

THE ROOTY HILL

MORREAU RESERVE

CHURCH STREET

Phase 2

PENFOLD STREET

CAMARRA STREET

ROOTY HILL ROAD SOUTH

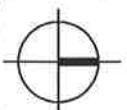
Phase 1b

CABLE PLACE

EASTERN CREEK PUBLIC SCHOOL

RURAL FIRE SERVICE

GREAT WESTERN HIGHWAY



WALL GROVE ROAD

NEW ACCESS ROAD

BELMORE ROAD (NOT FORMED, TO BE CLOSED AND TRANSFERRED TO TRUST OWNERSHIP)

WESTLINK M7



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Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in response to SSD 5175

Signed [Signature]

Sheet No. 1 of 37

Primary Business Hub Land Use Elements

Retail premises and business premises

Phase 1 4.76ha

Phase 1b 4.58ha

Phase 2 7.08ha

Subtotal 16.42ha

Parkland Land Use Elements

Open Space / Conservation

13.28ha

Subtotal 13.28ha

Other (Site Operation)

Access Road Easement 1.10ha

Gas Main Easement 1.59ha

Buffer to Gas Main (open space / conservation) 1.47ha

Subtotal 4.16ha

TOTAL 33.86ha

FRASERS PROPERTY AUSTRALIA
EASTERN CREEK RC

STRUCTURE PLAN
CONCEPT - MOD 4

PROJECT 2015-088
DRAWING NO. SK-26.1
DATE 01.03.2019
DRAWN BY DDE
MEL SVD
PER
1800 422 533 | 2 C.C.O.M. AU

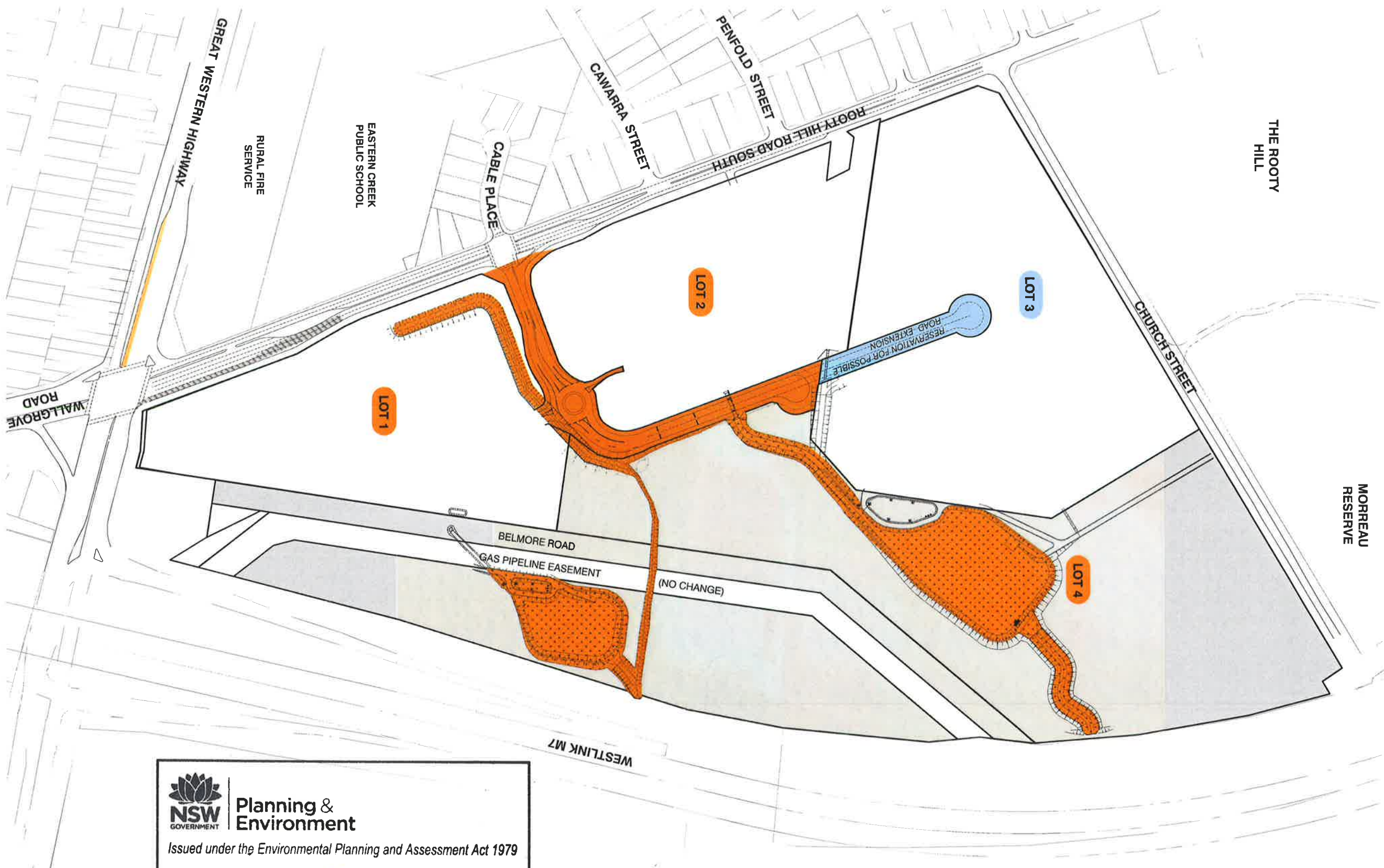


FRASERS PROPERTY AUSTRALIA EASTERN CREEK RC

PHASING PLAN CONCEPT - MOD 4

PROJECT
2015-088
DATE
01.03.2019

DRAWING NO.
SK-26.2
DRAWN BY
DDE
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SYD
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12C.COM.AU



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Sheet No. 2 of 37

- LEGEND**
- Superlot Boundary
 - Phase 1
 - Phase 2
 - Open Drainage Channels
 - Detention/Biofiltration Basins
 - Stormwater Pipes / Shallow Box Culverts
 - CPW planting in open space*
 - Road widening

THE ROOTY HILL

MORREAU RESERVE



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Sheet No. 3 of 37

LEGEND

- Superlot Boundary
- Indicative subdivision
- Indicative bld. footprint
- Indicative parking layout
- Open Space/CPW/Conservation
- Preferred location for playground
- Stormwater Strategy
- Remnant vegetation to be retained
- Gas pipeline
- Buffer to Gas pipeline (Belmore Road)
- Parking Access
- Future development

- 1 - LARGE FORMAT RETAILER (w/ undercover parking)
- 2 - RETAIL PREMISES/ BUSINESS PREMISES
- 5 - BULKY GOODS
- 6 - GARDEN CENTRE
- 7 - BULKY GOODS
- 8 - CHILD CARE CENTRE

(location of uses and areas indicative only)

AREA BREAKDOWN

(all areas are GFA)

Phase 1

Bulky Goods / Large Format Retail - 24,000sqm

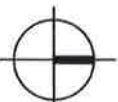
Retail - 10,458sqm

Child Care centre - 1,300sqm

Circulation - 1,684sqm

Phase 2

Bulky Goods - 19,300sqm



Fraser's Property Australia
EASTERN CREEK RC

MASTERPLAN
CONCEPT PLANNING

PROJECT
2015-088
DRAWING NO.
SK20.6
DATE
09.04.2015
DDE

MEL
SYD
PER
1800 422 533
12C.COM.AU

FRASERS PROPERTY AUSTRALIA EASTERN CREEK RC

ENABLING INFRASTRUCTURE CONCEPT - MOD 4

PROJECT
2015-088
DATE
01.03.2019
DRAWN BY
DDE

MEL
SYD
PER
1800 422 533
12C.COM.AU

Note - *staged rollout as development progresses
- CPW planting proposed on existing Council land (50% of Belmore Rd and Beggs Rd)



- LEGEND**
- Superlot Boundary
 - New Access Road
 - Open Drainage Channels
 - Detention/Biofiltration Basins
 - Stormwater Pipes / Shallow Box Culverts
 - CPW planting in open space*
 - Signalised intersection (extent of works)
 - Road widening



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Sheet No. 4 of 37

**ILLUSTRATIVE LANDSCAPE
MASTER PLAN
PREFERRED INDICATIVE PLAN
& USE**

1 LARGE FORMAT RETAILER
(w/ undercover parking)

**2 RETAIL PREMISES /
BUSINESS PREMISES**

BULKY GOODS

GARDEN CENTRE

BULKY GOODS

CHILD CARE CENTRE

• Includes bulk labour outlet
• Includes adventure outdoor /
camping centre

(Location of uses and areas
indicative only)

(Refer to Architectural Drawing
No. S407(C) for further details
on land use setback, indicative
vehicle access and floor area
breakdown.)

LANDSCAPE CONCEPT

1 Connect and integrate the
adjacent CPW through our site

2 Pedestrian connection to
Church Street

3 Provide planting buffer to gas
pipeline (on Belmore Road)

4 Gas pipeline easement
- no change

5 Decorative species in the
corporate to provide canopy
coverage

6 CPW offer planting between
development site and M7

7 Preservation of Alluvial
Woodland and Shale Plains
Woodland

8 Offsetting of indigenous
Cumberland Plain Woodland
species to provide a strong
Parklands theme to the
prominent corner of the site
(in consultation with RMV)

9 Formal street trees to provide a
strong landscape character

10 Primary entry accent planting

11 Street tree planting to
integrate with the local
neighbourhood and street
character

12 Wetland species in lower lying
ground and detention basin

13 Stormwater channel planted
with native grasses, recharges
groundwater

14 Provision of connected flora
and fauna corridor as much
as possible

15 ESD and WSLD principles for
development site landscape
and parking

16 Planting philosophy east of
the access road is to fill with
Cumberland Plain Woodland
species and connect up
existing stands. This offers that
removed west of the access
road

17 Truck turning area

18 Incorporation of WSLD into
corporate design

19 Existing channel over gas
easement is unchanged

20 Preferred location of children's
playground

21 200+ trees planted at 20m
centred in seeded grass verge

22 Blackdown sign

23 NORTH



24 MEL

25 SVD

26 PER

27 1800 422 533 1:20, 0 M, AU



28 EASTERN CREEK RC

29 LANDSCAPE PLAN

30 CONCEPT - MOD 4

31 PROJECT

32 2015-088

33 DATE

34 01.03.2019

35 DDE

36 DRAWING NO.

37 SK-26.4

38 DRAWN BY

39 DDE

40 EASTERN CREEK RC

41 LANDSCAPE PLAN

42 CONCEPT - MOD 4

43 PROJECT

44 2015-088

45 DATE

46 01.03.2019

47 DDE

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225 DATE

226 01.03.2019

227 DDE

228 DRAWING NO.

229 SK-26.4

230 DRAWN BY

231 DDE

232 EASTERN CREEK RC

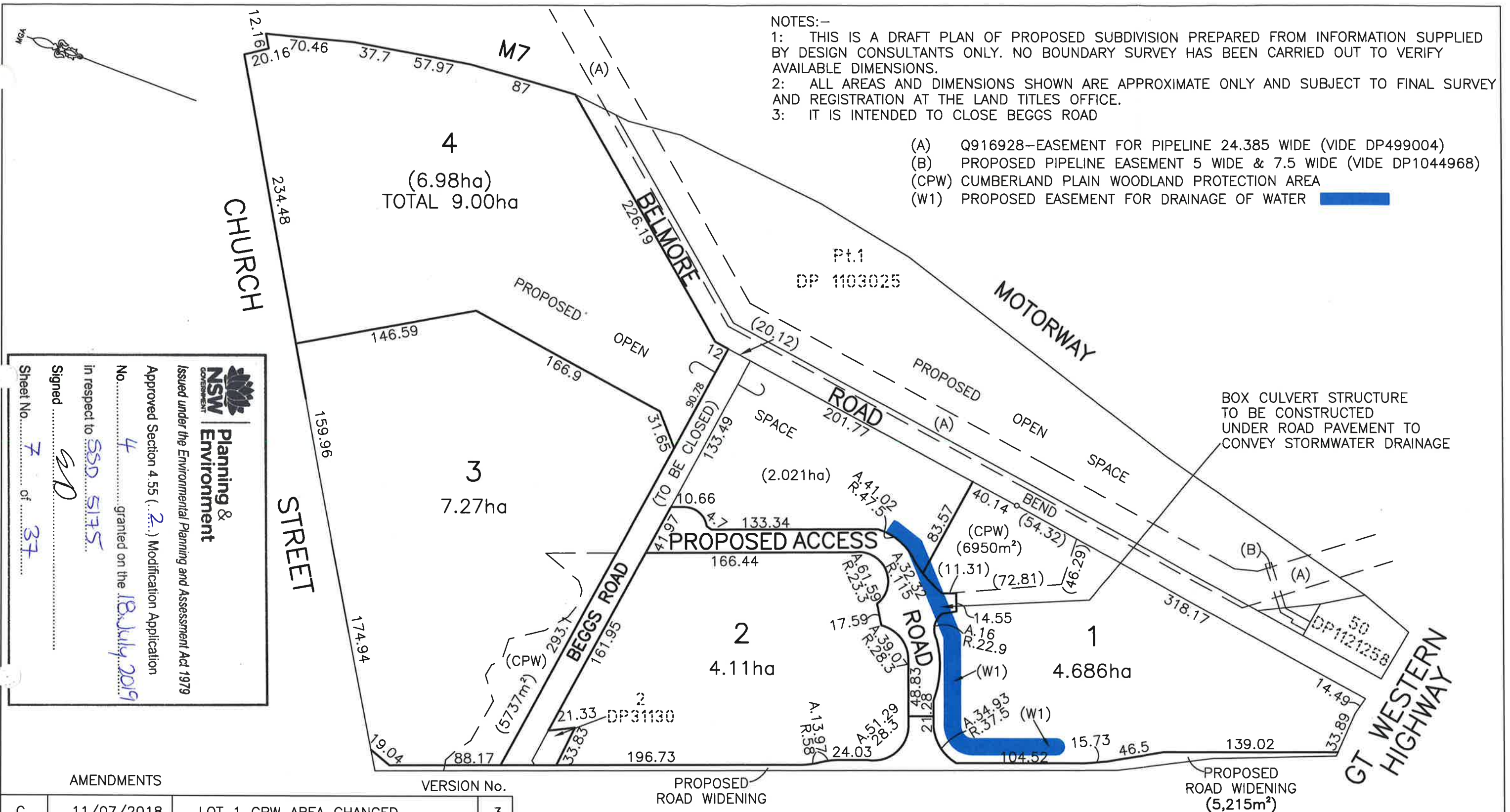
233 LANDSCAPE PLAN

234 CONCEPT - MOD 4

NOTES:-

- 1: THIS IS A DRAFT PLAN OF PROPOSED SUBDIVISION PREPARED FROM INFORMATION SUPPLIED BY DESIGN CONSULTANTS ONLY. NO BOUNDARY SURVEY HAS BEEN CARRIED OUT TO VERIFY AVAILABLE DIMENSIONS.
- 2: ALL AREAS AND DIMENSIONS SHOWN ARE APPROXIMATE ONLY AND SUBJECT TO FINAL SURVEY AND REGISTRATION AT THE LAND TITLES OFFICE.
- 3: IT IS INTENDED TO CLOSE BEGGS ROAD

- (A) Q916928--EASEMENT FOR PIPELINE 24.385 WIDE (VIDE DP499004)
 (B) PROPOSED PIPELINE EASEMENT 5 WIDE & 7.5 WIDE (VIDE DP1044968)
 (CPW) CUMBERLAND PLAIN WOODLAND PROTECTION AREA
 (W1) PROPOSED EASEMENT FOR DRAINAGE OF WATER



AMENDMENTS

VERSION No.

C	11/07/2018	LOT 1 CPW AREA CHANGED	3
B	04/07/2018	LOT 2 AREA AMENDED	2
A	15/05/2018	CPW AREAS ADDED	1

ROOTY

HILL

ROAD

SOUTH

NOTES:

L.G.A.

BLACKTOWN

CLIENT

FRASERS PROPERTY



LANDPARTNERS
built environment consultants

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t 61 2 9685 2000 • sydney@landpartners.com.au
www.landpartners.com.au



JOB TITLE

PLAN OF
PROPOSED SUBDIVISION
ROOTY HILL ROAD SOUTH
EASTERN CREEK

Reduction Ratio:

1:3000

Date of Survey:

N/A

Surveyor: GKO

Drawn By: TF

Plan No.:

73106.004
VER 4

Sheet 1 of 1



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Sheet No. 8 of 37
NORTH BIORETENTION BASIN

EARTHWORKS QUANTITIES

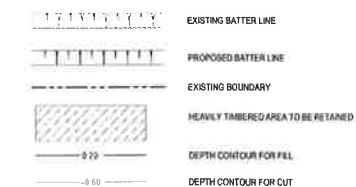
(APPROXIMATE ONLY)
NOT TO BE USED FOR CONTRACTUAL PURPOSES. TENDERS TO
DETERMINE VOLUMES USING THEIR OWN METHOD OF CALCULATION

- EARTHWORKS QUANTITIES -	
TOTAL AREA (19.00 ha)	
CUT	3840 m ²
FILL	106735 m ²
SHORT FILL	12815 m ²
TOPSOIL STRIPPING 100mm OF 1000mm NOT INCLUDED IN CALCULATION	
EXCAVATION FOR SERVICE TRENCHES NOT INCLUDED IN CALCULATION	

NOTES:

CONTOURS SHOW LEVEL DIFFERENCE BETWEEN STRIPPED EXISTING SURFACE LEVELS AND BULK EARTHWORKS LEVELS
ACCESS ROAD PAVEMENT THICKNESS 0.50m
BIG BASIN THICKNESS 1.15m

LEGEND



DEPTH RANGE			Colour
Lower value	Upper value		
-6	to -4	Meters	
-4	to -2	Meters	
-2	to -1	Meters	
-1	to -0.5	Meters	
-0.5	to -0.2	Meters	
-0.2	to -0.1	Meters	
-0.1	to -0.05	Meters	
-0.05	to 0	Meters	
0	to 0.05	Meters	
0.05	to 0.1	Meters	
0.1	to 0.2	Meters	
0.2	to 0.4	Meters	
0.4	to 0.6	Meters	
0.6	to 0.8	Meters	
0.8	to 1	Meters	
1	to 2	Meters	
2	to 4	Meters	
4	to 6	Meters	

SITE
BOUNDARY

SOUTHERN BIORETENTION BASIN

SITE
BOUNDARY

LIMIT OF
WORKS

CUT AND FILL PLAN
SCALE 1:1000 @ A0

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AHD
ORIGIN OF LEVELS: PM 30122 RL 43.58

FRASER PROPERTY AUSTRALIA
LANDPARTNERS

Land & E.
75 Macquarie Avenue
Cherrybrook NSW 2762

Mobile: 08 25417 8400
Fax: 08 25417 8337
Email: enquiries@hrym.com.au
Web: www.henryrhymes.com.au



EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
CUT AND FILL PLAN

ISSUED FOR S96

Drawn L. Calve	Checked A. Franco	Date FEB 18
Created J. Champagne	Reviewed A. Franco	Scale 1:1000 (A0)

17D83_S96_BE01 02

PROPOSED BUSINESS HUB ROOTY HILL ROAD SOUTH, EASTERN CREEK, NSW CIVIL ENGINEERING WORKS FOR S96

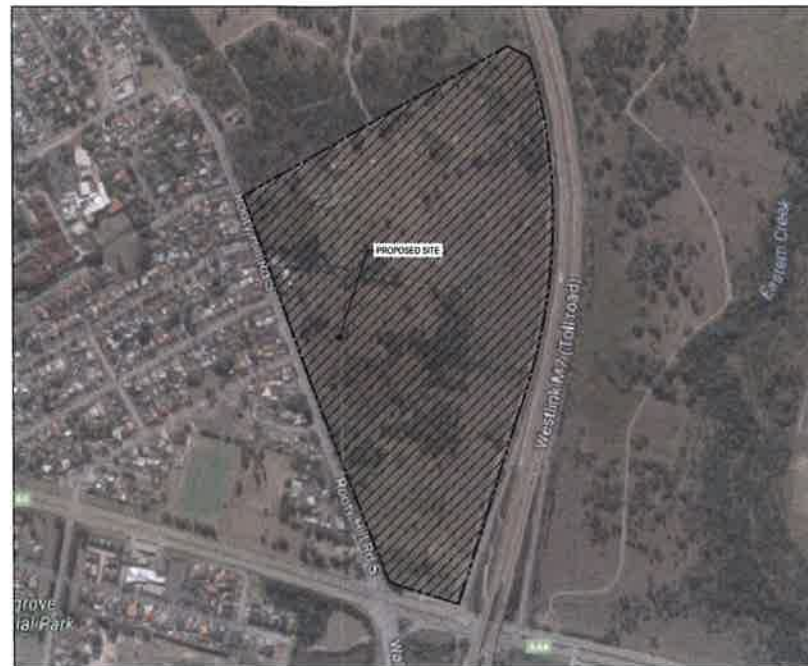
GENERAL NOTES:

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
- ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A WORKMANLIKE MANNER.
- THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE CIVIL PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. HENRY AND HYMAS CONSULTING PTY LTD. CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
- SERVICES & ACCESS TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
- ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
- REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
- MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND BLACKTOWN CITY COUNCIL'S REQUIREMENTS WHERE APPLICABLE.
- CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
- PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.



EXISTING SERVICES & FEATURES

- THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL (IF REQUIRED) OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
- PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL OBTAIN APPROVAL OF HIS PROGRAM FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
- CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT.
- INTERUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO OBTAIN APPROVAL FROM THE SUPERINTENDENT FOR TIME OF INTERRUPTION.
- EXISTING SERVICES, BUILDINGS, EXTERNAL STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE EXISTING FEATURES PRIOR TO ANY DEMOLITION WORKS.
- EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH CIVIL PLAN AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A DIAL BEFORE YOU DIG SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 800mm DEPTH OF GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.



LOCALITY PLAN

SCALE: NTS

DRAWING SCHEDULE

17D83_S96_B001	CUT AND FILL PLAN
17D83_S96_C000	COVER SHEET, DRAWING SCHEDULE, NOTES AND LOCALITY SKETCH
17D83_S96_C000	GENERAL ARRANGEMENT PLAN
17D83_S96_C001	DETAIL CIVIL PLAN, SHEET 1 OF 7
17D83_S96_C002	DETAIL CIVIL PLAN, SHEET 2 OF 7
17D83_S96_C003	DETAIL CIVIL PLAN, SHEET 3 OF 7
17D83_S96_C004	DETAIL CIVIL PLAN, SHEET 4 OF 7
17D83_S96_C005	DETAIL CIVIL PLAN, SHEET 5 OF 7
17D83_S96_C006	DETAIL CIVIL PLAN, SHEET 6 OF 7
17D83_S96_C007	DETAIL CIVIL PLAN, SHEET 7 OF 7
17D83_S96_C008	TYPICAL SITE SECTIONS, SHEET 1 OF 2
17D83_S96_C009	TYPICAL SITE SECTIONS, SHEET 2 OF 2
17D83_S96_C010	STORMWATER CHANNELS TYPICAL SECTIONS
17D83_S96_C011	ACCESS ROAD CL 1 LONG SECTION AND CHANGES PLAN
17D83_S96_C012	ACCESS ROAD CL 2 LONG SECTION AND CHANGES PLAN
17D83_S96_C013	STORMWATER MISCELLANEOUS DETAILS AND PIT LID SCHEDULE
17D83_S96_C014	STORMWATER LONGITUDINAL SECTIONS SHEET 1 OF 2
17D83_S96_C015	STORMWATER LONGITUDINAL SECTIONS SHEET 2 OF 2
17D83_S96_C016	NORTH BASIN PLAN AND SECTIONS
17D83_S96_C017	NORTH BASIN DETAILS
17D83_S96_C018	SOUTH BASIN PLAN AND SECTIONS
17D83_S96_C019	SOUTH BASIN DETAILS
17D83_S96_C020	CATCHMENT PLAN - WATER QUANTITY
17D83_S96_C021	CATCHMENT PLAN - WATER QUALITY
17D83_S96_C022	ACCESS ROAD CATCHMENT PLAN
17D83_S96_C023	RETAINING WALL OVERALL PLAN
17D83_S96_C024	RETAINING WALL LONG SECTIONS
17D83_S96_C025	RETAINING WALL SECTIONS
17D83_S96_SE01	SEDIMENT AND EROSION CONTROL PLAN
17D83_S96_SE02	SEDIMENT AND EROSION CONTROL DETAILS

SITEWORKS NOTES

- DATUM: AHD
- ORIGIN OF LEVELS: REFER TO BENCHMARK STATE SURVEY MARKS WHERE SHOWN ON PLAN
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- WHERE NEW WORKS ADJACENT TO EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN 800mm DEPTH OF GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- GRADES TO PAVEMENTS TO BE AS IMPLIED BY RLS ON PLAN. GRADE EVENLY BETWEEN NOMINATED RLS AREAS EXCEPTING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
- ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE SURVEYOR SPECIFIED IN THE TITLE BLOCK. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS PTY LTD. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASED ON ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT HENRY AND HYMAS PTY LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY DOCUMENTS.

ORIGIN OF LEVELS: PM 30122, RL 43.58
DATUM: AHD



Planning &
Environment

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Approved Section 4.55 (1.2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 9 of 37

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
(DATUM: AHD)
ORIGIN OF LEVELS: PM 30122, RL 43.58

NO.	REVISION	DATE	BY	REASON
01	ISSUED FOR S96	18/07/2019	HL	ISSUED FOR S96
02	ISSUED FOR S96	18/07/2019	HL	ISSUED FOR S96
03	ISSUED FOR S96	18/07/2019	HL	ISSUED FOR S96

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EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS

COVER SHEET, DRAWING SCHEDULE,
AND LOCALITY SKETCH

ISSUED FOR S96

Drawn	Checked	Date
M. Davis	L. Gable	FEB 18
Reviewed	Approved	Date
T. Dwyer	A. Francis	NTS 04
Drawing Number	Sheet	
17D83_S96_C000	04	



LEGEND

- EXISTING BATTER LINE
- PROPOSED BATTER LINE
- EXISTING BOUNDARY
- HEAVILY TIMBERED AREA TO BE RETAINED
- DIVERSION CATCH DRAIN
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED STORMWATER PPE
- PROPOSED SUBSOIL LINE
- PROPOSED FLUSHING POINT
- PROPOSED INTERMEDIATE RISER
- PROPOSED HEAD WALL
- PROPOSED SUBSOIL LINE
- PROPOSED RIDGE LINE
- PROPOSED KERB & GUTTER



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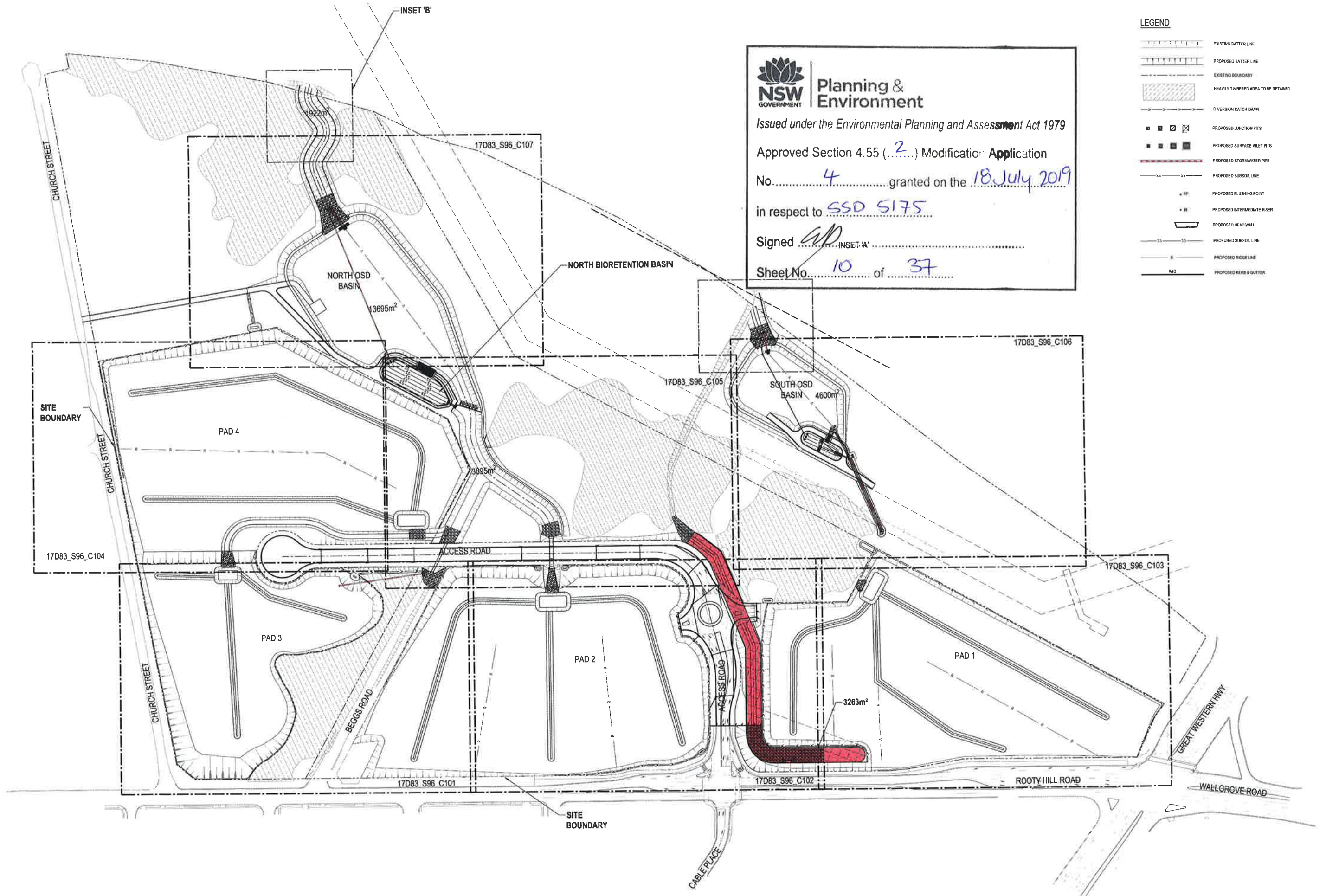
Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature] INSET 'A':

Sheet No. 10 of 37



GENERAL ARRANGEMENT PLAN
SCALE 1:1000

0 20 40 60 80 100m
SCALE 1:1000

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATE: 10/12/18
ORIGIN OF LEVELS: PM 30122 RL 43.58

REV	DESCRIPTION	DATE	BY	CHECKED
01	ISSUED FOR S96	10/12/18	MC	EC
02	REVISION FOR S96	10/12/18	MC	EC
03	REVISION FOR S96	10/12/18	MC	EC

Client: FRASER PROPERTY AUSTRALIA
Surveyor: LANDPARTNERS

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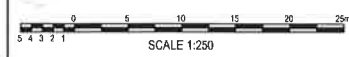
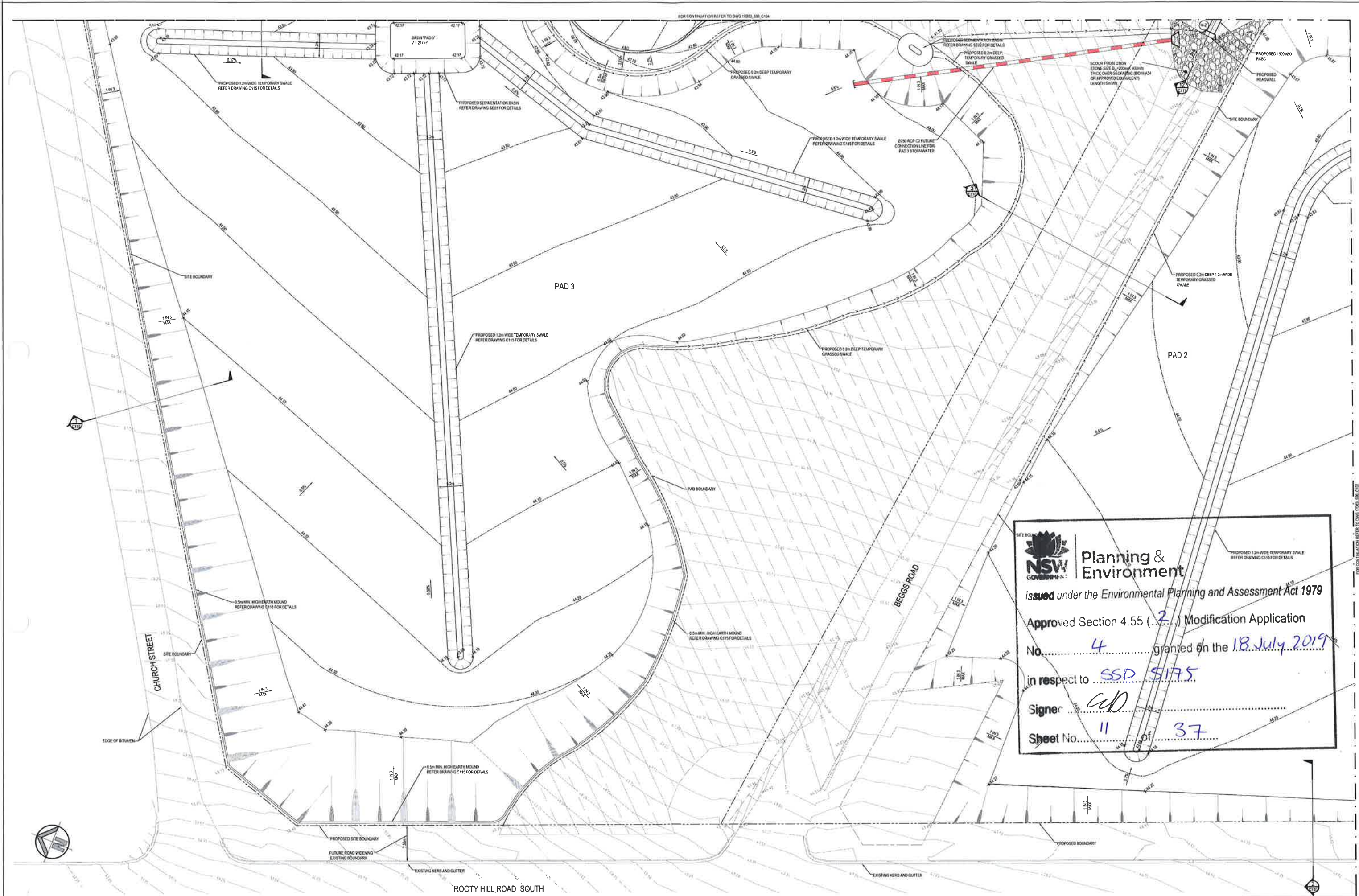


Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
The GENERAL ARRANGEMENT PLAN

ISSUED FOR S96

Rev	Drawn	Date
1.0	L. Carle	11/01/19
2.0	T. Drummond	11/01/19
3.0	A. Francis	11/01/19

17D83_S96_C100 03



SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AND
ORIGIN OF LEVELS: PM 3/12/2018, 42.58

NO.	DESCRIPTION	DATE	BY	CHECKED	REVISION
01	ISSUED FOR S96	18 JUL 2019
02	ISSUED FOR S96	18 JUL 2019
03	ISSUED FOR S96	18 JUL 2019


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**EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS**
DETAIL CIVIL PLAN
SHEET 1 OF 7

Drawn S. Cane	Checked L. Cane	Date FEB 18
Designed A. Farnham	Reviewed A. Farnham	Scale 1:250 (S96)

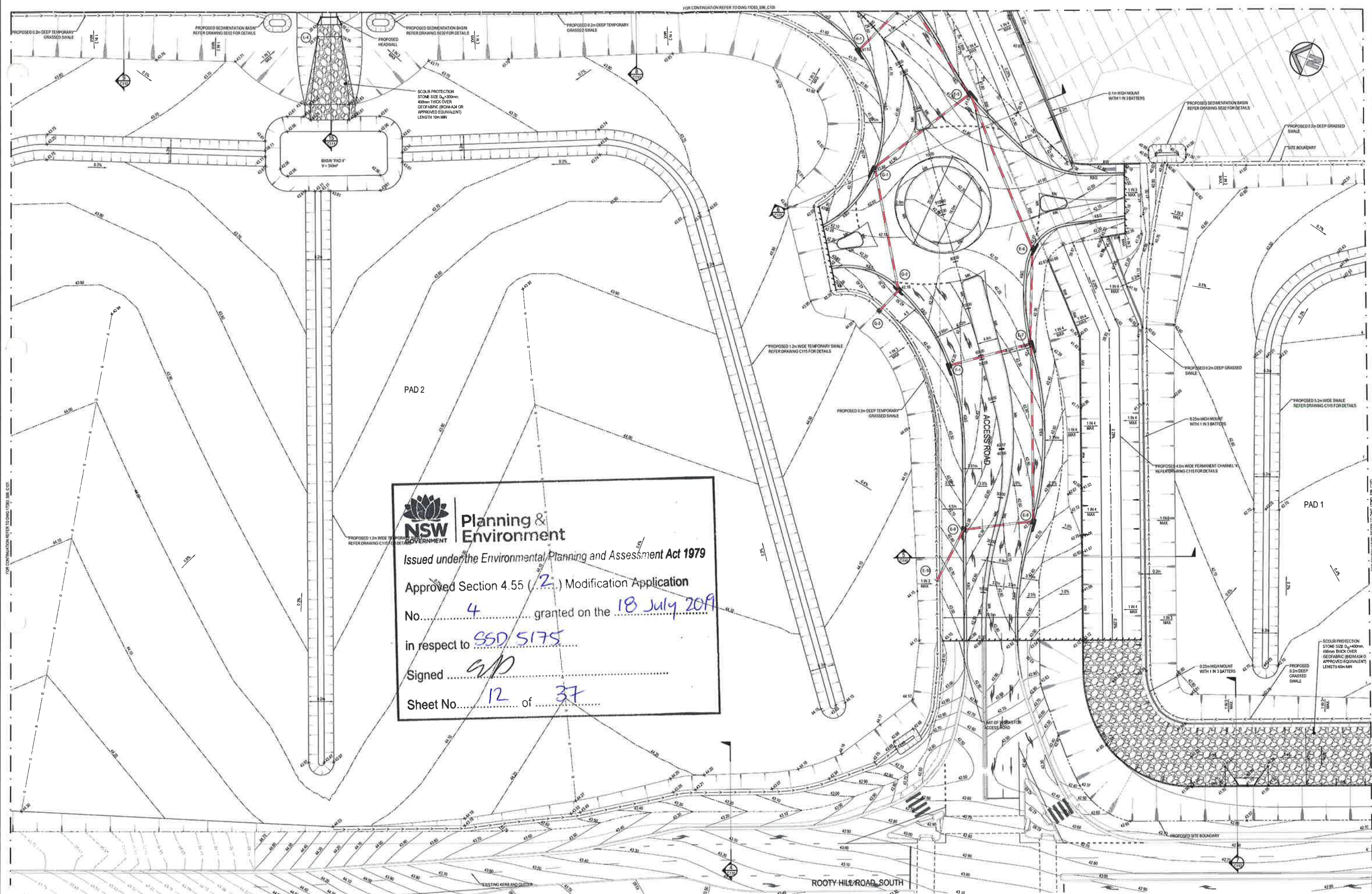


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Approved Section 4.55 (2) Modification Application
No. 4 granted on the 18 July 2019
in respect to SSD S175
Signer CD
Sheet No. 11 of 37

DETAIL CIVIL PLAN
SCALE 1:250

ISSUED FOR S96

FOR CONTINUATION REFER TO SHEET 12 OF 37



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Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed SP

Sheet No. 12 of 37

DETAIL CIVIL PLAN
SCALE 1/250

ISSUED FOR \$96

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
 DATUM: AHD
 ORIGIN OF LEVELS: PM 30 122 RL 43.58

[illegible]

Client	FRASER PROPERTY AUSTRALIA
Supplier	LANDPARTNERS

Level 5, 79 Victoria Avenue Chatterbox NSW 2006	Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email enrol@hcoansull.com.au Web
---	--

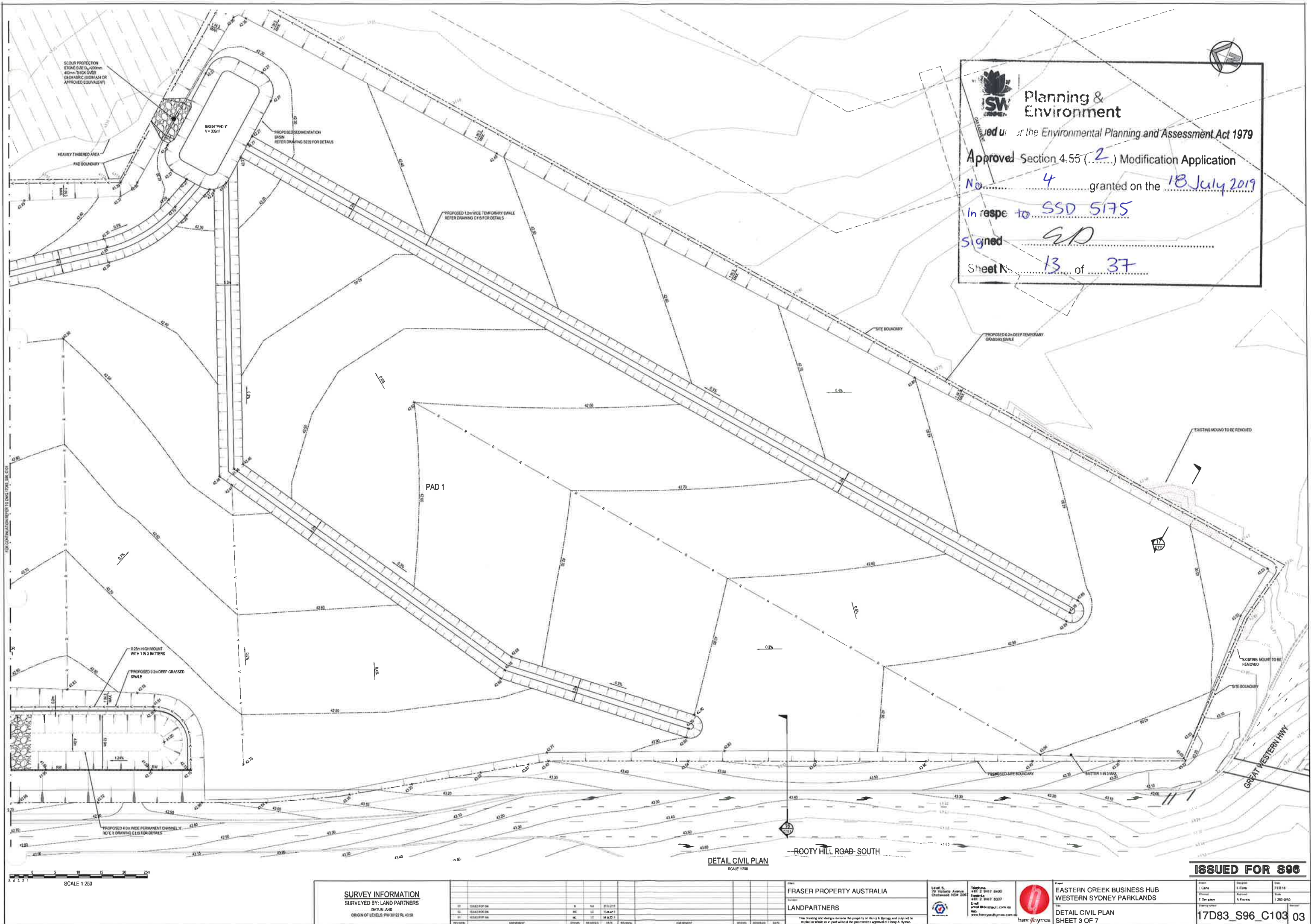



EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS

1 of 1

DETAIL CIVIL PLAN
SHEET 2 OF 7

Domain	Designated	Date
L. Caha	L. Caha	FEB 18
Group(s)	Approved	Quota
Employ	A Francis	1,250 @A0
Issuing Authority		Request
17D83 _ S96 _ C102		03





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Approved under the Environmental Planning and Assessment Act 1979

Approval Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

In response to SSD 5175

Signed [Signature]

Sheet No. 13 of 37

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM AND
ORIGIN OF LEVELS: PM 30/02 RL 43.58

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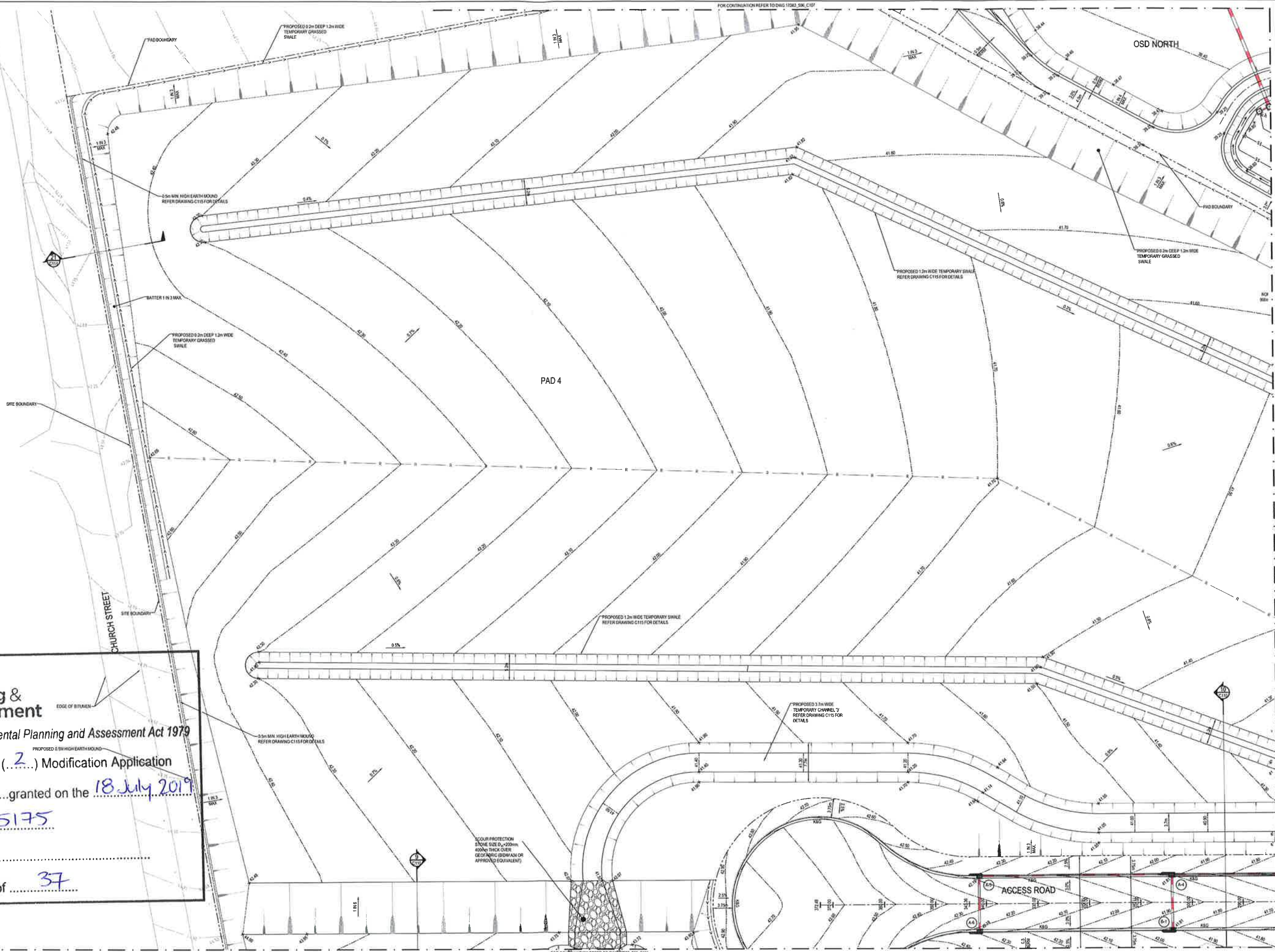
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EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
DETAIL CIVIL PLAN
SHEET 3 OF 7

ISSUED FOR S96
17D83_S96_C103_03



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Approved Section 4.55 (...2...) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed SD

Sheet No. 14 of 37



SCALE 1:250

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM AND
ORIGIN OF LEVELS: PM 30122 RL 42.58

REVISION	DESCRIPTION	DATE	BY	CHKD
01	ISSUED FOR S96	10.02.2019	LD	LD
02	ISSUED FOR S96	10.02.2019	LD	LD
03	ISSUED FOR S96	10.02.2019	LD	LD

Client
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Survey
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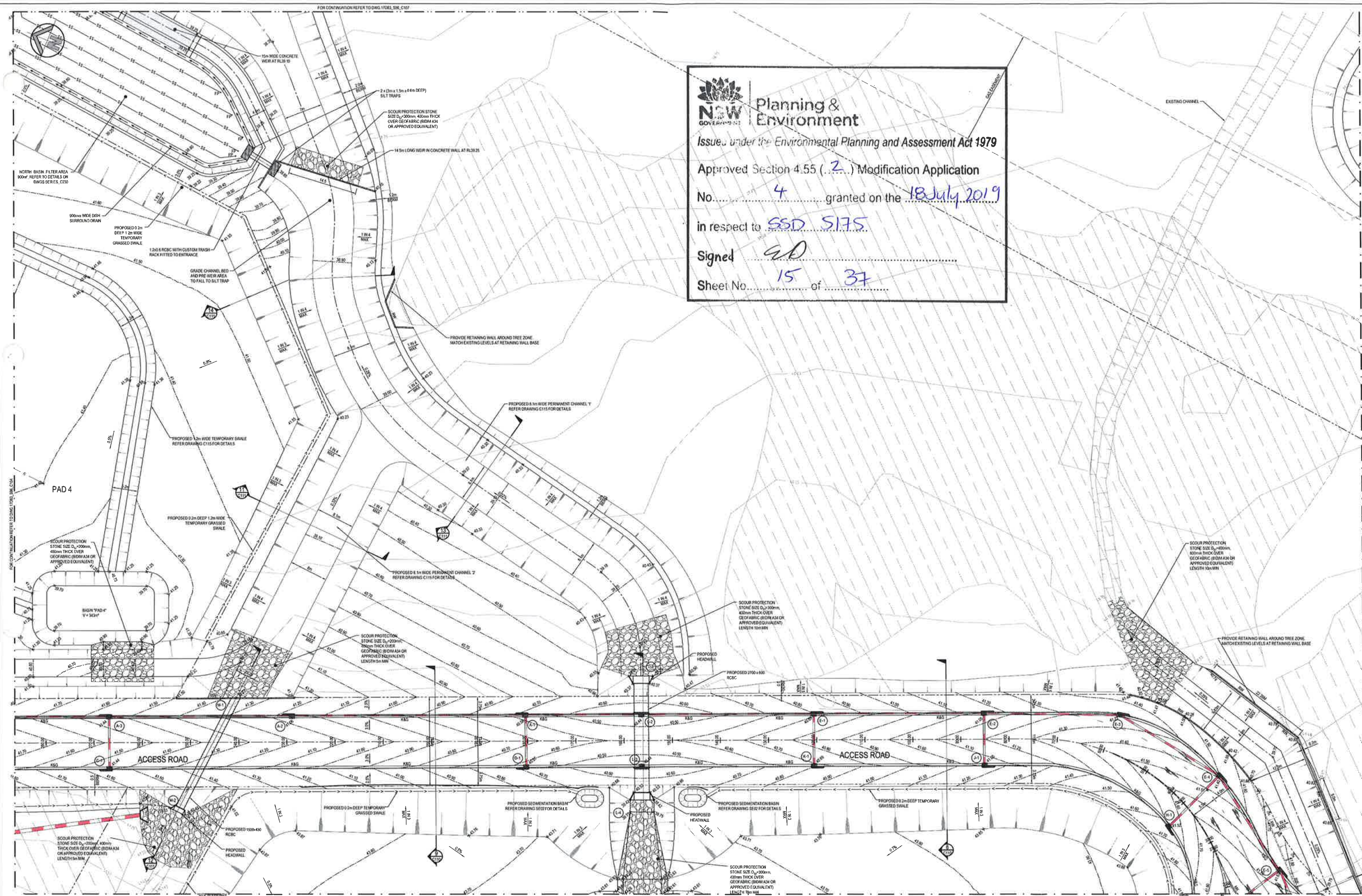



Project
**EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS**
Title
DETAIL CIVIL PLAN
Sheet
SHEET 4 OF 7

ISSUED FOR S96

Drawn	Checked	Date
L. Caine	L. Caine	FEB 19
Checked	Approved	Scale
T. Duggan	A. Francis	1:250 @A0

Plotting system	Revision
17D83 S96 C104 03	





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Issue under the Environmental Planning and Assessment Act 1979

Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 15 of 37




SURVEY INFORMATION	
SURVEYED BY: LAND PARTNERS	
DATUM AND	
ORIGIN OF LEVELS: PM 30122 RL 43.58	

NO.	REVISION	DATE	BY	CHKD.	APP'D.
01	ISSUED FOR S96	27/02/2019	MC	LC	MC
02	ISSUED FOR S96	13/04/2019	MC	LC	MC
03	ISSUED FOR S96	20/05/2019	MC	LC	MC

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Design	LANDPARTNERS
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--	--

	Project	EASTERN CREEK BUSINESS HUB WESTERN SYDNEY PARKLANDS
	Sheet	DETAIL CIVIL PLAN SHEET 5 OF 7

ISSUED FOR S96	
Drawn	Design
Checked	Approved
Drawn by	Drawn by
17D83_S96_C105 03	



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Drawn L. Caba	Disputed L. Caba	Date FEB 18
Checked S. Dingemans	Approved A. Francis	Scale 1:250 @ 1:50
Drawing number 17D83_S96_C106		Revision 03



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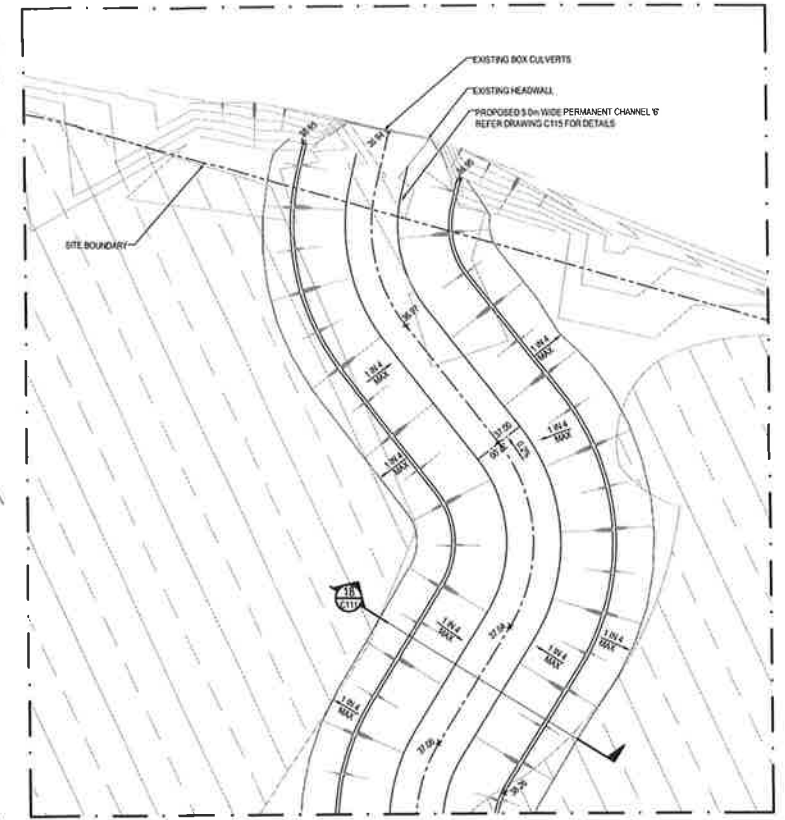
Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 17 of 37



SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AHD
ORIGIN OF LEVELS: PM 30122 RL 43.58

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02	ISSUED FOR S96	12.04.2019	MC	MC	12.04.2019
03	ISSUED FOR S96	29.02.2021	MC	MC	29.02.2021

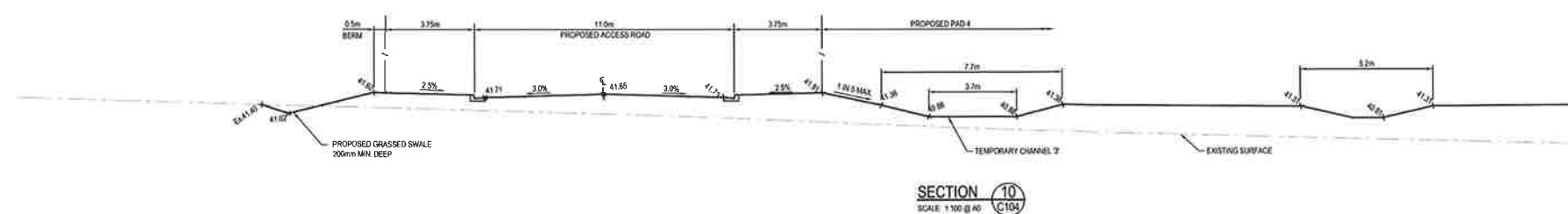
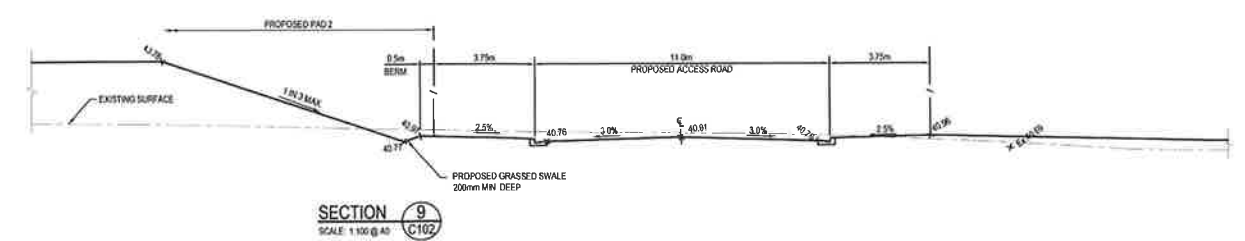
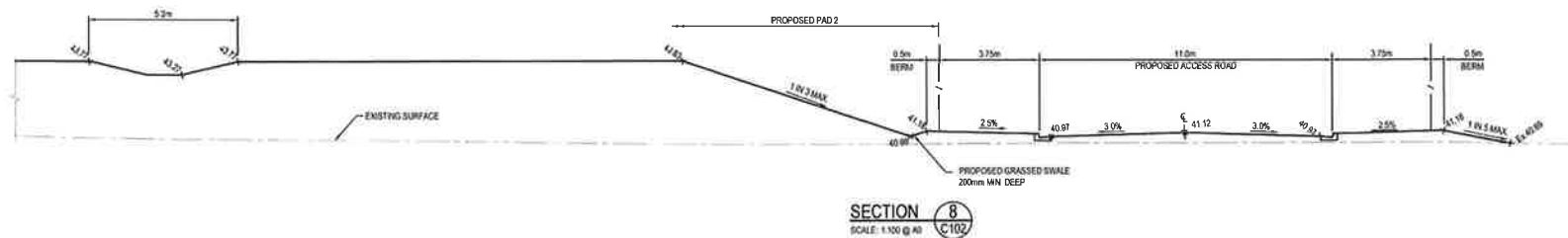
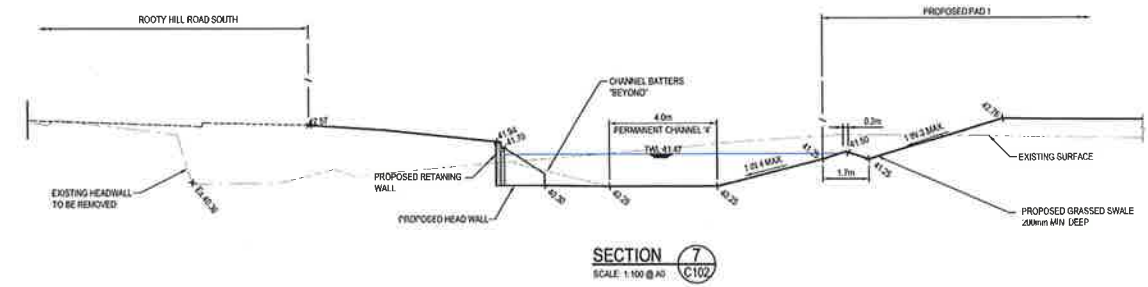
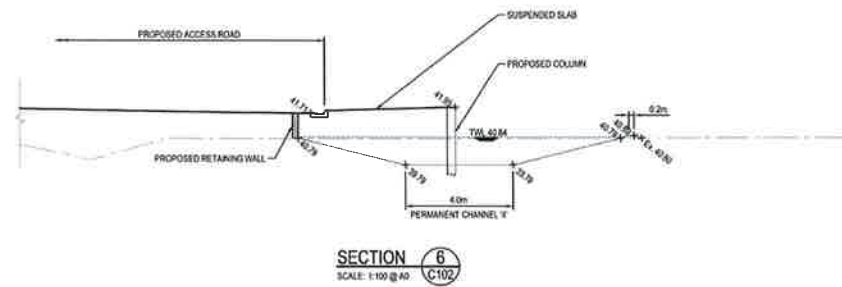
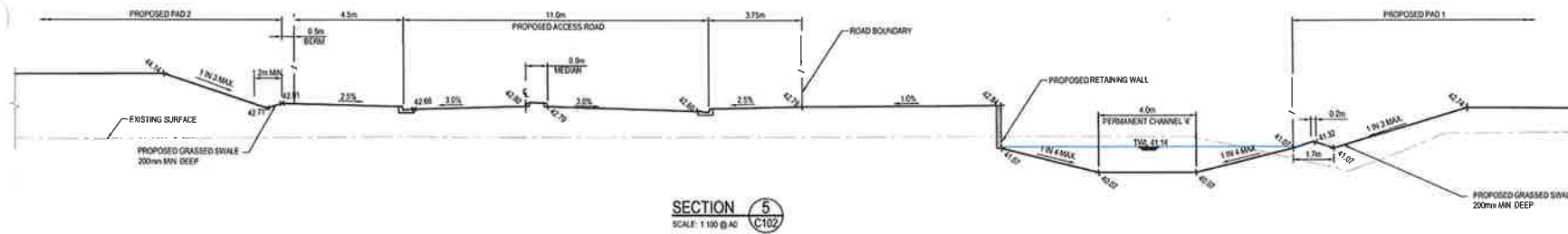
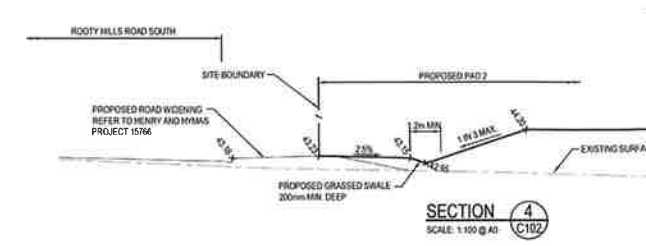
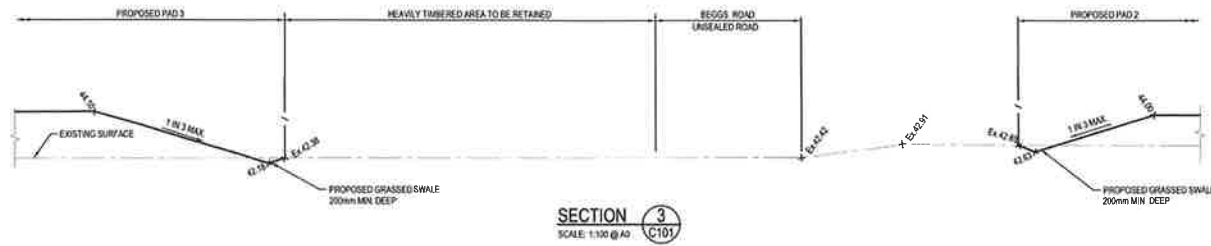
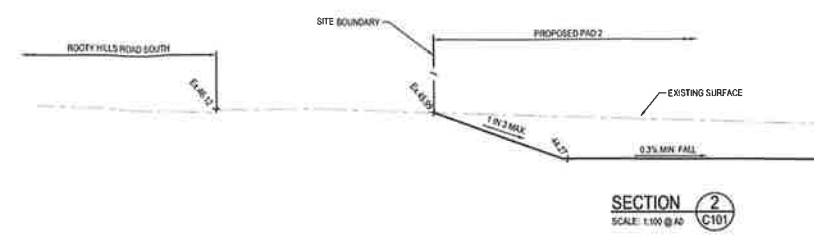
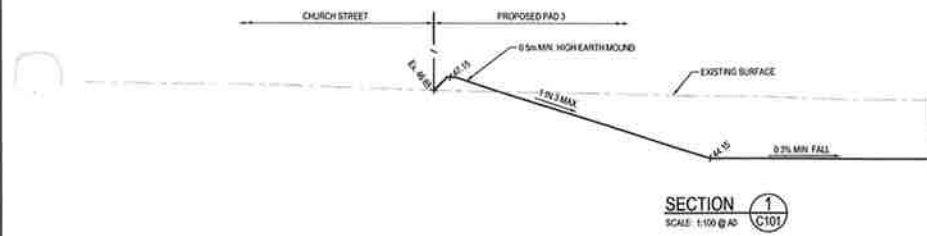
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Project
EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
Drawing Number
DETAIL CIVIL PLAN
SHEET 7 OF 7

ISSUED FOR S96
Drawn
L. Cohn
Checked
A. Francis
Scale
1:250 @A0
File
FILE 18
Date
17D83_S96_C107 03



Planning & Environment

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Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5775

Signed [Signature]

Sheet No. 18 of 37

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AHD
ORIGIN OF LEVELS: PM 30122 RL 43.58

NO.	REVISION	DATE	BY	CHKD	APPD
01	ISSUED FOR SH	27/02/2019	LC	LC	
02	ISSUED FOR SH	13/04/2019	LC	LC	
03	ISSUED FOR SH	26/07/2019	LC	LC	
04	ISSUED FOR SH	26/07/2019	LC	LC	

FRASER PROPERTY AUSTRALIA
LANDPARTNERS

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Facsimile
601 2 9417 0337
Email
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Web
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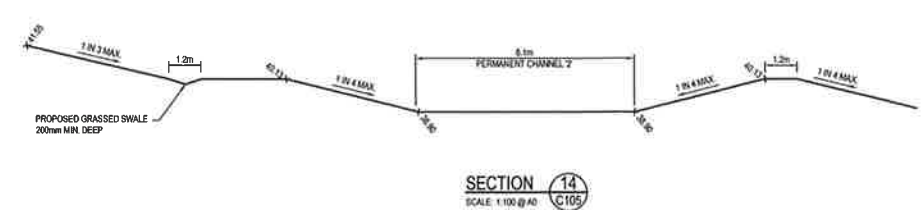
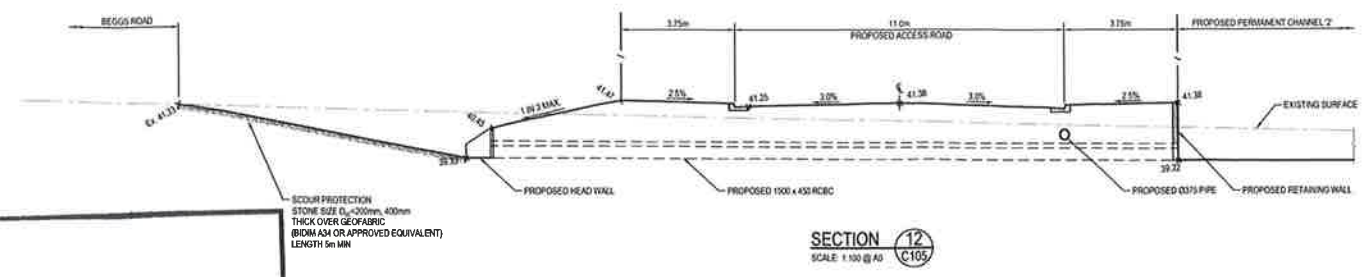


EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS

TYPICAL SITE SECTIONS
SHEET 1 OF 2

ISSUED FOR S96

17D83_S96_C110 03



Planning & Environment

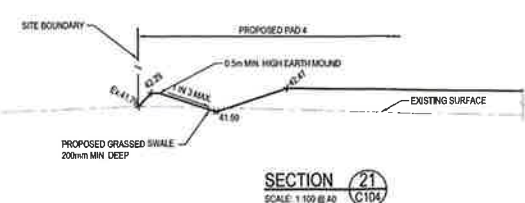
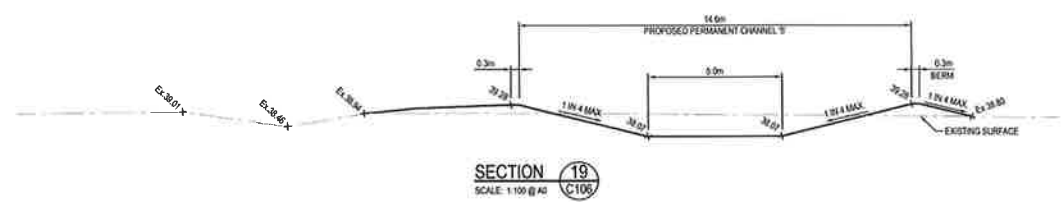
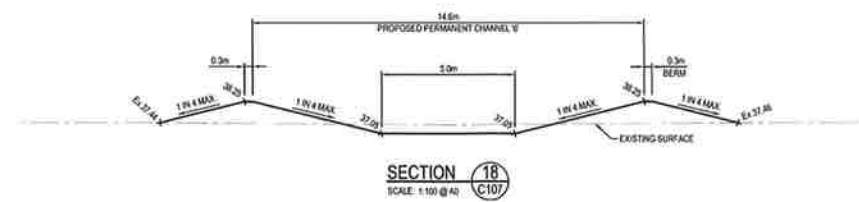
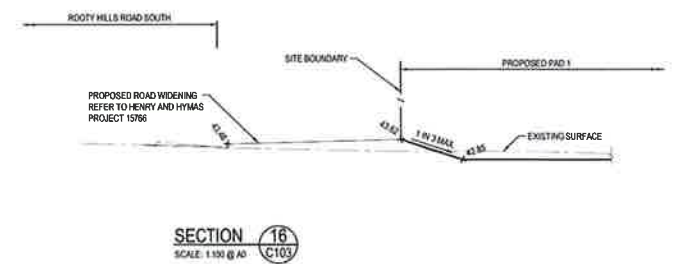
Approved Section 4.55 (...2...) Modification **Application**

No. 4 granted on the 18 July 2019

in respect to SSD 575

Signed SP

Sheet No. 19 of 37



SURVEY INFORMATION
 SURVEYED BY: LAND PARTNERS
 DATUM AND
 ORIGIN OF LEVELS: PM 30122 RL 43.58

[illegible]

Case	FRASER PROPERTY AUSTRALIA
Strategy	LANDPARTNERS

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henryhume

**EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS**

**TYPICAL SITE SECTIONS
SHEET 1 OF 2**

ISSUED FOR \$98

Street 1 Caha	Designated L.Caha	Date FE 11/18
Owner T Dangpany	Approved A Francis	Scale 1:100 @ A0
Drawing number 17D83 S96 C111		Sheet 03



Given	Designed	Date
L. Calhoun	L. Calhoun	FEB 18
Checked	Approved	Date
T. Dempsey	A. Francis	FEB 18
Drawing by		File with
17D83_S96_C115		03



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Environment

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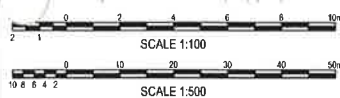
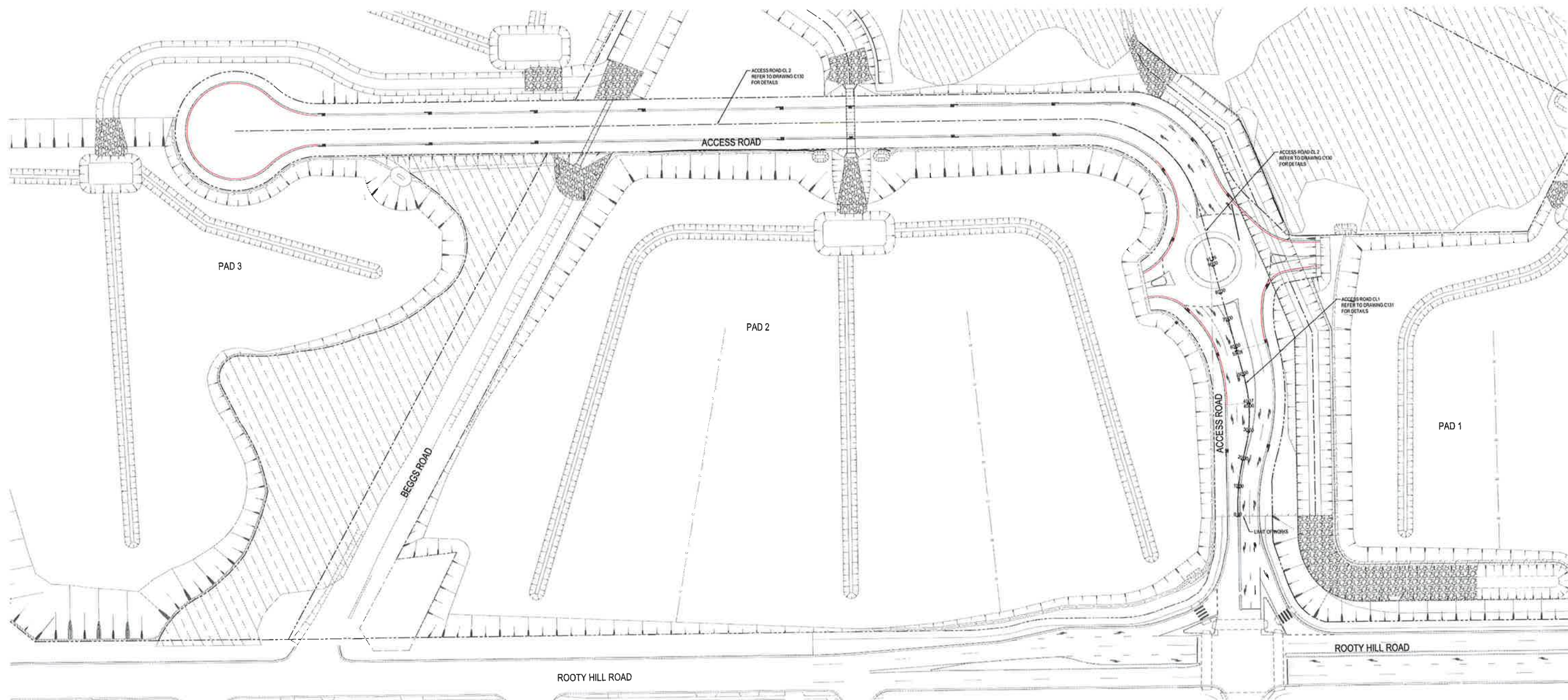
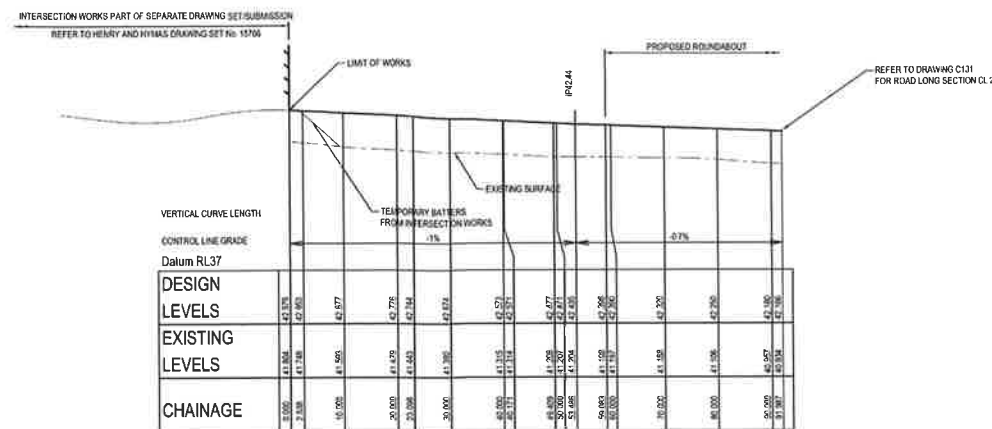
Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

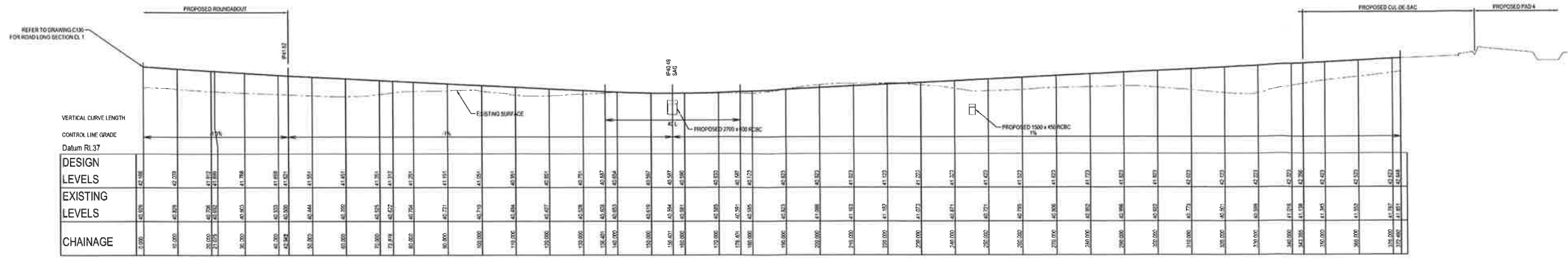
in respect to SSD 5175

Signed [Signature]

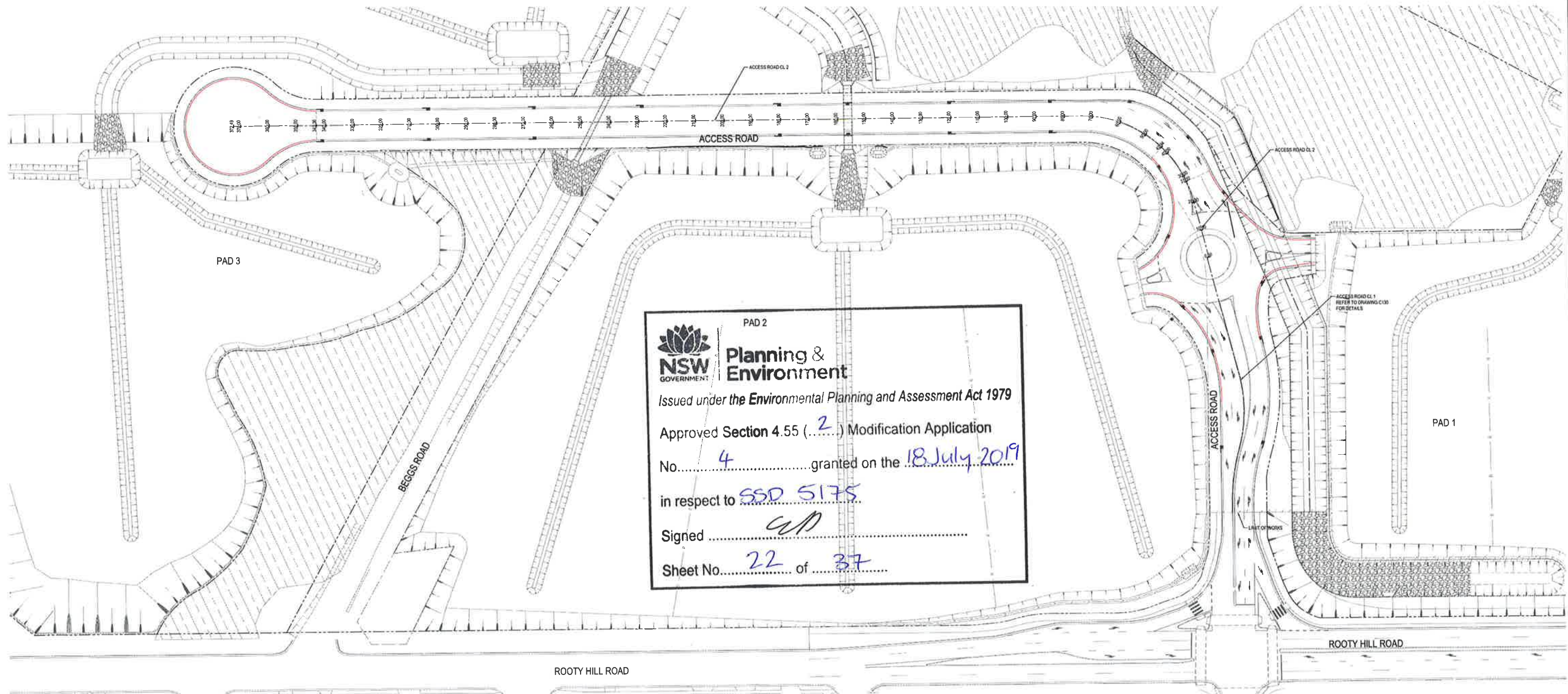
Sheet No. 21 of 37



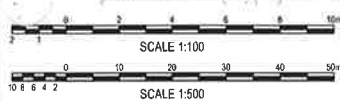
SURVEY INFORMATION		ISSUED FOR S96	
SURVEYED BY: LAND PARTNERS		FRASER PROPERTY AUSTRALIA	
DATUM AND		LANDPARTNERS	
ORIGIN OF LEVELS: PM 2012 RL 43.58		EASTERN CREEK BUSINESS HUB	
		WESTERN SYDNEY PARKLANDS	
		ACCESS ROAD CL 1 LONG SECTION	
		AND CHAINAGES PLAN	
		17D83_S96_C130 03	



ACCESS ROAD CL 2 LONGITUDINAL SECTION
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



NSW GOVERNMENT
Planning & Environment
Issued under the *Environmental Planning and Assessment Act 1979*
Approved Section 4.55 (.....2.....) Modification Application
No.....4.....granted on the 18 July 2019
in respect to SSD 5175
Signed
Sheet No.....22..... of37.....



SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM AND
ORIGIN OF LEVELS: PM 3/12/2012 RL 43.58

NO.	DATE	DESCRIPTION	BY	CHECKED	DATE
01	20/01/2019	ISSUED FOR S96	LAND PARTNERS		
02	12/01/2019	REVISION			
03	12/01/2019	REVISION			
04	12/01/2019	REVISION			
05	12/01/2019	REVISION			
06	12/01/2019	REVISION			
07	12/01/2019	REVISION			
08	12/01/2019	REVISION			
09	12/01/2019	REVISION			
10	12/01/2019	REVISION			

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EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
ACCESS ROAD CL 2 LONG SECTION
AND CHAINAGES PLAN

ISSUED FOR S96

Drawn	Checked	Rev
L. Caha	L. Caha	1
Checked	Approved	Rev
L. Caha	A. Francis	AS NOTED @ R/S
Drawn	Checked	Rev
L. Caha	L. Caha	1
Checked	Approved	Rev
L. Caha	A. Francis	AS NOTED @ R/S

17D83_S96_C131 02

PIT LID SCHEDULE

PIT/STRUCTURE NUMBER	DESCRIPTION
<div> <div> <div>A-5</div> <div>A-6</div> <div>B-1</div> <div>C-1</div> <div>D-1</div> <div>E-1</div> <div>F-1</div> <div>G-1</div> <div>H-1</div> <div>I-1</div> <div>J-1</div> <div>K-1</div> </div> <div> <div>L-2</div> <div>L-3</div> <div>L-4</div> <div>L-5</div> <div>L-6</div> <div>L-7</div> <div>L-8</div> </div> </div>	ON GRADE KERB INLET PIT WITH 1.8m LINTEL AND HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENT. PITS TO BE FITTED WITH "EQUIVOPRO" 200 MICRON PIT BASKET WITH OILSORBS OR EQUAL APPROVED EQUIVALENT.
<div> <div> <div>M-1</div> <div>M-2</div> <div>L-1</div> <div>L-4</div> </div> <div> <div>N-1</div> <div>N-2</div> <div>N-3</div> </div> </div>	CONCRETE HEADWALL TO SUIT BOX CULVERTS AS SPECIFIED ON DETAIL PLANS
<div> <div> <div>N-1</div> <div>N-2</div> </div> <div> <div>G-3</div> </div> </div>	CONCRETE HEADWALL TO SUIT 3425mm CONCRETE PIPES AS SPECIFIED ON DETAIL PLANS
	JUNCTION PIT WITH 900x900 HINGED HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENT.
	GRADED INLET PIT WITH 900x900 HINGED MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENT.

SIEVE SIZE (MM)	WEIGHT PASSING (%)
75.0	100
9.5	100 TO 50
2.36	100 TO 30
0.60	50 TO 15
0.075	25 TO 0

SIEVE SIZE (MM)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	50 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SUPPORT TYPE	HAUNCH ZONE Y	HAUNCH ZONE X	HAUNCH ZONE Z	MAX BEDDING FACTOR
HS1	100 IF D=1500, OR 150 IF D=1000	0.10	50	2.0
HS2		0.30	60	2.5
HS3		0.30	70	4.0

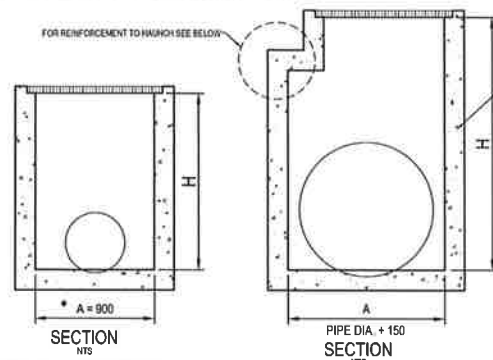
DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.
3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING 70% WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS REFER TO THIS DRAWING FOR DETAILS.
5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.
6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.
7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.
8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SHIPPE TO AS3500. ALL OTHER PIPES TO BE RCP UNLESS CLASS 3 RUBBER RING JOINTED PIPE. HARDWARE PVC PIPE MAY BE USED IN LIEU OF RCP IF DESIGNED IN GROUND. ALL PIPES TO BE PVC CLASS SH.
9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME. ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADS) MAX. TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN SITU TO 32 MPa. REINFORCED WITH N12 @ 200mm BOTH LONGWAYS CENTRALLY PLACED. UNLESS OTHERWISE SPECIFIED IN THIS SET. GALV. MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADINGS. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE. MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.
10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3500.4.
11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
 - PIPE SIZE
 - DEPTH TO INVERT
 - SKEW ANGLE
12. REFER TYPICAL PIT CHAMBER DETAILS BELOW.
13. IF PIT LID IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THIS STEP BEING DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
14. FOR PIPE SIZES GREATER THAN 600mm, PIT FLOOR IS TO BE BENCH TO FACILITATE FLOW.
15. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO VALET PIPES. (MINIMUM LENGTH 3m).
16. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK. UNLESS OTHERWISE INSTALLED UPSTREAM OF ALL PITS.
17. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.
18. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.
19. ALL PIPE JOINTS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.
20. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 PART 3. TESTING IS TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.
21. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHANGES ARE INDICATIVE ONLY.
22. PITS IN EXCESS OF 1.5m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12 @ 200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT UNLESS OTHERWISE SPECIFIED IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.
23. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS REFER TO LANDSCAPING PLANS FOR DETAILS.
24. ALL STORMWATER PITS TO HAVE 1000 UPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

TYPICAL PIT CHAMBER SIZES

IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS.
4. CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.

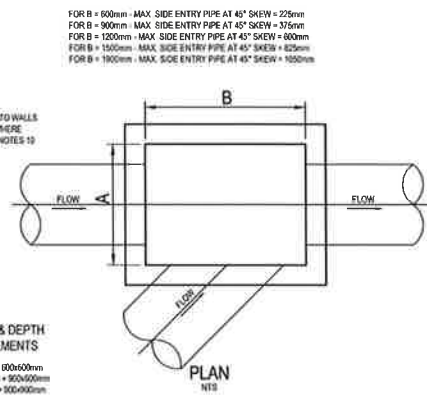


*A = 600 FOR PIPES UP TO 375 DIA.

1. PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.

PIT SIZE & DEPTH REQUIREMENTS

H = 0.900m - A/B = 0.00000mm
H = 0.900m - A/B = 0.00000mm
H = 1.200m - A/B = 0.00000mm



FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
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FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1800mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm

FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
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FOR B = 1800mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm

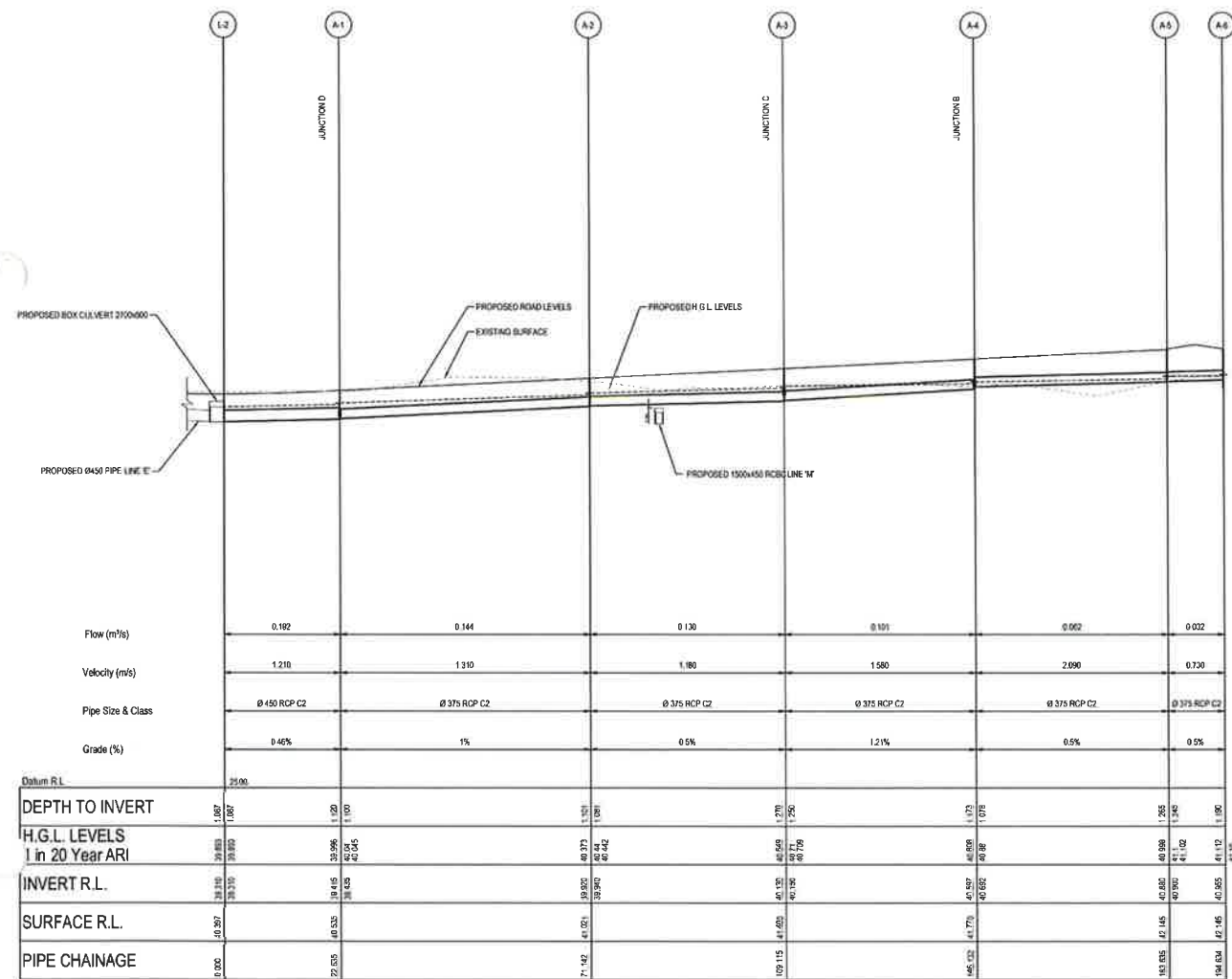
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FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1800mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm

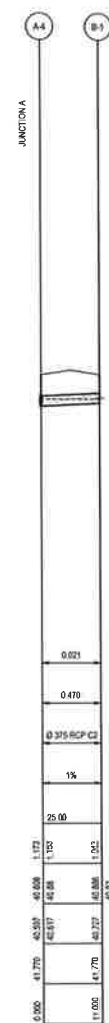
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FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
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FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
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FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1800mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm



LINE A
SCALE: H 1:500
V 1:100



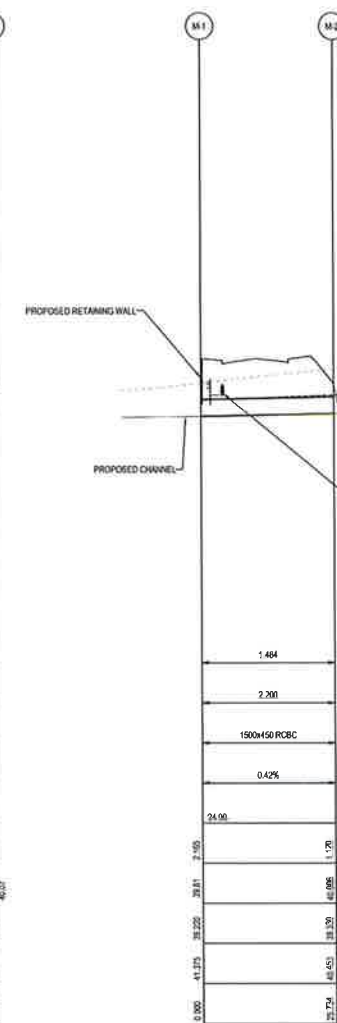
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SCALE: H 1:500
V 1:100



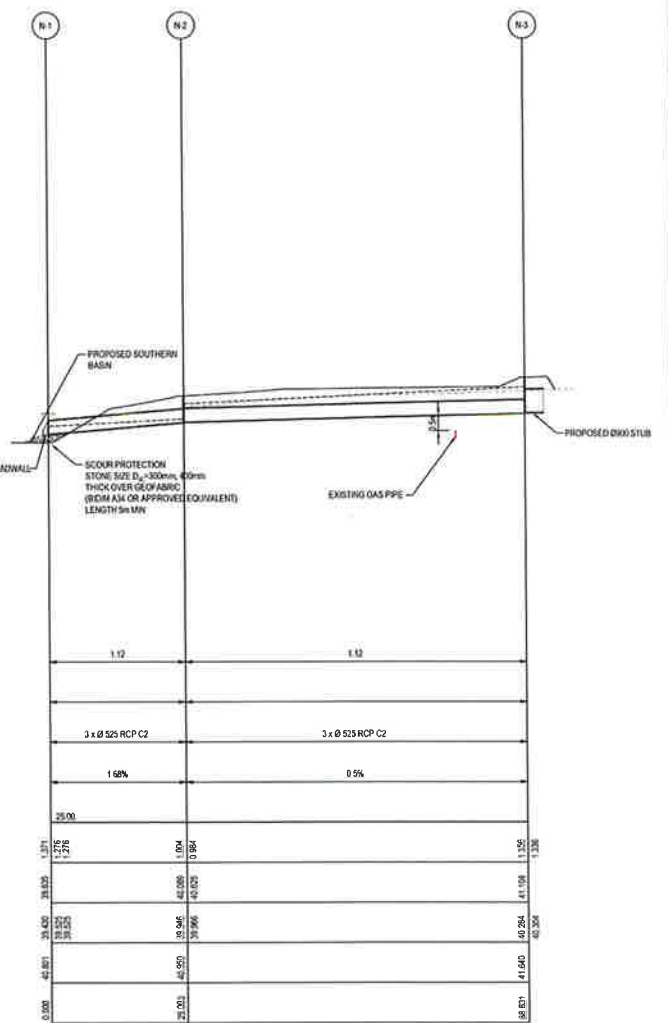
LINE C
SCALE: H 1:500
V 1:100



LINE D
SCALE: H 1:500
V 1:100



LINE M
SCALE: H 1:500
V 1:100



LINE N
SCALE: H 1:500
V 1:100



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Approved Section 4.55 (...2...) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature] SCALE 1:100

Sheet No. 24 of 37

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATE: 20/02/2019
ORIGIN OF LEVELS: PM 30/02/2019

Client: FRASER PROPERTY AUSTRALIA
Surveyor: LANDPARTNERS

Level 5, 20 Victoria Avenue, Chesham NSW 2568
Telephone: 02 9417 8400
Fax: 02 9417 8337
Email: info@landpartners.com.au
Web: www.landpartners.com.au



Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
Title: STORMWATER LONGITUDINAL SECTIONS
SHEET 1 OF 2

ISSUED FOR S96

Drawn: L. Goh
Checked: A. Hymas
Date: 18/07/2019
Scale: AS NOTED @A0
17D83_S96_C220 03



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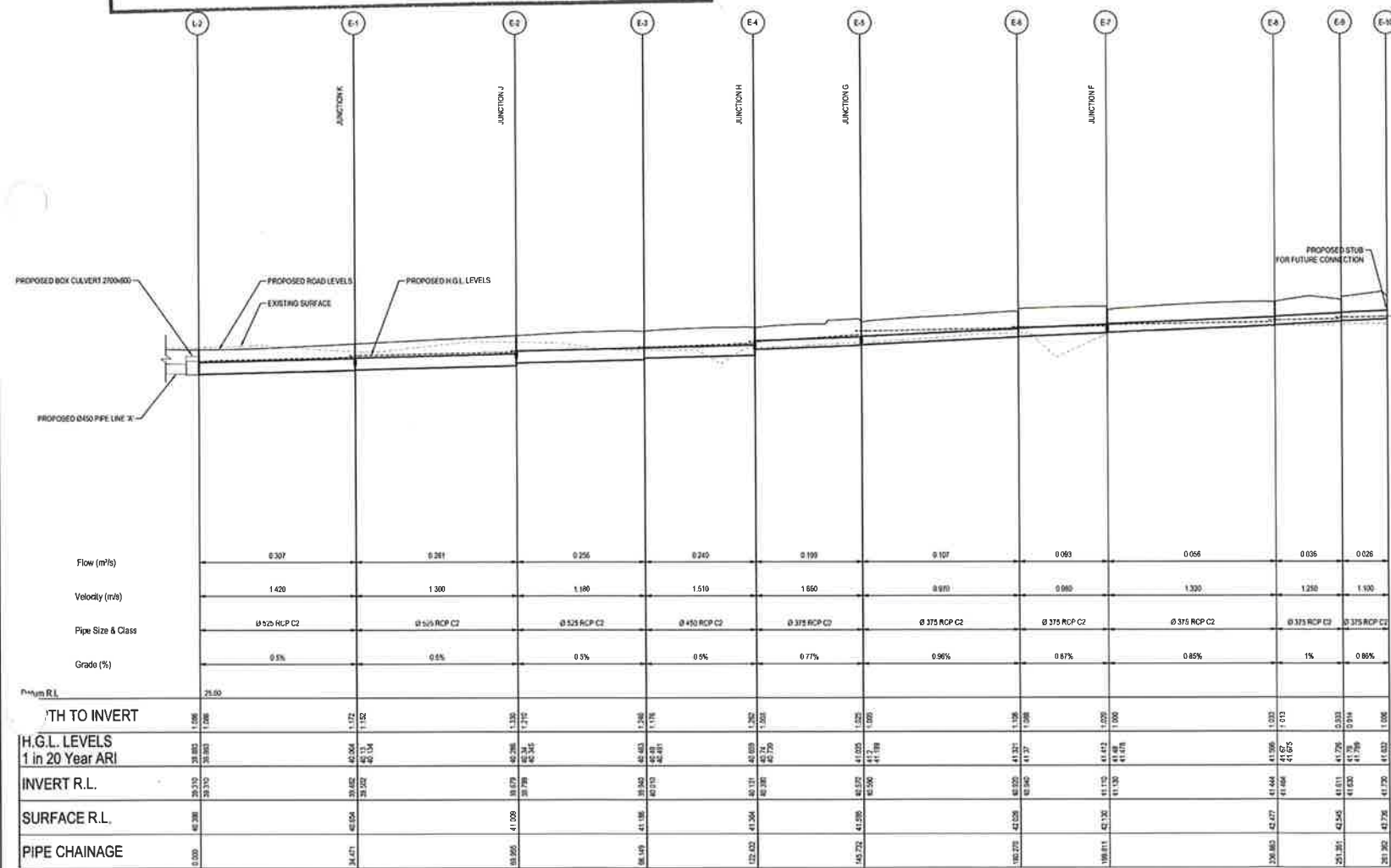
Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

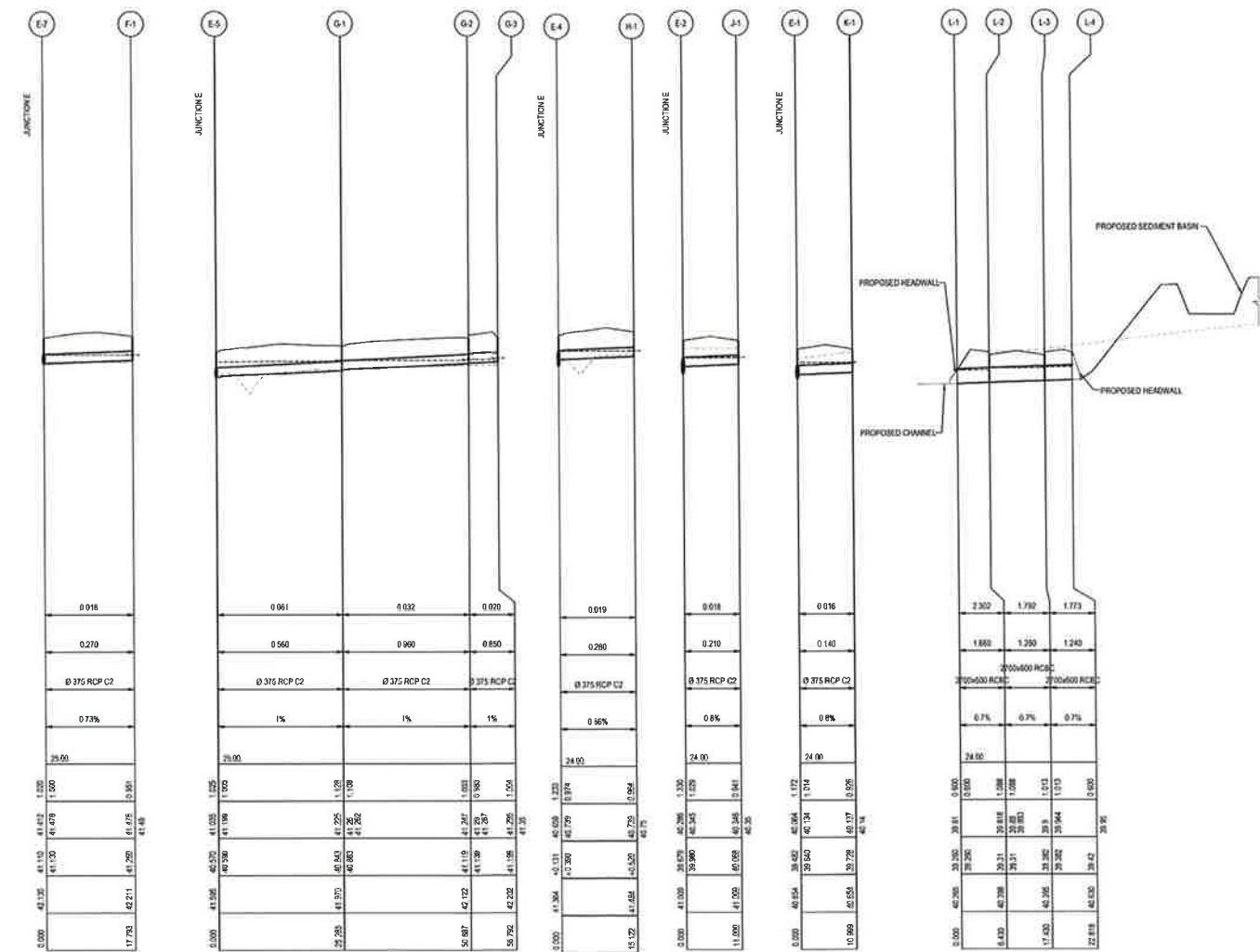
in respect to SSD 5175

Signed LP

Sheet No. 25 of 37



LINE E
SCALE: H 1:500
V 1:100



LINE F
SCALE: H 1:500
V 1:100

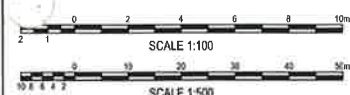
LINE G
SCALE: H 1:500
V 1:100

LINE H
SCALE: H 1:500
V 1:100

LINE J
SCALE: H 1:500
V 1:100

LINE K
SCALE: H 1:500
V 1:100

LINE L
SCALE: H 1:500
V 1:100



SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATE: 14/04/2019
ORIGIN OF LEVELS: PM 30/02/96 43.56

Client: FRASER PROPERTY AUSTRALIA
Surveyor: LANDPARTNERS

Level 2, 20 Victoria Avenue
Cherrybrook NSW 2051

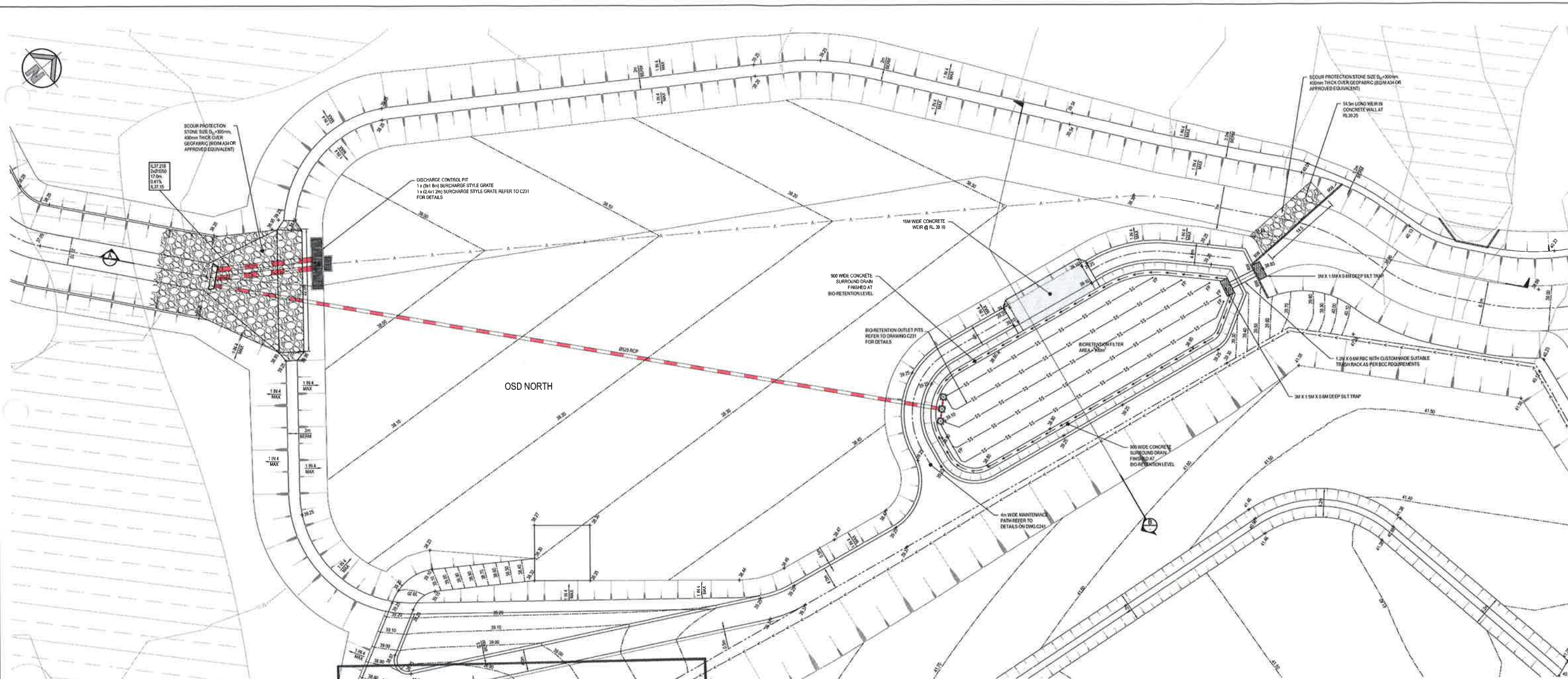
Telephone: +61 2 9417 8400
Facsimile: +61 2 9417 8337
Email: info@landpartners.com.au
Web: www.landpartners.com.au



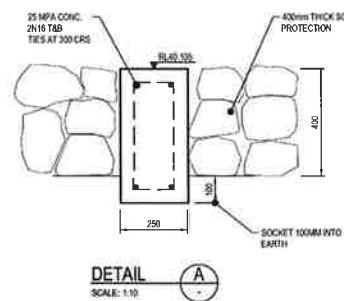
Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
Drawing: STORMWATER LONGITUDINAL SECTIONS
SHEET 2 OF 2

Drawn: L. C. C. 10/10/18
Checked: A. Francis
Reviewed: AS NOTED @AS
17D83_S96_C221 03

ISSUED FOR S96



NORTH BASIN PLAN
SCALE 1:250



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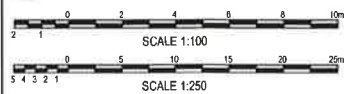
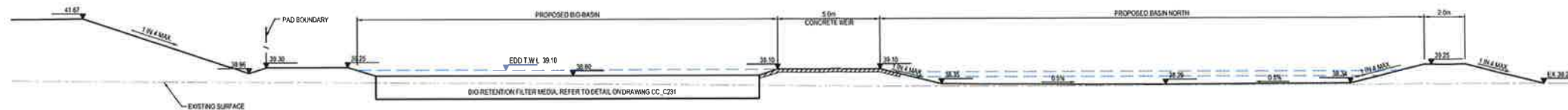
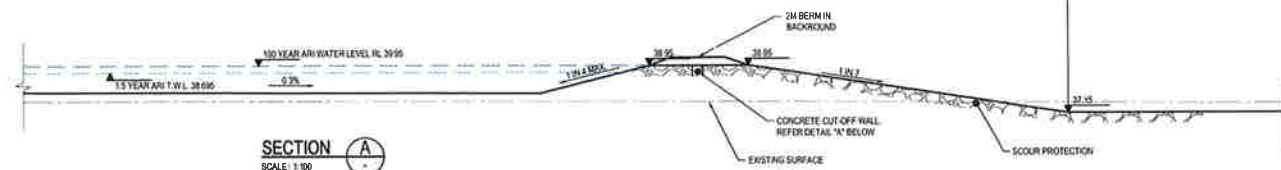
Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to S96 5175

Signed [Signature]

Sheet No. 26 of 37



SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM AND
ORIGIN OF LEVELS: PM 30122 RL 43.58

NO.	DESCRIPTION	DATE	BY	CHECKED	DATE	BY	CHECKED	DATE	BY	CHECKED
01	DESIGN FOR 100	10/10/2018	Y	Y	10/10/2018	Y	Y	10/10/2018	Y	Y
02	DESIGN FOR 100	10/10/2018	Y	Y	10/10/2018	Y	Y	10/10/2018	Y	Y
03	DESIGN FOR 100	10/10/2018	Y	Y	10/10/2018	Y	Y	10/10/2018	Y	Y

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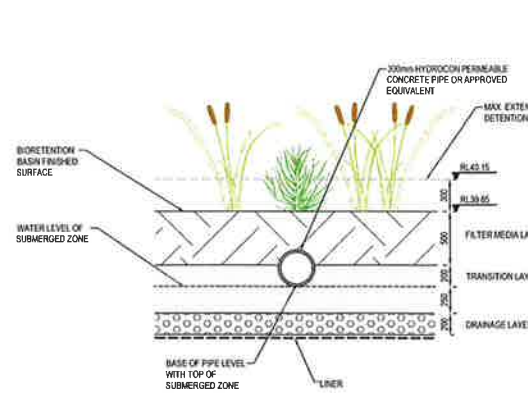


EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
NORTH BASIN
PLAN AND SECTIONS

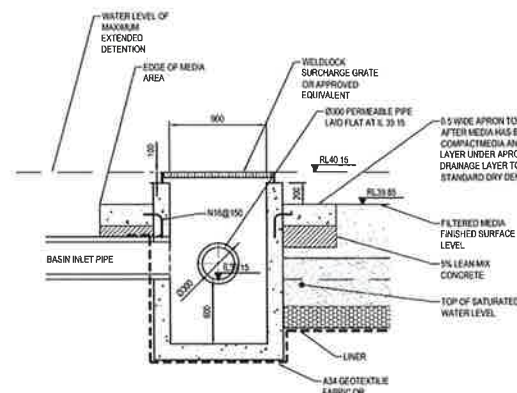
ISSUED FOR S96

Drawn L. Caine	Checked L. Caine	Date 17/08/18
Created T. Dymally	Reviewed A. Fournier	Issue A/S SHOWN @ 10

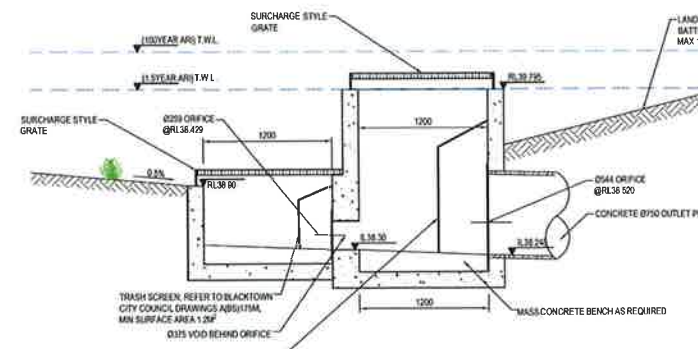
17D83_S96_C230 03



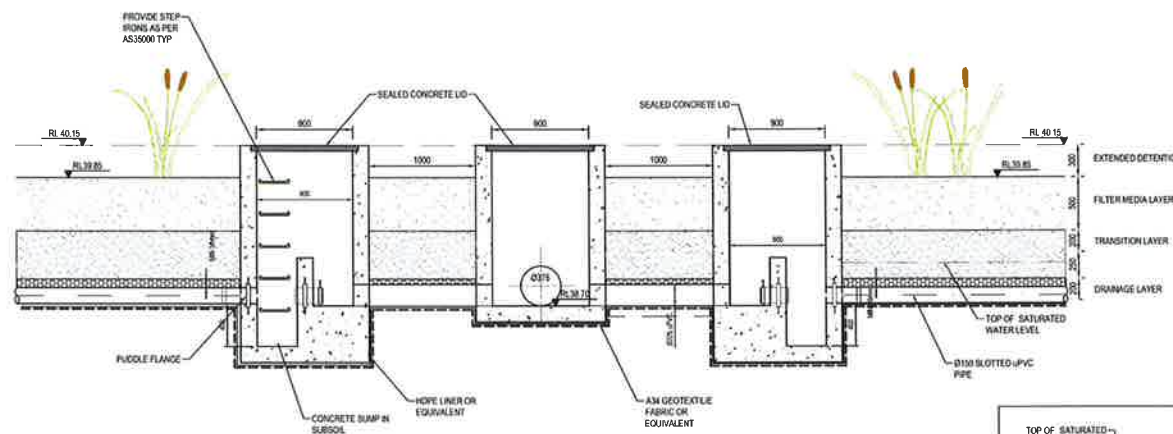
BIO-RETENTION FILTER PROFILE INCLUDING PERMEABLE CONCRETE PIPE
SCALE 1:25



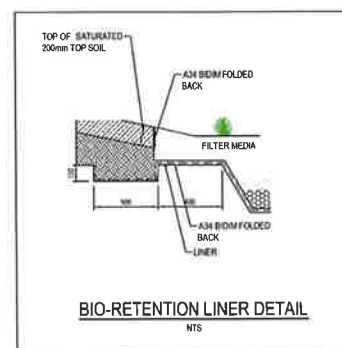
BIO-RETENTION SYSTEM INLET PIT
SCALE 1:25



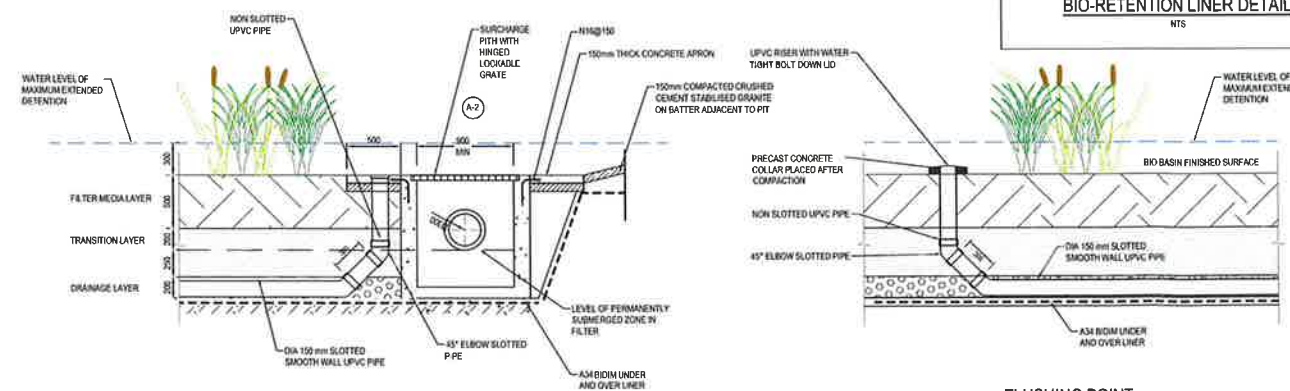
DISCHARGE CONTROL PIT
SCALE 1:25



OUTLET FOR LARGE BIO-RETENTION SYSTEM
SCALE 1:25

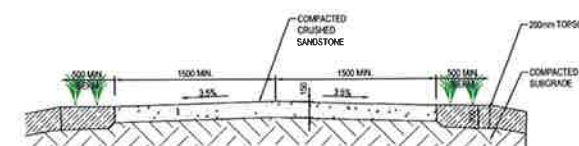


BIO-RETENTION LINER DETAIL
NTS



TYPICAL UPFLOW OUTLET PIT LOCATED IN BIORETENTION BASIN
NTS

FLUSHING POINT
NTS



MAINTENANCE ACCESS TRACK
SCALE 1:25

NOTE:
ACCESS PATH TO HAVE MAXIMUM 10% LONGITUDINAL GRADE

Above Ground OSD Summary with calculated values	
Site:	
Site Area	41680 m ²
Site Area NOT Draining to OSD	0 m ²
Reduced Levels (AHD):	
RL of Top of Tank	40.245
RL of Bottom of OSD Tank	39.2
RL of 1.5 Year ARI Overflow Weir	39.795
RL of Emergency Overflow Weir	40.105
RL of 1.5 Year ARI Orifice Centerline	38.429
RL of 100 Year ARI Orifice Centerline	38.52
RL of Invert of Discharge to Council Drainage Pit	38.17
RL of obvert of Pit outlet pipe	39.05
Minimum RL of Garage Floor	40.335
Minimum RL of House Floor	40.435
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	2021.9 m ³
Required Storage BELOW Emergency Overflow Weir	3066.5 m ³
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	No
Discharge Location	Council Drainage Pit
Length of Emergency Overflow Weir	20.00 m
Maximum 1.5 Year ARI Site Discharge	166.72 L/s
1.5 Year ARI Orifice Discharge	166.72 L/s
Maximum 100 Year ARI Site Discharge	791.92
100 Year ARI Orifice Discharge	791.92 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	259.5 mm
100 Year ARI Orifice Size (mm)	544.5 mm
Notifications:	
Due to the Outlet Orifice being drowned by 39.4% during 100 ARI event an extra 61.7% of Storage volume has been added.	



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Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 30 of 37

LEGEND

- SITE BOUNDARY
- CATCHMENT BOUNDARY
- SUBCATCHMENT BOUNDARY

NORTH CATCHMENT		
AREA DRAINING TO NORTH OSD = 15.13 Ha		
CATCHMENT 1	NORTH SITE DETENTION BASIN AND LANDSCAPE AREA	2.002 Ha
CATCHMENT 2	PAD 4	4.085 Ha
CATCHMENT 3	PAD 3	2.444 Ha
CATCHMENT 4	WOODLAND RESERVE, BEGGS ROAD AND ROOTY HILL ROAD SOUTH	1.307 Ha
CATCHMENT 5	PAD 2	4.063 Ha
CATCHMENT 6	NEW ESTATE ROAD, REFER TO DRAWING 17D83_CC_C255 FOR INDIVIDUAL CATCHMENT PLAN	1.229 Ha

SOUTH CATCHMENT		
AREA DRAINING TO SOUTH OSD = 4.447 Ha		
CATCHMENT 7	PAD 1	3.590 Ha
CATCHMENT 8	OSD AND BIO-RETENTION BASIN	0.878 Ha

CATCHMENT 6
NEW ESTATE ROAD REFER TO
DRAWING 17D83_CC_C255 FOR
INDIVIDUAL CATCHMENT PLAN
AREA = 1.229 Ha

CATCHMENT 2
PAD 4
AREA = 4.085 Ha

CATCHMENT 3
PAD 3
AREA = 2.444 Ha

CATCHMENT 4 WOODLAND
RESERVE, BEGGS ROAD AND
ROOTY HILL ROAD SOUTH
AREA = 1.307 Ha

CATCHMENT 5
PAD 2
AREA = 4.063 Ha

CATCHMENT 7
PAD 1
AREA = 3.590 Ha

ROOTY HILL ROAD

ROOTY HILL ROAD AND NEW ESTATE
ROAD DEDICATES TO RMS
DRAINING TO OPEN CHANNEL

CATCHMENT PLAN - WATER QUANTITY
SCALE: 1:1000

0 20 40 60 80 100m
SCALE 1:1000

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM AND
ORIGIN OF LEVELS: PM 30122 RL 43.58

NO.	REVISION	DATE	BY	CHKD.	APPD.
01	ISSUED FOR DR	20/11/2019	MC	UC	20/11/2019
02	ISSUED FOR DR	20/11/2019	MC	UC	20/11/2019
03	ISSUED FOR DR	20/11/2019	MC	UC	20/11/2019

Client: FRASER PROPERTY AUSTRALIA
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www.hcasoft.com.au



Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
Drawing: CATCHMENT PLAN - WATER QUANTITY

ISSUED FOR S96

Drawn: M C Ross	Checked: L Cahn	Scale: 1:1000 @A3
17D83_S96_C250	03	



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Environment

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Approved Section 4.55 (...2...) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSO 5175

Signed [Signature]

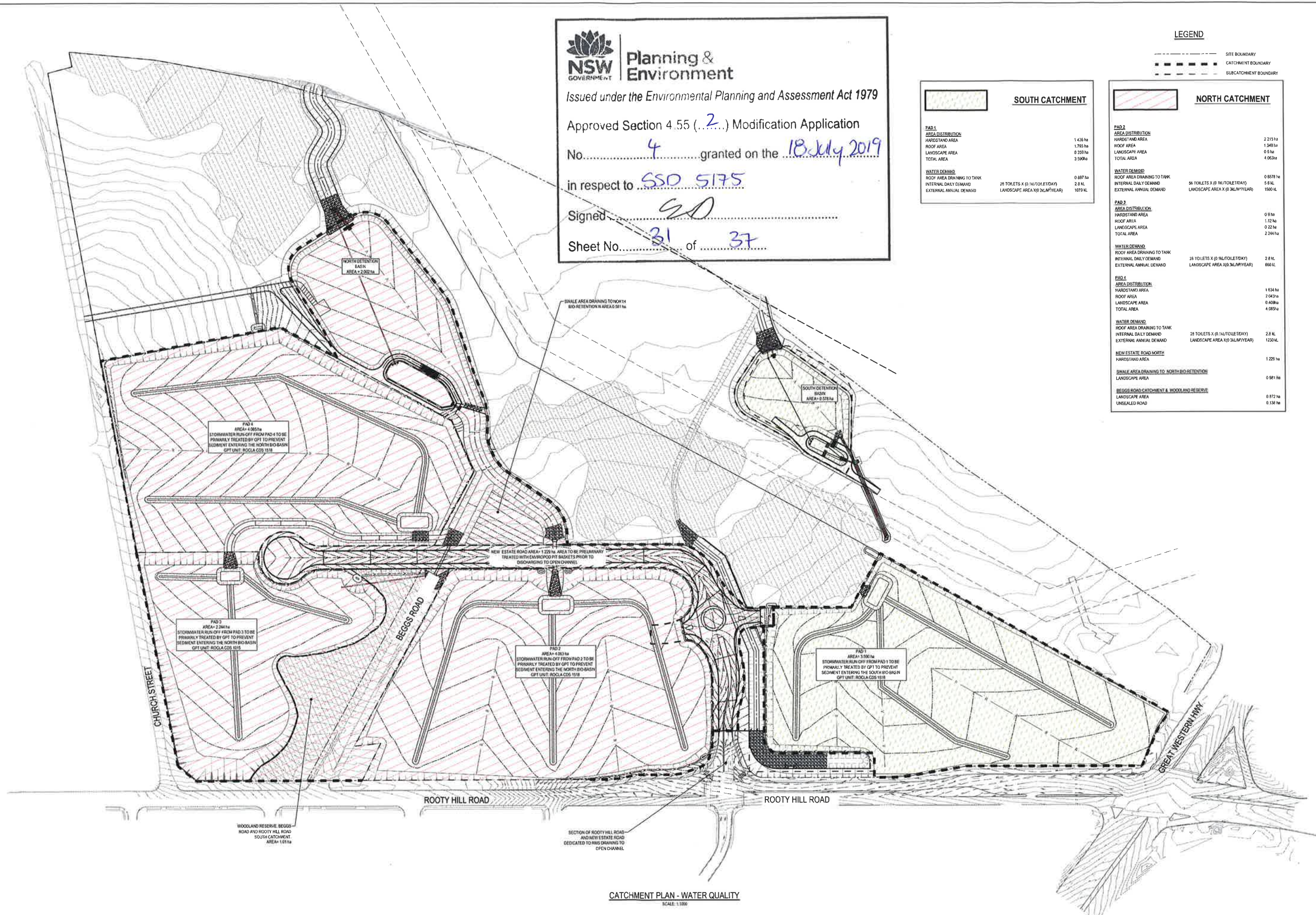
Sheet No. 31 of 37

LEGEND

--- SITE BOUNDARY
--- CATCHMENT BOUNDARY
--- SUBCATCHMENT BOUNDARY

SOUTH CATCHMENT		
PAD 1		
AREA DISTRIBUTION		
HARDSTAND AREA	1.426 ha	
ROOF AREA	1.795 ha	
LANDSCAPE AREA	0.359 ha	
TOTAL AREA	3.580 ha	
WATER DEMAND		
ROOF AREA DRAINING TO TANK	28 TOILETS X (0.141 TOILET/DAY)	0.897 ha
INTERNAL DAILY DEMAND		2.8 ML
EXTERNAL ANNUAL DEMAND	LANDSCAPE AREA X (0.34 ML/YEAR)	1079 ML

NORTH CATCHMENT		
PAD 2		
AREA DISTRIBUTION		
HARDSTAND AREA	2.215 ha	
ROOF AREA	1.549 ha	
LANDSCAPE AREA	0.5 ha	
TOTAL AREA	4.063 ha	
WATER DEMAND		
ROOF AREA DRAINING TO TANK	56 TOILETS X (0.141 TOILET/DAY)	0.8578 ha
INTERNAL DAILY DEMAND		5.6 ML
EXTERNAL ANNUAL DEMAND	LANDSCAPE AREA X (0.34 ML/YEAR)	1560 ML
PAD 3		
AREA DISTRIBUTION		
HARDSTAND AREA	0.9 ha	
ROOF AREA	1.12 ha	
LANDSCAPE AREA	0.22 ha	
TOTAL AREA	2.24 ha	
WATER DEMAND		
ROOF AREA DRAINING TO TANK	28 TOILETS X (0.141 TOILET/DAY)	2.8 ML
INTERNAL DAILY DEMAND		2.8 ML
EXTERNAL ANNUAL DEMAND	LANDSCAPE AREA X (0.34 ML/YEAR)	660 ML
PAD 4		
AREA DISTRIBUTION		
HARDSTAND AREA	1.634 ha	
ROOF AREA	2.043 ha	
LANDSCAPE AREA	0.408 ha	
TOTAL AREA	4.085 ha	
WATER DEMAND		
ROOF AREA DRAINING TO TANK	28 TOILETS X (0.141 TOILET/DAY)	2.8 ML
INTERNAL DAILY DEMAND		1230 ML
EXTERNAL ANNUAL DEMAND	LANDSCAPE AREA X (0.34 ML/YEAR)	138 ML
NEW ESTATE ROAD NORTH		
HARDSTAND AREA	1.225 ha	
SWALE AREA DRAINING TO NORTH BIO-RETENTION		
LANDSCAPE AREA	0.581 ha	
BEGGS ROAD CATCHMENT & WOODLAND RESERVE		
LANDSCAPE AREA	0.872 ha	
UNSEALED ROAD	0.138 ha	



CATCHMENT PLAN - WATER QUALITY

SCALE: 1:1000

20 15 10 5
SCALE 1:1000

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AHD
ORIGIN OF LEVELS: PM 30102 RL 43.50

NO.	REVISION FOR	BY	DATE	REVISION FOR	BY	DATE	REVISION FOR	BY	DATE
01	ISSUED FOR ILM	MC	10/12/2018						
02	REDESIGNED FOR ILM	MC	10/12/2018						
03	REDESIGNED FOR ILM	MC	10/12/2018						

FRASER PROPERTY AUSTRALIA
LANDPARTNERS

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PAGE
EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
CATCHMENT PLAN - WATER QUALITY

ISSUED FOR S96

Drawn M. Correa	Checked J. Caba	Date FEB 18
Designed T. Desrosiers	Reviewed A. Francis	Scale 1:1000 OAD

17D83_S96_C251 03

LEGEND

- SITE BOUNDARY
- CATCHMENT BOUNDARY
- LINE LETTER
- PIT NUMBER
- STORMWATER PIT TAG
- PIT NUMBER
- CATCHMENT LABEL
- CATCHMENT AREA

EX 2.1
0.0409ha

PAD 4
AREA= 4.085 ha

PAD 3
AREA= 2.244 ha

WOODLAND RESERVE, BEGGS ROAD
AND ROOTY HILL ROAD SOUTH
AREA= 1.307 ha

BEGGS ROAD

PAD 2
AREA= 4.043 ha



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Approved Section 4.55 (2) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 32 of 37

ADDITIONAL CATCHMENT
FROM FUTURE PAD 2 TO PIT G-1

FUTURE CONNECTION TO DRAIN
FUTURE PAD 2 LANDSCAPE AREA

ADDITIONAL CATCHMENT
FUTURE PAD 2 LANDSCAPE AREA

NOTE:
REFER TO OVERALL SITE
CATCHMENT DRAWING C250
FOR PAD AREAS

ROOTY HILL ROAD

ACCESS ROAD CATCHMENT PLAN
SCALE: 1:400

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AHD
ORIGIN OF LEVELS: PM 2012 RL 43.58

REVISION	DESCRIPTION	DATE	BY	CHKD	APPD
1	ISSUED FOR INFO	18/07/2019	SS	SS	SS
2	ISSUED FOR INFO	18/07/2019	SS	SS	SS
3	ISSUED FOR INFO	18/07/2019	SS	SS	SS

Owner: FRASER PROPERTY AUSTRALIA
Land: LANDPARTNERS

Level 5,
70 Watkinson Avenue,
Cherrybrook NSW 2061

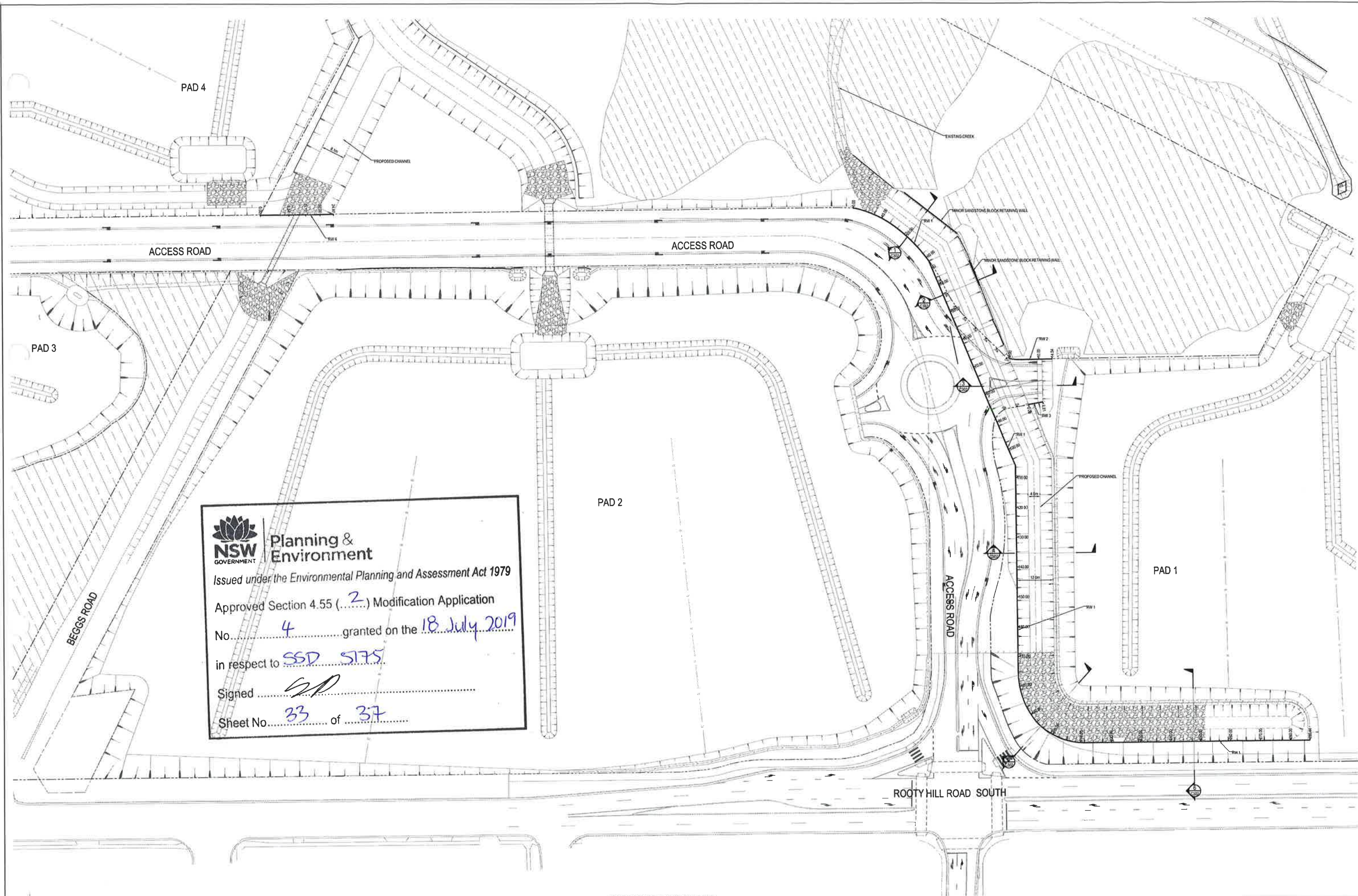
Telephone:
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Email:
enquiries@fraser.com.au
Web:
www.fraserproperty.com.au




Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
Drawing: ACCESS ROAD CATCHMENT PLAN

ISSUED FOR S96

Drawn: M. Cline
Checked: L. Cline
Approved: A. Francis
Date: FEB 18
Scale: 1:400 @A3
Sheet: 17D83_S96_C255 03




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 No. 4 granted on the 18 July 2019
 in respect to SSD 5175
 Signed [Signature]
 Sheet No. 33 of 37

RETAINING WALL OVERALL PLAN
 SCALE 1:400

SURVEY INFORMATION
 SURVEYED BY: LAND PARTNERS
 DATUM: AHD
 ORIGIN OF LEVELS: PM 30122 RL 43.50

REVISION	DATE	DESCRIPTION	BY	CHECKED	DATE	REVISION	DATE	DESCRIPTION	BY	CHECKED	DATE
01	18/07/2019	ISSUED FOR S96	W	W	18/07/2019	02	18/07/2019	ISSUED FOR S96	W	W	18/07/2019
03	18/07/2019	ISSUED FOR S96	W	W	18/07/2019	04	18/07/2019	ISSUED FOR S96	W	W	18/07/2019

Owner: FRASER PROPERTY AUSTRALIA
 LandPartners

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 70 Westgate Avenue
 Chesham NSW 2066

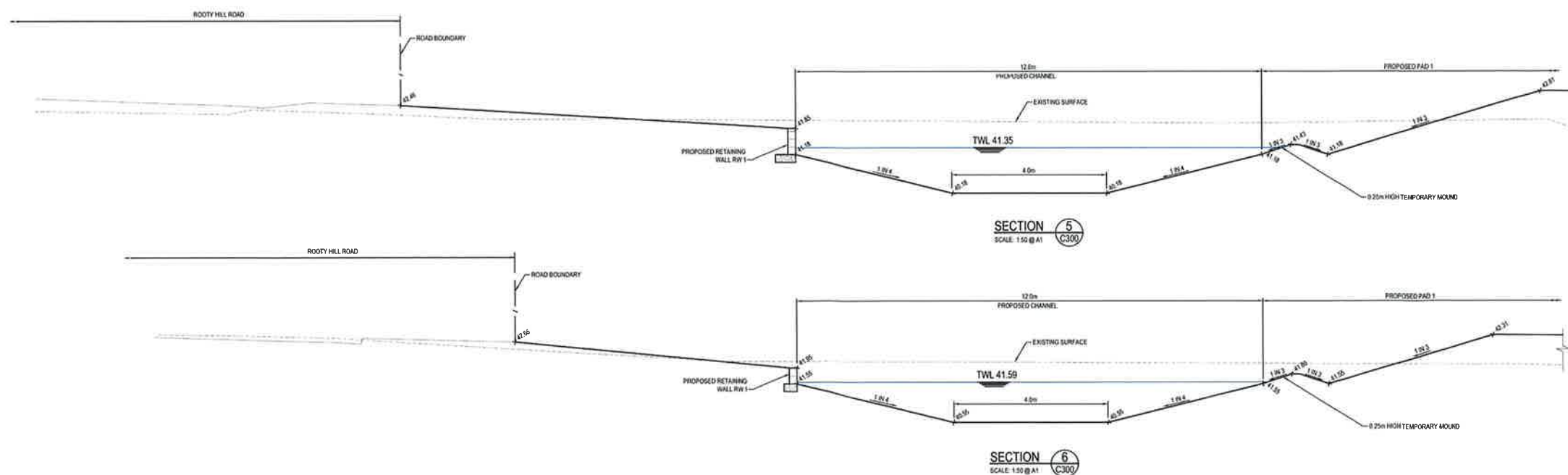
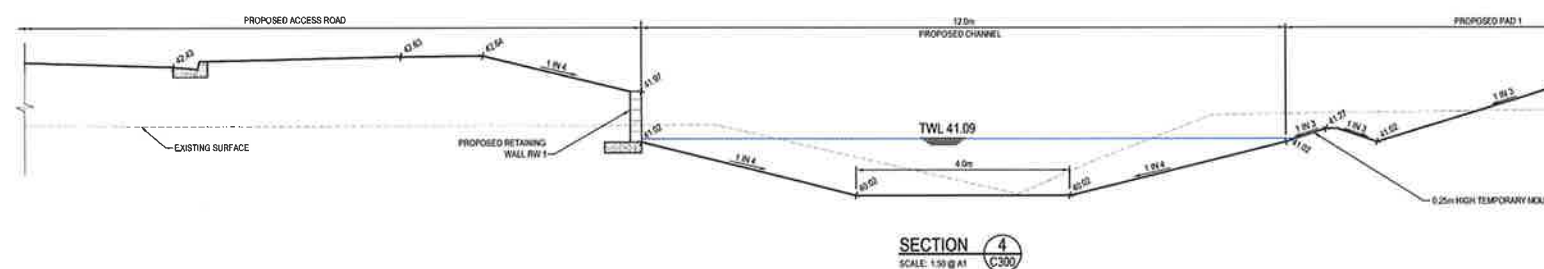
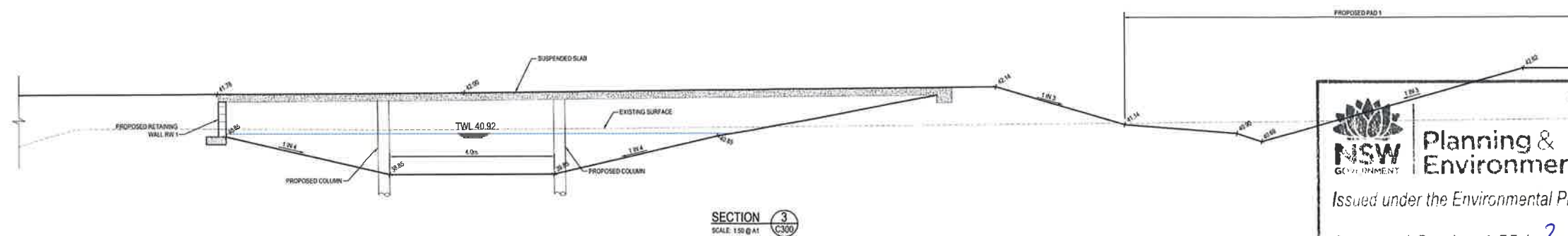
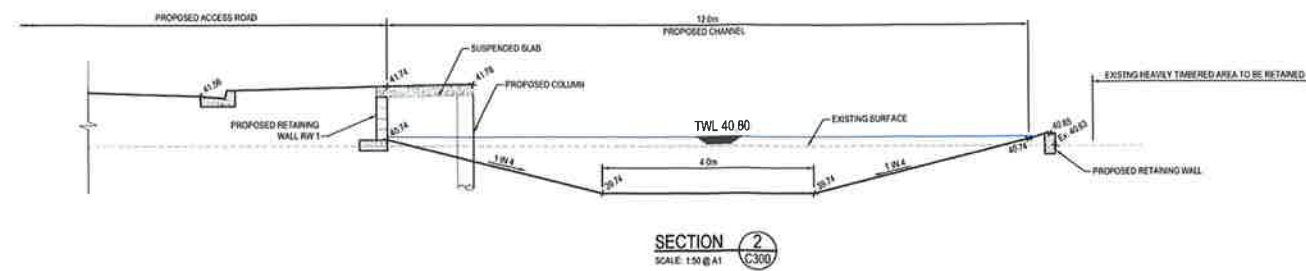
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Project: EASTERN CREEK BUSINESS HUB
 WESTERN SYDNEY PARKLANDS
 Title: RETAINING WALL OVERALL PLAN

ISSUED FOR S96

Drawn: L. Calkins	Designed: L. Calkins	Check: T. Dempsey	Date: FEB 16
Scale: 1:400 @ A0	Author: A. Francis	Project: 17D83_S96_C300	Sheet: 03



Owner	Designed	Use
L. Cahus	L. Cahus	FEELER
Contract	Approved	Scale
T. Dempsey	A. Francis	1:50 @ A0
Starting points		Notes
17D83	S96	C302 02



Planning & Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Section 4.55 (.2.) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 36 of 37

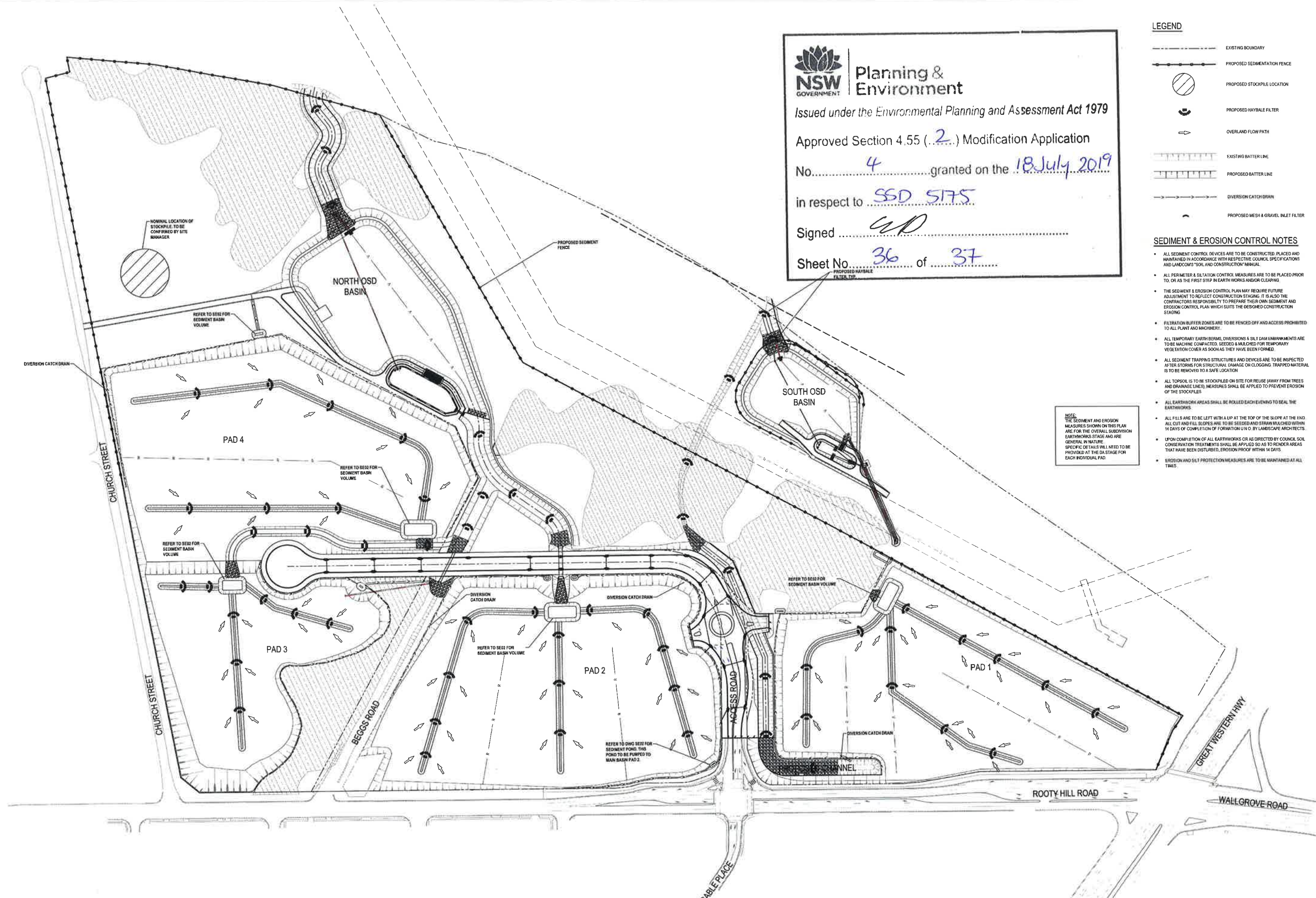
LEGEND

- EXISTING BOUNDARY
- PROPOSED SEDIMENTATION FENCE
- PROPOSED STOCKPILE LOCATION
- PROPOSED HAYBALE FILTER
- OVERLAND FLOW PATH
- EXISTING BATTER LINE
- PROPOSED BATTER LINE
- DIVERSION CATCH DRAIN
- PROPOSED MESH & GRAVEL INLET FILTER

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH RESPECTIVE COUNCIL SPECIFICATIONS AND LANDCOM'S 'SOIL AND CONSTRUCTION' MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTHWORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO PREPARE THEIR OWN SEDIMENT AND EROSION CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING.
- FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
- ALL TEMPORARY EARTH BERM, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECTS.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL, SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.

NOTE:
THE SEDIMENT AND EROSION MEASURES SHOWN ON THIS PLAN ARE FOR THE OVERALL SUBDIVISION EARTHWORKS STAGE AND ARE GENERAL IN NATURE. SPECIFIC DETAILS WILL NEED TO BE PROVIDED AT THE DA STAGE FOR EACH INDIVIDUAL PAD.



SEDIMENT AND EROSION CONTROL PLAN
SCALE 1:1000

20 15 10 5
SCALE 1:1000

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM AND
ORIGIN OF LEVELS: PM 30122 RL 43.58

NO.	REVISION	DATE	BY	CHKD.	APPD.
1	ISSUED FOR BID	20/11/2019	W	W	
2	ISSUED FOR BID	20/11/2019	W	W	
3	ISSUED FOR BID	20/11/2019	W	W	
4	ISSUED FOR BID	20/11/2019	W	W	
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8	ISSUED FOR BID	20/11/2019	W	W	
9	ISSUED FOR BID	20/11/2019	W	W	
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Client: FRASER PROPERTY AUSTRALIA
Surveyor: LANDPARTNERS

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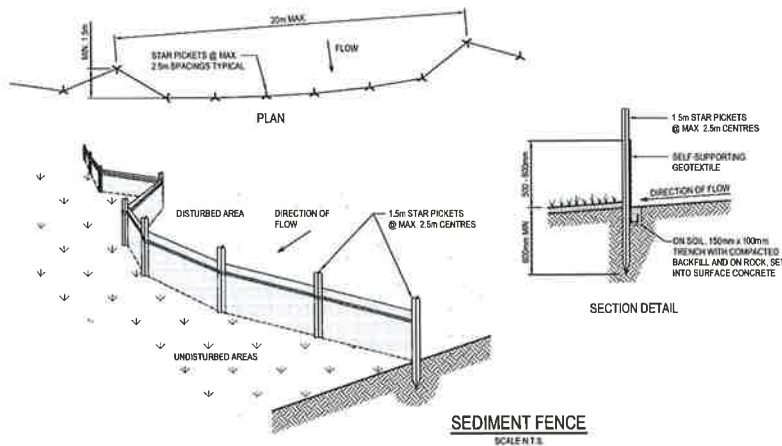
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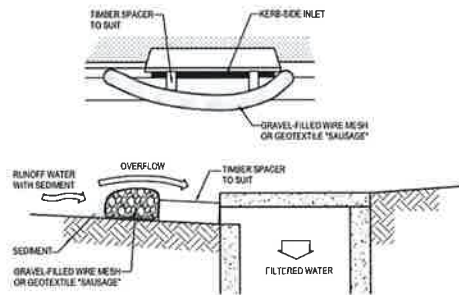
Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
Title: SEDIMENT AND EROSION CONTROL PLAN

ISSUED FOR S96

Drawn	Checked	Date
L. Cuth	L. Cuth	17/08/19
Revised	By	Date
	A. Francis	17/08/19
Drawn by	17D83_S96_SE01	03

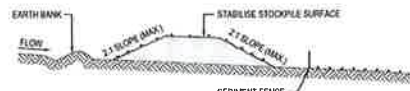


- SEDIMENT FENCE CONSTRUCTION NOTES:**
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORAGE EVENT, USUALLY THE 10-YEAR 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 @ 2.5m INTERVALS (MAX) AT THE DOWNSLOPE 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. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



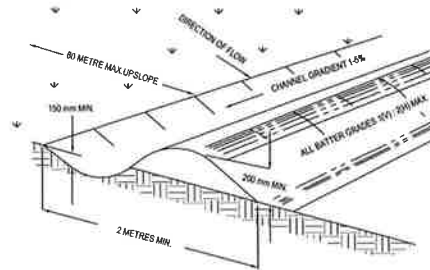
- MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:**
1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
 2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
 3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
 4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
 5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FINELY ADJUST EACH OTHER AND SEDIMENT / LOADS WATERS CANNOT PASS BETWEEN.

MESH & GRAVEL INLET FILTER
SCALE N.T.S.



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

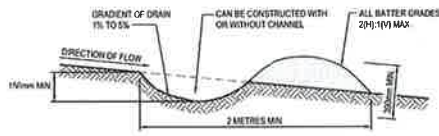
STOCKPILES
SCALE N.T.S.



NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAX UPSLOPE LENGTH IS 80 METRES.

- CATCH DRAIN CONSTRUCTION NOTES:**
1. CONSTRUCT ALONG GRADIENT AS SPECIFIED.
 2. MAXIMUM SPACING BETWEEN BANKS SHALL BE 80 METRES.
 3. DRAINS TO BE OF PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
 4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
 5. CONSTRUCTION IS OF A TEMPORARY NATURE AND SHALL BE COMPACTED AT THE END A DAYS WORK OR IMMEDIATELY PRIOR RAIN.
 6. ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO SEDIMENT BASIN OR SIMILAR.
 7. DISCHARGE RUNOFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL AREA WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
 8. COMPACT WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
 9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

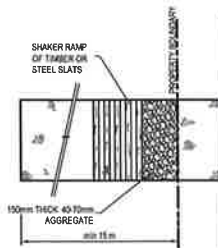
CATCH DRAINS SD 5-8
SCALE N.T.S.



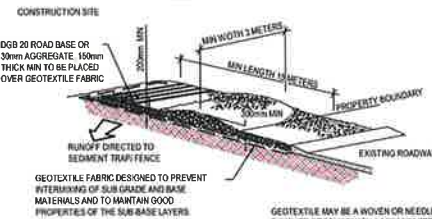
NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.

- EARTH BANK 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 IMPED WATER FLOW.
 4. BUILD THE DRAINS WITH PARABOLIC OR TRAPEZOIDAL CROSS-SECTIONS, NOT V-SHAPED.
 5. ENSURE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
 6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

EARTH BANK (LOW FLOW)
SCALE N.T.S.



PLAN
STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.



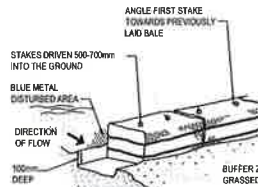
STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.

- NOTES:**
1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
 2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
 3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
 4. ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRODS (AS MANUFACTURED BY JAMES CONCRETE) MAY BE USED, 1, 2 & 3 ABOVE ALSO APPLY.

CONSTRUCTION SEQUENCE

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S REQUIREMENTS.
3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).



HAYBALE BARRIERS
N.T.S.

SEDIMENT BASIN SIZING

1. THE SEDIMENT BASIN SHALL BE CONSTRUCTED ON A RATE PER HECTARE BASIS AND HAS BEEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDCOM MANUAL "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION" FOR SEDIMENTATION TYPE D SOILS. THE DISTURBED AREA WITHIN THIS CATCHMENT AT ANY ONE TIME SHOULD BE LIMITED TO AN AREA FOR WHICH EACH SEDIMENT BASIN CAN HANDLE. EACH BASIN SHALL BE SIZED IN ACCORDANCE WITH THE TABLE BELOW.

SEDIMENT BASIN SIZING TYPE D SOILS	
VOLUMETRIC RUNOFF COEFFICIENT, CV	0.25 (APPENDIX F - TABLE F2)
75TH PERCENTILE 5 DAY TOTAL RAINFALL DEPTH, R	19.0 mm
CATCHMENT AREA, A	1 Ha (UNIT AREA)
SETTLING ZONE VOLUME (PER HECTARE) 10 CV x R	47.5 m³
DISTURBED CATCHMENT AREA	1 Ha (UNIT AREA)
R K L S P C	110.87m³
SEDIMENT ZONE VOLUME (S 17 A (R K L S P C) 13	14.5m³ < 50% SETTLING VOL
TOTAL SEDIMENT BASIN VOLUME REQUIRED	71.25 m³/ha

1. (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)
2. THE FOLLOWING DESIGN PARAMETERS HAVE BEEN ASSESSED FOR THE SITE:

CONSTRAINT	VALUE	(SOURCE)*
RAINFALL EROSIVITY (R-FACTOR)	2330	APPENDIX B
LENGTHSLOPE GRADIENT FACTOR, LS	0.955	APPENDIX A - TABLE A1
SOIL ERODIBILITY (K-FACTOR)	0.638	(TABLE C20 - BLACKTOWN)
EROSION CONTROL PRACTICE FACTOR (P-FACTOR)	1.3 (COMPACTED)	APPENDIX A - TABLE A2
COVER FACTOR (C-FACTOR)	1.0 (DISTURBED EARTHWORKS)	APPENDIX A - FIGURE A5
CALCULATED SOIL LOSS (RUSKE EQUATION)	110.87t/ha/yr	A = R K L S P C
SOIL HYDROLOGIC GROUP	GROUP C	APPENDIX C TABLE 20
SEDIMENT TYPE	TYPE D	APPENDIX C TABLE 4
75TH PERCENTILE 5-DAY RAINFALL EVENT	19.0mm (BLACKTOWN)	TABLE 6.3A

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

BASIN MANAGEMENT

1. THE CAPTURED STORMWATER IN THE SETTLING ZONE SHOULD BE DRAINED TO MEET THE MINIMUM STORAGE CAPACITY REQUIRED WITHIN FIVE (5) DAY PERIOD FOLLOWING RAINFALL. PROVIDED THE ACCEPTABLE WATER QUALITY (NFR) AND TURBIDITY HAVE BEEN ACHIEVED.
2. CHEMICAL FLOCCULANT SUCH AS GYPSUM MAY BE DOSED TO AID SETTLING WITHIN 24 HOURS OF CONCLUSION OF EACH STORM. THE APPLIED DOSING RATES SHOULD ACHIEVE THE TARGET QUALITY WITHIN 24 TO 72 HOURS OF THE STORM EVENT.
3. INSPECT THE SEDIMENT BASINS AFTER EACH RAINFALL EVENT AND/OR WEEKLY. ENSURE THAT ALL SEDIMENT IS REMOVED ONCE THE SEDIMENT STORAGE ZONE IS FULL. REFER TO PEGS INSTALLED IN BASINS IN ACCORDANCE WITH THE SWAMP. ENSURE THAT OUTLET AND EMERGENCY SPILLWAY WORKS ARE MAINTAINED IN A FULLY OPERATIONAL CONDITION AT ALL TIMES.

SOWING SEASON	SEED MIX
AUTUMN/WINTER	OATS@40kg/ha + JAPANESE MILLET@10kg/ha
SPRING/SUMMER	OATS@20kg/ha + JAPANESE MILLET@20kg/ha

NOTE: THESE PLANT SPECIES ARE FOR TEMPORARY REVEGETATION ONLY. THEY WILL ONLY PROVIDE PROTECTION FROM EROSION FOR SIX MONTHS. WHERE THE PADS ARE TO BE LEFT UNDEVELOPED FOR A LONGER PERIOD, THE CONTRACTOR SHALL SEEK ADVICE FROM THE SITE SUPERINTENDENT AS TO MORE APPROPRIATE REVEGETATION METHODS.

REVEGETATION IN ACCORDANCE WITH THE ABOVE TABLE WILL BE ENHANCED BY ADDING LIME AT A RATE OF 40g/TONNE OF TOPSOIL AND 7.5g/TONNE OF SUBSOIL.

4. THE LONG TERM GROUND COVER FACTORS FOR THE CONSTRUCTION WORKS IS NOT TO EXCEED THE FOLLOWING LIMITS:

LAND	MAXIMUM C-FACTOR	REMARKS
WATERWAYS AND OTHER AREAS OF CONCENTRATED FLOWS, POST CONSTRUCTION	0.06	APPLIES AFTER TEN WORKING DAYS OF COMPLETION OF FORMATION AND BEFORE CONCENTRATED FLOWS ARE APPLIED. FOOT AND VEHICULAR TRAFFIC IS PROHIBITED IN THIS AREA AND 10% GROUND COVER IS REQUIRED.
STOCKPILES, POST CONSTRUCTION	0.10	APPLIES AFTER TEN WORKING DAYS FROM COMPLETION OF FORMATION. 80% GROUND COVER IS REQUIRED.
ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION	0.15	APPLIES AFTER 20 DAYS OF INACTIVITY, EVEN THOUGH WORKS MAY BE INCOMPLETE. 50% GROUND COVER IS REQUIRED.



Planning & Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Section 4.55 (...2...) Modification Application

No. 4 granted on the 18 July 2019

in respect to SSD 5175

Signed [Signature]

Sheet No. 37 of 37

SURVEY INFORMATION
SURVEYED BY: LAND PARTNERS
DATUM: AHD
ORIGIN OF LEVELS: PM 30/12/91 43.58

NO	REVISION	DATE	BY	FOR
01	ISSUED FOR I&E	18/07/2019	MS	MS
02	REVISION FOR I&E	18/07/2019	MS	MS
03	REVISION FOR I&E	18/07/2019	MS	MS

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Project: EASTERN CREEK BUSINESS HUB
WESTERN SYDNEY PARKLANDS
The: SEDIMENT AND EROSION CONTROL
TYPICAL SECTIONS AND DETAILS

ISSUED FOR \$96

Drawn: L. Cane	Designed: L. Cane	Check: R. B. 18
Reviewed: T. Duncanson	Approved: A. Francis	Scale: N.T.S. @ A0
Drawn/checked: [Signature]	Project: 17D83_S96_SE02	Sheet: 03