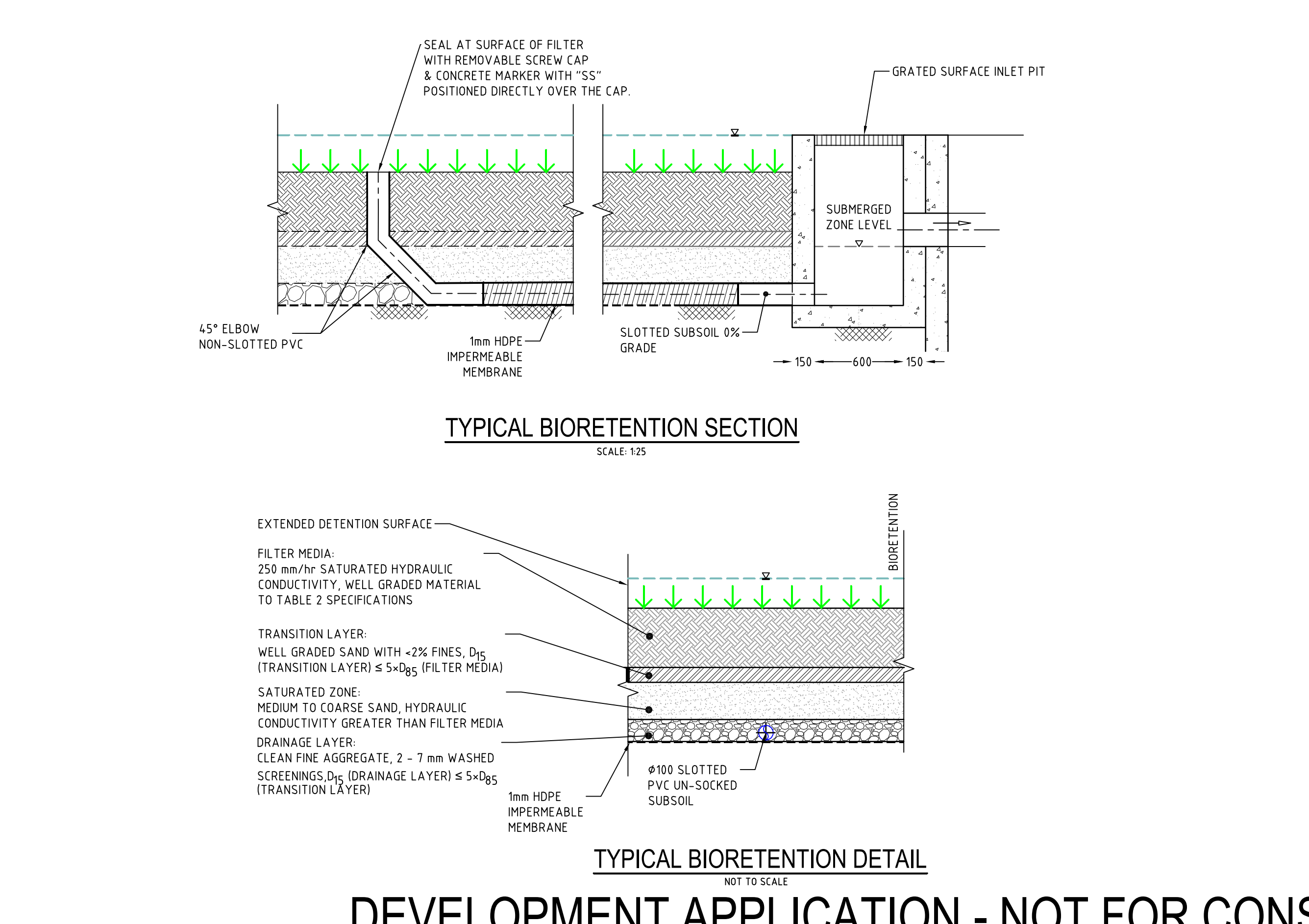
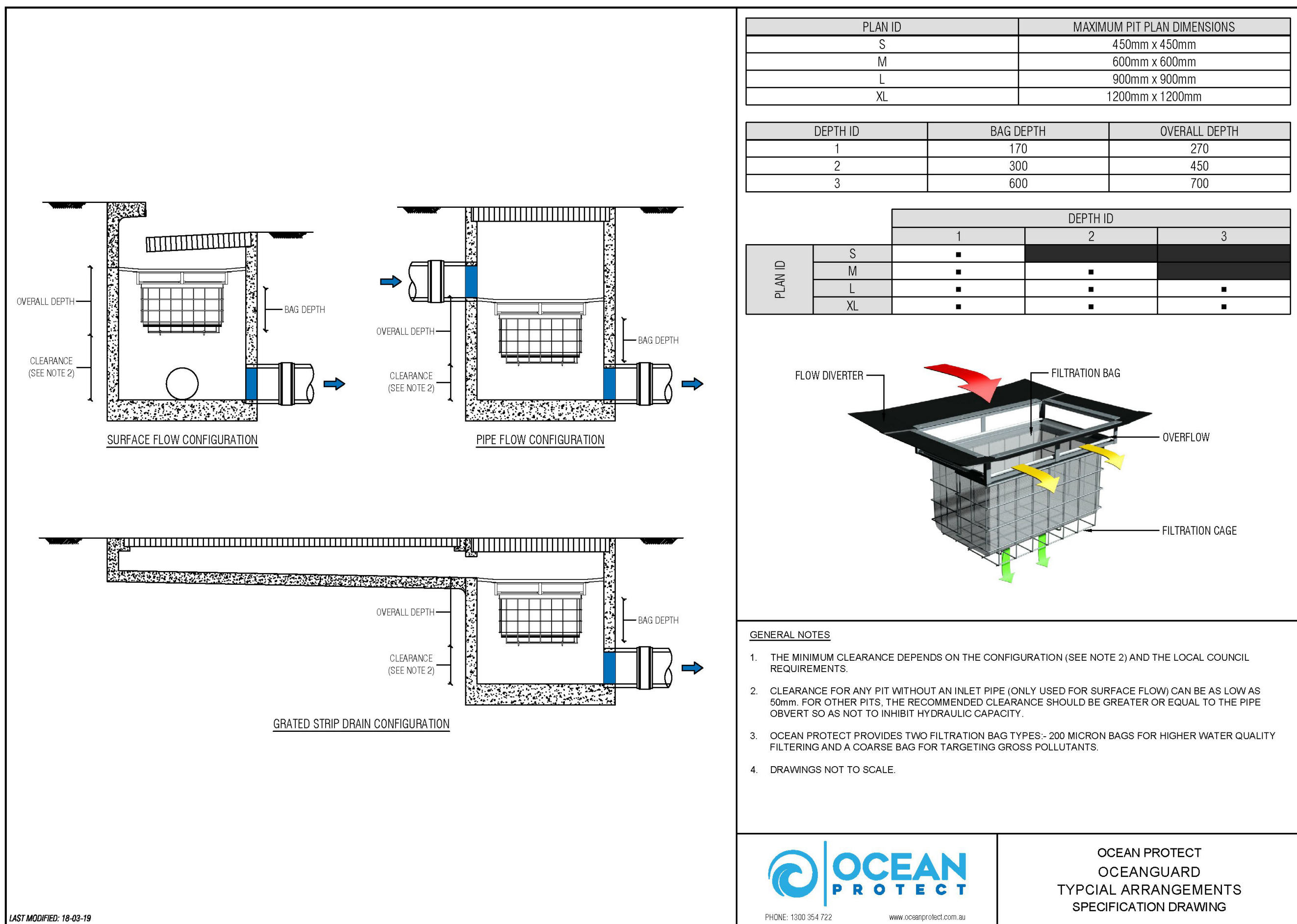
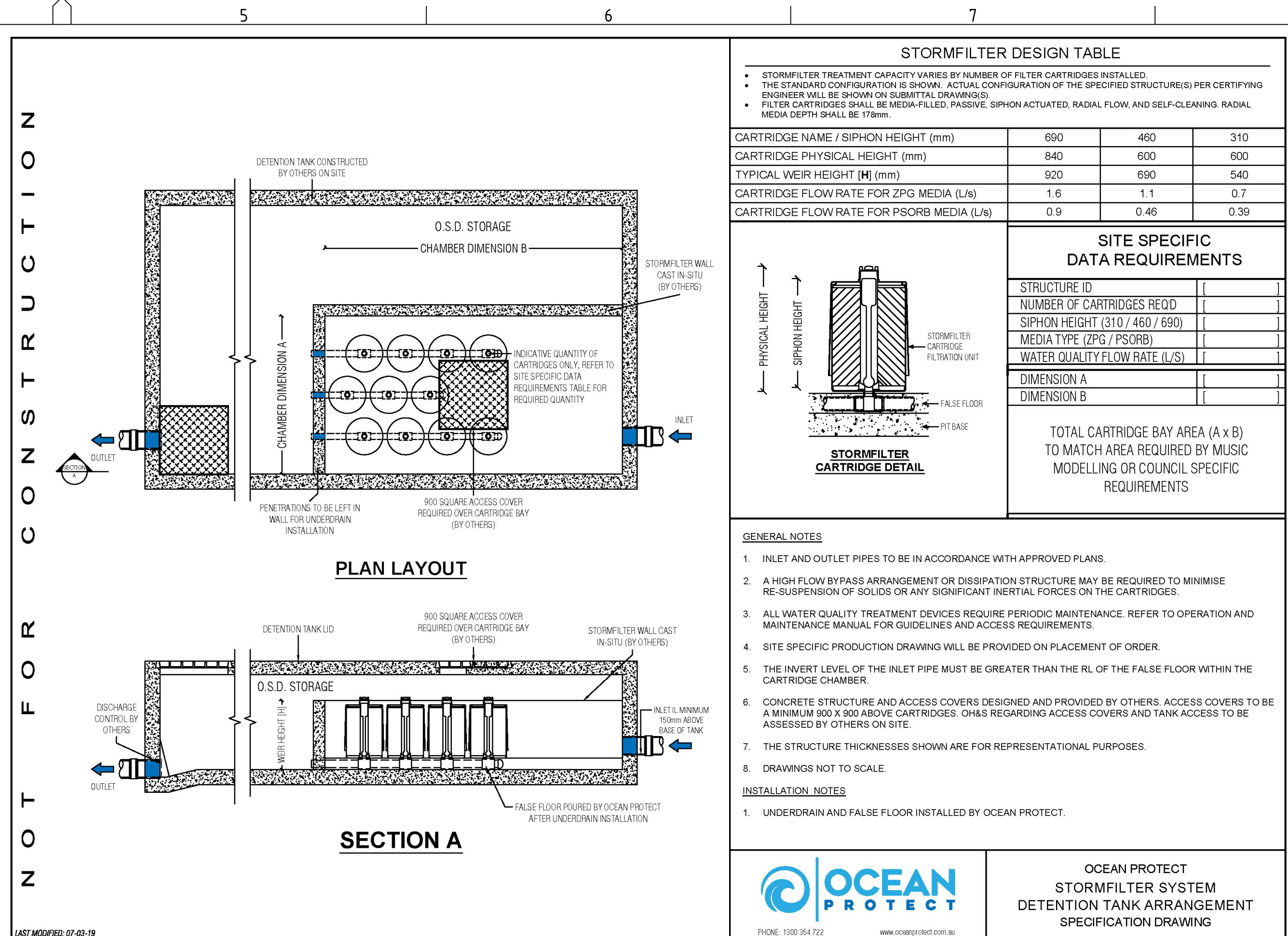
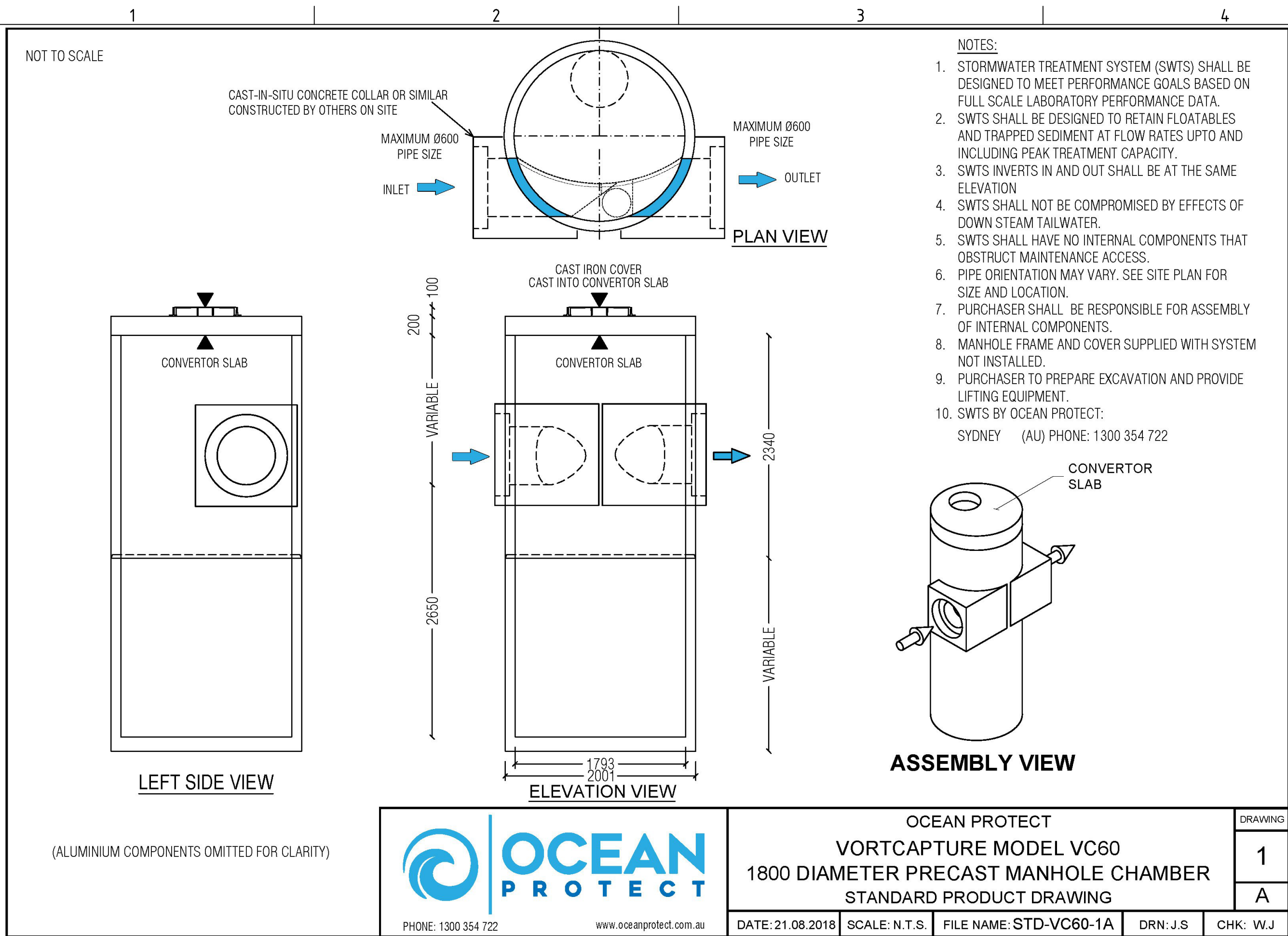
SWALE

FLOW DIRECTION

SITE BOUNDARY

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	<div>SCALE</div> <div><div><div>0</div><div>5</div><div>10</div><div>15</div><div>20</div><div>25</div><div>30</div><div>35</div><div>40</div><div>45</div><div>50</div></div><div>A1 (A3) 1:500 (1:1,000)</div><div>METRES</div></div>	GRID	DATUM	PROJECT MANAGER	CLIENT	<div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div>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DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPROV
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF

SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT
0 5 10 15 20 25 30 35 40 45 50 A1 (A3) 1:500 (1:1,000) METRES			JF	COMMON GROUND PROPERTY P/L

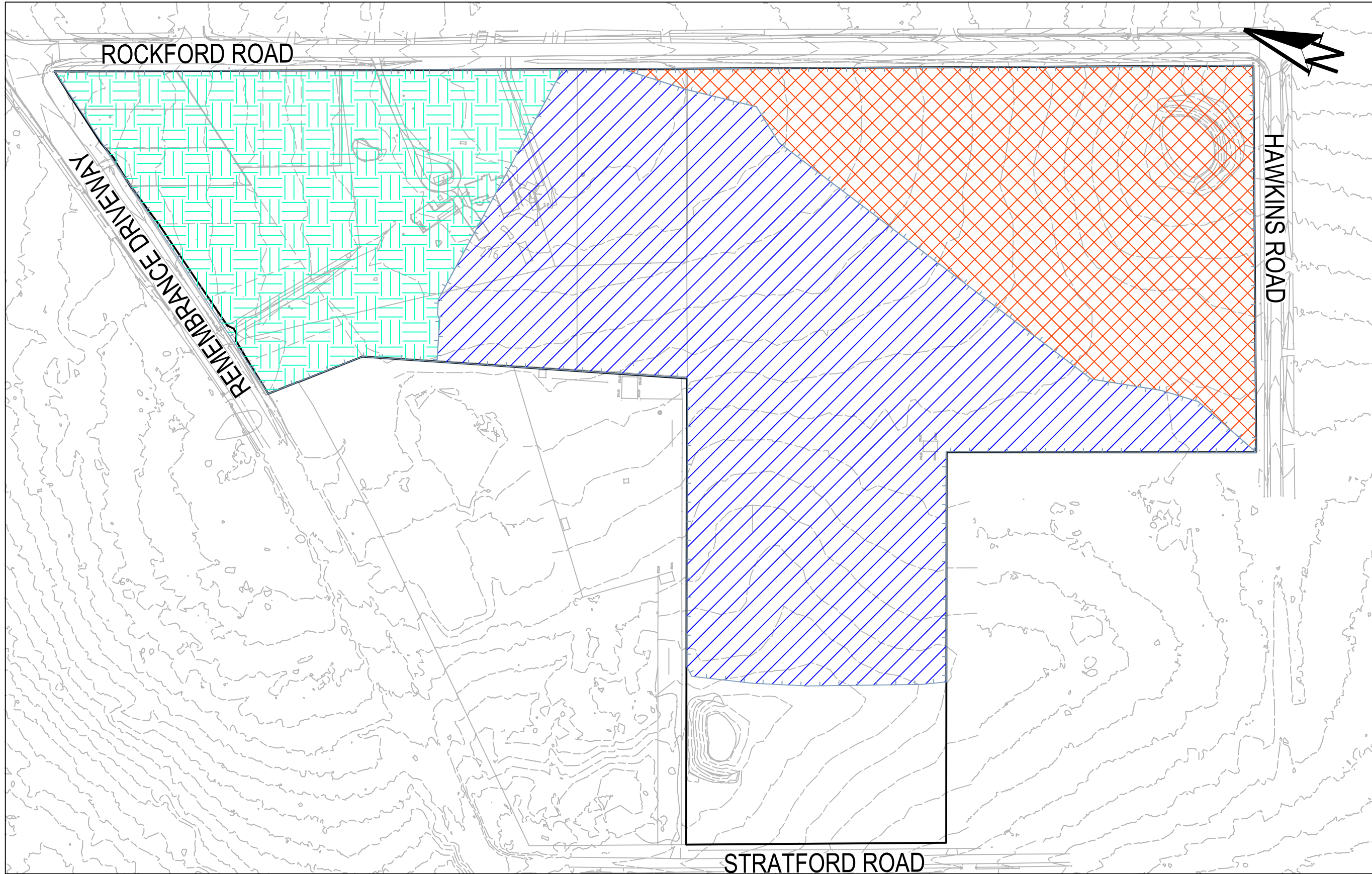
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PROJECT NAME/PLANSET TITLE STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN STRATFORD HOUSE PRECINCT, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

martens & Associates Pty Ltd Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au	Consulting Engineers Environment Water Geotechnical Civil
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DRAWING TITLE				
TYPICAL DRAINAGE DETAILS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-E200	B

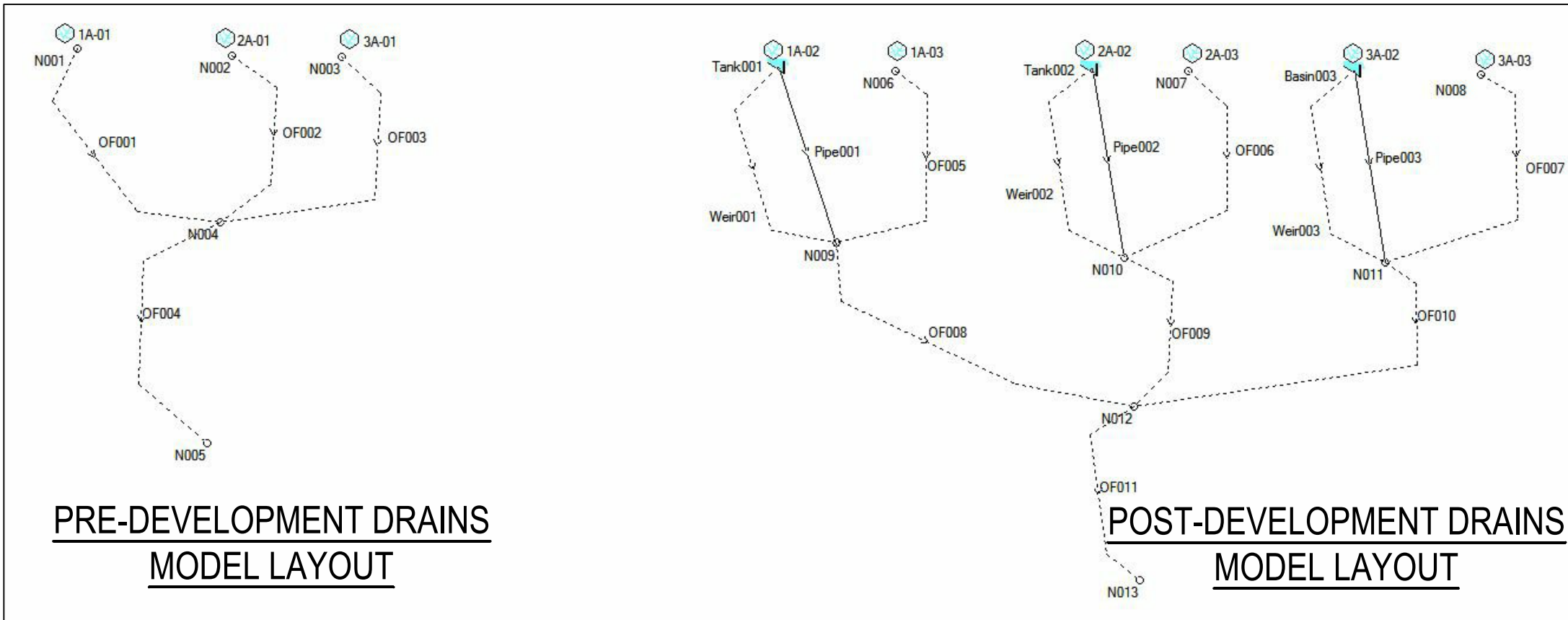
DRAWING ID: P1907155-PS04-R03-E200



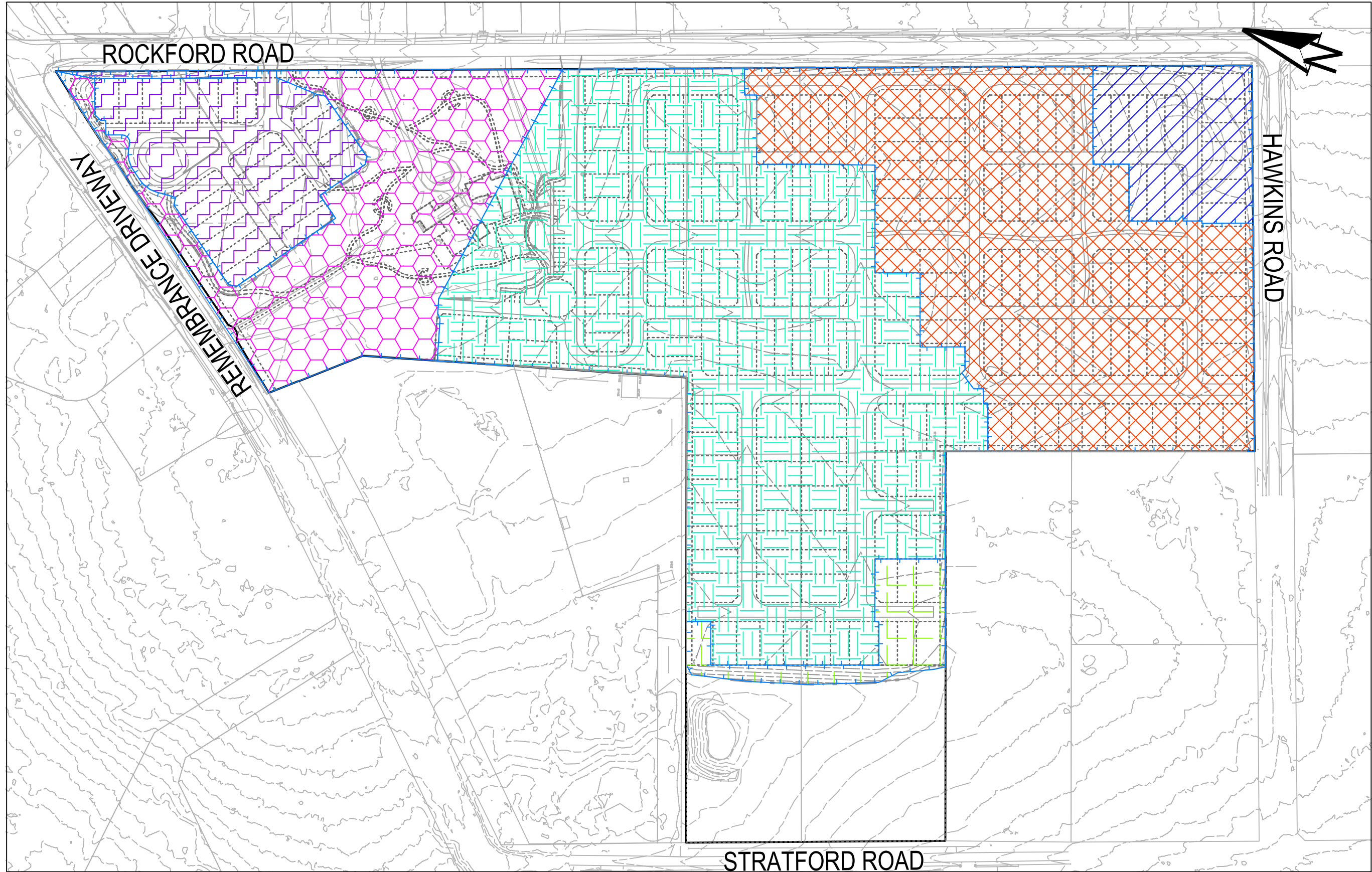
PRE-DEVELOPMENT OSD CATCHMENT PLAN

SCALE 1:2000

PRE-DEVELOPMENT OSD MODELLING DETAILS (P1907155DRN01V02)			
KEY	DRAINS NODE	AREA (ha)	% PAVED
	1A-01	3.31	0%
	2A-01	6.09	3%
	3A-01	2.76	5%
TOTAL AREA		12.16	= 100% OF TOTAL AREA
TOTAL IMPERVIOUS AREA		0.31	= %3 OF TOTAL AREA
TOTAL PERVIOUS AREA		11.85	= %97 OF TOTAL AREA



PRE-DEVELOPMENT DRAINS
MODEL LAYOUT



POST-DEVELOPMENT OSD CATCHMENT PLAN

SCALE 1:2000

POST-DEVELOPMENT OSD MODELLING DETAILS (P1907155DRN01V02)			
KEY	DRAINS NODE	AREA (ha)	% PAVED
	1A-02	3.35	70%
	1A-03	0.63	70%
	2A-02	5.07	70%
	2A-03	0.34	70%
	3A-02	0.98	70%
	3A-03	1.78	7%
TOTAL AREA		12.16	= 100% OF TOTAL AREA
TOTAL IMPERVIOUS AREA		7.39	= %61 OF TOTAL AREA
TOTAL PERVIOUS AREA		4.77	= %39 OF TOTAL AREA

OSD MODELLING RESULT (P1907155DRN01V02)

	1 EY				0.5 EY				0.2 EY				10% AEP				5% AEP				2% AEP				1% AEP			
Duration	Pre	Post	Difference	Complies?	Pre	Post	Difference	Complies?	Pre	Post	Difference	Complies?	Pre	Post	Difference	Complies?	Pre	Post	Difference	Complies?	Pre	Post	Difference	Complies?	Pre	Post	Difference	Complies?
10 min	0.057	0.604	-0.547	Yes	0.309	0.749	-0.440	Yes	0.694	0.938	-0.244	Yes	1.011	1.089	-0.078	Yes	1.388	1.264	0.124	Yes	1.925	1.507	0.418	Yes	2.372	1.705	0.667	Yes
15 min	0.091	0.652	-0.561	Yes	0.408	0.806	-0.398	Yes	0.871	1.022	-0.151	Yes	1.277	1.192	0.085	Yes	1.731	1.391	0.340	Yes	2.378	1.658	0.720	Yes	2.925	2.102	0.823	Yes
20 min	0.098	0.659	-0.561	Yes	0.454	0.823	-0.369	Yes	0.971	1.059	-0.088	Yes	1.415	1.252	0.163	Yes	1.934	1.469	0.465	Yes	2.670	1.789	0.881	Yes	3.289	2.403	0.886	Yes
25 min	0.101	0.659	-0.558	Yes	0.475	0.821	-0.346	Yes	1.027	1.054	-0.027	Yes	1.512	1.255	0.257	Yes	2.065	1.475	0.590	Yes	2.839	1.858	0.981	Yes	3.428	2.571	0.857	Yes
30 min	0.083	0.641	-0.558	Yes	0.483	0.789	-0.306	Yes	1.071	1.039	0.032	Yes	1.586	1.266	0.320	Yes	2.124	1.490	0.634	Yes	2.752	1.858	0.894	Yes	3.302	2.672	0.630	Yes
45 min	0.149	0.660	-0.511	Yes	0.561	0.811	-0.250	Yes	1.182	1.065	0.117	Yes	1.461	1.230	0.231	Yes	1.838	1.433	0.405	Yes	2.531	1.738	0.793	Yes	3.030	2.576	0.454	Yes
1 hour	0.167	0.584	-0.417	Yes	0.600	0.781	-0.181	Yes	0.994	1.010	-0.016	Yes	1.527	1.210	0.317	Yes	2.002	1.416	0.586	Yes	2.187	1.623	0.564	Yes	2.702	2.244	0.458	Yes
1.5 hou	0.108	0.535	-0.427	Yes	0.550	0.690	-0.140	Yes	0.832	0.914	-0.082	Yes	1.233	1.121	0.112	Yes	1.639	1.298	0.341	Yes	2.086	1.422	0.664	Yes	2.424	1.698	0.726	Yes
2 hour	0.222	0.546	-0.324	Yes	0.602	0.725	-0.123	Yes	0.887	0.909	-0.022	Yes	1.062	0.991	0.071	Yes	1.414	1.154	0.260	Yes	2.051	1.476	0.575	Yes	2.433	1.719	0.714	Yes
3 hour	0.153	0.459	-0.306	Yes	0.497	0.598	-0.101	Yes	0.774	0.733	0.041	Yes	1.006	0.919	0.087	Yes	1.266	1.073	0.193	Yes	1.491	1.251	0.240	Yes	1.723	1.400	0.323	Yes
4.5 hou	0.229	0.396	-0.167	Yes	0.455	0.548	-0.093	Yes	0.645	0.694	-0.049	Yes	0.720	0.745	-0.025	Yes	0.876	0.842	0.034	Yes	1.473	1.178	0.295	Yes	1.689	1.307	0.382	Yes
Max Q	0.229	0.660	-	-	0.602	0.823	-	-	1.182	1.065	-	-	1.586	1.266	-	-	2.124	1.490	-	-	2.839	1.858	-	-	3.428	2.672	-	-

^ POST-DEVELOPMENT FLOW IS <= THE MAXIMUM PRE-DEVELOPMENT MINOR STORM (0.2 EY) FLOW OF 1.182 m³/s AND IS APPROPRIATELY CONTAINED WITHIN THE MINOR DRAINAGE SYSTEM.

* POST-DEVELOPMENT FLOW IS <= THE MAXIMUM PRE-DEVELOPMENT MINOR STORM (0.2 EY) FLOW OF 1.182 m³/s AND IS APPROPRIATELY CONTAINED WITHIN THE MINOR DRAINAGE SYSTEM.

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPROV
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL REF	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF

SCALE
0 20 40 60 80 100 120 140 160 180 200
A1 (A3) 1:2,000 (1:4,000) METRES

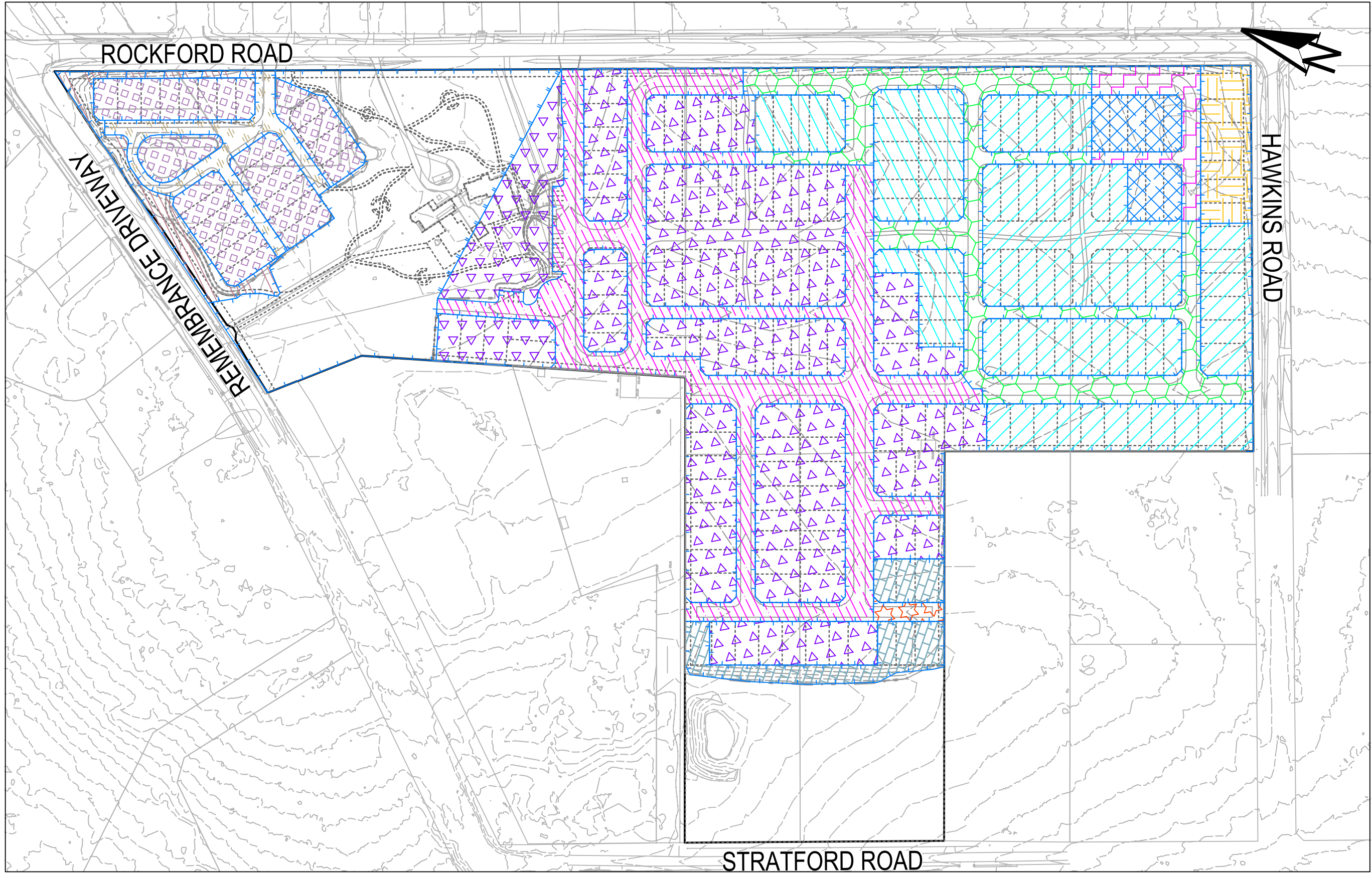
GRID	DATUM	PROJECT MANAGER	CLIENT
MGA	mAHD	JF	COMMON GROUND PROPERTY P/L
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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

	Consulting Engineers Environment Water Geotechnical Civil
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8787 Email: mail@martens.com.au Internet: www.martens.com.au	

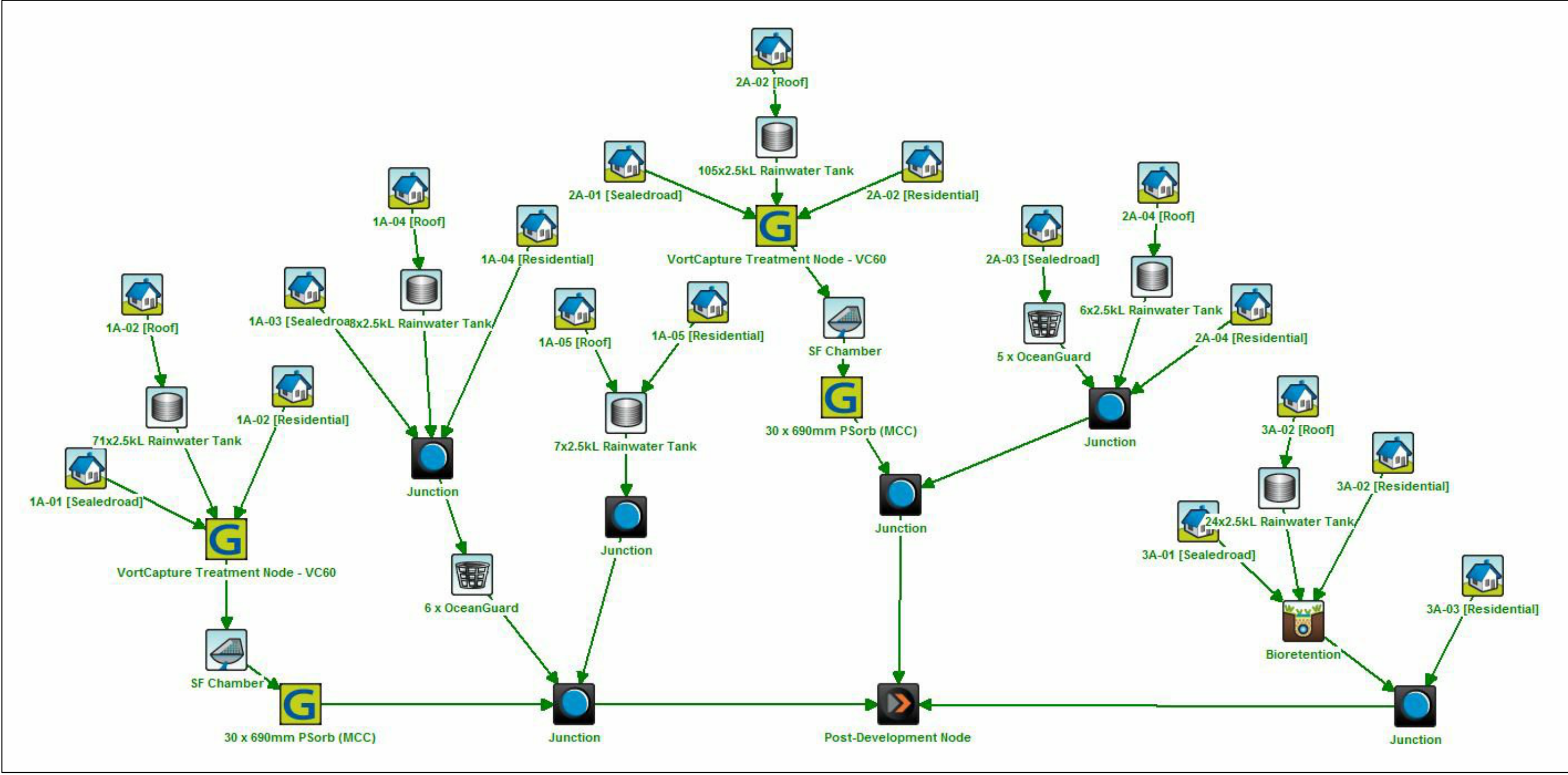
DRAWING TITLE				
OSD CATCHMENT PLAN, MODEL AND RESULTS				
PROJECT NO. P1907155	PLANSET NO. PS04	RELEASE NO. R03	DRAWING NO. PS04-E600	REVISION C

DRAWING ID: P1907155-PS04-R03-E600



WATER QUALITY CATCHMENT PLAN

SCALE 1:2000



WATER QUALITY MODEL LAYOUT

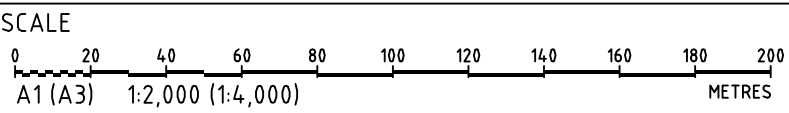
MUSIC MODEL DETAILS (P1907155MUS01V02)			
KEY	MUSIC NODE	AREA (ha)	% PAVED
	1A-01SR	0.98	70%
	1A-02RL	2.38	70%
	1A-03SR	0.19	70%
	1A-04RL	0.23	70%
	1A-05RL	0.22	70%
	2A-01SR	152	70%
	2A-02RL	3.54	70%
	2A-03SR	0.04	70%
	2A-04RL	0.30	70%
	3A-01SR	0.24	70%
	3A-02RL	0.74	70%
	3A-03RL	0.21	20%
TOTAL AREA		10.57	= 100% OF TOTAL AREA
TOTAL IMPERVIOUS AREA		7.29	= %69 OF TOTAL AREA
TOTAL PERVIOUS AREA		3.28	= %31 OF TOTAL AREA

Treatment Train Effectiveness - Post-Development Node			
	Sources	Residual Load	% Reduction
Flow (ML/yr)	42.7	37.1	13
Total Suspended Solids (kg/yr)	6190	1080	82.6
Total Phosphorus (kg/yr)	12.7	4.35	65.7
Total Nitrogen (kg/yr)	96	50.7	47.2
Gross Pollutants (kg/yr)	1480	26.1	98.2

MUSIC MODEL RESULT

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	AMENDMENTS TO ADDRESS MINOR LAYOUT CHANGE AND COUNCIL RFI	31/07/2020	RK	CG/AVG	SA	JF
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



GRID	DATUM	PROJECT MANAGER
MGA	mAHD	JF
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PROJECT NAME/PLANSET TITLE
COMMON GROUND PROPERTY P/L
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

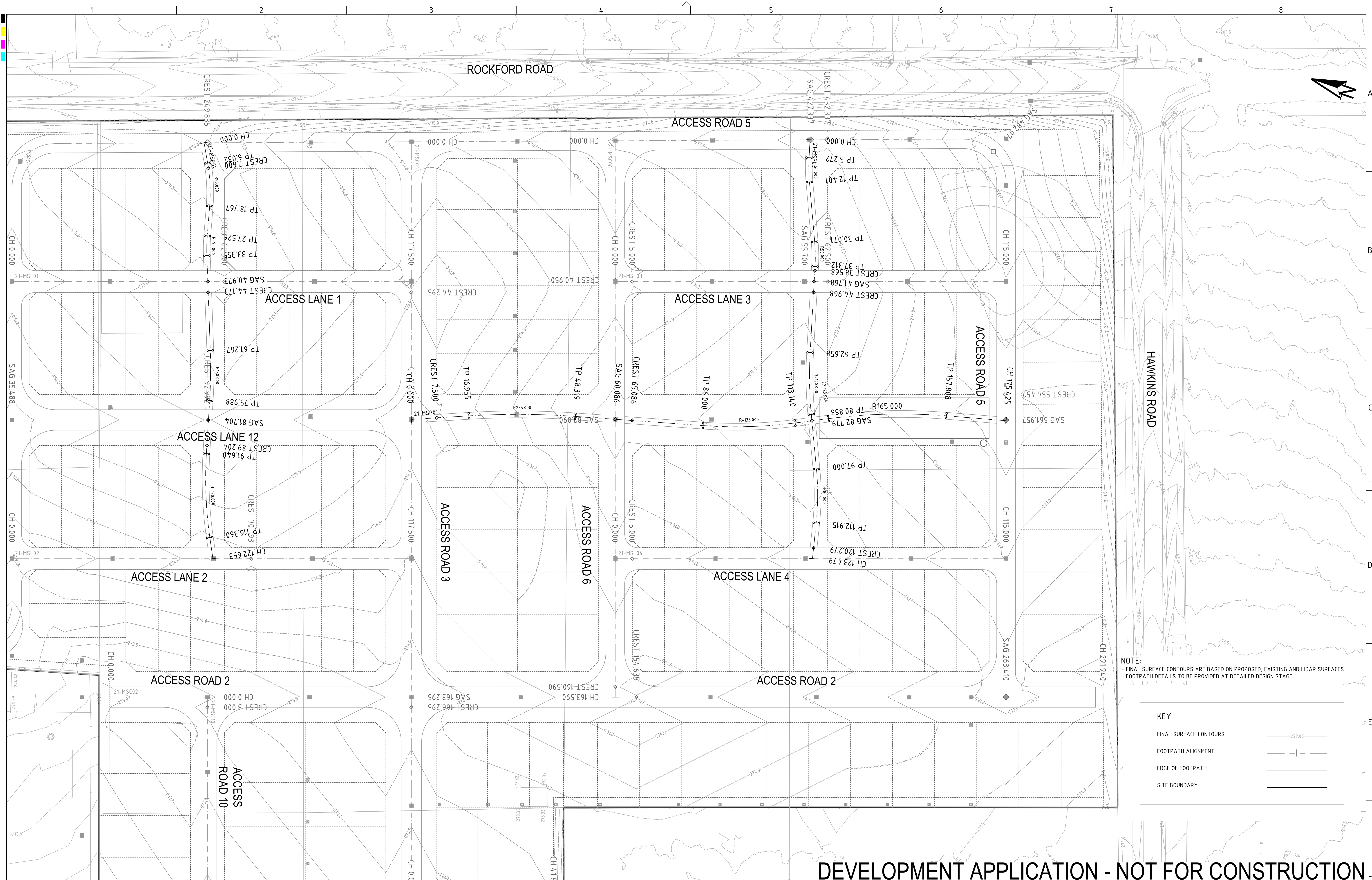
	Consulting Engineers	
	Environment	Water
Suite 201, 20 George St, Hornsby, NSW 2077 Australia		Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au		Internet: www.martens.com.au

DRAWING TITLE				
WATER QUALITY CATCHMENT PLAN, MODEL AND RESULTS				
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1907155	PS04	R03	PS04-E700	C

PRINTED: 11/12/2019 11:12:12 AM

A1 / A3 LANDSCAPE (A1E_02.0.01)

DRAWING ID: P1907155-PS04-R03-E700



NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.
- FOOTPATH DETAILS TO BE PROVIDED AT DETAILED DESIGN STAGE.

KEY

FINAL SURFACE CONTOURS

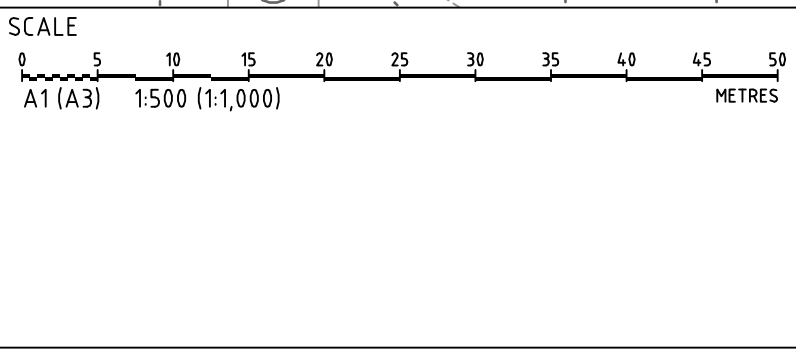
FOOTPATH ALIGNMENT

EDGE OF FOOTPATH

SITE BOUNDARY

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF



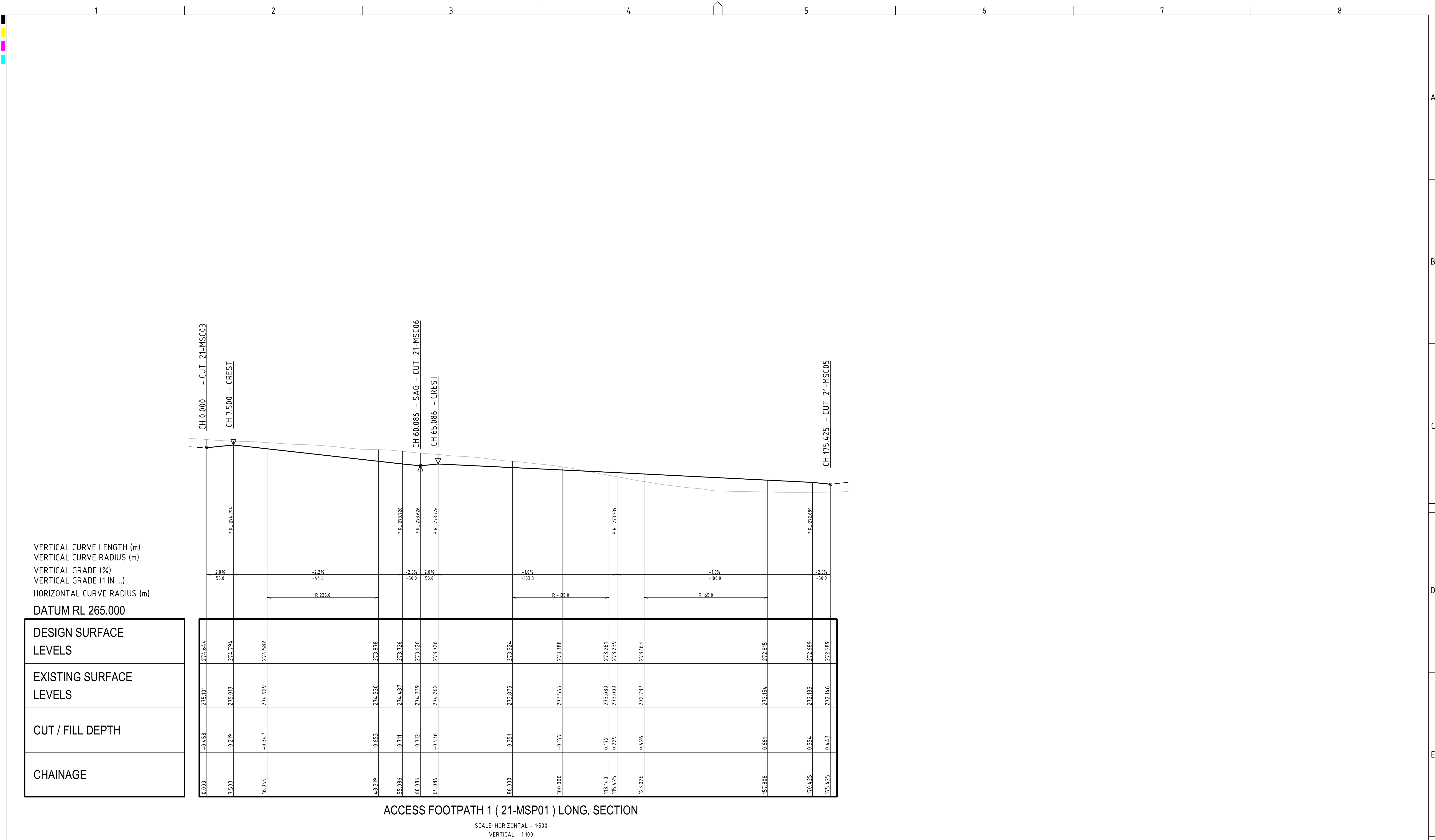
GRID
MGA
DATUM
mAHD
PROJECT MANAGER
JF
CLIENT
COMMON GROUND PROPERTY P/L

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PROJECT NAME/PLANSET TITLE
STRATFORD HOUSE LIFESTYLE VILLAGE
PRELIMINARY ROADS DRAINAGE DESIGN
STRATFORD HOUSE PRECINCT, TAHMOOR, NSW
LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262

Consulting Engineers
Environment
Water
Geotechnical
Civil
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE ACCESS FOOTPATH PLAN				
PROJECT NO. P1907155	PLANSET NO. PS04	RELEASE NO. R03	DRAWING NO. PS04-G300	REVISION B

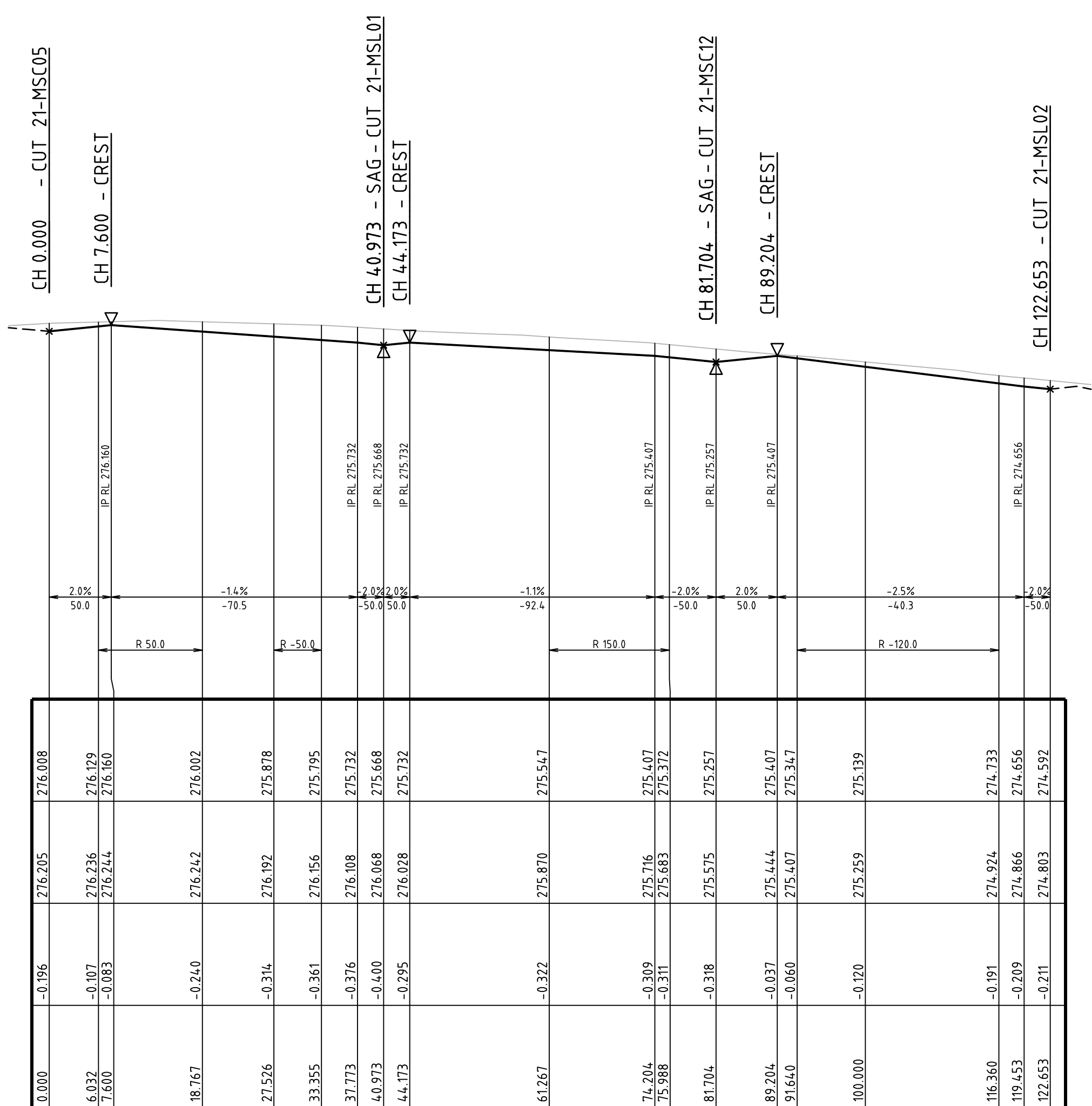


ACCESS FOOTPATH 1 (21-MSP01) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

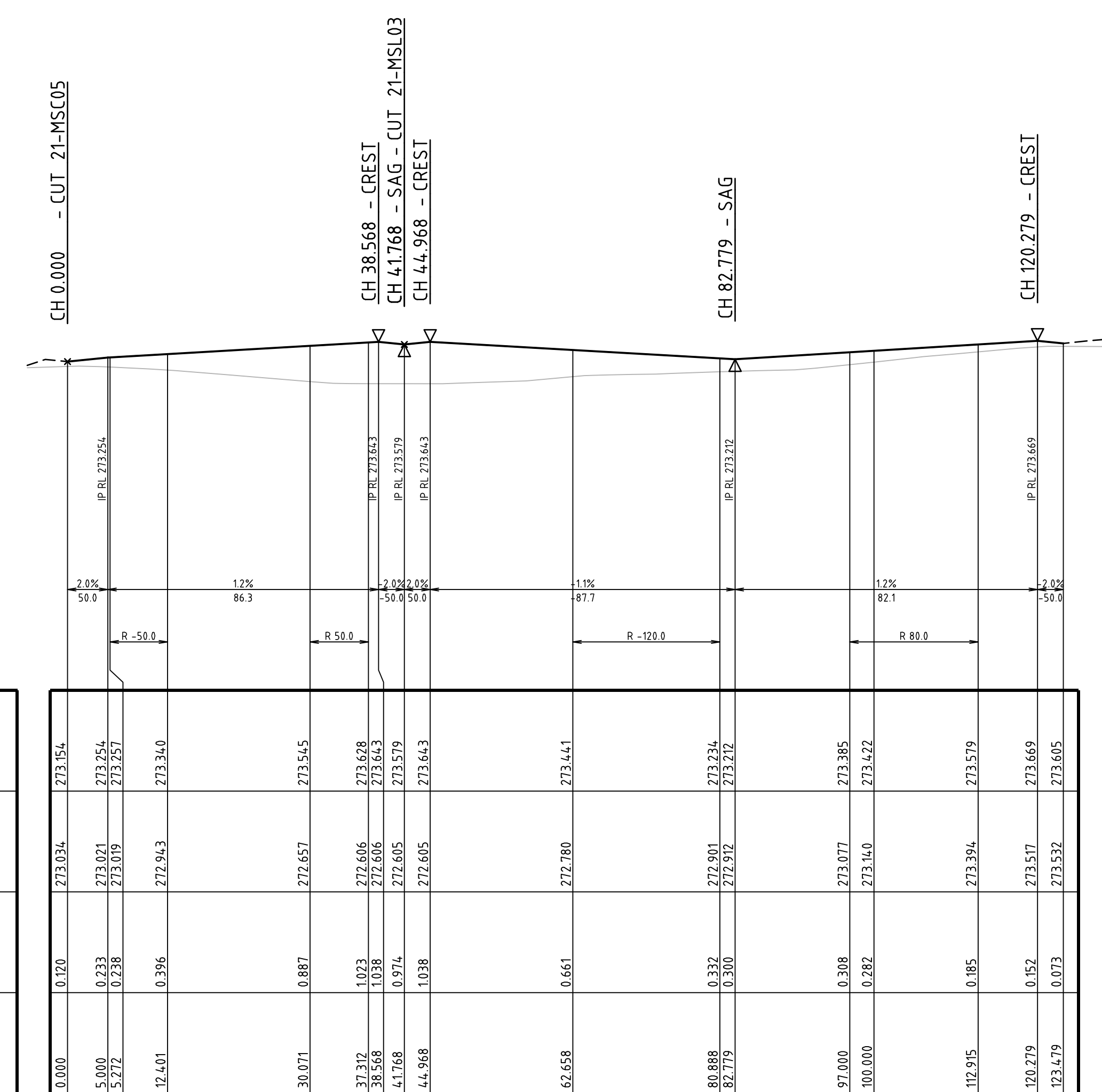
DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

DESCRIPTION		DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	<div><div><div></div><div>martens</div><div>& Associates Pty Ltd</div></div><div>Consulting Engineers Environment Water Geotechnical Civil</div><div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au</div></div>	DRAWING TITLE				
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF	0 5 10 15 20 25 30 35 40 45 50 A1 (A3) 1:500 (1:1,000) METRES	MGA	mAHD	JF	COMMON GROUND PROPERTY P/L		PROJECT NAME/PLANSET TITLE	PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF	0 1 2 3 4 5 6 7 8 9 10 A1 (A3) 1:100 (1:200) METRES	DISCLAIMER & COPYRIGHT This plan must not be used for construction unless signed as approved by principal certifying authority. All measurements in millimetres unless otherwise specified. This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd. (C) Copyright Martens & Associates Pty Ltd		STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN STRATFORD HOUSE PRECINCT, TAHMOOR, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262		P1907155	PS04	R03	PS04-G310	B	
DRAWING ID: P1907155-PS04-R03-G310																	



ACCESS FOOTPATH 2 (21-MSP02) LONG. SECTION


SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100



ACCESS FOOTPATH 3 (21-MSP03) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPROVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	<div><div>Consulting Engineers Environment Water Geotechnical Civil</div><div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au</div></div>	DRAWING TITLE ACCESS FOOTPATH 2 (21-MSP02) & 3 (21-MSP03) LONG. SECTIONS					
B	AMENDED AS PER UPDATED DESIGN	11/12/2019	RK	CG/AVG	JF	JF	A1 (A3) 1:500 (1:1,000)	MGA	mAHd	JF	COMMON GROUND PROPERTY P/L							
A	INITIAL RELEASE	20/11/2019	GM	CG/AVG	SA	JF	A1 (A3) 1:100 (1:200)	DISCLAIMER & COPYRIGHT This plan must not be used for construction unless signed as approved by principal certifying authority. All measurements in millimetres unless otherwise specified. This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd. (C) Copyright: Martens & Associates Pty Ltd			PROJECT NAME/PLANSET TITLE STRATFORD HOUSE LIFESTYLE VILLAGE PRELIMINARY ROADS DRAINAGE DESIGN STRATFORD HOUSE PRECINCT, TAIHMORE, NSW LOTS 1-7, 22, 23, 27-32, 35-37 DP 12096 & LOTS 2-3 DP236262							
PRINTED: USER: RALPH.ADVIGIT														PROJECT NO. P1907155	PLANSET NO. PS04	RELEASE NO. R03	DRAWING NO. PS04-G311	REVISION B
X1/A3 LANDSCAPE TABLE x92.0x91														DRAWING ID: P1907155-PS04-R03-G311				