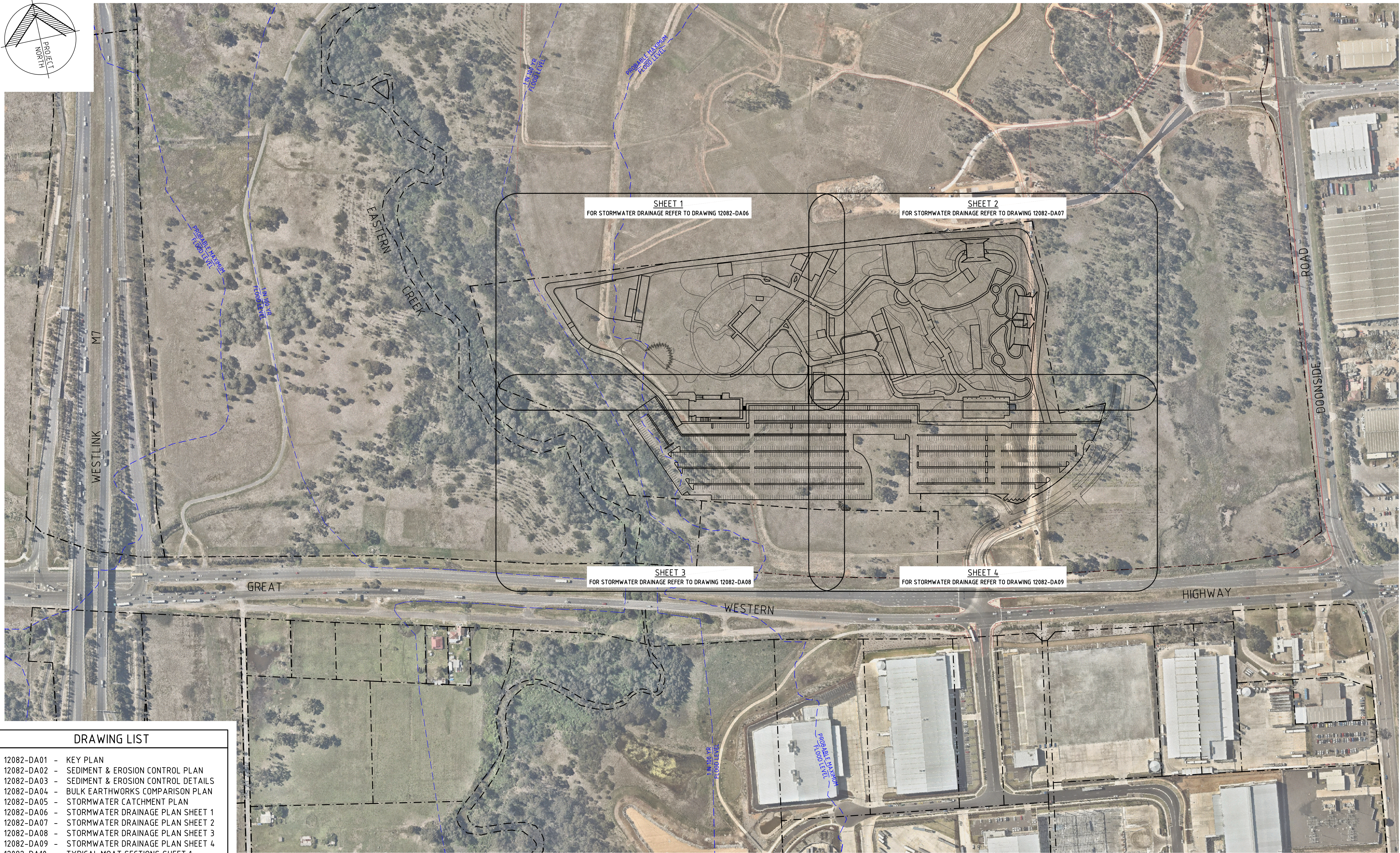




KEY PLAN
SCALE 1:2000

DRAWING LIST	
12082-DA01	- KEY PLAN
12082-DA02	- SEDIMENT & EROSION CONTROL PLAN
12082-DA03	- SEDIMENT & EROSION CONTROL DETAILS
12082-DA04	- BULK EARTHWORKS COMPARISON PLAN
12082-DA05	- STORMWATER CATCHMENT PLAN
12082-DA06	- STORMWATER DRAINAGE PLAN SHEET 1
12082-DA07	- STORMWATER DRAINAGE PLAN SHEET 2
12082-DA08	- STORMWATER DRAINAGE PLAN SHEET 3
12082-DA09	- STORMWATER DRAINAGE PLAN SHEET 4
12082-DA10	- TYPICAL MOAT SECTIONS SHEET 1
12082-DA11	- TYPICAL MOAT SECTIONS SHEET 2
12082-DA12	- SITE SECTIONS
12082-DA13	- HYDRAULIC PLAN

REVISIONS					
B	03/12/15	JF			ISSUED FOR E.I.S. EXHIBITION
A	03/11/15	JF			TEST OF ADEQUACY
REV	DATE	DRN	CHK	APP	DRAWING STATUS



SUSTAINABLE
SOLUTIONS

ISO 9001:2008
Endorsed
Quality
Management
System

This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company

Member of
CONSULT AUSTRALIA

Copyright
Lindsay Dynan
as date of issue



**Lindsay
Dynan**

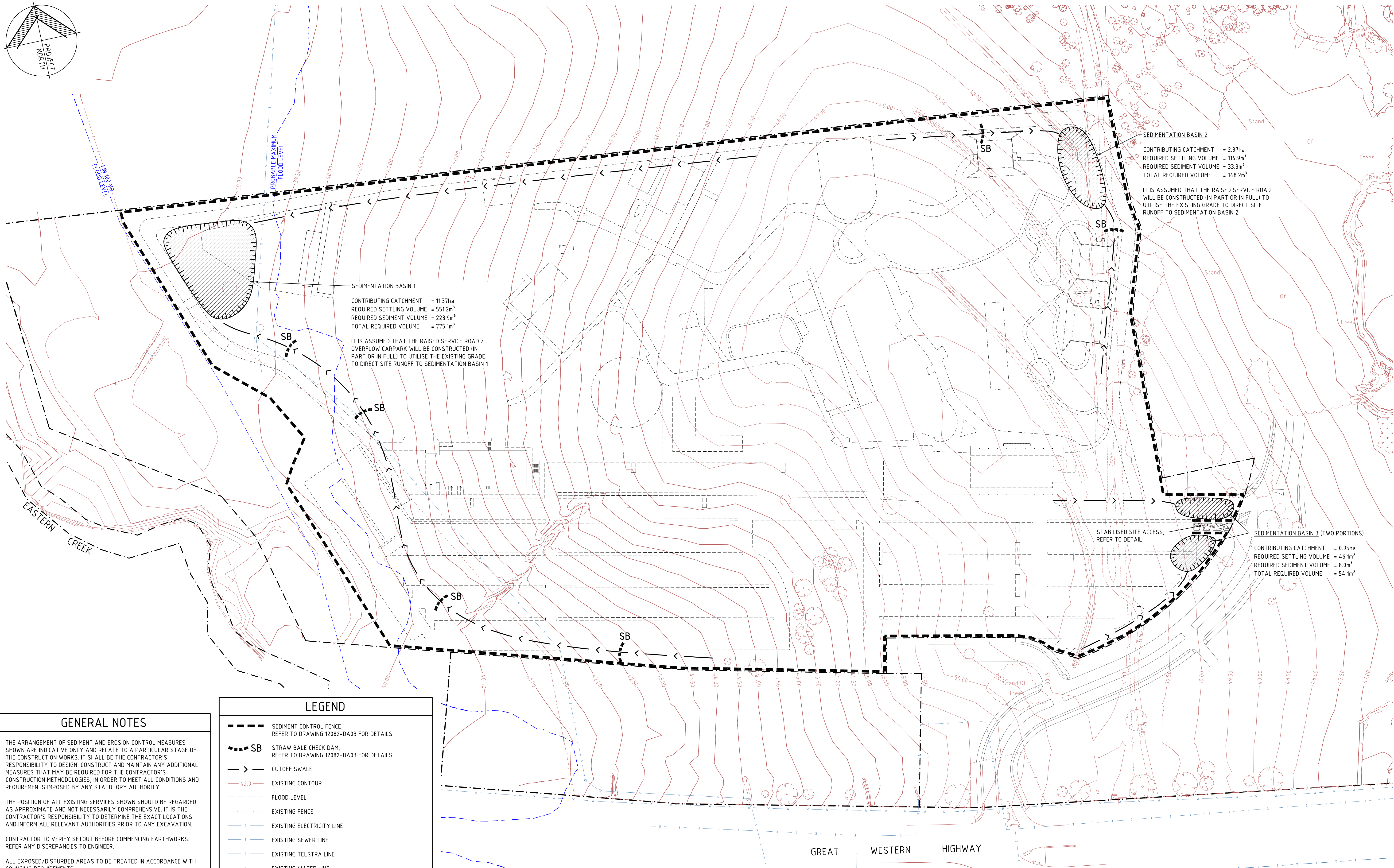
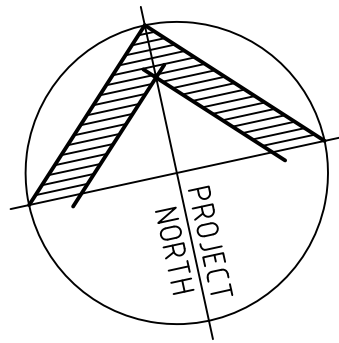
SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

Sydney | Perth | Newcastle | Central Coast

CLIENT	SYDNEY ZOO
TITLE	KEY PLAN

PROJECT	SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW
---------	--

DRAWING STATUS		SHEET SIZE
E.I.S. EXHIBITION		A1
DRAFTSMAN J.Fraser	DESIGNER T.Walton	PROJ MANAGER T.Walton
PROJECT REF No. 12082		SCALE 1:2000
DRAWING No. DA01		REVISION B



SEDIMENTATION BASIN 2
CONTRIBUTING CATCHMENT = 2.37ha
REQUIRED SETTLING VOLUME = 114.9m³
REQUIRED SEDIMENT VOLUME = 33.3m³
TOTAL REQUIRED VOLUME = 148.2m³

IT IS ASSUMED THAT THE RAISED SERVICE ROAD
WILL BE CONSTRUCTED (IN PART OR IN FULL) TO
UTILISE THE EXISTING GRADE TO DIRECT SITE
RUNOFF TO SEDIMENTATION BASIN 2

SEDIMENTATION BASIN 1

CONTRIBUTING CATCHMENT = 11.37ha
REQUIRED SETTLING VOLUME = 551.2m³
REQUIRED SEDIMENT VOLUME = 223.9m³
TOTAL REQUIRED VOLUME = 775.1m³

IT IS ASSUMED THAT THE RAISED SERVICE ROAD /
OVERFLOW CARPARK WILL BE CONSTRUCTED (IN
PART OR IN FULL) TO UTILISE THE EXISTING GRADE
TO DIRECT SITE RUNOFF TO SEDIMENTATION BASIN 1

SEDIMENTATION BASIN 3 (TWO PORTIONS)

CONTRIBUTING CATCHMENT = 0.95ha
REQUIRED SETTLING VOLUME = 46.1m³
REQUIRED SEDIMENT VOLUME = 8.0m³
TOTAL REQUIRED VOLUME = 54.1m³

STABILISED SITE ACCESS,
REFER TO DETAIL

GENERAL NOTES

THE ARRANGEMENT OF SEDIMENT AND EROSION CONTROL MEASURES SHOWN ARE INDICATIVE ONLY AND RELATE TO A PARTICULAR STAGE OF THE CONSTRUCTION WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, CONSTRUCT AND MAINTAIN ANY ADDITIONAL MEASURES THAT MAY BE REQUIRED FOR THE CONTRACTOR'S CONSTRUCTION METHODOLOGIES, IN ORDER TO MEET ALL CONDITIONS AND REQUIREMENTS IMPOSED BY ANY STATUTORY AUTHORITY.

THE POSITION OF ALL EXISTING SERVICES SHOWN SHOULD BE REGARDED AS APPROXIMATE AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS AND INFORM ALL RELEVANT AUTHORITIES PRIOR TO ANY EXCAVATION.

CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.

ALL EXPOSED/DISTURBED AREAS TO BE TREATED IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS.

EXISTING CONTOURS SHOWN AT 0.5m INTERVALS.

LEGEND

- SEDIMENT CONTROL FENCE, REFER TO DRAWING 12082-DA03 FOR DETAILS
- SB - STRAW BALE CHECK DAM, REFER TO DRAWING 12082-DA03 FOR DETAILS
- > - CUTOFF SWALE
- 42.0 - EXISTING CONTOUR
- - - FLOOD LEVEL
- - - EXISTING FENCE
- - - EXISTING ELECTRICITY LINE
- - - EXISTING SEWER LINE
- - - EXISTING TELSTRA LINE
- - - EXISTING WATER LINE
- - - BOUNDARY LINE

SEDIMENT & EROSION CONTROL PLAN

SCALE 1:1000

NOT FOR CONSTRUCTION

REV	REVISIONS				DRAWING STATUS
	DATE	DRN	CHK	APP	
	B	03/12/15	JF		
	A	03/11/15	JF		
ISSUED FOR E.I.S. EXHIBITION					TEST OF ADEQUACY
This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company					Member of CONSULT AUSTRALIA
ISO 9001:2008 Endorsed Quality Management System					Copyright Lindsay Dynan as date of issue
Lindsay Dynan					



SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

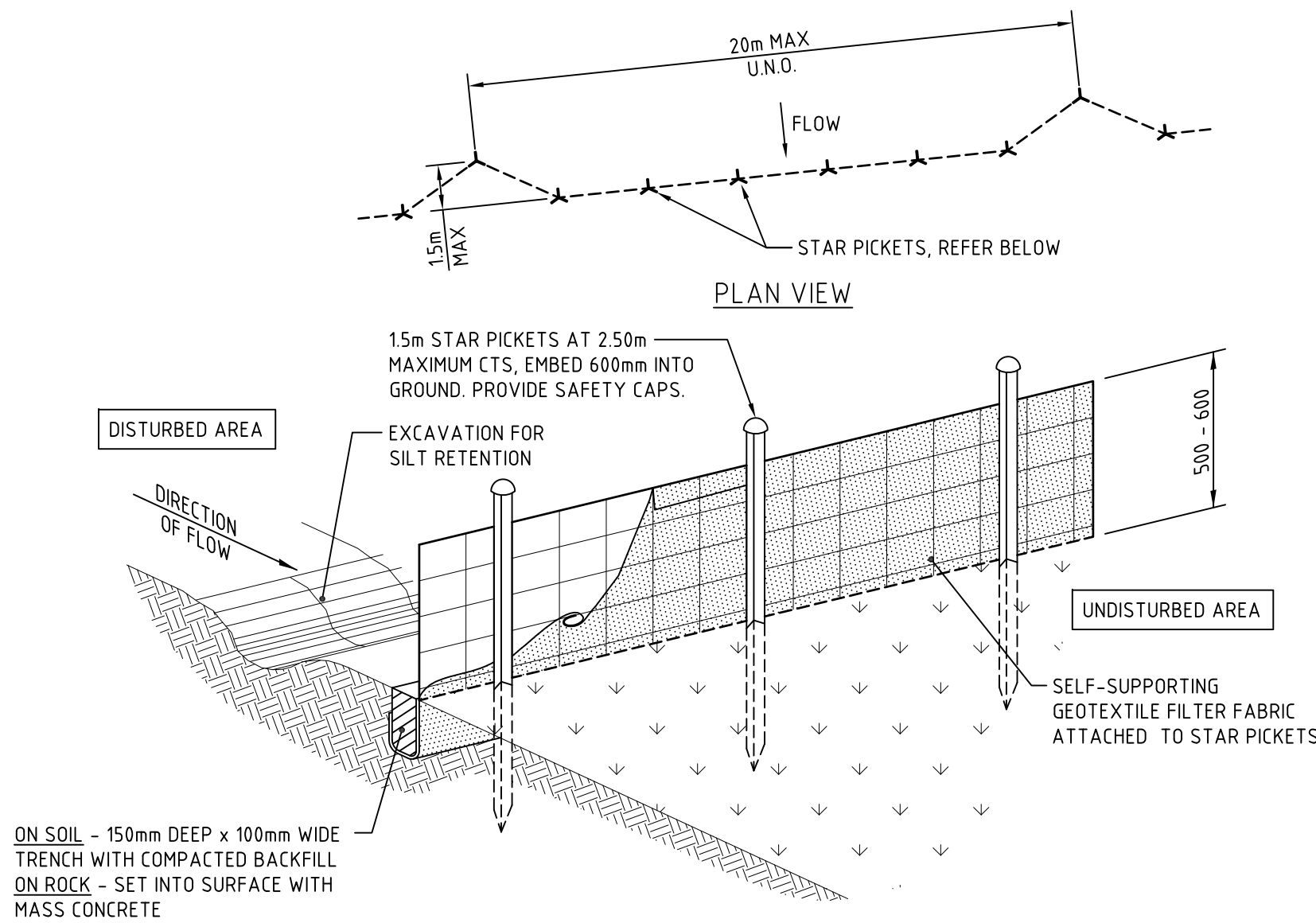
Sydney | Perth | Newcastle | Central Coast

CLIENT
SYDNEY ZOO

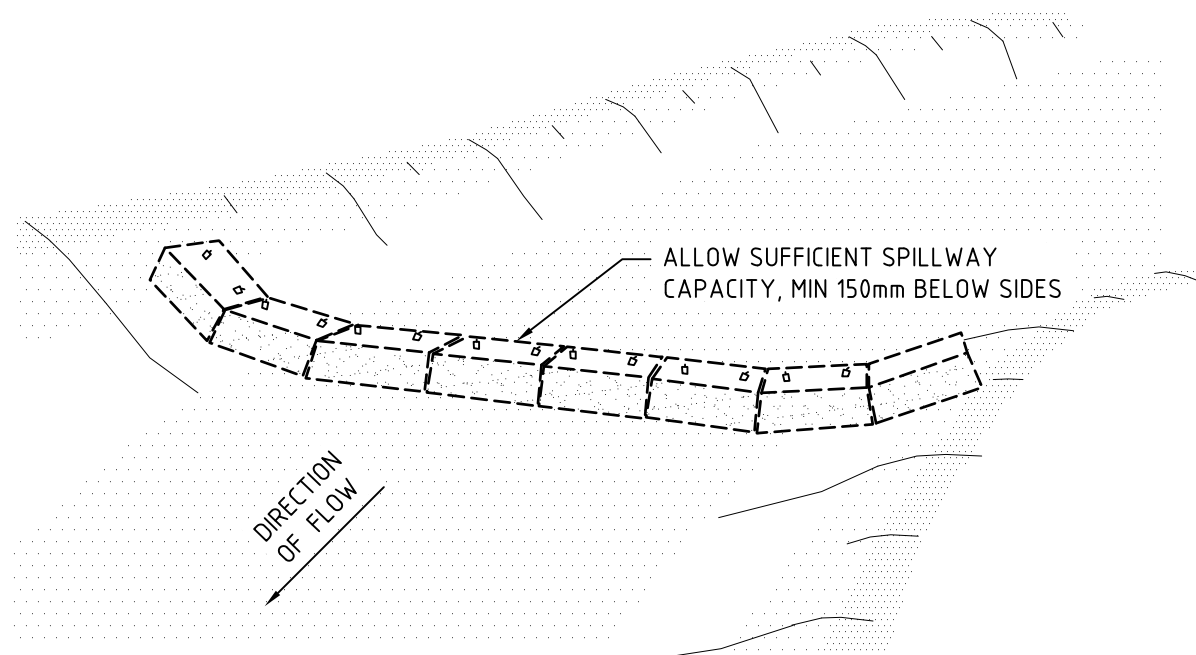
TITLE
SEDIMENT & EROSION CONTROL PLAN

PROJECT
SYDNEY ZOO
CORNER OF DOONSIDE ROAD &
GREAT WESTERN HIGHWAY
BUNGARRIBEE, NSW

DRAWING STATUS			SHEET SIZE	
E.I.S. EXHIBITION			A1	
DRAFTSMAN J.Fraser	DESIGNER T.Walton	PROJ MANAGER T.Walton	SCALE 1:1000	
PROJECT REF No. 12082		DRAWING No. DA02		REVISION B



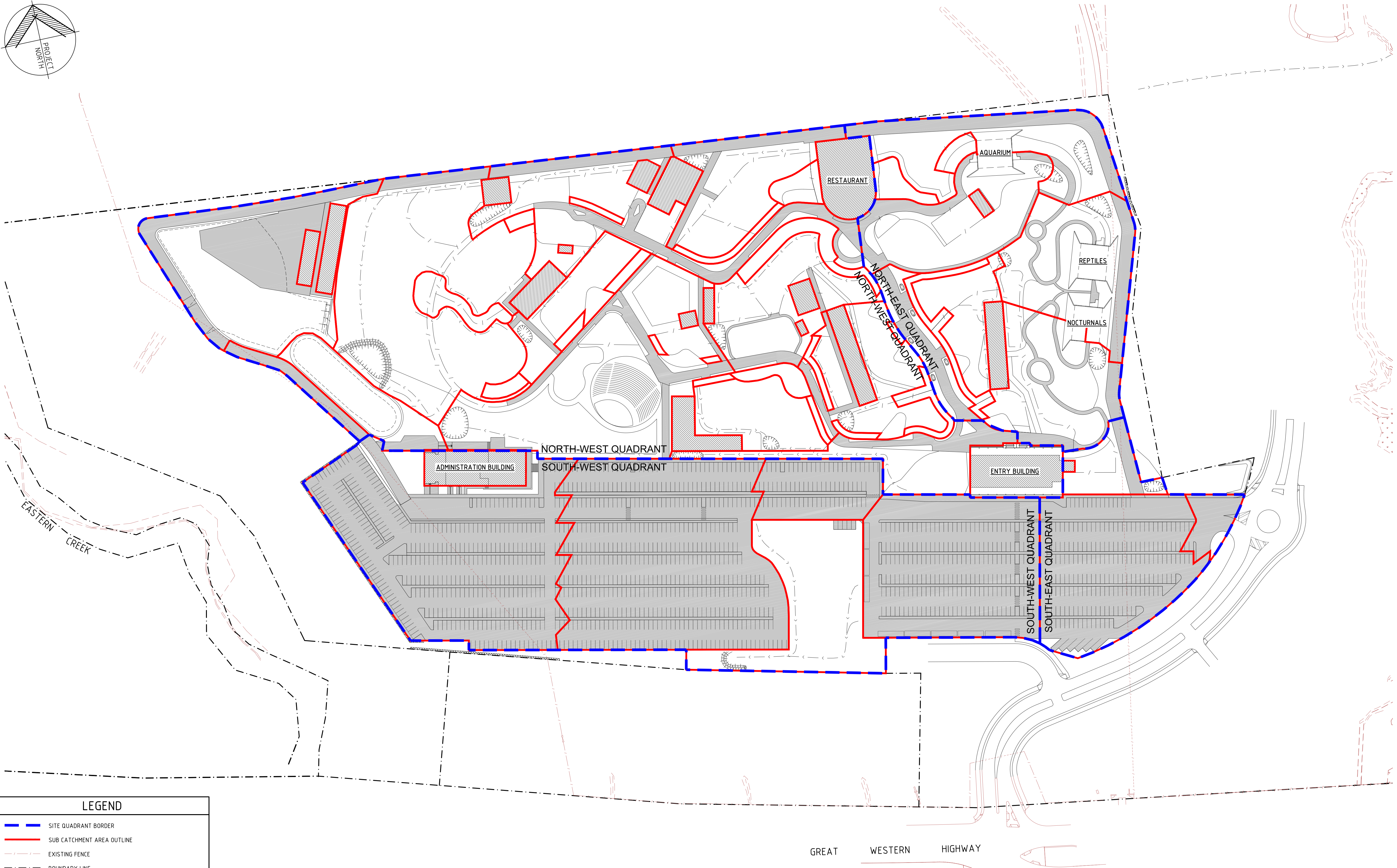
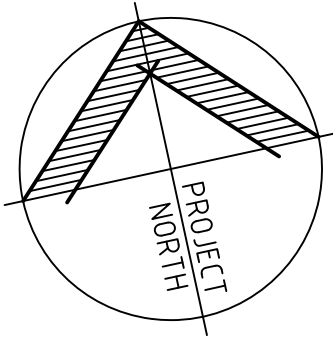
SEDIMENT CONTROL FENCE DETAIL
N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-8 SEDIMENT FENCE



STRAW BALE CHECK DAM DETAIL
N.T.S.

NOT FOR CONSTRUCTION

REVISIONS						
B	03/12/15	JF				ISSUED FOR E.I.S. EXHIBITION
A	03/11/15	JF				TEST OF ADEQUACY
REV	DATE	DRN	CHK	APP		DRAWING STATUS
 SUSTAINABLE SYSTEMS ISO 9001:2008 Endorsed Quality Management System This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company Member of CONSULT AUSTRALIA Copyright Lindsay Dynan as date of issue						
 Lindsay Dynan SYDNEY Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000 Phone - 02 8248 5500 Facsimile - 02 9251 6689 Email - mail@lindsaydynan.com.au Web - www.lindsaydynan.com.au Sydney Perth Newcastle Central Coast						
CLIENT		SYDNEY ZOO			PROJECT	
TITLE		SEDIMENT & EROSION CONTROL DETAILS			SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW	
DRAWING STATUS		E.I.S. EXHIBITION			SHEET SIZE	
DRAFTSMAN J.Fraser		DESIGNER T.Walton		PROJ MANAGER T.Walton		SCALE N.T.S.
PROJECT REF No. 12082		DRAWING No. DA03			REVISION B	



CATCHMENT PLAN
SCALE 1:1000

NOT FOR CONSTRUCTION

REV	REVISIONS				DRAWING STATUS
	DATE	DRN	CHK	APP	
	B	03/12/15	JF		
	A	03/11/15	JF		



This drawing is the property of
Lindsay Dynan
and must not be retained,
copied or used without
the consent of the company



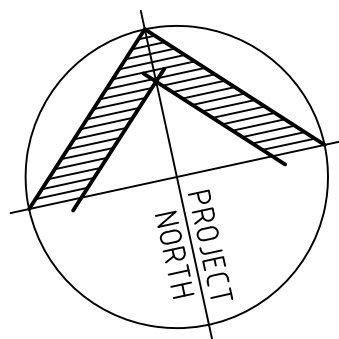
SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

Sydney | Perth | Newcastle | Central Coast

CLIENT	SYDNEY ZOO
TITLE	CATCHMENT PLAN

PROJECT
SYDNEY ZOO
CORNER OF DOONSIDE ROAD &
GREAT WESTERN HIGHWAY
BUNGARRIBEE, NSW

DRAWING STATUS			SHEET SIZE
E.I.S. EXHIBITION			A1
DRAFTSMAN J.Fraser	DESIGNER T.Walton	PROJ MANAGER T.Walton	SCALE 1:1000
PROJECT REF No. 12082		DRAWING No. DA04	REVISION B



LEVEL DIFFERENCE / COLOUR CHART		
MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOUR
-3.500	-3.000	Red
-3.000	-2.500	Dark Red
-2.500	-2.000	Orange
-2.000	-1.500	Light Orange
-1.500	-1.000	Yellow
-1.000	-0.500	Light Green
-0.500	0.000	Green
0.000	0.500	Light Green
0.500	1.000	Green
1.000	1.500	Dark Green
1.500	2.000	Dark Green
2.000	2.500	Dark Green
2.500	3.000	Dark Green
3.000	3.500	Dark Green

SURFACE COMPARISON NOTE	
THIS DRAWING SHOWS A COMPARISON BETWEEN: - DESIGN LEVELS INDICATED ON DRAWINGS 12082-DA06 TO DA09 - EXISTING LEVELS DERIVED FROM SURVEY DATA OBTAINED BY VINCE MORGAN SURVEYORS PTY LTD, DRAWING No. 1824515	
AREAS REQUIRING FILL TO ACHIEVE DESIGN LEVELS ARE SHOWN GREEN	
AREAS REQUIRING CUT TO ACHIEVE DESIGN LEVELS ARE SHOWN ORANGE	



PRELIMINARY BULK EARTHWORKS VOLUMES

CALCULATIONS (FOR QUADRANT EXTENTS REFER TO DRAWING 12082-DA04)		SITE WIDE	
NORTH-WEST QUADRANT APPROX. CUT VOLUME = 2000m³ (EXCLUDING MOATS AND BIORETENTION) APPROX. FILL VOLUME = 10300m³ APPROX. NET FILL VOLUME = 10300 - 2000 = 8300m³ FILL		APPROX. ADDITIONAL CUT VOLUME FOR MOATS AND CREEKS = 11100m³ CUT APPROX. ADDITIONAL CUT VOLUME FOR BIORETENTION BEDS = 1600m³ CUT TOTAL SITE NET FILL VOLUME = 8300 + 2500 + 15500 - 11100 - 1600 = 13600m³ FILL	
NORTH-EAST QUADRANT APPROX. CUT VOLUME = 400m³ (EXCLUDING MOATS AND BIORETENTION) APPROX. FILL VOLUME = 2900m³ APPROX. NET FILL VOLUME = 2900 - 400 = 2500m³ FILL		NOTES VOLUME CALCULATIONS DO NOT TAKE INTO ACCOUNT:- - TOPSOIL STRIPPING - PAVEMENT THICKNESSES - ANY BULKING FACTORS - DETAILED EXCAVATIONS FOR FOOTINGS, CONDUITS OR SERVICES QUANTITIES SHOWN ARE GENERATED FROM AVAILABLE SURVEY & GEOTECHNICAL DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERTAKE AN INDEPENDENT VERIFICATION OF THE CALCULATIONS AND MAKE ALLOWANCES FOR THE CUT AND FILL QUANTITIES.	
SOUTH-WEST QUADRANT APPROX. CUT VOLUME = 200m³ APPROX. FILL VOLUME = 15700m³ APPROX. NET FILL VOLUME = 15700 - 200 = 15500m³ FILL		RE-USE OF CUT MATERIAL AS ENGINEERED FILL IS SUBJECT TO GEOTECHNICAL APPROVAL.	
SOUTH-EAST QUADRANT IT HAS BEEN ASSUMED THAT THIS CARPARK WILL BE CONSTRUCTED TO SUIT EXISTING LEVELS.			

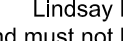
LEGEND

x-0.1m	SURFACE COMPARISON SPOTLEVEL INDICATING LEVEL DIFFERENCE BETWEEN COMPARISON SURFACES. POSITIVE NUMBERS INDICATE DEPTH OF FILL, NEGATIVE NUMBERS INDICATE DEPTH OF CUT. REFER TO SURFACE COMPARISON NOTE FOR FURTHER DETAILS
	FLOOD LEVEL
	EXISTING FENCE
	BOUNDARY LINE

BULK EARTHWORKS COMPARISON PLAN

SCALE 1:1000

NOT FOR CONSTRUCTION

REVISIONS						 180 901 008 ✓ Endorsed ✓ Quality ✓ Management ✓ System Member of:  © Copyright Lindsay Dynan as date of issue	This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company
	B	03/12/15	JF		ISSUED FOR E.I.S. EXHIBITION		
	A	03/11/15	JF		TEST OF ADEQUACY		
	REV	DATE	DRN	CHK	APP		



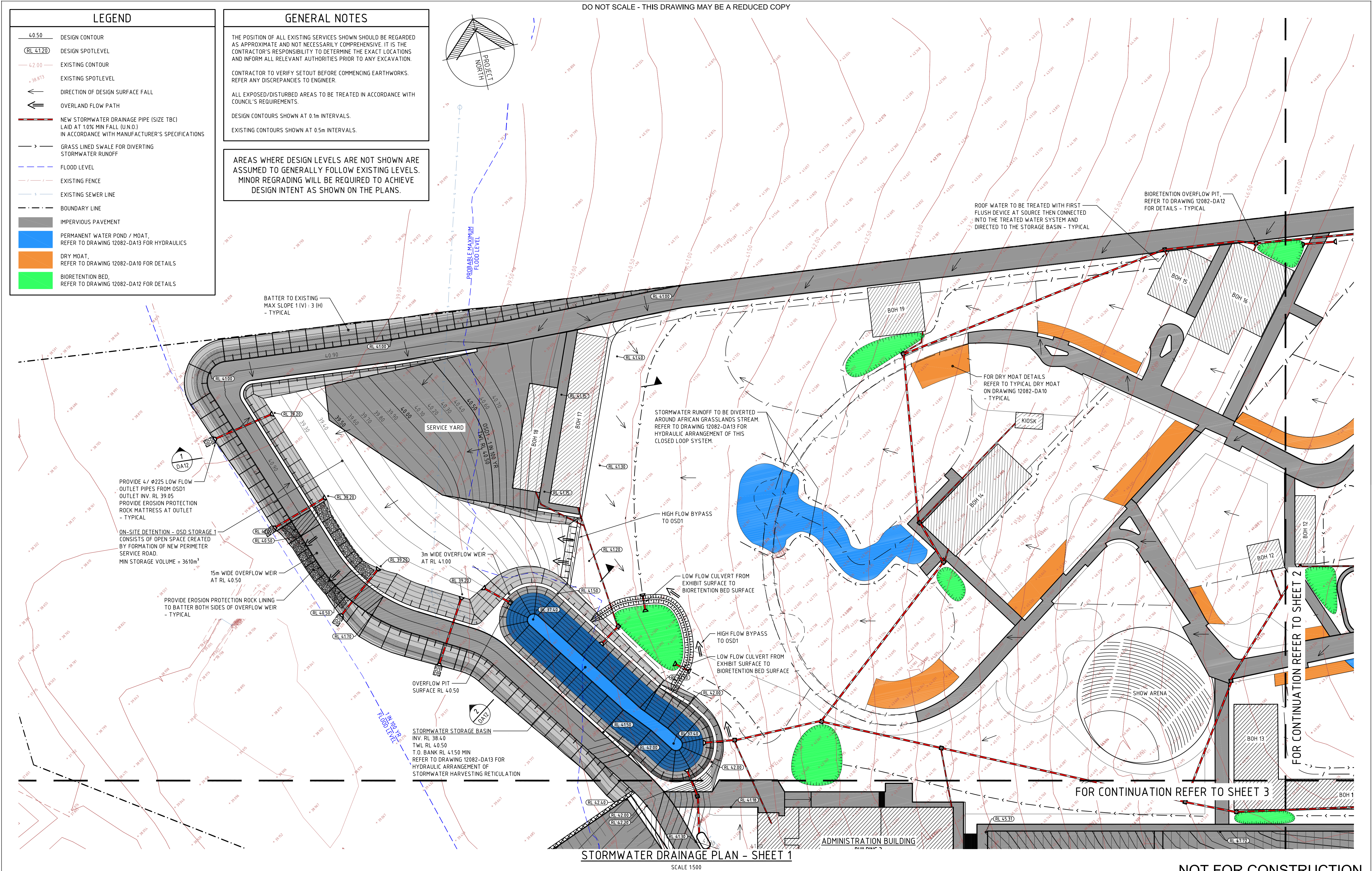
SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

Sydney | Perth | Newcastle | Central Coast

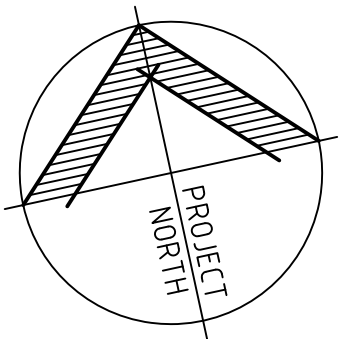
CLIENT	SYDNEY ZOO
TITLE	BULK EARTHWORKS COMPARISON PLAN

PROJECT	SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW
---------	--

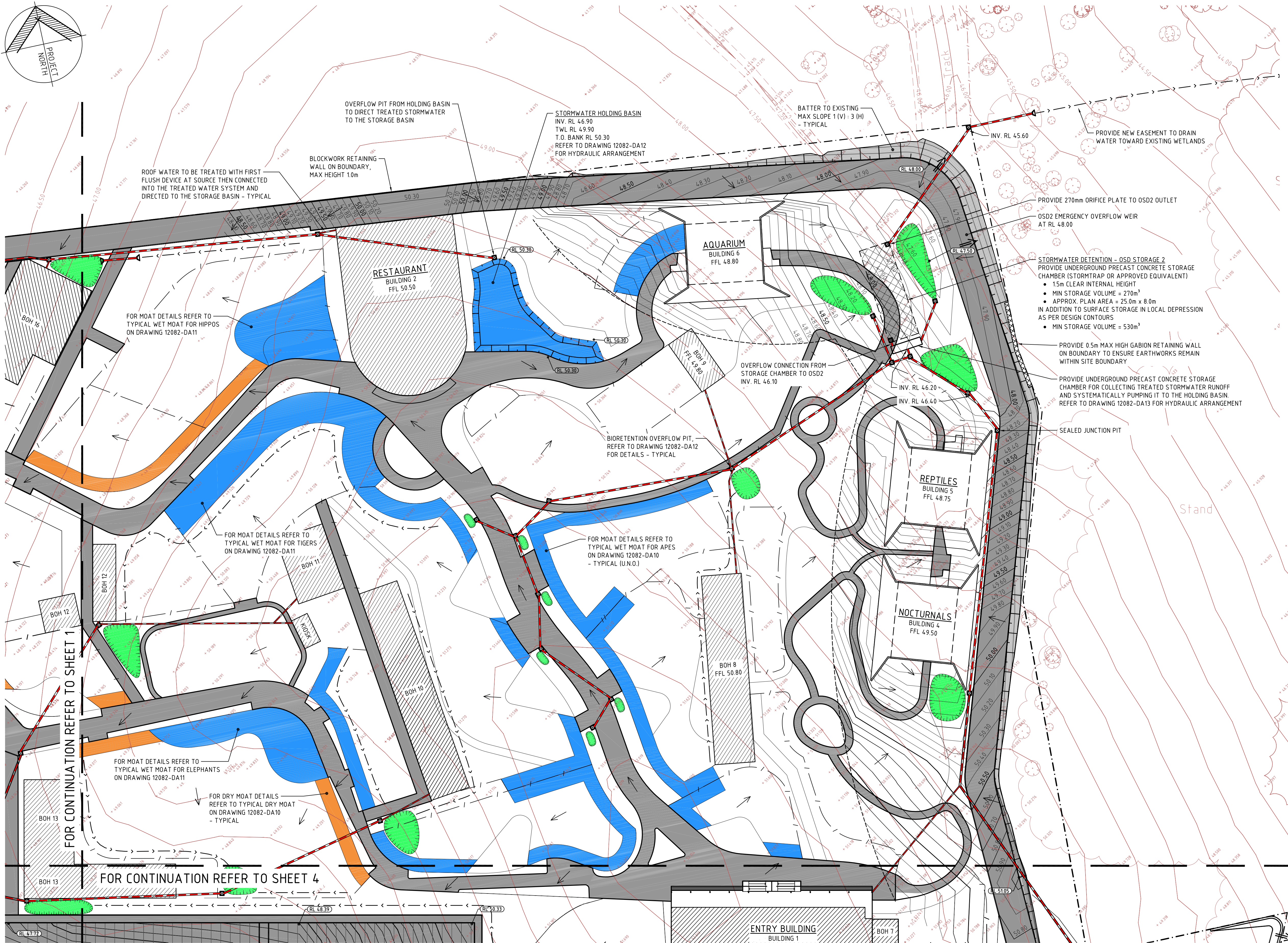
DRAWING STATUS		SHEET SIZE	
E.I.S. EXHIBITION		A1	
DRAFTSMAN J.Fraser	DESIGNER T.Walton	PROJ MANAGER T.Walton	SCALE 1:1000
PROJECT REF No. 12082		DRAWING No. DA05	
		REVISION B	



REVISIONS										 ✓ ISO 9001:2008 ✓ Endorsed ✓ Quality ✓ Management ✓ System  Member of:  This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company  SYDNEY Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000 Phone - 02 8248 5500 Facsimile - 02 9251 6689 Email - mail@lindsaydynan.com.au Web - www.lindsaydynan.com.au Sydney Perth Newcastle Central Coast	CLIENT SYDNEY ZOO	PROJECT SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW	DRAWING STATUS E.I.S. EXHIBITION			SHEET SIZE A1
	DRAFTSMAN J.Fraser					DESIGNER T.Walton	PROJ MANAGER T.Walton	SCALE 1:500								
	PROJECT REF No. 12082		DRAWING No. DA06		REVISION B											
B	03/12/15	JF				ISSUED FOR E.I.S. EXHIBITION										
A	03/11/15	JF				TEST OF ADEQUACY										
REV	DATE	DRN	CHK	APP	DRAWING STATUS											



DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY



LEGEND

40.50

DESIGN CONTOUR

RL 4120

DESIGN SPOTLEVEL

42.00

EXISTING CONTOUR

+38.873

EXISTING SPOTLEVEL

←

DIRECTION OF DESIGN SURFACE FALL

⇐

OVERLAND FLOW PATH

—

NEW STORMWATER DRAINAGE PIPE (SIZE TBC)
LAID AT 1.0% MIN FALL (U.N.O.)
IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

—

GRASS LINED SWALE FOR DIVERTING
STORMWATER RUNOFF

EXISTING FENCE

BOUNDARY LINE

■

IMPERVIOUS PAVEMENT

■

PERMANENT WATER POND / MOAT,
REFER TO DRAWING 12082-DA13 FOR HYDRAULICS

■

DRY MOAT,
REFER TO DRAWING 12082-DA10 FOR DETAILS

■

BIORETENTION BED,
REFER TO DRAWING 12082-DA12 FOR DETAILS

GENERAL NOTES

THE POSITION OF ALL EXISTING SERVICES SHOWN SHOULD BE REGARDED AS APPROXIMATE AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS AND INFORM ALL RELEVANT AUTHORITIES PRIOR TO ANY EXCAVATION.

CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.

ALL EXPOSED/DISTURBED AREAS TO BE TREATED IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS.

DESIGN CONTOURS SHOWN AT 0.1m INTERVALS.
EXISTING CONTOURS SHOWN AT 0.5m INTERVALS.

AREAS WHERE DESIGN LEVELS ARE NOT SHOWN ARE ASSUMED TO GENERALLY FOLLOW EXISTING LEVELS. MINOR REGRADING WILL BE REQUIRED TO ACHIEVE DESIGN INTENT AS SHOWN ON THE PLANS.

STORMWATER DRAINAGE PLAN - SHEET 2

SCALE 1:500

NOT FOR CONSTRUCTION

REVISIONS					S SUSTAINABLE CERTIFIED ISO 9001:2008 ✔ Endorsed ✔ Quality ✔ Management ✔ System Member of CONSULT AUSTRALIA © Copyright Lindsay Dynan as date of issue
B	03/12/15	JF			
A	03/11/15	JF			
REV	DATE	DRN	CHK	APP	
DRAWING STATUS					ISSUED FOR E.I.S. EXHIBITION
					TEST OF ADEQUACY



SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

Sydney | Perth | Newcastle | Central Coast

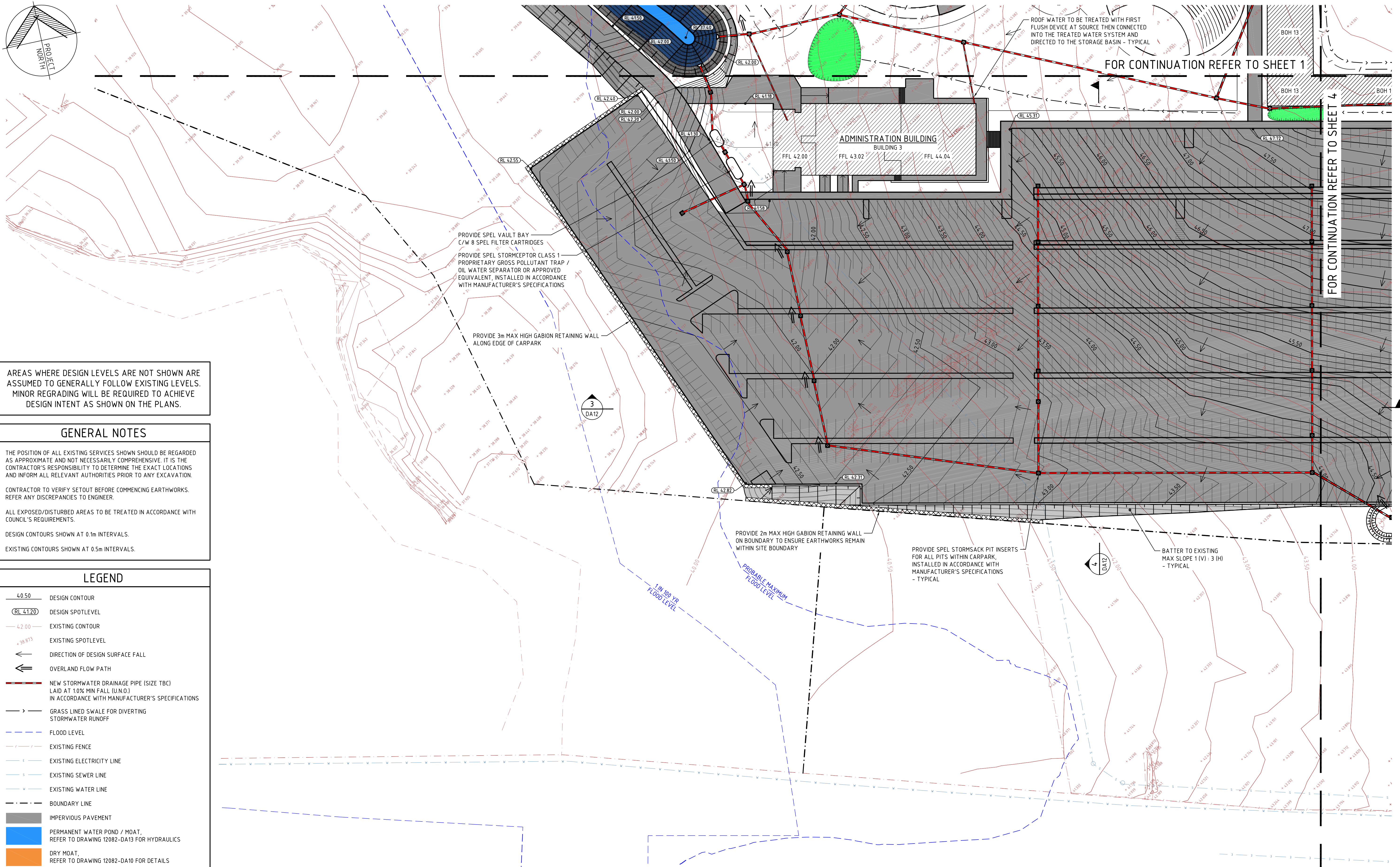
CLIENT
SYDNEY ZOO

TITLE
STORMWATER DRAINAGE PLAN
SHEET 2

PROJECT
SYDNEY ZOO
CORNER OF DOONSIDE ROAD &
GREAT WESTERN HIGHWAY
BUNGARRIBEE, NSW

DRAWING STATUS			SHEET SIZE
E.I.S. EXHIBITION			A1
DRAFTSMAN J.Fraser	DESIGNER T.Walton	PROJ MANAGER T.Walton	SCALE 1:500
PROJECT REF No. 12082		DRAWING No. DA07	REVISION B

DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY



STORMWATER DRAINAGE PLAN - SHEET 3

SCALE 1:500

NOT FOR CONSTRUCTION

REV	DATE	DRN	CHK	APP	DRAWING STATUS
B	03/12/15	JF			ISSUED FOR E.I.S. EXHIBITION
A	03/11/15	JF			TEST OF ADEQUACY
REV	DATE	DRN	CHK	APP	DRAWING STATUS

S

SUSTAINABLE

DESIGN

ISO 9001:2008

Endorsed

Quality Management System

This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company

Member of

CONSULT AUSTRALIA

Copyright

Lindsay Dynan

as date of issue

Lindsay Dynan

SYDNEY

Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000

Phone - 02 8248 5500 Facsimile - 02 9251 6689

Email - mail@lindsaydynan.com.au

Web - www.lindsaydynan.com.au

Sydney

Perth

Newcastle

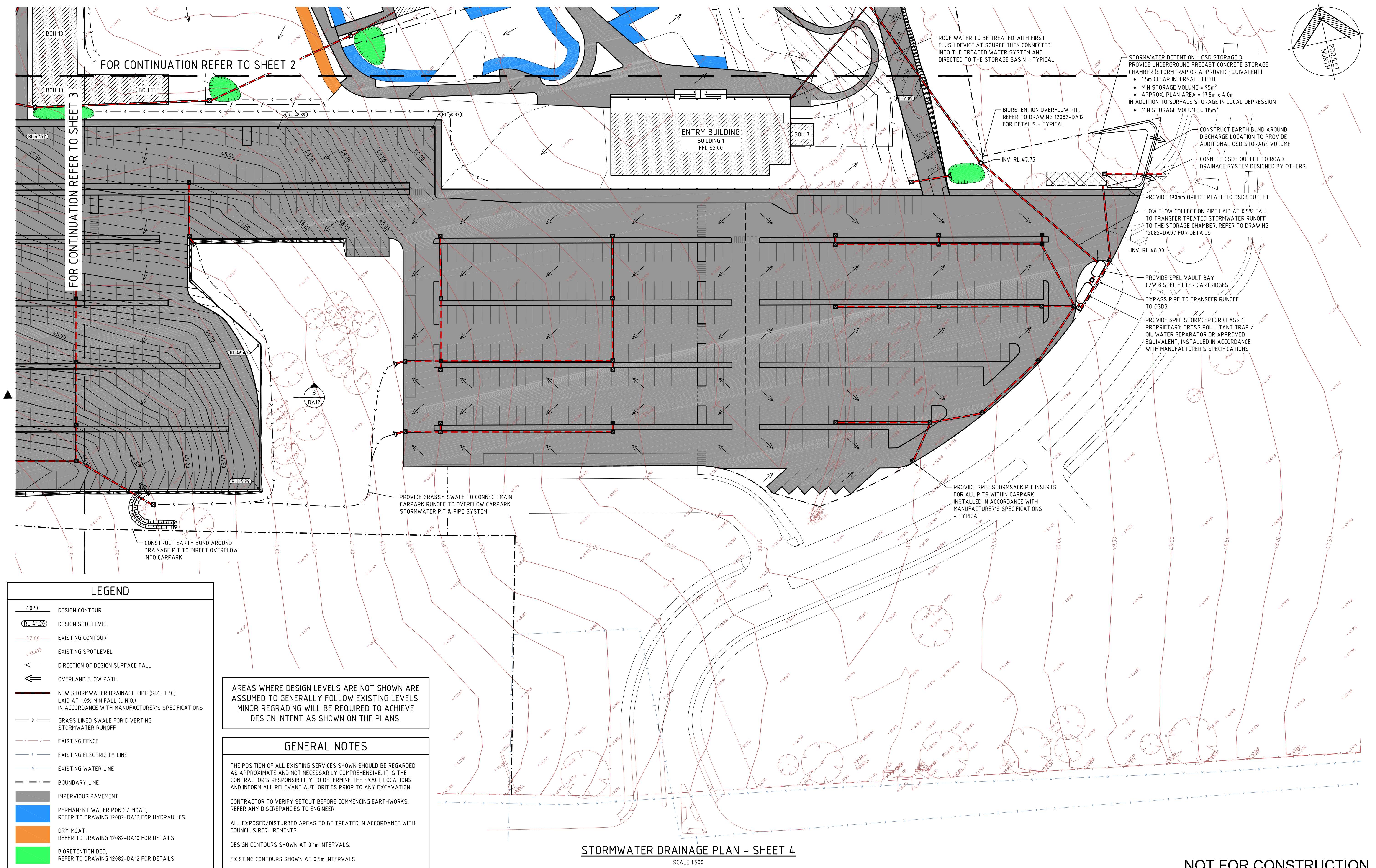
Central Coast

CLIENT	SYDNEY ZOO
TITLE	STORMWATER DRAINAGE PLAN SHEET 3

PROJECT	SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW
---------	--

DRAWING STATUS			SHEET SIZE
E.I.S. EXHIBITION			A1
DRAFTSMAN	DESIGNER	PROJ MANAGER	SCALE
J.Fraser	T.Walton	T.Walton	1:500
PROJECT REF No.		DRAWING No.	REVISION
12082		DA08	B

DO NOT SCALE - THIS DRAWING MAY BE A REDUCED COPY



LEGEND				
40.50	DESIGN CONTOUR			
RL 41.20	DESIGN SPOTLEVEL			
42.00	EXISTING CONTOUR			
38.973	EXISTING SPOTLEVEL			
	DIRECTION OF DESIGN SURFACE FALL			
	OVERLAND FLOW PATH			
	NEW STORMWATER DRAINAGE PIPE (SIZE TBC) LAID AT 1.0% MIN FALL (U.N.O.) IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS			
	GRASS LINED SWALE FOR DIVERTING STORMWATER RUNOFF			
	EXISTING FENCE			
	EXISTING ELECTRICITY LINE			
	EXISTING WATER LINE			
	BOUNDARY LINE			
	IMPERVIOUS PAVEMENT			
	PERMANENT WATER POND / MOAT, REFER TO DRAWING 12082-DA13 FOR HYDRAULICS			
	DRY MOAT, REFER TO DRAWING 12082-DA10 FOR DETAILS			
	BIORETENTION BED, REFER TO DRAWING 12082-DA12 FOR DETAILS			

AREAS WHERE DESIGN LEVELS ARE NOT SHOWN ARE ASSUMED TO GENERALLY FOLLOW EXISTING LEVELS. MINOR REGRADING WILL BE REQUIRED TO ACHIEVE DESIGN INTENT AS SHOWN ON THE PLANS.

THE POSITION OF ALL EXISTING SERVICES SHOWN SHOULD BE REGARDED AS APPROXIMATE AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS AND INFORM ALL RELEVANT AUTHORITIES PRIOR TO ANY EXCAVATION.

CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.

ALL EXPOSED/DISTURBED AREAS TO BE TREATED IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS.

DESIGN CONTOURS SHOWN AT 0.1m INTERVALS.
EXISTING CONTOURS SHOWN AT 0.5m INTERVALS.

STORMWATER DRAINAGE PLAN - SHEET 4
SCALE 1:500

NOT FOR CONSTRUCTION

REV	DATE	DRN	CHK	APP	DRAWING STATUS
B	03/12/15	JF			ISSUED FOR E.I.S. EXHIBITION
A	03/11/15	JF			TEST OF ADEQUACY
REV	DATE	DRN	CHK	APP	DRAWING STATUS

This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company

150 9001 - 2008
SUSTAINABLE CERTIFICATION
Endorsed
Quality
Management
System

member of
CONSULT AUSTRALIA

Copyright
Lindsay Dynan
as date of issue

SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

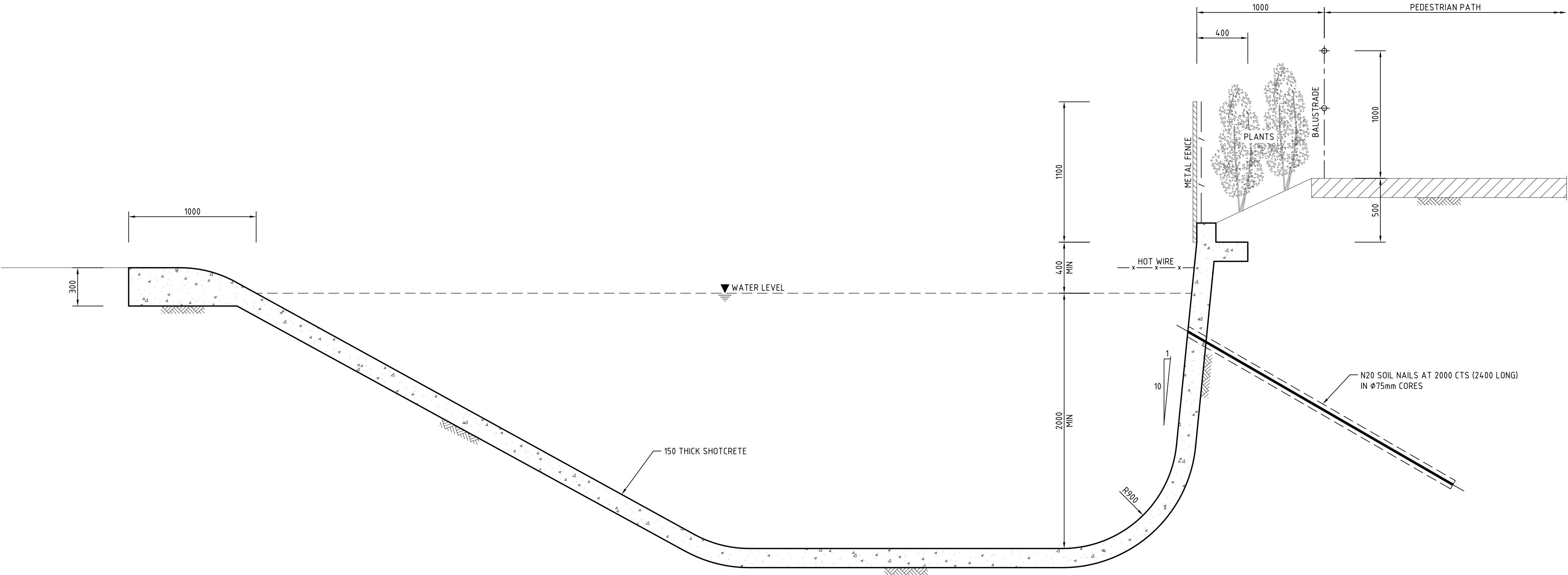
Sydney | Perth | Newcastle | Central Coast

CLIENT	SYDNEY ZOO
TITLE	STORMWATER DRAINAGE PLAN SHEET 4

PROJECT	SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW
---------	--

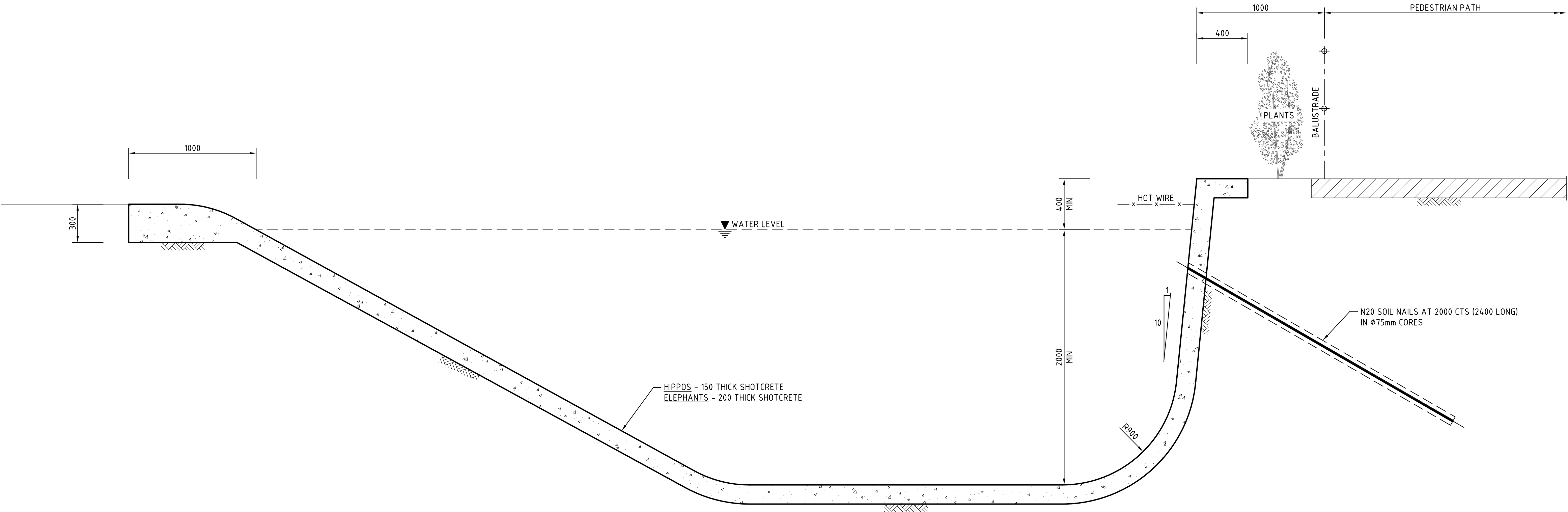
DRAWING STATUS	E.I.S. EXHIBITION	SHEET SIZE	A1
DRAFTSMAN	J.Fraser	DESIGNER	T.Walton
PROJ MANAGER	T.Walton	SCALE	1:500
PROJECT REF No.	12082	DRAWING No.	DA09
REVISION	B		

[illegible][illegible][illegible]



TYPICAL WET MOAT - TIGERS

SCALE 1:20



TYPICAL WET MOAT - HIPPO & ELEPHANT

SCALE 1:20

NOT FOR CONSTRUCTION

REVISIONS	REV	DATE	DRN	CHK	APP	DRAWING STATUS
	B	03/12/15	JF			ISSUED FOR E.I.S. EXHIBITION
	A	19/11/15	J.F.			ISSUED FOR COORDINATION



SUSTAINABLE
CERTIFICATION

- ISO 9001:2008
- Endorsed
- Quality
- Management
- System

This drawing is the property of
Lindsay Dynan
and must not be retained,
copied or used without
the consent of the company

Member of
CONSULT AUSTRALIA

Copyright
Lindsay Dynan
as date of issue



**Lindsay
Dynan**

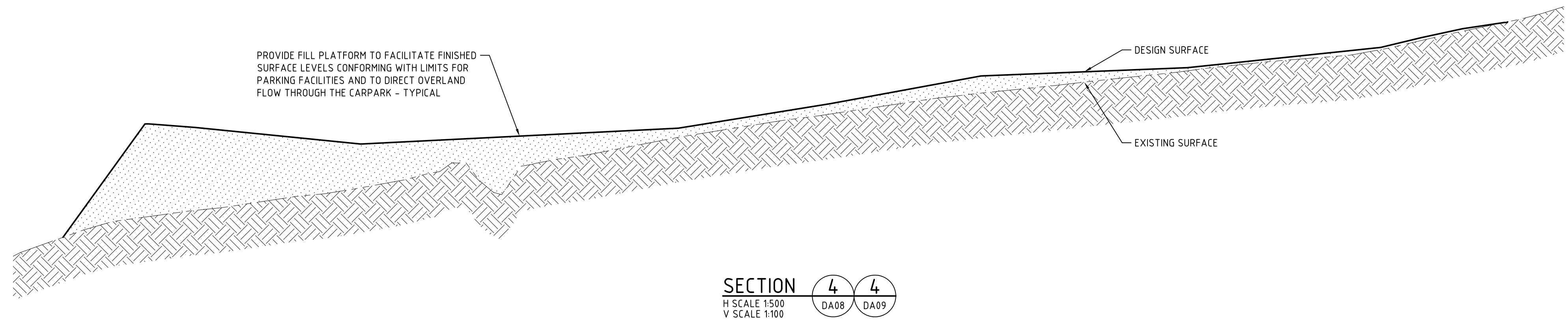
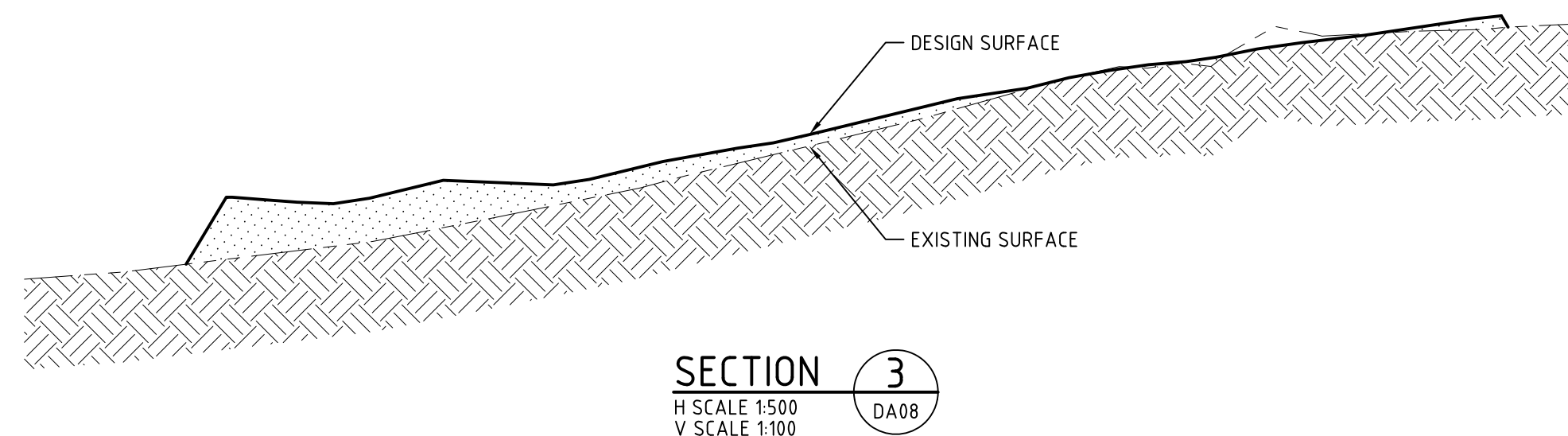
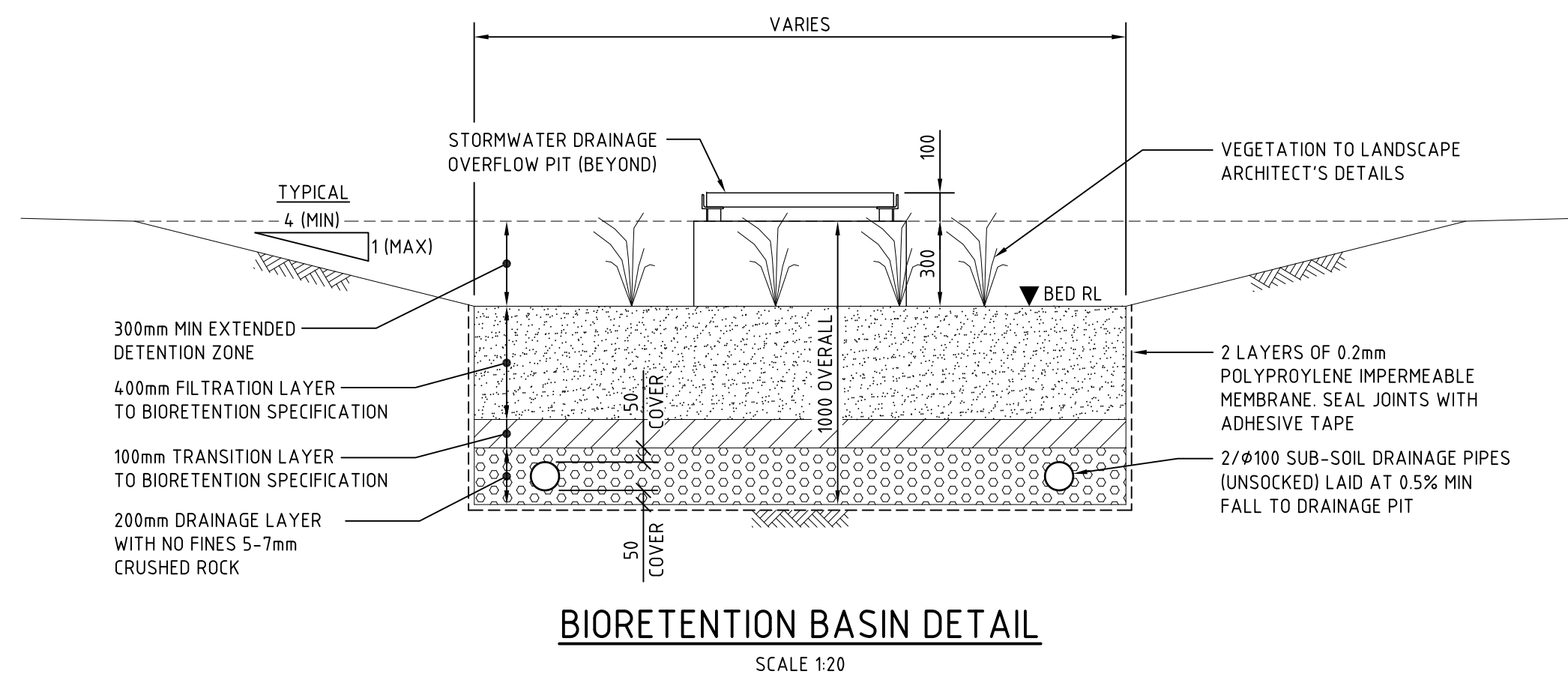
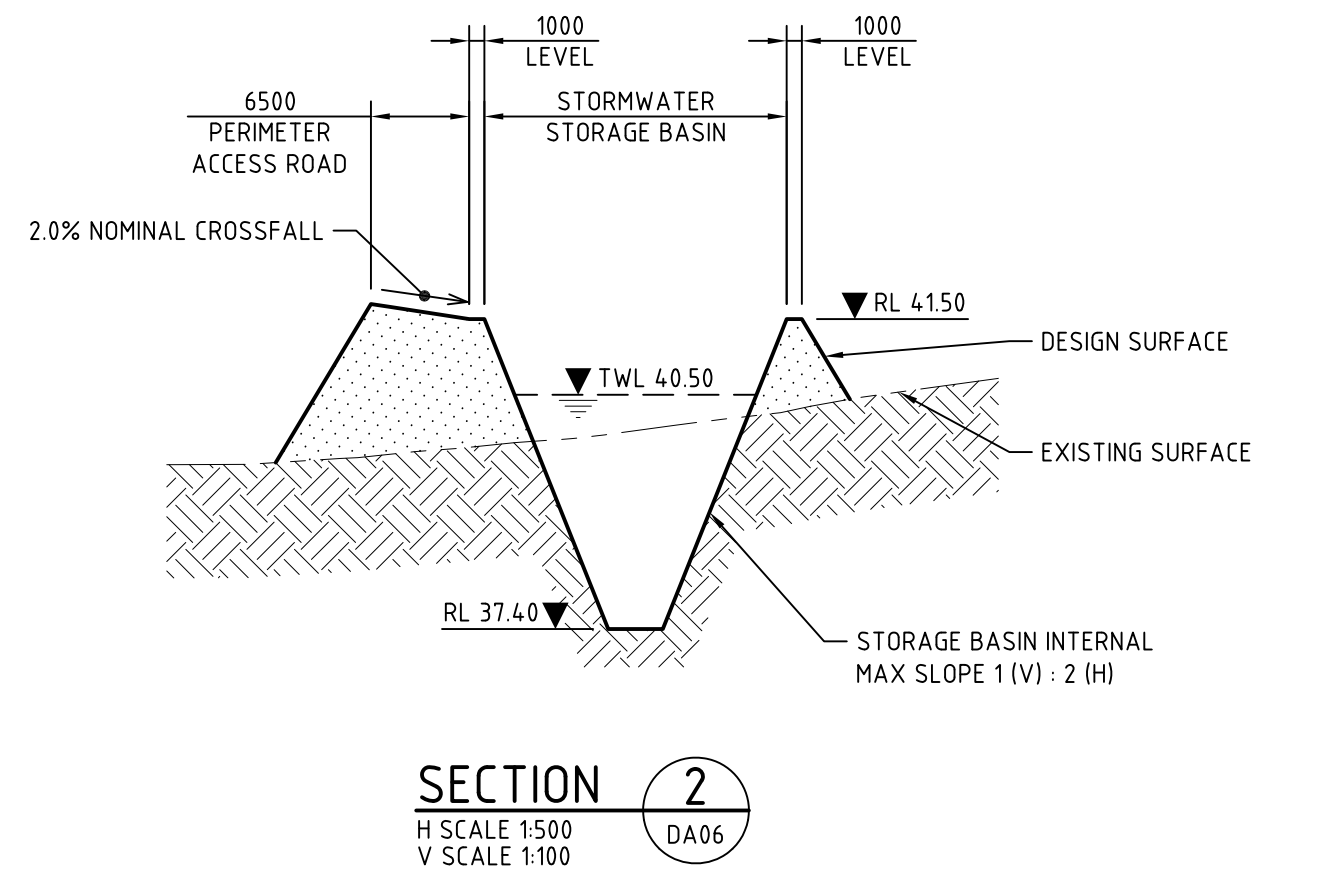
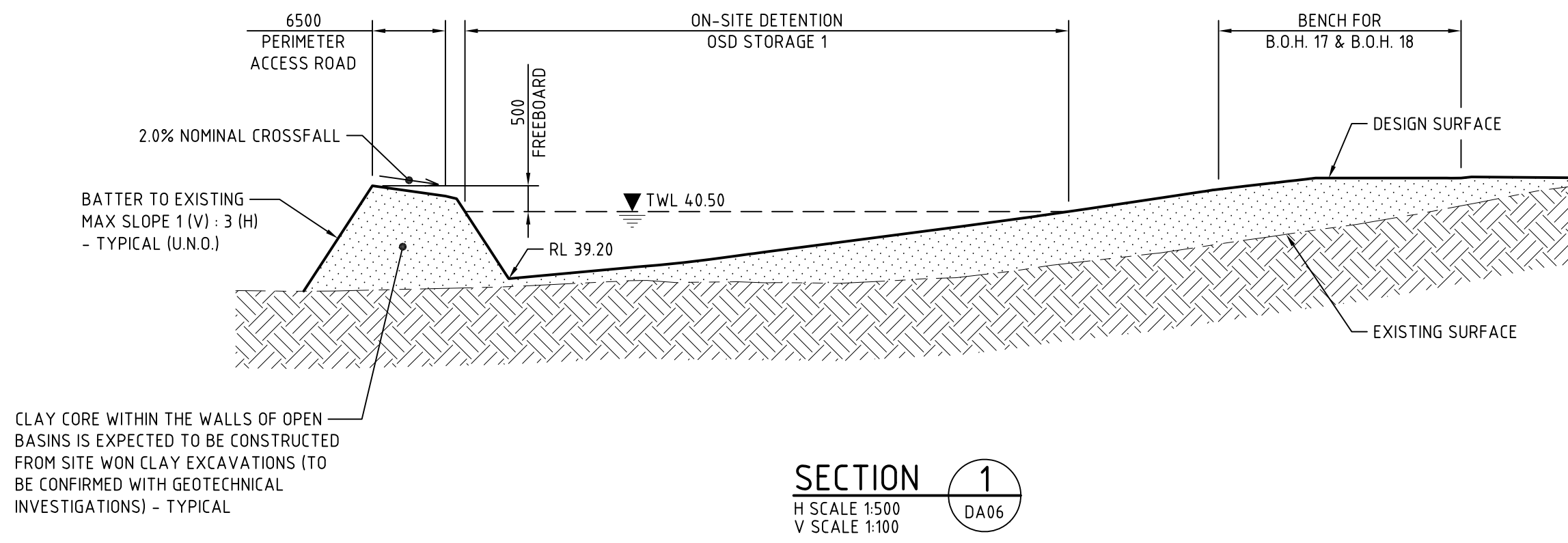
SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

Sydney | Perth | Newcastle | Central Coast

CLIENT	SYDNEY ZOO
TITLE	TYPICAL MOAT SECTIONS SHEET 2

PROJECT	SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW
---------	--

DRAWING STATUS			SHEET SIZE
E.I.S. EXHIBITION			A1
DRAFTSMAN	DESIGNER	PROJ MANAGER	SCALE
J.Fraser	T.Walton	T.Walton	1:20
PROJECT REF No.		DRAWING No.	REVISION
12082		DA11	B



BIORETENTION SPECIFICATION

FILTRATION LAYER IS TO COMPRISE OF A SANDY-LOAM MIXTURE DESIGNED TO PROVIDE ADEQUATE ORGANIC MATERIAL FOR VEGETATION/ ROOT GROWTH. MEDIA MUST MEET THE FOLLOWING SPECIFICATION-

- SATURATED HYDRAULIC CONDUCTIVITY = 125mm/hr
- TN CONTENT = 800mg/kg
- ORTHOPHOSPHATE CONTENT = 4.0mg/kg
- ORGANIC MATERIAL < 5%

TRANSITION LAYER IS TO COMPRISE OF CLEAN WELL GRADED MEDIUM TO COARSE SAND WITH MINIMAL FINES

DRAINAGE LAYER IS TO COMPRISE OF 5mm GRAVEL

REVISIONS						
B	03/12/15	JF				ISSUED FOR E.I.S. EXHIBITION
A	03/11/15	JF				TEST OF ADEQUACY
REV	DATE	DRN	CHK	APP		DRAWING STATUS



This drawing is the property of
Lindsay Dynan
and must not be retained,
copied or used without
the consent of the company



©
Copyright
Sandy Dynan
date of issue



SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynam.com.au
Web - www.lindsaydynam.com.au

Sydney | Perth | Newcastle | Central Coast

CLIENT	SYDNEY ZOO
TITLE	SITE SECTIONS

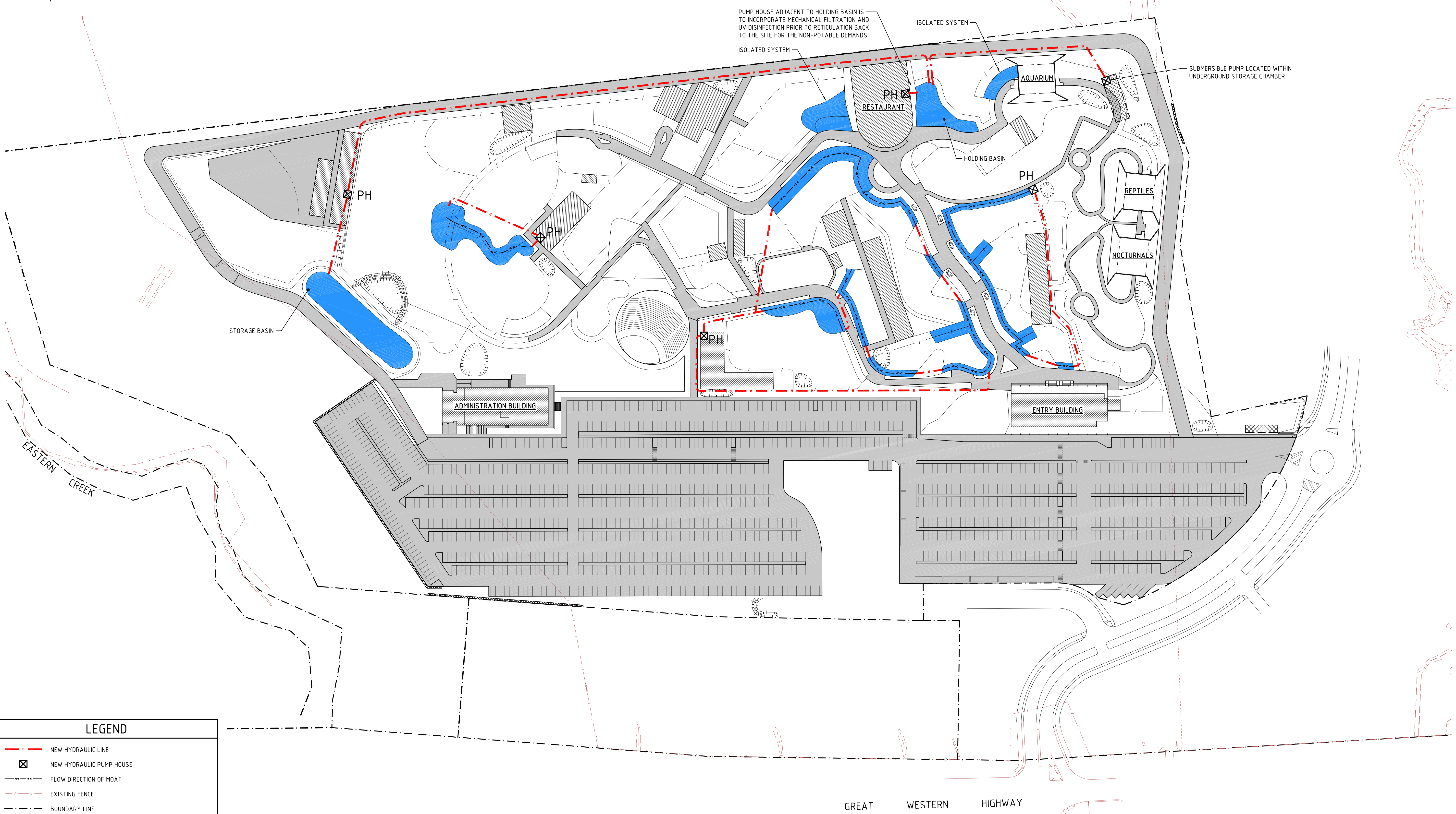
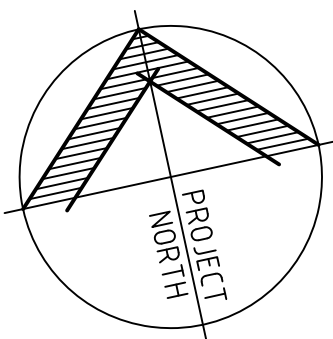
PROJECT

SYDNEY ZOO

CORNER OF DOONSIDE ROAD &
GREAT WESTERN HIGHWAY

BUNGARRIBEE, NSW

DRAWING STATUS			SHEET SIZE
E.I.S. EXHIBITION			A1
DRAFTSMAN	DESIGNER	PROJ. MANAGER	SCALE
J.Fraser	T.Walton	T.Walton	1:500
PROJECT REF No.		DRAWING No.	REVISION
12082		DA12	B



HYDRAULIC SERVICES PLAN

SCALE 1:1000

NOT FOR CONSTRUCTION

LEGEND					
	NEW HYDRAULIC LINE				
	NEW HYDRAULIC PUMP HOUSE				
	FLOW DIRECTION OF MOAT				
	EXISTING FENCE				
	BOUNDARY LINE				
	IMPERVIOUS PAVEMENT				
	PERMANENT WATER POND / MOAT				

REVISIONS					
B	03/12/15	JF			ISSUED FOR E.I.S. EXHIBITION
A	03/11/15	JF			TEST OF ADEQUACY
REV	DATE	DRN	CHK	APP	DRAWING STATUS



This drawing is the property of Lindsay Dynan and must not be retained, copied or used without the consent of the company

Member of
CONSULT AUSTRALIA

©
Copyright
Lindsay Dynan
as date of issue



Lindsay Dynan

SYDNEY
Suite 2, Level 10, 71 Macquarie Street Sydney NSW 2000
Phone - 02 8248 5500 Facsimile - 02 9251 6689
Email - mail@lindsaydynan.com.au
Web - www.lindsaydynan.com.au

Sydney | Perth | Newcastle | Central Coast

CLIENT	SYDNEY ZOO
TITLE	HYDRAULIC SERVICES PLAN

PROJECT	SYDNEY ZOO CORNER OF DOONSIDE ROAD & GREAT WESTERN HIGHWAY BUNGARRIBEE, NSW
---------	--

DRAWING STATUS			SHEET SIZE
E.I.S. EXHIBITION			A1
DRAFTSMAN J.Fraser	DESIGNER T.Walton	PROJ MANAGER T.Walton	SCALE 1:1000
PROJECT REF No. 12082		DRAWING No. DA13	REVISION B