





Planning & Environment
Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD 8636

granted on the 14 FEB 2019

Signed [Signature]

Sheet No. 1 of 63

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B	FOR INFORMATION	SPG	15.11.2017
C	SSDA	SPG	31.01.2018
D	RESPONSE TO SUBMISSION	VJ	03.09.2018

Principal



Contractor



Architect



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Sydney, NSW 2000, Australia
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F + 61 2 9254 5844
www.coxarchitecture.com.au

Nominated Architects
Jen Rizzo no. 5491
Russell Lee no. 6367

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

SITE PLAN - PROPOSED

AY DRAWING SHEET

Co-ordinated:	Michael Grove	Scale:	1:500 @ A1
Project Architect:	Michael Bradburn	Date:	31/01/18
Project Director:	David Nolan	Revision:	0

Drawing Number:

A-DA-1122

Drawn: SPG

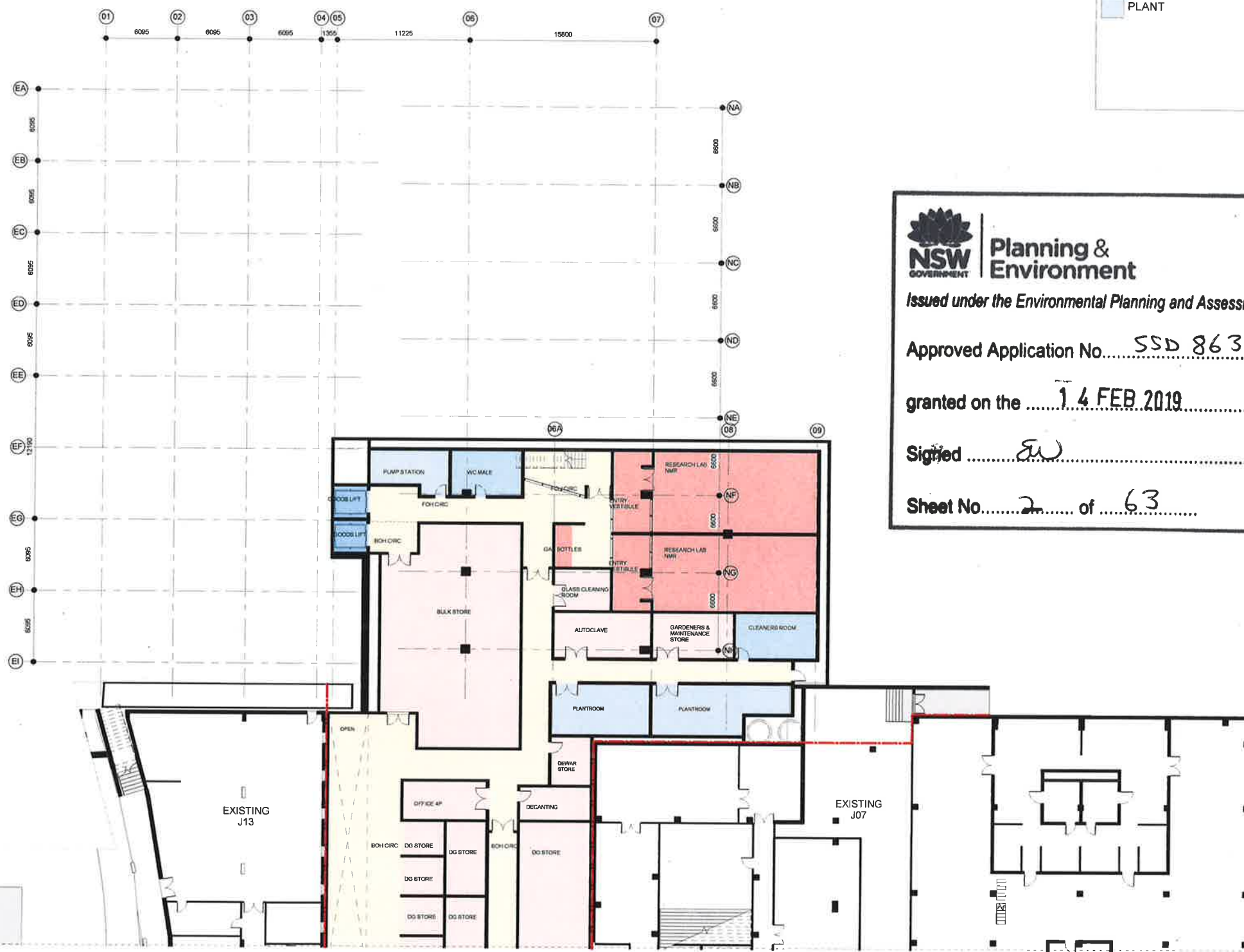
Scale: 1:500 @ A1

Date: 31/01/18

Revision: 0

North

- DEPARTMENT
- RESEARCH: MICRO - ENCLOSED
 - SUPPORT - BOH
 - CIRCULATION
 - VERTICAL TRANSPORTATION
 - AMENITIES
 - PLANT



NSW GOVERNMENT | **Planning & Environment**

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B	FOR INFORMATION	SPG	10.11.2017
C	SSDA	SPG	13.01.2018



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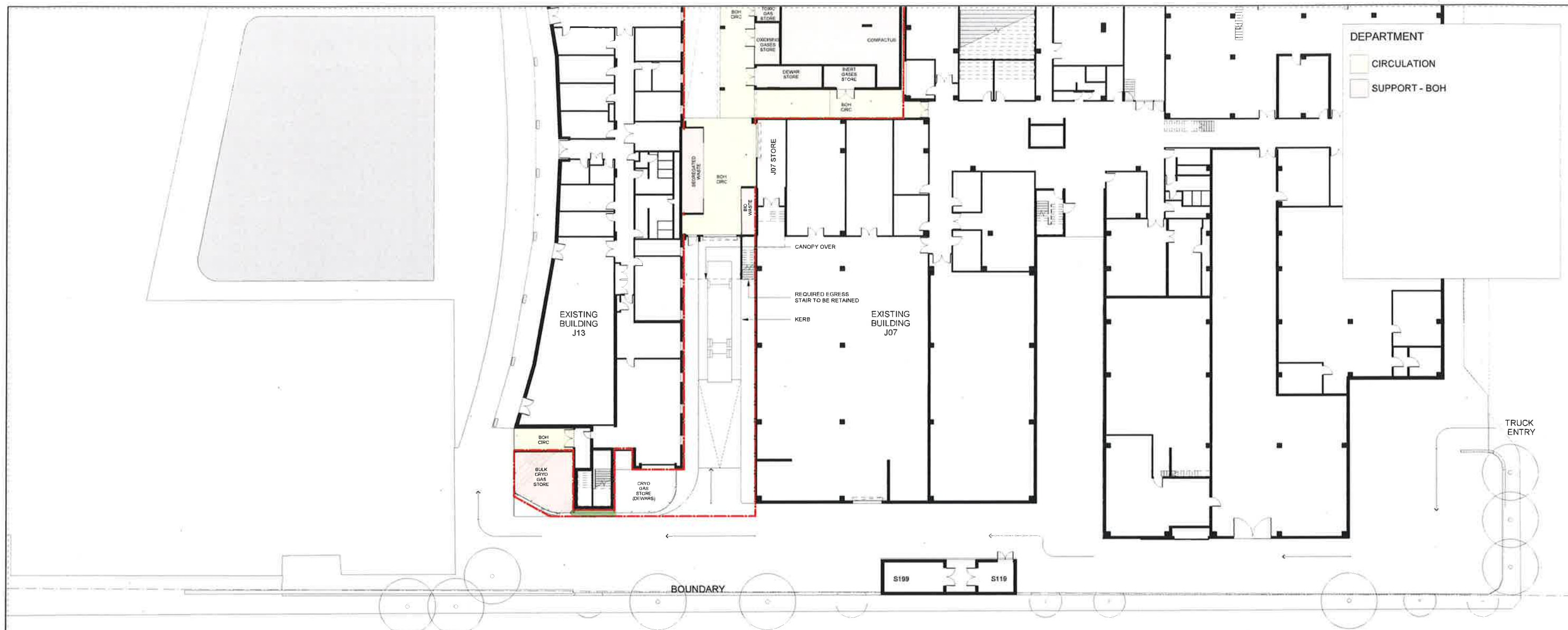
Level 6, 155 Clarence Street,
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Nominated Architects
JOS Aquilino 6461
Russell Lee 6387

Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008
Drawing Title
FLOOR PLAN - LEVEL 01 (SHEET 01 OF 02)

A1 DRAWING SHEET		Drawn:	SPG
Co-ordinated:	Michael Grave	Scale:	1:200 @ A1
Project Architect:	Michael Bradburn	Date:	31/01/18
Project Director:	David Holm	Revision:	C
Drawing Number:	North:		

A-DA-2101A



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A	PRELIMINARY ISSUE	SPG	08.11.2017
B	FOR INFORMATION	SPG	15.11.2017
C	SSDA	SPG	31.01.2018
D	RESPONSE TO SUBMISSION	VU	03.09.2018
E	RESPONSE TO SUBMISSION 2	MS	04.12.2018

Principal



Contractor



Architect



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Nominated Architects
 under the Act no. 5451
 Rules no. 5357

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
 University in Darlington, NSW 2008

Drawing Title

FLOOR PLAN - LEVEL 01 (SHEET 02 OF 02)

As Drawing Sheet

Co-ordinated: Michael Grava Scale: 1:200 @ A1

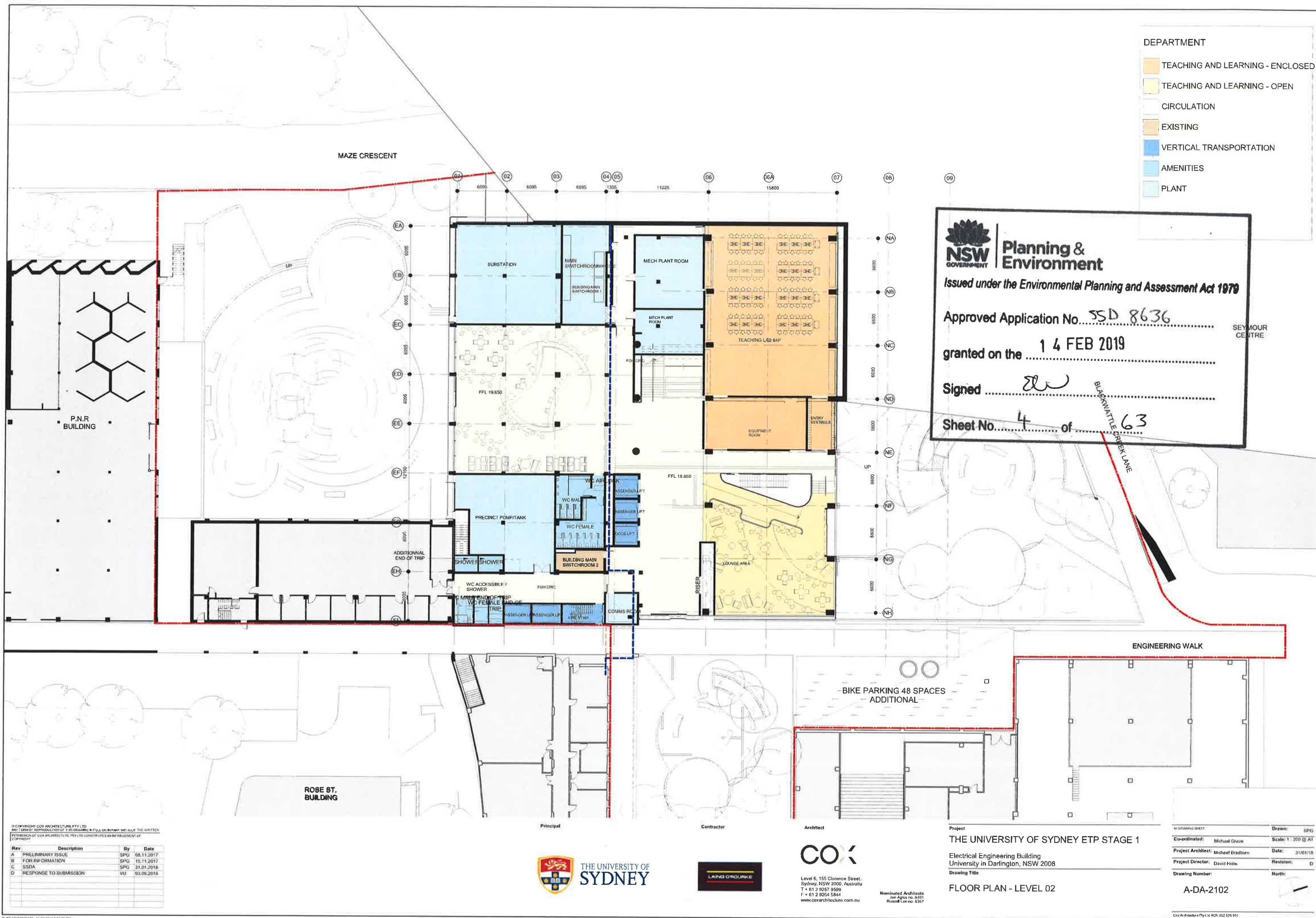
Project Architect: Michael Bradburn Date: 04/12/18

Project Director: David Holm Revision: E

Drawing Number: North:

A-DA-2101B

Cox Architecture Pty Ltd ACN 902 535 891



- DEPARTMENT
- TEACHING AND LEARNING - ENCLOSED
 - TEACHING AND LEARNING - OPEN
 - CIRCULATION
 - EXISTING
 - VERTICAL TRANSPORTATION
 - AMENITIES
 - PLANT



Planning & Environment

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Sheet No. 4 of 63

BLACKWATER CREEK LANE

ENGINEERING WALK

BIKE PARKING 48 SPACES
ADDITIONAL

ROSE ST.
BUILDING

MAZE CRESCENT

Rev	Description	By	Date
A	PRELIMINARY ISSUE	SPG	08.11.2017
B	FOR INFORMATION	SPG	15.11.2017
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www.coxarchitecture.com.au

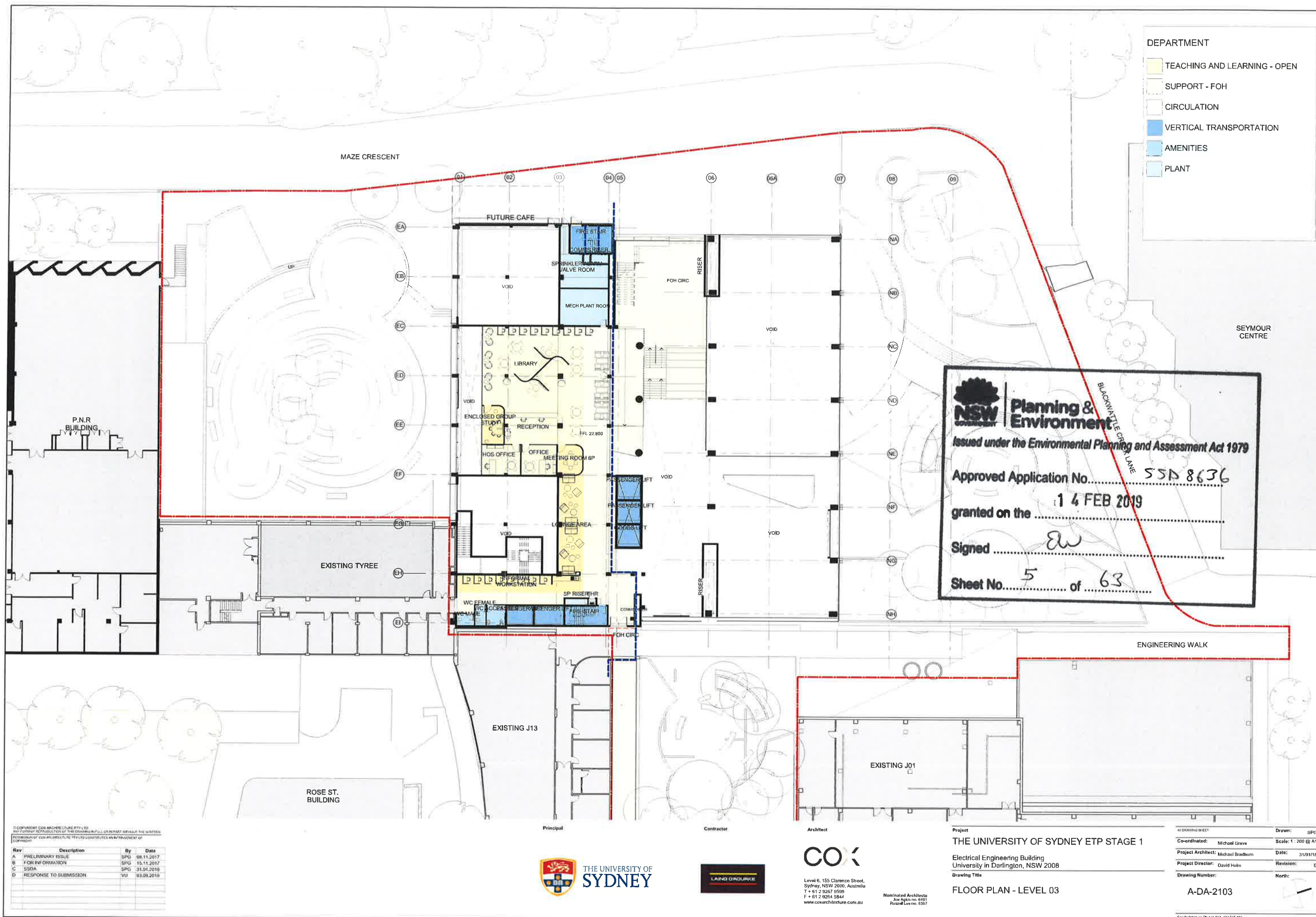
Nominated Architects
Joe Agius no. 8491
Russell Lee no. 9367

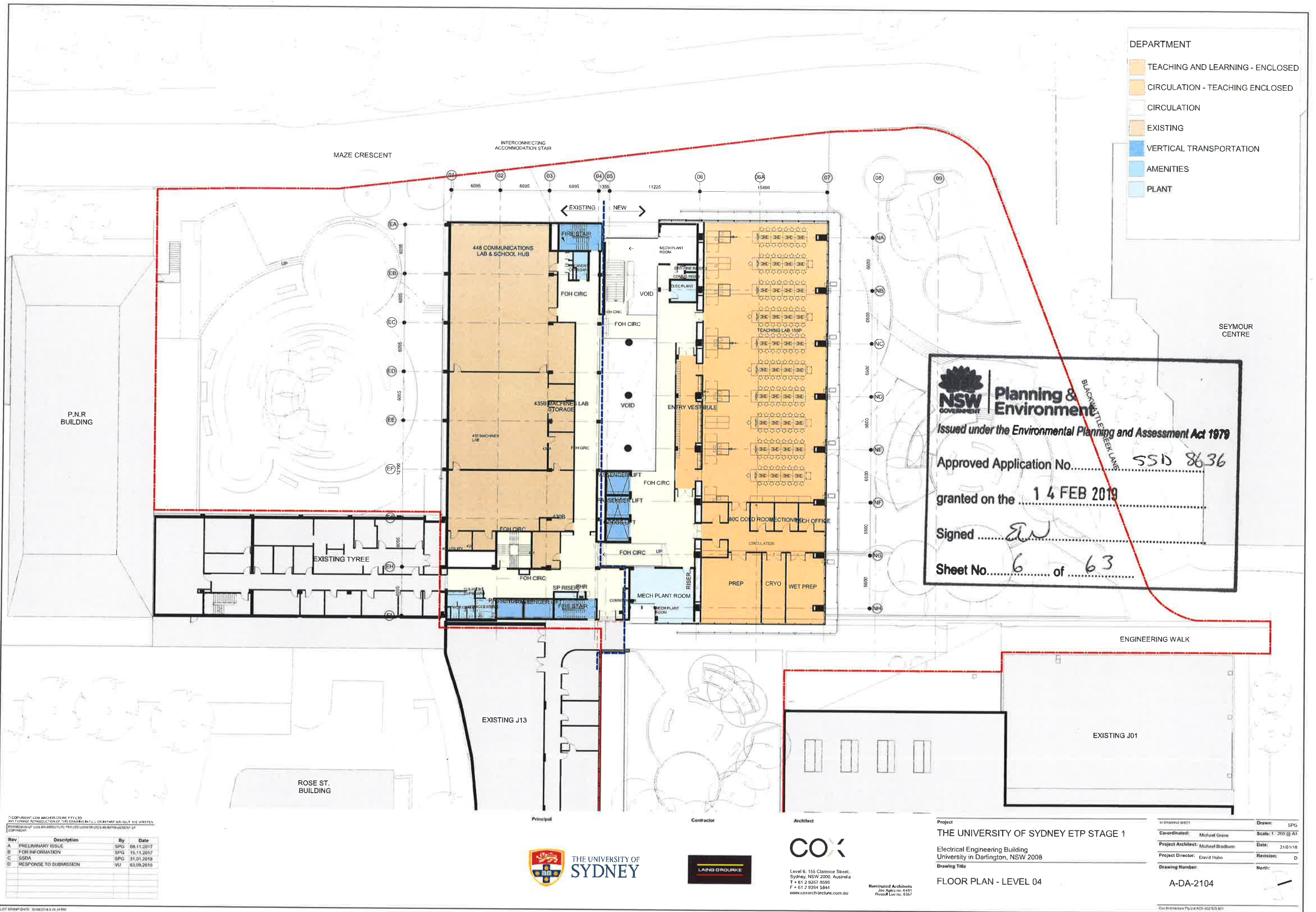
Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008
Drawing Title
FLOOR PLAN - LEVEL 02

Co-ordinated:	Michael Grove	Scale:	1:200 @ A1
Project Architect:	Michael Bradburn	Date:	31/01/18
Project Director:	David Holm	Revision:	D
Drawing Number:		North:	

A-DA-2102

Cox Architecture Pty Ltd A/CN 002 525 851





- DEPARTMENT
- TEACHING AND LEARNING - ENCLOSED
 - CIRCULATION - TEACHING ENCLOSED
 - CIRCULATION
 - EXISTING
 - VERTICAL TRANSPORTATION
 - AMENITIES
 - PLANT

NSW Planning & Environment
GOVERNMENT
Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD 8636

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D	RESPONSE TO SUBMISSION	VU	03.09.2018



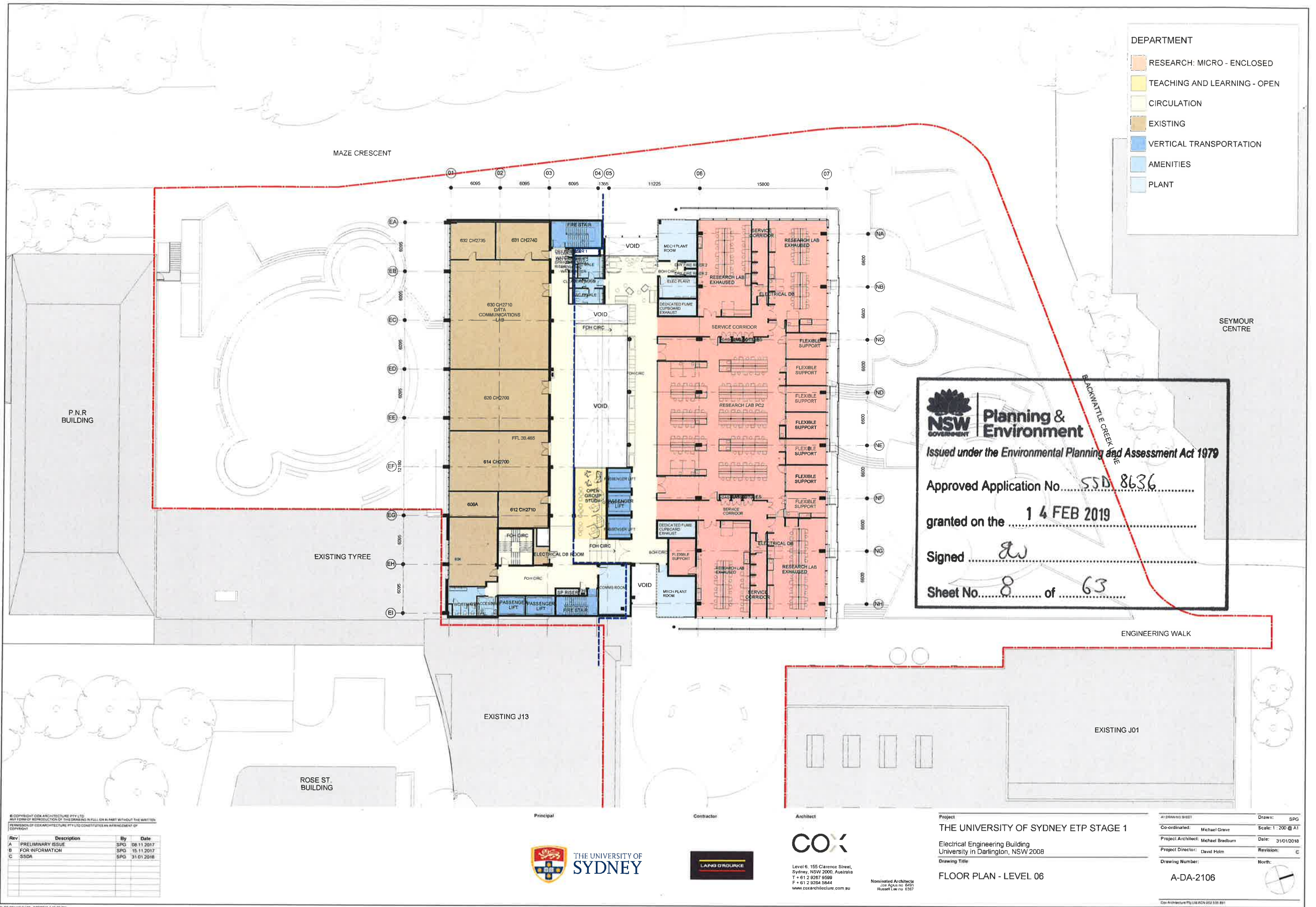
COX

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Nominated Architects
Jen Angus no. 6381
Russell Lee no. 6367

Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008
Drawing Title
FLOOR PLAN - LEVEL 04

NO DRAWING SHEET	Drawn: SPG
Co-ordinated: Michael Grasse	Scale: 1:200 @ A1
Project Architect: Michael Bradburn	Date: 31/01/18
Project Director: David Holm	Revision: D
Drawing Number:	North:
A-DA-2104	



- DEPARTMENT
- RESEARCH: MICRO - ENCLOSED
 - TEACHING AND LEARNING - OPEN
 - CIRCULATION
 - EXISTING
 - VERTICAL TRANSPORTATION
 - AMENITIES
 - PLANT

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Principal

Contractor

Architect

Project

As Drawn By

Drawn: SPG

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Co-ordinated: Michael Grave

Scale: 1:200 @ A1

Electrical Engineering Building
University in Darlington, NSW 2008

Project Architect: Michael Bradburn

Date: 31/01/2018

Drawing Title

Project Director: David Holm

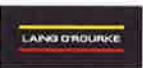
Revision: C

FLOOR PLAN - LEVEL 06

Drawing Number:

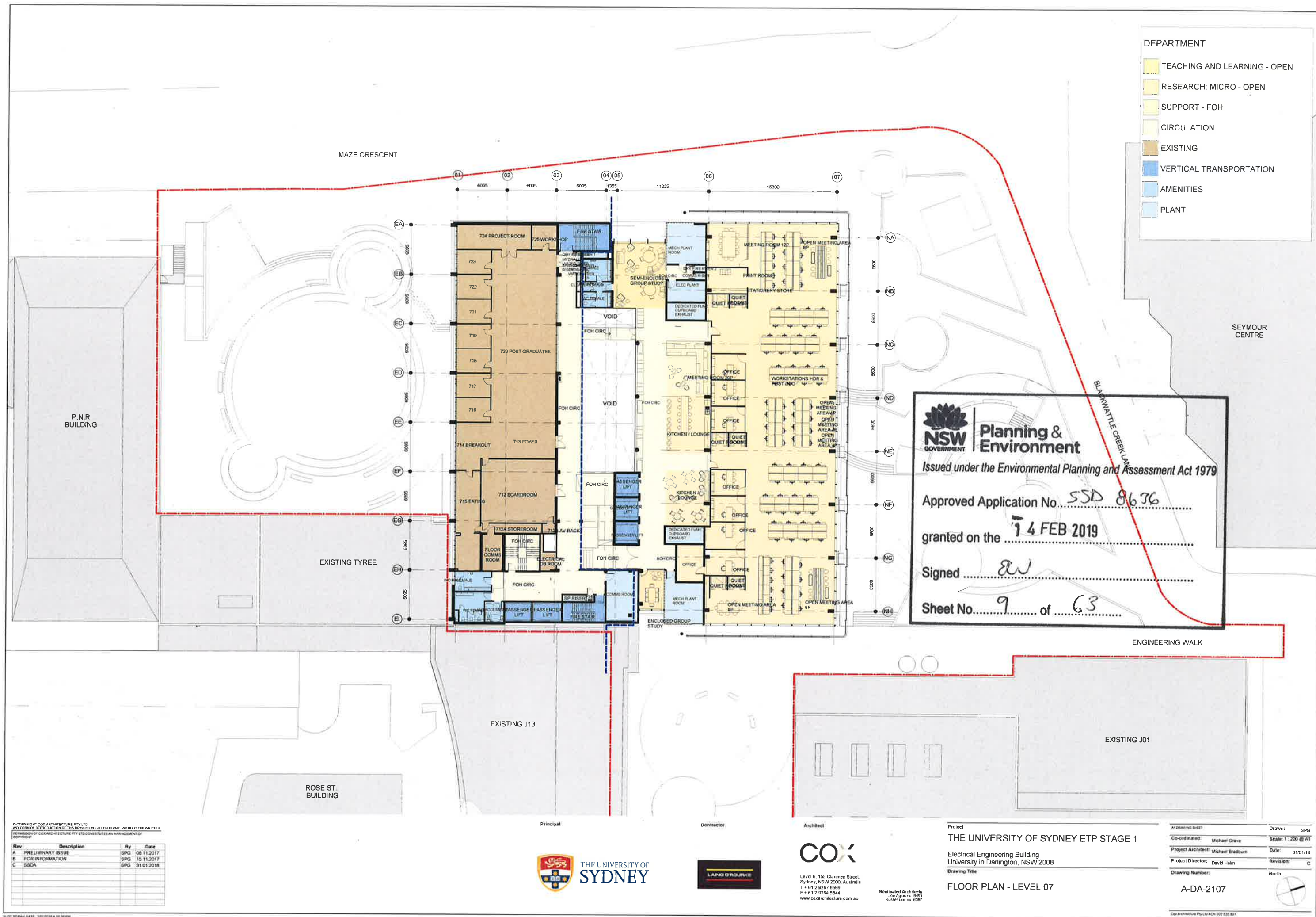
North:

A-DA-2106

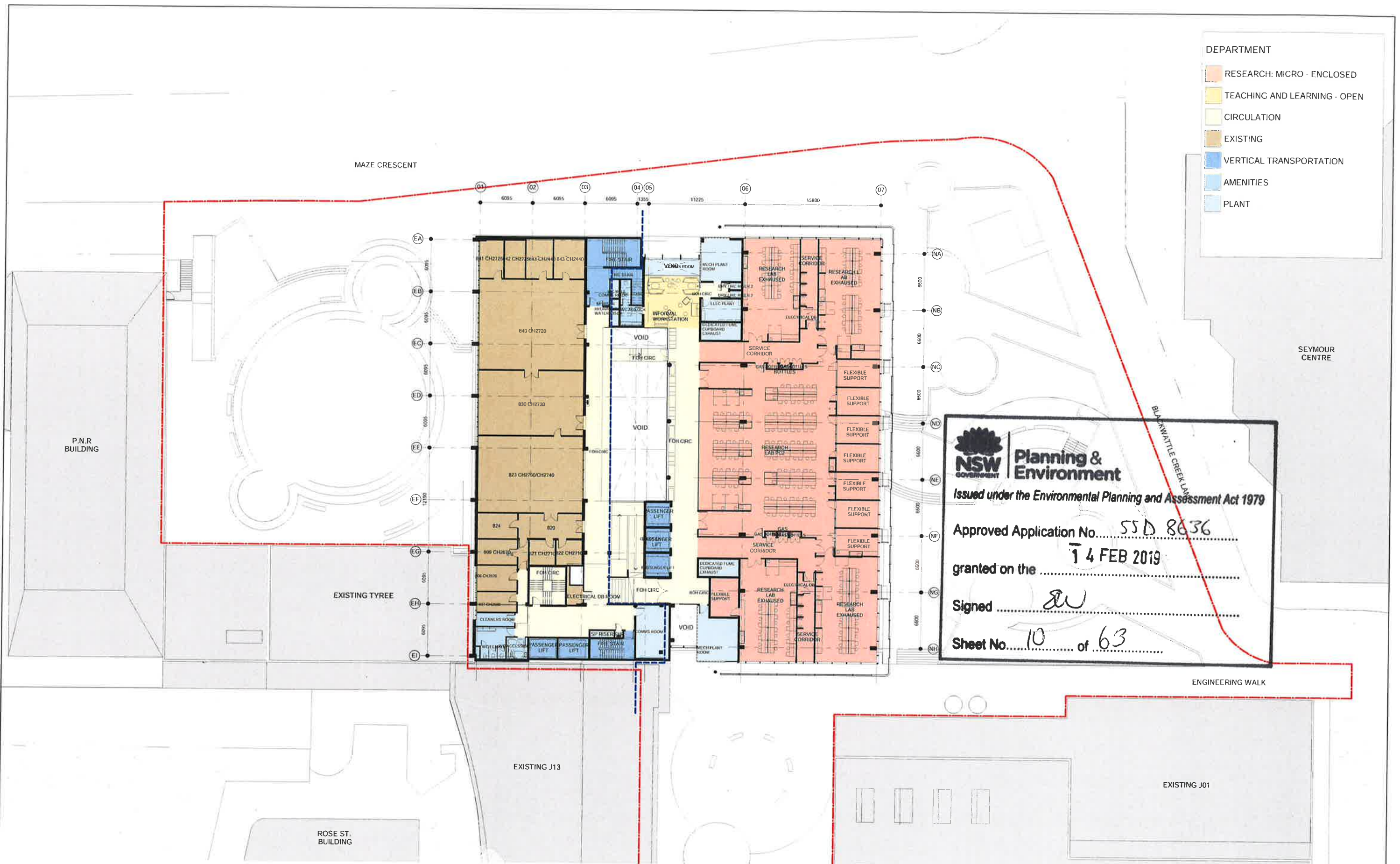


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Nominated Architects
Joe Aspin no. 5481
Russell Lee no. 5357



- DEPARTMENT
- RESEARCH: MICRO - ENCLOSED
 - TEACHING AND LEARNING - OPEN
 - CIRCULATION
 - EXISTING
 - VERTICAL TRANSPORTATION
 - AMENITIES
 - PLANT



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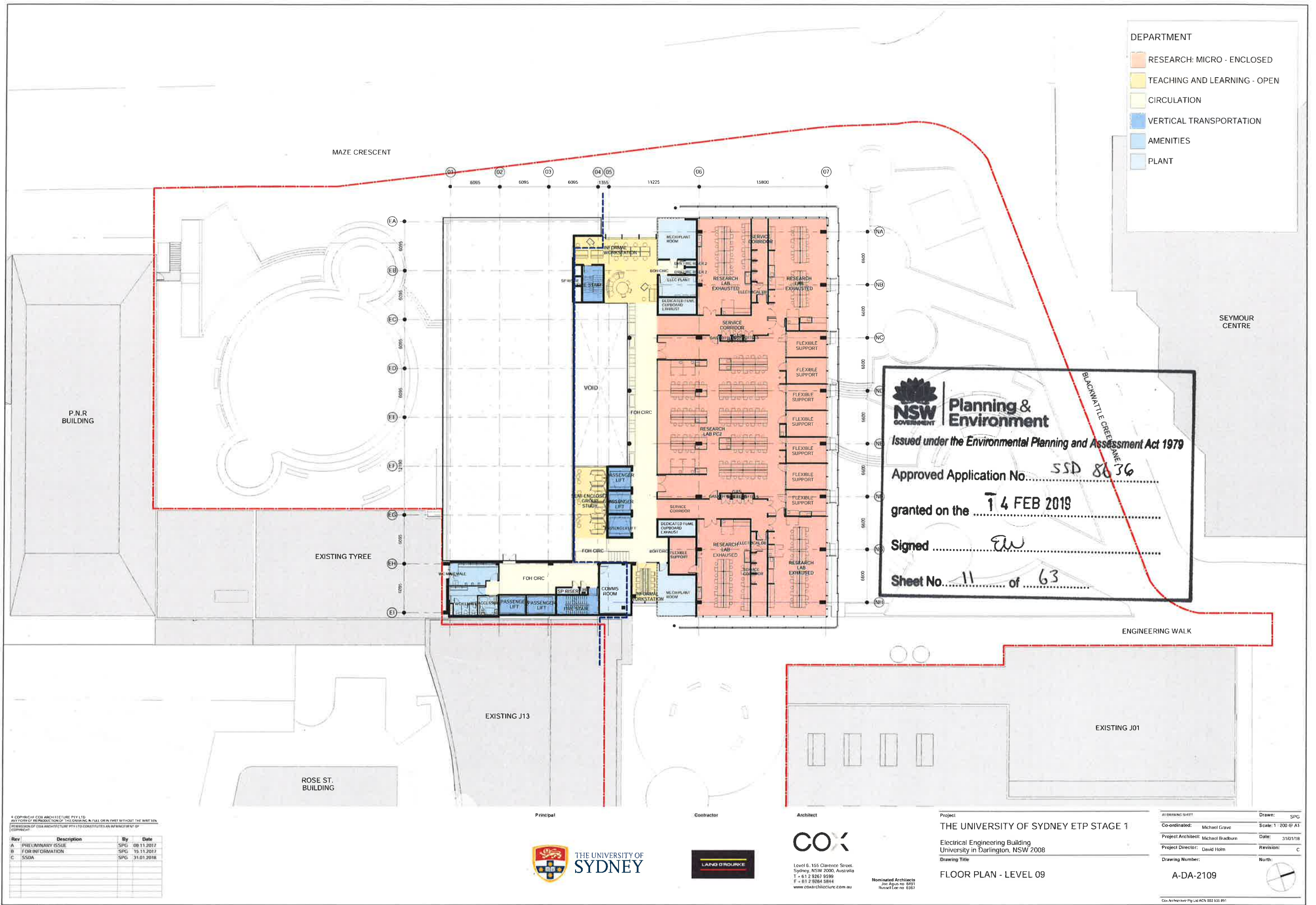


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www.coxarchitectural.com.au

Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008
Drawing Title
FLOOR PLAN - LEVEL 08

As Drawing Sheet	Drawn: SPG
Co-ordinated: Michael Grove	Scale: 1:200 @ A1
Project Architect: Michael Bradburn	Date: 31/01/18
Project Director: David Holm	Revision: C
Drawing Number:	North:
A-DA-2108	



- DEPARTMENT
- RESEARCH: MICRO - ENCLOSED
 - TEACHING AND LEARNING - OPEN
 - CIRCULATION
 - VERTICAL TRANSPORTATION
 - AMENITIES
 - PLANT

NSW GOVERNMENT Planning & Environment
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Principal
Contractor
Architect

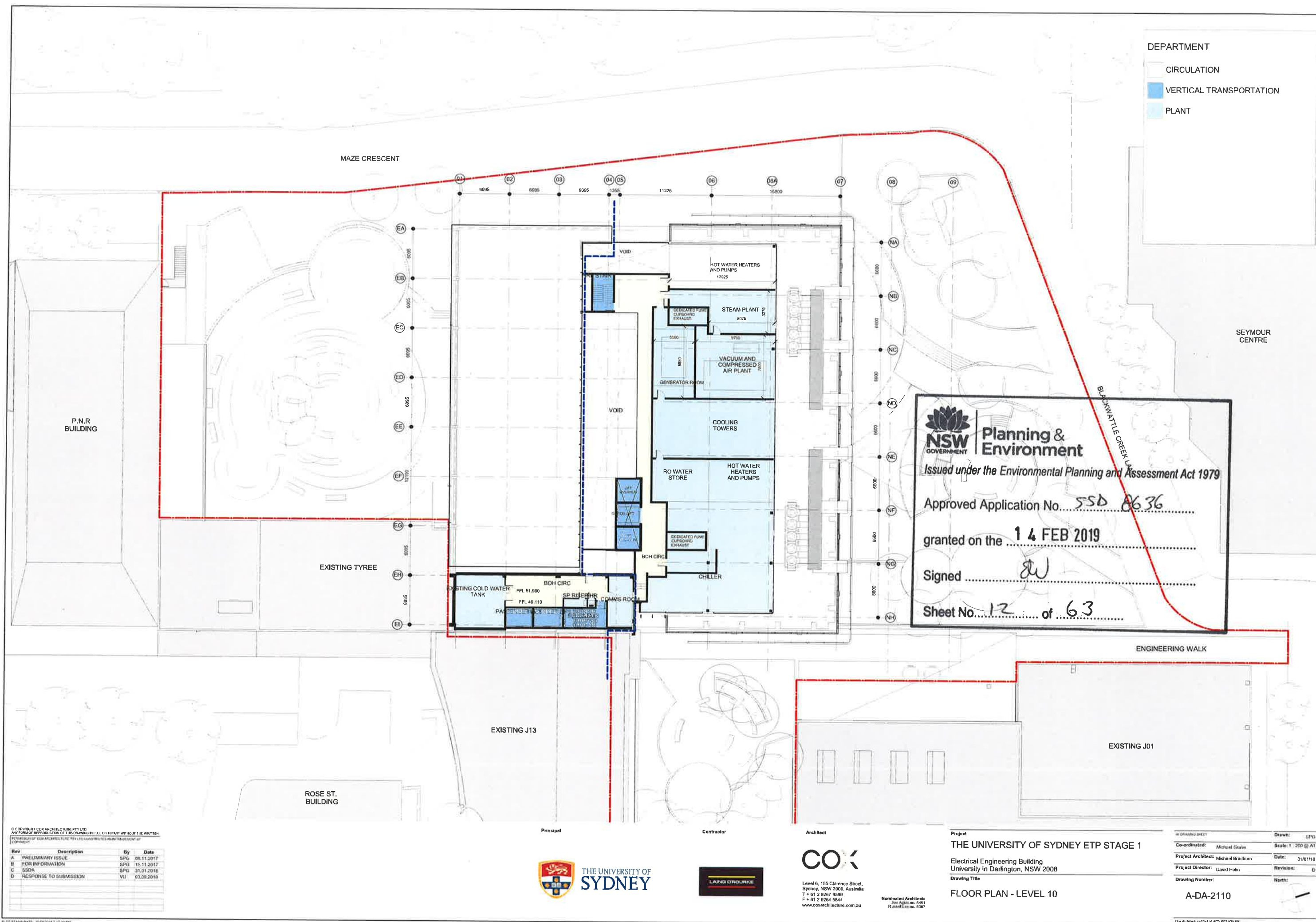
COX
Level 6, 155 Clarence Street,
Sydney, NSW 2000, Australia
T + 61 2 9263 9599
F + 61 2 9264 5844
www.coxarchitecture.com.au

LANDSOURCE

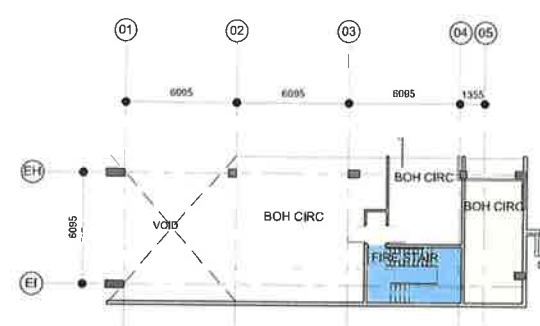
Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008
Drawing Title
FLOOR PLAN - LEVEL 09

As Drawing Sheet	Drawn: SPG
Co-ordinated: Michael Crane	Scale: 1 : 200 @ A1
Project Architect: Michael Bradburn	Date: 31/01/18
Project Director: David Holm	Revision: C
Drawing Number:	North:
A-DA-2109	

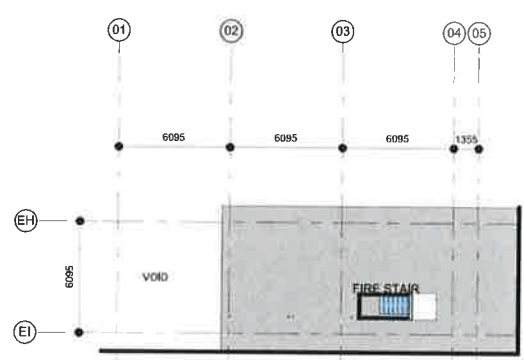
Cox Architecture Pty Ltd ACN 002 535 891



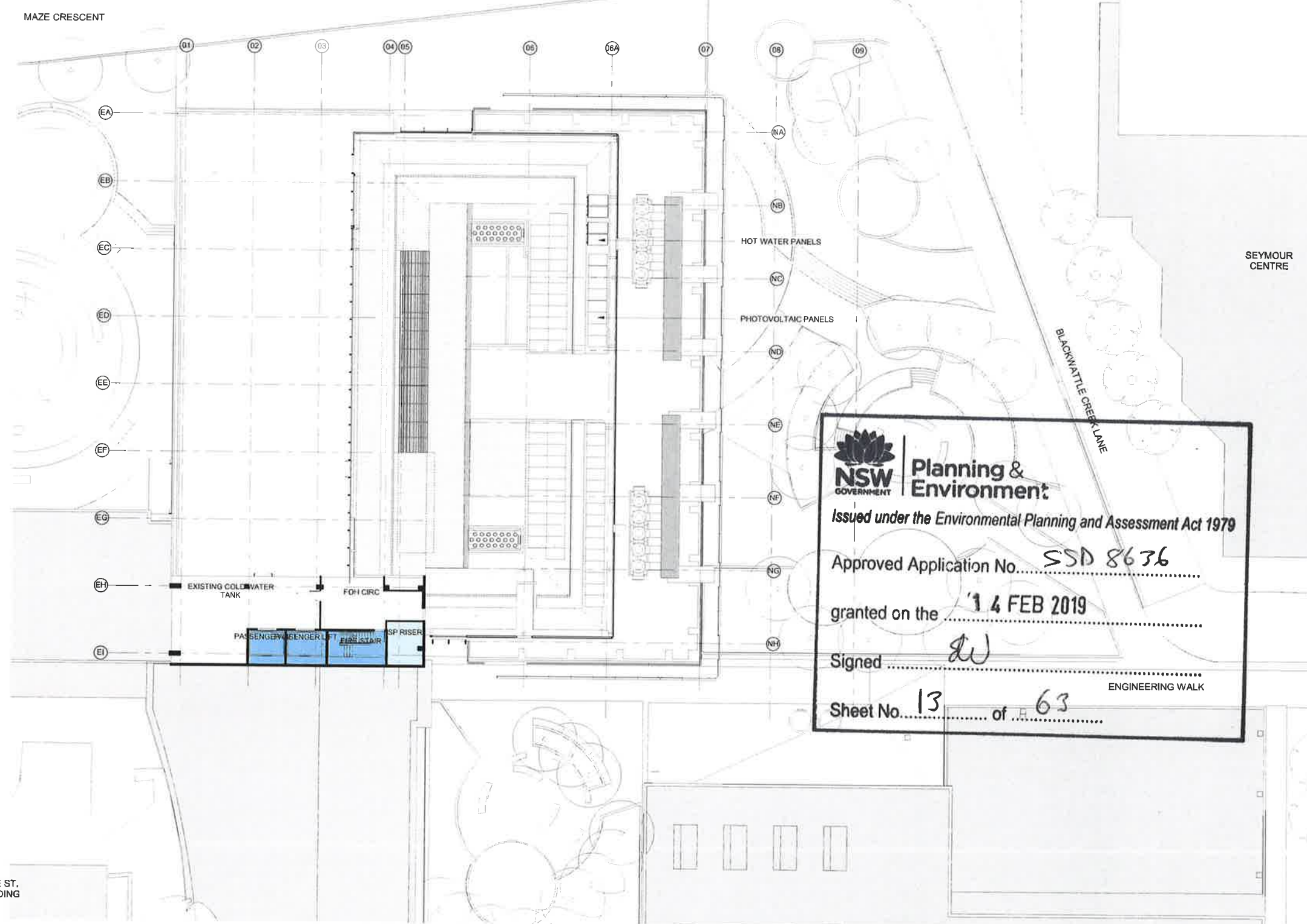
- DEPARTMENT
- CIRCULATION
 - VERTICAL TRANSPORTATION
 - PLANT



2 LEVEL 12
A-DA-2112 SCALE 1:200



3 LEVEL 13 - ROOF
A-DA-2113 SCALE 1:200



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Sheet No. **13** of **63**

ENGINEERING WALK

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D	RESPONSE TO SUBMISSION	VU	03.09.2018

Principal

Contractor

Architect



COX

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Nominated Architects
2nd Author no. 5191
Registered no. 6367

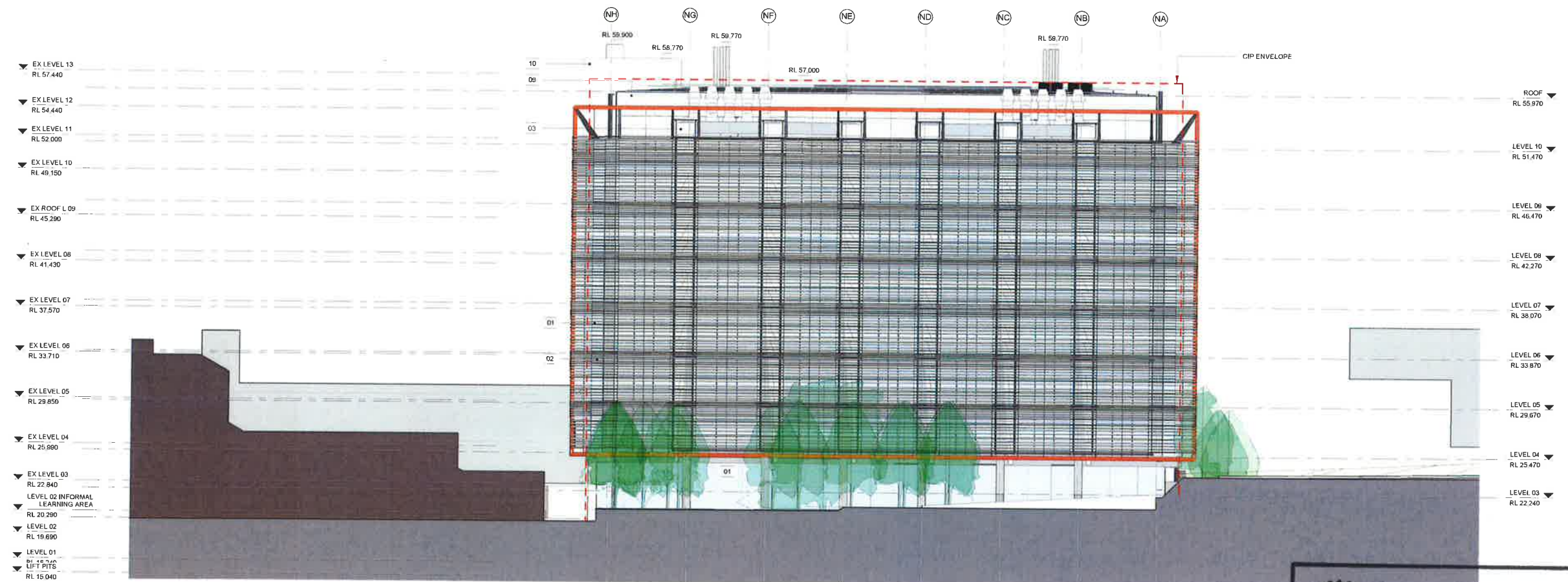
Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title
FLOOR PLAN - LEVEL 11,12,13

DRAWING SHEET		Drawn: SPG	
Co-ordinated:	Michael Grasse	Scale:	1:200 (E) A1
Project Architect:	Michael Bradburn	Date:	21/01/18
Project Director:	David Holm	Revision:	D
Drawing Number:		North:	

A-DA-2111



- 01 VISION GLAZING
- 02 ZINCALUME SPANDREL
- 03 SS EXTERNAL DUCT
- 04 PAINTED STEEL FRAME
- 05 ALUMINIUM LOUVRES
- 06 STEEL MULLION
- 07 FULL HEIGHT VISION GLASS
- 08 VISION GLAZING
- 09 GLASS PLANKS
- 10 PAINT - EXISTING CONCRETE FRAME & WALLS
- 11 PAINT - EXISTING CONCRETE FRAME & WALLS
- 12 EXTERNAL WINDOWS, LOUVRES & FRAMES
- 13 WEATHER PROOF LOUVRES
- 14 METAL DECK ROOF
- 15 PAINT - EXISTING BRICKWORK
- 16 FEATURE SCREEN

Rev	Description	By	Date
A	PRELIMINARY ISSUE	SPG	08.11.2017
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C	ISSDA	SPG	31.01.2018
D	RESPONSE TO SUBMISSION	VU	03.09.2018
E	CORRECTED CIP ENVELOPE	MS	19.10.2018

Principal



Contractor



Architect



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www.coxarchitecture.com.au

Nominated Architects
(not Applicable)
Ruralist Lic no. 6367

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

NORTH ELEVATION



Planning &
Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD 8636

granted on the 14 FEB 2019

Signed [Signature]

Sheet No. 14 of 63

A1 DRAWING SHEET

Co-ordinated: Michael Grane Scale: 1:200 @ A1

Project Architect: Michael Bradburn Date: 19/10/18

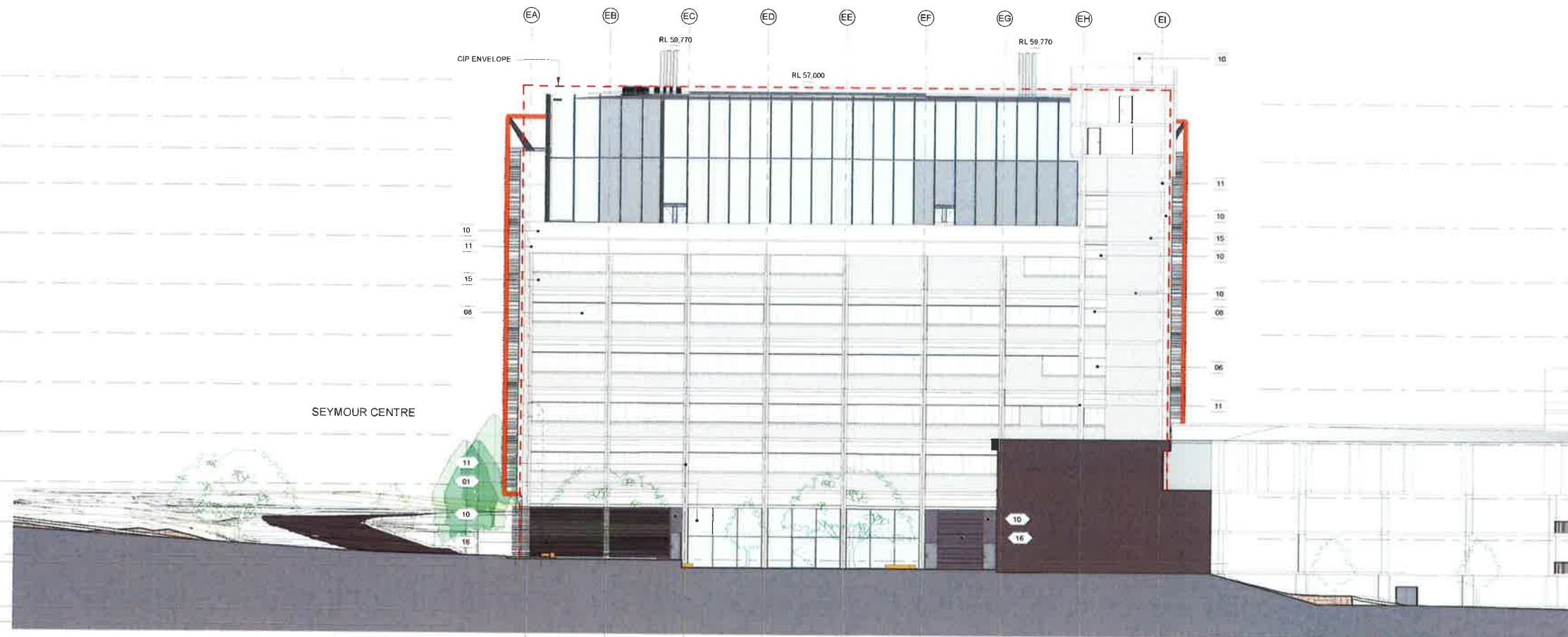
Project Director: David Hohn Revision: E

Drawing Number: North:

A-DA-3001

Cox Architecture Pty Ltd ACN 622 535 881

- ▼ EX LEVEL 13
RL 57.440
- ▼ EX LEVEL 12
RL 54.440
- ▼ EX LEVEL 11
RL 52.000
- ▼ EX LEVEL 10
RL 49.150
- ▼ EX ROOF L 09
RL 45.290
- ▼ EX LEVEL 08
RL 41.430
- ▼ EX LEVEL 07
RL 37.570
- ▼ EX LEVEL 06
RL 33.710
- ▼ EX LEVEL 05
RL 29.650
- ▼ EX LEVEL 04
RL 25.990
- ▼ EX LEVEL 03
RL 22.840
- ▼ LEVEL 02 INFORMAL
LEARNING AREA
RL 20.290
- ▼ LEVEL 02
RL 19.690
- ▼ LEVEL 01
RL 15.240
- ▼ LIFT PITS
RL 15.040



- ▼ ROOF
RL 55.970
- ▼ LEVEL 10
RL 51.470
- ▼ LEVEL 09
RL 46.470
- ▼ LEVEL 08
RL 42.270
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RL 38.070
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RL 33.870
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RL 29.670
- ▼ LEVEL 04
RL 25.470
- ▼ LEVEL 03
RL 22.240

- 01 VISION GLAZING
- 02 ZINCALUME SPANDREL
- 03 SS EXTERNAL DUCT
- 04 PAINTED STEEL FRAME
- 05 ALUMINIUM LOUVRES
- 06 STEEL MULLION
- 07 FULL HEIGHT VISION GLASS
- 08 VISION GLAZING
- 09 GLASS PLANKS
- 10 PAINT - EXISTING CONCRETE FRAME & WALLS
- 11 PAINT - EXISTING CONCRETE FRAME & WALLS
- 12 EXTERNAL WINDOWS, LOUVRES & FRAMES
- 13 WEATHER PROOF LOUVRES
- 14 METAL DECK ROOF
- 15 PAINT - EXISTING BRICKWORK
- 16 FEATURE SCREEN

Rev	Description	By	Date
A	PRELIMINARY ISSUE	SPG	06.11.2017
B	FOR INFORMATION	SPG	15.11.2017
C	ISSDA	SPG	31.01.2018
D	RESPONSE TO SUBMISSION	WU	03.09.2018
E	CORRECTED CIP ENVELOPE	MS	19.10.2018

Principal



Contractor



Architect



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www.coxarchitecture.com.au

Nominated Architects
Jocelyn Agius No. 8491
Russell Lee No. 9357



Planning &
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Sheet No. 15 of 63

Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1

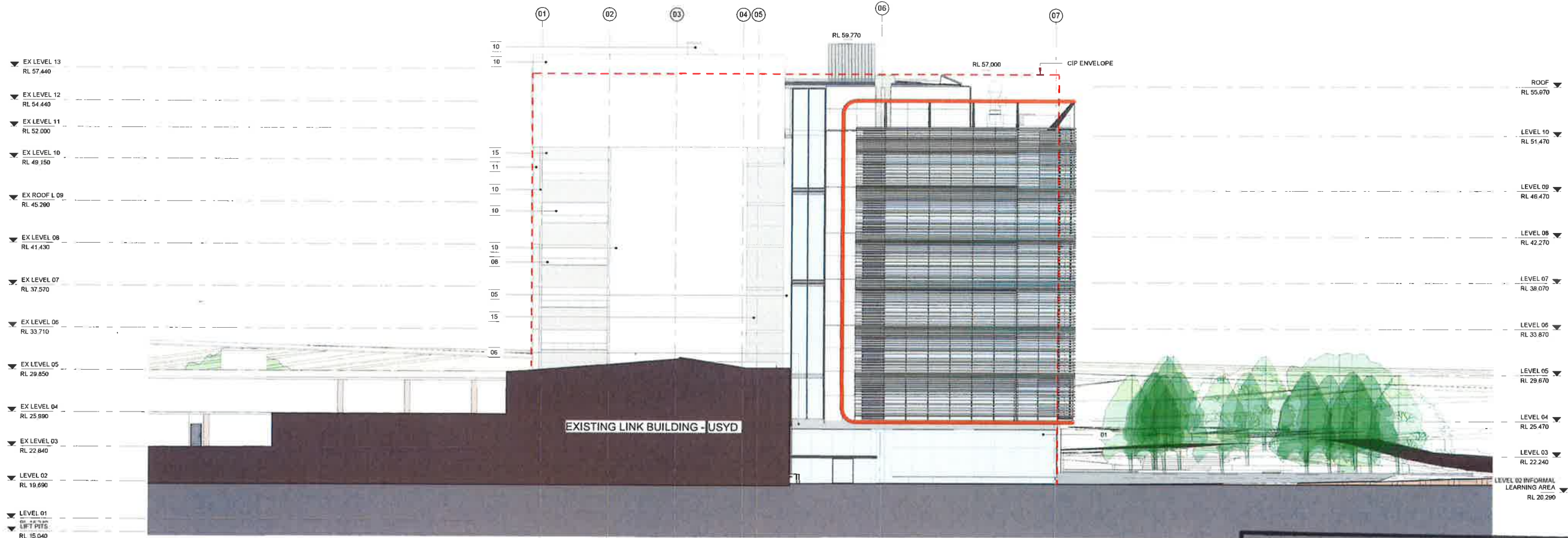
Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

SOUTH ELEVATION

Co-ordinated:	Michael Grove	Scale:	1:200 @ A1
Project Architect:	Michael Bradburn	Date:	10/10/18
Project Director:	David Holm	Revision:	E
Drawing Number:		North:	

A-DA-3002



- 01 VISION GLAZING
- 02 ZINCALUME SPANDREL
- 03 SS EXTERNAL DUCT
- 04 PAINTED STEEL FRAME
- 05 ALUMINIUM LOUVRES
- 06 STEEL MULLION
- 07 FULL HEIGHT VISION GLASS
- 08 VISION GLAZING
- 09 GLASS PLANKS
- 10 PAINT - EXISTING CONCRETE FRAME & WALLS
- 11 PAINT - EXISTING CONCRETE FRAME & WALLS
- 12 EXTERNAL WINDOWS, LOUVRES & FRAMES
- 13 WEATHER PROOF LOUVRES
- 14 METAL DECK ROOF
- 15 PAINT - EXISTING BRICKWORK
- 16 FEATURE SCREEN

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C	BSDA	SPG	31.01.2018
D	RESPONSE TO SUBMISSION	WJ	03.09.2018
E	CORRECTED CIP ENVELOPE	MS	19.10.2018

Principal



Contractor



Architect



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Sydney, NSW 2000, Australia
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www.coxarchitecture.com.au

Nominated Architects
Joe Agius no. 6491
Russell Lee no. 5367



Planning &
Environment

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Approved Application No. SSD 8636

granted on the 14 FEB 2019

Signed EW

Sheet No. 16 of 63

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

EAST ELEVATION

As (PROPOSED) SHEET

Co-ordinated: Michael Grave Scale: 1:200 @ A1

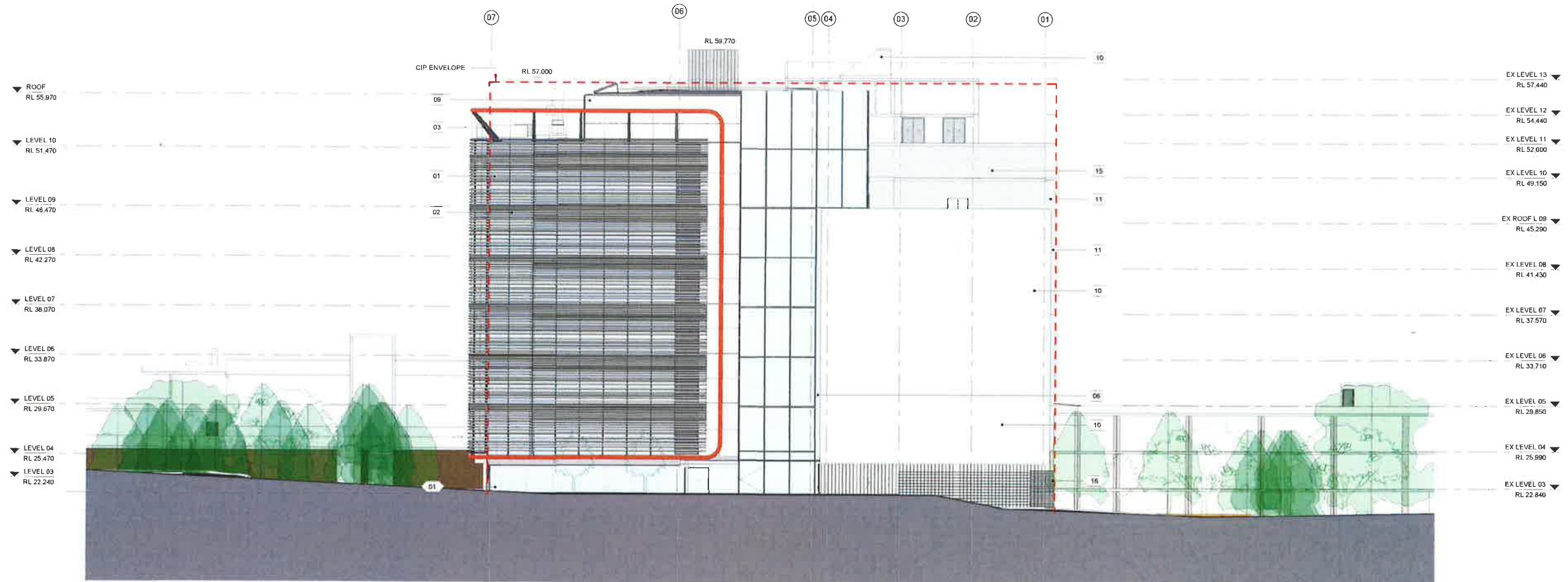
Project Architect: Michael Bradburn Date: 18/10/18

Project Director: David Holm Revision: E

Drawing Number: North:

A-DA-3003

22m Architecture Pty Ltd ACN 625 535 891



- 01 VISION GLAZING
- 02 ZINCALUME SPANDREL
- 03 SS EXTERNAL DUCT
- 04 PAINTED STEEL FRAME
- 05 ALUMINIUM LOUVRES
- 06 STEEL MULLION
- 07 FULL HEIGHT VISION GLASS
- 08 VISION GLAZING
- 09 GLASS PLANKS
- 10 PAINT - EXISTING CONCRETE FRAME & WALLS
- 11 PAINT - EXISTING CONCRETE FRAME & WALLS
- 12 EXTERNAL WINDOWS, LOUVRES & FRAMES
- 13 WEATHER PROOF LOUVRES
- 14 METAL DECK ROOF
- 15 PAINT - EXISTING BRICKWORK
- 16 FEATURE SCREEN

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D	RESPONSE TO SUBMISSION	IVU	31.01.2018
E	CORRECTED CIP ENVELOPE	IMS	19.10.2018

Principal



Contractor



Architect



Nominated Architects
 See Agree no. 8491
 Rules & Fee no. 3367



**Planning &
 Environment**

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granted on the 14 FEB 2019

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Sheet No. 17 of 63

Project
 THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
 University in Darlington, NSW 2008

Drawing Title

WEST ELEVATION

At Drawing Sheet Drawn: SPG

Co-ordinated: Michael Graye Scale: 1:200 @ A1

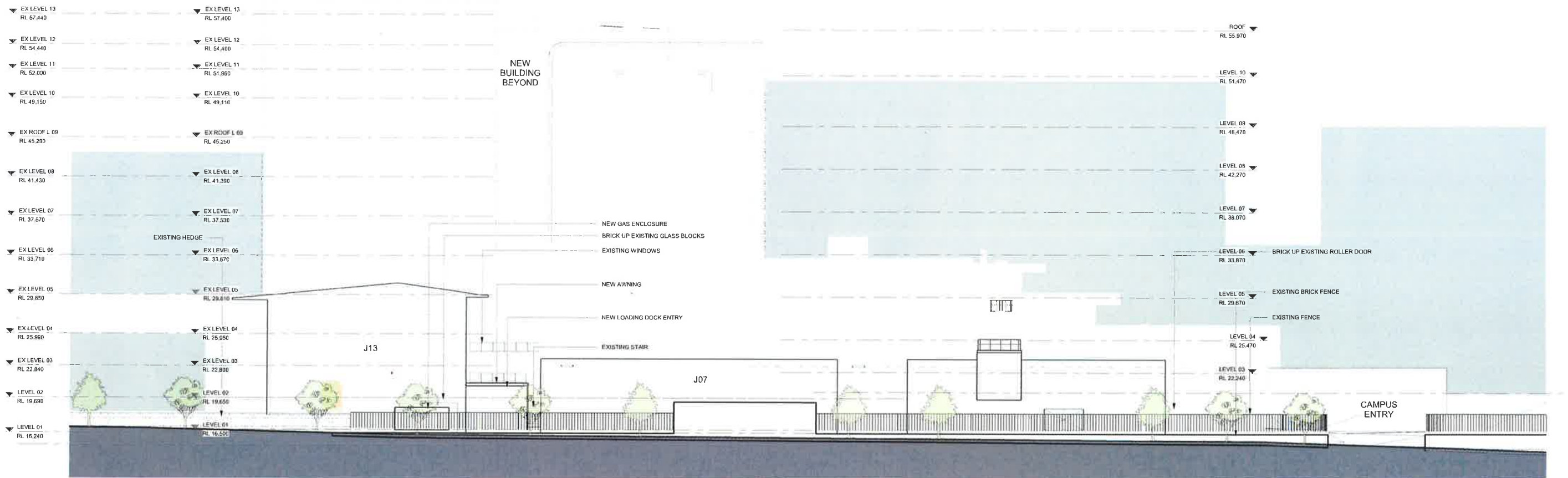
Project Architect: Michael Bradburn Date: 19/10/18

Project Director: David Holm Revision: E

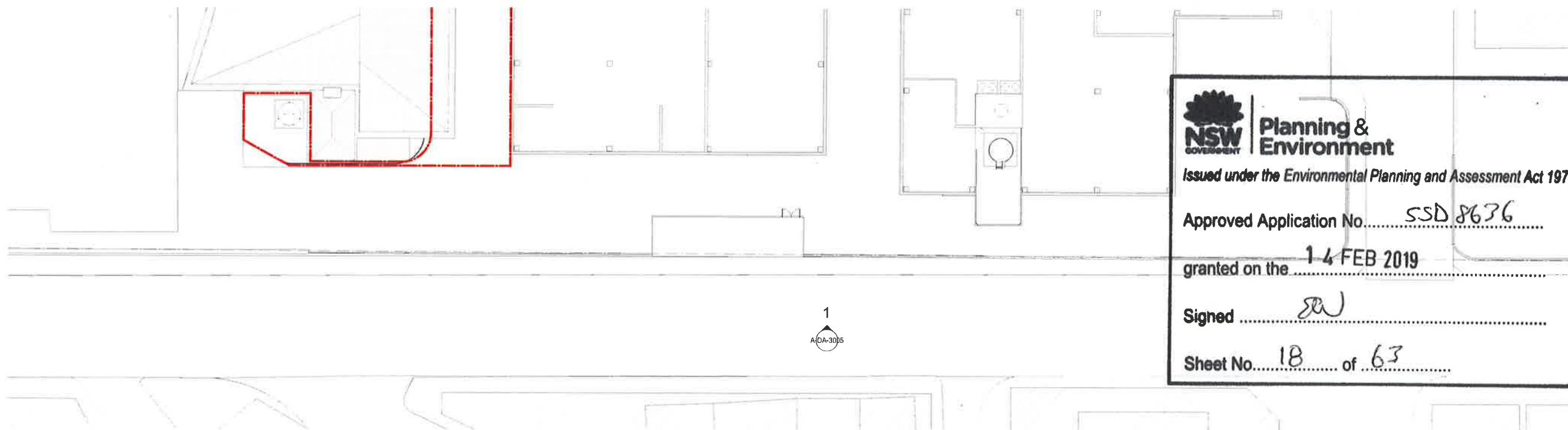
Drawing Number: North:

A-DA-3004

Cox Architecture Pty Ltd ACN 002 535 891



1 SHEPHERD ST ELEVATION
A-DA-3005 SCALE 1:200



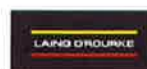
NSW GOVERNMENT | **Planning & Environment**
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 Approved Application No. SSD 8636
 granted on the 14 FEB 2019
 Signed [Signature]
 Sheet No. 18 of 63

Rev	Description	By	Date
A	FOR INFORMATION	SPG	15.11.2017
B	SSDA	SPG	31.01.2018
C	RESPONSE TO SUBMISSION	VU	03.03.2018

Principal



Contractor



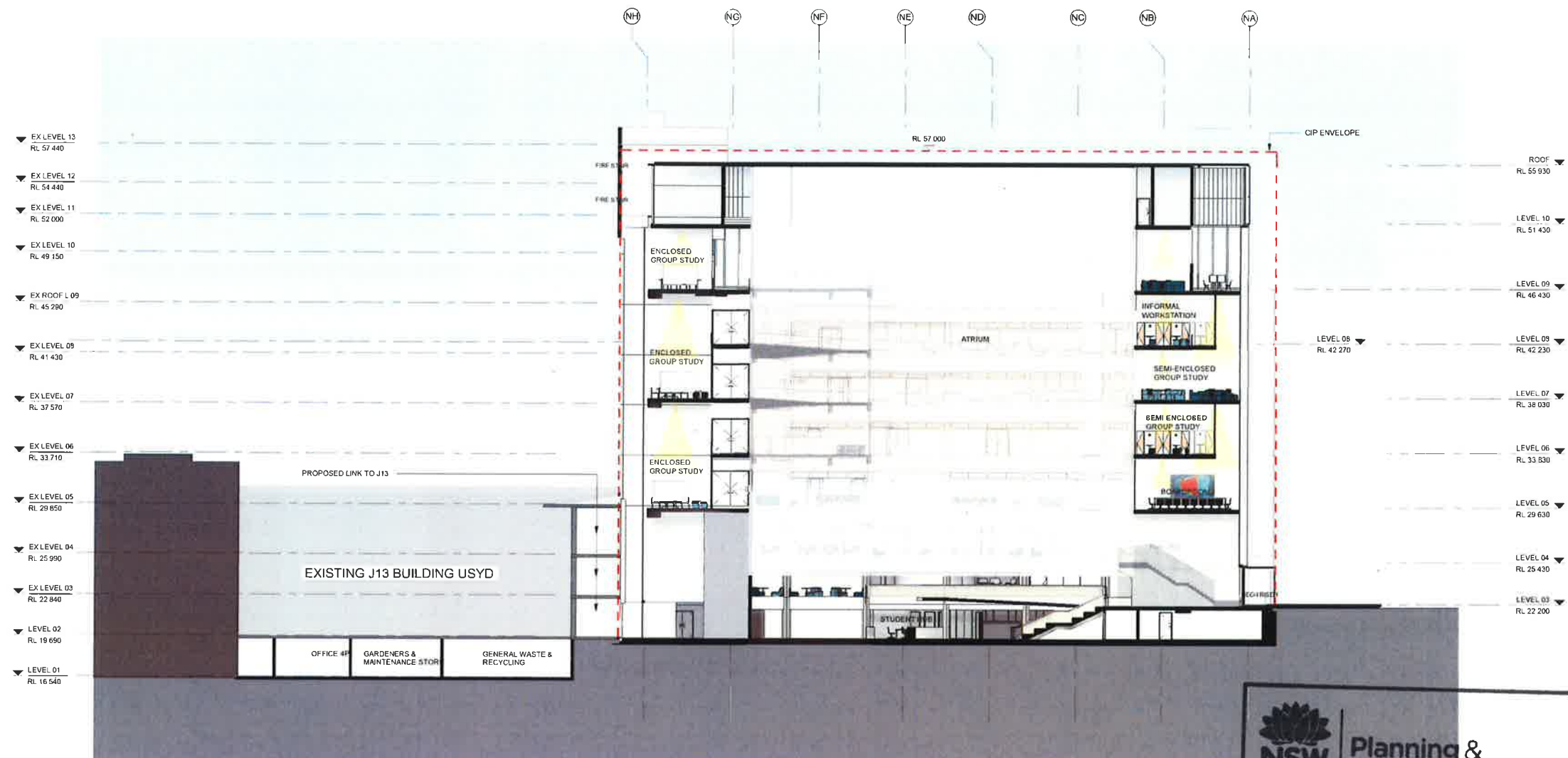
Architect



Nominated Architects
 John Akins, 6451
 Russell, 6367

Project
 THE UNIVERSITY OF SYDNEY ETP STAGE 1
 Electrical Engineering Building
 University in Darlington, NSW 2008
 Drawing Title
 SHEPHERD STREET ELEVATION

A1 DRAWING SHEET	Drawn: SPG
Co-ordinated: Michael Crane	Scale: 1:200 @ A1
Project Architect: Michael Bradburn	Date: 31/01/18
Project Director: David Holm	Revision: C
Drawing Number: A-DA-3005	North:



2 SECTION FACING SOUTH
21-02 SCALE 1:200



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Sheet No. 19 of 63

Rev	Description	By	Date
A	PRELIMINARY ISSUE	SPG	06.11.2017
B	FOR INFORMATION	SPG	15.11.2017
C	SSDA	SPG	21.01.2018
D	RESPONSE TO SUBMISSION	VU	03.09.2018
E	CORRECTED CIP ENVELOPE	MS	19.10.2018

Principal



Contractor



Architect



Nominated Architects
Joe Agius no. 6491
Russell Levine no. 6397

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

SECTIONS - EAST TO WEST

As Drawn Sheet

Co-ordinated: Michael Grave Scale: 1:200 @ A1

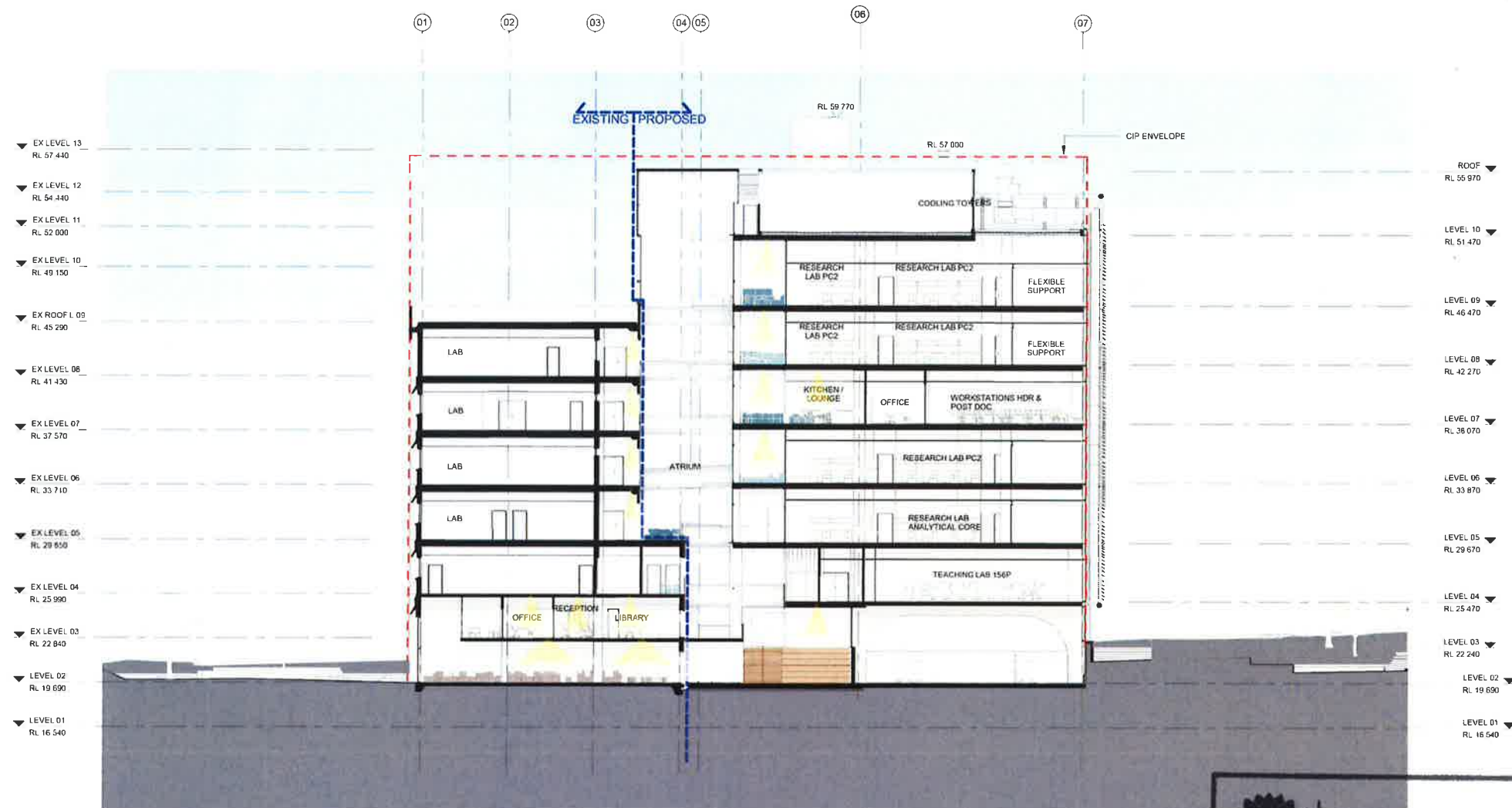
Project Architect: Michael Bradburn Date: 19/10/15

Project Director: David Holm Revision: E

Drawing Number: North:

A-DA-4001

Cox Architecture Pty Ltd ACY 902 515 891



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A	PRELIMINARY ISSUE	SPG	08.11.2017
B	FOR INFORMATION	SPG	15.11.2017
C	SSDA	SPG	31.01.2018
D	RESPONSE TO SUBMISSION	VUJ	03.09.2018
E	CORRECTED OP ENVELOPE	MG	19.10.2018

Principal



Contractor



Architect



Nominated Architects
 Jnr Apus no: 6491
 Russell Lee no: 6367

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
 University in Darlington, NSW 2008

Drawing Title

SECTIONS - NORTH TO SOUTH

Project Architect:	Michael Gradum	Date:	31/01/18
Project Director:	David Holm	Revision:	E
Drawing Number:	A-DA-4002	North:	[North Arrow]



01
LOCATION
NORTH, EAST & WEST LAB FACADES
FINISH
VISION GLASS



02
LOCATION
NORTH, EAST & WEST LAB FACADES
FINISH
ZINCALUME SPANDREL



03
LOCATION
NORTH FACADE
FINISH
STAINLESS STEEL EXTERNAL DUCT,
EXPOSED FANS



04
LOCATION
NORTH FACADE
FINISH
PAINTED STEEL 'EXO SKELETON'
FRAME TO DUCT



05
LOCATION
NORTH, EAST & WEST LAB
FACADES
FINISH
ALUMINIUM EXTERNAL LOUVRES



06
LOCATION
NORTH, EAST & WEST FACADES
FINISH
PAINTED STEEL, ALUMINIUM



07
LOCATION
EAST & WEST ATRIUM FACADES
FINISH
FULL HEIGHT VISION GLASS



08
LOCATION
SOUTH FACADES
FINISH
VISION GLASS



09
LOCATION
ROOF PLANT FACADES
FINISH
GLASS PLANK



10
LOCATION
EAST, WEST & SOUTH FACADE
FINISH
EXISTING CONCRETE FRAMES &
WALLS PAINT FINISH



11
LOCATION
EAST, WEST & SOUTH FACADE
FINISH
EXISTING CONCRETE FRAMES &
WALLS PAINT FINISH



12
LOCATION
EAST, WEST & SOUTH FACADE
FINISH
WINDOW FRAMES, LOUVRES PAINT
FINISH



13
LOCATION
ROOF PLANT FACADE
FINISH
WEATHERPROOF LOUVRES,
2 STAGE



14
LOCATION
ROOF
FINISH
METAL DECK ROOF



15
LOCATION
EAST, WEST & SOUTH FACADE
FINISH
EXISTING BRICK WALLS
PAINT FINISH



16
LOCATION
NORTH, EAST, WEST & SOUTH FACADE
FINISH
FEATURE SCREEN

17

LOCATION
WEST FACADE
FINISH
PAINTED STEEL, ALUMINIUM

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Rev	Description	By	Date
A	FOR INFORMATION	SPG	15.11.2017
B	SSDA	SPG	31.01.2018
C	RESPONSE TO SUBMISSION	VU	03.09.2018

PLOT STAMP DATE: 30/09/2018 5:00:31 PM

Principal



Contractor



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Nominated Architects
Joe Agius no. 5491
Russell Lee no. 6367

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

MATERIALS LEGEND - EXTERIOR



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Approved Application No. SSD 8636

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Sheet No. 21 of 63

11 DRAWING SHEET	Drawn: SPG
Co-ordinated: Michael Grave	Scale: 1 : 200 @ A1
Project Architect: Michael Bradburn	Date: 31/01/18
Project Director: David Holm	Revision: C
Drawing Number:	North:

A-DA-9001

See Appendix P13 for A-DA-9001-001



01
GENERAL FLOORING
CONCRETE



02
TEA POINT
WOVEN VINYL



03
WORK SPACE
CARPET TILE



04
TEACHING LABS
VINYL FLOORING



05
HUB AND INFORMAL LEARNING
SPACES
LARGE FORMAT TIMBER FLOOR
BOARDS



06
HUB AND INFORMAL LEARNING
SPACES
PLYWOOD JOINERY



07
CUSTOM JOINERY
STAINLESS STEEL



08
CUSTOM JOINERY
TEMPERED STEEL



09
LOOSE FURNITURE
VINYL



10
LOOSE FURNITURE
VINYL



11
LOOSE FURNITURE
UPHOLSTERY



12
LOOSE FURNITURE
UPHOLSTERY



13
LOOSE FURNITURE
UPHOLSTERY



14
LOOSE FURNITURE
UPHOLSTERY



15
WALLS
WHITE ON WHITE PAINT FINISH



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Rev	Description	By	Date
A	SSDA	SPG	31.01.2018

PLOT STAMP DATE: 31/01/2018 3:13:02 PM

Principal



Contractor



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Nominated Architects
Job Ref: 6561
Russell Lee no: 6367

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

MATERIALS LEGEND - INTERIOR

AT DRAWING SHEET

Co-ordinated: Michael Grove Scale: 1:200 @ A1

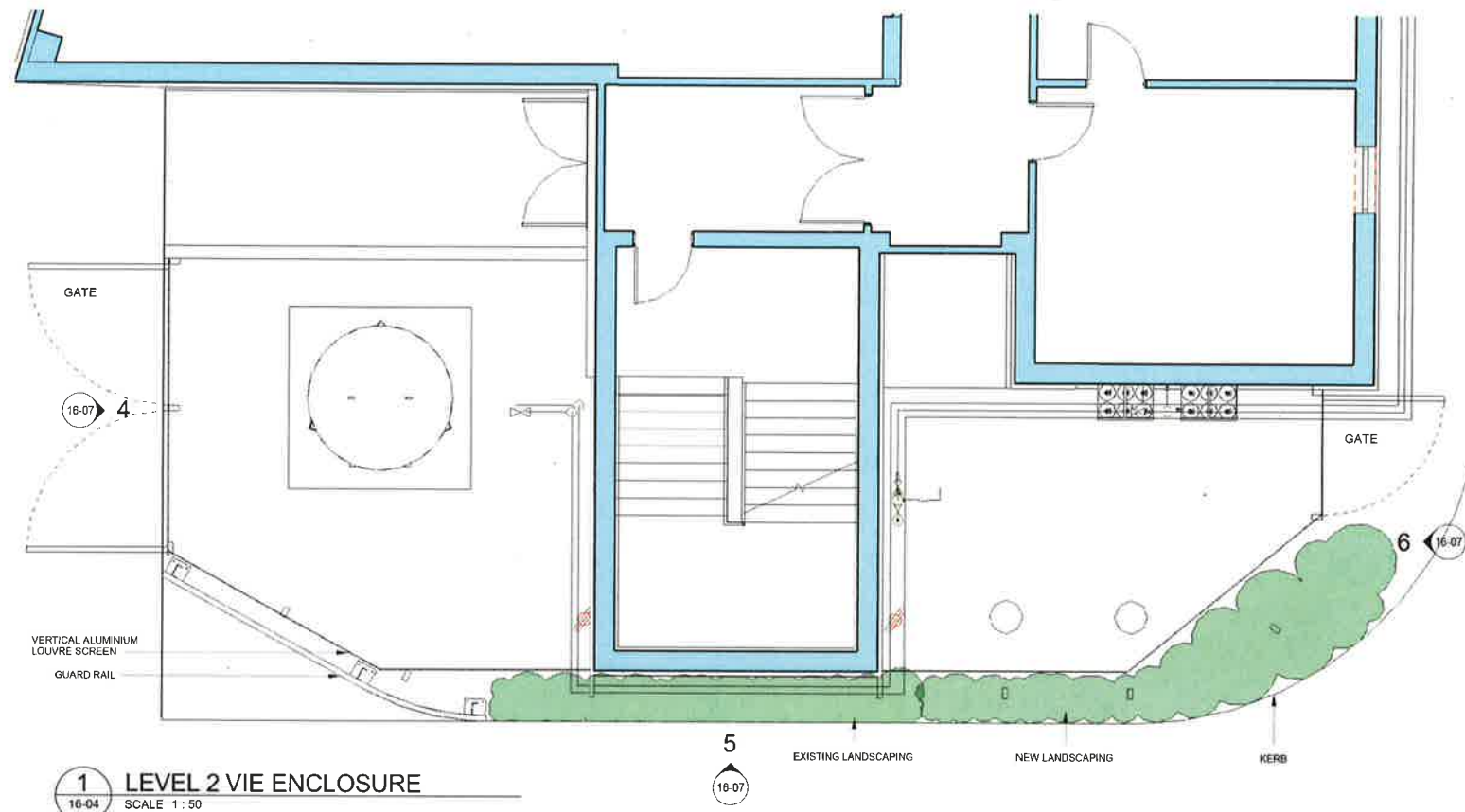
Project Architect: Michael Bradburn Date: 31/01/18

Project Director: David Holm Revision: A

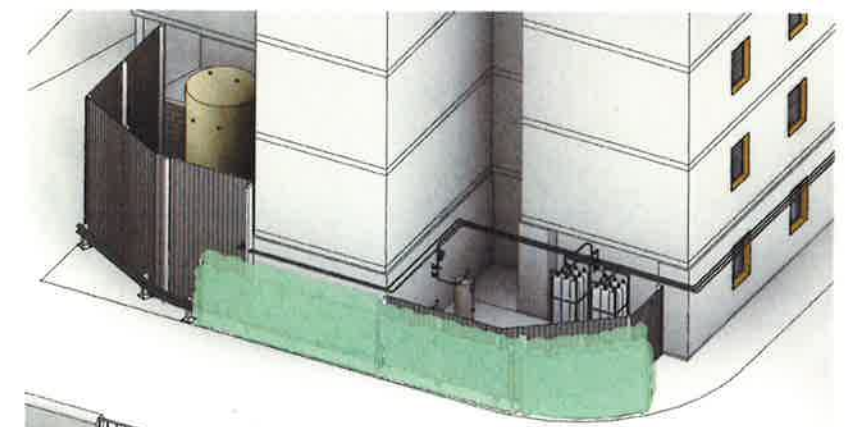
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A-DA-9002

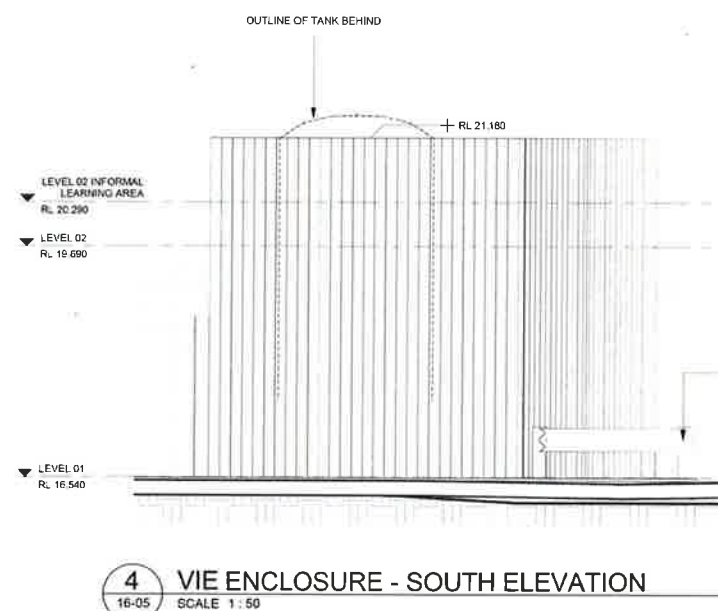
Cox Architecture Pty Ltd ACH 002 535 881



2 VIE ENCLOSURE PHOTOMONTAGE



3 VIE ENCLOSURE ISOMETRIC



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Sheet No. **23** of **63**

6 VIE ENCLOSURE - NORTH ELEVATION 3

SCALE 1:50

Rev	Description	By	Date
A	RESPONSE TO SUBMISSION	MS	14/12/2018

Principal



Contractor



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Nominated Architects
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RCSA 6491 no. 6367

Project

THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title

EXTERNAL WORKS - VIE ENCLOSURE

Drawn: MS

Scale: 1:50 @ A1

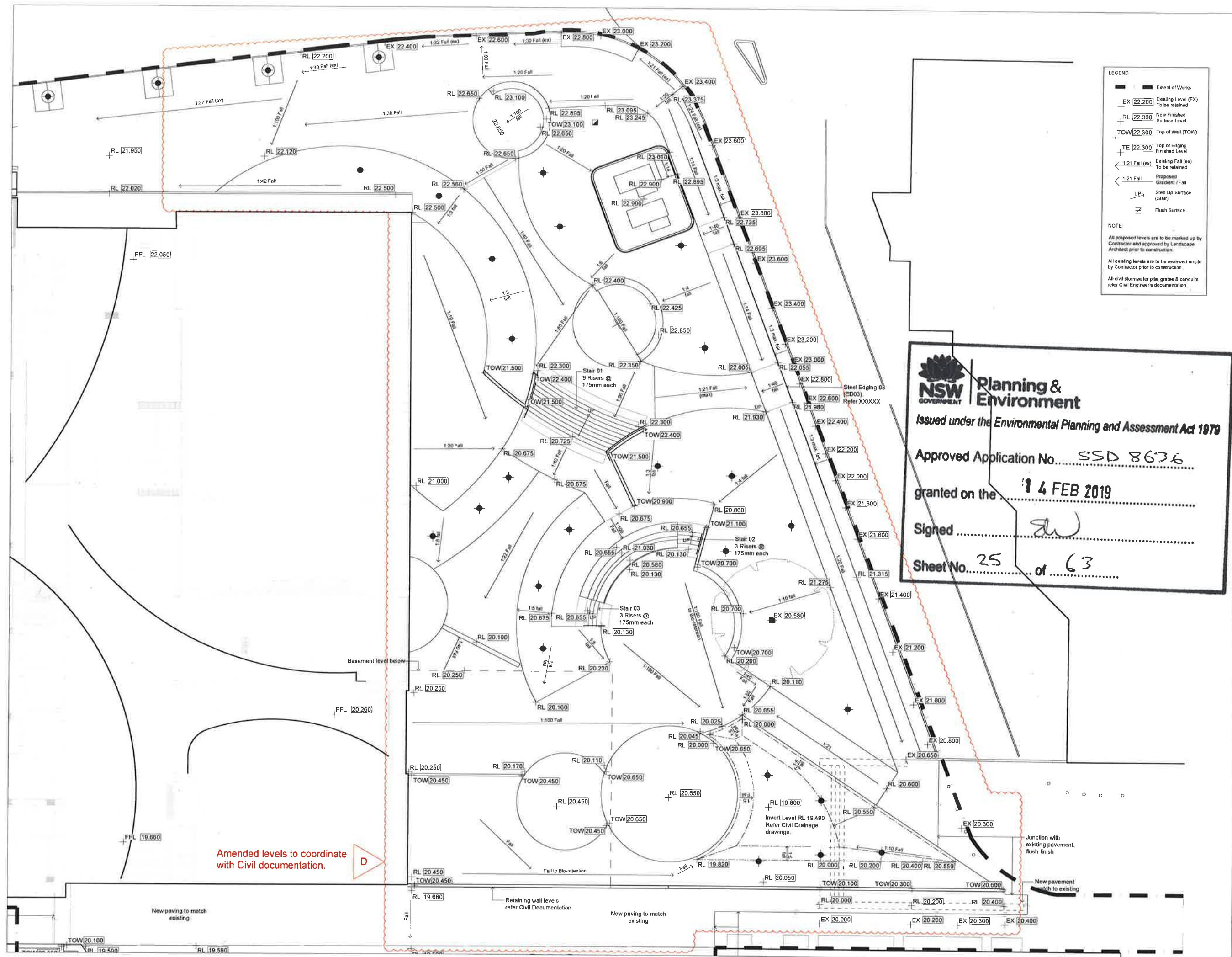
Date: 12/14/18

Revision: A

North: [North Arrow]

A-DA-16-07

Cox Architecture Pty Ltd ACN 002 535 591



LEGEND

- Extent of Works
- EX [22.200] Existing Level (EX) To be retained
- RL [22.300] New Finished Surface Level
- TOW [22.300] Top of Wall (TOW)
- TE [22.300] Top of Edging Finished Level
- 1:21 Fall (ex) Existing Fall (ex) To be retained
- 1:21 Fall Proposed Gradient / Fall
- UP Step Up Surface (Stair)
- Flush Surface

NOTE:

All proposed levels are to be marked up by Contractor and approved by Landscape Architect prior to construction.

All existing levels are to be reviewed onsite by Contractor prior to construction.

All civil stormwater pits, grates & conduits refer Civil Engineer's documentation.

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A	ISSUED FOR 70% DETAILED DESIGN	DS	20/10/2018
B	ISSUED FOR 70% DETAILED DESIGN	DS	20/10/2018
C	ISSUED FOR 70% DETAILED DESIGN	DS	20/10/2018
D	ISSUED FOR 70% DETAILED DESIGN	DS	20/10/2018

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LABORATORY PLANNERS
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 Level 212, 16 Chippendale St, Chippendale NSW 2006
 T: +61 2 5216 5688 www.liquidconsulting.com.au

PROJECT
 THE UNIVERSITY OF SYDNEY ETP STAGE 1
 Electrical Engineering Building
 University in Darlington, NSW 2008

DRAWING TITLE
 Grading Plan 02
 Northern Courtyard

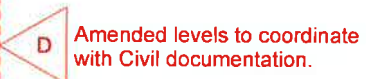
DOCUMENT CONTROL STATUS:
 70% DETAILED DESIGN

Project Number:	215132 00	Drawn:	DS / SK
Co-ordinated:	SB	Scale:	1:100 @ B1
Project Architect:	TCL	Date:	03/10/2018
Project Director:	DS	Revision:	D
Drawing Number:		North:	

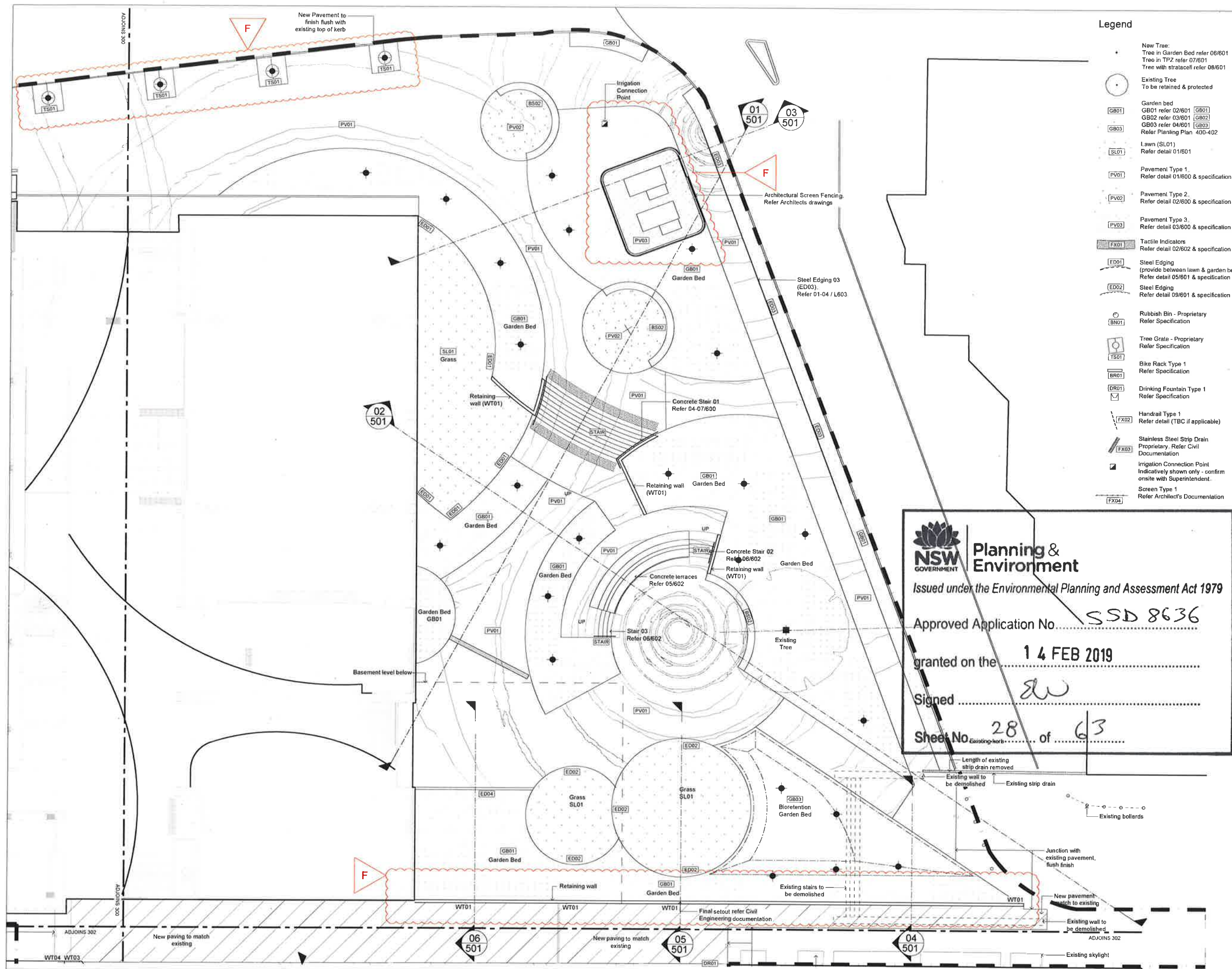
K33-TCL-LAS-DRG-00201

City Architecture Pty Ltd A/CN 002 530 861

81 DRAWING 01-01

[illegible]

Project: THE UNIVERSITY OF SYDNEY ETP STAGE 1 Electrical Engineering Building University in Darlington, NSW 2008	
Drawing Title Grading Plan 03 Eastern Courtyard	
Document Control Status: 70% DETAILED DESIGN	
Project Number: 215132_00 Co-ordinated: SS Project Architect: TCL Project Director: DG	Drawn: CH / SK Scale: 1:100 @ B1 Date: 03/12/2016 Revision: D
Drawing Number: K33-TCL-LAS-DRG-0022	North: 
Gas Architecture Pty Ltd ACN 628 555 881 80 DRAKEVIEW STREET	



Legend

- New Tree:
 - Tree in Garden Bed refer 06/01
 - Tree in TPZ refer 07/01
 - Tree with stratacell refer 08/01
- Existing Tree:
 - To be retained & protected
- Garden bed:
 - GB01 refer 02/01
 - GB02 refer 03/01
 - GB03 refer 04/01
 - Refer Planting Plan 400-402
- Lawn (SL01):
 - Refer detail 01/01
- Pavement Type 1:
 - Refer detail 01/00 & specification
- Pavement Type 2:
 - Refer detail 02/00 & specification
- Pavement Type 3:
 - Refer detail 03/00 & specification
- Tactile Indicators:
 - Refer detail 02/02 & specification
- Steel Edging:
 - (provide between lawn & garden bed)
 - Refer detail 05/01 & specification
- Steel Edging:
 - Refer detail 09/01 & specification
- Rubbish Bin - Proprietary:
 - Refer Specification
- Tree Grate - Proprietary:
 - Refer Specification
- Bike Rack Type 1:
 - Refer Specification
- Drinking Fountain Type 1:
 - Refer Specification
- Handrail Type 1:
 - Refer detail (TBC if applicable)
- Stainless Steel Strip Drain:
 - Proprietary, Refer Civil Documentation
- Irrigation Connection Point:
 - Indicatively shown only - confirm onsite with Superintendent
- Screen Type 1:
 - Refer Architect's Documentation



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Approved Application No. **SSD 8636**

granted on the **14 FEB 2019**

Signed

Sheet No. **28** of **63**

Rev	Description	By	Date
1	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
2	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
3	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
4	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
5	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
6	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
7	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
8	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
9	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018
10	ISSUED FOR 50% SCAFFOLD DESIGN	SA	20/02/2018

T.C.L.
TAYLOR CULLITY LEHMAN

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THE UNIVERSITY OF SYDNEY

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LABORATORY PLANNERS
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Taylor Cullity Lehman, 100 Quay St, Adelaide SA 5000
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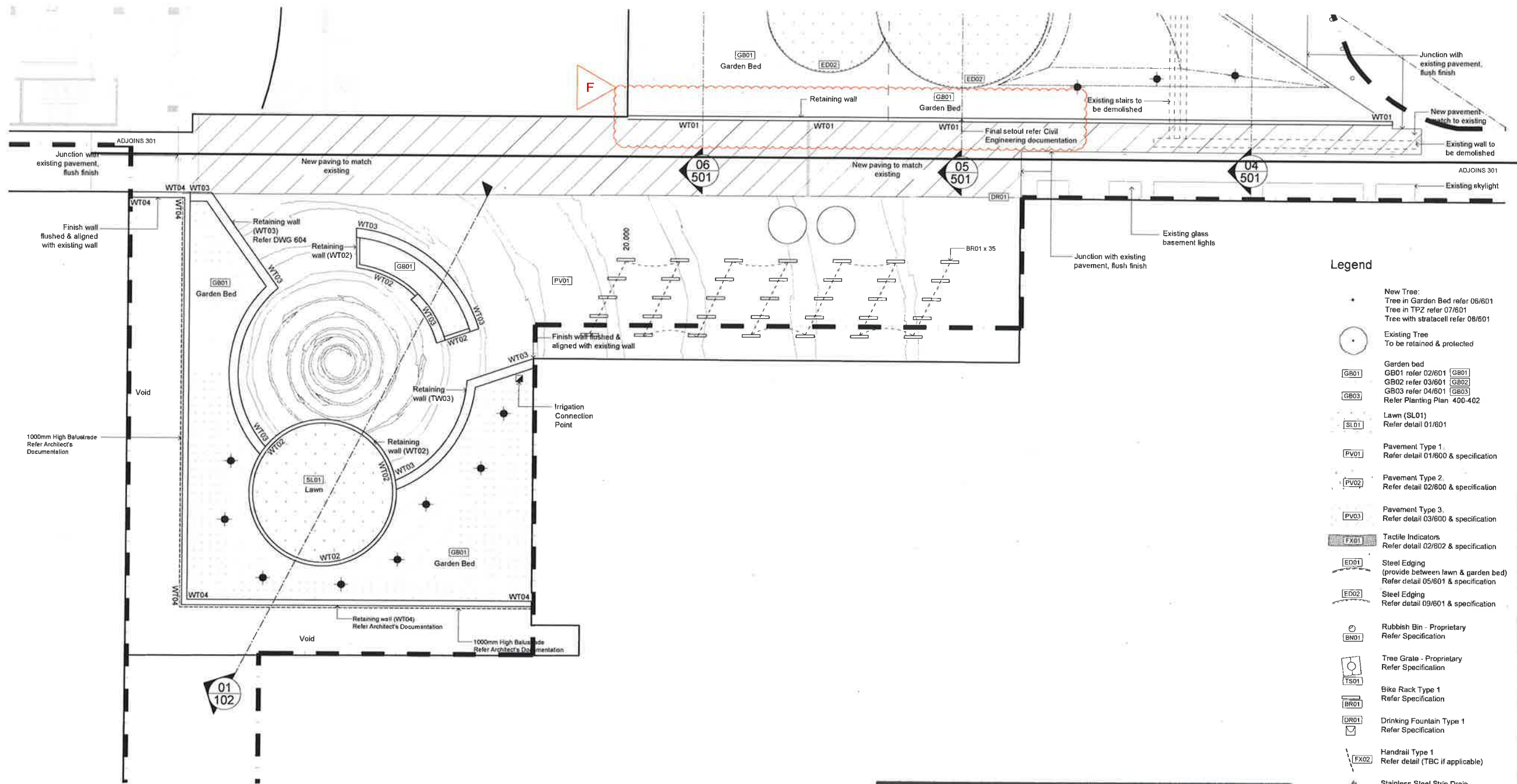
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Bonaccini Group
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THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title
**Surfaces Plan 02
Northern Courtyard**

Document Control Status:
70% DETAILED DESIGN

Project Number: 215132 00	Drawn: CH / BK
Client: UoS	Scale: 1:100 @ B1
Project Architect: TCL	Date: 03/12/2018
Project Director: DS	Revision: 1
Drawing Number: K33-TCL-LAS-DRG-00301	North:



- Legend**
- New Tree:
Tree in Garden Bed refer 05/601
Tree in TPZ refer 07/601
Tree with stratacell refer 08/601
 - Existing Tree
To be retained & protected
 - GB01 Garden bed
GB01 refer 02/601
GB02 refer 03/601
GB03 refer 04/601
Refer Planting Plan 400-402
 - SL01 Lawn (SL01)
Refer detail 01/601
 - PV01 Pavement Type 1
Refer detail 01/600 & specification
 - PV02 Pavement Type 2
Refer detail 02/600 & specification
 - PV03 Pavement Type 3
Refer detail 03/600 & specification
 - FX01 Tactile Indicators
Refer detail 02/602 & specification
 - ED01 Steel Edging
(provide between lawn & garden bed)
Refer detail 05/601 & specification
 - ED02 Steel Edging
Refer detail 09/601 & specification
 - BN01 Rubbish Bin - Proprietary
Refer Specification
 - TS01 Tree Grate - Proprietary
Refer Specification
 - BR01 Bike Rack Type 1
Refer Specification
 - DR01 Drinking Fountain Type 1
Refer Specification
 - FX02 Handrail Type 1
Refer detail (TBC if applicable)
 - FX03 Stainless Steel Strip Drain
Proprietary. Refer Civil
Documentation
 - Irrigation Connection Point
Indicatively shown only - confirm
onsite with Superintendent.
 - FX04 Screen Type 1
Refer Architect's Documentation

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Approved Application No. **SSD 8636**

granted on the **14 FEB 2019**

Signed *[Signature]*

Sheet No. **29** of **63**

Rev	Description	By	Date
A	ISSUED FOR 30% SCHEMATIC DESIGN	SA	28/02/2018
B	30% SCHEMATIC DESIGN - REVISIONS	SA	13/06/2018
C	ISSUED FOR 50% DETAILED DESIGN	SA	25/10/2018
D	ISSUED FOR 50% DETAILED DESIGN	SA	25/10/2018
E	ISSUED FOR 50% DETAILED DESIGN	SA	08/11/2018
F	ISSUED FOR 70% DETAILED DESIGN	SA	03/12/2018

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THE UNIVERSITY OF SYDNEY ETP STAGE 1

Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title
**Surfaces Plan 03
Eastern Courtyard**

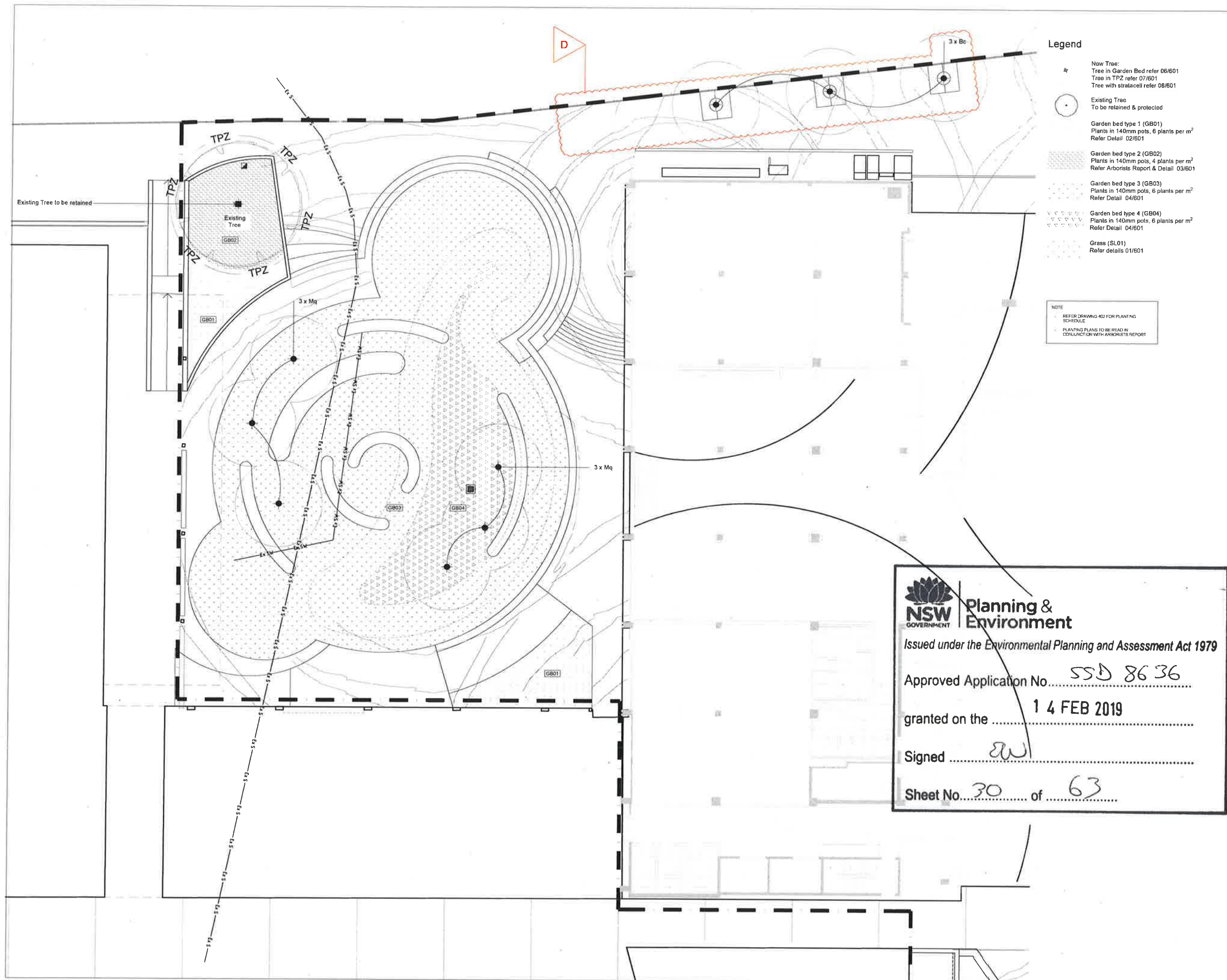
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Project Number: 215132-00	Drawn: CH / SK
Co-ordinated: SB	Scale: 1:100 @ B1
Project Architect: TCL	Date: 03/12/2018
Project Director: CS	Revision: #
Drawing Number:	North:

K33-TCL-LAS-DRG-00302

City Architect Pty Ltd ACN 002 325 881

31 DRAWING SHEET



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Rev	Description	By	Date
A	ISSUED FOR TENDERS FOR DETAILED DESIGN	CH	22/02/2018
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C	ISSUED FOR TENDERS FOR DETAILED DESIGN	CH	22/02/2018
D	ISSUED FOR TENDERS FOR DETAILED DESIGN	CH	22/02/2018

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Phase
 THE UNIVERSITY OF SYDNEY ETP STAGE 1
 Electrical Engineering Building
 University in Darlington, NSW 2008

Drawing Title
 Planting Plan 01
 Southern Courtyard

Document Control Status:
 70% DETAILED DESIGN

Project Number:	215132 00	Drawn:	CH
Co-ordinated:	SB	Scale:	1:100 @ B1
Project Architect:	TCL	Date:	03/12/2016
Project Director:	DS	Revision:	
Drawing Number:		North:	

K33-TCL-LAS-DRG-00400

City of Adelaide Pty Ltd ACT 001 320 801

BY DRAWING SHEET



Legend

- New Tree:
Tree in Garden Bed refer 08/601
Tree in TP2 refer 07/601
Tree with stratacell refer 08/601
- Existing Tree
To be retained & protected
- Garden bed type 1 (GB01)
Plants in 140mm pots, 6 plants per m²
Refer Detail 02/601
- Garden bed type 2 (GB02)
Plants in 140mm pots, 4 plants per m²
Refer Arborists Report & Detail 03/601
- Garden bed type 3 (GB03)
Plants in 140mm pots, 6 plants per m²
Refer Detail 04/601
- Garden bed type 4 (GB04)
Plants in 140mm pots, 6 plants per m²
Refer Detail 04/601
- Grass (SL01)
Refer details 01/601

NOTE
- REFER DRAWING 402 FOR PLANTING SCHEDULE
- PLANTING PLANS TO BE READ IN CONJUNCTION WITH ARBORISTS REPORT

Planning & Environment

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. **55D 8636**

granted on the **14 FEB 2019**

Signed **[Signature]**

Sheet No. **31** of **63**

Rev	Description	By	Date
1	ISSUED FOR 10% DETAILED DESIGN	SA	15/10/2018
2	ISSUED FOR 10% DETAILED DESIGN	SA	15/10/2018
3	ISSUED FOR 10% DETAILED DESIGN	SA	15/10/2018
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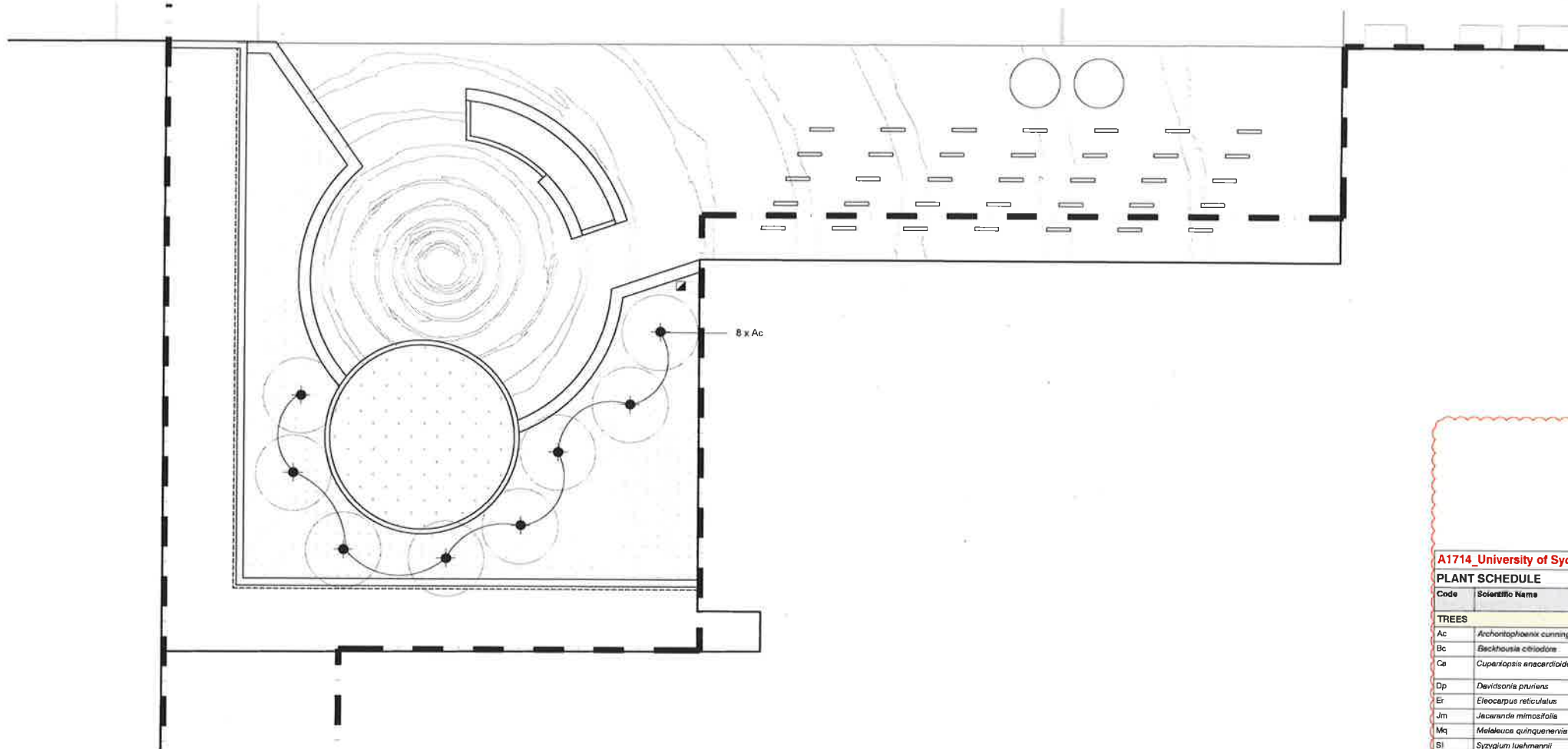
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Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008

Drawing Title
Planting Plan 02
Northern Courtyard

Document Control Status:
70% DETAILED DESIGN

Project Number:	215132 00	Drawn:	DH
Co-ordinated:	SB	Scale:	1:100 @ B1
Project Architect:	TCL	Date:	03/12/2018
Project Director:	DS	Revision:	D
Drawing Number:	North: 		
K33-TCL-LAS-DRG-00401			
Cat Architecture Pty Ltd K20-K33 SS 001		B1 CHAIRMAN'S SHEET	



Legend

- New Tree:
Tree in Garden Bed refer 06/601
Tree in TPZ refer 07/601
Tree with stratacell refer 08/601
- Existing Tree
To be retained & protected
- Garden bed type 1 (GB01)
Plants in 140mm pots, 6 plants per m²
Refer Detail 02/601
- Garden bed type 2 (GB02)
Plants in 140mm pots, 4 plants per m²
Refer Arborists Report & Detail 03/601
- Garden bed type 3 (GB03)
Plants in 140mm pots, 6 plants per m²
Refer Detail 04/601
- Garden bed type 4 (GB04)
Plants in 140mm pots, 6 plants per m²
Refer Detail 04/601
- Grass (SL01)
Refer details 01/601

NOTE
PLANTING PLANS TO BE READ IN
CONJUNCTION WITH ARBORISTS REPORT

A1714_University of Sydney - ETP

PLANT SCHEDULE

Code	Scientific Name	Common Name	Mature Height & Width	Spacing / m ²	Pot Size	Quantity
TREES						
Ac	Archontophoenix cunninghamiana	Bangalow Palm	20 / 2 - 3		200L	8
Bc	Beckhausia citriformis	Lemon Myrtle	4 - 6 / 3 - 5		200L	6
Cc	Cupressus anacardioides	Tuckeroo	5 - 8 / 5 - 7		200L	11
Dp	Davidsonia pruriens	Davidson's Plum	5 - 10 / 2 - 4		100L	4
Er	Eleocharis reticulata	Blueberry Ash	3 - 15 / 3 - 5		200L	5
Jm	Jacaranda mimosifolia	Jacaranda	10 - 15 / 10 - 15		200L	1
Mj	Melaleuca quinquenervia	Broad-leaved Paperbark	8 - 15 / 5 - 10		200L	6
Sl	Syzygium luehmannii	Riberry	10 - 15 / 3 - 4		100L	3
SHRUBS						
Be	Banksia ericifolia	Hearthleaved Banksia			140mm	-
Bsp	Banksia spinulosa	Harpin Banksia			140mm	-
Bse	Banksia serrata	Old Man Banksia			140mm	-
Bo	Breytia oblongifolia	Coffee Bush			140mm	-
Cc	Callistemon citrinus	Crimson Bottlebrush			140mm	-
Cr	Correa reflexa	Common Correa/Native Fuchsia			140mm	-
Ce	Crucian exaltata	Waxflower			140mm	-
Dc	Dianella caerulea	Blue-Sax Lily			140mm	-
Dr	Dichondra repens	Kidney Weed			140mm	-
Ga	Gravillea sericea	Pink Spider Flower			140mm	-
Go	Goodenia ovata	Hop Goodenia			140mm	-
Hs	Hakea sericea	Silky Hakea			140mm	-
Hv	Hardenbergia violacea	Falco Serapiella			140mm	-
Il	Indopelta australis	Austral Indigo			140mm	-
Ka	Kurtzia ambigua	Tick Bush			140mm	-
Lr	Lomandra confertifolia subsp. rubiginosa	Mel-rush			140mm	-
Pc	Persoonia chamaepeplus	Mountain Geebung			140mm	-
Ts	Telopea speciosissima	Waratah			140mm	-
Vh	Violeta hederacea	Ivy-leaf Violet			140mm	-
Wg	Wahlenbergia gracilis	Sprawling Bluebell			140mm	-
Wl	Westringia fruticosa	Coastal Rosemary			140mm	-
FERNS AND ALLIES						
Aa	Adiantum athiopitum	Common Maidenhair Fern			140mm	-
Co	Calochortus dubia	Common Ground-fern			140mm	-
Dd	Doodia aspera	Reep Fern			140mm	-
Gi	Gleichenia dicarpa	Pouched coral fern			140mm	-
Mr	Macrozamia communis	Burrawang			140mm	-
GRASSES						
At	Austroderanthus tenuis	Wallaby Grass			140mm	-
Dh	Dichalechne crinita	Long-hair Plume-grass			140mm	-
Mr	Microstema stipoides	Weeping Grass			140mm	-
Tm	Themeda australis	Kangaroo Grass			140mm	-
SEDGES AND REEDS						
Ba	Baumea articulata	Jointed Twig Rush			140mm	-
El	Eleocharis acuta	Common Spike Rush			140mm	-
Fi	Ficinia nodosa	Knobby Club Rush			140mm	-
Ga	Gahnia sieberiana	Red-fruit Saw-Sedge			140mm	-
Sc	Schoenoplectus validus	River Club Rush			140mm	-
BUSH TUCKER PLANTS						
Ad	Austromyrtus dulcis	Midyim Berry			140mm	-
Dp	Davidsonia pruriens	Davidson's Plum			Refer above	-
Hh	Hibiscus heterophyllus	Native Rosea			140mm	-
Lm	Linospadix monostachyos	Walking-stick Palm			140mm	-
Ma	Microstichus australis	Finger Lime			140mm	-
Sl	Syzygium luehmannii	Riberry			Refer above	-
Tl	Tetragonia tetragonioides	Warrigal Greens			140mm	-



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Approved Application No. SSD 8636

granted on the 14 FEB 2019

Signed [Signature]

Sheet No. 32 of 63

Rev	Description	By	Date
1	ISSUED FOR 70% DETAILED DESIGN	SA	15/10/2018
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THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlington, NSW 2008

Planting Plan 03
Eastern Courtyard

Document Control Status:
70% DETAILED DESIGN

Project Number: 21512 00
Co-ordinator: SB
Project Architect: TCL
Project Director: DS
Drawing Number: K33-TCL-LAS-DRG-00402

Drawn: DL
Scale: 1:100 @ B1
Date: 03/12/2018
Revision: E

North: [North Arrow]

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A	ISSUED FOR 30% Schematic Design	AK	15/02/2018
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C	ISSUED FOR 30% Detailed Design	AK	15/02/2018
D	ISSUED FOR 30% Detailed Design	AK	15/02/2018
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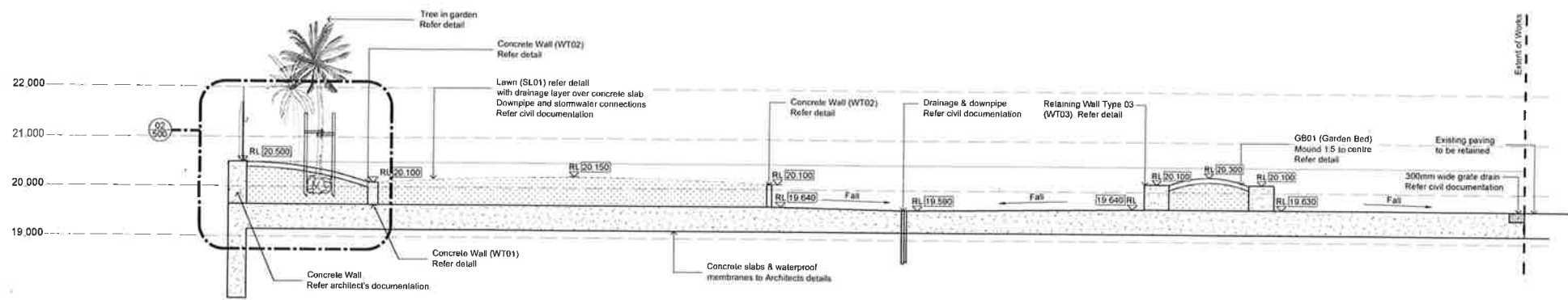
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THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlinghurst, NSW 2008

Drawing Title
Sections 01

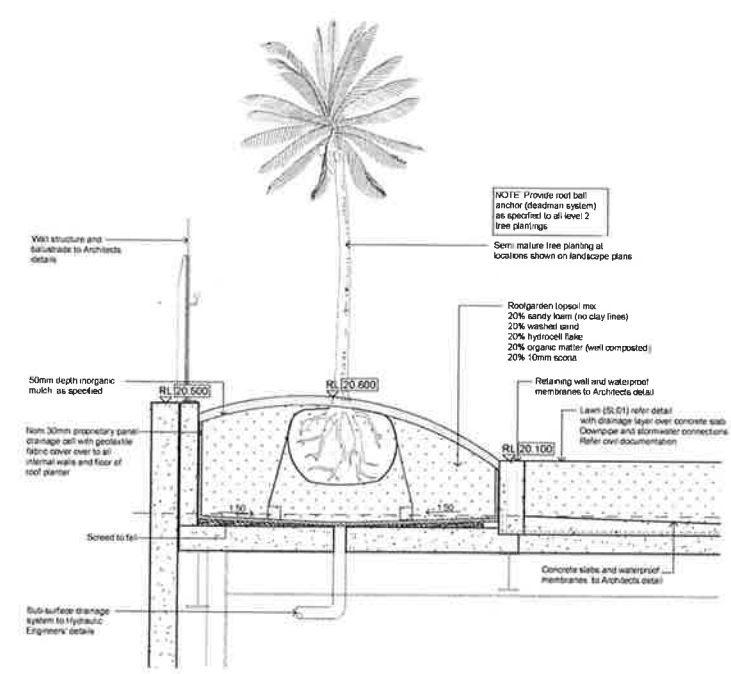
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Project Architect:	TCL	Date:	03/12/2018
Project Director:	DS	Revision:	E
Drawing Number:		North:	
K33-TCL-LAS-DRG-00500			



01 EASTERN COURTYARD SECTION

Amended levels to reflect the revised Grading Plans



02 EASTERN COURTYARD - PLANTER DETAIL SECTION

NSW GOVERNMENT | **Planning & Environment**

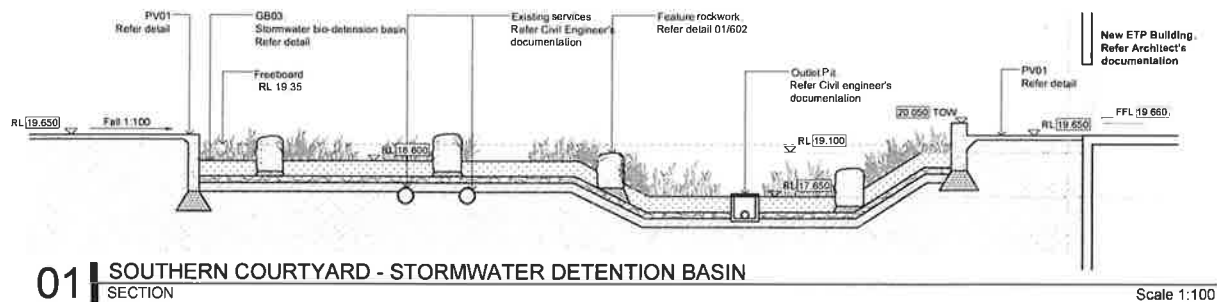
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Approved Application No. SSD 8636

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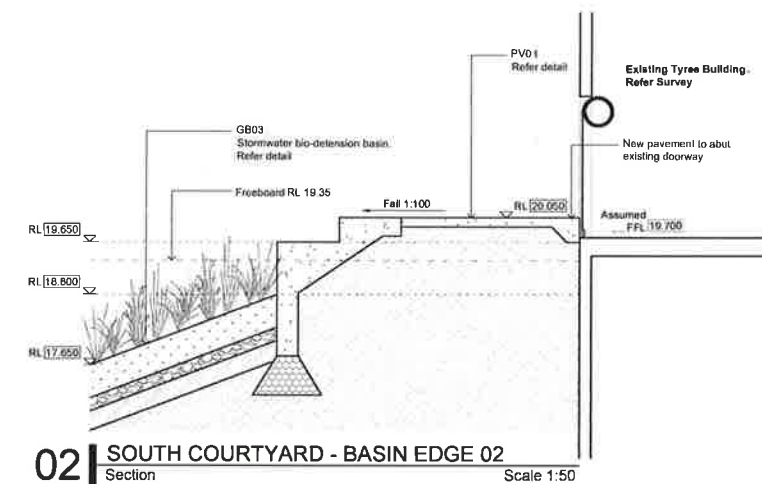
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Sheet No. 33 of 63



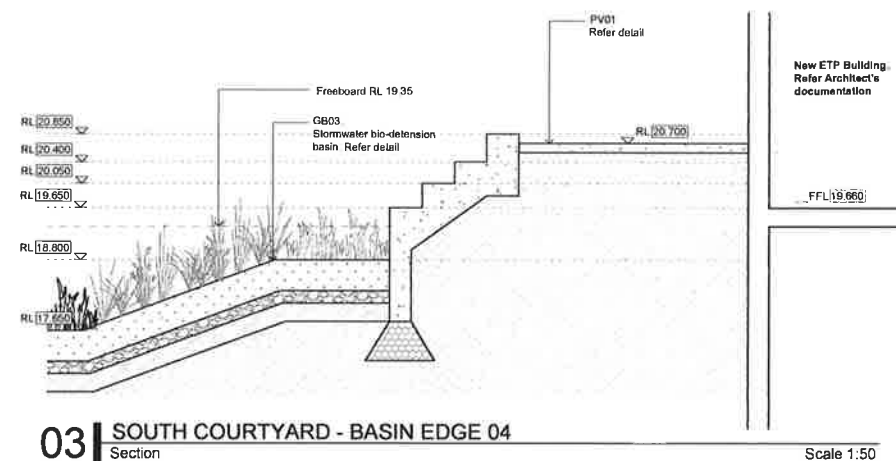
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SECTION

Scale 1:100



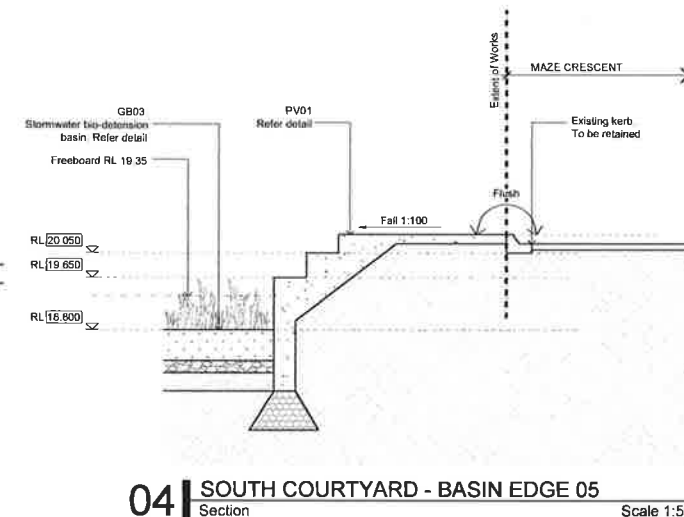
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Section

Scale 1:50



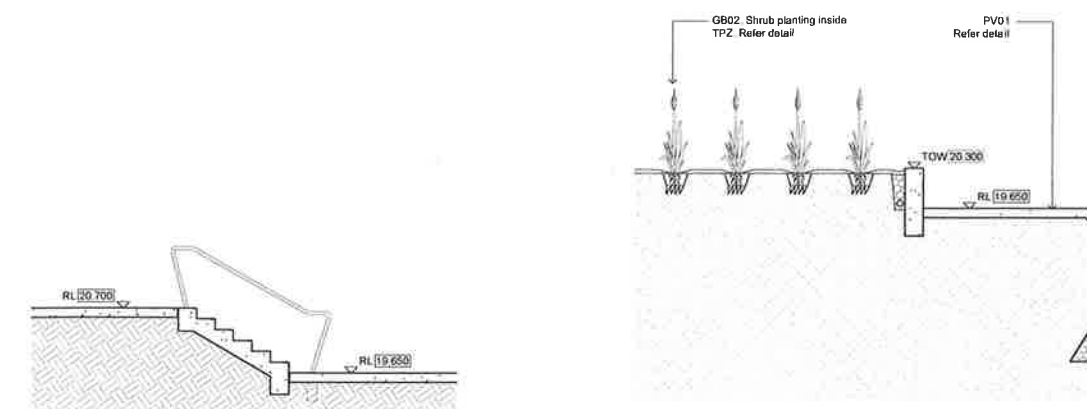
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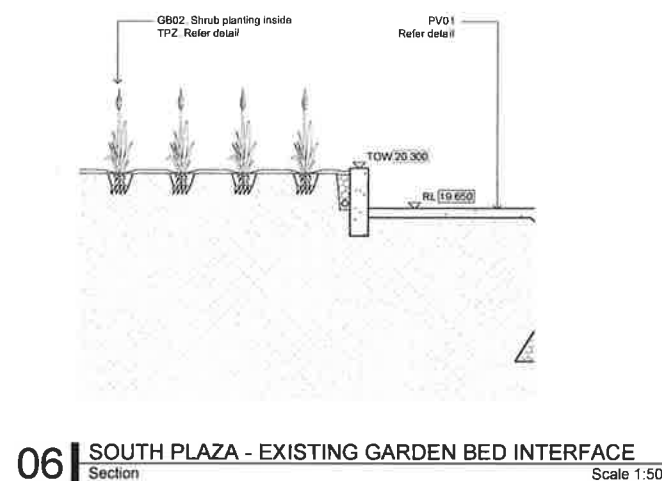
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Section

Scale 1:50



05 | SOUTHERN COURTYARD - STAIRS
Section

Scale 1:50



06 | SOUTH PLAZA - EXISTING GARDEN BED INTERFACE
Section

Scale 1:50

NSW GOVERNMENT | **Planning & Environment**

Issued under the Environmental Planning and Assessment Act 1979

Approved Application No. SSD 8636

granted on the 14 FEB 2019

Signed [Signature]

Sheet No. 35 of 63

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Project
THE UNIVERSITY OF SYDNEY ETP STAGE 1
Electrical Engineering Building
University in Darlinghurst, NSW 2008

Drawing Title
Sections 03

Document Control Status
70% DETAILED DESIGN

Project Number: 215122-00 **Drawn:** D41/SK
Co-ordinated: SB **Scale:** Varied @ B1
Project Architect: TCL **Date:** 31/10/2018
Project Director: DS **Revised:** IC
Drawing Number: K33-TCL-LAS-DRG-00502

City Architect: City of Sydney NSW 1511 **By:** D41/SK

10518C - UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT

DRAWING REGISTER AND CONSTRUCTION NOTES - CIVIL & STORMWATER

DRAWING No.	DESCRIPTION
DRG-00001	DRAWING REGISTER AND CONSTRUCTION NOTES
DRG-00005	SOIL AND WATER MANAGEMENT PLAN-SHEET1
DRG-00006	SOIL AND WATER MANAGEMENT PLAN DETAILS
DRG-00007	SOIL AND WATER MANAGEMENT PLAN-SHEET2
DRG-00008	SOIL AND WATER MANAGEMENT PLAN CALCULATION
DRG-00010	OVERALL BULK EARTHWORKS PLAN - SHEET 1
DRG-00011	OVERALL BULK EARTHWORKS PLAN - SHEET 2
DRG-00020	BULK EARTHWORKS LONGITUDINAL SECTIONS -SHEET 1
DRG-00021	BULK EARTHWORKS LONGITUDINAL SECTIONS -SHEET 2
DRG-00022	BULK EARTHWORKS LONGITUDINAL SECTIONS -SHEET 3
DRG-00023	BULK EARTHWORKS LONGITUDINAL SECTIONS -SHEET 4
DRG-00024	BULK EARTHWORKS LONGITUDINAL SECTIONS -SHEET 5
DRG-00031	SITEWORKS AND STORMWATER DRAINAGE PLAN-SHEET 1
DRG-00032	SITEWORKS AND STORMWATER DRAINAGE PLAN-SHEET 2
DRG-00033	SITEWORKS AND STORMWATER DRAINAGE PLAN-SHEET 3
DRG-00034	SITEWORKS AND STORMWATER DRAINAGE PLAN-SHEET 4
DRG-00040	STORMWATER LONG SECTION-SHEET 1
DRG-00041	STORMWATER LONG SECTION-SHEET 2
DRG-00042	STORMWATER LONG SECTION-SHEET 3
DRG-00043	STORMWATER LONG SECTION-SHEET 4
DRG-00044	STORMWATER LONG SECTION-SHEET 5
DRG-00070	PAVEMENT PLAN-SHEET 1
DRG-00071	PAVEMENT PLAN-SHEET 2
DRG-00072	PAVEMENT PLAN-SHEET 3
DRG-00073	PAVEMENT PLAN-SHEET 4
DRG-00060	SITEWORKS AND STORMWATER DRAINAGE DETAILS SHEET 1
DRG-00061	SITEWORKS AND STORMWATER DRAINAGE DETAILS-SHEET 2
DRG-00062	SITEWORKS AND STORMWATER DRAINAGE DETAILS-SHEET 3

GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.
- MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION, CURRENT SAA CODES, BUILDING REGULATIONS AND THE REQUIREMENTS OF ANY OTHER RELEVANT STATUTORY AUTHORITIES.
- THESE DRAWINGS MUST NOT BE SCALED. ALL DIMENSIONS ARE IN METERS. ALL SET OUT DIMENSIONS AND LEVELS, INCLUDING THOSE SHOWN ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE ARCHITECT'S DRAWINGS AND VERIFIED ON SITE.
- ALL SETOUT AND DIMENSIONS OF THE STRUCTURE INCLUDING KERBS AND RETAINING WALLS, AND BULK EARTHWORKS MUST BE TAKEN FROM THE ARCHITECT'S DRAWINGS. SETOUT OF THE STORMWATER PITS BY OTHERS. CONTRACTOR TO CONFIRM SETOUT OF SERVICE TRENCHING INCLUDING SUBSOIL ON SITE.
- THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORKS. REFER TO GEOTECHNICAL REPORT BY COFFEY SERVICES AUSTRALIA PTY LTD REFERENCE: GEOTLCOV23415AA-AC.
- ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.
- THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT BUT IS NOT AN AUTHORISATION OF A COST VARIATION. THE SUPERINTENDENT MUST APPROVE ANY COST VARIATION INVOLVED BEFORE ANY WORK STARTS.
- ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.
- SERVICE INFORMATION SHOWN IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.
- EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE.
- UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.
- MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.

SITEWORKS NOTES

- PRIOR TO THE PLACEMENT OF ANY PAVEMENTS, BUILDINGS OR DRAINS THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E1' OF A.S. 1289 FOR THE TOP 300mm. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL TO THE ENGINEERS APPROVAL AND COMPACTED IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS SET OUT BELOW. ON HIGHLY REACTIVE CLAY AREAS SITE EXCAVATED MATERIAL MAY BE USED WITH THE PRIOR AUTHORISATION OF THE ENGINEER.
- ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH GEOTECHNICAL REPORT BY COFFEY SERVICES AUSTRALIA PTY LTD. REFERENCE: GEOTLCOV23415AA-AC. MOISTURE CONTENT TO BE MAINTAINED AT +/- 2% OMC. MINIMUM COMPACTION REQUIREMENTS ARE DETAILED BELOW FOR ALL REQUIREMENTS ARE TO BE VERIFIED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.

LANDSCAPED AREAS	98% STD
FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE TO SUBGRADE LEVEL:	
- FINE CRUSHED ROCK	98% STD
- SELECTED FILL WITHOUT CONSPICUOUS CLAY CONTENT	98% STD
BUILDING BASECOURSE	98% MOD
FILL UNDER ROAD PAVEMENTS:	
- TO WITHIN 500mm OF FINISHED SUBGRADE LEVEL	98% STD
- UP TO FINISHED SUBGRADE LEVEL	98% STD
ROAD PAVEMENT MATERIALS:	
- SUB BASE	98% MOD
- BASE COURSE	98% MOD

THE MAXIMUM COMPACTION IS TO BE NO GREATER THAN 4% ON TOP OF THE ABOVE MENTION VALUES.
- GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.
- ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTER OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICEABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.
- ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER / GEOTECHNICAL CONSULTANT.
- CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.
- ALL FINISHES AND COLOURS TO BE IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.
- REFER TO STRUCTURAL DRAWINGS FOR CONCRETE, REINFORCEMENT AND RETAINING WALL DETAILS.
- GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
 - COMPLY WITH THE GENERAL PROVISIONS OF PART 3.1 "MANAGING RISKS TO HEALTH AND SAFETY" OF NSW WORK AND HEALTH AND SAFETY REGULATION 2011
 - COMPLY PART 6.3 DIVISION 3 "EXCAVATION WORK" OF NSW WORK AND HEALTH AND SAFETY REGULATION 2011
- PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 15 METRES THE CONTRACTOR MUST:
 - NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE APPROPRIATE FORM.

STORMWATER DRAINAGE NOTES

- UNLESS NOTED OTHERWISE BY HYDRAULIC ENGINEERS DRAWINGS, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH 150 DIA. UPVC PIPES LAID AT A MINIMUM GRADE OF 1 IN 100. FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS.
- ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING MATERIALS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE A.S. IF NOT SPECIFIED THEN MINIMUM CLASS 4 RRJ RCP SHALL BE USED FOR DIAMETERS > 225mm. SEWER CLASS 4H UPVC IN ACCORDANCE WITH AS1260 SHALL BE USED FOR < 225mm OR SMALLER.
- ALL PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS3725 FOR RCP AND AS2032 FOR PVC. ALL BEDDING TO BE TYPE H2 UNLESS NOTED OTHERWISE.
- FOR ALL PITS > 12m DEEP, STEP IRONS SHALL BE INSTALLED.
- PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY BONACCI GROUP.
- ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED UPVC SEWER GRADE PIPE IS TO BE USED.
- GRATES AND COVERS SHALL CONFORM WITH AS 3996 AND AS 1428.1 FOR ACCESS REQUIREMENTS.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

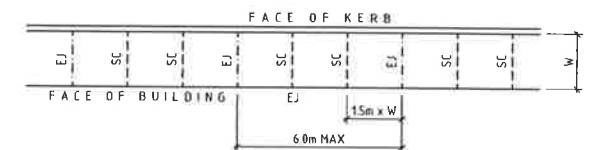
KERBING NOTES

- ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O.
- ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 75mm GRANULAR BASECOURSE COMPACTED TO A MINIMUM 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1.
- EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.
- WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.
- BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- IN THE REPLACEMENT OF KERBS:-
 - EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O. FROM THE LIP OF GUTTER, UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
 - EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

JOINTING NOTES

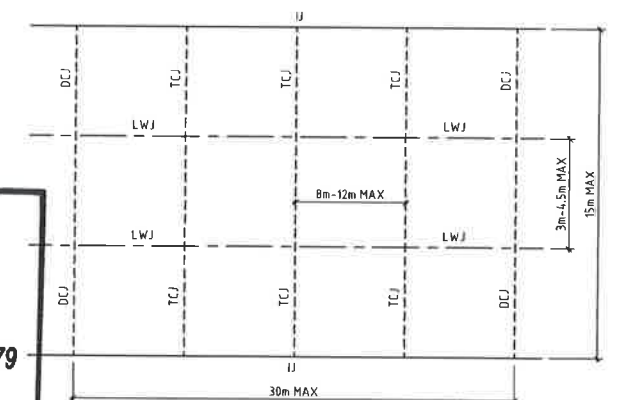
PEDESTRIAN FOOTPATH JOINTS

- EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT 6m CENTRES.
- SAWCUT JOINTS (SC) ARE TO BE LOCATED AT A MAX 15m x WIDTH OF PAVEMENT. THE TIMING OF THE SAWCUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMMENCED.
- WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
- PROVIDE 10mm WIDE FULL DEPTH EXPANSION JOINTS (EJ) BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS.
- ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS (U.N.O.)



VEHICULAR PAVEMENT JOINTS

- ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS.
- LONGITUDINAL WARPING JOINTS (LWJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 3m TO 4.5m MAX CENTERS. ALL LWJ'S SHOULD BE TIED UP TO A MAXIMUM TOTAL WIDTH OF 30m.
- TRANSVERSE CONTRACTION JOINTS (TCJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 8m TO 12m MAX CENTERS. TCJ'S CAN BE SPACED AT SUITABLE INTERVALS UP TO A RECOMMENDED MAXIMUM LENGTH OF 15m.
- TRANSVERSE DOWELLED CONSTRUCTION JOINTS (DCJ) TO BE PROVIDED FOR PLANNED INTERRUPTIONS SUCH AS AT THE END OF EACH DAY'S OPERATIONS (POUR BREAK), AT BLOCK OUTS FOR BRIDGES AND INTERSECTIONS OR FOR UNEXPECTED DELAYS WHEN THE SUSPENSION OF OPERATIONS IS LIKELY TO CREATE A JOINT.
- ISOLATION JOINTS WITH SUB-GRADE BEAM (IJ) TO BE PROVIDED AT INTERSECTIONS OR AT THE JUNCTION OF A POUR BREAK.
- ALL VEHICULAR PAVEMENTS TO BE JOINTED IN ACCORDANCE WITH AUSTRROADS AGPT02-12 GUIDE TO PAVEMENT TECHNOLOGY PART 2 STRUCTURAL PAVEMENT DESIGN AND SUPPLEMENT AP-736-06 PAVEMENT DESIGN FOR LIGHT TRAFFIC.
- VEHICULAR PAVEMENT JOINTING AS FOLLOWS (U.N.O.)



**Planning & Environment**

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Approved Application No. SSD 8636

granted on the 14 FEB 2019

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Sheet No. 36 of 63

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Rev	Description	Date	By	App
E	ISSUED FOR 70% DETAILED DESIGN	26.10.18	JH	
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C	ISSUED FOR 70% DETAILED DESIGN	10.10.18	PA	
B	ISSUED FOR 70% DESIGN DEVELOPMENT	26.09.18	PA	
A	ISSUED FOR 30% SCHEMATIC DESIGN	22.08.18	PA	

Rev	Description	Date	By	App
G	ISSUED FOR 70% DETAILED DESIGN	23.11.18	PA	
F	ISSUED FOR 70% DETAILED DESIGN	07.11.18	PA	



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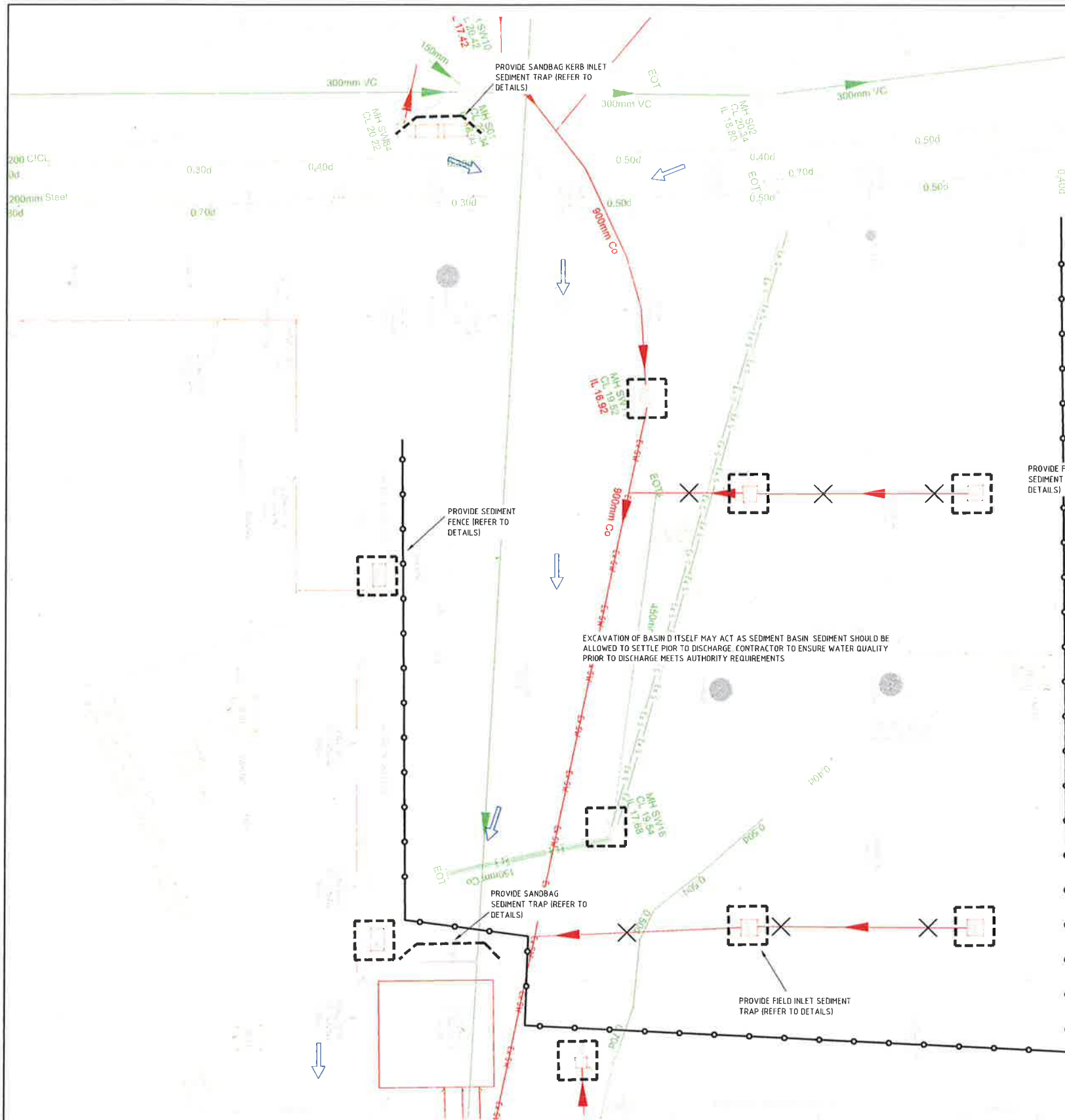
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Project Name
**THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1**

Drawing Title
**DRAWING REGISTER
AND CONSTRUCTION NOTES**

70% DETAILED DESIGN

Designed	JH	Project Director Approved	Date	North
Drawn	PA			
Scale	-	Project Ref	Drawing No	Rev
Date	APRIL 2018			
Sheet	A1	K33-BON-CIV-DRG-00001		G



SOIL AND WATER MANAGEMENT LEGEND

- SEDIMENT FENCE
- TEMPORARY SHAKER RAMP FOR ENTRY/EXIT
- TEMPORARY STOCKPILE (LOCATION TBC ON-SITE)
- GEOTEXTILE PIT FILTER / FILTER SURROUND INSTALLED ON EXISTING PIT
- SANDBAGS INSTALLED ON EXISTING PIT
- OVERLAND FLOW
- EXISTING STORMWATER TO BE MADE REDUNDANT

SOIL AND WATER MANAGEMENT NOTES

- IT HAS BEEN ASSUMED THAT SEDIMENT FENCING WILL BE PROVIDED TO THE STAGE BOUNDARY SUFFICIENT TO PREVENT SEDIMENT RUNOFF FROM LEAVING SITE (EXCEPT IN THE CASE OF ENTRY/EXIT LOCATIONS WHERE TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP ARE PROVIDED). IF THIS IS NOT THE CASE, PROVIDE SEDIMENT FENCE TO STANDARD DETAIL BELOW AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING SITE, DIRECT RUNOFF TO SEDIMENT BASIN.
- ALL SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH LANDCOM MANAGING URBAN STORMWATER "BLUE BOOK".
- MINIMISE CLEARING OUTSIDE BASEMENT EXTENT
- SEDIMENT CONTROL FOR LANDSCAPED WORKS DOWNSTREAM OF THE BUILDING TO INCLUDE A SILTFENCE AND SANDBAGS AS REQUIRED TO BE MANAGED AT A RATE OF 50L/S BY THE CONTRACTOR ON SITE. INSTALL CATCH DRAIN TO DIVERT UPSTREAM CATCHMENT AWAY FROM DISTURBED SOIL AREA.

SEDIMENT CONTROL CONDITIONS

- SEDIMENT FENCES WILL BE INSTALLED AS SHOWN AND ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER TO CONTAIN COARSER SEDIMENT FRACTIONS INCLUDING AGGREGATED FINES AS NEAR AS POSSIBLE TO THEIR SOURCE.
- SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS & WATERWAYS CANNOT OCCUR.
- STOCKPILES WILL BE PLACED WHERE SHOWN ON DRAWING OR ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER AND NOT WITHIN 5m OF HAZARD AREAS INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS & DRIVEWAYS.
- WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM WITH INLET FILTERS (SEE DETAILS) UNLESS IT IS SEDIMENT FREE.
- TEMPORARY SEDIMENT TRAPS WILL BE RETAINED UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
- CONTRACTOR TO DESIGN/CONSTRUCT TEMPORARY SEDIMENT BASIN. WATER SHOULD BE ALLOWED TO SETTLE BEFORE DISCHARGE. CONTRACTOR MUST VERIFY THAT WATER QUALITY MEETS AUTHORITIES REQUIREMENTS PRIOR TO DISCHARGE. ACCUMULATED SEDIMENT SHOULD THEN BE REMOVED & DISPOSED OF IN ACCORDANCE WITH ENVIRONMENTAL MANAGEMENT PROCEDURES.

REFER TO DRAWING 00007 FOR CONTINUATION



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Rev	Description	Date	By	App	Rev	Description	Date	By	App
C	ISSUED FOR 70% DETAILED DESIGN	10/10/18	PA	-	E	ISSUED FOR 70% DETAILED DESIGN	27/11/18	PA	-
B	ISSUED FOR 70% DESIGN DEVELOPMENT	24/09/18	JH	-	D	ISSUED FOR 70% DETAILED DESIGN	19/10/18	PA	-
A	ISSUED FOR 30% SCHEMATIC DESIGN	22/06/18	PA	-					
P2	ISSUED FOR DEVELOPMENT APPLICATION	27/08/18	PA	-					
P1	ISSUED FOR INFORMATION	15/11/17	JH	-					



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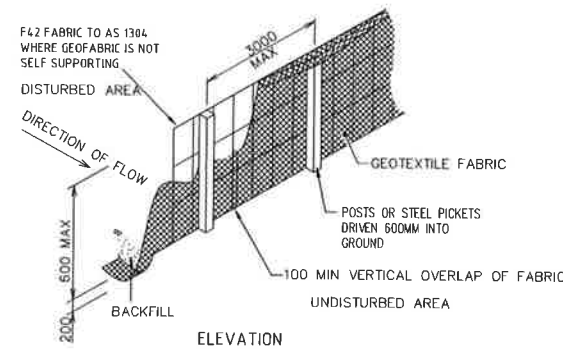
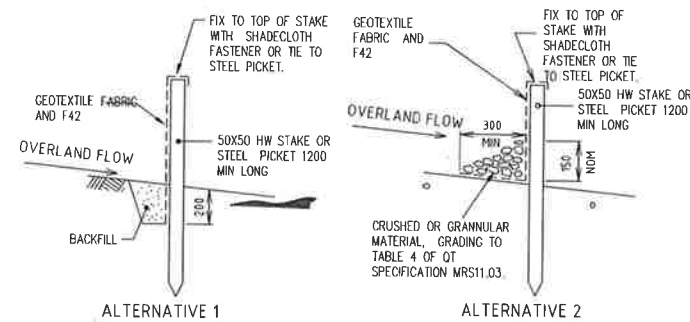
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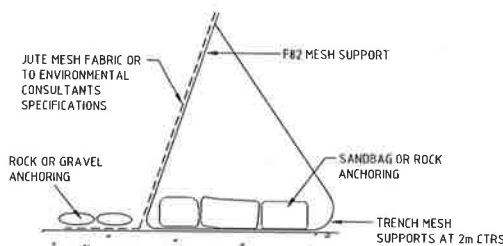
Project Name	THE UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT (ETP) - STAGE 1		
Drawing Title	SOIL AND WATER MANAGEMENT PLAN - SHEET 1		

70% DETAILED DESIGN

Designed	AV	Project Director Approved	Date	North
Drawn	JH			
Scale	1:100	Project Ref	Drawing No	Rev
Date	NOV 17			
Sheet	A1	K33-BON-CIV-DRG-00005	E	



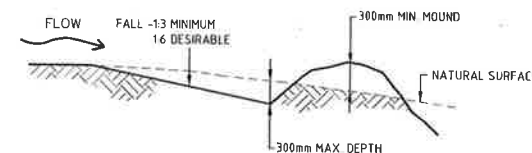
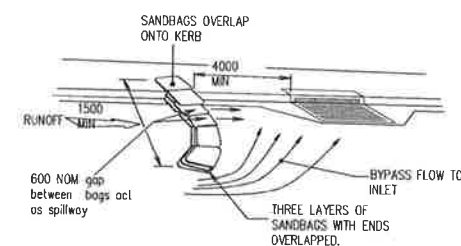
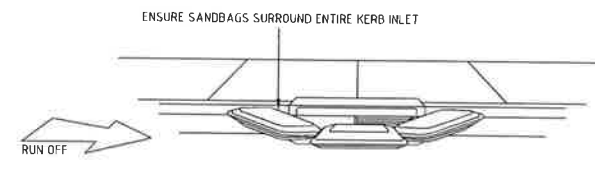
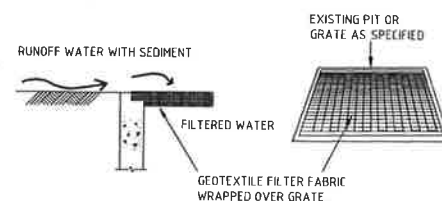
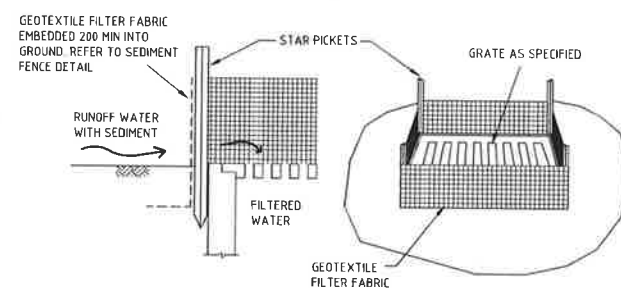
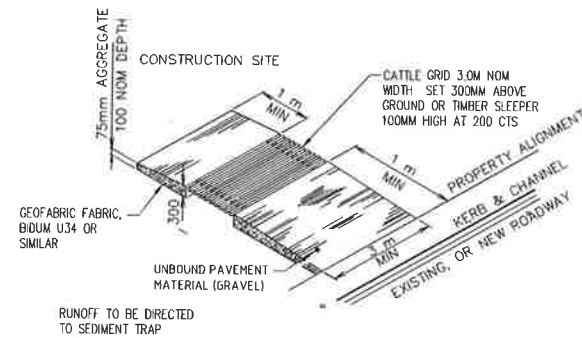
SEDIMENT FENCE
NOT TO SCALE



ALTERNATIVE SEDIMENT FENCE
NOT TO SCALE

ALTERNATIVE SEDIMENT FENCE NOTES

1. INSTALL THIS TYPE OF SEDIMENT FENCE WHEN USE OF SUPPORT POSTS IS NOT DESIRABLE OR NOT POSSIBLE. SUCH CONDITIONS MIGHT APPLY, FOR EXAMPLE, WHERE APPROVAL IS GRANTED FROM THE APPROPRIATE AUTHORITIES TO PLACE THESE FENCES IN HIGHLY SENSITIVE ESTUARINE AREAS.
2. USE BENT TRENCH MESH TO SUPPORT THE F82 WELDED MESH FACING AS SHOWN ON THE DRAWING ABOVE. ATTACH THE JUTE MESH TO THE WELDED MESH FACING USING UV-RESISTANT CABLE TIES.
3. STABILISE THE WHOLE STRUCTURE WITH SANDBAG OR ROCK ANCHORING OVER THE TRENCH MESH AND THE LEADING EDGE OF THE JUTE MESH. THE ANCHORING SHOULD BE SUFFICIENTLY LARGE TO ENSURE STABILITY OF THE STRUCTURE IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.



SEDIMENT AND EROSION CONTROL DETAILS

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granted on the **14 FEB 2019**

Signed **[Signature]**

Sheet No. **38** of **63**

Rev	Description	Date	By	App	Rev	Description	Date	By	App
D	ISSUED FOR 70% DETAILED DESIGN	10.10.18	PH						
C	ISSUED FOR 70% DETAILED DESIGN	02.10.18	PH						
B	ISSUED FOR 70% DETAILED DESIGN	24.09.18	JH						
A	ISSUED FOR 30% SCHEMATIC DESIGN	22.08.18	PH						
P1	ISSUE FOR INFORMATION	15.11.17	JH						



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Project Name	THE UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT (ETP) - STAGE 1	70% DETAILED DESIGN			
Drawing Title	SOIL AND WATER MANAGEMENT PLAN DETAILS	Designed	AV	Project Director Approved	Date
		Drawn	JH		North
		Scale	NOTED		
		Date	NOV 17	Project Ref	Drawing No
		Sheet	A1	K33-BON-CIV-DRG-00006	Rev



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Sheet No. 39 of 63

SOIL AND WATER MANAGEMENT LEGEND

- SEDIMENT FENCE
- TEMPORARY SHAKER RAMP FOR ENTRY/EXIT
- TEMPORARY STOCKPILE (LOCATION TBC ON-SITE)
- GEOTEXTILE PIT FILTER / FILTER SURROUND INSTALLED ON EXISTING PIT
- SANDBAGS INSTALLED ON EXISTING PIT
- OVERLAND FLOW
- EXISTING STORMWATER TO BE MADE REDUNDANT

SOIL AND WATER MANAGEMENT NOTES

- IT HAS BEEN ASSUMED THAT SEDIMENT FENCING WILL BE PROVIDED TO THE STAGE BOUNDARY SUFFICIENT TO PREVENT SEDIMENT RUNOFF FROM LEAVING SITE (EXCEPT IN THE CASE OF ENTRY/EXIT LOCATIONS WHERE TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP ARE PROVIDED). IF THIS IS NOT THE CASE, PROVIDE SEDIMENT FENCE TO STANDARD DETAIL BELOW AS REQUIRED TO PREVENT SEDIMENT FROM LEAVING SITE, DIRECT RUNOFF TO SEDIMENT BASIN.
- ALL SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH LANDCOM MANAGING URBAN STORMWATER "BLUE BOOK".
- MINIMISE CLEARING OUTSIDE BASEMENT EXTENT.
- SEDIMENT CONTROL FOR LANDSCAPED WORKS DOWNSTREAM OF THE BUILDING TO INCLUDE A SILTFENCE AND SANDBAGS AS REQUIRED TO BE MANAGED AT A RATE OF 50L/S BY THE CONTRACTOR ON SITE. INSTALL CATCH DRAIN TO DIVERT UPSTREAM CATCHMENT AWAY FROM DISTURBED SOIL AREA.

SEDIMENT CONTROL CONDITIONS

- SEDIMENT FENCES WILL BE INSTALLED AS SHOWN AND ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER TO CONTAIN COARSER SEDIMENT FRACTIONS INCLUDING AGGREGATED FINES AS NEAR AS POSSIBLE TO THEIR SOURCE.
- SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS & WATERWAYS CANNOT OCCUR.
- STOCKPILES WILL BE PLACED WHERE SHOWN ON DRAWING OR ELSEWHERE AT THE DISCRETION OF THE SITE MANAGER AND NOT WITHIN 5m OF HAZARD AREAS INCLUDING LIKELY AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS & DRIVEWAYS.
- WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM WITH INLET FILTERS (SEE DETAILS) UNLESS IT IS SEDIMENT FREE.
- TEMPORARY SEDIMENT TRAPS WILL BE RETAINED UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
- CONTRACTOR TO DESIGN/SIZE/CONSTRUCT TEMPORARY SEDIMENT BASIN. WATER SHOULD BE ALLOWED TO SETTLE BEFORE DISCHARGE. CONTRACTOR MUST VERIFY THAT WATER QUALITY MEETS AUTHORITIES REQUIREMENTS PRIOR TO DISCHARGE. ACCUMULATED SEDIMENT SHOULD THEN BE REMOVED & DISPOSED OF IN ACCORDANCE WITH ENVIRONMENTAL MANAGEMENT PROCEDURES.

PROVIDE SEDIMENT FENCE (REFER TO DETAILS)

TEMPORARY STOCKPILE WITH SEDIMENT FENCE-LOCATION TO BE CONFIRMED ONSITE

PROVIDE FIELD INLET SEDIMENT TRAP (REFER TO DETAILS)

PROVIDE FIELD INLET SEDIMENT TRAP (REFER TO DETAILS)

CONSTRUCT SHAKER RAMP FOR TEMPORARY ENTRY/EXIT. REFER TO TYPICAL DETAIL. INDICATIVE LOCATION ONLY. EXACT LOCATION TO BE DETERMINED ON SITE BY BUILDER IF REQUIRED.

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10.10.18 PA -
24.09.18 JH -
22.08.18 PA -
21.08.18 PA -
15.11.17 JH -

ISSUED FOR 70% DETAILED DESIGN
ISSUED FOR 70% DESIGN DEVELOPMENT
ISSUED FOR 30% SCHEMATIC DESIGN
ISSUED FOR DEVELOPMENT APPLICATION
ISSUED FOR INFORMATION



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Project Name
THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1

Drawing Title
SOIL AND WATER MANAGEMENT
PLAN - SHEET 2

70% DETAILED DESIGN

Designed AV Project Director Approved Date North
Drawn JH
Scale 1:100
Date NOV 17
Sheet A1 Project Ref Drawing No Rev
K33-BON-CIV-DRG-00007 E

NOTE:
SOIL ERODIBILITY FACTOR DETERMINED USING COCKLE BAY LOCALITY IN TABLE C20 OF BLUE BOOK
AS SOIL LOSS IS LESS THAN 150m3, SEDIMENT BASIN IS NOT WARRANTED IN ACCORDANCE WITH BLUE BOOK
NONETHELESS, CONSTRUCTION OF BASIN D MAY BE USED AS A SEDIMENT BASIN TO CAPTURE SEDIMENT RUNOFF

SWMP Commentary, Detailed Calculations

Note: These "Detailed Calculation" spreadsheets relate only to high erosion hazard lands as identified in figure 4.6 or where the designer chooses to use the RUSLE to size sediment basins. The "Standard Calculation" spreadsheets should be used on low erosion hazard lands as identified by figure 4.6 and where the designer chooses not to run the RUSLE in calculations.

1. Site Data Sheet

Site Name: Sydney University Engineering Precinct

Site Location: Engineering Precinct

Precinct: Engineering Precinct

Description of Site: site1: Micky Mouse Basin
site2: North Landscape
site 3: Jurassic Park and driveway

Site area	Site					Remarks
	1	2	3			
Total catchment area (ha)	0.2	0.155	0.15			
Disturbed catchment area (ha)	0.2	0.155	0.15			

Soil analysis

% sand (fraction 0.02 to 2.00 mm)							Soil texture should be assessed through mechanical dispersion only. Dispersing agents (e.g. Calgon) should not be used
% silt (fraction 0.002 to 0.02 mm)							
% clay (fraction finer than 0.002 mm)							
Dispersion percentage							E.g. enter 10 for dispersion of 10%
% of whole soil dispersible							See Section 6.3.3(e)
Soil Texture Group							See Section 6.3.3(c), (d) and (e)

Rainfall data

Design rainfall depth (days)	5	5	5				See Sections 6.3.4 (d) and (e)
Design rainfall depth (percentile)	85	85	85				See Sections 6.3.4 (f) and (g)
x-day, y-percentile rainfall event	38.8	38.8	38.8				See Section 6.3.4 (h)
Rainfall intensity: 2-year, 6-hour storm	11.3	11.3	11.3				See IFD chart for the site

RUSLE Factors

Rainfall erosivity (R-factor)	2770	2770	2770				Automatic calculation from above data RUSLE data can be obtained from Appendixes A, B and C
Soil erodibility (K-factor)	0.036	0.036	0.036				
Slope length (m)	80	80	80				
Slope gradient (%)	1	3	1				
Length/gradient (LS-factor)	0.19	0.65	0.19				
Erosion control practice (P-factor)	1.3	1.3	1.3	1.3	1.3	1.3	
Ground cover (C-factor)	1	1	1	1	1	1	

Calculations

Soil loss (t/ha/yr)	25	84	25				
Soil Loss Class	1	1	1				See Section 4.4.2(b)
Soil loss (m ³ /ha/yr)	19	65	19				
Sediment basin storage volume, m ³	1	2					See Sections 6.3.4(i) and 6.3.5 (e)

Spreadsheet Detailed edi-t1.xls

1



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Sheet No. 40 of 63

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Rev	Description	Date	By	App

Rev	Description	Date	By	App
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Project Name
THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1

Drawing Title
SOIL AND WATER MANAGEMENT
PLAN - CALCULATION

70% DETAILED DESIGN

Designed	JH	Project Director Approved	Date	North
Drawn	PA			
Scale	NTS			
Date	OCT 18	Project Ref	Drawing No.	Rev
Sheet	A1	K33-BON-CIV-DRG-00008	B	

SITWORKS LEGEND



BULK EARTHWORKS LEGEND

Number	Color	Minimum Depth (m)	Maximum Depth (m)
1	Light Grey	-5.874	-5.000
2	Medium Grey	-5.000	-4.000
3	Dark Grey	-4.000	-3.000
4	Red	-3.000	-2.000
5	Orange	-2.000	-1.000
6	Yellow	-1.000	0.000
7	Blue	0.000	1.000

NOTE

- VOLUMES ARE APPROXIMATE ONLY, WHICH ARE IN PLACE AND DO NOT INCORPORATE BULKING FACTORS AND OVER EXCAVATION
- GROUND WATER SEEPAGE MAY OCCUR IN EXCAVATED AREAS. DE-WATERING MAY BE REQUIRED IN THIS INSTANCE.
- VOLUMES INCLUDE DANGEROUS GOODS. SETDOWN, STAIRCASE FOOTING, BUND SETDOWN, LIFT CORE, SLAB ON GROUND AND EXCLUDES ALL OTHER FOOTINGS, RAMPS AND LANDSCAPING.

EARTHWORKS QUANTITIES

TOTAL CUT VOLUME = 5,025m³
 TOTAL FILL VOLUME = 0m³

EXCESS CUT OVER FILL = 5,025m³



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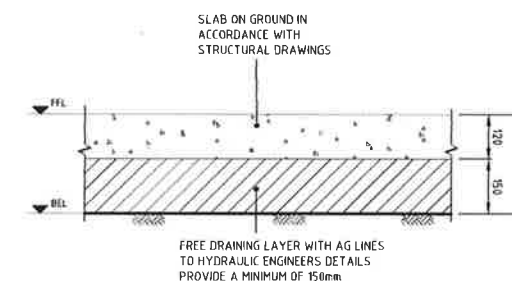
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Sheet No. 41 of 63



SLAB ON GROUND BULK EXCAVATION DETAIL

SCALE 1:10

REFER TO 00011 FOR CONTINUATION

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D	ISSUE FOR 75% DETAILED DESIGN	07.11.18	PA	-
C	ISSUE FOR 75% DETAILED DESIGN	10.10.18	PA	-
B	ISSUE FOR 75% DETAILED DESIGN	10.10.18	PA	-
A	ISSUE FOR 75% DETAILED DESIGN	24.09.18	PA	-
P1	ISSUE FOR 30% SCHEMATIC DESIGN	14.07.18	PA	-

Rev Description Date By App



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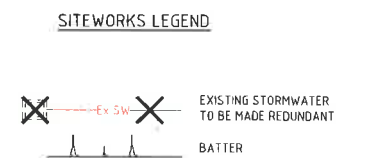
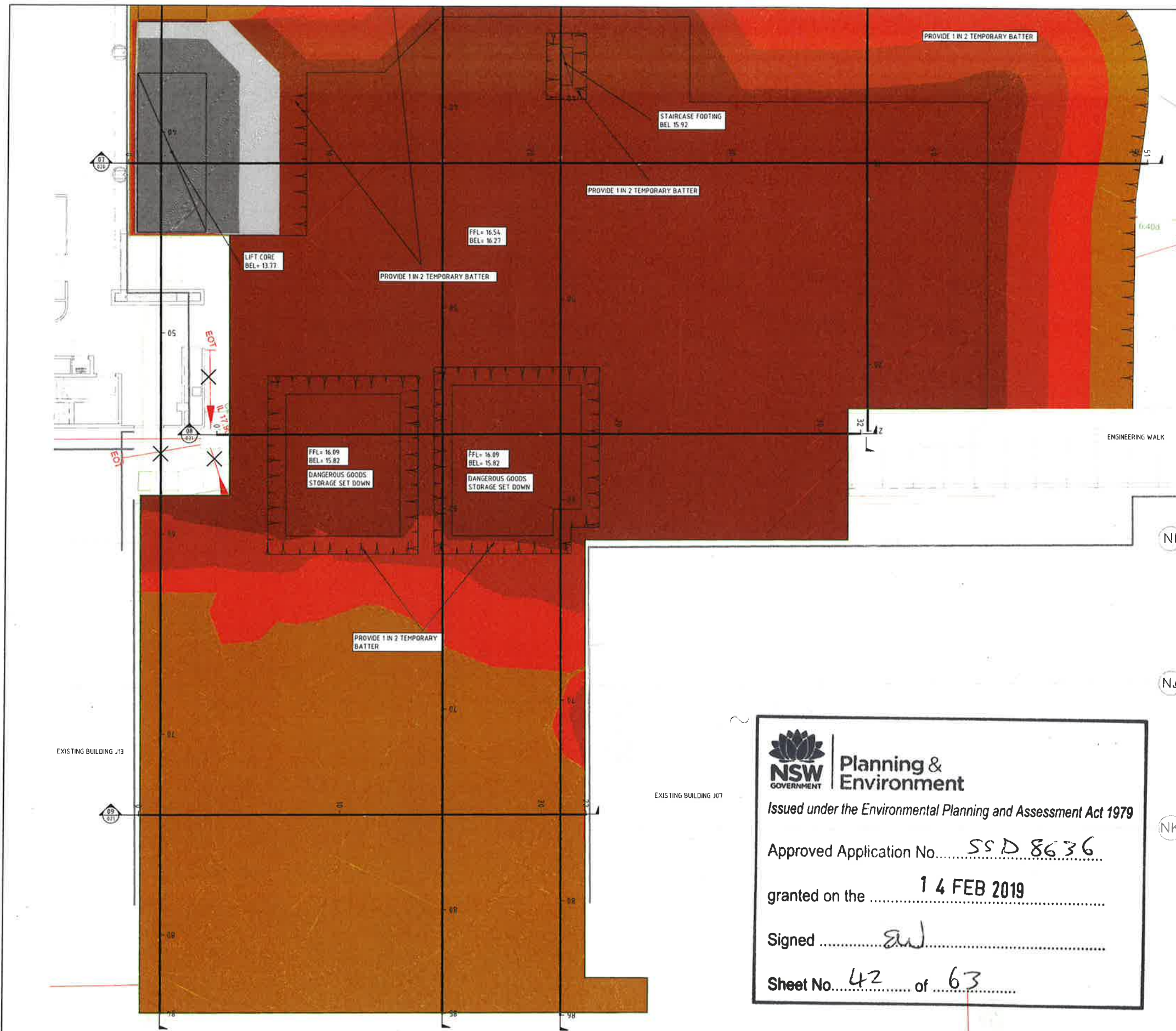
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Project Name THE UNIVERSITY OF SYDNEY
 ENGINEERING AND TECHNOLOGY
 PRECINCT (ETP) - STAGE 1
 Drawing Title OVERALL BULK EARTHWORKS
 PLAN - SHEET 1

70% DETAILED DESIGN

Designed	PA	Project Director Approved	Date	North
Drawn	PA			
Scale	1:100	Project Ref	Drawing No	Rev
Date	NOV 17			
Sheet	A1			

K33-BON-CIV-DRG-00010 D



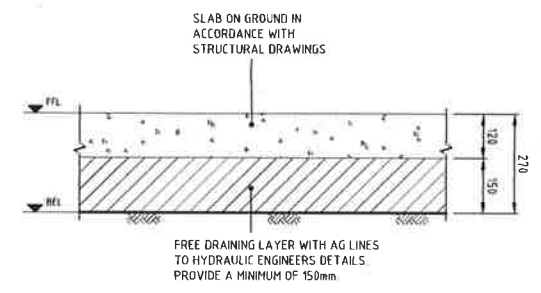
BULK EARTHWORKS LEGEND

Number	Color	Minimum Depth (m)	Maximum Depth (m)
1	Dark Grey	-5.874	-5.000
2	Light Grey	-5.000	-4.000
3	Red	-4.000	-3.000
4	Dark Red	-3.000	-2.000
5	Orange	-2.000	-1.000
6	Light Orange	-1.000	0.000
7	Blue	0.000	1.000

- NOTE**
- VOLUMES ARE APPROXIMATE ONLY, WHICH ARE IN PLACE AND DO NOT INCORPORATE BULKING FACTORS AND OVER EXCAVATION
 - GROUND WATER SEEPAGE MAY OCCUR IN EXCAVATED AREAS. DE-WATERING MAY BE REQUIRED IN THIS INSTANCE
 - VOLUMES INCLUDE DANGEROUS GOODS SETDOWN, STAIRCASE FOOTING, BUND SETDOWN, LIFT CORE, SLAB ON GROUND AND EXCLUDES ALL OTHER FOOTINGS, RAMPS AND LANDSCAPING.

EARTHWORKS QUANTITIES

TOTAL CUT VOLUME = 5,025m³
TOTAL FILL VOLUME = 0m³
EXCESS CUT OVER FILL = 5,025m³



SLAB ON GROUND BULK EXCAVATION DETAIL
SCALE 1:10

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Sheet No. 42 of 63

REVISIONS

Rev	Description	Date	By	App
1	ISSUE FOR 70% DETAILED DESIGN	10/12/18	PN	-
2	ISSUE FOR 70% DETAILED DESIGN	10/12/18	PA	-
3	ISSUE FOR 70% DETAILED DESIGN	24/01/19	JR	-
4	ISSUE FOR 70% DETAILED DESIGN	14/02/19	PA	-

APPROVALS

Rev	Description	Date	By	App
1	ISSUE FOR 70% DETAILED DESIGN	10/12/18	PN	-
2	ISSUE FOR 70% DETAILED DESIGN	10/12/18	PA	-
3	ISSUE FOR 70% DETAILED DESIGN	24/01/19	JR	-
4	ISSUE FOR 70% DETAILED DESIGN	14/02/19	PA	-



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Project Name		THE UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT (ETP) - STAGE 1				70% DETAILED DESIGN			
Drawing Title OVERALL BULK EARTHWORKS PLAN - SHEET 2		Designed	PA	Project Director Approved		Date			North
		Drawn	PA						
		Scale	1:100						
		Date	NOV 17	Project Ref		Drawing No		Rev	
		Sheet	A1	K33-BON-CIV-DRG-00011 C					

INTERFACE TO EXISTING
BUILDING J03 SLAB

EX BUILDING SLAB RL TO BE VERIFIED

PROVIDE 1 IN 2 BATTER
IN ACCORDANCE WITH
GEOTECH REFERENCE
GEOTLCOV23415AA-AC

BUND

VERT EXAG 1:1
Datum 10.000

DESIGN LEVELS						
EXISTING LEVELS	19.603	19.603	19.665	19.698	19.722	19.720
DEPTH		-0.183	-0.245	-0.278	-0.302	
CHAINAGE	0.000	10.000	17.347	20.000	27.936	29.349

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

SECTION

05
00010

INTERFACE TO EXISTING
BUILDING J03 SLAB

STAIRCASE FOOTING

EX BUILDING SLAB RL TO BE VERIFIED

BUND

PROVIDE 1 IN 2 BATTER IN ACCORDANCE WITH
GEOTECH REFERENCE GEOTLCOV23415AA-AC

VERT EXAG 1:1
Datum 10.000

DESIGN LEVELS						
EXISTING LEVELS	19.618	19.602	19.602	18.833	18.633	19.600
DEPTH		-0.532	-0.532	-0.774	-0.772	
CHAINAGE	0.000	10.677	20.000	21.738		29.722

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

SECTION

06
00010

EXISTING BUILDING J03
PROVIDE SHORING WALL
TO LIFT CORE

LIFT CORE

PROVIDE 1 IN 2 BATTER IN ACCORDANCE WITH
GEOTECH REFERENCE GEOTLCOV23415AA-AC



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Sheet No. 43 of 63

PROVIDE 1 IN 2 BATTER IN ACCORDANCE WITH
GEOTECH REFERENCE GEOTLCOV23415AA-AC

VERT EXAG 1:1
Datum 5.000

DESIGN LEVELS																			
EXISTING LEVELS	19.627	19.602	19.603	19.603	19.603	19.603	19.601	19.622	19.622	19.766	20.049	20.060	20.077	20.077	20.077	20.077	20.077	20.077	20.077
DEPTH		-3.332	-3.333	-3.333	-3.333	-3.333	-3.331	-3.352	-3.352	-3.496	-2.192	-0.121	-0.121	-0.121	-0.121	-0.121	-0.121	-0.121	-0.121
CHAINAGE	0.000	10.000	12.790	20.000	22.928	30.000	33.394	40.000	45.835	50.000	50.613								

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

SECTION

07
00010

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E	ISSUED FOR 70% DETAILED DESIGN	20.03.19	PA
B	ISSUED FOR 70% DESIGN DEVELOPMENT	24.09.18	JH
A	ISSUED FOR 30% SCHEMATIC DESIGN	26.08.18	PA

Rev	Description	Date	By	App

Rev	Description	Date	By	App



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Project Name: THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title: BULK EARTHWORKS
LONGITUDINAL SECTIONS
SHEET 1

70% DETAILED DESIGN

Designed	PA	Project Director Approval	Date	North
Drawn	PA			
Scale	1:100	Project Ref	Drawing No	Rev
Date	APRIL 2018			
Sheet	A1	K33-BON-CIV-DRG-00020		D

MAZE CRESCENT

PROVIDE 1 IN 2 BATTER IN ACCORDANCE WITH
GEOTECH REFERENCE GEOTLCOV23415AA-AC

PROVIDE SHORING WALL

PROVIDE 1 IN 2 BATTER IN ACCORDANCE WITH
GEOTECH REFERENCE GEOTLCOV23415AA-AC

REFER BELOW FOR CONTINUATION

VERT EXAG 1:1
Datum 5.000

DESIGN LEVELS		19.420	19.420		19.420	19.420		19.290	19.290
EXISTING LEVELS	21.599	21.802	21.801		19.607	19.606		19.656	19.656
DEPTH		-2.382	-2.381		-0.187	-0.186		-0.366	-0.366
CHAINAGE	0.000	10.000	10.558		20.000	20.657		30.000	31.895

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

LIFT CORE

PROVIDE SHORING WALL

VERT EXAG 1:1
Datum 5.000

DESIGN LEVELS	19.536			16.270	16.270		16.270		16.388
EXISTING LEVELS	19.536	19.600	18.903	16.592	16.561		16.399	16.399	16.388
DEPTH	0.000			-0.322	-0.291		-0.129	-0.129	
CHAINAGE	58.067	50.000	60.000	68.821	70.000		79.876	80.000	83.913

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

SECTION 10
00010

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C	ISSUED FOR 70% DETAILED DESIGN	10.10.18	PA
B	ISSUED FOR 70% DESIGN DEVELOPMENT	24.09.18	PA
A	ISSUED FOR 70% DESIGN DEVELOPMENT	14.09.18	PA

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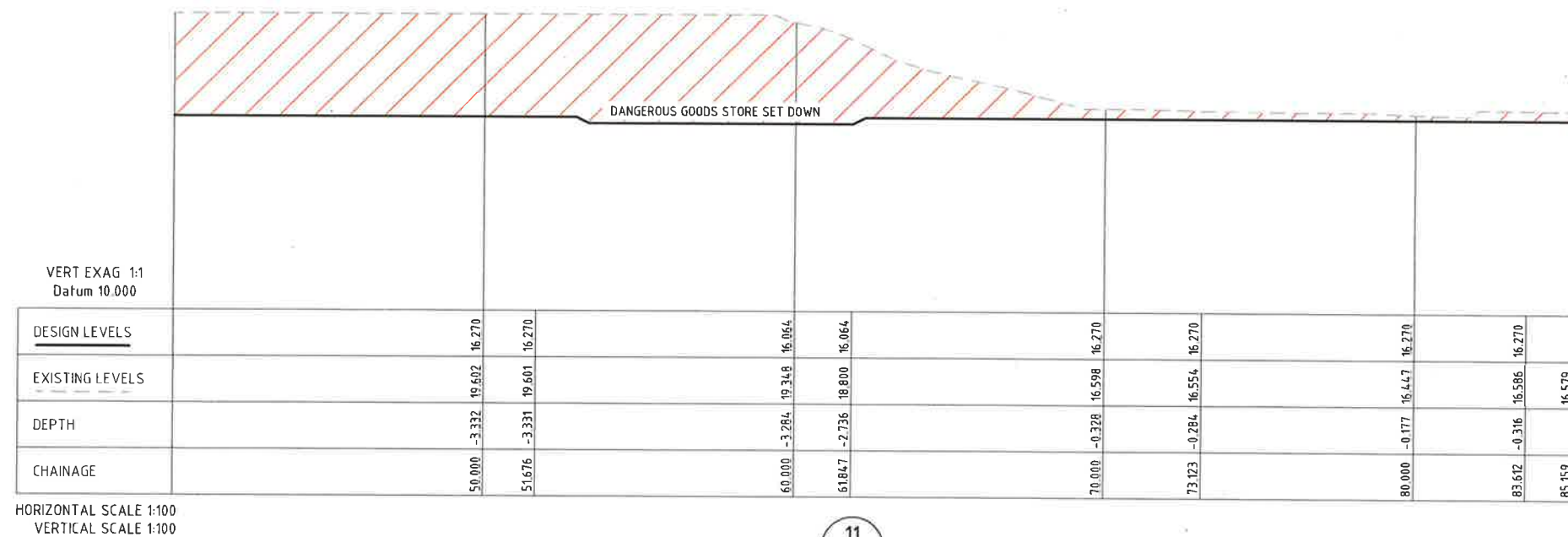
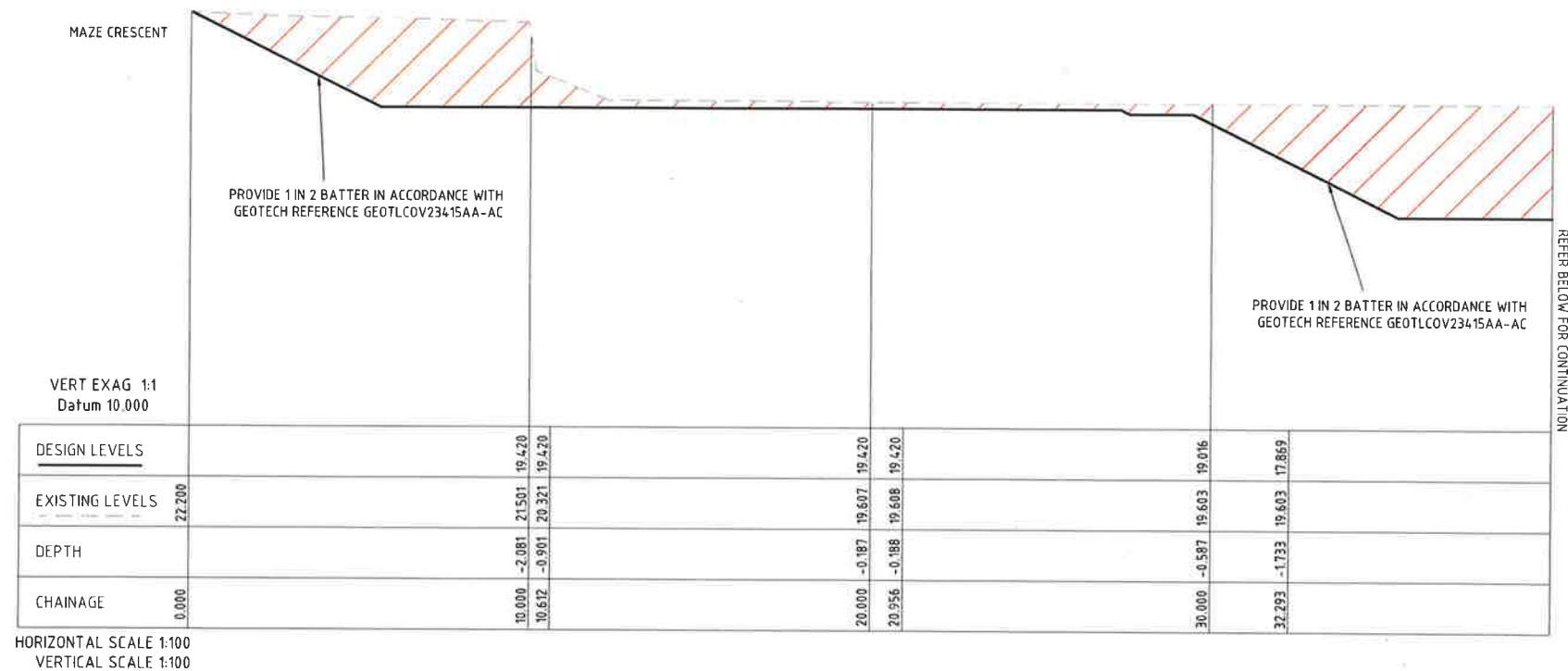
Project Name
**THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1**

Drawing Title
**BULK EARTHWORKS
LONGITUDINAL SECTIONS
SHEET 3**

70% DETAILED DESIGN	
Designed PA	Project Director Approved
Drawn PA	Date
Scale 1:100	North
Date APRIL 2018	Drawing No
Sheet A1	Rev D

K33-BON-CIV-DRG-00022

File: G:\Jobs\10518\10518_01_Civil\Drawings\DRG-00022-CA\10518_01_Civil.dwg Plotted: 18/10/18 at 3:47 PM By: Paul Nieu



SECTION 11
00010



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Approved Application No. S5D 8636

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ISSUED FOR 70% DETAILED DESIGN	19.10.18	PA
ISSUED FOR 70% DESIGN DEVELOPMENT	24.09.18	PA
ISSUED FOR 30% SCHEMATIC DESIGN	24.09.18	PA

Rev	Description	Date	By	App



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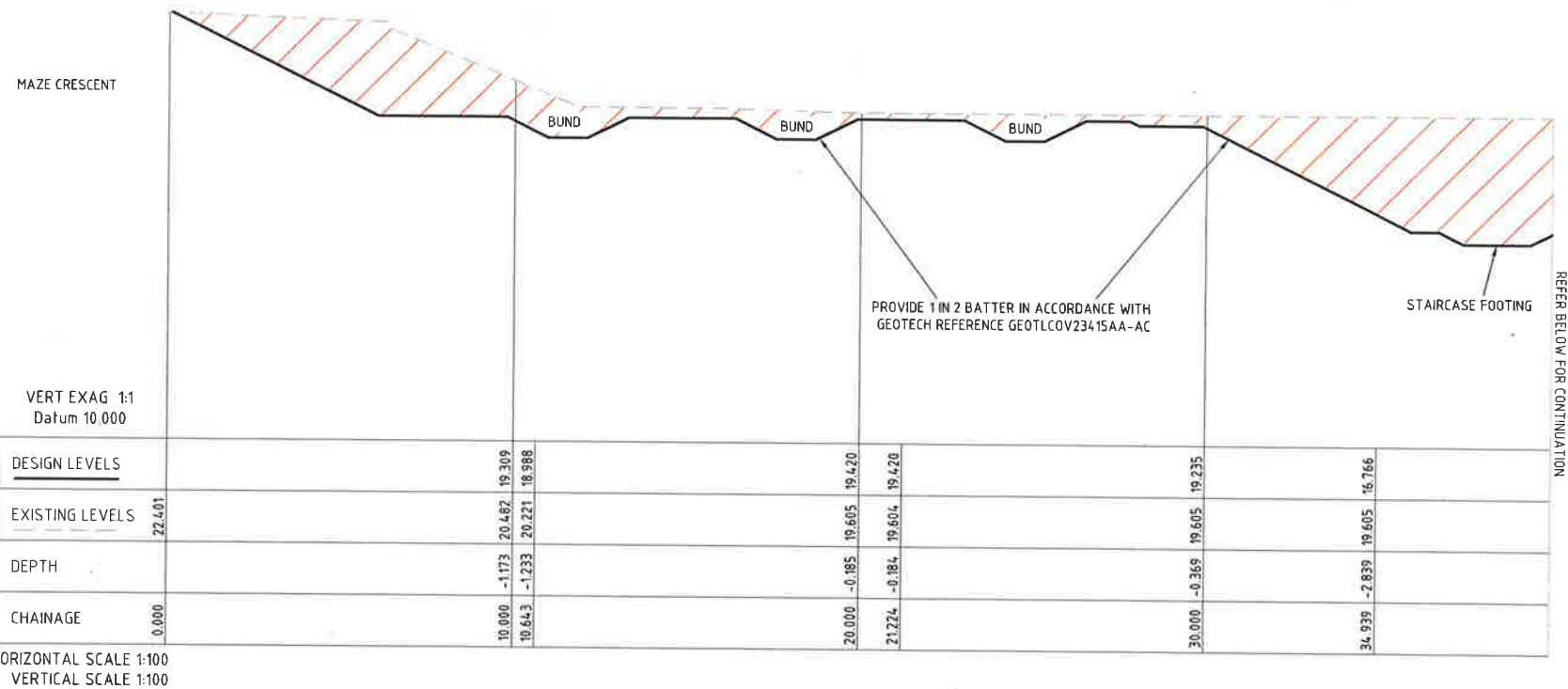
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Project Name THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title BULK EARTHWORKS
LONGITUDINAL SECTIONS
SHEET 4

70% DETAILED DESIGN
Designed PA
Drawn PA
Scale 1:100
Date APRIL 2018
Sheet A1
Project Ref K33-BON-CIV-DRG-00023
Drawing No
Rev D



SECTION 12
00010



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Rev	Description	Date	By	App
D	ISSUED FOR 30K DETAILED DESIGN	19.12.18	PA	
C	ISSUED FOR 30K DETAILED DESIGN	10.10.18	PA	
B	ISSUED FOR 30K DESIGN DEVELOPMENT	24.09.18	PA	
A	ISSUED FOR 30K SCHEMATIC DESIGN	14.09.18	PA	

Rev	Description	Date	By	App



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sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name
THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title
BULK EARTHWORKS
LONGITUDINAL SECTIONS
SHEET 5

70% DETAILED DESIGN				
Designed	PA	Project Director Approved	Date	North
Drawn	PA			
Scale	1:100	Project Ref	Drawing No	Rev
Date	APRIL 2018			
Sheet	A1	K33-BON-CIV-DRG-00024		D

MAZE

SITEWORKS LEGEND

- EXISTING SURFACE LEVEL
- FINISHED SURFACE LEVEL
- KERB ONLY
- STORMWATER LINE
- STORMWATER GRATED PIT
- JUNCTION PIT
- PIPE INVERT LEVEL
- PIT NO COVER LEVEL
- INVERT OF KERB LEVEL
- TOP OF KERB LEVEL
- RETAINING WALL
- EMERGENCY OVERLAND FLOW
- EXISTING STORMWATER TO BE MADE REDUNDANT
- PROPOSED HYDRAULIC SERVICES, REFER TO HYDRAULIC DRAWING
- BIO RETENTION BASIN

NOTES:

- FLOOD PROTECTION TO J03 FLOOR LEVELS ARE PROVIDED BY LANDSCAPING FREEBOARD HAS BEEN SELECTED ON MERITS BASED APPROACH, WITH MINIMUM LEVEL OF THE 1% AEP FLOOD LEVEL EXCEEDED IN ACCORDANCE WITH CITY OF SYDNEY INTERIM FLOODPLAIN MANAGEMENT POLICY

REFER TO DRAWING 00032 FOR CONTINUATION



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Project Name THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title SITEWORKS AND STORMWATER
DRAINAGE PLAN - SHEET 1

70% DETAILED DESIGN

Designed JH	Project Director Approved	Date	Month
Drawn PA			
Scale 1:100	Project Ref	Drawing No	Rev
Date NOV 17			
Sheet A1	K33-BON-CIV-DRG-00031	H	

Rev	Description	Date	By	App
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P4	ISSUE FOR INFORMATION	07.06.18	JH	-
P3	ISSUE FOR INFORMATION	26.04.18	JH	-
P2	ISSUE FOR 30% DD	01.12.17	JH	-
P1	ISSUE FOR INFORMATION	15.11.17	JH	-

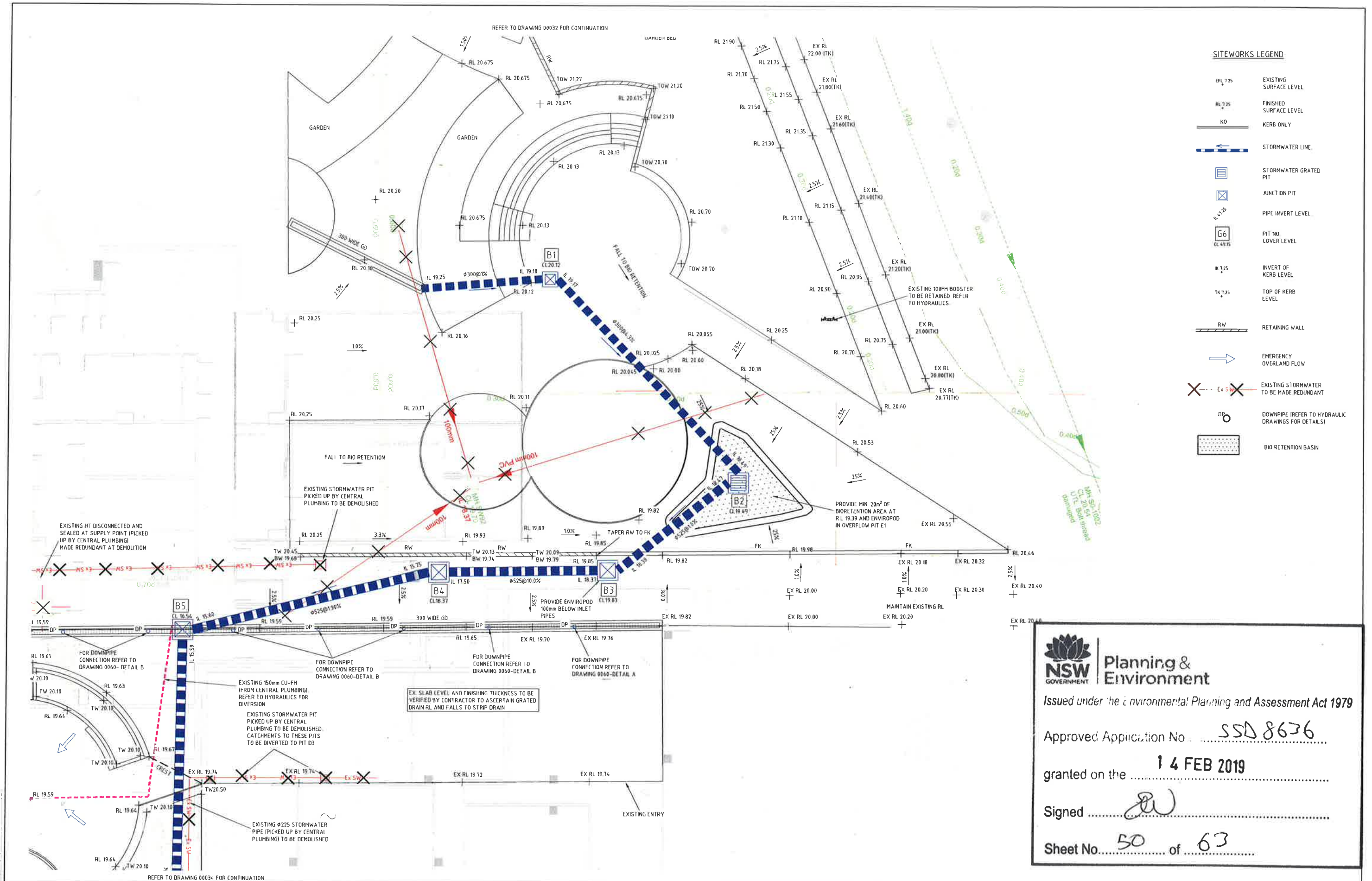
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E	ISSUED FOR 70% DETAILED DESIGN	01.01.19	PA	-
D	ISSUED FOR 70% DETAILED DESIGN	24.09.18	JH	-
C	ISSUED FOR 30% SCHEMATIC DESIGN	07.09.18	PA	-
B	ISSUED FOR 30% SCHEMATIC DESIGN	03.09.18	JH	-
A	ISSUED FOR 30% SCHEMATIC DESIGN	22.08.18	PA	-
P5	ISSUE FOR DEVELOPMENT APPLICATION	28.09.18	PA	-

Rev	Description	Date	By	App
H	ISSUED FOR 70% DETAILED DESIGN	23.11.18	PA	-
G	ISSUED FOR 70% DETAILED DESIGN	07.11.18	PA	-

Rev	Description	Date	By	App
H	ISSUED FOR 70% DETAILED DESIGN	23.11.18	PA	-
G	ISSUED FOR 70% DETAILED DESIGN	07.11.18	PA	-

Rev	Description	Date	By	App
H	ISSUED FOR 70% DETAILED DESIGN	23.11.18	PA	-
G	ISSUED FOR 70% DETAILED DESIGN	07.11.18	PA	-

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C	ISSUED FOR 30% SCHEMATIC DESIGN	03/09/18	JH	-	M	ISSUED FOR 70% DETAILED DESIGN	23/11/18	PA	-
B	ISSUED FOR 30% SCHEMATIC DESIGN	03/09/18	JH	-	G	ISSUED FOR 70% DETAILED DESIGN	07/11/18	PA	-
A	ISSUED FOR 30% SCHEMATIC DESIGN	22/08/18	PA	-	F	ISSUED FOR 70% DETAILED DESIGN	20/10/18	PA	-
P2	ISSUED FOR DEVELOPMENT APPLICATION	21/08/18	PA	-	E	ISSUED FOR 70% DESIGN DEVELOPMENT	24/09/18	JH	-
P1	ISSUE FOR INFORMATION	10/08/18	PA	-	D	ISSUED FOR 30% SCHEMATIC DESIGN	14/09/18	PA	-
REV	Description	Date	By	App	Rev	Description	Date	By	App



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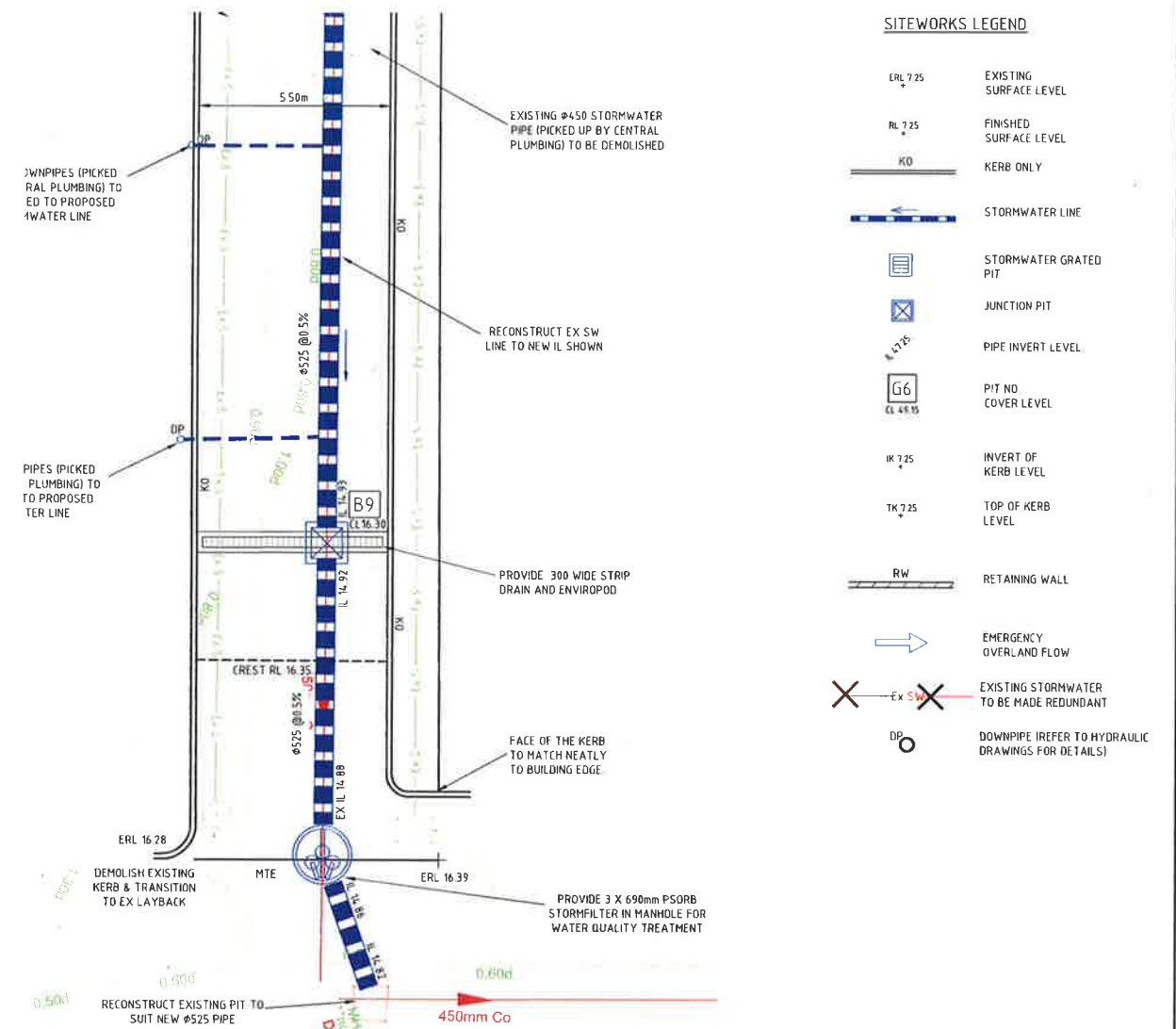
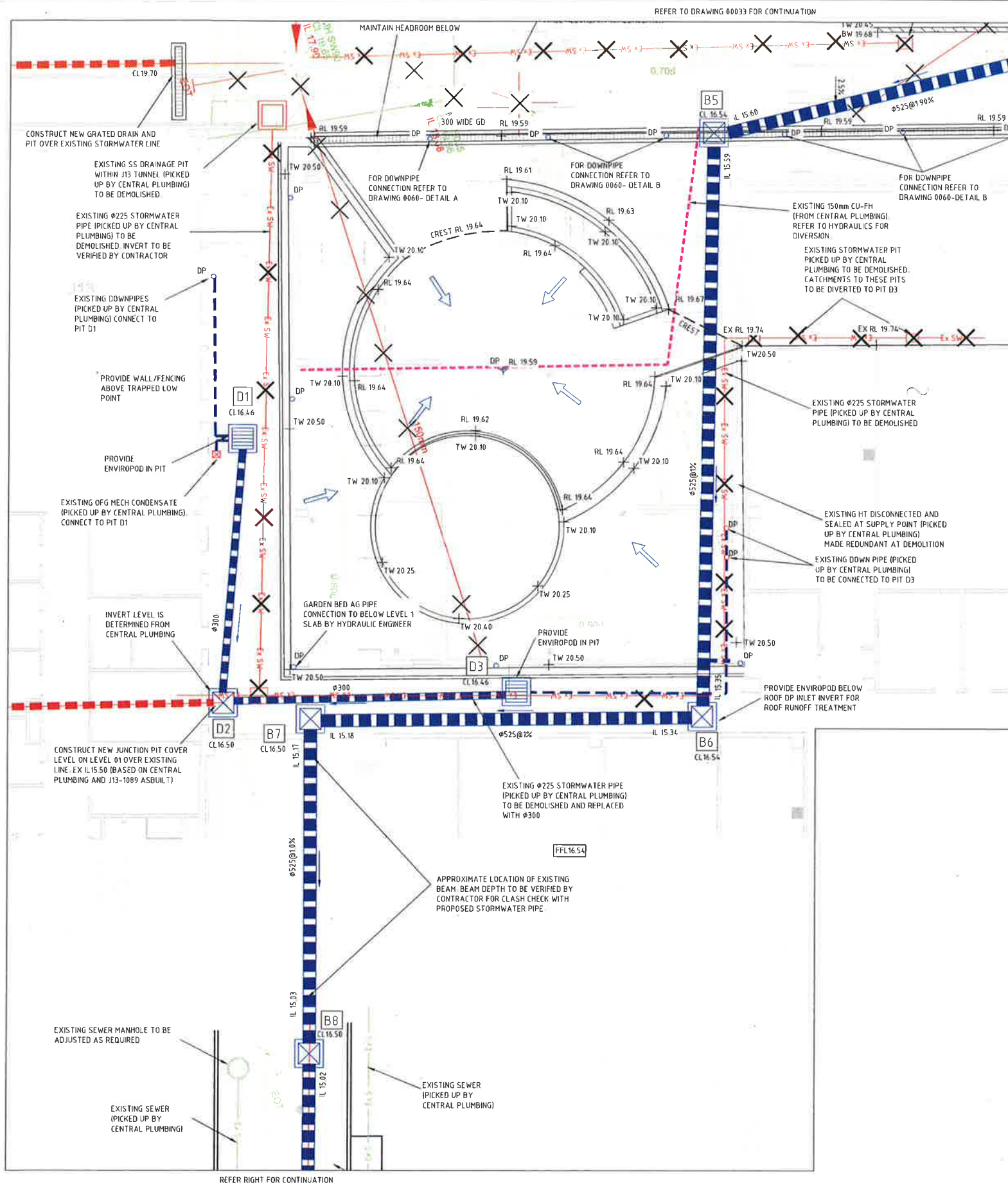
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sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title SITWORKS AND STORMWATER
DRAINAGE PLAN - SHEET 3

70% DETAILED DESIGN

Designed	JH	Project Director Approved	Date	North
Drawn	PA			
Scale	1:100			
Date	NOV 17	Project Ref	Drawing No	Rev
Sheet	A1	K33-BON-CIV-DRG-00033	I	



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Rev	Description	Date	By	App	Rev	Description	Date	By	App
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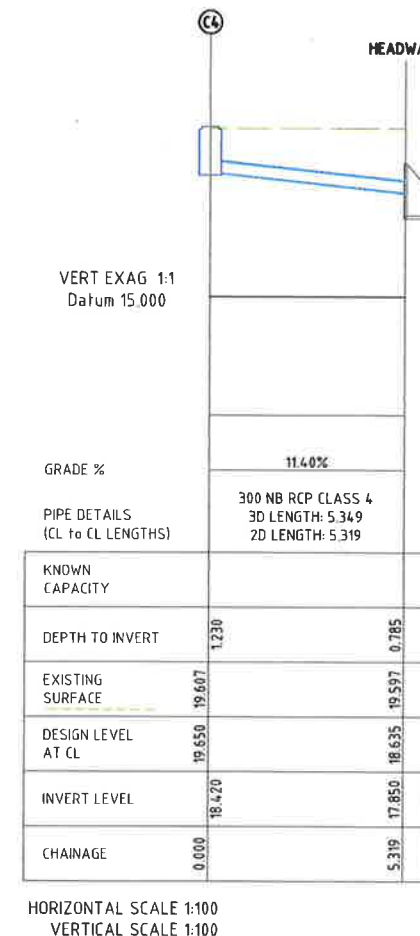
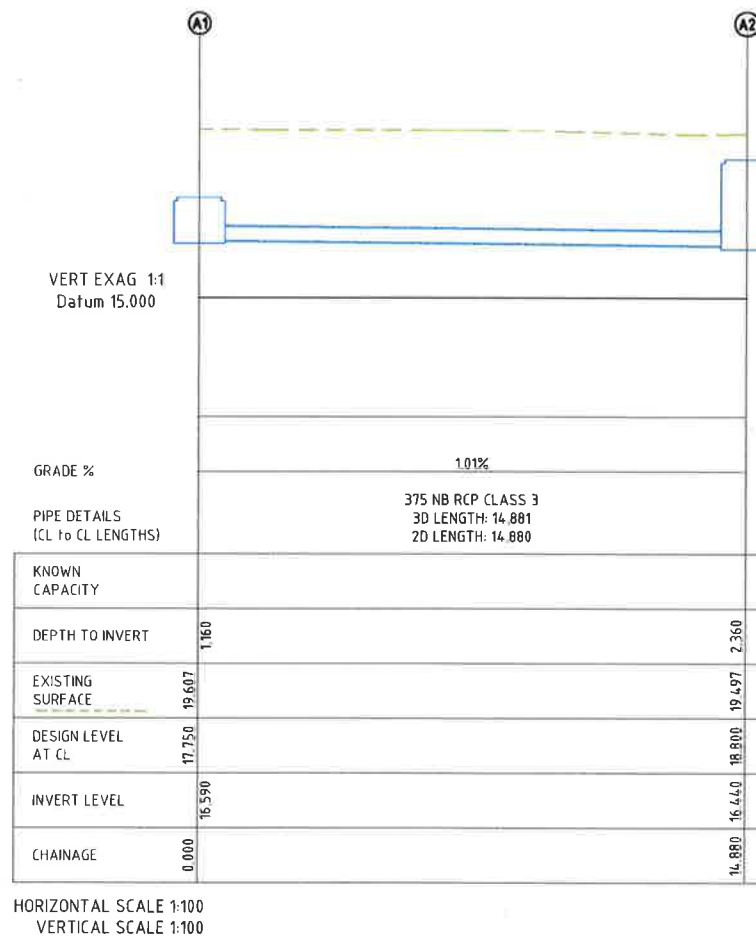
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Project Name: THE UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT (ETP) - STAGE 1
Drawing Title: SITWORKS AND STORMWATER DRAINAGE PLAN - SHEET 4

70% DETAILED DESIGN

Designed	JH	Project Director Approved	Date	North
Drawn	PA			
Scale	1:100			
Date	NOV 17			
Sheet	A1	Project Ref	Drawing No	Rev
		K33-BON-CIV-DRG-00034	I	



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Rev	Description	Date	By	App
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A	ISSUED FOR 70% DETAILED DESIGN	07/11/18	PA	

Rev	Description	Date	By	App



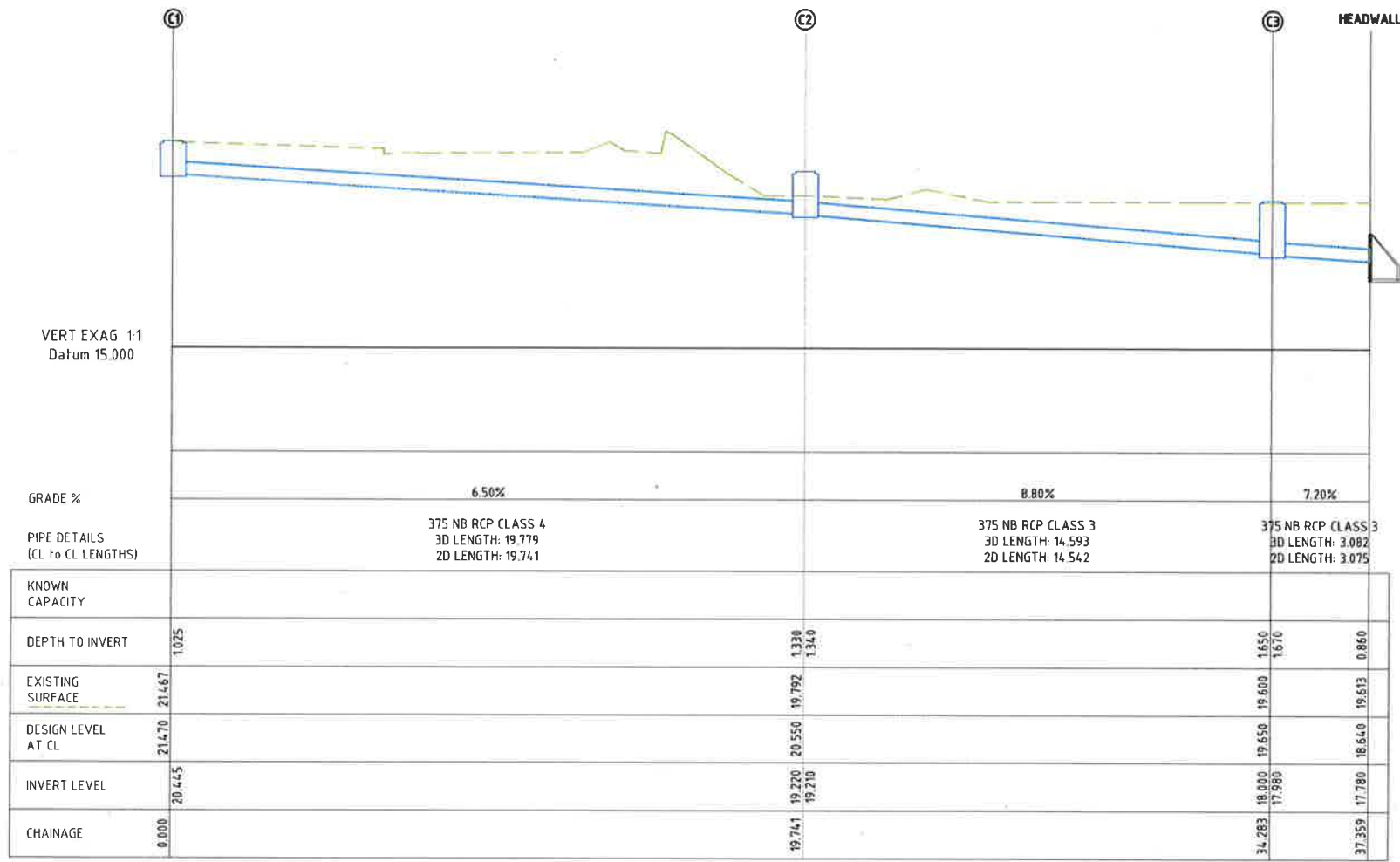
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Project Name: THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title: STORMWATER LONG SECTION
SHEET 1

70% DETAILED DESIGN			
Designed	PA	Project Director Approved	Date
Drawn	PA		
Scale	1:100		
Date	NOV 17		
Sheet	A1	Project Ref	Drawing No
			Rev

K33-BON-CIV-DRG-00040 B



HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

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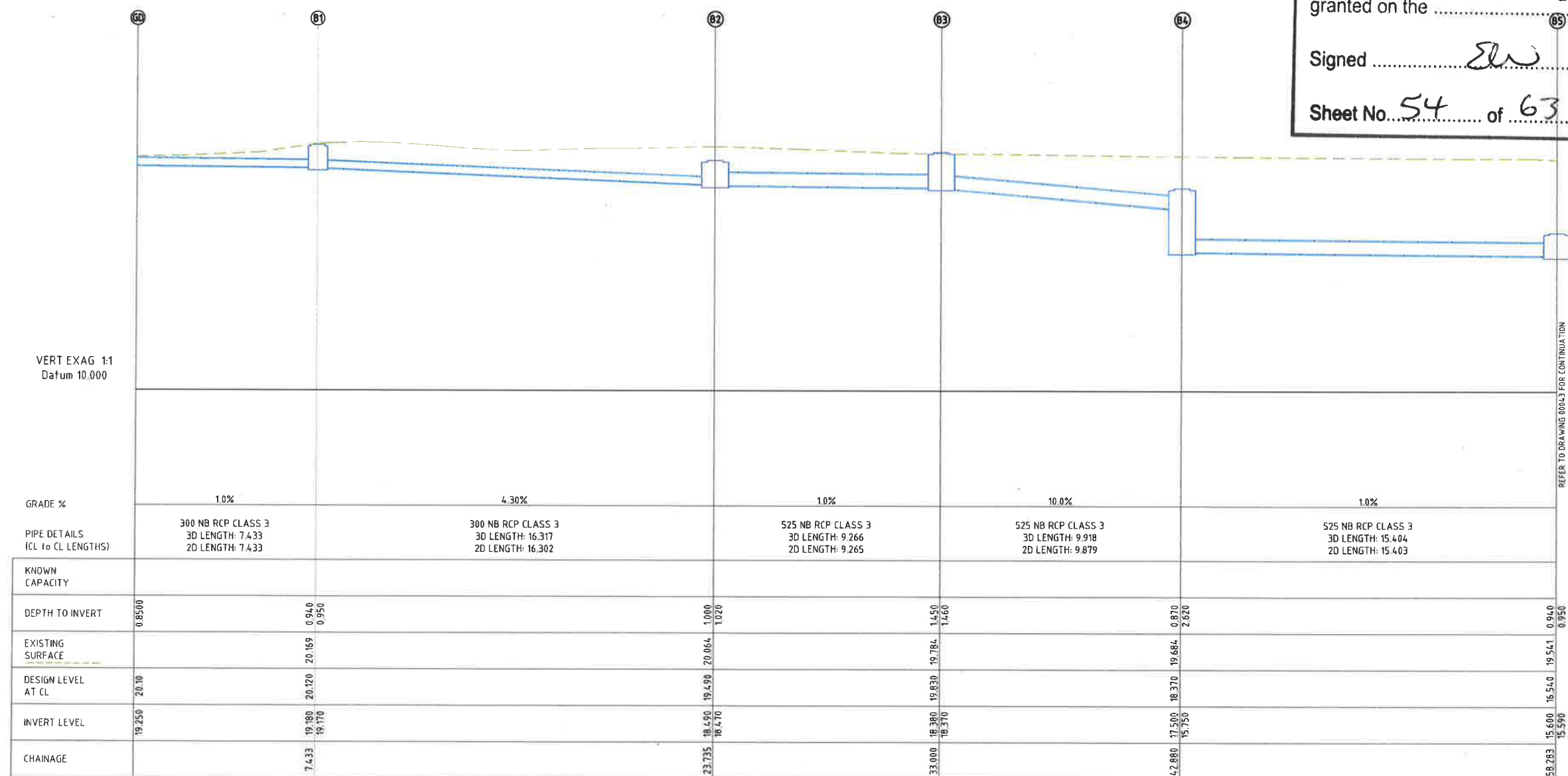
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REFER TO COALING AREA'S EGG CONTINUATION

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6	ISSUED FOR 70% DETAILED DESIGN	23.11.88	PA	-
A	ISSUED FOR 70% DETAILED DESIGN	07.11.88	PA	-
Rev	Description	Date	By	App

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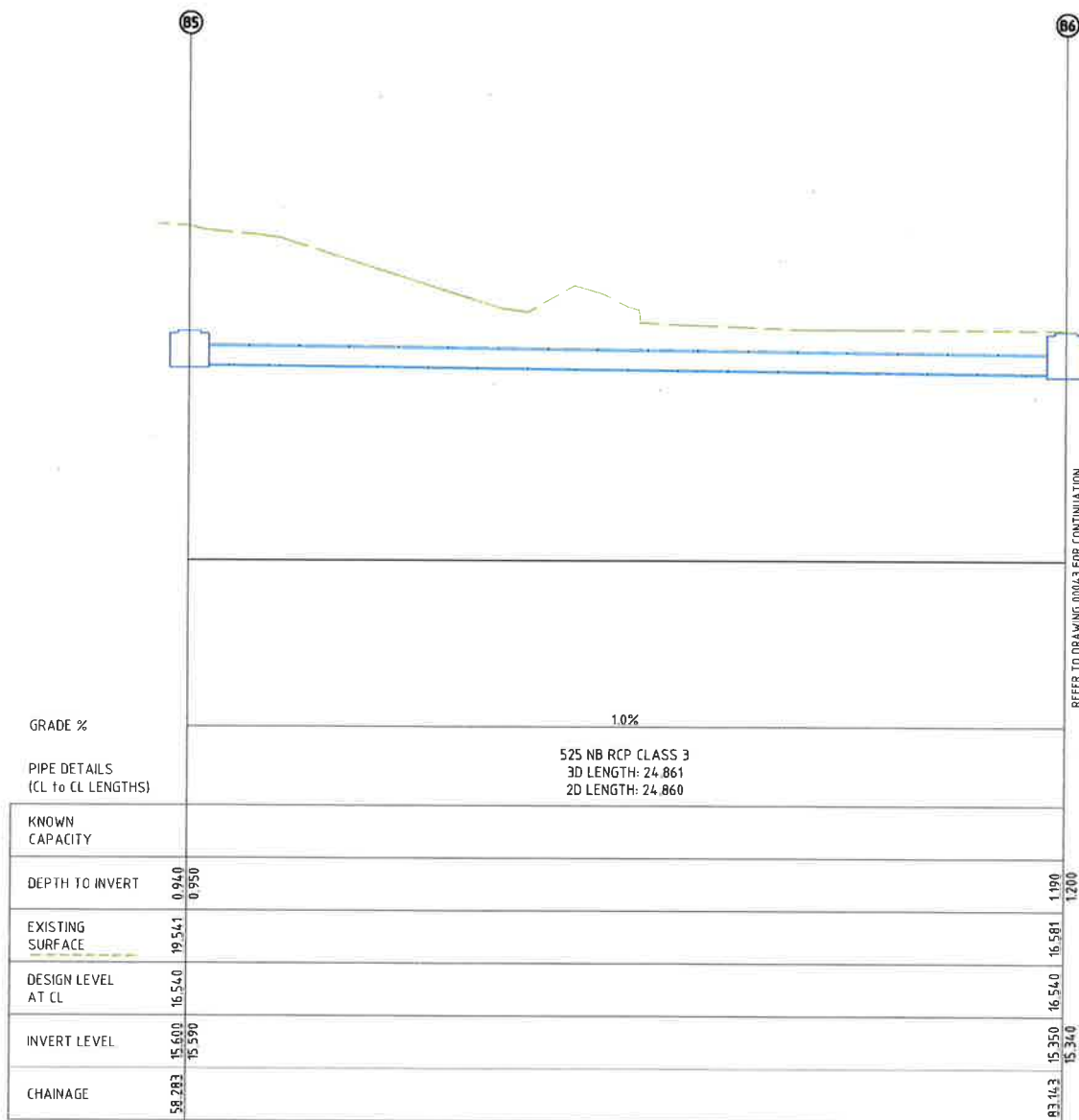
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ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1

Drawing Title	STORMWATER LONG SECTION SHEET 3
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70% DETAILED DESIGN

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Drawn	JH			
Scale	1/100	Project Ref	Drawing No	Rev
Date	NOV 17	K33-BON-CIV-DRG-00042 B		
Sheet	A1			

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B	ISSUED FOR 70% DETAILED DESIGN	23/11/18	PA	-
A	ISSUED FOR 70% DETAILED DESIGN	07/11/18	PA	-

Rev	Description	Date	By	App
B	ISSUED FOR 70% DETAILED DESIGN	23/11/18	PA	-
A	ISSUED FOR 70% DETAILED DESIGN	07/11/18	PA	-



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sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name: THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1

Drawing Title: STORMWATER LONG SECTION
SHEET 4

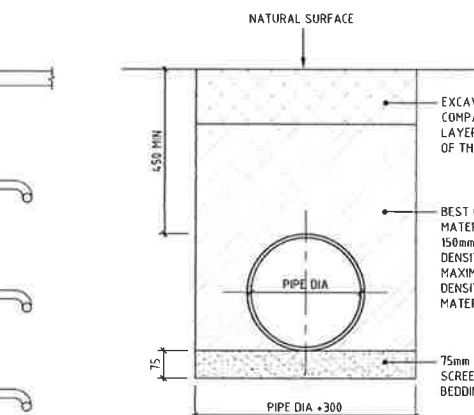
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Date	NOV 17			
Sheet	A1			

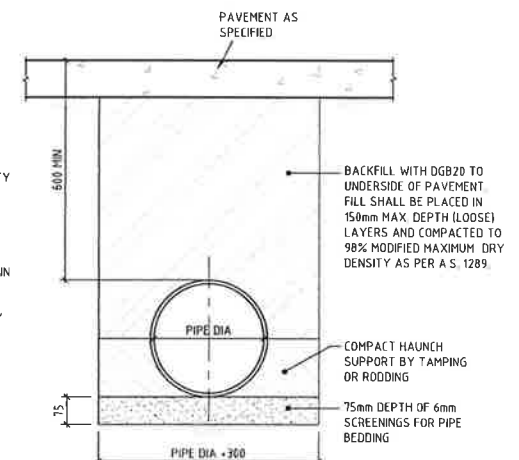
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DOWNPIPE CONNECTION DETAIL A
SCALE 1:10

DOWNPIPE CONNECTION DETAIL B
SCALE 1:10

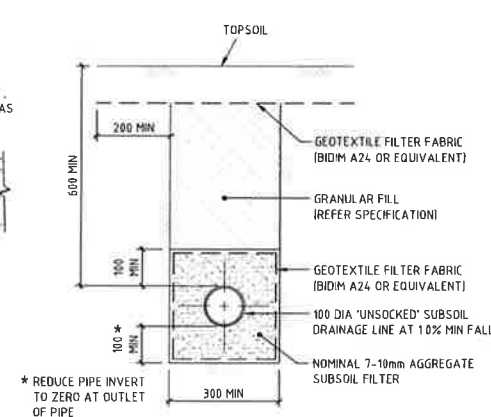


PIPE LAYING DETAIL (ALL PIPES)
UNDER LANDSCAPED AREAS
SCALE 1:10

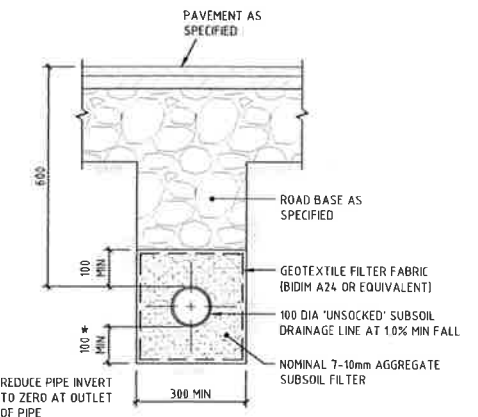


PIPE LAYING DETAILS
UNDER ALL PAVEMENTS
SCALE 1:10

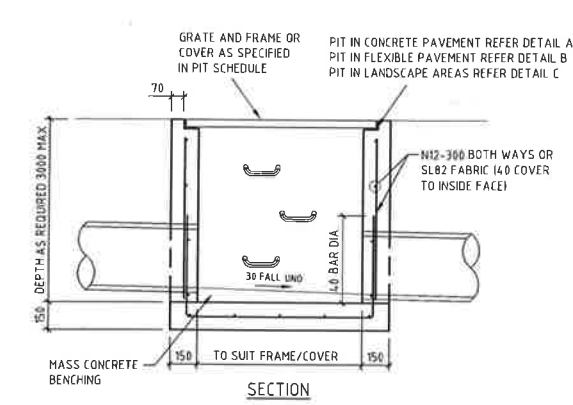
NOTE: AVOID RUNNING CONSTRUCTION EQUIPMENT OVER THE PIPES UNTIL BACKFILL MATERIAL IS 300mm MIN ABOVE CROWN OF PIPE.



SUBSOIL IN LANDSCAPED AREAS
SCALE 1:10



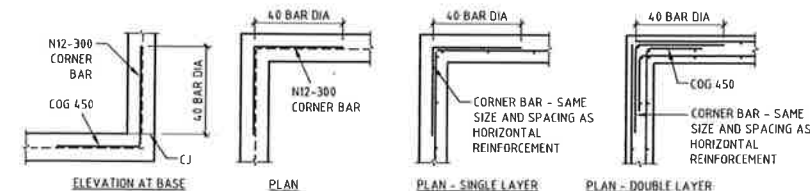
SUBSOIL IN PAVED AREAS
SCALE 1:10



SURFACE INLET/JUNCTION PIT DETAIL
SCALE 1:20

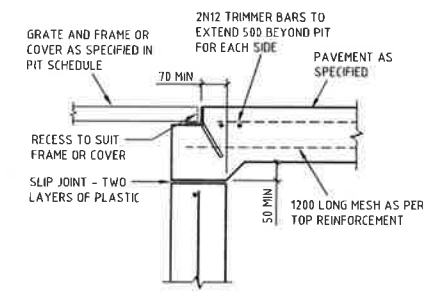
STORMWATER PIT NOTES

1. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH (f'c) OF 25 MPa AT 28 DAYS
2. REINFORCEMENT NOT REQUIRED IF DEPTH OF PIT IS LESS THAN 1000mm. PITS GREATER THAN 3000mm DEEP TO HAVE WALL AND BASE 200mm THICK REINFORCED WITH N12-250 EACH WAY EACH FACE WITH CONCRETE STRENGTH f'c = 40 MPa
3. PROVIDE STEP IRONS AT MAX 350mm CTRS IF DEPTH OF PIT EXCEEDS 1200mm IF REINFORCING FABRIC IS TO BE USED REFER TO WALL AND CORNER DETAILS
4. PRECAST PITS ARE TO GENERALLY COMPLY WITH THESE DETAILS
5. PRECAST PIT MAY BE USED SUBJECT TO ENGINEERS APPROVAL
6. ALL PITS TO BE LOCKABLE
7. FINAL INTERNAL PIT DIMENSIONS ARE TO COMPLY WITH AS 3500.

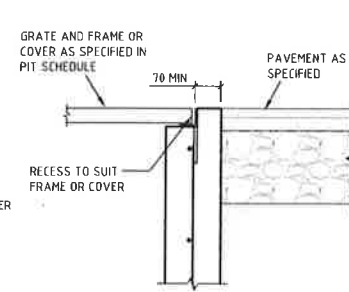


PIT CORNER DETAILS
SCALE 1:20

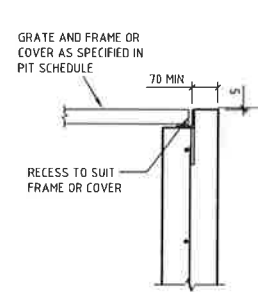
NOTE: DESIGNER TO VERIFY EXTENT OF DETAILING



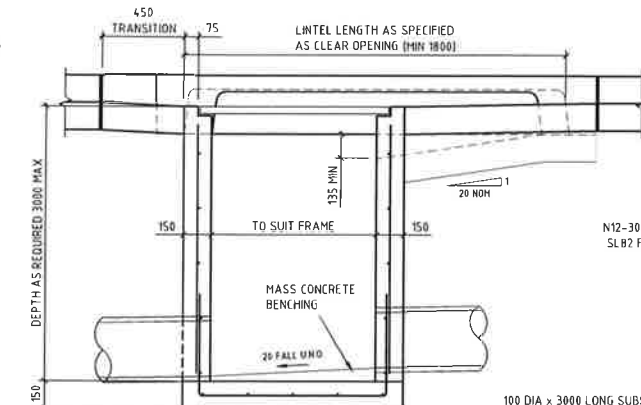
DETAIL A
SCALE 1:10



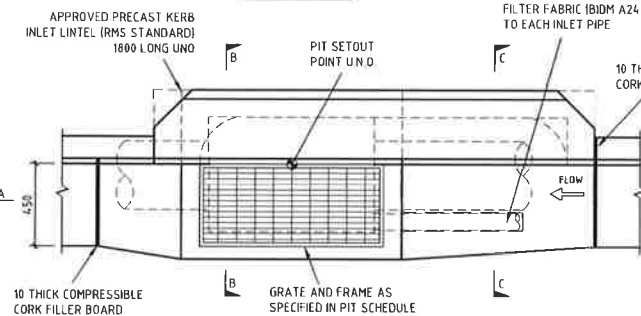
DETAIL B
SCALE 1:10



DETAIL C
SCALE 1:10



SECTION A-A

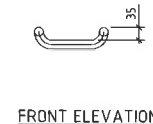


SECTION B-B

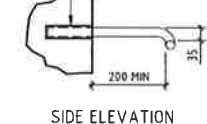


SECTION C-C

KERB INLET PIT DETAIL
SCALE 1:20



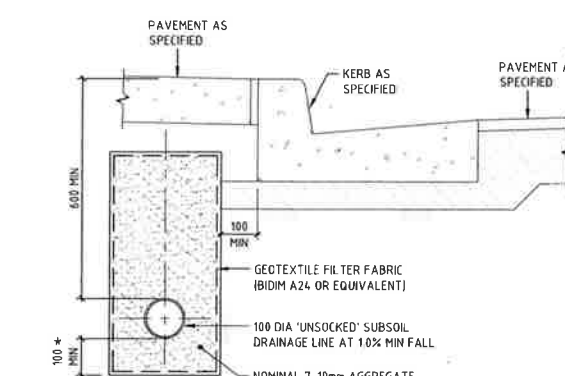
FRONT ELEVATION



SIDE ELEVATION

- NOTES
1. WHEN POSITIONED IN STRAIGHT ALIGNMENT, STEP TO BE 400 WIDE
 2. STAGGERED STEPS TO BE 200 WIDE, STEPS TO BE STAGGERED 200 CENTRE TO CENTRE FOR ALTERNATIVE STEPS
 3. SPACING OF STEPS TO BE UNIFORM TO WITHIN ±8mm IN EACH PIT.

PIT ACCESS STEP DETAIL
SCALE 1:10



SUBSOIL BEHIND KERB
SCALE 1:10



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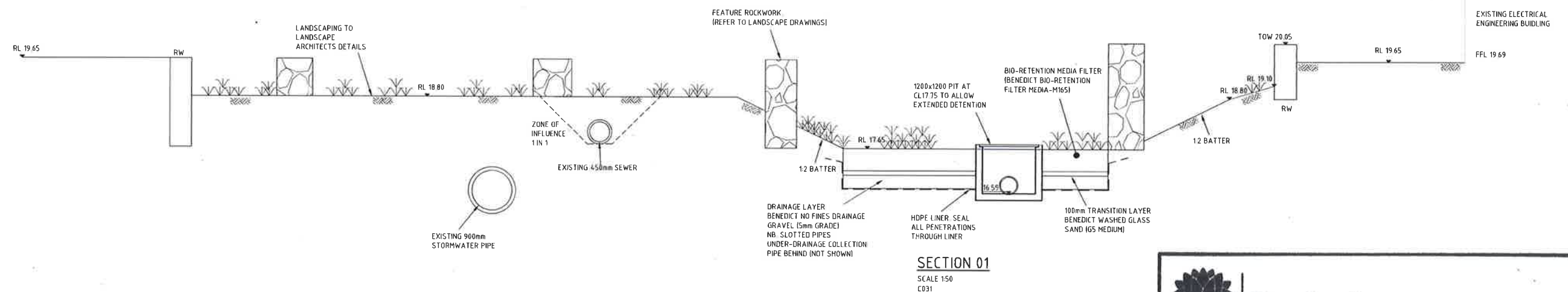
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Project Name
THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title
SITWORKS AND STORMWATER
DRAINAGE DETAILS
SHEET 1

70% DETAILED DESIGN
Designed PA
Drawn PA
Scale 1:20, 10
Date 17.08.18
Sheet A1
Project Ref
K33-BON-CIV-DRG-00060
Drawing No
Rev
E



SCALE 1:50
C031



Sheet No. 58 of 63



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SYDNEY

LAING O'ROURKE

~~BONACCI~~

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Project Name	THE UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT (ETP) - STAGE 1
Drawing Title	SITeworks AND STORMWATER DRAINAGE DETAILS SHEET 2

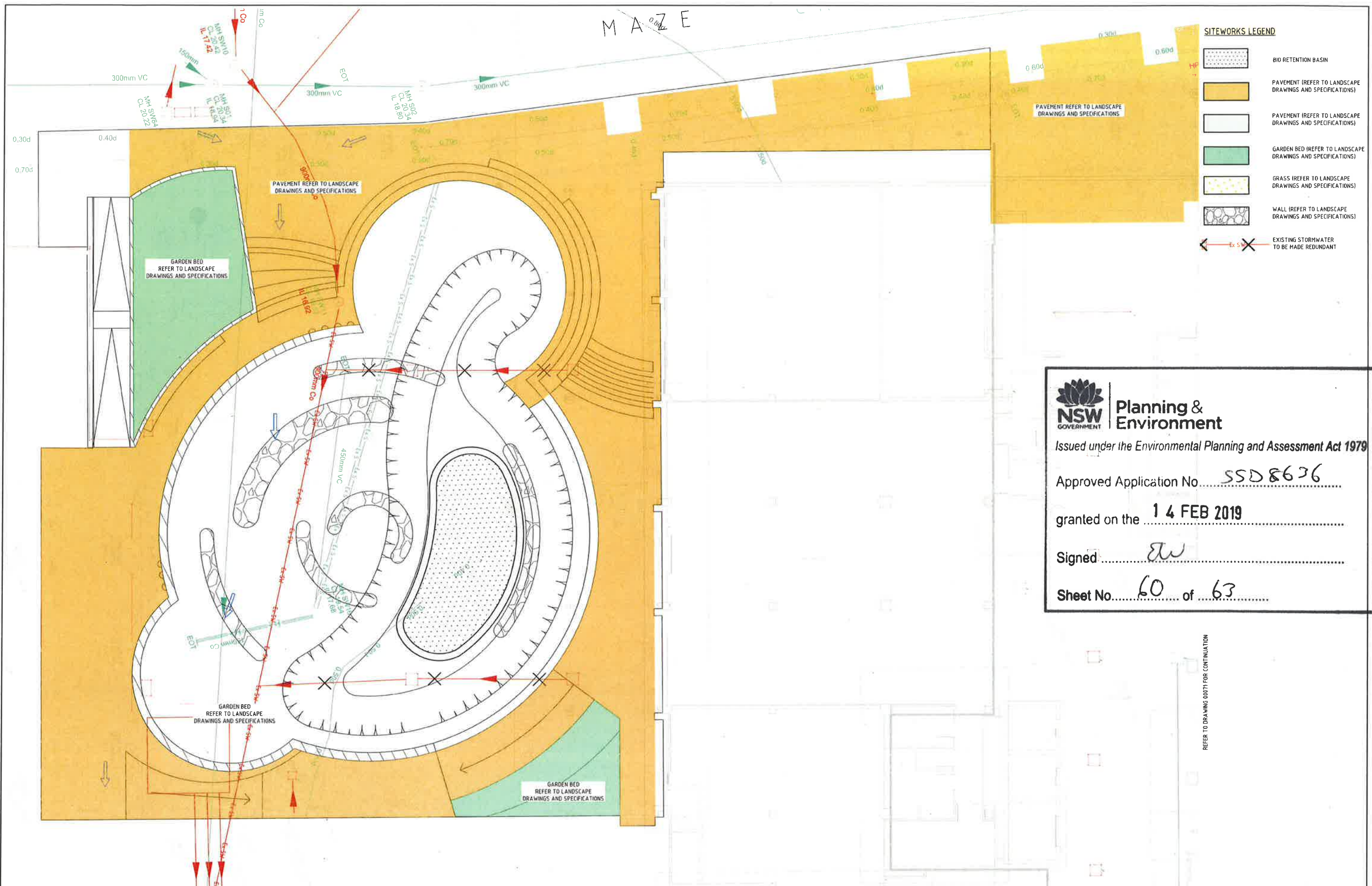
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Drawn	PA			
Scale	NOTED			
Date	17.08.18			
Sheet	A1			
		Project Ref	Drawing No	Rev
		K33-BON-CIV-DRG-00061 E		



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M A Z E



SITWORKS LEGEND

- BIO RETENTION BASIN
- PAVEMENT (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- PAVEMENT (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- GARDEN BED (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- GRASS (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- WALL (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- EXISTING STORMWATER TO BE MADE REDUNDANT

NSW GOVERNMENT | **Planning & Environment**
Issued under the Environmental Planning and Assessment Act 1979
Approved Application No. SSD 8636
granted on the 14 FEB 2019
Signed EW
Sheet No. 60 of 63

REFER TO DRAWING 00071 FOR CONTINUATION

File: G:\sub\10216\01_Civil\Issued\Drawings\K33-BON-CIV-DRG-00070-CA0A1.dwg Plotted: 23/11/19 at 3:35 PM By: Praveen Acharya

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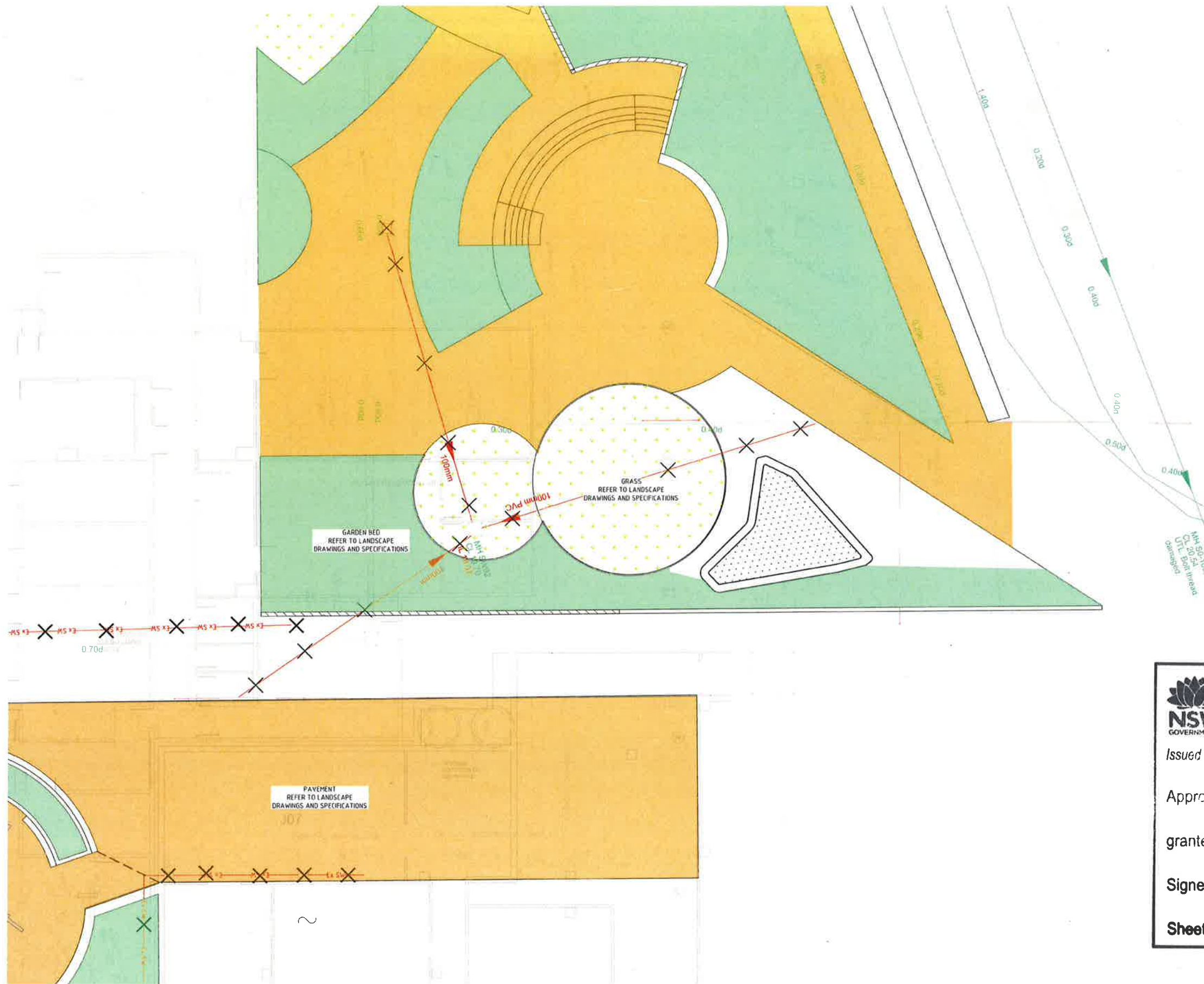
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Project Name	THE UNIVERSITY OF SYDNEY ENGINEERING AND TECHNOLOGY PRECINCT (ETP) - STAGE 1			70% DETAILED DESIGN		
Drawing Title	PAVEMENT PLAN - SHEET 1			Designed	JH	Project Director Approved
				Drawn	PA	Date
				Scale	1:100	
				Date	NOV 17	Project Ref
				Sheet	A1	K33-BON-CIV-DRG-00070 A

REFER TO DRAWING 00071 FOR CONTINUATION

SITeworks LEGEND

- BIO RETENTION BASIN
- PAVEMENT (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- PAVEMENT (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- GARDEN BED (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- GRASS (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- WALL (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- EXISTING STORMWATER TO BE MADE REDUNDANT



REFER TO DRAWING 00073 FOR CONTINUATION



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Rev Description Date By App

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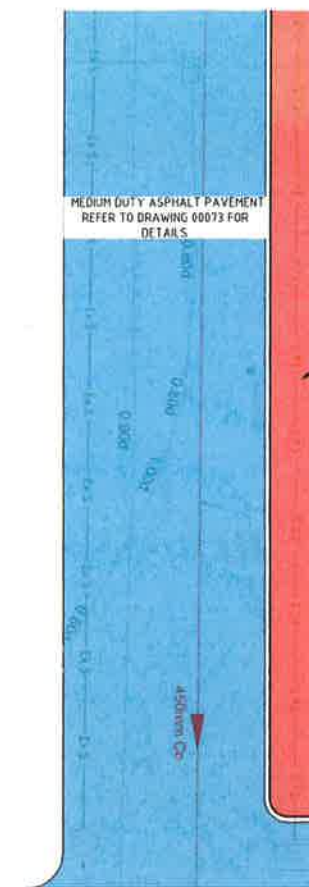
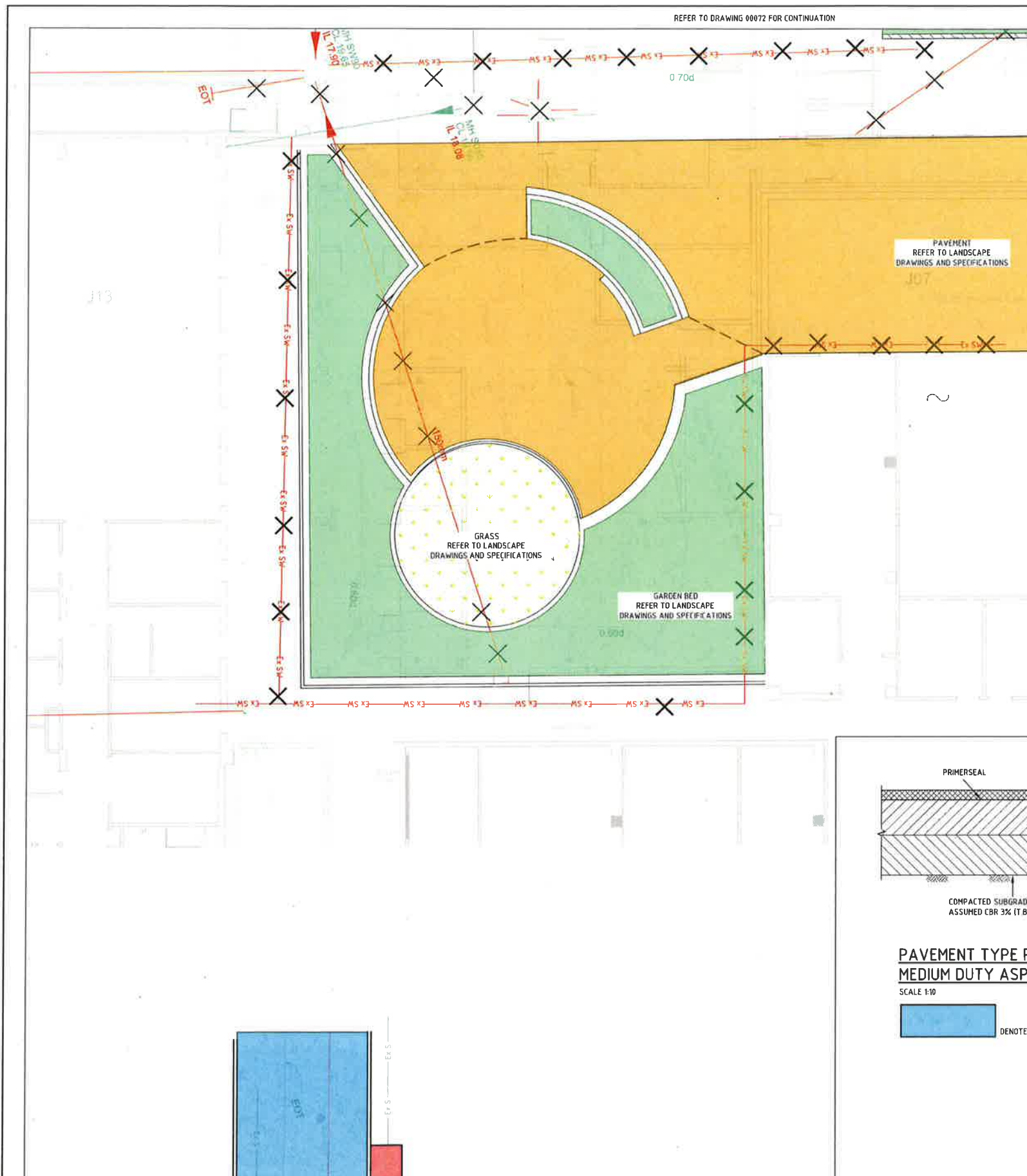
BONACCI GROUP (NSW) Pty Ltd
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Project Name THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title PAVEMENT PLAN - SHEET 3

70% DETAILED DESIGN

Designed	JH	Project Director Approved	Date	North
Drawn	PA			
Scale	1:100			
Date	NOV 17			
Sheet	A1	Project Ref	Drawing No	Rev
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SITWORKS LEGEND

- BIO RETENTION BASIN
- PAVEMENT (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- PAVEMENT (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- GARDEN BED (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- GRASS (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- WALL (REFER TO LANDSCAPE DRAWINGS AND SPECIFICATIONS)
- EXISTING STORMWATER TO BE MADE REDUNDANT



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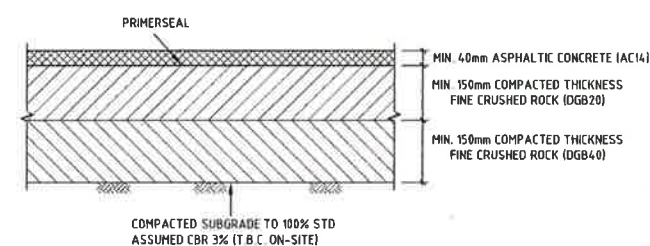
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Approved Application No. SSD 8636

granted on the 14 FEB 2019

Signed [Signature]

Sheet No. 63 of 63

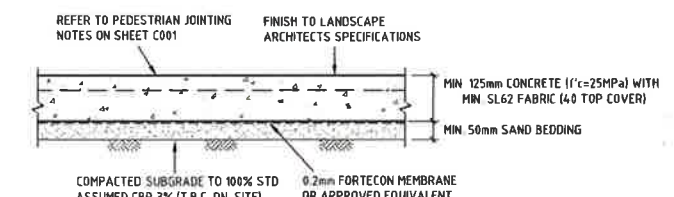


PAVEMENT TYPE P2 MEDIUM DUTY ASPHALT PAVEMENT

SCALE 1:10



DENOTED ON PLAN

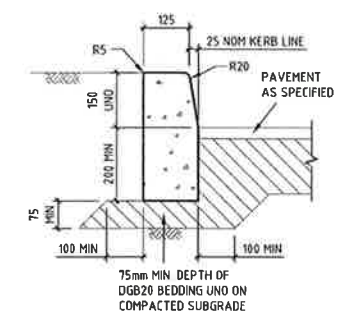


PAVEMENT TYPE P7 CONCRETE FOOTPATH PAVEMENT

SCALE 1:10



DENOTED ON PLAN



KERB ONLY (KO)

SCALE 1:10

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23/11/18

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Date

By

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Description

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Project Name
THE UNIVERSITY OF SYDNEY
ENGINEERING AND TECHNOLOGY
PRECINCT (ETP) - STAGE 1
Drawing Title
PAVEMENT PLAN - SHEET 4

70% DETAILED DESIGN

Designed	JH	Project Director Approved	Date	North
Drawn	PA			
Scale	1:100			
Date	NOV 17	Project Ref	Drawing No	Rev
Sheet	A1	K33-BON-CIV-DRG-00073 A		