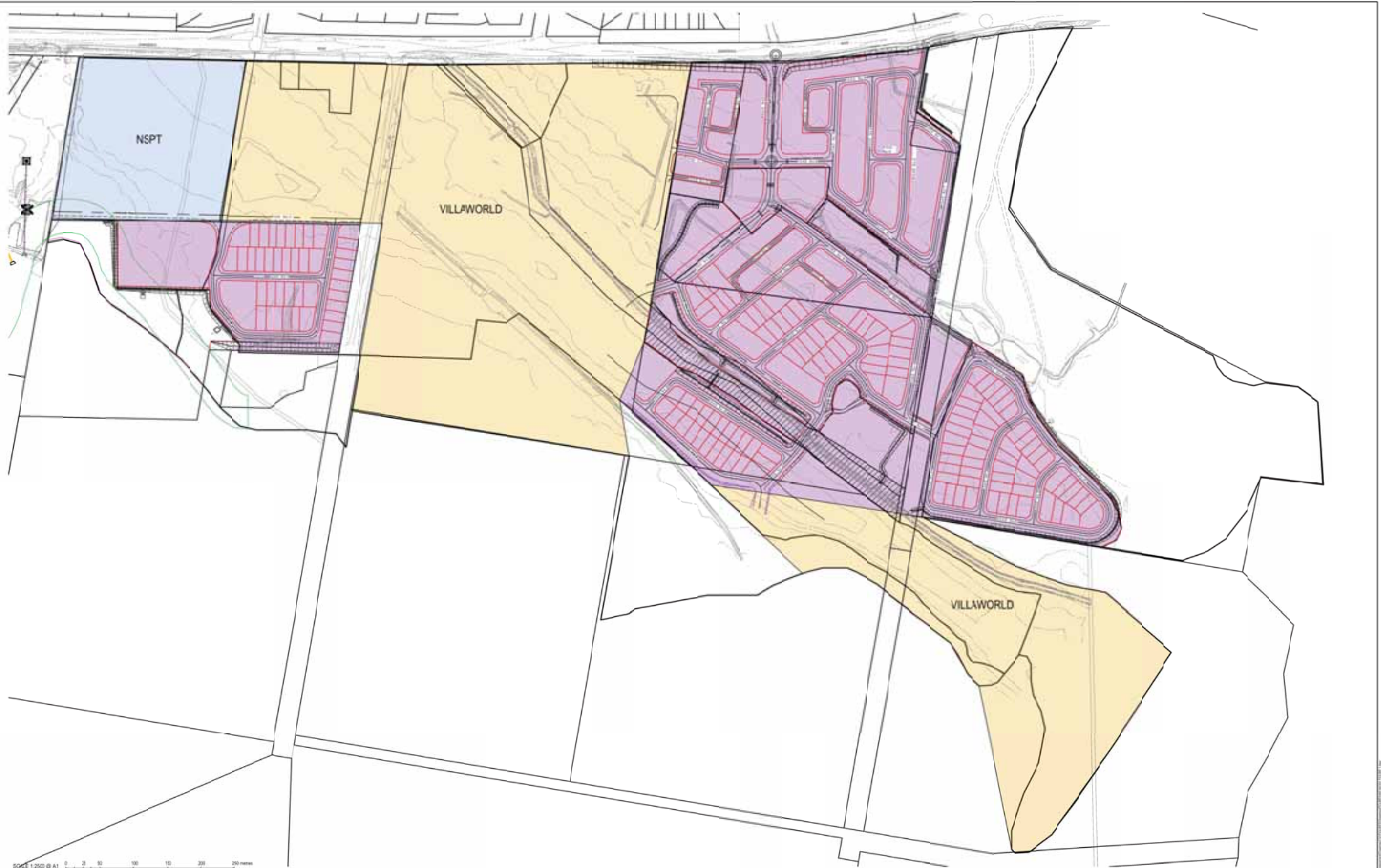




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Issue	Description	Date	Drawn	Approved
C	REVISED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



WEST BYRON



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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title					
DEVELOPMENT PLAN					
Drawn	Date	Scale	AT	S/A Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 1	C		

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Scale 1:250 @ A1
Scale 1:500 @ A3

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Issue	Description	Date	Drawn	Approved
C	REVISED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



Client
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Project
**WEST BYRON URBAN RELEASE AREA
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Drawing Title DETAILED SITE SURVEY PLAN					
Drawn	Date	Scale	Alt	S/A Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets No.	FIG	Issue	
SJO	NE160352	FIG 2		C	

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SCALE 1:100 @ A1
SCALE 1:200 @ A3

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Issue	Description	Date	Drawn	Approved
D	RE-ISSUED FOR DA	22.08.18	SJC	RNS
C	RE-ISSUED FOR DA	11.10.17	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

EARTHWORKS SURFACE LEVELS
CONCEPT PLAN

Drawn	Date	Scale	Alt	G.A. Drawn	Date
JER	SEPT 1017	1:1000			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 3.1	D		

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D	RE-ISSUED FOR DA	03-08-18	0.00	0.00	0.00
C	RE-ISSUED FOR DA	11-10-17	0.00	0.00	0.00
B	ISSUED FOR DA	08-08-17	0.00	0.00	0.00
A	ISSUED FOR INFORMATION	07-08-17	0.00	0.00	0.00
Issue	Description	Date	Issue	Expense	Expense



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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
**EARTHWORKS SURFACE LEVELS
CONCEPT PLAN**

Drawn JER	Date SEPT 10 17	Scale 1:1000	A1	G.A. Check	Date
Designed SJO	Project No. NE160352	Drawn No. FIG 3.2			

NOT FOR CONSTRUCTION



SCALE 1:100 @ A1
SCALE 1:200 @ A3

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Issue	Description	Date	Drawn	Approved
D	RE-ISSUED FOR DA	22.08.18	SJC	RNS
C	ISSUED FOR DA	11.10.17	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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Project

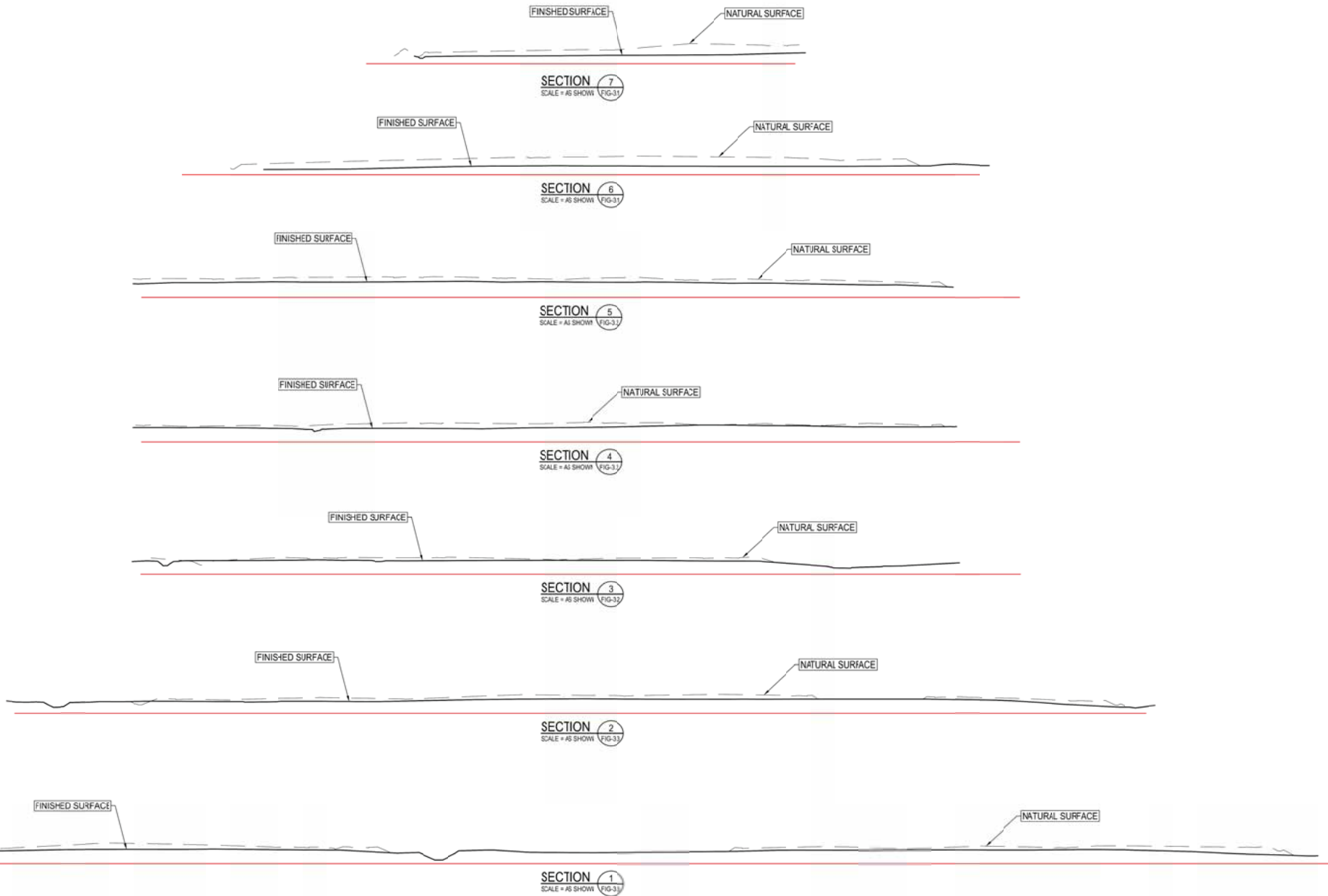
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

EARTHWORKS SURFACE LEVELS
CONCEPT PLAN

Drawn	Date	Scale	Alt	S.A. Drawn	Date
JER	SEPT 1017	1:1000			
Designed	Project No.	Sheet No.	Fig No.	Issue	
SJO	NE160352		FIG 3.3	D	

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SCALE 1:1000 @ A1
SCALE 1:2000 @ A3
SCALE 1:200 @ A1
SCALE 1:400 @ A3

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Issue	Description	Date	Drawn	Approved
A	ISSUED FOR DA	22.08.18	SJC	RNS



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Project

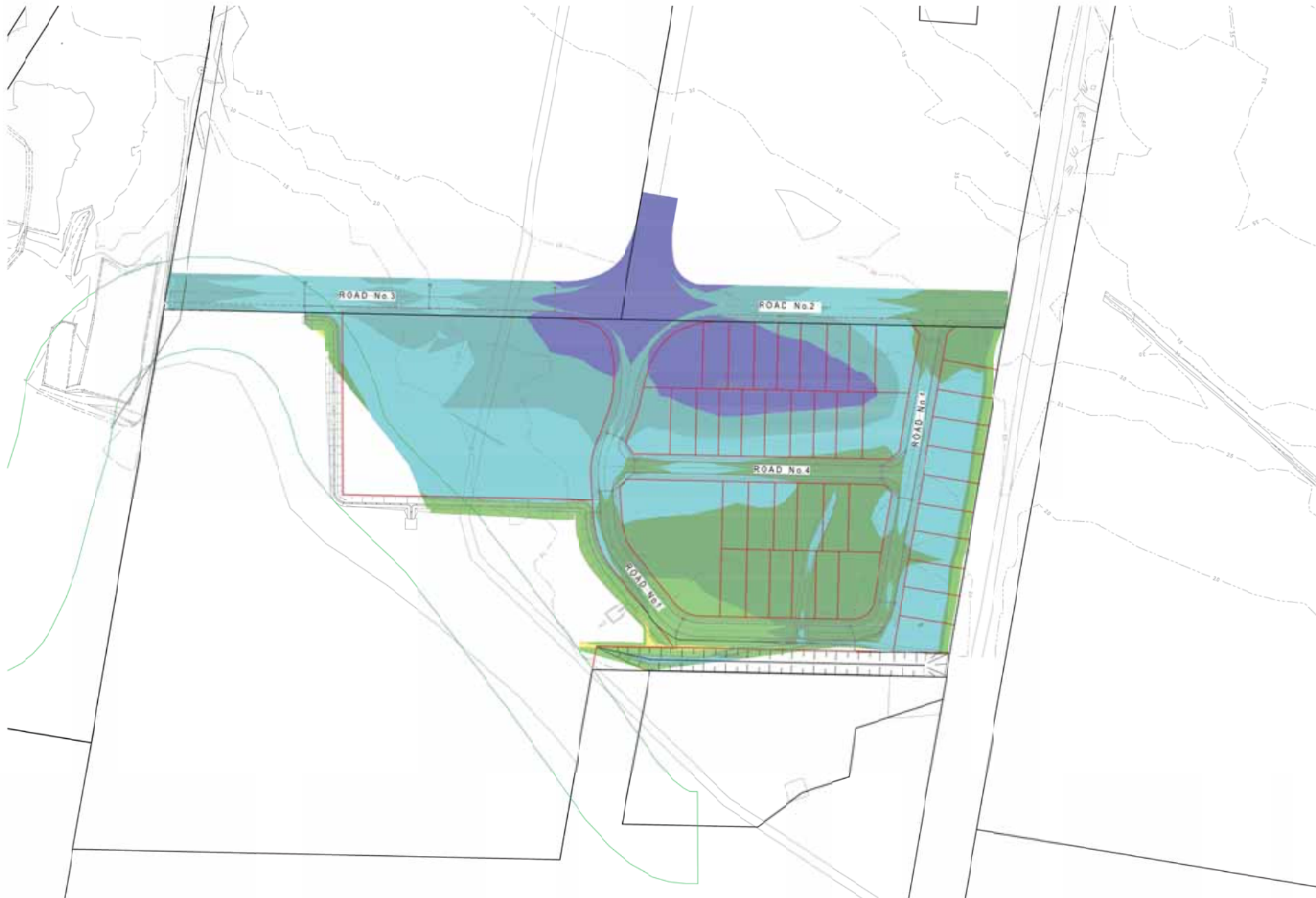
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

EARTHWORKS SECTIONS

Drawn	Date	Scale	A1	S.A. Check	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheep No.	Issue		
SJO	NE160352	FIG 3.4	A		

NOT FOR CONSTRUCTION



FS. TO NSL CUT/FILL DEPTHS				
Lower_value	Upper_value	Colour		
-1.5	to	-1.0	m	
-1.0	to	-0.5	m	
-0.5	to	0.00	m	
0.00	to	0.5	m	
0.5	to	1.0	m	
1.0	to	1.5	m	
1.5	to	2.0	m	
2.0	to	2.5	m	
2.5	to	3	m	

SCALE 1:100 @ A1
SCALE 1:200 @ A3

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Issue	Descriptor	Date	Drawn	Approved
C	REISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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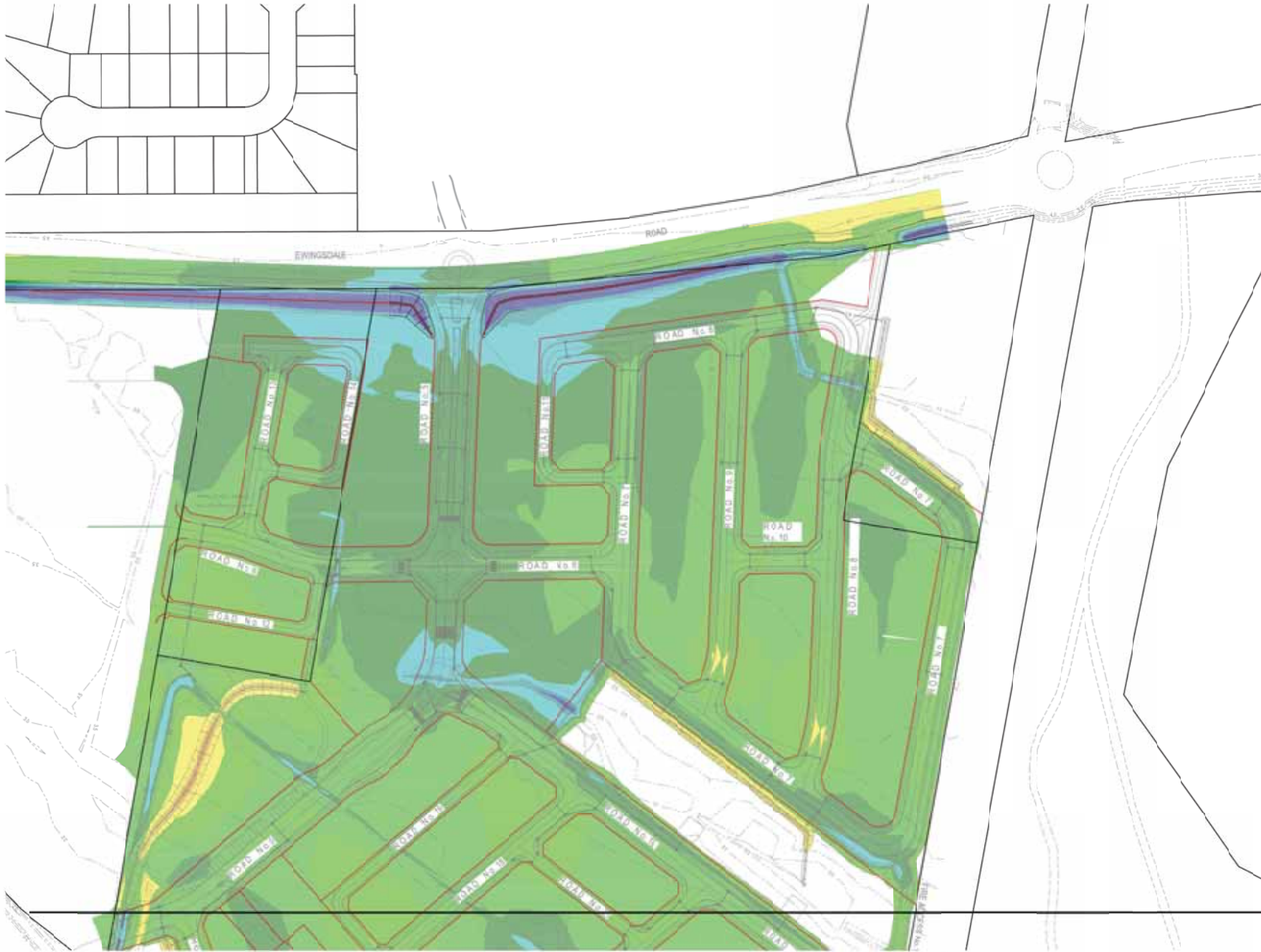
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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title				
EARTHWORKS FILLING PLAN				
Drawn	Date	Scale	A1	G.A. Draw
JER	SEPT 2017	1:1000		
Designed	Project No.	Sheets	FIG 4.1	Issue
SJO	NE160352			C

NOT FOR CONSTRUCTION

Project: WEST BYRON URBAN RELEASE AREA DEVELOPMENT APPLICATION
Drawing: EARTHWORKS FILLING PLAN
Scale: 1:1000
Date: 22/08/2018
Drawn: SJC
Designed: SJO
Checked: RNS
Approved: RNS



FILL TO NSL CUT/FILL DEPTHS			
Lower value	Upper value		Colour
-1.5	to -1.0	m	Orange
-1.0	to -0.5	m	Yellow
-0.5	to 0.00	m	Light Green
0.00	to 0.5	m	Green
0.5	to 1.0	m	Dark Green
1.0	to 1.5	m	Teal
1.5	to 2.0	m	Blue
2.0	to 2.5	m	Dark Blue
2.5	to 3	m	Dark Purple

SCALE 1:100 @ A1
SCALE 1:200 @ A3

DRAWING SHEET3 ADJOINS

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Issue	Descriptor	Date	Drawn	Revised
C	RE-ISSUED FOR DA	22.09.18	SJO	WNO
B	ISSUED FOR DA	28.09.17	JER	WNO
A	ISSUED FOR INFORMATION	07.09.17	JER	WNO



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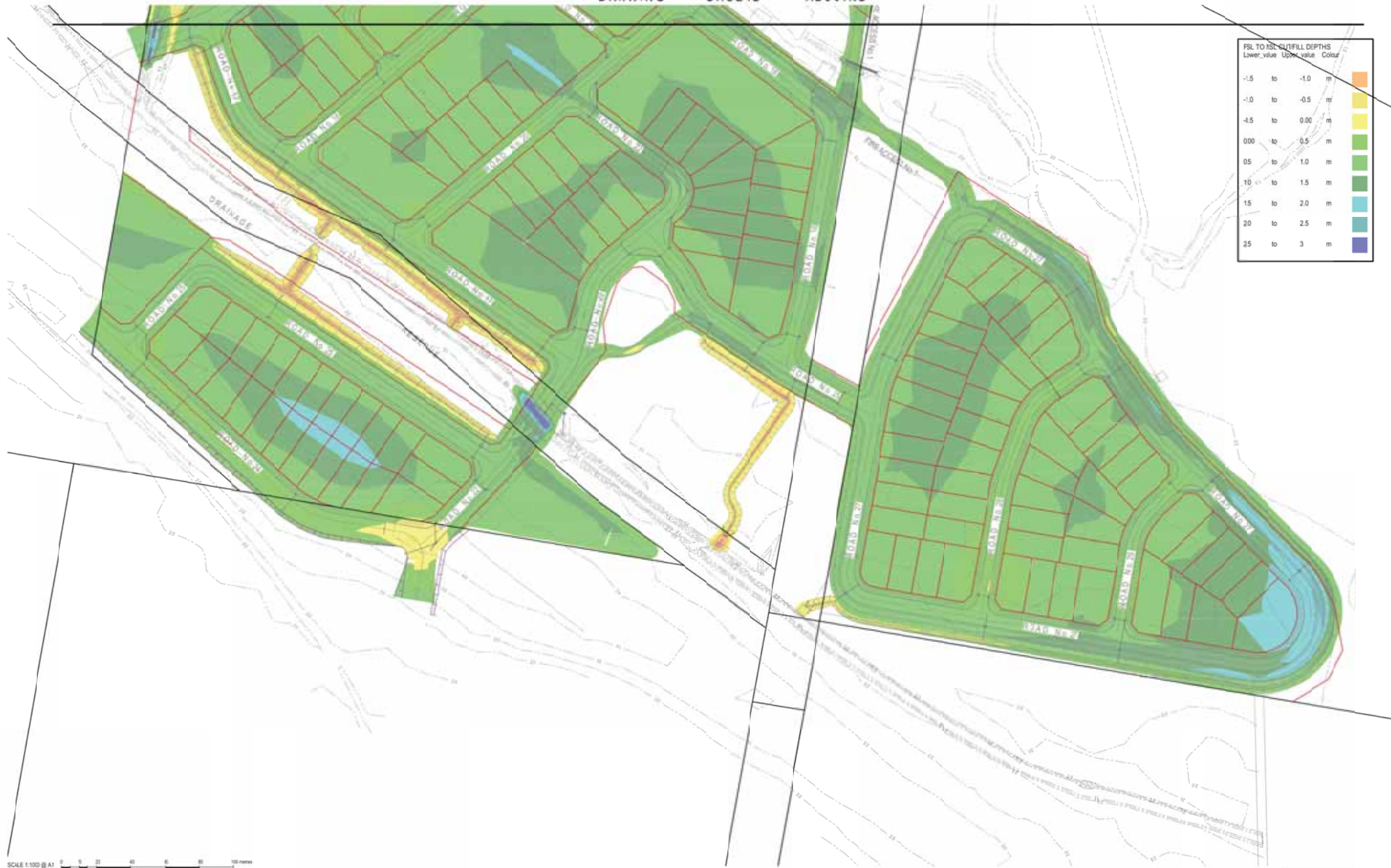
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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title				
EARTHWORKS FILLING PLAN				
Drawn	Date	Scale	Alt	S/A Draw
JER	SEPT 2017	1:1000		
Designed	Project No.	Sheet No.	Title	
SJO	NE160352	FIG 4.2	C	

NOT FOR CONSTRUCTION

FSL TO 1% CUT/FILL DEPTHS		
Lower value	Upper value	Colour
-1.5	to -1.0	m
-1.0	to -0.5	m
-0.5	to 0.00	m
0.00	to 0.5	m
0.5	to 1.0	m
1.0	to 1.5	m
1.5	to 2.0	m
2.0	to 2.5	m
2.5	to 3	m



SCALE 1:100 @ A1
SCALE 1:200 @ A3

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C	RE ISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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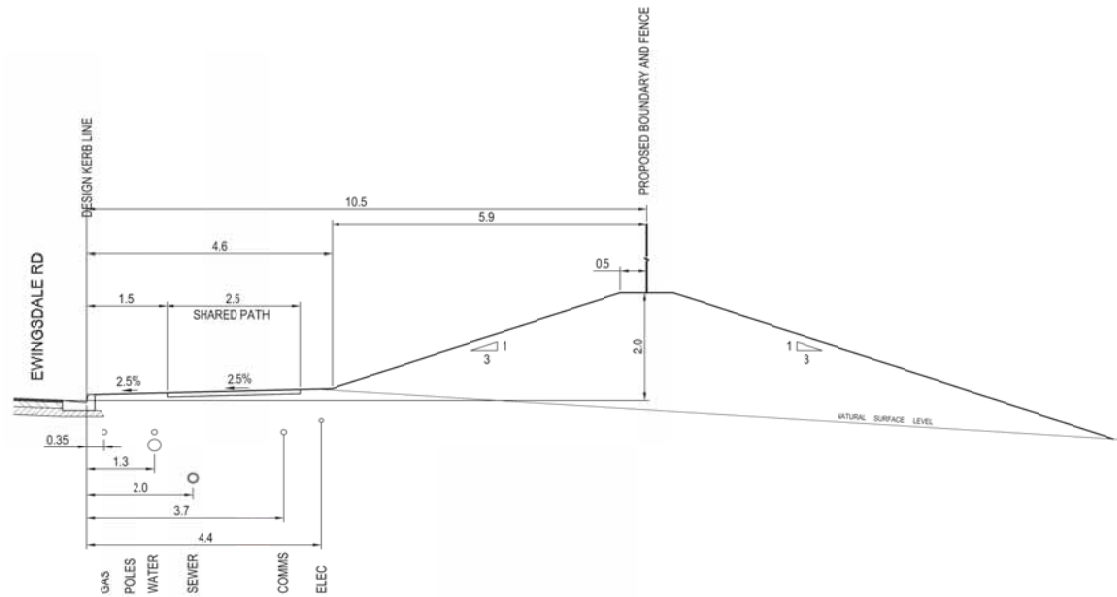
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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

EARTHWORKS FILLING PLAN

Drawn	Date	Scale	Alt	G.A. Date	Date
JER	SEPT 1017	1:1000			
Designer	Project No.	Sheet No.	FIG	Issue	
SJO	NE160352		FIG 4.3	C	

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EWINGSDALE RD FOOTWAY RESERVE WITH
SERVICES AND SHARED PATH
SCALE 1:50

SCALE 1:50 @ A1
SCALE 1:10 @ A3

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Issue	Descriptor	Date	Drawn	Approved
A	ISSUED FOR DA	22.08.18	SJC	RNS

Client
WEST BYRON



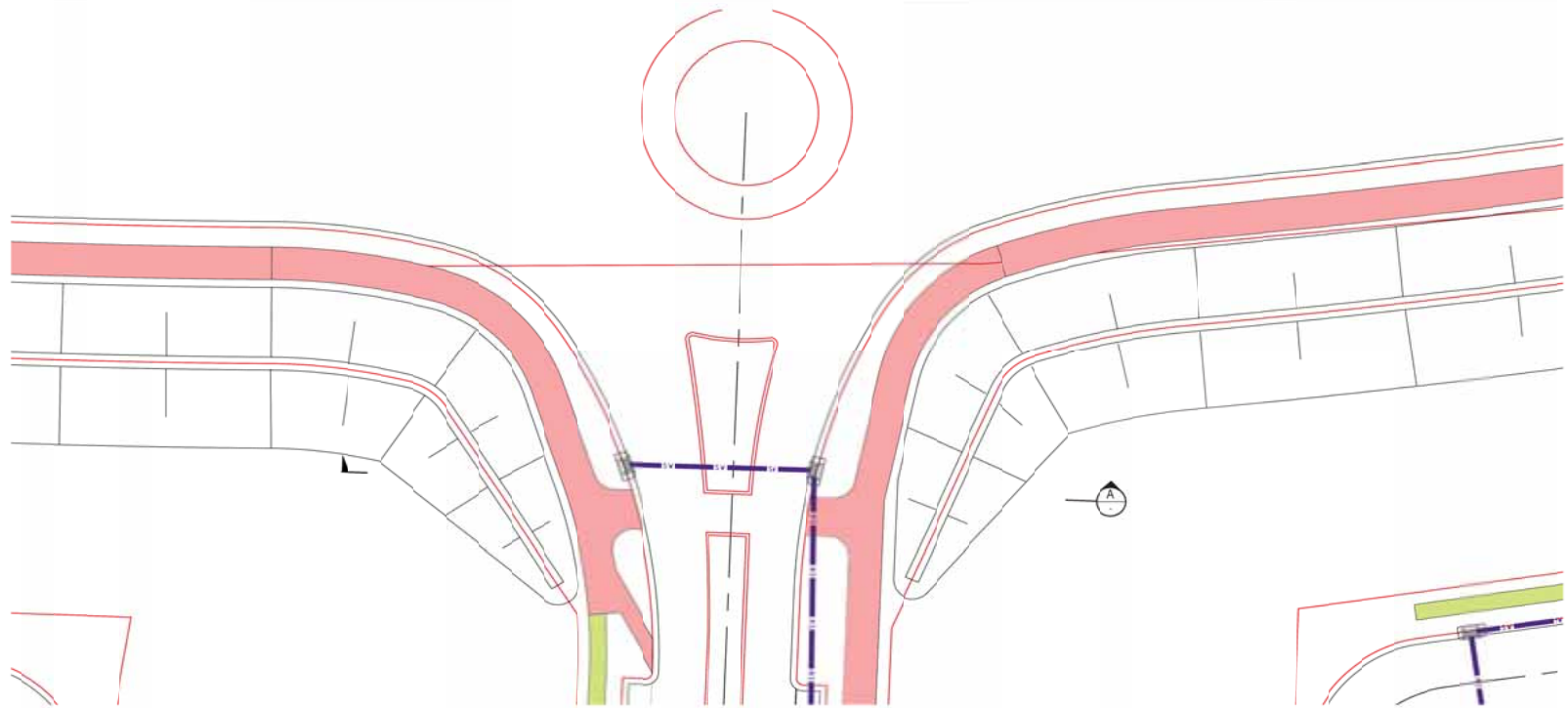
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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawn	Date	Scale	A1	Scale	Date
JER	JUNE 2018	1:50			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 5.1	A		

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ACOUSTIC MOUND PLAN
SCALE 1:300



SECTION A-A
N.T.S.

SCALE 1:200 @ A1
SCALE 1:400 @ A3

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B	RE-ISSUED FOR DA	22.08.18	SJC	RNS
A	ISSUED FOR DA	06.07.18	SJC	RNS

Client
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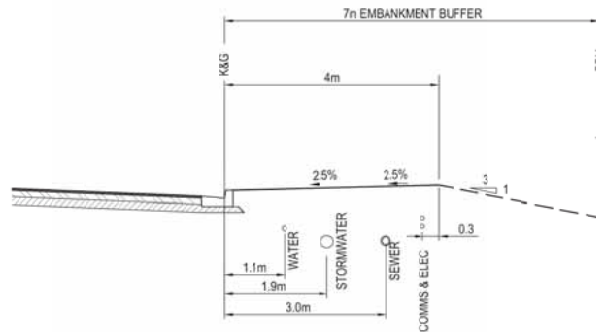
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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

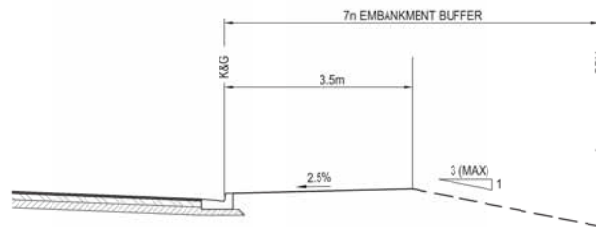
Drawing Title
ACOUSTIC MOUND RETURNS

Drawn	Date	Scale	A1	S/A Drawn	Date
JER	JUNE 2018	1:200			
Designed	Project No.	Shep No.	FIG	Issue	
SJO	NE160352		FIG 5.2	B	

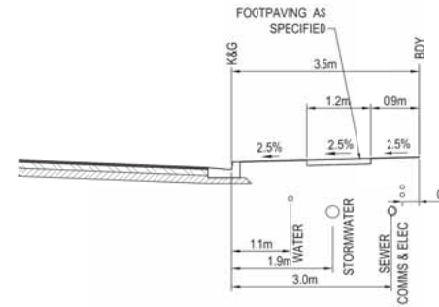
NOT FOR CONSTRUCTION



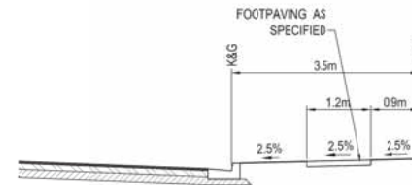
TYPICAL FOOTWAY RESERVE WITH SERVICES (NO FOOTPAVING)
SCALE 1:50



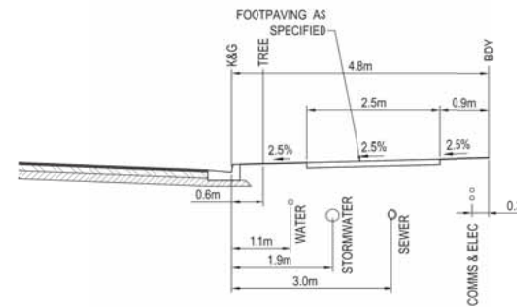
TYPICAL FOOTWAY RESERVE NO SERVICES (NO FOOTPAVING)
SCALE 1:50



TYPICAL FOOTWAY RESERVE WITH SERVICES AND FOOTPAVING
SCALE 1:50



TYPICAL FOOTWAY RESERVE NO SERVICES AND FOOTPAVING
SCALE 1:50



TYPICAL FOOTWAY RESERVE WITH SERVICES AND
SHARED PEDESTRIAN / CYCLEWAY
SCALE 1:50

SCALE 1:50 @ A1
SCALE 1:100 @ A3

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B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS

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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

TYPICAL FOOTWAY CROSS SECTIONS

Drawn	Date	Scale	Alt	S/A Drawn	Date
JER	SEPT 1017	1:50			
Designed	Project No.	Sheets No.	Issue		
SJO	NE160352	FIG 6	C		

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Issue	Descriptor	Date	Drawn	Approved
C	RE-ISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawn	Date	Scale	AT	S/A Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 7	C		

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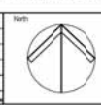


SCALE 1:100 @ A1
SCALE 1:200 @ A3

DRAWING SHEET 13 ADJOINS

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Issue	Description	Date	Drawn	Approved
C	RE-ISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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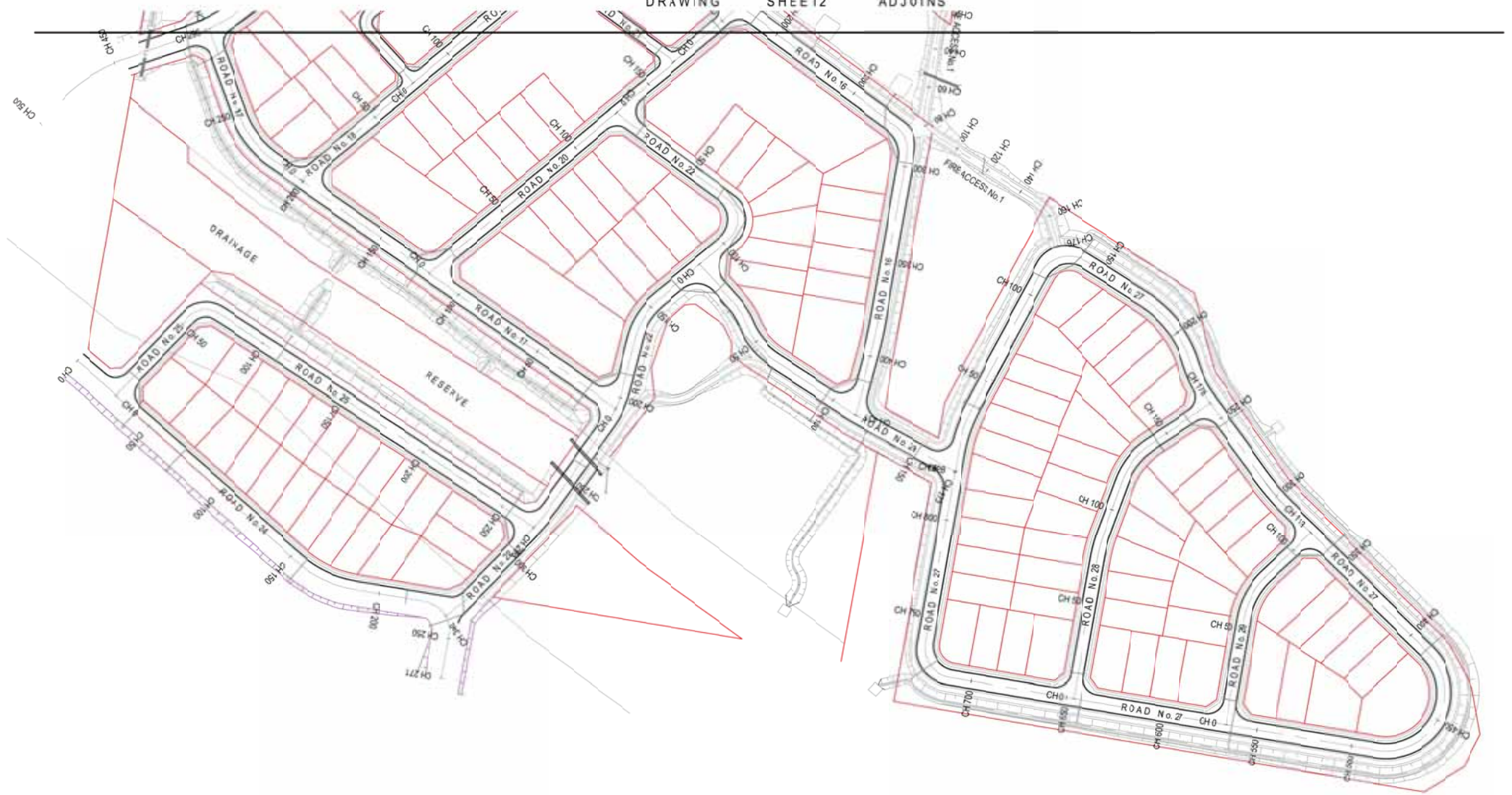


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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title					
ROADS PLAN					
Drawn	Date	Scale	At	S/A Drawn	Date
JER	SEPT 1017	1:1000			
Designed	Project No.	Sup. No.	Issue		
SJO	NE160352	FIG 8.2	C		

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SCALE 1:100 @ A1
SCALE 1:200 @ A3

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Issue	Description	Date	Drawn	Approved
C	RE-ISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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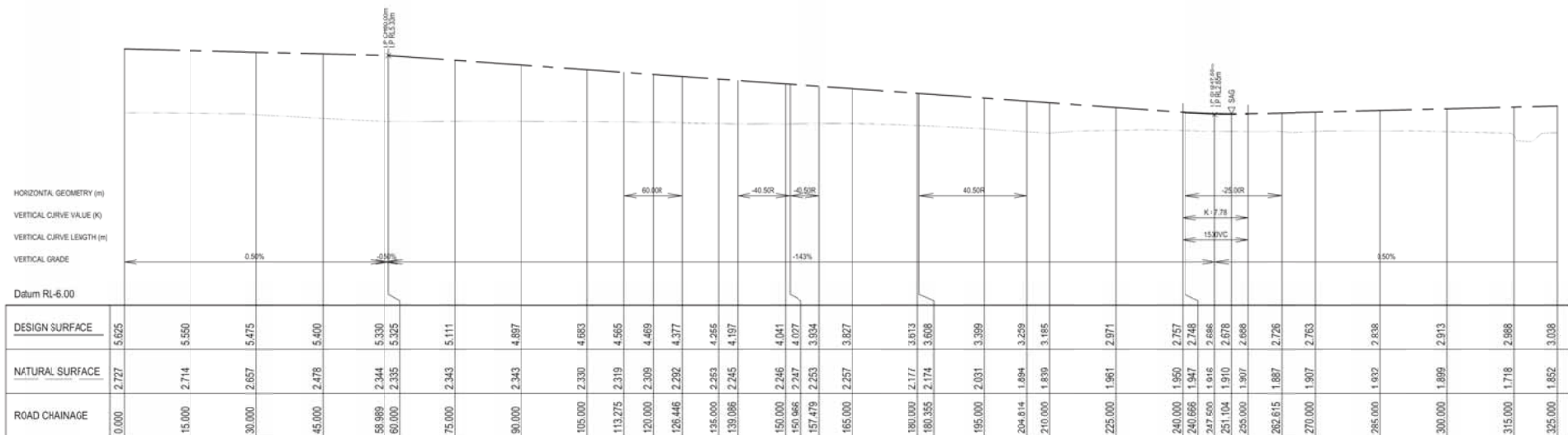


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Project
WEST BYRON URBAN RELEASE AREA
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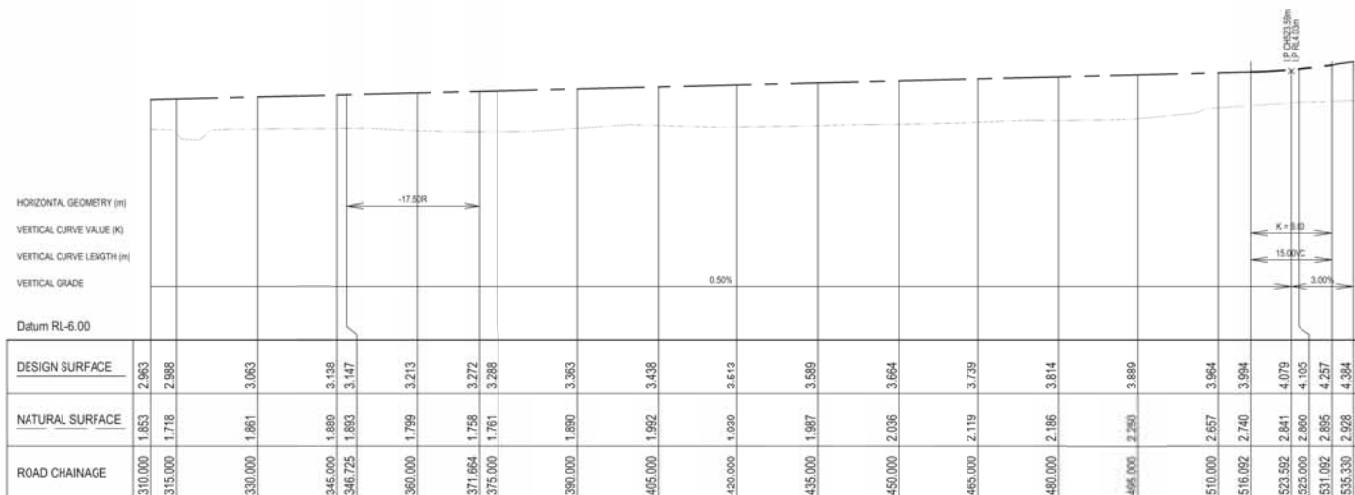
Drawing Title				
ROADS PLAN				
Drawn	Date	Scale	AT	Date
JER	SEPT 1017	1:1000		
Designed	Project No.	Shep No.	Issue	
SJO	NE160352	FIG 8.3	C	

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RD01 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD01 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS

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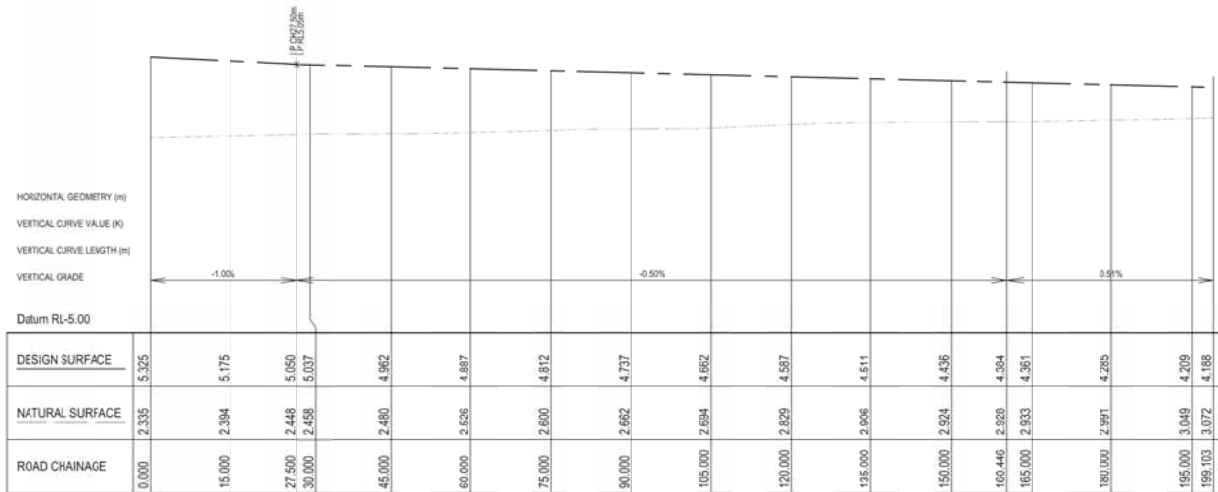
Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
ROAD LONGITUDINAL SECTIONS

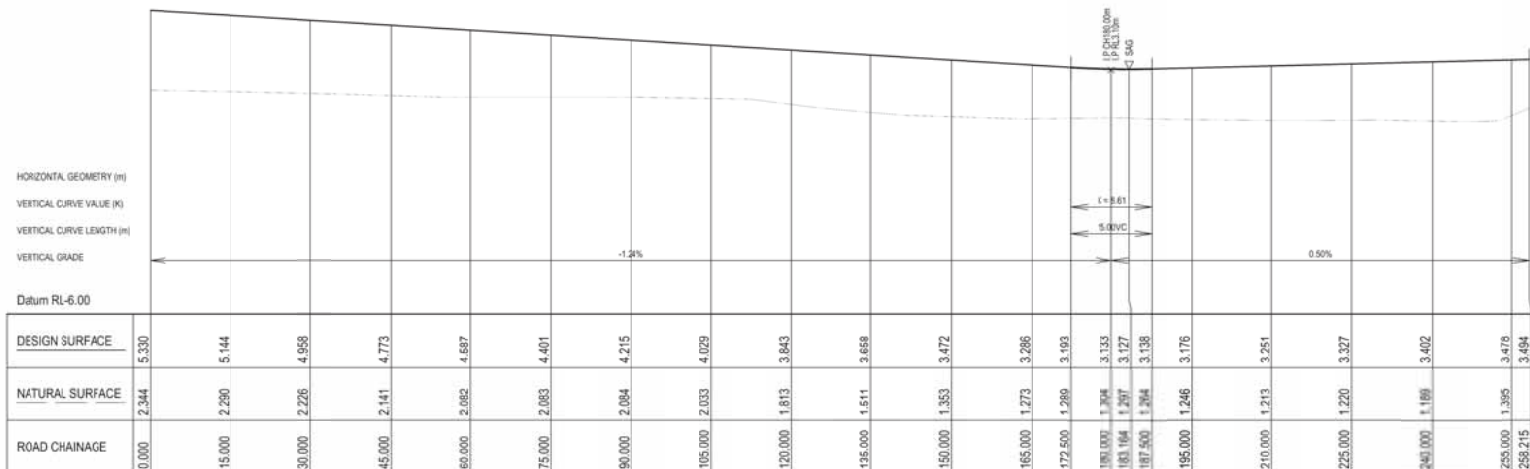
Drawn	Date	Scale	At	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 9.1	C		

NOT FOR CONSTRUCTION



RD02 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD03 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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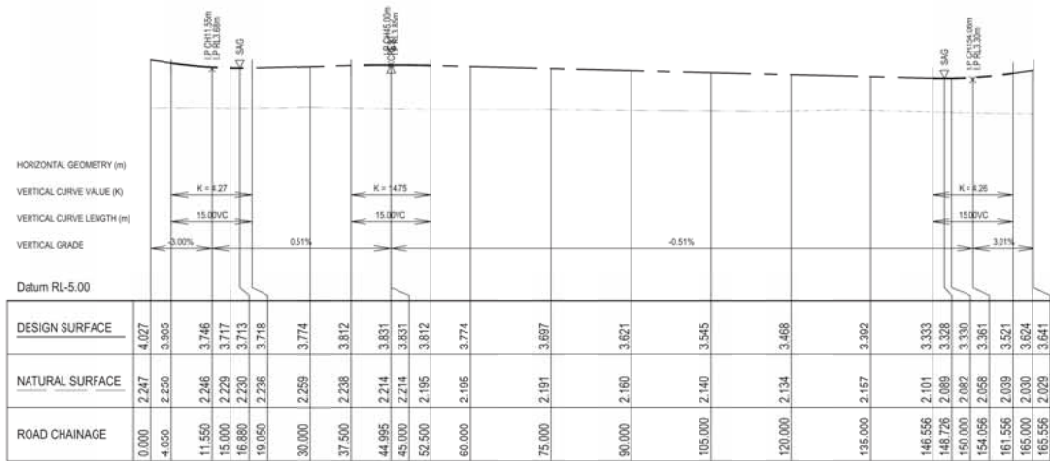
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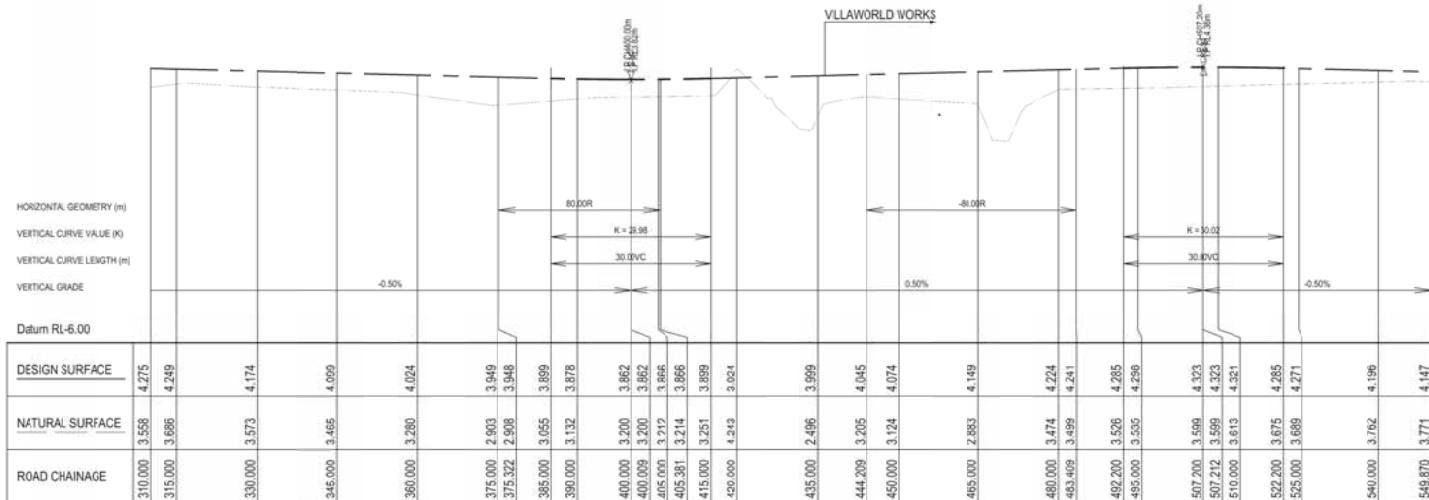
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD LONGITUDINAL SECTIONS

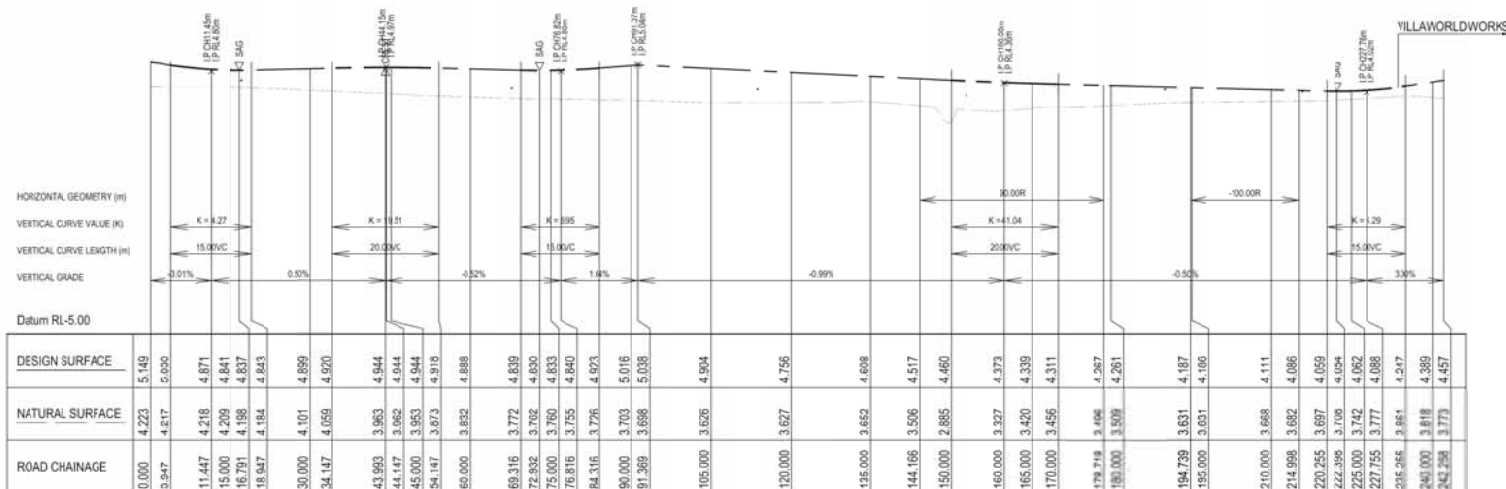
Drawn	Date	Scale	At	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sup. No.	Issue		
SJO	NE160352	FIG 9.2	C		





RD05 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD06 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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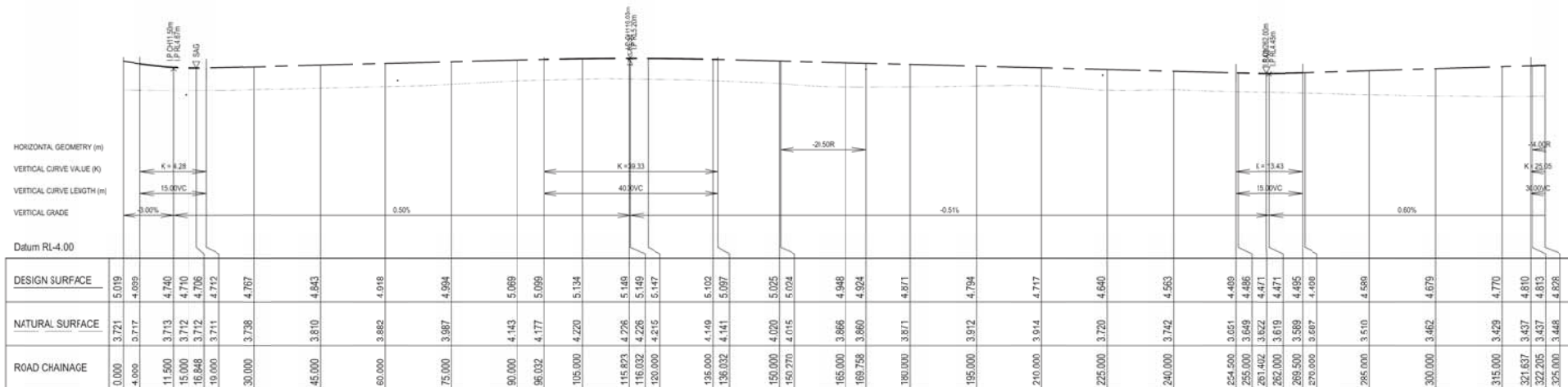
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD LONGITUDINAL SECTIONS

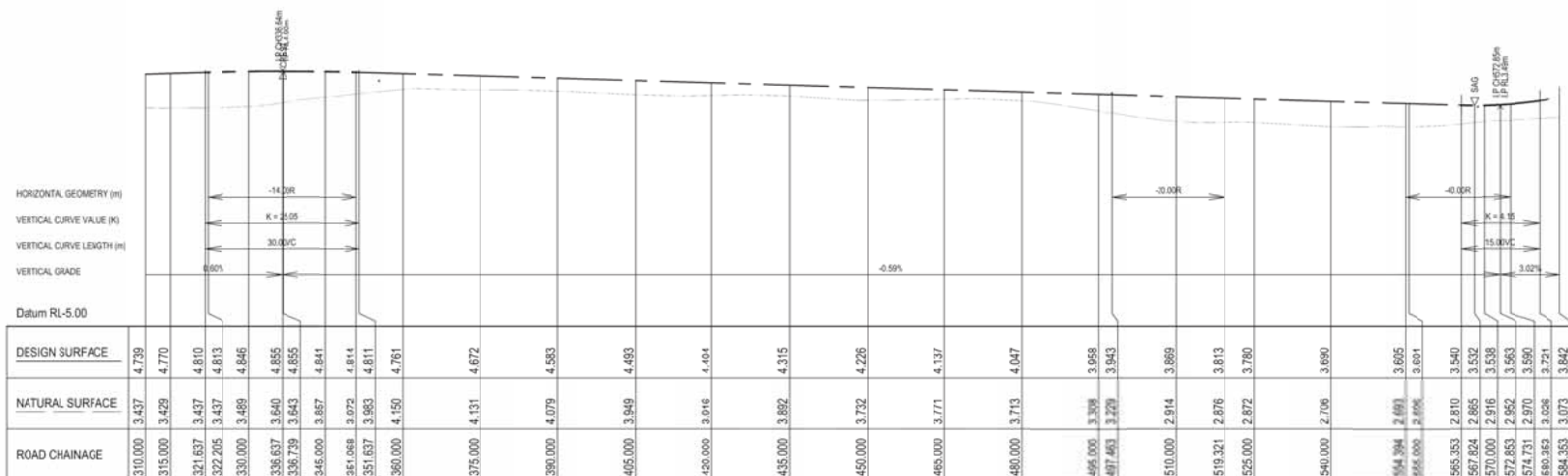
Drawn	Date	Scale	At	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 9.4	C		

NOT FOR CONSTRUCTION



RD07 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD07 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS

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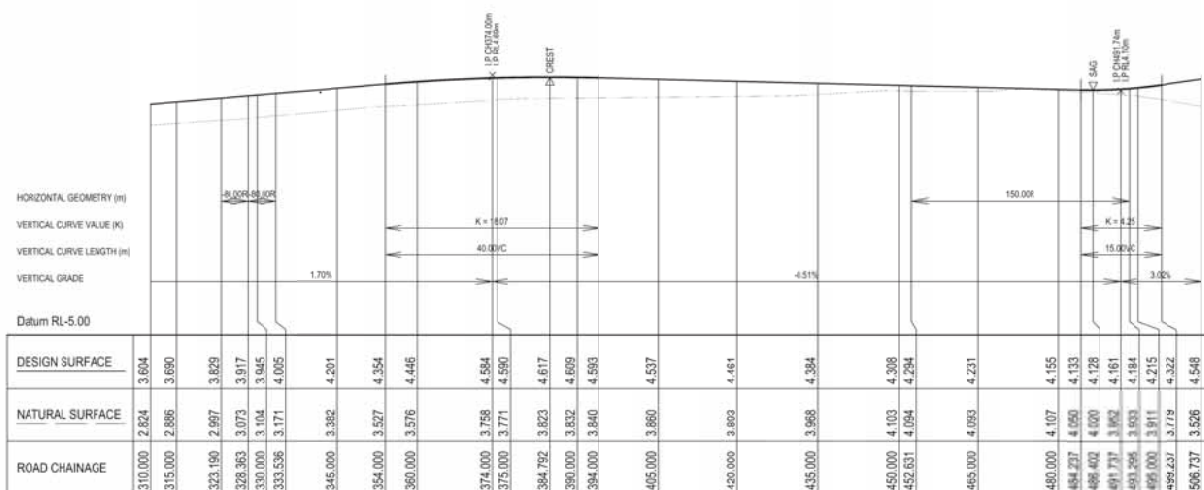
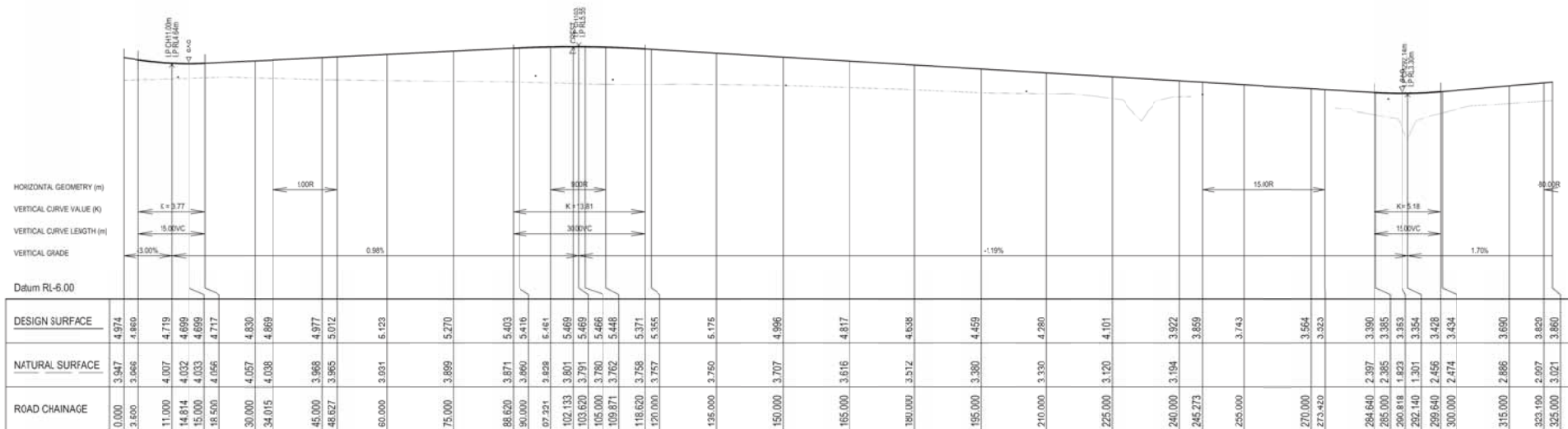
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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
ROAD LONGITUDINAL SECTIONS

Drawn	Date	Scale	A1	S/A Drawn	Date
JER	SEPT 017	AS SHOWN			
Designed	Project No.	Sup No.	Issue		
SJO	NE160352	FIG 9.5	C		

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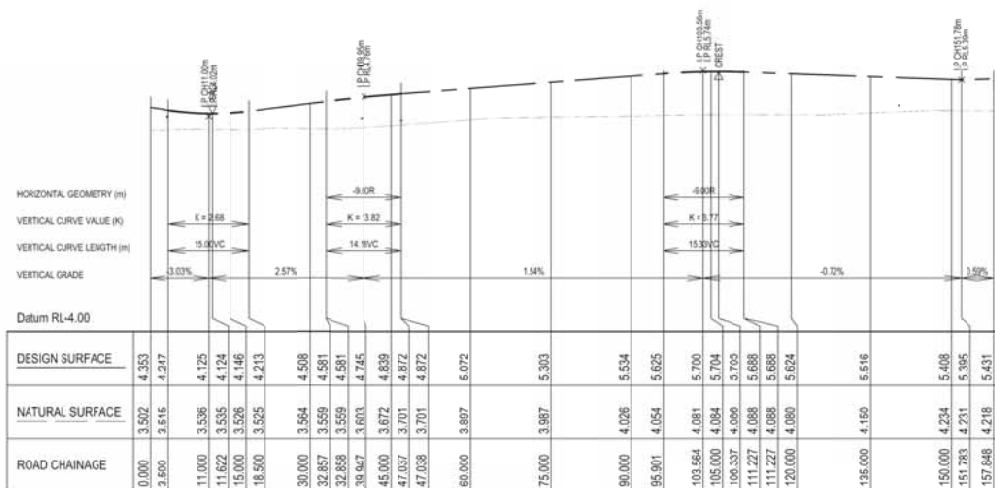
**WEST BYRON URBAN RELEASE AREA
 DEVELOPMENT APPLICATION**

Drawing Title

ROAD LONGITUDINAL SECTIONS

Drawn	Date	Scale	Alt	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 9.6	C		

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RD14 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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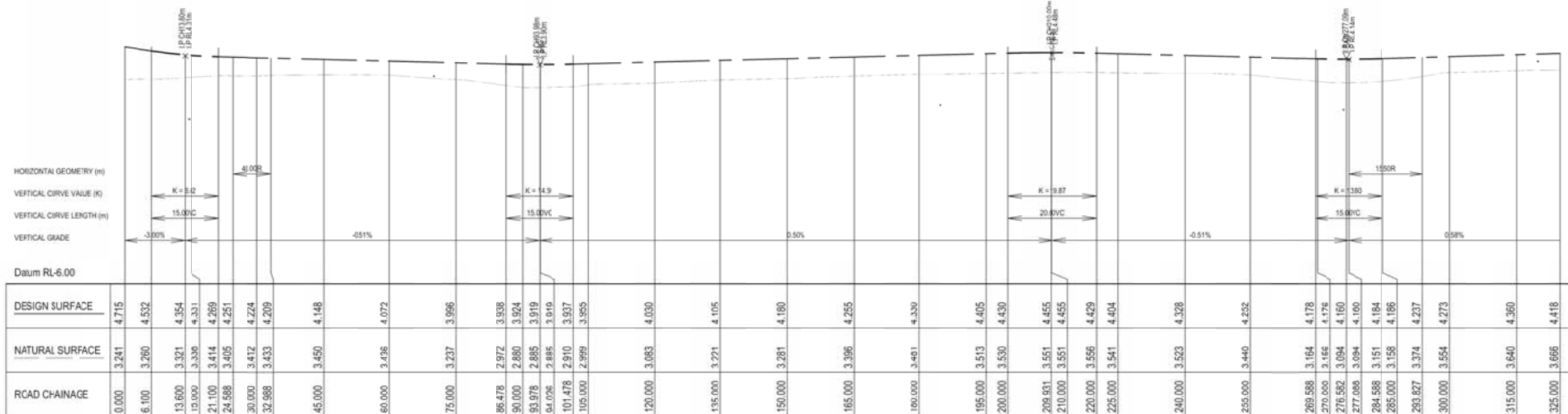
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD LONGITUDINAL SECTIONS

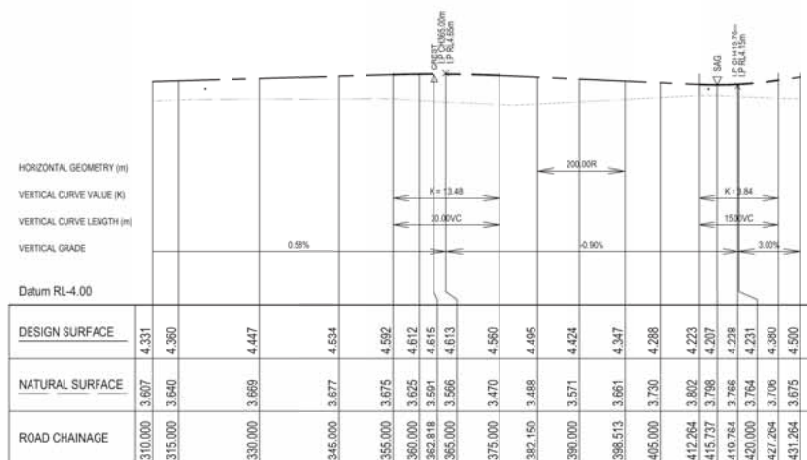
Drawn	Date	Scale	At	S/A Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 9.9	C		

NOT FOR CONSTRUCTION



RD15 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



RD16 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



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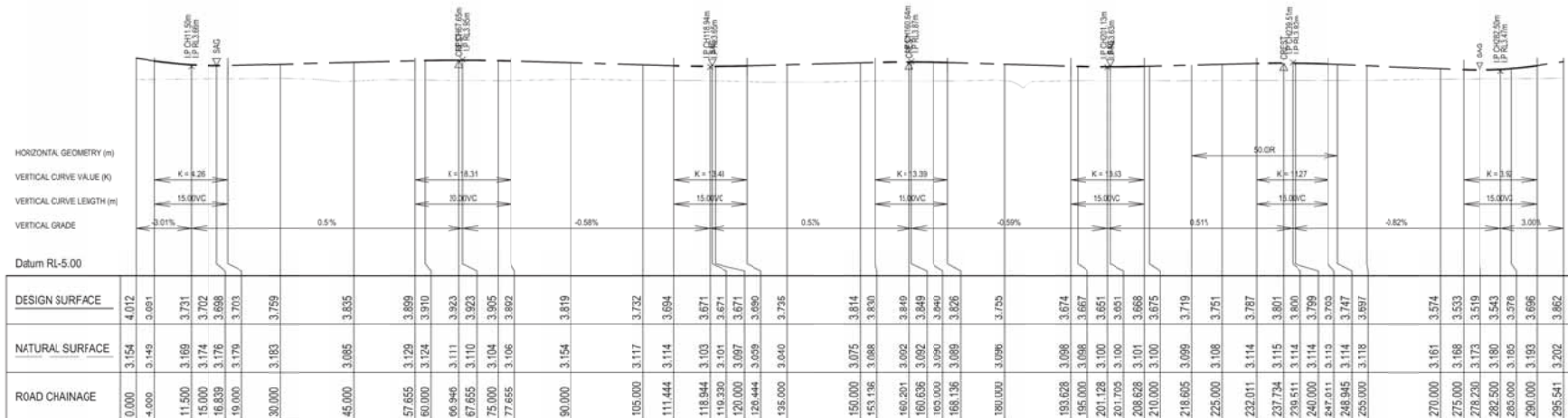
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD LONGITUDINAL SECTIONS

Drawn	Date	Scale	At	S/A Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG9.10	C		

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RD17 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS

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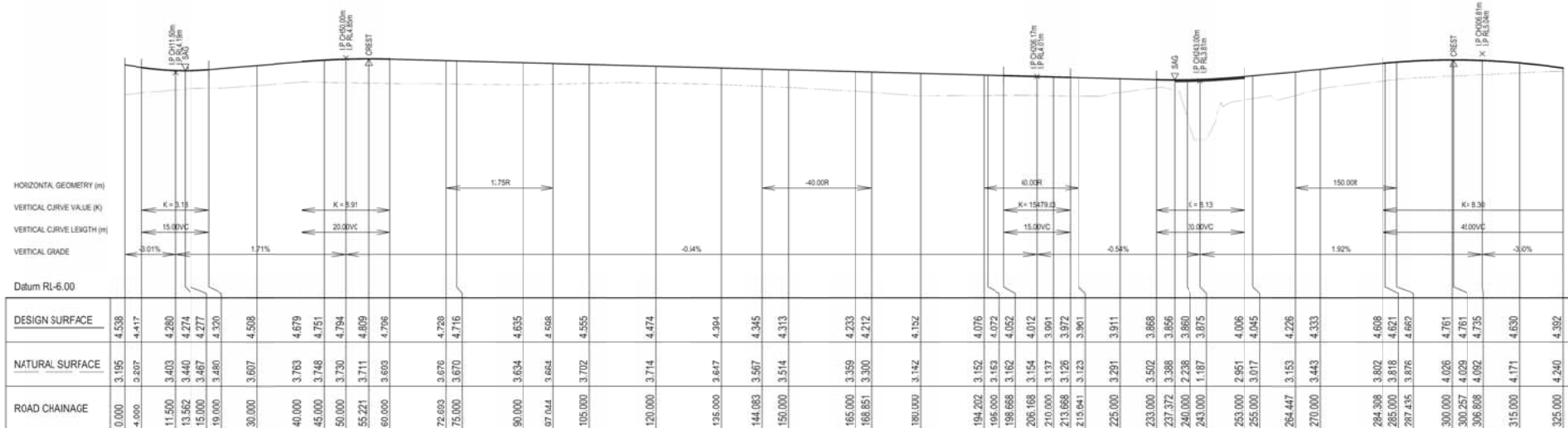
Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

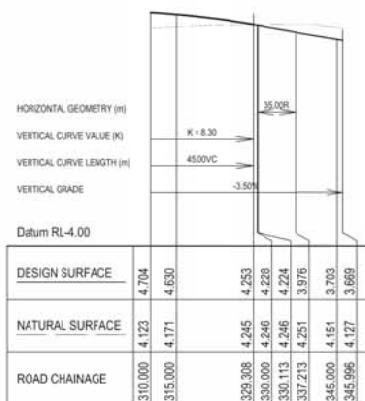
ROAD LONGITUDINAL SECTIONS

Drawn	Date	Scale	A1	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG9.11	C		



RD22 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD22 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS
Issue	Description	Date	Drawn	Approved

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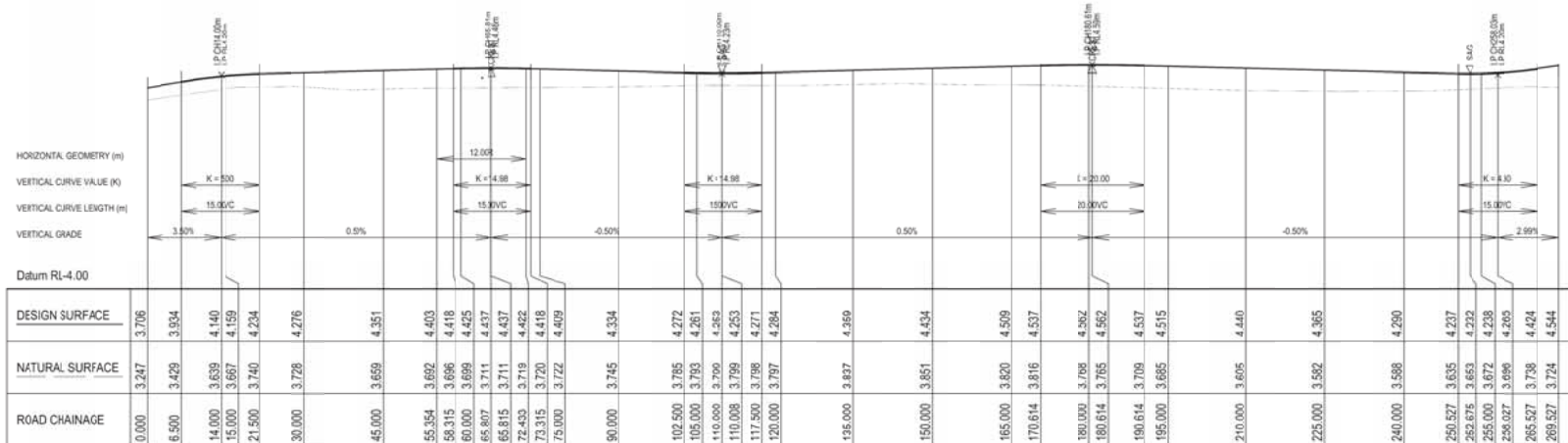
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Drawing Title

ROAD LONGITUDINAL SECTIONS

Drawn	Date	Scale	A1	S.A. Drawn	Date
JER	SEPT 2017	AS SHOWN			
Designed	Project No.	Sheet No.	FIG	Issue	
SJO	NE160352	FIG 9.14		C	

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RD25 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100

SCALE 1:500 @ A1
SCALE 1:100 @ A3
SCALE 1:100 @ A1
SCALE 1:200 @ A3

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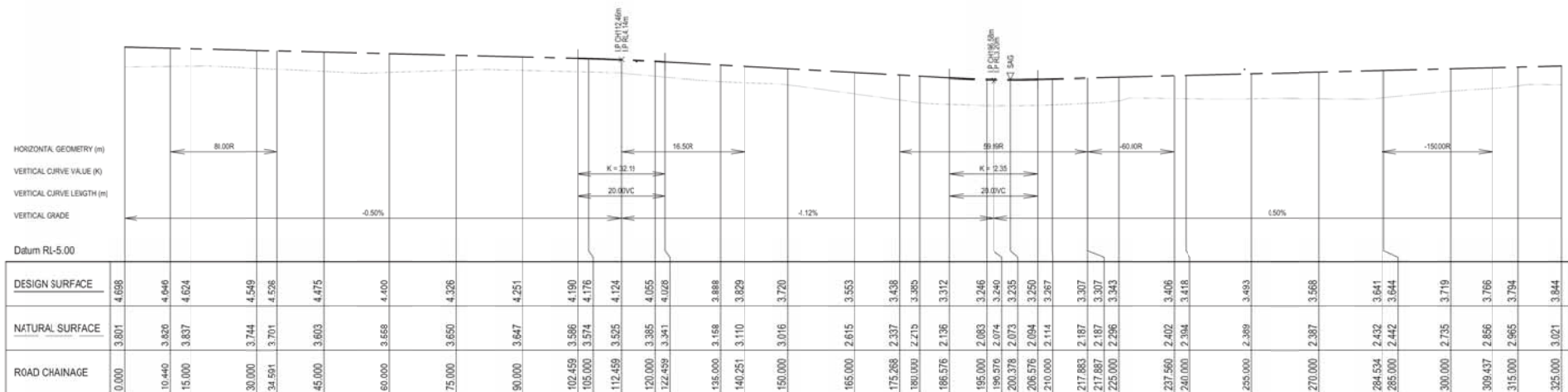
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD LONGITUDINAL SECTIONS

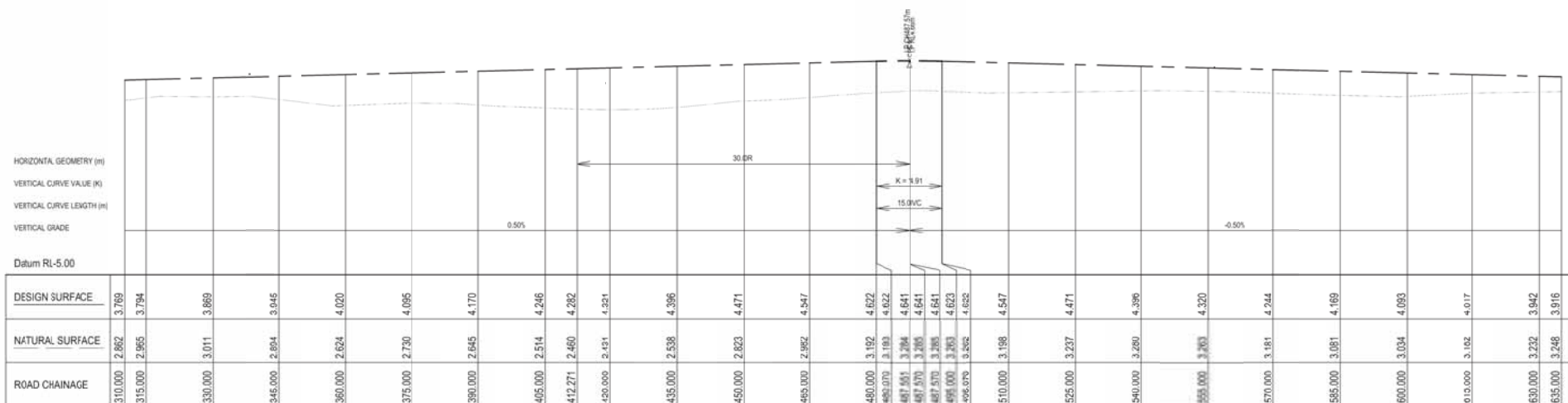
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JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG9.17	C		

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RD27 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD27 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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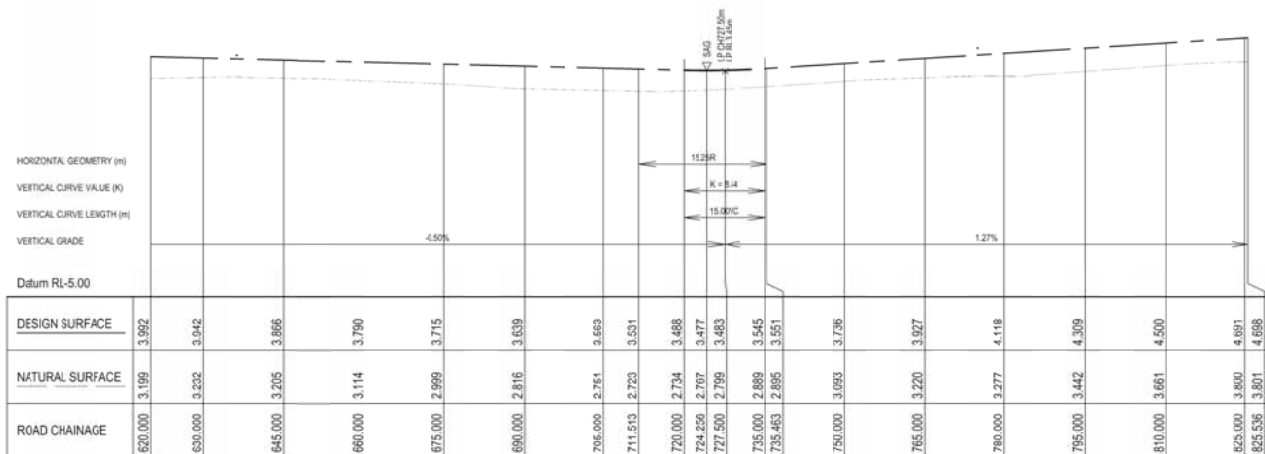
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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
ROAD LONGITUDINAL SECTIONS

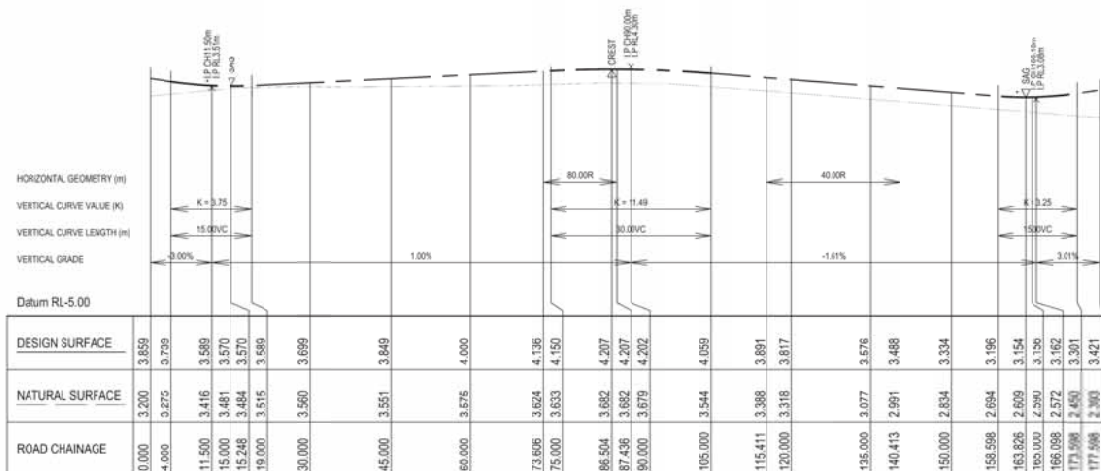
Drawn	Date	Scale	At	S.A. Check	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sup. No.	Issue		
SJO	NE160352	FIG 9.18	C		

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RD27 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



RD28 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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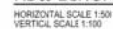
West Byron Urban Release Area Development Application

Drawing Title

ROAD LONGITUDINAL SECTIONS

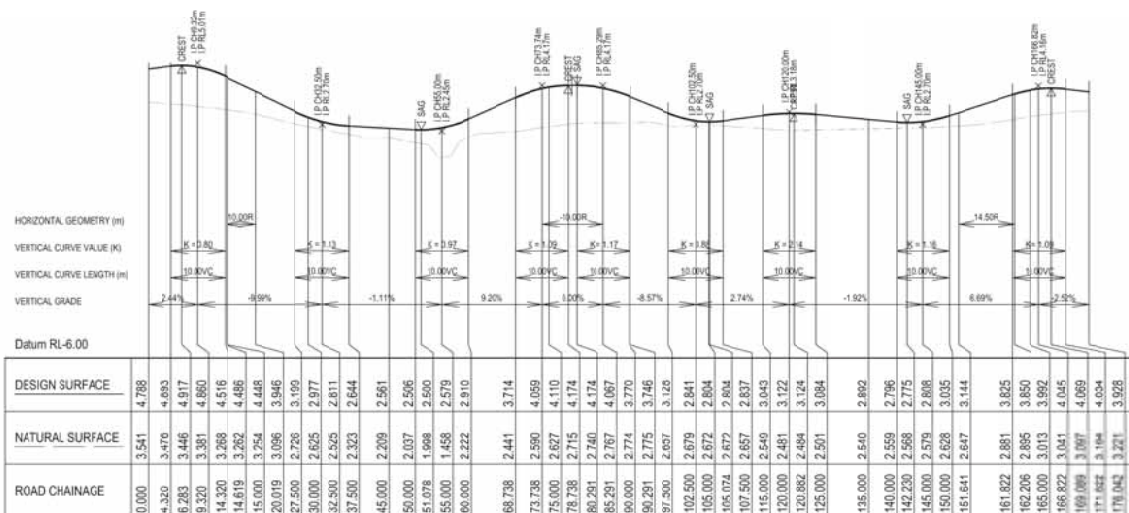
Drawn	Date	Scale	At	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheets No.	Issue		
SJO	NE160352	FIG 9.19	C		

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Drawn JER	Date SEPT 10 17	Scale AS SHOWN	At G.A. Check	Dr D
Designed SJO	Project No. NE160352	Dep. No. FIG 9.20	Mr	

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FA1 LONGITUDINAL SECTION

HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



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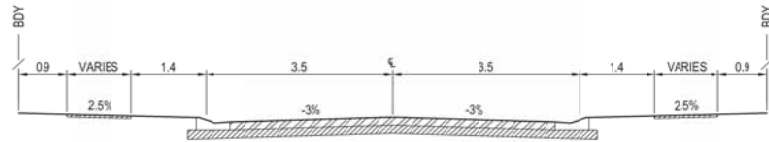
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD LONGITUDINAL SECTIONS

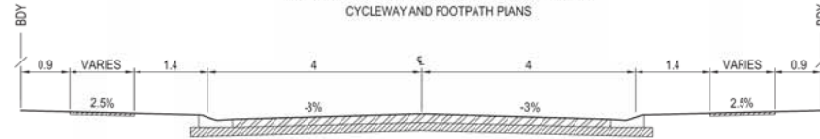
Drawn	Date	Scale	Alt	S/A Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG9.21	C		

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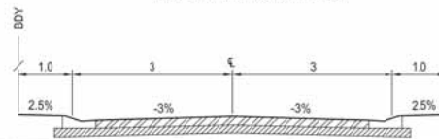
7m ACCESS ROAD TYPICAL SECTION
ROADS - 4, 10, 13, 18, 20, 22, 26, 28 AND 29

SCALE 1:50
FOR FOOTWAY WIDTH AND FOOTPATH TYPES REFER TO
CYCLEWAY AND FOOTPATH PLANS



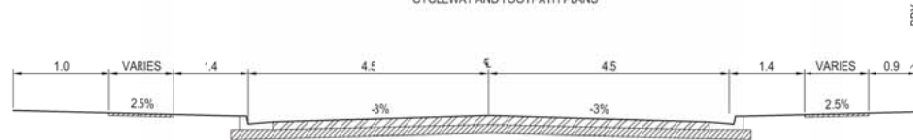
6m ACCESS ROAD TYPICAL SECTION
ROADS - 1, 7, 8, 16, 17, 22, 23, 25 AND 27

SCALE 1:50
FOR FOOTWAY WIDTH AND FOOTPATH TYPES REFER TO
CYCLEWAY AND FOOTPATH PLANS



6m LANE ROAD TYPICAL SECTION
ROADS - 11, 12, 14, 19 AND 21

SCALE 1:50
FOR FOOTWAY WIDTH AND FOOTPATH TYPES REFER TO
CYCLEWAY AND FOOTPATH PLANS



3m LOCAL ROAD TYPICAL SECTION
ROADS - 7 AND 16

SCALE 1:50
FOR FOOTWAY WIDTH AND FOOTPATH TYPES REFER TO
CYCLEWAY AND FOOTPATH PLANS

SCALE 1:50 @ A1
SCALE 1:10 @ A3

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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS

Client
WEST BYRON



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Project

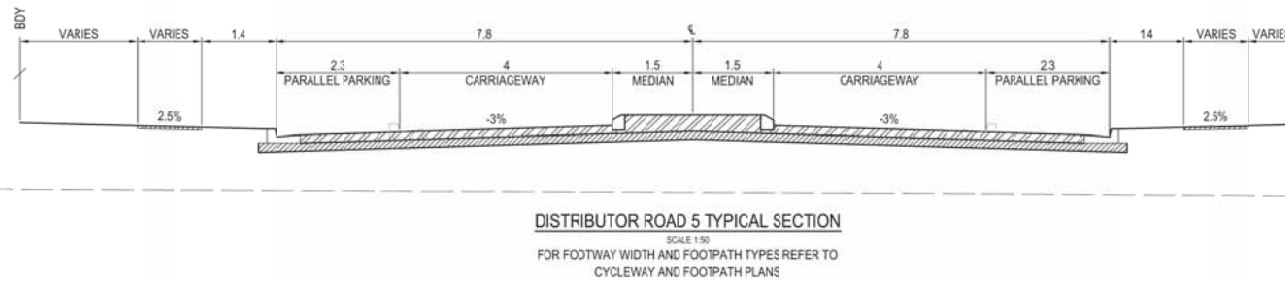
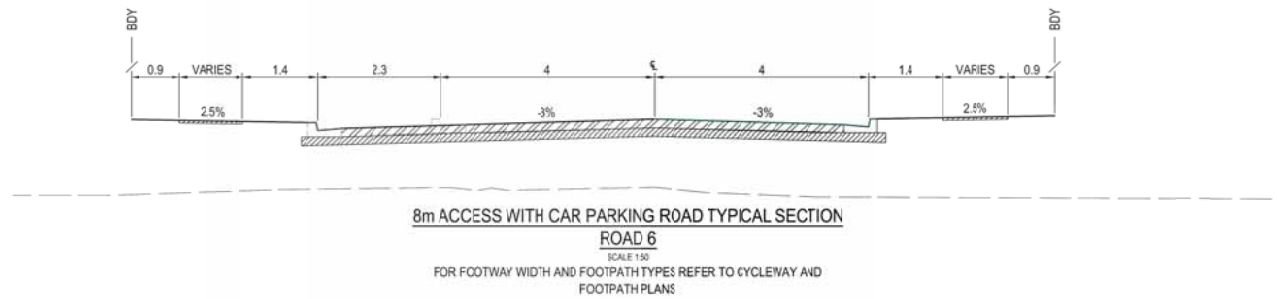
**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title

ROAD TYPICAL CROSS SECTIONS

Drawn	Date	Scale	At	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 10.1	C		

NOT FOR CONSTRUCTION



SCALE 1:50 @ A1
SCALE 1:10 @ A3

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B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS

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Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

ROAD TYPICAL CROSS SECTIONS

Drawn	Date	Scale	At	S.A. Drawn	Date
JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 10.2	C		

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Project: WEST BYRON URBAN RELEASE AREA DEVELOPMENT APPLICATION, Drawing: ROAD TYPICAL CROSS SECTIONS, Scale: AS SHOWN, Date: 22.08.18, Drawn: SJC, Checked: RNS, Issued: RNS

TC 1747 613

NGSDALE



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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawn/Title	Date	Scale	Rev	Rev	Date
JER	SEPT 1017	N.T.S			
Design	Project No	Draw No	Issue		
SJO	NE160352	FIG11	C		

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LEGEND

4.0m WIDE FIRE ACCESS

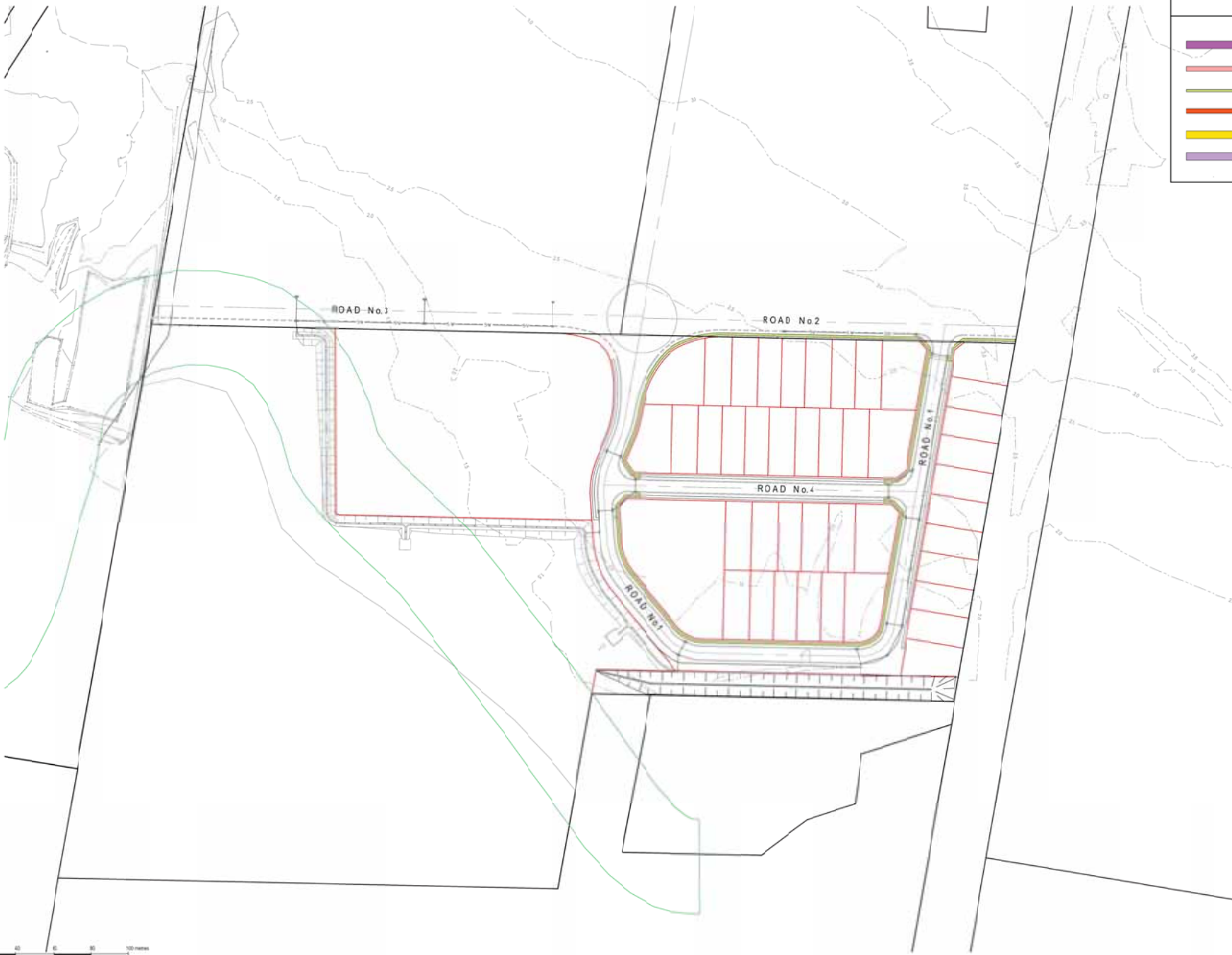
2.5m WIDE SHARED PATHWAY

1.2m WIDE FOOTPATH

1.8m WIDE FOOTPATH

B1 ZONE FOOTWAY

SHARED ZONE



SCALE 1:100 @ A1
SCALE 1:200 @ A3

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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawn	Date	Scale	A1	G.A. Draw	Date
JER	SEPT 1017	1:1000			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 12.1	C		

NOT FOR CONSTRUCTION

Cycleways and Pathways Plans



LEGEND

- 4.0m WIDE FIRE ACCESS
- 2.5m WIDE SHARED PATHWAY
- 1.2m WIDE FOOTPATH
- 1.8m WIDE FOOTPATH
- B1 ZONE FOOTWAY
- SHARED ZONE

SCALE 1:1000 @ A1
SCALE 1:2000 @ A3

DRAWING SHEET 13 ADJOINS

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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title	CYCLEWAYS AND PATHWAYS PLANS
---------------	------------------------------

Drawn JER	Date SEPT 10 17	Scale 1:1000	A1	G.A. Chao	Date
Designed SJO	Project No. NE160352	Draw. No. FIG 12.2			

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SCALE 1:100 @ A1
SCALE 1:200 @ A3

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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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Project

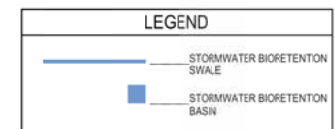
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

CYCLEWAYS AND PATHWAYS PLANS

Drawn	Date	Scale	Alt	S.A. Drawn	Date
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Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 12.3	C		

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Client
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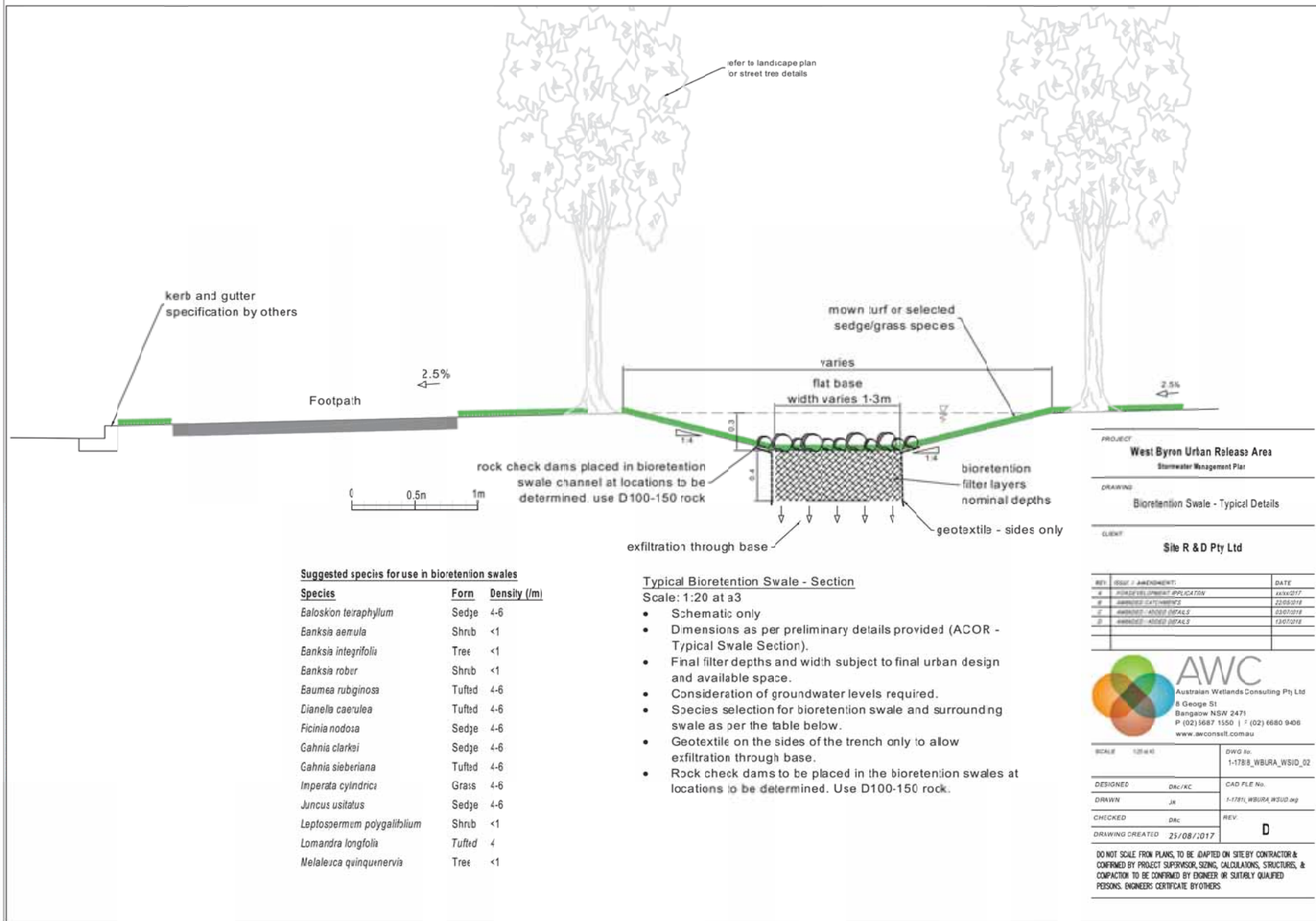


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Grassy/Turf
GRASSSED SWALE AT PERIMETER
ROAD

Drawn JER	Date SEPT 10 17	Scale 1:100	A1	G.A. Check	D
Designed SJO	Project No. NE160352	Drawn By	FIG 13		

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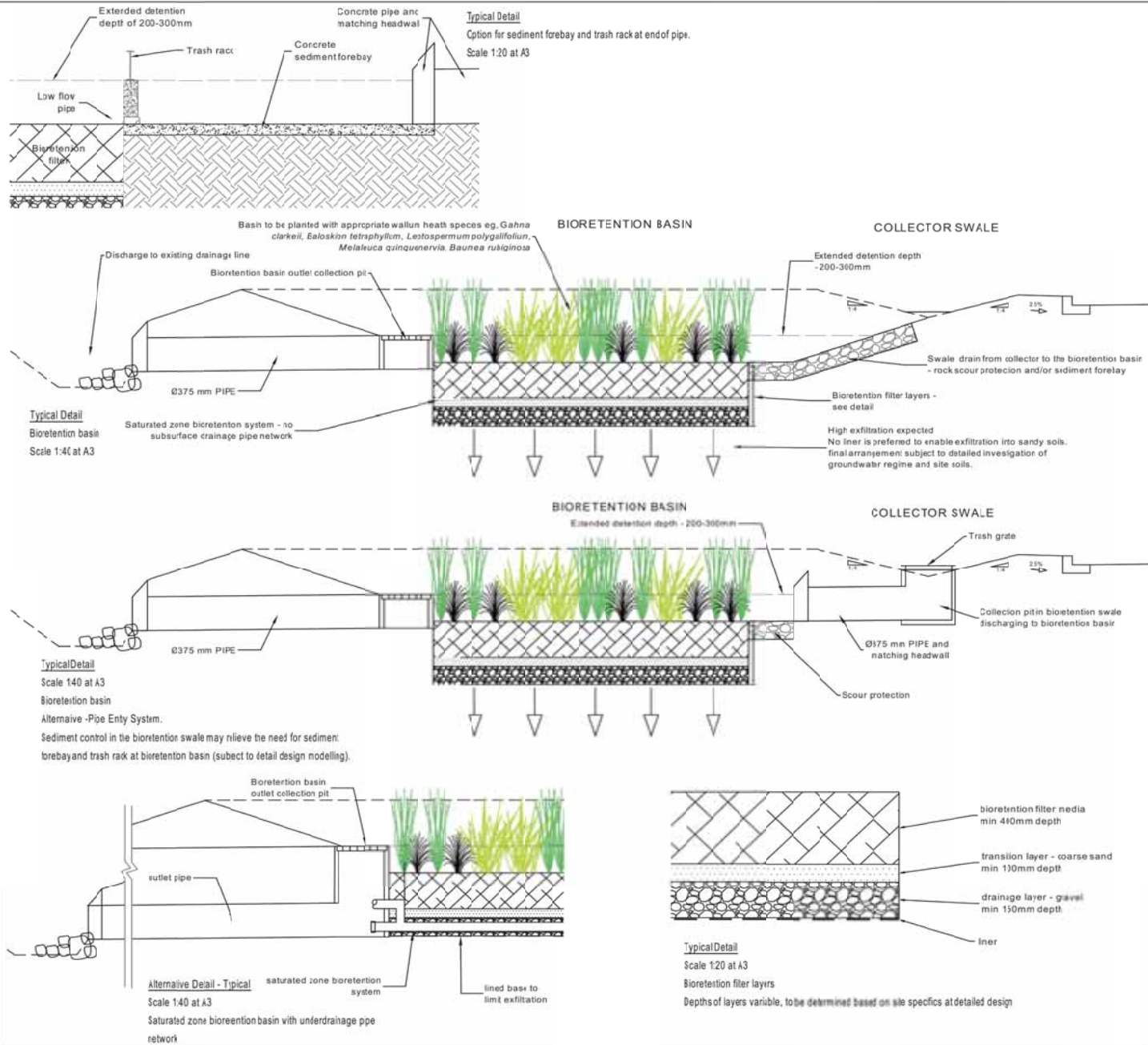
Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
BIORETENTION SWALE

Drawn	Date	Scale	AT	S/A Drawn	Date
JER	SEPT 2017	N.T.S			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 14.1	A		

NOT FOR CONSTRUCTION



Suggested species for use in bioretention basins

Species	Form	Density (/m)
<i>Baloskion tetraphyllum</i>	Sedge	4-6
<i>Banksia aemula</i>	Shrub	<1
<i>Banksia integrifolia</i>	Tree	<1
<i>Banksia robur</i>	Shrub	<1
<i>Baumea rubiginosa</i>	Tufted	4-6
<i>Danellia caerulea</i>	Tufted	4-6
<i>Fimbristylis diandra</i>	Sedge	4-6
<i>Gahnia clarkei</i>	Sedge	4-6
<i>Gahnia sieberiana</i>	Tufted	4-6
<i>Imperata cylindrica</i>	Grass	4-6
<i>Juncus usitatus</i>	Sedge	4-6
<i>Leptospermum polygalifolium</i>	Shrub	<1
<i>Lomandra longifolia</i>	Tufted	4

PROJECT

West Byron Urban Release Area
Stormwater Management Plan

DRAWING

Bioretention Basin - Typical Details

CLIENT

Site R & D Pty Ltd

REV	DESCRIPTION	DATE
1	ISSUED FOR CONSTRUCTION APPLICATION	14/01/17
2	AMENDMENT - CLIMATE CHANGE	22/05/18
3	AMENDMENT - ASSET DETAILS	23/07/18



AWC
Australian Wetlands Consulting Pty Ltd
8 George St
Bangalore NSW 2471
P (02) 5687 1550 | F (02) 6680 9406
www.awcconsult.com.au

SCALE	1:100 (A3)	DWG No.	1-1781_WBURA_WS100_03
DESIGNED	DAC/KC	CAD FILE No.	1-1781_WBURA_WS100.dwg
DRAWN	JR	CHECKED	DAC
DRAWING CREATED	25/08/2017	REV.	B

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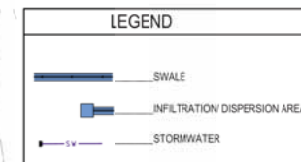
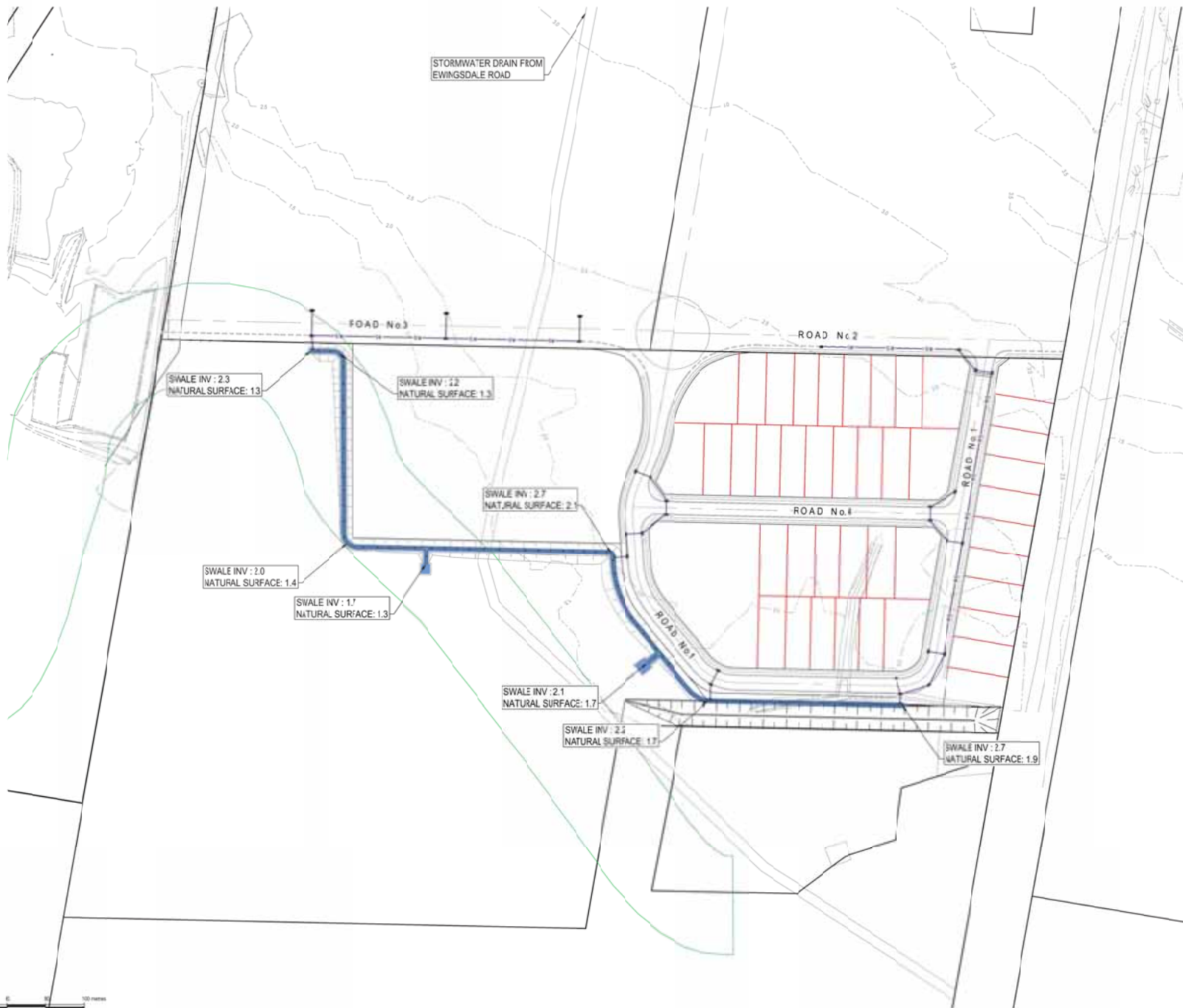
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

BIORETENTION BASIN

Drawn	Date	Scale	AT	S/A Drawn	Date
JER	SEPT 1017	N.T.S			
Designed	Project No.	Sup. No.	FIG	Issue	
SJO	NE160352		FIG 14.2	A	

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SCALE 1:100 @ A1
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D	RE-ISSUED FOR DA	13.07.18	BJC	RNS
C	RE-ISSUED FOR DA	26.06.17	SJO	RNS
B	ISSUED FOR DEFORMATION	08.09.17	JER	RNS



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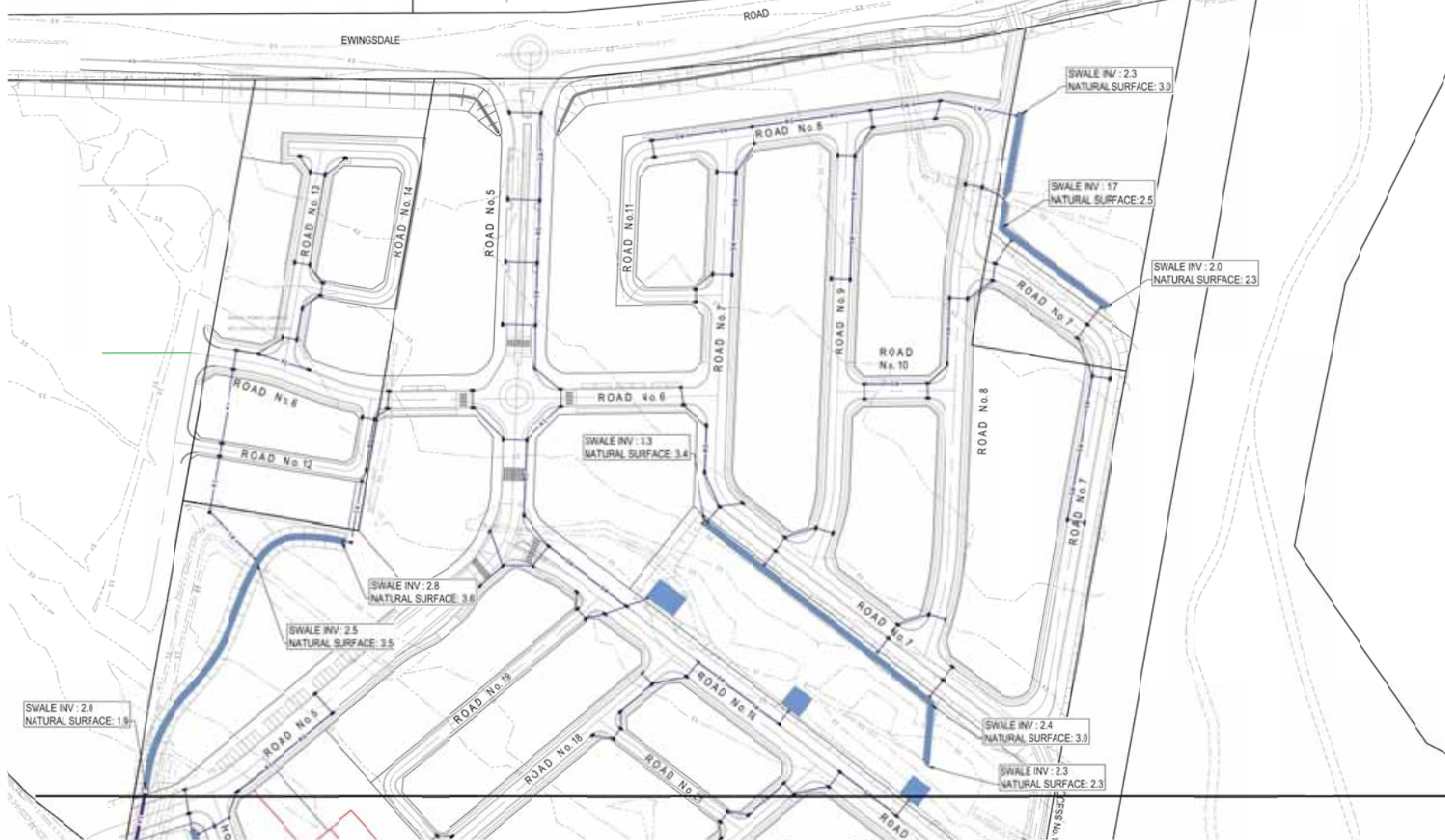
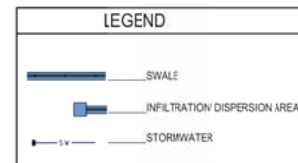
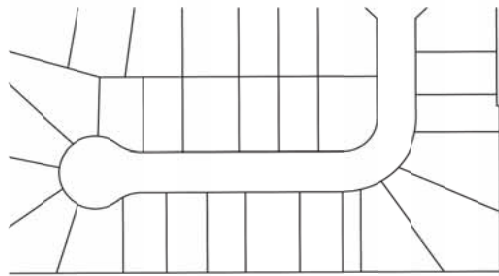
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

STORMWATER INFRASTRUCTURE

Drawn	Date	Scale	A1	S.A. Drawn	Date
JER	SEPT 2017	1:1000			
Designed	Project No.	Sheets No.	FIG	Issue	
SJO	NE160352		FIG 15.1	E	

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SCALE 1:100 @ A1
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DRAWING SHEET 3 ADJOINS

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C	RE-ISSUED FOR DA	11.10.17	SJC	WWS
B	ISSUED FOR DA	26.09.17	JER	WWS
A	ISSUED FOR INFORMATION	07.09.17	JER	WWS



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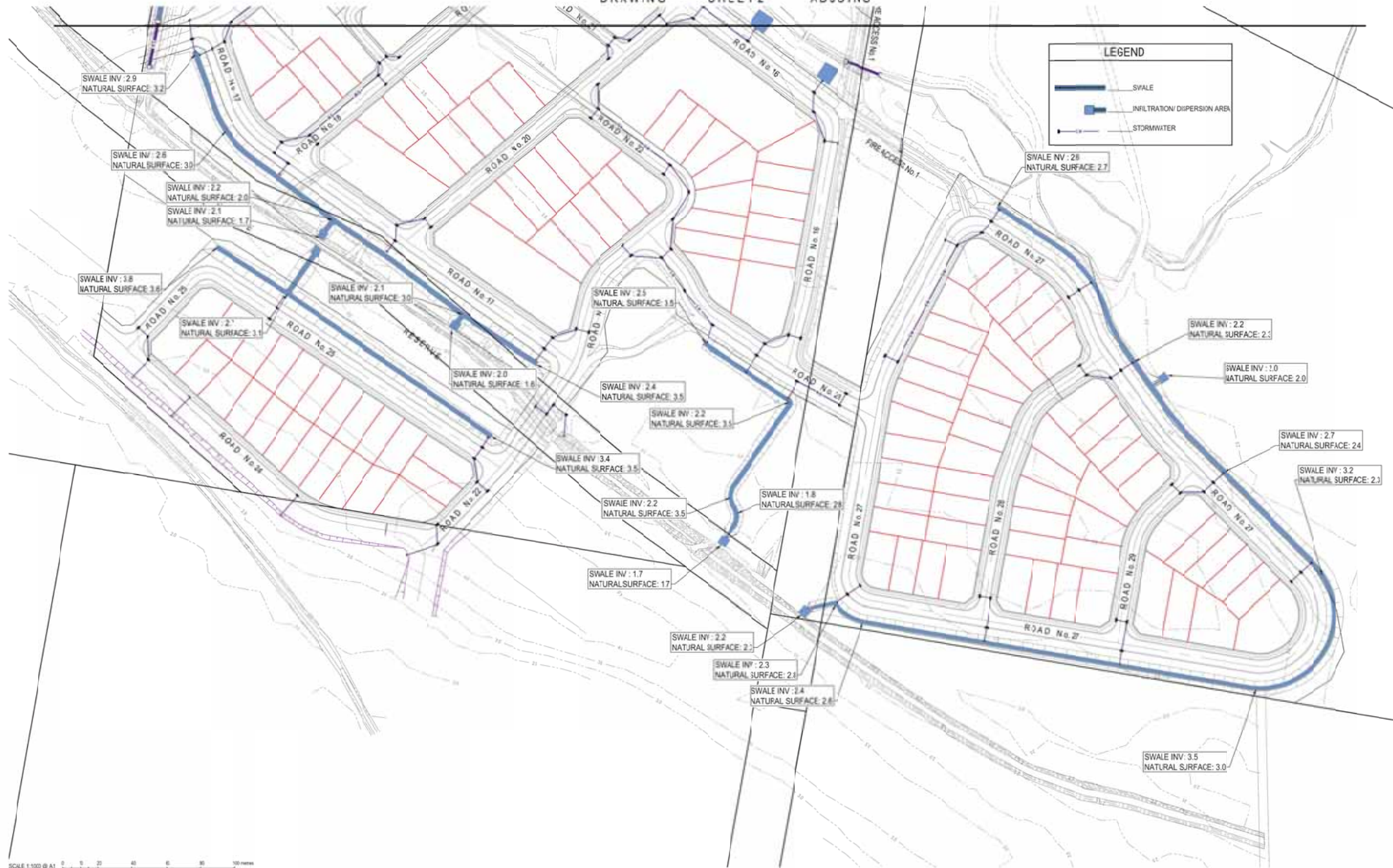


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Project
WEST BYRON URBAN RELEASE AREA
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JER	SEPT 1017	1:1000			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 15.2	D		

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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawn	Date	Scale	A1	G.A. Draw	Date
JER	SEPT 2017	1:1000			
Designed	Project No.	Sheet No.	Fig No.	Issue	Date
SJO	NE160352		FIG 15.3	E	

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SCALE 1:500 @ A1
SCALE 1:400 @ A0

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D	ISSUED FOR DA	30.10.17	SJO	WNO	WNO
C	ISSUED FOR DA	11.10.17	SJO	WNO	WNO
B	ISSUED FOR DA	28.08.17	JER	WNO	WNO



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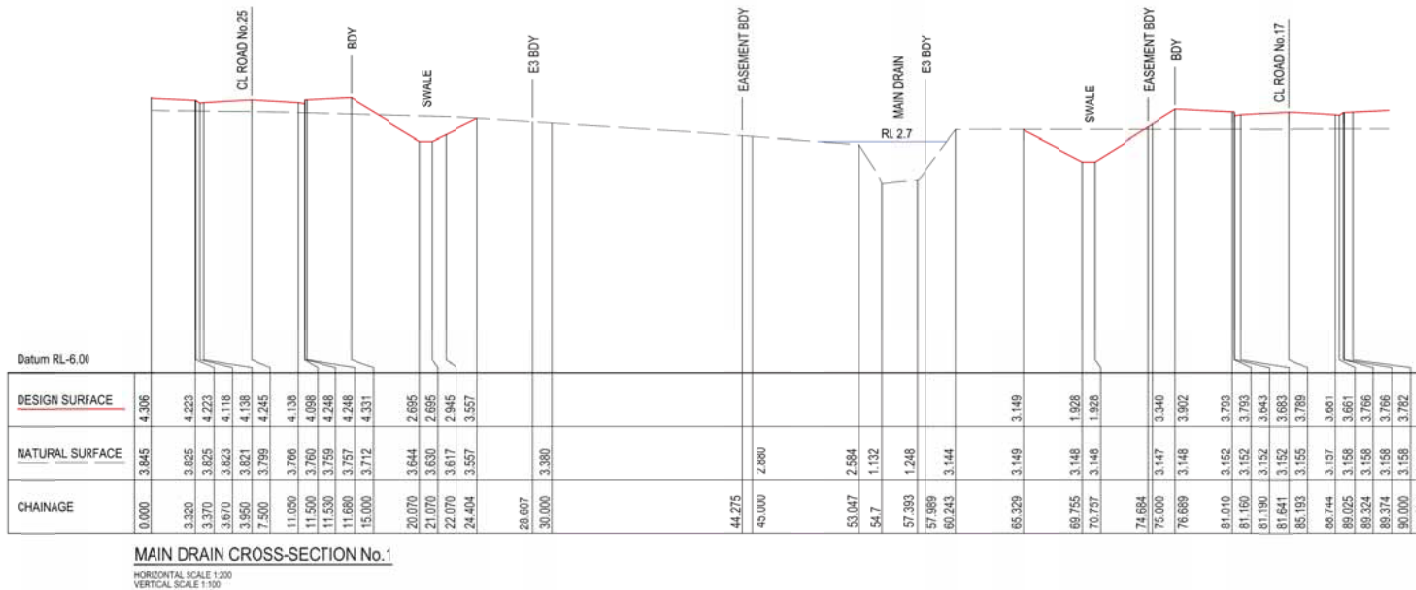
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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

MAIN DRAIN PLAN

Drawn	Date	Check	Rev	Scale	Date
JER	SEPT 017	AS SHOWN			
Drawn					
SJO	NE160352	FIG 16.1			E

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SCALE 1:200 @ A1
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SCALE 1:100 @ A1
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JER	SEPT 1017	AS SHOWN			
Designed	Project No.	Sheet No.	FIG	Issue	
SJO	NE160352	FIG 16.2	B		

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West Byron Land Alliance
Water/Sewer/Reuse Infrastructure



Legend

- Reuse Water Pump Stations
- Reuse Water Monitor Stations
- Reuse Water Valves
- Reuse Water Flowmeters
- Reuse Water Mains
- Water Pump Stations
- Water Reservoirs
- Water Hydrants
- Water Valves
- Air Valve
- Boundary Valve
- Pressure Reduction Valve
- Solar Valve
- Stop Valve
- Water Flowmeters
- Watermains
- Active Watermain
- Abandoned Watermain
- Rues Watermains
- Home Dialysis Properties
- Sewer Outfall
- Sewer Manholes
- Sewer Junctions
- Sewer Pressure Boundary R/S
- Sewer Pressure Mains
- Sewer Vacuum Valves
- Sewer Vacuum Pots
- Sewer Vacuum Mains
- Sewer Gravity Valves
- Sewer Gravity Mains
- Active Gravity Main
- Abandoned Gravity Main
- Private Gravity Main
- ETD
- Land Parcels (-150x)
- Bushed Zone Labels (-150)
- Bushed Water Pressure Zones
- Coloured WPS
- Polders WPS
- Stormwater WPS
- Pathway WPS
- Turgence WPS
- Tolerant WPS
- Microbiol WPS
- Yastia WPS
- APShire Sep 2009



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Scale = 1:4,350
Metres 100 200 300
(Scale correct at A3 size)

27/04/2015

SOURCE: BYRON SHIRE COUNCIL

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Issue	Description	Date	Drawn	Approved



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Drawn/Title	Date	Scale	Alt	S/A Draw	Date
JER	SEPT 2017	N.T.S			
Designed	Project No.	Sheet No.	Fig No.	Issue	
SJO	NE160352		FIG 17	C	

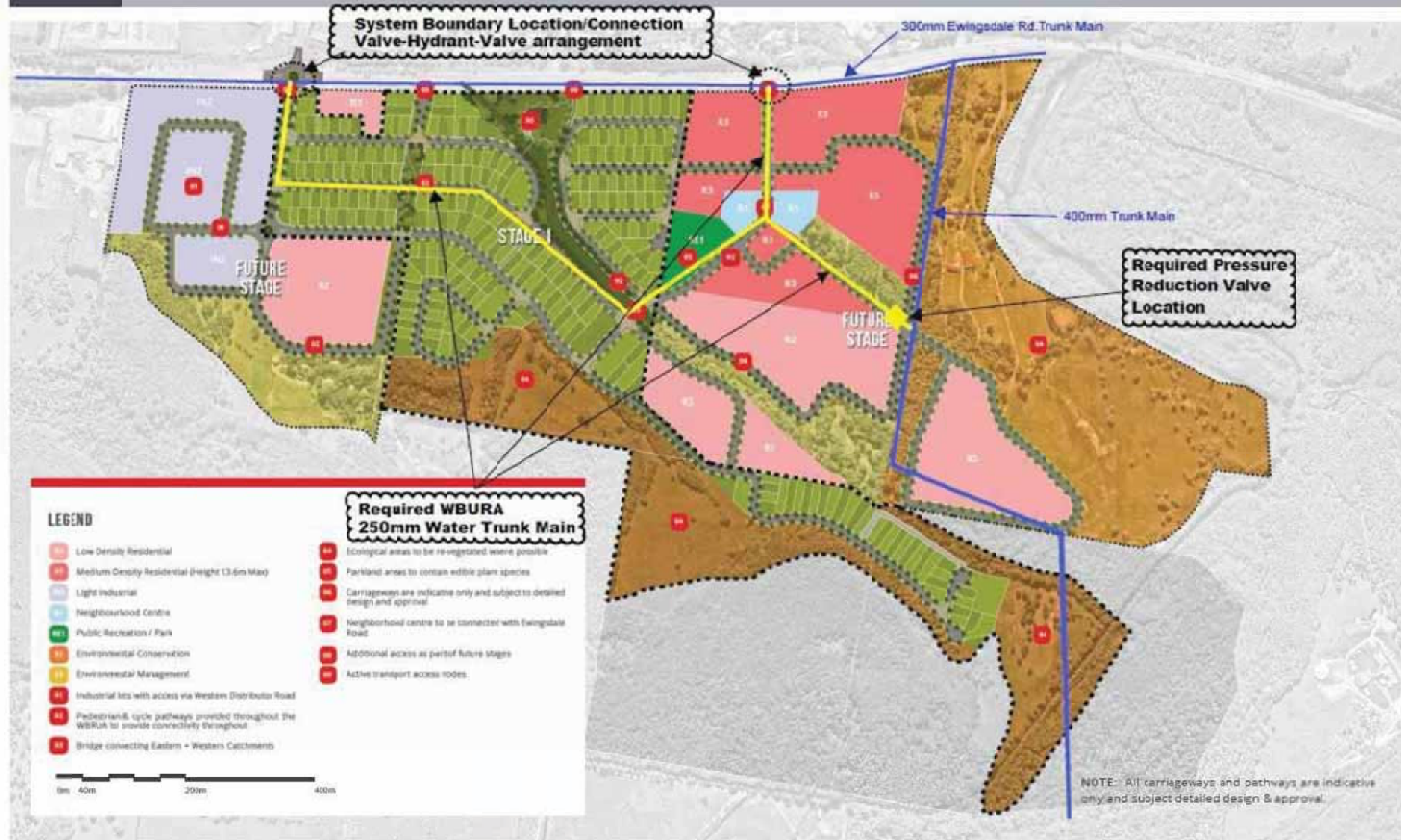
NOT FOR CONSTRUCTION

Project File Path: \\sbs\projects\160352\160352_017_17.dwg

WATER SUPPLY - TRUNK MAIN MASTER PLAN

WBURA

CONCEPT MASTERPLAN



04/05/2017

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A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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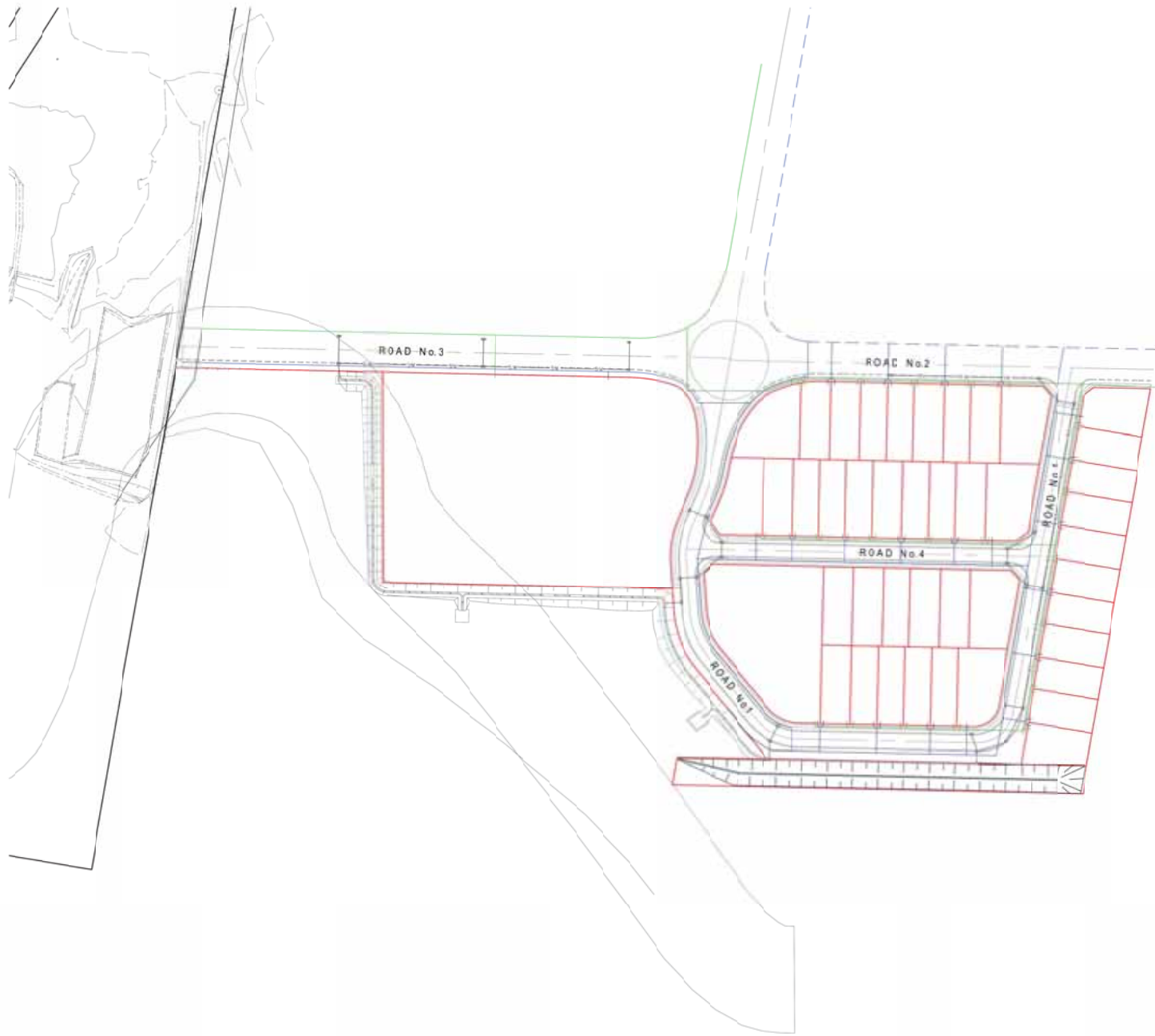


Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
**WATER SUPPLY TRUNK MAIN
MASTER PLAN**

Author	Date	Drawn	AT	S.A. Drawn	Date
JER	SEPT 017	N.T.S.			
Designer	Project No.	Sheet No.	FIG 18	Issue	C
SJC	NE160352				



LEGEND	
	DEPICTS 2 PIPES - PROPOSED WATER SUPPLY MAIN AND RECYCLED WATER MAIN
	PROPOSED SEWER MAIN

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Issue	Description	Date	Drawn	Approved
C	ISSUED FOR DA	22.08.18	JER	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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Project

**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title

HYDRAULIC INFRASTRUCTURE PLAN

Drawn	Date	Scale	A1	S/A Draw	Date
JER	SEPT 1017	1:1000			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 19.1	B		

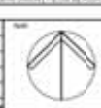
NOT FOR CONSTRUCTION



LEGEND	
	DEPICTS 2 PIPES - PROPOSED WATER SUPPLY MAIN AND RECYCLED WATER MAIN
	PROPOSED SEWER MAIN

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Issue	Descriptor	Date	Drawn	Reviewed
C	ISSUED FOR CA	22.08.18	JER	WNO
B	ISSUED FOR CA	26.09.17	JER	WNO
A	ISSUED FOR INFORMATION	07.09.17	JER	WNO



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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawn	Date	Scale	Alt	G.A. Drawn	Date
JER	SEPT 1017	N.T.S			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 19.2	B		

NOT FOR CONSTRUCTION

LEGEND

DEPICTS 2 PIPES - PROPOSED WATER
SUPPLY MAIN AND RECYCLED WATER MAIN

PROPOSED SEWER MAIN



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C	ISSUED FOR DA	22.08.18	JER	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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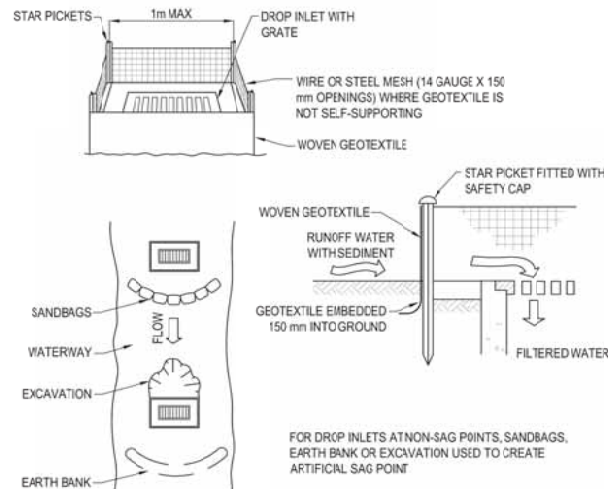
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Project
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title
HYDRAULIC INFRASTRUCTURE PLAN

Drawn	Date	Scale	Alt	S.A. Drawn	Date
JER	SEPT 1017	N.T.S			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 19.3	B		



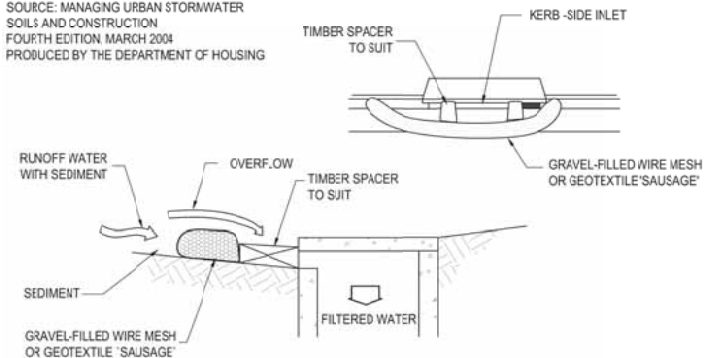
CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER FROM GEOTEXTILE OR STRAWBALES.
2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAWBALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1m CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER

TO SD6-12 LANDCOM - MANAGING URBAN STORMWATER
NOT TO SCALE

SOURCE: MANAGING URBAN STORMWATER
SOILS AND CONSTRUCTION
FOURTH EDITION MARCH 2004
PRODUCED BY THE DEPARTMENT OF HOUSING



CONSTRUCTION NOTES

1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH X 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING, LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET FILTER

TO SD6-11 LANDCOM - MANAGING URBAN STORMWATER
NOT TO SCALE

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Issue	Description	Date	Drawn	Approved
C	RE-ISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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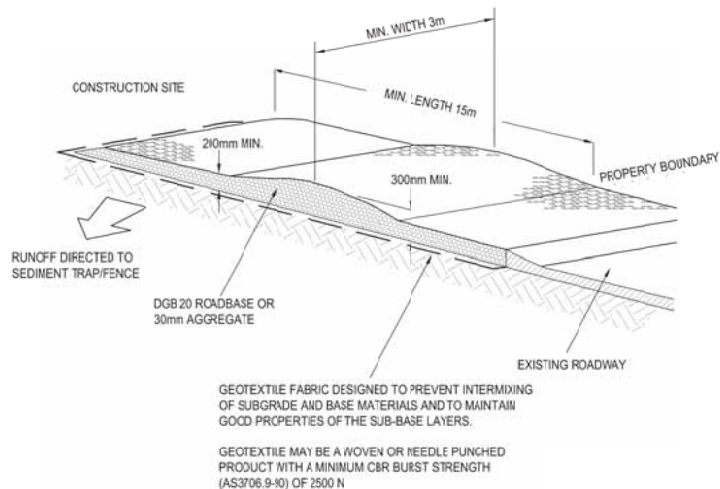
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

EROSION AND SEDIMENT CONTROL
DETAILS

Drawn	Date	Scale	Alt	S.A. Drawn	Date
JER	SEPT 1017	N.T.S			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 20	C		

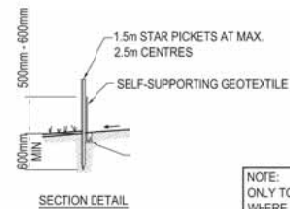
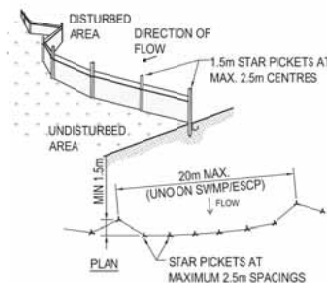
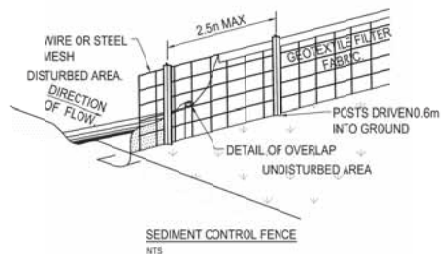
NOT FOR CONSTRUCTION



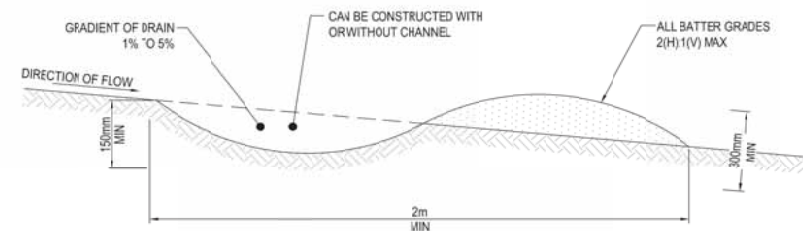
CONSTRUCTION NOTES:

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUB-GRADE.
2. COVER AREA WITH NEEDLE-PINCHED GEOTEXTILE.
3. CONSTRUCT 200MM THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30MM AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15m LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3m WDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

STABILISED SITE ACCESS - SD6-14



NOTE:
ONLY TO BE USED AS TEMPORARY BANK
WHERE MAXIMUM UPSLOPE LENGTH IS 80m.



CONSTRUCTION NOTES:

1. BUILD WITH GRADIENTS BETWEEN 1% AND 5%.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS NOT V SHAPED.
5. ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

EARTH BANK (LOW FLOW) SD 5-5

NOT TO SCALE

CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO 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 50L PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10 YR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.5m INTERVALS (MAX) AT THE DOWN SLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. 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.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THROUGHLY OVER THE GEOTEXTILE.

SEDIMENT CONTROL FENCE - SD6-8

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C	RE ISSUED FOR DA	22.08.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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Project

WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

EROSION AND SEDIMENT CONTROL
DETAILS

Drawn	Date	Scale	Alt	G.A. Draw	Date
JER	SEPT 1017	N.T.S			
Designed	Project No.	Sheet No.	Issue		
SJO	NE160352	FIG 21	C		

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D	RE-ISSUED FOR DA	22.08.18	SJC	RNS
C	REVISED FOR DA	08.06.18	SJC	RNS
B	ISSUED FOR DA	26.09.17	JER	RNS
A	ISSUED FOR INFORMATION	07.09.17	JER	RNS



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SCALE 1:250 @ A1
SCALE 1:500 @ A3



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Project

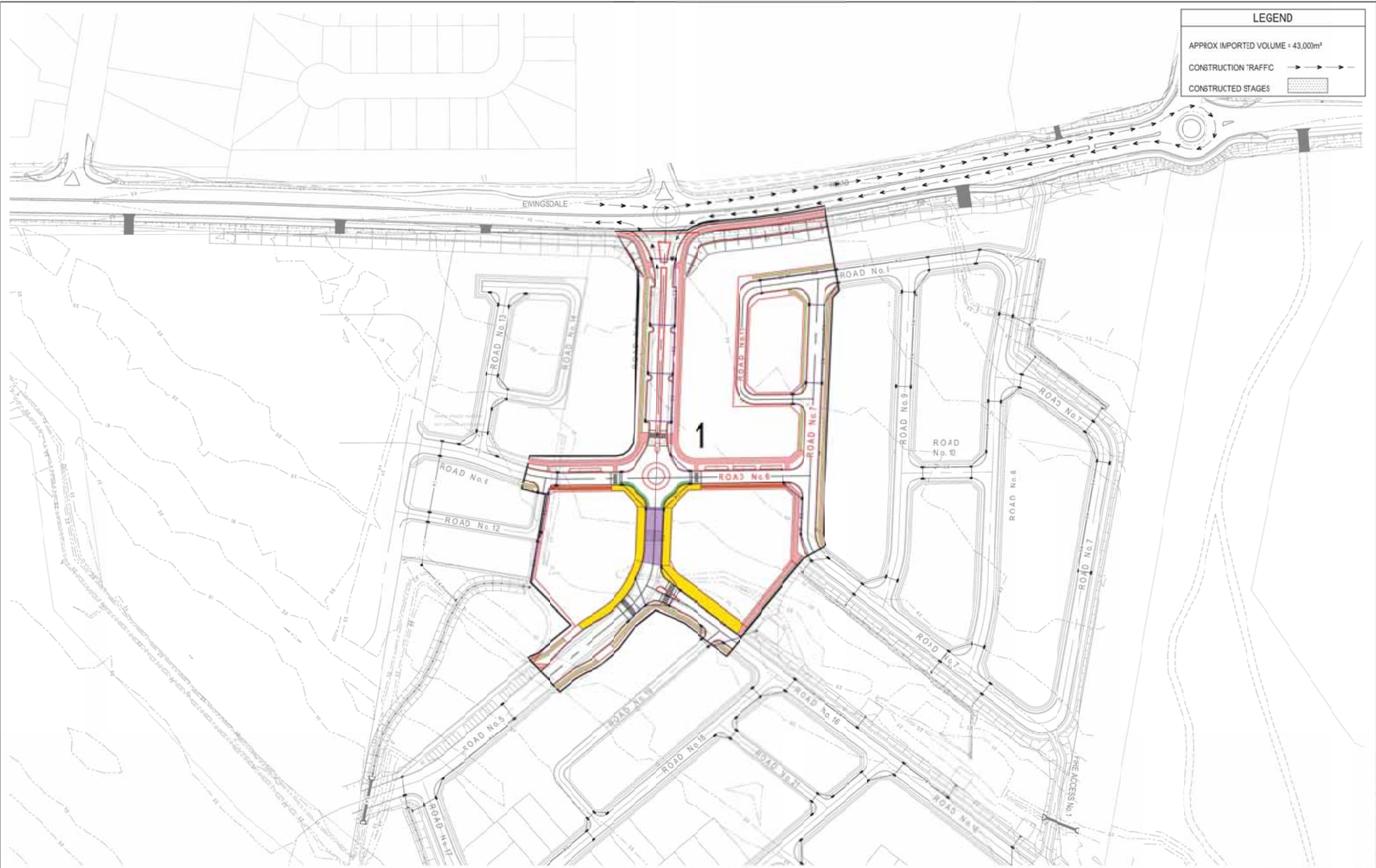
WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title

STAGING PLAN

Drawn	Date	Scale	A1	G.A. Check	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets	No.	Name	Date
SJO	NE160352	FIG 22.1	D		

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LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

CONSTRUCTED STAGES [Pattern Box]

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Issue	Descriptor	Date	Drawn	Approved
A	ISSUED FOR DA	22.08.18	SJC	RNS



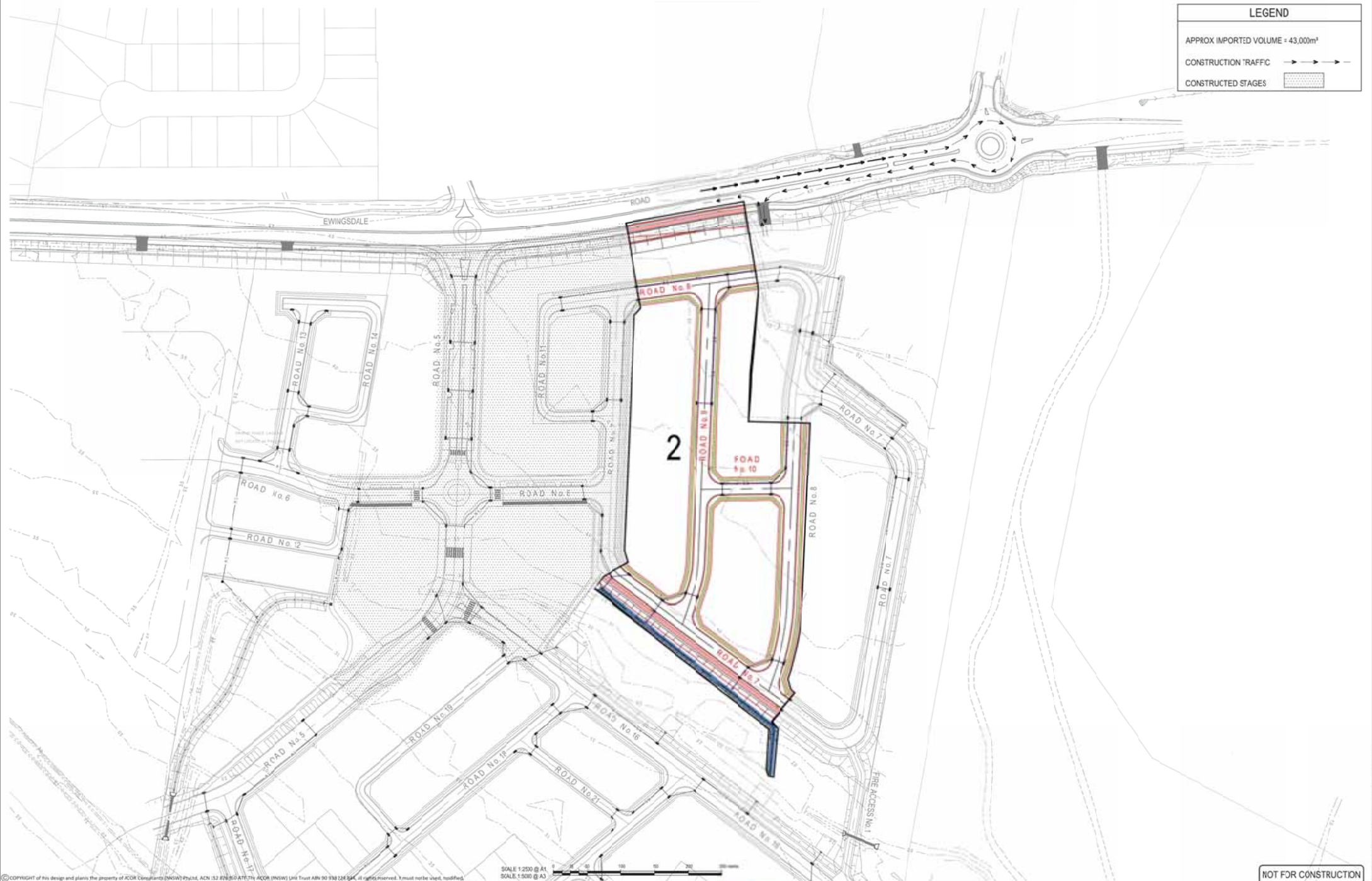
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**WEST BYRON URBAN RELEASE AREA
 DEVELOPMENT APPLICATION**

Drawn	Date	Scale	A1	G.A. Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG 22.2	A		



LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

CONSTRUCTED STAGES [Shaded Area]

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 DEVELOPMENT APPLICATION**

Drawn	Date	Scale	A1	G.A. Draw	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Shep No.	Issue		
SJO	NE160352	FIG22.3	A		

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LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

CONSTRUCTED STAGES

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Issue	Description	Date	Drawn	Approved	



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SCALE 1:250 @ A1
SCALE 1:500 @ A3

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000

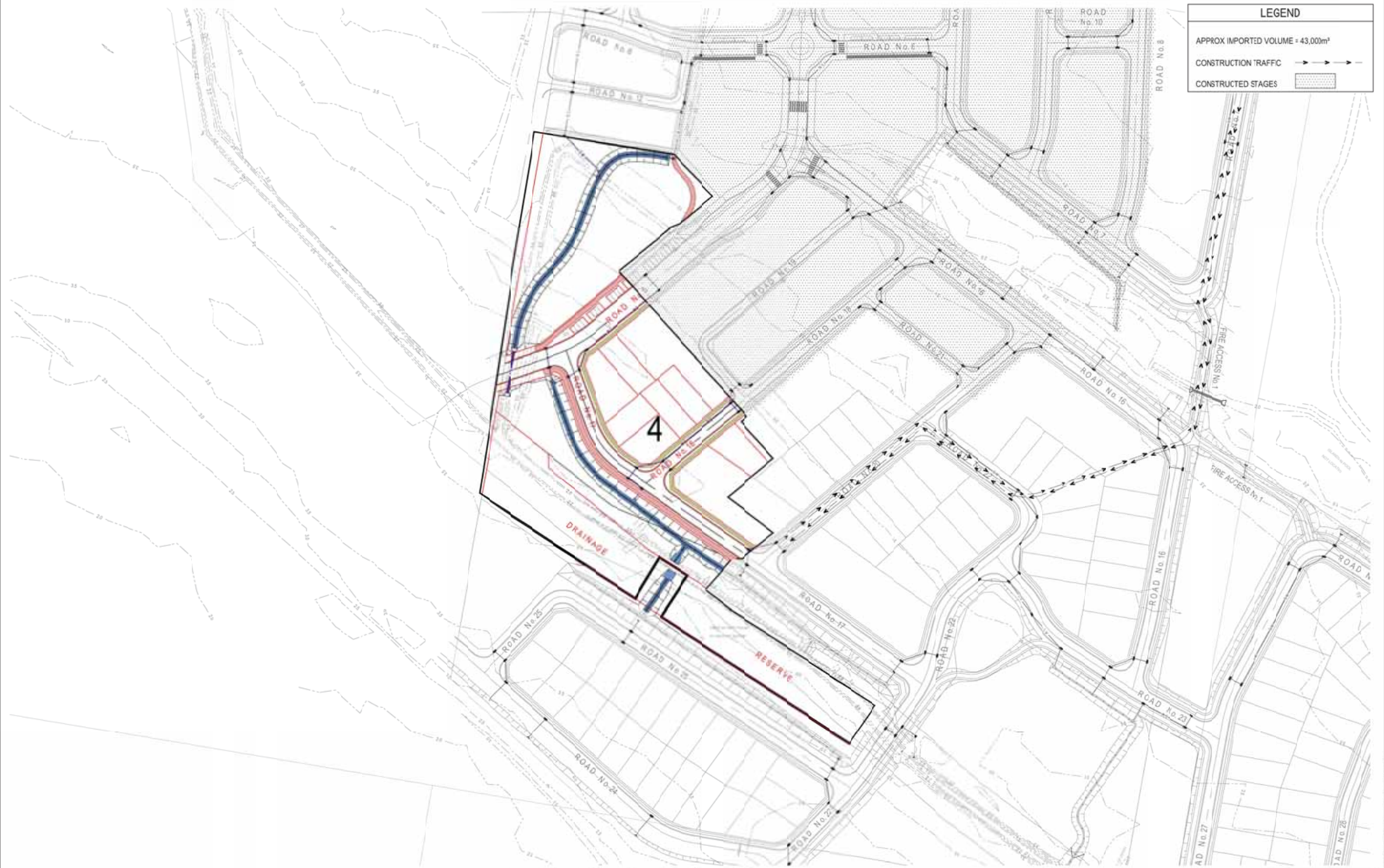


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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

STAGING PLAN STAGE 3		Scale	A1	G/A Date	Date
Drawn	JER	SEPT 1017	1:2500		
Designed	SJO	NE160352	FIG 22.4	Issue	A

NOT FOR CONSTRUCTION



LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

CONSTRUCTED STAGES [Hatched Box]

SCALE 1:250 @ A1
SCALE 1:500 @ A3

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Issue	Descriptor		Date	Drawn	Approved

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Project
**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title		STAGING PLAN STAGE 4			
Drawn	Date	Scale	A1	G.A. Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets		Issue	
SJO	NE160352	FIG 22.5		A	



LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

CONSTRUCTED STAGES

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SCALE 1:250 @ A1
SCALE 1:500 @ A3



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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title		STAGING PLAN STAGE 5			
Drawn	Date	Scale	A1	G.A. Check	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets	FIG22.6	Issue	
SJO	NE160352			A	

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LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → →

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Issue	Descriptor		Date	Drawn	Approved

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Drawing Title		STAGING PLAN STAGE 5			
Drawn	Date	Scale	A1	G.A. Check	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheet No.	Title		
SJO	NE160352	FIG 22.7	A		

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LEGEND

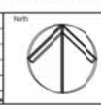
APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

CONSTRUCTED STAGES

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A ISSUED FOR DA				22.08.18	SJC	RNS
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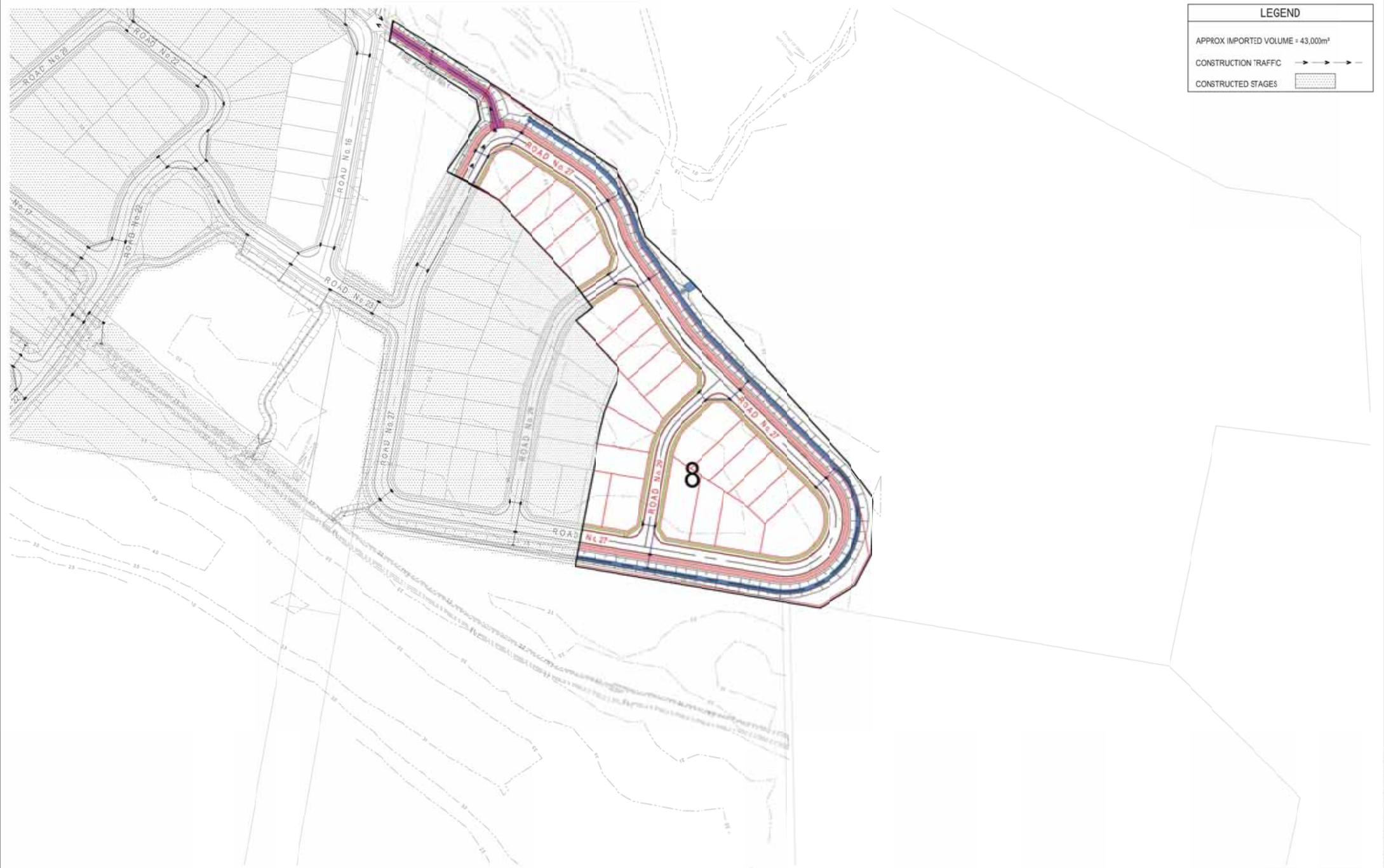


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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

STAGING PLAN STAGE 7					
Drawn	Date	Scale	A1	G.A. Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets	FIG 22.8	Issue	
SJO	NE160352			A	

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LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC → → → →

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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawn/Title	STAGING PLAN STAGE 8			
Drawn	SEPT 1017	Scale	1:2500	AT
Design	SJO	Project No	NE160352	Fig No
			FIG 22.09	Issue
				A

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LEGEND	
APPROX IMPORTED VOLUME = 43,000m³	
CONSTRUCTION TRAFFIC	→ → → →
CONSTRUCTED STAGES	▨

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SCALE 1:250 @ A1
SCALE 1:500 @ A3

ADJONS FIG-22.11

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Issue		Date		Drawn		Approved	
A		22.08.18		SJC		RNS	
Description		Date		Drawn		Approved	
ISSUED FOR DA							

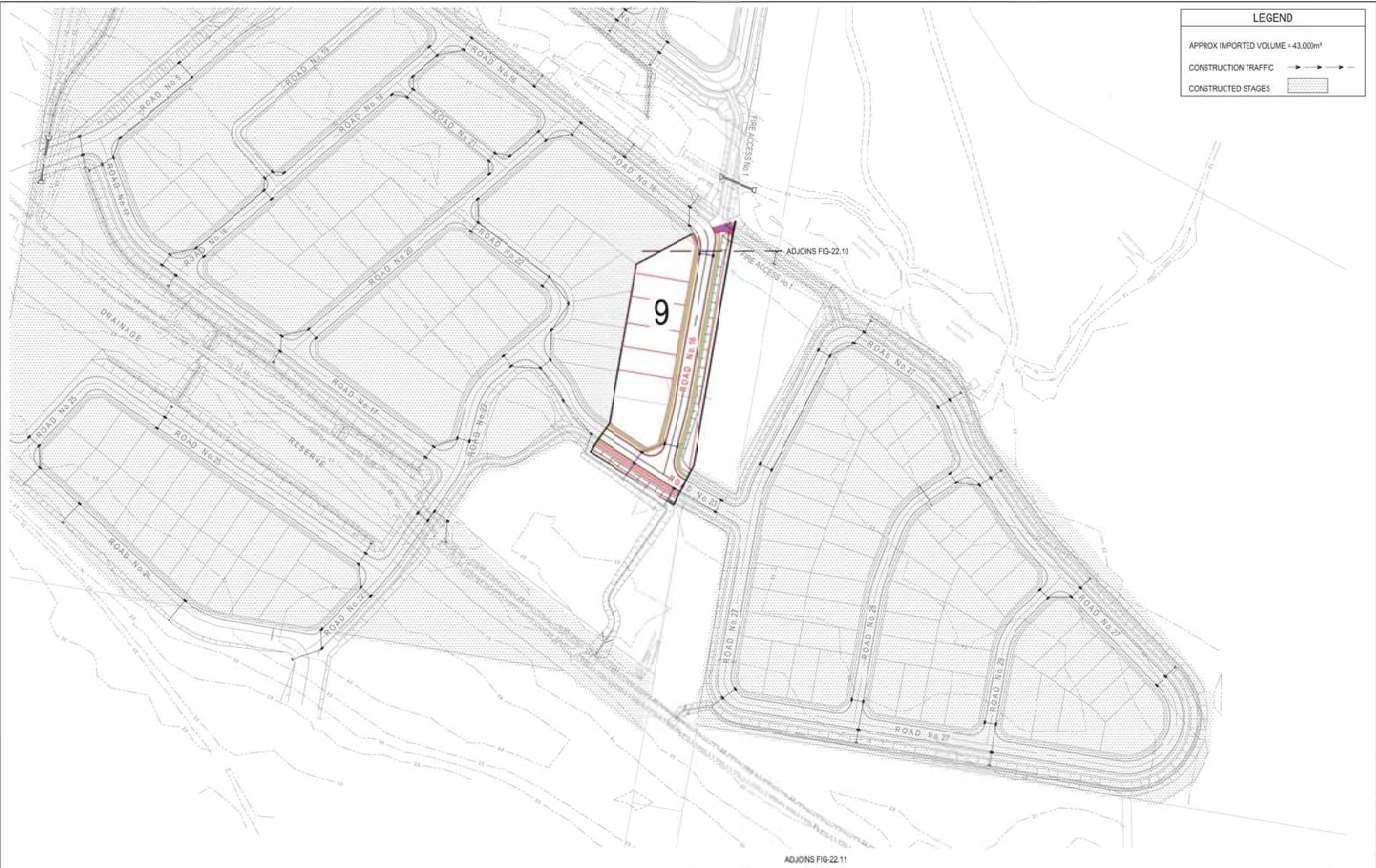
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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawing Title		Date		Scale		A1		Date	
STAGING PLAN		SEPT 1017		1:2500					
STAGE 9 - SHEET 1									
Drawn		Date		Scale		A1		Date	
JER		SEPT 1017		1:2500					
Designed		Project No.		Sheet No.		Issue			
SJO		NE160352		FIG 22.10		A			



LEGEND

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Issue	Descriptor	Date	Drawn	Approved	

Client
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ADJOINS FIG-22.11



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Drawing Title		STAGING PLAN STAGE 9 - SHEET 2			
Drawn	Date	Scale	A1	S.A. Check	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheq No.	Issue		
SJO	NE160352	FIG 22.11	A		

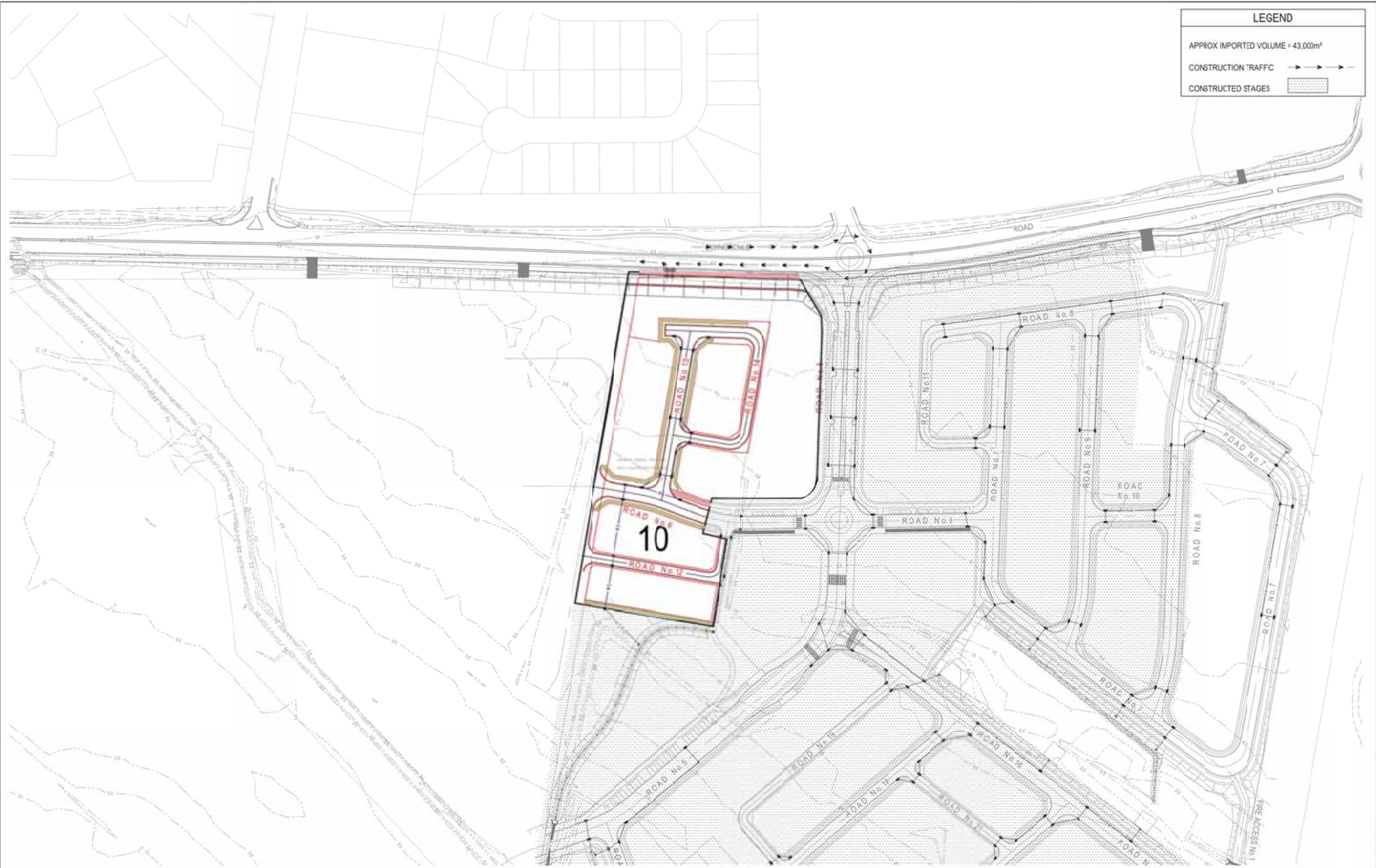
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LEGEND

APPROX IMPORTED VOLUME = 43,000m³

CONSTRUCTION TRAFFIC

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SCALE 1:250 @ A1
SCALE 1:500 @ A3

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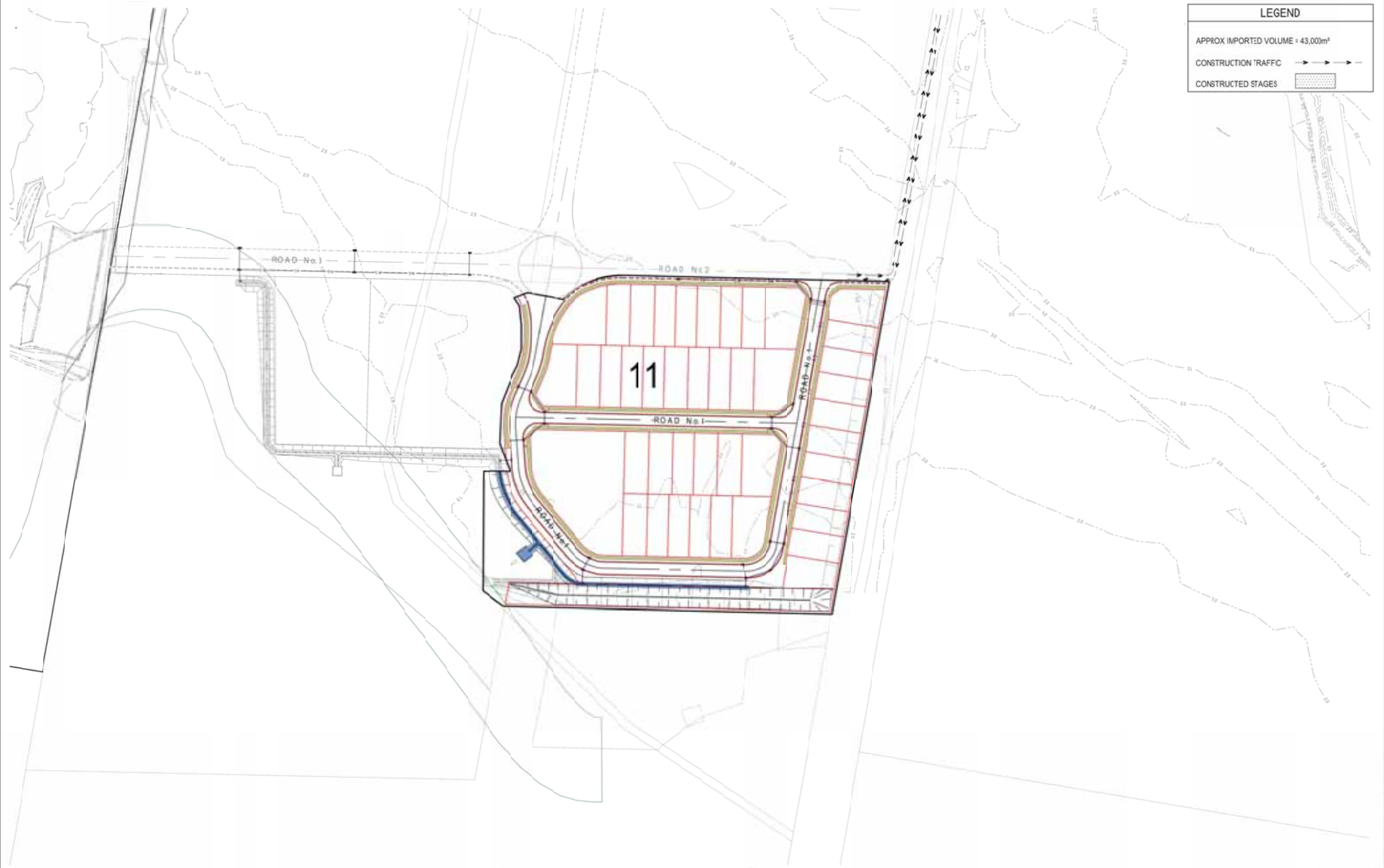
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Drawn	Date	Scale	A1	G.A. Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Drawn No.	Issue		
SJO	NE160352	FIG 22.12	A		



LEGEND

APPROX IMPORTED VOLUME = 43,000m³

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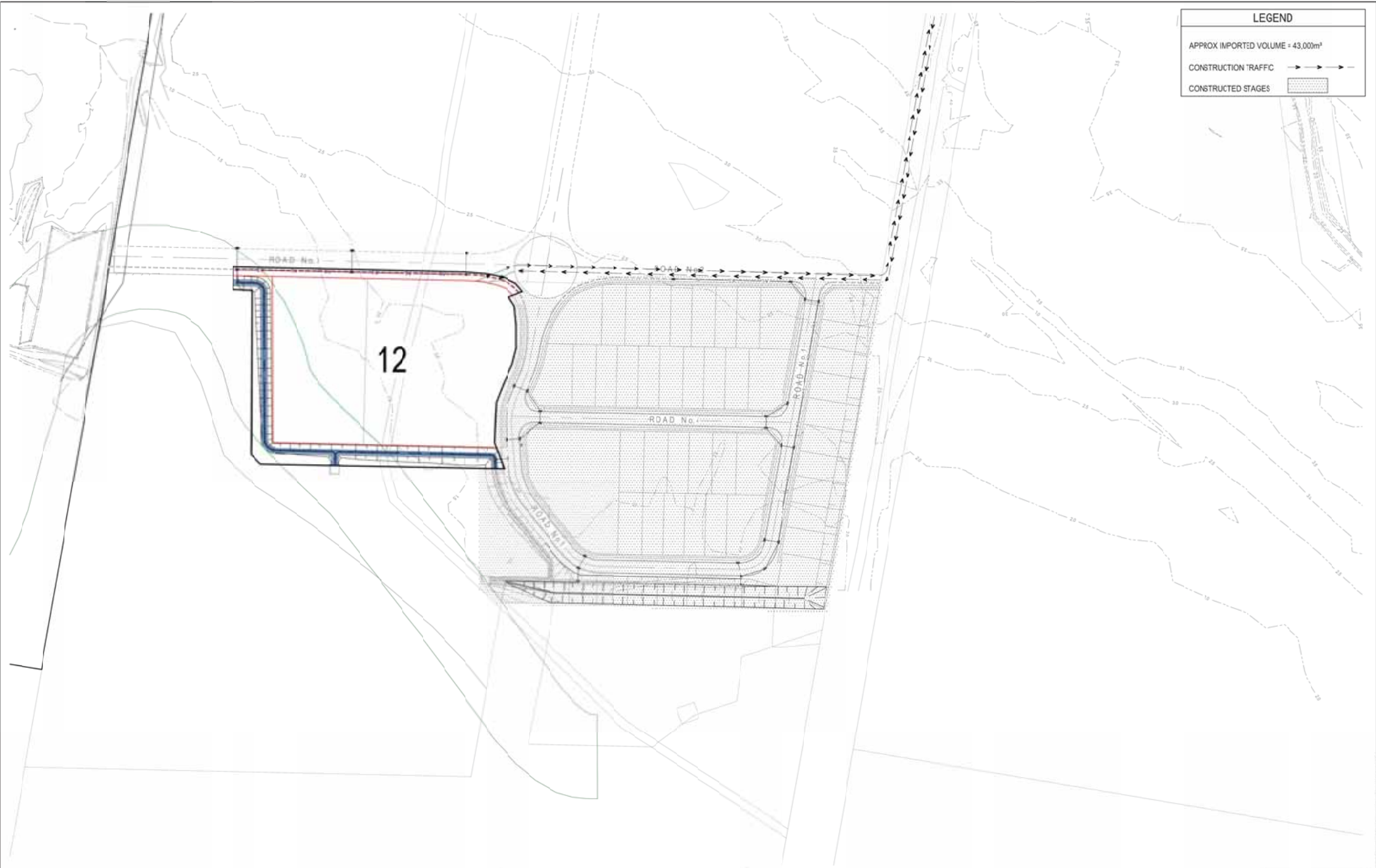
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Project
**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawn/Title	Date	Scale	A1	G.A. Draw	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets No.	Sheet		
SJO	NE160352	FIG 22.13	A		



LEGEND

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**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

Drawn	Date	Scale	A1	G.A. Drawn	Date
JER	SEPT 1017	1:2500			
Designed	Project No.	Sheets No.	Issue		
SJO	NE160352	FIG 22.14	A		



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SCALE 1:200 @ A1
SCALE 1:400 @ A2

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Rev	Description	Date	Drawn	Checked
C	RE-DESIGNED FOR DA	22.09.17	SJO	WNO
B	ISSUED FOR DA	26.09.17	JER	WNO
A	ISSUED FOR INFORMATION	07.09.17	JER	WNO



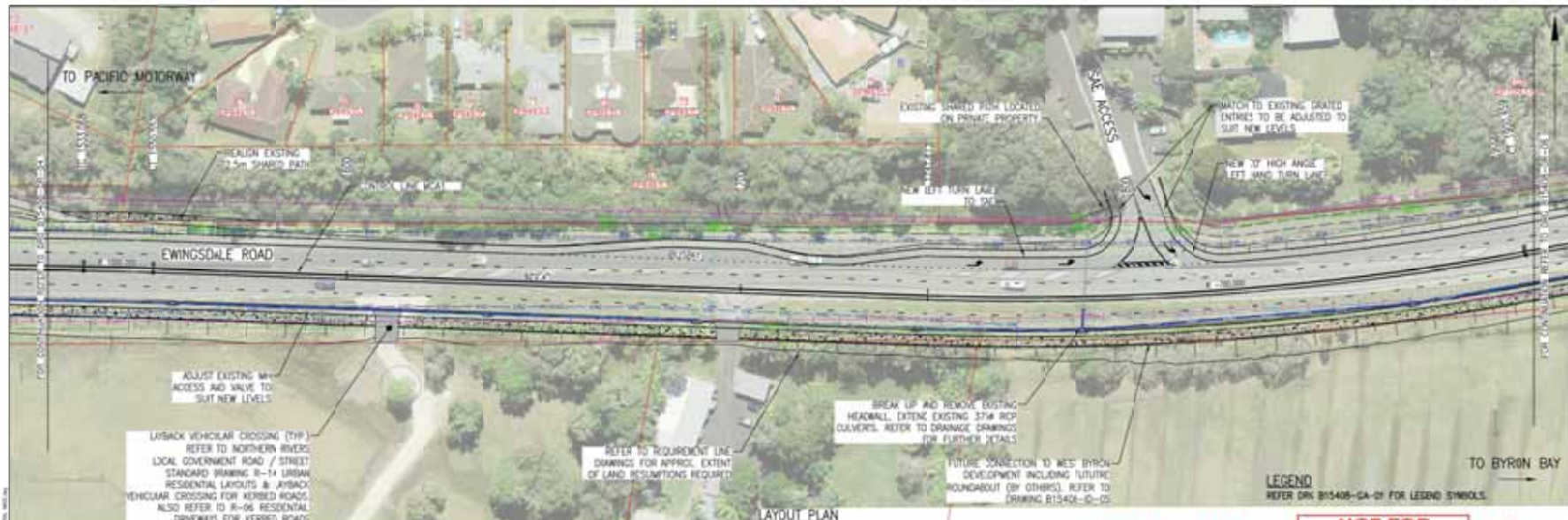
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Project
**WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION**

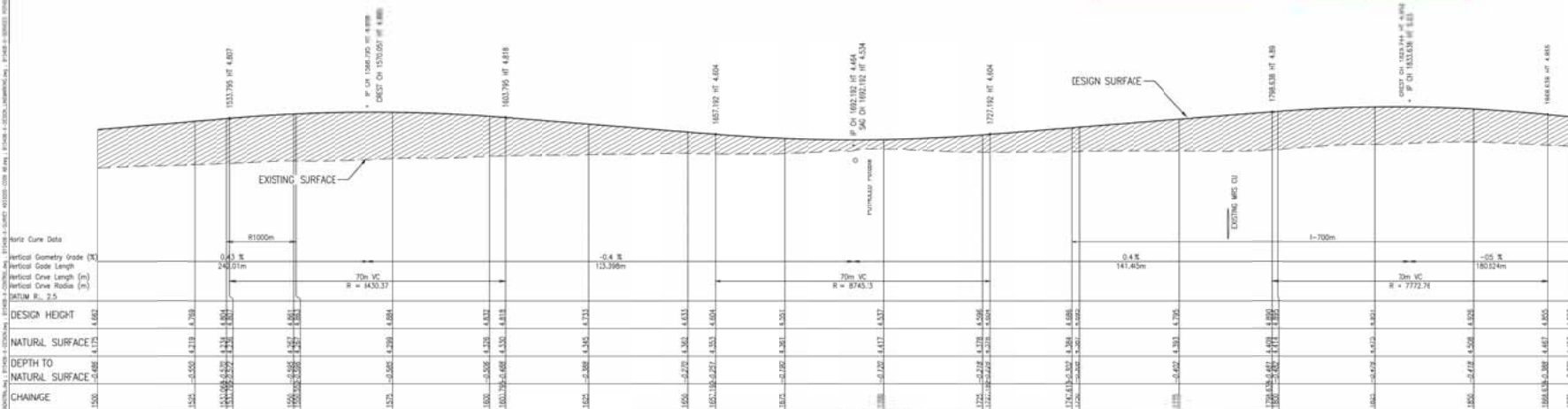
CONSTRUCTION ACCESSES			
Drawn	Date	Scale	Rev
JER	SEPT 017	1:200	
Designed			
SJO	NE160352	FIG 23	B



LAYOUT PLAN
SCALE 1:500

PRELIMINARY
09 September 2016

NOT FOR CONSTRUCTION
20 September 2016



HORIZONTAL SCALE 1:1000
VERTICAL SCALE 1:25
0 5 10 15 20m
SCALE 1:500 (A1)
SCALE 1:1000 (A2)

LONGITUDINAL SECTION MOAT

LAMBERT & REHBEIN
ENGINEERS • MANAGERS • SCIENTISTS

CBD HOUSE
LEVEL 3, 150 WICKHAM STREET
PORTFOLIO VALLEY QLD 4080
A.C.N. 310 451 902

TELEPHONE 081 8220 088
FACSIMILE 081 8220 088
EMAIL info@l-r.com.au

Project: EWINGSDALE ROAD UPGRADE WORKS
CONCEPT DESIGN PHASE

Title: GENERAL ARRANGEMENTS
LAYOUT PLAN & LONGITUDINAL SECTION
(CH1530 - CH1700)

Client: BYRON SHIRE COUNCIL

Drawn by: MJ	Checked: SAW	Sheet No: A1	Drawing No: E15408-GA-05
Designed: MJ	Approved:	Scale: AS SHOWN	Date: 09/02/16

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WEST BYRON

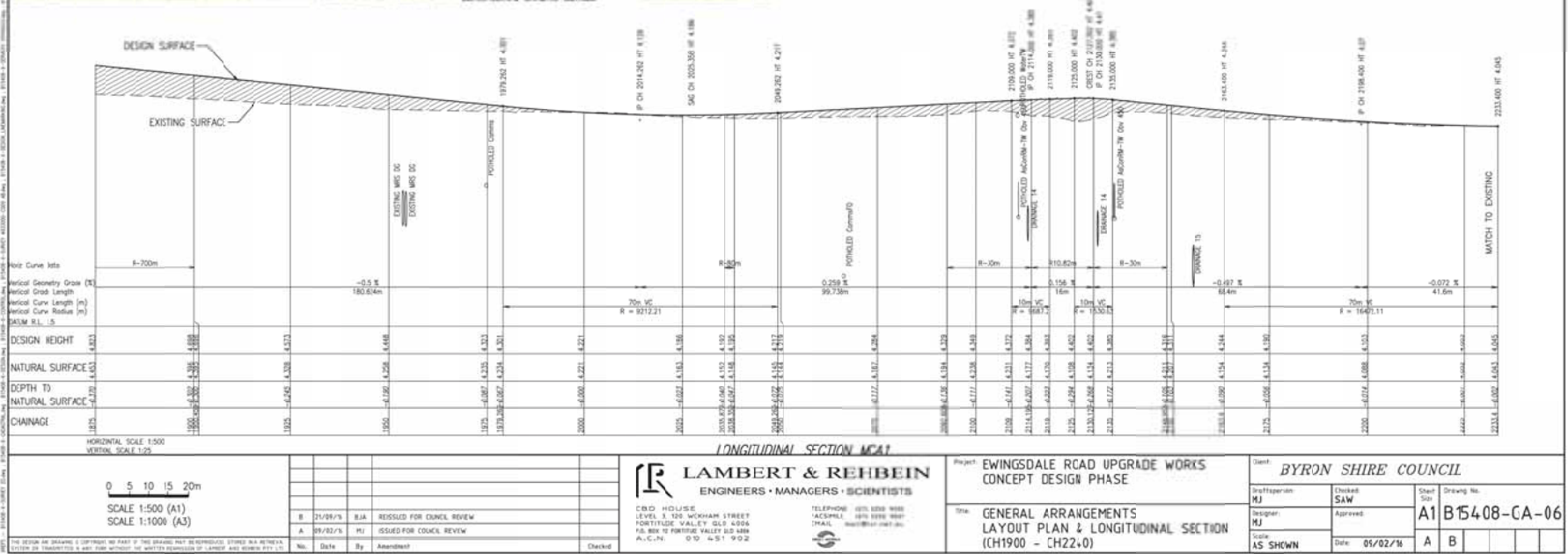
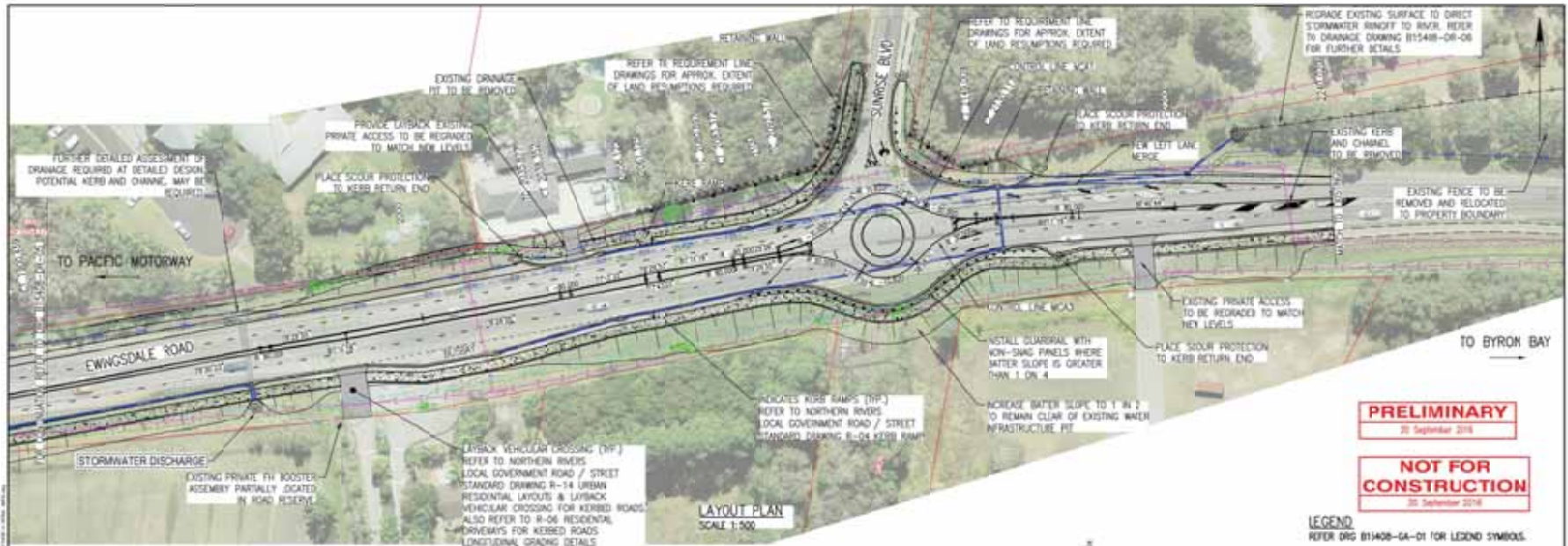


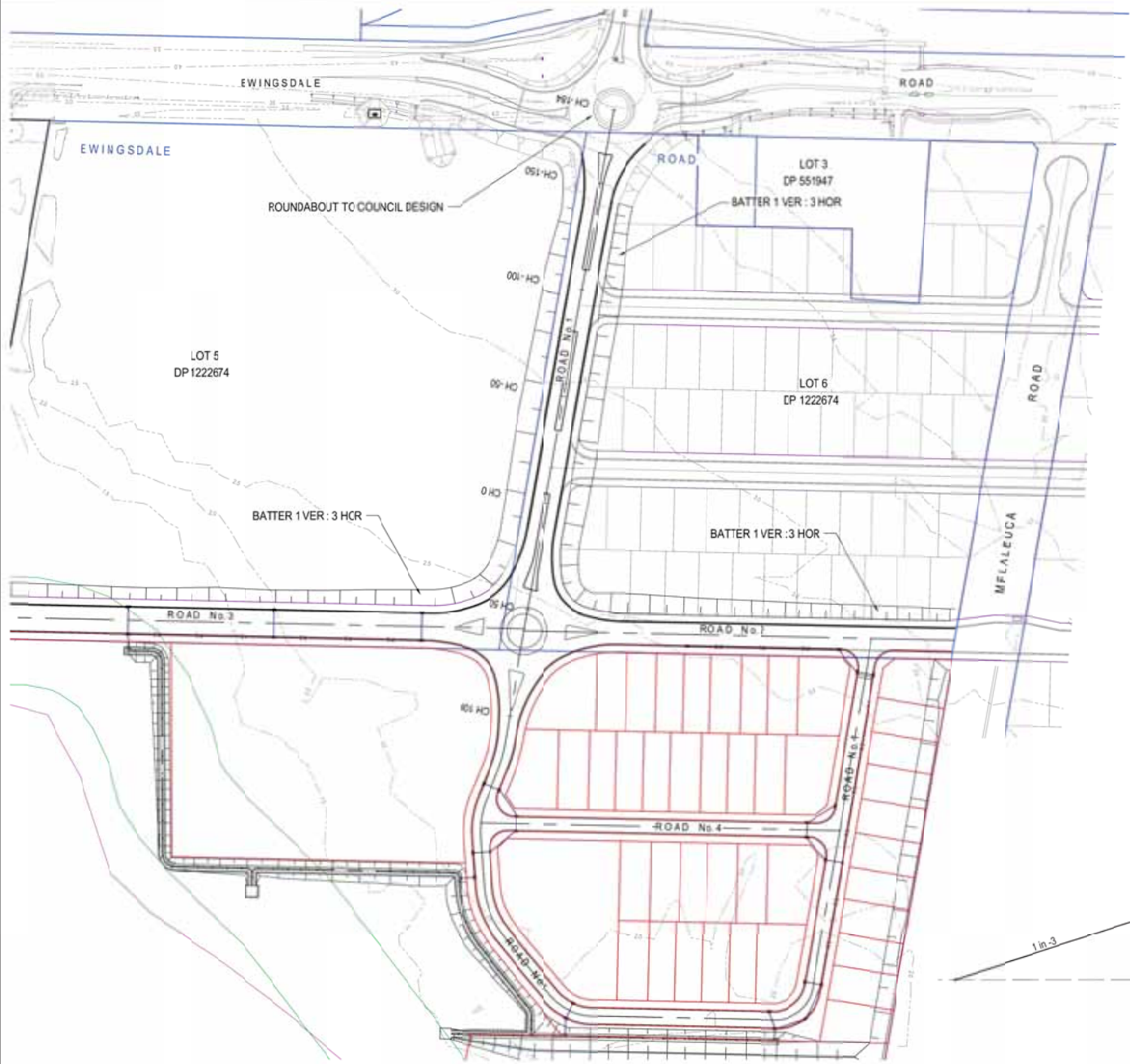
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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawing Title: EWINGSDALE ROAD UPGRADE WORKS
Drawn: JER Date: SEPT 2017 Scale: N.T.S. At: S.A. Date: Date:
Designed: SJO Project No: NE160352 Sheet No: FIG24.1 Issue: B

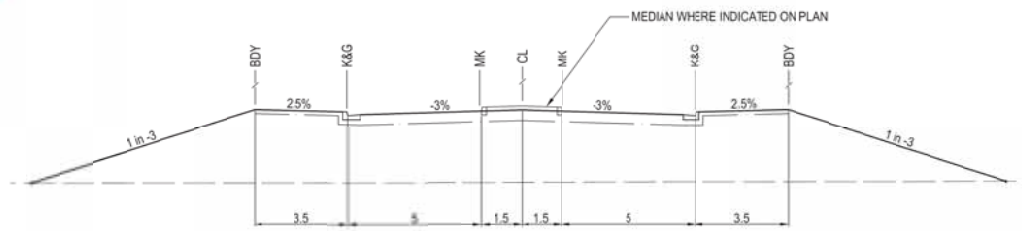
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LEGEND	
	WESTBYRON URBAN RELEASE AREA BOUNDARY LAYOUT
	VILLAWORLD BOUNDARY LAYOUT
	EXISTING BOUNDARY LAYOUT

IMPORTANT NOTE:
VILLAWORLD DATA IS PLOTTED FROM
SUPPLIED INFORMATION AND HAS
BEEN TRANSLATED TO MGA GRID



TYPICAL CROSS- SECTION (CH -150 TO CH -45)
SCALE 1:100

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Issue	Description	Date	Drawn	Approved
B	ISSUED FOR CA	22.08.18	SJC	RNI
A	ISSUE FOR DISCUSSION PURPOSES	03.07.18	SJC	RNI

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WEST BYRON URBAN RELEASE AREA
DEVELOPMENT APPLICATION

Drawn	Date	Scale	Alt	G.A. Draw	Date
JER	JUL 2018	1:1000			
Designed	Project No.	Sheet No.	FIG	Sheet	
SJO	NE160352		FIG 25	A	

NOT FOR CONSTRUCTION



WEST BYRON URBAN RELEASE AREA

DA 10.2017.661.1

COUNCIL REQUEST FOR FURTHER INFORMATION

ENGINEERING RESPONSE

5 September 2018

RFI REQUEST	RESPONSE
RFI 20 APRIL 2018 8.Acoustic Barrier <i>E8.10.8.8 Buffer to Ewingsdale Road - The returns of the Acoustic Barriers are to extend 15m back into the new lots. There is no detail of how the earthen berms will be returned in this area. The acoustic barriers are 4m high - the returns are located within private property and there will be no opportunity to have an earthen berm to the Spine Road with the future footpaths and road reserves.</i> <i>Applicant is to provide a section showing the acoustic barrier returns within the Spine Road (Road No. 5)</i> <i>Acoustic Report shows the general design of the acoustic barrier within the future lots - Show the location of the acoustic barriers on the lot plans by demonstrating the depth that these retaining walls will extend into the lots</i>	<i>Acoustic barrier returns are incorporated in the revised plans. Figure 5.2 is added. Return added at east end. If Villaworld is delayed, return west end also.</i>

9. Groundwater <i>Under E8.10.8.3 Groundwater - Stormwater detention devices and bio-retention devices are to have a base excavation 1m above the water table, or use impermeable liners. The STMP relies on the use of permeable bases to all basins - demonstrate the proposed stormwater detention and infiltration devices will not have an impact on the level of the water table.</i>	<i>Bioretention basins are for water quality treatment. There is no detention. Refer to report 6.7 and 6.8.</i>
12. Orderly development of the site <i>Staging proposed by the applicant has not been demonstrated to allow the orderly development of the site. Staging as indicated on the proposal plans has been described as indicative only by the applicant wishes to retain flexibility in progressing with any stage of the development at any time. Staging of the development must be developed in conjunction with the adjoining development.</i> <i>Staging should also recognise that where roads terminate on the boundaries of the adjoining Villa world development that turning facilities such as temporary cul-de-sacs are required to be shown within the Staging Plans.</i> <i>It is also requested that the applicant demonstrate how the portion of the development located to the west of Melaleuca Drive will gain access to a dedicated road reserve. This portion of the development is entirely dependant on the development of Lots 5 and 6 on DP1222674 for access to Councils road network. All staging is to comply with the requirements of E8.10.1 Staging Plan of the Byron DCP 2014 and show the rollout of</i>	<i>Turning facilities to usual practice are shown on amended staging plans Figure 23.2 to 23.14. Development of Lot 2 is a later stage and will proceed with access from Villaworld Stage 1 development. Land Owners Agreement refers. Report 11.7 addresses possible delay to Villaworld development.</i>

<i>relevant infrastructure etc.</i>	
13. Interface with neighbouring development <i>The proposed development does not provide a consistent interface with the adjoining Harvest Estate development. Each development has been prepared in isolation which has resulted in the interface between the two developments being inconsistent in road layout, connectivity and services. Further, adjoining landowners consent for works outside of the applicants site has not been obtained for items such as roads, roundabouts, filling and other works.</i>	<i>Interface with Villaworld development is correlated and included in amended plans. Land Owners Agreement refers.</i>
14. Filling <i>The applicant seeks to fill the site to achieve flood immunity with approximately 329,500m² of fill material. In a number of locations the fill material to a depth of 2.5m-3.0m is located directly adjacent to neighbouring properties and the proposed Harvest Estate. The application has not provided sufficient information to assess the interface and retaining impacts along property boundaries.</i> <i>As a result of the development being in two individual developments, timing of filling will differ requiring significant retaining along the interface of the individual sites.</i> <i>The development proposes significant fill directly adjacent to existing gazetted roads with no details provided of how these roads are going to remain open for use by other landowners or batters and retention of fill. Please provide plans demonstrating that all retaining structures will be maintained on private land.</i>	<i>Interface of fill at boundary with Villaworld will be battered over the boundary by which ever development proceeds first. Land Owners Agreement refers. Fill will not extend into existing roads as shown in amended plans. Staging of fill is shown on new staging plans Figures 22.2 to 22.14.</i>

<i>Demonstrate how staged fill will be undertaken so as not to impact on newly constructed roads and dedicated road.</i>	
15. Vehicular movements relating to construction traffic (filling) <i>Given the quantum of fill proposed to achieve flood immunity (329,500m²) there will be a large number of truck movements associated with haulage of fill material. The applicant has failed to nominate a source for the fill material, and provide adequate information in regards to the management of construction traffic. A Traffic Management Plan for controlling construction traffic and identification of the sources of fill material are required to assess impacts on surrounding road networks.</i>	<i>Fill sources are nominated in the geotechnical report. Construction access points are shown on Figure 23. Land Owners Agreement refers. Construction Traffic Management Plan (TMP) is normally conditioned in the Consent as being required prior to start of work, when the contractor is appointed and construction methods, work scope and fill sources are known. Information presented in a TMP is included in Figures 22.2 to 22.14 – Staging Plans.</i>
16. Stormwater Discharge from Ewingsdale Road <i>The site has frontage onto Ewingsdale Road whereby there are a number of existing lawful points of discharge for stormwater entering the site. Demonstrate how the proposal will maintain adequate stormwater discharge through the site to cater for the existing situation until such time as Ewingsdale Road is upgraded.</i>	<i>1. There are two stormwater discharge points from Ewingsdale Road east end through the site. These are shown at new Figure 24.1 and 24.2 at chainages 1790m and 1950m. Development works will cater for these two discharge points until Ewingsdale road is upgraded as follows:</i> <i>a. Chainage 1790m – (connects to new road pipework) discharge to existing open drain at Ewingsdale road frontage draining east or - construct Ewingsdale road final design stormwater pipework draining east.</i> <i>b. Chainage 1950m – (discharges to site) discharge to the existing open drain at Ewingsdale road frontage draining east or - amend the Ewingsdale road final design stormwater pipework draining east to extend to chainage 2020m then discharge southeast to the existing open drain within the E2 zone land. Explanation is provided at Report 11.5.</i>

	2. There is stormwater discharge point from Ewingsdale Road west end and a drain through Lot 5 DP1222674 and Lot 2 DP818403 (Stage 12). This drain is intercepted and diverted by the development of Lot 2 (stages 11 & 12). Future industrial development of Lot 5 will intercept the drain and convey flows south and west. Explanation is provided at Report 11.6 and Figure 15.1.
RFI 14 MAY 2018	
a) - Drains model (or approved equivalent) and hydraulic analysis (with supporting calculations) for the proposed development. This model and analysis must incorporate: - The main drain and hydraulic structures proposed within the main drain, - Drainage systems associated with adjoining Villa World, - Appropriate blockage factors for relevant culverts and drain crossings, - Sufficient detail is to be submitted to confirm proposed main drain crossings are appropriately designed.	- The main drain TUFLOW modelling is contained in the WBM report. - The main drain crossing will be a bridging structures at Road 22 not subject to blockage. Report 7.6, and Figures 8.3 and 9.14 clarifies this. - There is one main drain crossing within the WBURA development at Road No 22. The other crossing is within the Villaworld development.
b) Typical cross section details of the existing and final main drain design to confirm the extent of works within the main drain. Where infiltration / dispersion structures or swales are proposed within the main drain a typical cross section through the width of the drain at that location is required	Refer to Figure 16.2
	No works are proposed within the main drain easement other than minor trimming/ clean up and permissible stormwater facilities and roads batters.

c) A post development long section of the main drain from Ewingsdale Road through to the Union Drain.	
d) Given Belongil Creek is only intermittently open under infrequent conditions the tidal influences are, therefore, subject to the entrance conditions and considered intermittent.. Therefore, the applicant is to provide on-site detention in accordance with Council's Comprehensive Guidelines for Stormwater Management. If the applicant proposes to not provide on-site detention then the following must be addressed: * All runoff for all storm events up to and including 100 year ARI must be managed through ground infiltration. Supporting calculations and geotechnical data must be submitted to demonstrate adequate infiltration can be achieved for all of these storm events. *Alternatively, on-site detention may not be provided where a Consulting Engineer undertakes a detailed analysis of the entire catchment by a time-area model and demonstrates that the provision of detention on the subject property, including consideration of the cumulative affect of detention provision across the catchment, will provide no benefit to any downstream drainage system for all storm frequencies up to 100 year ARI.	1. Reference to Council's Comprehensive Guidelines for Stormwater Management is added to Report 6.8. 2. Stormwater detention is not required. 3. Refer to WBM report. TUFLOW modelling has been undertaken. Impacts for the 1% AEP event, including for 2100 climate events and storm surge, are predicted to be below 0.01m for the adjacent floodplain/wetland. This is insignificant and confirms detention would provide no benefit to any downstream drainage system. 4. Assessment by AWC confirms the downstream Belongil Creek is tidal, therefore, Council's Comprehensive Guidelines for Stormwater do not require detention.
e) Drainage catchment plan showing overland flow paths and pipes. It is noted that Figure 4.1 Sub-	AWC catchment plan and report are amended to correlate with Figures 15.1 to 15.3.

<i>Catchment Plan within the Stormwater Management Strategy (Annexure 10) does not correlate with proposed stormwater layout shown within Figures 15.1 to 15.3 of the Engineering Assessment and Plans report (Annexure 3) and must correlate .</i>	
<i>f) Figure 13 within the Engineering Assessment and Plans report presents details for the Grassed Swale at Perimeter Road. The applicant is to clarify which road is regarded as the Permitter Road.</i>	<i>Perimeter roads are those adjoining E2 and E3 zoned land, ie perimeter of the development. Refer Figure 13.</i>
<i>g) Details regarding legal point of discharge for stormwater disposal. Submitted contour plan and deposited plans indicate a stormwater channel and easement running south from the Bayshore Rd / Ewingsdale Road intersection through Lot 5 DP1222674 and Lot 2 DP818403 to proposed Stage 11. However, Stage 11 is to be filled resulting in this channel being blocked. Therefore, stormwater plans, calculations and engineering reports are to address how this channel and runoff from this channel will be managed and where its legal point of discharge is.</i>	<i>1. Stage 11 is amended to Stages 11 and 12, Figure 22.1 is amended.</i> <i>2. The existing channel will be maintained until Lot 2 (stages 11 & 12) are developed.</i> <i>3. Future industrial development of Lot 5 will intercept the drain and convey flows south and west.</i> <i>4. Land Owners Agreement refers.</i> <i>5. Refer Report 11.6 and Figure 15.1.</i>
<i>h) Stage 11 discharges water to the south west of stage 11. However, runoff then flows to the south east over adjoining properties. The applicant is to demonstrate stage 11 has a legal point of discharge</i>	<i>Stage 11 discharges to spread within the Lot 2 property and external to SEPP14 zone as a legal point of discharge.</i>

i) Proposed road drainage system for Roads 7 (part of) to Road 10 discharge into a swale within proposed Lot 396, zoned E2 Environmental Conservation. The applicant is to clarify where this swale discharges to and its flow path to a legal point of discharge from the site.	The swale is existing and drains part of the existing Ewingsdale Road. Legal point of discharge is to the adjacent unnamed road.
j) Proposed lot 397 receives runoff from a large catchment. Details regarding this lot are to be submitted, addressing, but not limited to, - the drainage and water quality purpose this Lot, - Design contour levels, - Details of the overflow path downstream from Lot 397	1. Lot 397 is E3 zoned land draining south east to E2 zoned land. 2. No works other than permissible stormwater management facilities are proposed. 3. The flow path within Lot 397 and downstream is existing and shown by survey in Figure 2.
k) Demonstrate how runoff from the catchment area between Road 16, Road 23 and Road 27 will discharge from this bounded area. If runoff is to the north over Fire Access 1 then adequate floodway treatment is required and the flow path is to be clearly indicated.	1. Run off will discharge north via culvert at Fire Access No1 chainage 120m. The road and culvert are shown at amended Figures 8.3 and 15.3. 2. The floodway and fire access treatment will be addressed in detail at the Construction Certificate stage, corresponding to Council and RFS standards
l) Survey details of the existing ponds / dams to the immediate north of road 27 and the downstream channel associated with these ponds.	Refer survey Figure 2.
m) Confirmation that drainage works, such as, swales and infiltration basins are permitted within Environmental Conservation zones.	Confirmation of drainage works permitted is to be addressed by others

<i>n) The engineering plans with the Engineering Assessment and Plans Report (Annexure 3) do not correlate with the Stormwater Management Strategy (Annexure 10) Bio-Retention Swale — Typical Details (Dwg No. 1- 17818_WBURA_WSUD_02), Bio-Retention Basin - Typical Details (Dwg No. 1- 17818_WBURA_WSUD_03 and Figure 4.1 Sub-catchment Plan (Dwg. No. 1- 187818_WBURA_WSUD_01). Therefore:</i> <i>Engineering plans are to clearly show bio-retention treatment measures as per Figure 4.1 Sub-catchment Plan (Dwg. No. 1- 187818_WBURA_WSUD_01). Bio-Retention Swales and Bioretention Basin details are to be as per Stormwater Management Strategy details. Road section details are to be amended within the Engineering Assessment and Plans report to show bio-retention swales, as required by Figure 4.1 Sub-catchment Plan (Dwg. No. 1- 187818_WBURA_WSUD_01).</i> <i>Bio-retention swales and basin are to be drawn to scale and to include upstream litter and siltation treatment measures.</i> <i>Site suitability for bio-retention measures is to be assessed in accordance with Water By Design Bioretention Technical Design Guidelines, taking into account, but not limited too:</i> <i>• Flow velocities through the existing main drain,</i> <i>• Potential contaminants from the upstream industrial runoff,</i> <i>• Depth of ground water table. Note the Stormwater Management Strategy report identifies ground water from a minimum depth of 0.05m with a mean water table depth of 0.48m.</i>	<i>1. Bioretention treatment measures will be to AWC details. AWC basin detail is included to incorporate a pipe entry. Figures 14.1 to 14.2 are amended.</i> <i>2. Perimeter road typical cross section showing swale is at Figure 13.</i> <i>3. Bioretention swales and basins are drawn to scale.</i> <i>4. Upstream litter and siltation treatment measures are to AWC detail. Refer Figure 14.2.</i> <i>5. Site suitability and site testing information is to be addressed by AWC.</i> <i>6. Bioretention swales have minimum capacity of 1 year ARI to ensure 3 month ARI flows infiltrate.</i> <i>7. Figure 13 shows swales at perimeter roads.</i>
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<i>Provide site testing information in accordance with Council's Comprehensive Guidelines for Stormwater Management Section 4.7, including, but not limited to:</i> • <i>Permeability test results</i> • <i>In-situ soil hydraulic conductivity results</i> • <i>Borehole logs</i> <i>Supporting data to demonstrate infiltration systems can infiltrate up to an including 20 year ARI runoff. Note, infiltration system must infiltrate up to the 100 year ARI storm event where on-site detention is not proposed.</i> <i>The applicant is to also confirm the submitted AWC Figure 2.7 Concept — End of Pipe Infiltration / Dispersion Area (Flooded Inlet Pipe) within the Engineering Assessment and Plans Report is still current. Note this plan is dated 22.08.2015 and appears superseded by the current Stormwater Management Strategy.</i>	
<i>o) The 2100 100 year ARI flood level varies across the s/le and can not be limited to 2.62m AHD for the whole site. The Engineering Assessment is to be amended to show the 2100 100 year flood levels across the site and confirm earthworks have been designed accordingly.</i> <i>The applicant is to submit a Plan of Subdivision showing the post development extent of flood water</i>	<i>1. The 2100 1% AEP peak flood depth is addressed in the WBM report. There is no significant impact on the developed areas of the site.</i> <i>2. Flood level does not vary across the site in its developed form because the site is to be filled above the flood level to provide free board.</i> <i>3. There will be no flood water above flood planning level at the filled developed areas. Flood levels are shown in Figure 26.</i>

<i>surface levels and flood planning levels for a 2100 100 year ARI storm event. Where Flood Water Surface Levels and Flood Planning Levels extend into proposed swales and recreational areas these must be shown as part of the extents.</i>	<i>4. Areas which are not filled represent E2 and E3 zoned land. Flood levels and levels at the bioretention swales and basins are shown on Figures 15.1 to 15.3 and Figure 26.</i>
<i>p) The Geotechnical Report (Annexure 6) introduces a sufficient level of concern relating to unsuitable in-situ conditions. It is anticipated a greater amount of earthworks may be required to prepare the site for filling, such as, the substantial removal of unsuitable in-situ material or the inclusion of a structural / drainage layer prior to the importation of fill. Such conditions may either result in significantly higher than expected level of construction traffic and may reasonably impact the final earthworks finished surface levels. Therefore, typical concept level section details and cross sections are to be submitted indicating preliminary earthwork profiles. Water quality and environmental constraints must also be taken into account</i> <i>• The Engineering Assessment is to be amended to include a section on Geotechnical conditions.</i> <i>• The construction phase TMP is to include traffic movements associated with the removal of in-situ material and importation of drainage layers, general fill and structural fill.</i>	<i>1. Refer Shaw Urquart report. The geotechnical report does not reflect concern relating to unsuitable insitu conditions. Greater earthworks and substantial removal are not reported.</i> <i>2. Site soils are identified as predominately silty sand and sand. Some fill is considered uncontrolled because it is loose. Such fill will be recompacted.</i> <i>3. No significant near surface clayey soils were encountered.</i> <i>4. Top soil is not suitable for use as structural fill and will be stripped, stockpiled and spread over final lot surfaces.</i> <i>5. With the exception of the top soil layers the site soils are considered suitable for use as engineered fill but are likely to require moisture conditioning before compaction.</i> <i>6. No general cut is proposed across the site.</i> <i>7. Geotechnical conditions are contained in the geotechnical report and repetition in the engineering report would serve no purpose.</i> <i>8. There will be no significant traffic movement associated with removal of unsuitable material and importation of replacement material. A Traffic Management Plan [TMP] is normally conditioned in the Consent as being</i>

	<i>required prior to start of work, when the Contractor is appointed and construction methods, work scope and fill sources are known.</i> <i>9. A section on geotechnical conditions is included in Report 2.9.</i> <i>10. Information presented in a TMP is included in Figures 22.2 to 22.14 – staging plans.</i>
<i>q) To ensure compliance with Chapter E8 West Byron Urban Release Area (Section E8.10.1) of DCP 2014, please provide evidence of legal access to Lot 2 DP 818403 and Lot 10 DP1143215 to enable vehicular access back to the Bayshore Drive Roundabout on Ewingsdale Road, the closing of Melaleuca Drive, and provisioning of other services relevant to this part of the West Byron Urban Release Area. The application will need to include details on the construction of any roads and services in this area independent of the Harvest Application.</i>	<i>1. Melaleuca Drive is not proposed to be closed by the Villaworld development until their early stages construction provides a new connection therefore, access remains for Lot 2 DP818403 and Lot 10 DP 1143215.</i> <i>2. Access and servicing of stages 11 and 12 independent of Harvest can be provided by the construction of Bayshore Drive extension from the Ewingsdale Road roundabout. Refer to Report 11.7 and new Figure 25 – Bayshore Drive Extension.</i>
<i>r) Engineering plans are to show how the internal pedestrian and cycle pathways will connect to the existing external pedestrian and cycle pathways along Ewingsdale Road.</i>	<i>Refer Figure 12.2.</i>
<i>s) Proposed road layout, bicycle / pedestrian network, drainage reserve immediately north of proposed road 25, engineering plans and plan of subdivision do not correlate with the adjoining Villawood road layout and plan of subdivision. Proposed road layout, bicycle / pedestrian network, engineering plans and plan of subdivision must be amended to show correlation with</i>	<i>Designs now correlate and plans are amended.</i>

<i>proposed road layout for proposed adjoining Villawood subdivision.</i>	
<i>t) Subdivision plans to show the alignment of the Main Drain top of batter and toe of batter for the full extent of the Main Drain. Subdivision plans are to show the proposed easement alignment for the Drain and RFS 88b instrument requirements, as per General Terms of Approval (dated. 1 March 2018)</i>	<i>Refer Report 7.5 and Figure 16.2. Easement boundaries will remain.</i>
<i>u) The applicant is to submit concept staging plans showing proposed staging of required infrastructure (i.e. services, stormwater etc) and earthworks. Concept staging plans must clearly indicate which stage works associated with Part Lots 398 and main drain will occur. Such plans must assume Villa World has not been constructed. Staging of the subdivision must also take into account catchment boundaries.</i>	<i>Concept staging for infrastructure and earthworks is shown in Figures 22.2 to 22.14.</i>