



CELESTINO DEVELOPMENTS



SYDNEY SCIENCE PARK BULK EARTHWORKS

DEVELOPMENT APPLICATION

DRAWING SCHEDULE

DRAWING NUMBER	DESCRIPTION
180001-P1BE-DA-C01.01	COVER SHEET AND DRAWING SCHEDULE
180001-P1BE-DA-C01.21	GENERAL NOTES AND LEGEND
180001-P1BE-DA-C01.41	GENERAL ARRANGEMENT PLAN
180001-P1BE-DA-C03.01	EROSION AND SEDIMENTATION CONTROL PLAN - SHEET 01
180001-P1BE-DA-C03.02	EROSION AND SEDIMENTATION CONTROL PLAN - SHEET 02
180001-P1BE-DA-C03.21	EROSION AND SEDIMENTATION CONTROL DETAILS
180001-P1BE-DA-C03.51	SALINITY MANAGEMENT PLAN
180001-P1BE-DA-C04.01	CUT AND FILL PLAN
180001-P1BE-DA-C04.21	SITE SECTIONS - SHEET 01
180001-P1BE-DA-C04.22	SITE SECTIONS - SHEET 02
180001-P1BE-DA-C04.23	SITE SECTIONS - SHEET 03
180001-P1BE-DA-C04.24	SITE SECTIONS - SHEET 04
180001-P1BE-DA-C04.25	SITE SECTIONS - SHEET 05
180001-P1BE-DA-C04.26	SITE SECTIONS - SHEET 06
180001-P1BE-DA-C04.27	SITE SECTIONS - SHEET 07
180001-P1BE-DA-C04.28	SITE SECTIONS - SHEET 08
180001-P1BE-DA-C05.01	BULK EARTHWORKS PLAN - SHEET 01
180001-P1BE-DA-C05.02	BULK EARTHWORKS PLAN - SHEET 02

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH

Client



SYDNEY SCIENCE PARK
CELESTINO

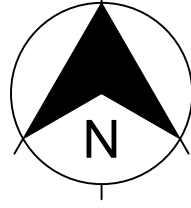
Scale



0 200 400 600 800 1000m
SCALE 1:10000 @A1

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Scale 1:10000	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 18/11/2019	Project Number/Drawing Number 180001-P1BE-DA-C01.01
Size A1	Revision 3
Datum AHD	

1. THE CONTRACTOR SHALL COMPLY WITH ALL STATUTORY AND INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING TRAFFIC CONTROL.
2. THE CONTRACTOR SHALL PROVIDE TRAFFIC MANAGEMENT PLANS FOR THE PROPOSED WORKS COMPLETED BY A SUITABLY QUALIFIED PERSON AND APPROVED BY COUNCIL / REGULATORY AUTHORITY. WORK IS NOT TO COMMENCE ON SITE PRIOR TO APPROVAL OF TRAFFIC MANAGEMENT SCHEME.
3. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES ACCESS TO BUILDINGS ADJACENT THE WORKS IS NOT DISRUPTED.
4. WHERE NECESSARY THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND/OR PEDESTRIANS THROUGH OR BY THE SITE.
5. THE CONTRACTOR SHALL ENSURE PUBLIC ACCESS EXTERNAL TO THE SITE IS IN ACCORDANCE WITH COUNCILS REQUIREMENTS.

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN SUPPLIED BY REGISTERED SURVEYORS TO PROVIDE A BASIS FOR DESIGN. THE USE OF THIS SURVEY BASE DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
1. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT THE DESIGN ENGINEER.
2. THE RELATIONSHIP OF IMPROVEMENTS TO BOUNDARIES ARE DIAGRAMMATIC ONLY. WHERE DISTANCES TO BOUNDARIES ARE CRITICAL THEY SHOULD BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION BY FURTHER SURVEY.

1. ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIAL BEFORE YOU DIG SEARCHES, THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE AND CONFIRM THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE PRINCIPALS REPRESENTATIVE. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY. NOTE SERVICE AUTHORITY REQUIREMENTS FOR LOCATING OF SERVICES PRIOR TO COMMENCEMENT OF WORKS.
2. CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS.
3. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS. ANY AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE PRINCIPALS REPRESENTATIVE AT THE CONTRACTORS EXPENSE.
4. THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR THE ADJUSTMENT (IF REQUIRED) OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS.
5. THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR THE CAPPING OFF EXCAVATION AND REMOVAL (IF REQUIRED) OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS UNLESS DIRECTED OTHERWISE ON THE DRAWINGS OR BY THE PRINCIPALS REPRESENTATIVE.
6. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED AND MAINTAINED.
7. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN APPROVAL OF THE PROGRAM FROM THE RELEVANT AUTHORITY AND PRINCIPALS REPRESENTATIVE FOR THE RELOCATION AND/OR CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY.
8. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SUPERINTENDENT. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE PRINCIPALS REPRESENTATIVE.

1. THE SEDIMENT & EROSION CONTROL PLAN PRESENTS CONCEPTS ONLY. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME TO COUNCILS SATISFACTION, OTHER REGULATORY AUTHORITY REQUIREMENTS AND PAY ALL FEES.
2. THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH STATUTORY REQUIREMENTS AND IN PARTICULAR THE 'BLUE BOOK' (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION), PRODUCED BY LANDCOM AND COUNCILS POLICIES. THESE MEASURES ARE TO BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
3. THE CONTRACTOR SHALL INFORM ALL SUB CONTRACTORS OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
4. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - 4.1. CONSTRUCT TEMPORARY STABILISED SITE ACCESS INCLUSIVE OF SHAKE DOWN / WASH PAD.
 - 4.2. INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES, WHERE FENCES ADJACENT EACH OTHER, THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER FENCE.
 - 4.3. INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THE APPROVED PLANS.
5. UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.
6. AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL ENSURING CONFORMITY TO REGULATORY AUTHORITY REQUIREMENTS.
7. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) SHALL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
8. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT BEING FILTERED OUT.
9. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.
10. ALLOW FOR GRASS STABILISATION OF EXPOSED AREAS, OPEN CHANNELS AND BATTERS ON COMPLETION OF CONSTRUCTION.
11. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING RAIN EVENTS.
12. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. CONTRACTOR TO PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.
13. IF A TEMPORARY SEDIMENT BASIN IS REQUIRED, ENSURE SAFE BATTER SLOPES IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. MAINTAIN ADEQUATE STORAGE VOLUME IN ACCORDANCE WITH PLANS. TEMPORARILY PUMP 'CLEAN FLOCULATED' WATER FOR SITE DUST CONTROL. WHERE APPROVED BY COUNCIL, PUMPED WATER MAY BE DISCHARGED TO COUNCIL'S STORMWATER SYSTEM. ENSURE WHOLE SITE RUN-OFF IS DIRECTED TO TEMPORARY SEDIMENT BASIN.

AT THE COMMENCEMENT OF FILLING OPERATIONS FOR BULK EARTHWORKS A GEOTECHNICAL ENGINEER IS TO VISIT THE SITE & CONFIRM THE SUITABILITY OF THE METHODOLOGY OF ACHIEVING THE REQUIRED COMPACTION REQUIREMENTS.

2. STRIP TOPSOIL, VEGETABLE MATTER AND RUBBLE TO EXPOSE NATURALLY OCCURRING MATERIAL AND STOCKPILE ON SITE AS DIRECTED BY THE PRINCIPALS REPRESENTATIVE.

3. WHERE FILLING IS REQUIRED TO ACHIEVE DESIGN SUBGRADE, PROOF ROLL EXPOSED NATURAL SURFACE WITH A MINIMUM OF TEN PASSES OF A NON-VIBRATING/STATIC ROLLER (MINIMUM STATIC WEIGHT OF 10 TONNES) IN THE PRESENCE OF THE PRINCIPALS REPRESENTATIVE.

4. THE CONTRACTOR IS TO ALLOW FOR A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO PROVIDE ADVICE AND CERTIFICATION OF ANY WORKS ASSOCIATED WITH TREATING OR MANAGING UNSUITABLE GROUND CONDITIONS THROUGHOUT THE CONTRACT (e.g. STABILITY OF EXCAVATIONS, POOR SUBGRADE, etc).

5. ALL SOFT, WET OR UNSUITABLE MATERIAL IS TO BE REMOVED AS DIRECTED BY THE PRINCIPALS REPRESENTATIVE AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS BELOW.

6. PROVIDE CERTIFICATES VERIFYING THE QUALITY OF IMPORTED MATERIAL FOR THE PRINCIPALS REPRESENTATIVE APPROVAL.

7. ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200mm THICK LAYERS (LOOSE) AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS1289 2.1.1, AS1289 5.7.1 AND AS1289 5.8.8 OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY;

LOCATION	COMPACTION REQUIREMENT
LANDSCAPED AREAS	95% SMDD
ROADS	100% SMDD (IN ACCORDANCE WITH COUNCIL SPECIFICATIONS)
PAVED AREAS	100% SMDD (IN ACCORDANCE WITH COUNCIL SPECIFICATIONS)

8. TESTING OF THE SUBGRADE FOR BUILDINGS SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. REGISTERED LABORATORY.

9. ALLOW THE FOLLOWING COMPACTION TESTING BY N.A.T.A. REGISTERED LABORATORY FOR PLATFORMS AND FILL LAYERS IN ACCORDANCE WITH THE LATEST VERSION OF AS3798, (MINIMUM 3 TESTS PER LAYER) OR 1 TEST PER MATERIAL TYPE PER 2500sq m.

10. WHERE TEST RESULTS ARE BELOW THE SPECIFIED COMPACTION, RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION STANDARDS ARE ACHIEVED, OTHERWISE SUBGRADE REPLACEMENT IS REQUIRED IF COMPACTION STANDARDS ARE NOT ACHIEVED.

11. ALLOW FOR EXCAVATION IN ALL MATERIALS AS FOUND U.N.O. NO ADDITIONAL PAYMENTS WILL BE MADE FOR EXCAVATION IN WET OR HARD GROUND.

12. WHERE THERE IS INSUFFICIENT EXCAVATED MATERIAL SUITABLE FOR FILLING OR SUBGRADE REPLACEMENT, THE CONTRACTOR IS TO ALLOW TO IMPORT FILL. IMPORTED FILL SHALL COMPLY WITH THE FOLLOWING;

12.1. BE OF VIRGIN EXCAVATED NATURAL MATERIAL OR

12.2. CONTRACTOR TO PROVIDE EVIDENCE IMPORT IS SUITABLE USE

12.3. PLASTICITY INDEX BETWEEN 2-15% AND CR > 8

12.4. FREE FROM ORGANIC AND DELETERIOUS MATTER

12.5. MAXIMUM SIZE 50mm, PASSING 75 MICRON SIEVE (<25%)

13. THE CONTRACTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLERS MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED AT THEIR COST.

14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE AND MAINTAIN THE INTEGRITY OF ALL SERVICES, CONDUITS AND PIPES DURING CONSTRUCTION, SPECIFICALLY DURING THE BACKFILLING AND COMPACTION PROCEDURE. ANY AND ALL DAMAGE TO NEW OR EXISTING SERVICES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PRINCIPALS REPRESENTATIVE.

15. TESTING OF THE SUBGRADE SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. REGISTERED LABORATORY AT THE CONTRACTORS EXPENSE.

DEEP EXCAVATIONS

16. PRIOR TO THE COMMENCEMENT OF EXCAVATION WORKS GREATER THAN 1.5m IN DEPTH, THE CONTRACTOR SHALL CONFIRM WITH A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO DETERMINE THE STABILITY OF A NATURAL MATERIAL AND BENCHING REQUIREMENTS.

17. THE CONTRACTOR MUST PROVIDE THE PRINCIPALS REPRESENTATIVE AND THE DESIGN ENGINEER WITH A COPY OF THE GEOTECHNICAL ENGINEERS REPORT.

18. THE CONTRACTOR IS TO PROVIDE SAFETY BARRIERS / FENCING IN ACCORDANCE WITH OH&S AND REGULATORY AUTHORITY REQUIREMENTS.

SERVICES TRENCHES

19. SAWCUT EXISTING SURFACES PRIOR TO EXCAVATION. BACKFILL ALL TRENCHES UNDER EXISTING ROADS, PAVEMENTS AND PATHS WITH STABILISED SAND 5% CEMENT OR DGS40 MATERIAL (100% SMDD) COMPACTED IN 200mm THICK LAYERS TO 98% MMDD TO UNDERSIDE OF PAVEMENT.

20. BACKFILL ALL TRENCHES NOT UNDER ROADS, PAVEMENTS, PATHS AND BUILDINGS WITH APPROVED EXCAVATED OR IMPORTED MATERIAL COMPACTED TO 95% SMDD.

ITEM	EXISTING	PROPOSED	FUTURE
SITE BOUNDARY			
SITE FENCE			
CONTOUR	50.00	50.00	50.00
BATTER			
REDUCED LEVEL	● RL. 10.00	● RL. 10.00	● RL. 10.00
INVERT LEVEL	● IL. 10.00	● IL. 10.00	● IL. 10.00
SWALE DRAIN			

[illegible]

Scale	North
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Project
SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION
Title
GENERAL NOTES AND LEGEND

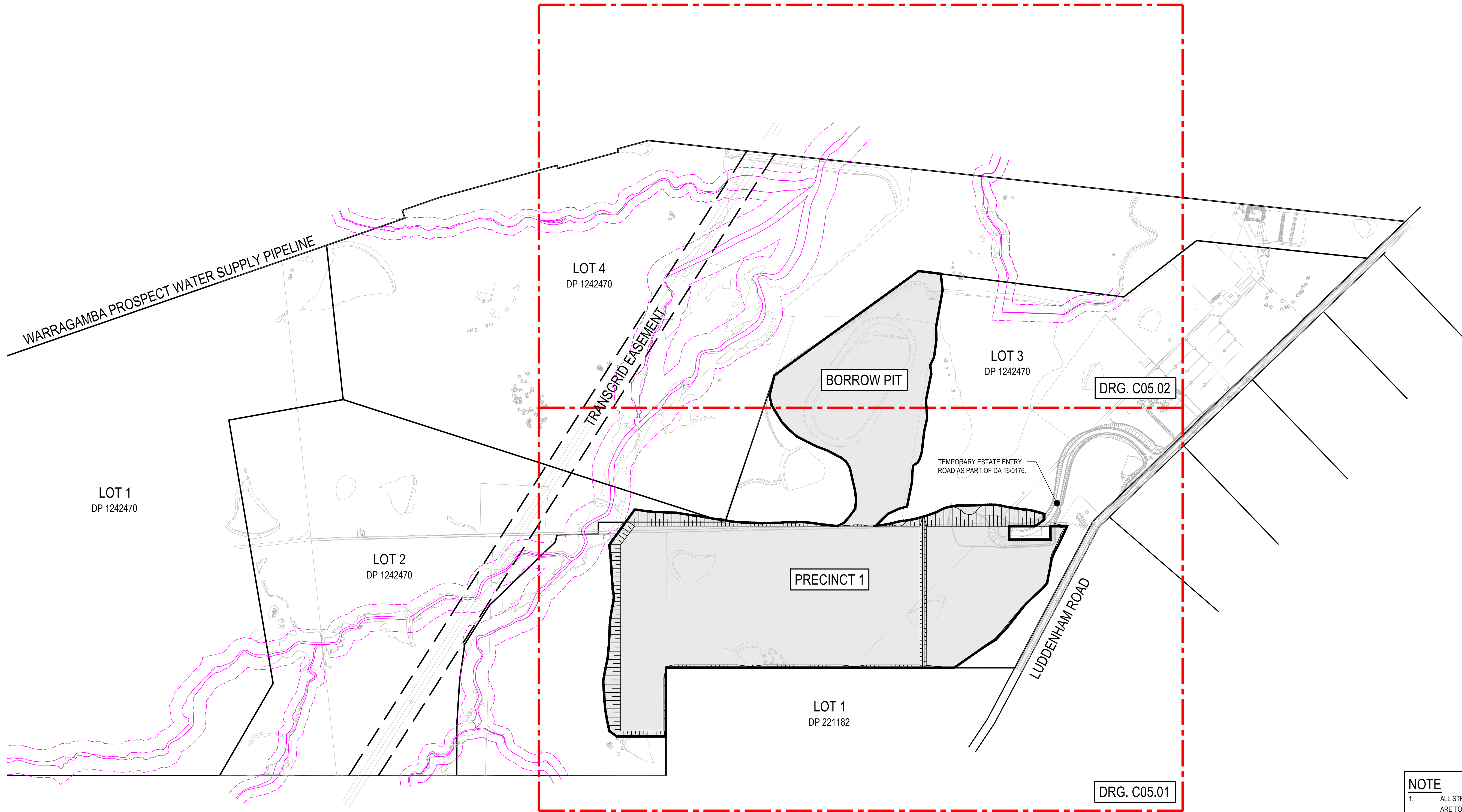
Scale	N.T.S
Date	18/11/2019
Size	A1
Datum	AHD

Status

FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number	Revision
180001-P1BE-DA-C01.21	2

Revision 2 DATE PLOTTED: 21 January 2020 11:43 AM BY : SHAWN HOTONG



NOTE
1. ALL STRUCTURES AND VEGETATION WITHIN THE WORKS ARE TO BE DEMOLISHED AND DISPOSED OF OFFSITE.

LEGEND	
	SYDNEY SCIENCE PARK BOUNDARY
	EARTHWORKS BOUNDARY (THIS APPLICATION)
	EXISTING RIPARIAN CORRIDOR

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH

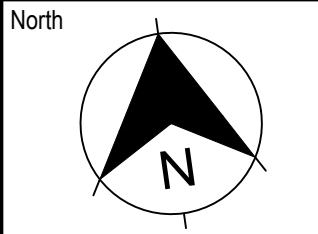
Client



SYDNEY SCIENCE PARK
CELESTINO



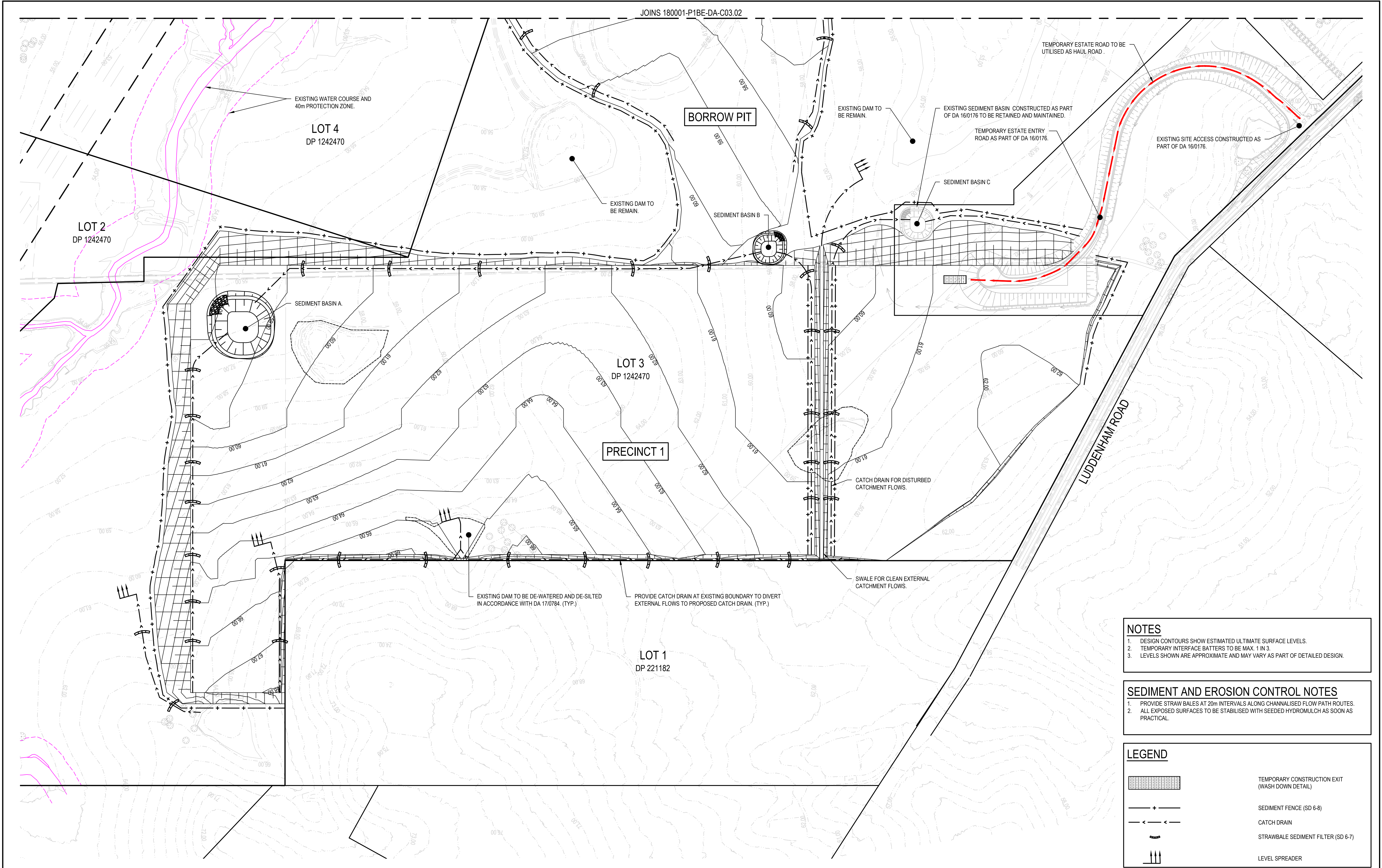
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Project SYDNEY SCIENCE PARK BULK EARTHWORKS DEVELOPMENT APPLICATION	Scale 1:5000 Date 18/11/2019
Title GENERAL ARRANGEMENT PLAN	Size A1 Datum AHD

Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	Project Number/Drawing Number 180001-P1BE-DA-C01.41	Revision 3
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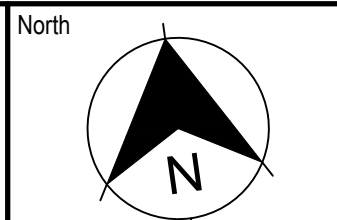


- NOTES**
- DESIGN CONTOURS SHOW ESTIMATED ULTIMATE SURFACE LEVELS.
 - TEMPORARY INTERFACE BATTERS TO BE MAX. 1 IN 3.
 - LEVELS SHOWN ARE APPROXIMATE AND MAY VARY AS PART OF DETAILED DESIGN.

- SEDIMENT AND EROSION CONTROL NOTES**
- PROVIDE STRAW BALES AT 20m INTERVALS ALONG CHANNELISED FLOW PATH ROUTES.
 - ALL EXPOSED SURFACES TO BE STABILISED WITH SEEDED HYDROMULCH AS SOON AS PRACTICAL.

- LEGEND**
- TEMPORARY CONSTRUCTION EXIT (WASH DOWN DETAIL)
 - SEDIMENT FENCE (SD 6-8)
 - CATCH DRAIN
 - STRAWBALE SEDIMENT FILTER (SD 6-7)
 - LEVEL SPREADER

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	23/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH

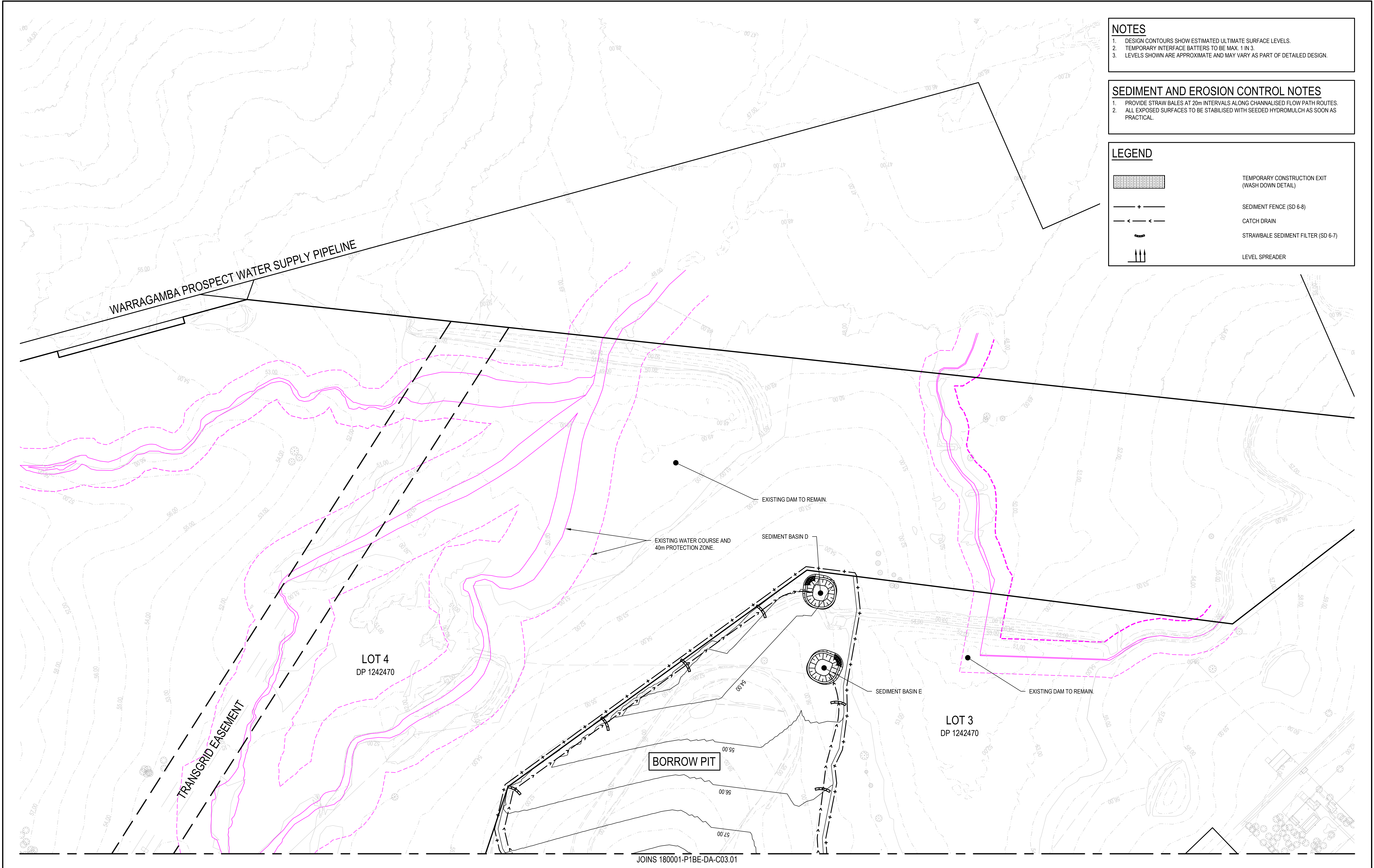


Project
SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title
EROSION AND SEDIMENTATION CONTROL PLAN

SHEET 01

Scale 1:2000	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 18/11/2019	Project Number/Drawing Number 180001-P1BE-DA-C03.01
Size A1	Revision 4
Datum AHD	



NOTES

- DESIGN CONTOURS SHOW ESTIMATED ULTIMATE SURFACE LEVELS.
- TEMPORARY INTERFACE BATTERS TO BE MAX. 1 IN 3.
- LEVELS SHOWN ARE APPROXIMATE AND MAY VARY AS PART OF DETAILED DESIGN.

SEDIMENT AND EROSION CONTROL NOTES

- PROVIDE STRAW BALES AT 20m INTERVALS ALONG CHANNELISED FLOW PATH ROUTES.
- ALL EXPOSED SURFACES TO BE STABILISED WITH SEEDED HYDROMULCH AS SOON AS PRACTICAL.

LEGEND

	TEMPORARY CONSTRUCTION EXIT (WASH DOWN DETAIL)
	SEDIMENT FENCE (SD 6-8)
	CATCH DRAIN
	STRAWBALE SEDIMENT FILTER (SD 6-7)
	LEVEL SPREADER

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH

Client

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CELESTINO

Scale

0 50 100 150 200m

SCALE 1:2000 @A1

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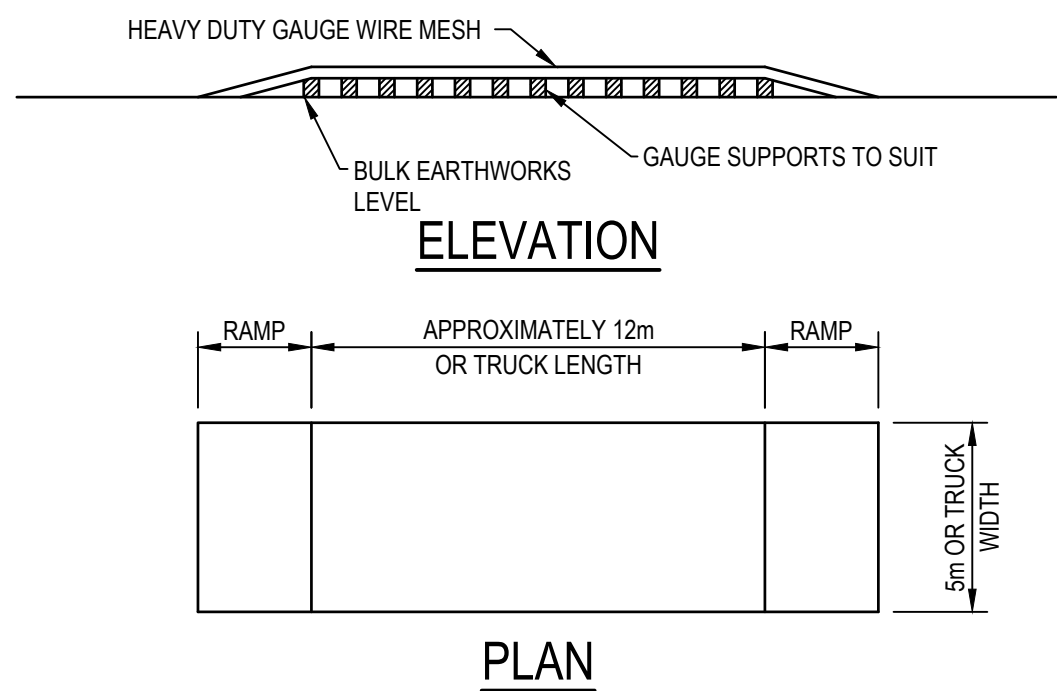
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Project
SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title
EROSION AND SEDIMENTATION CONTROL PLAN

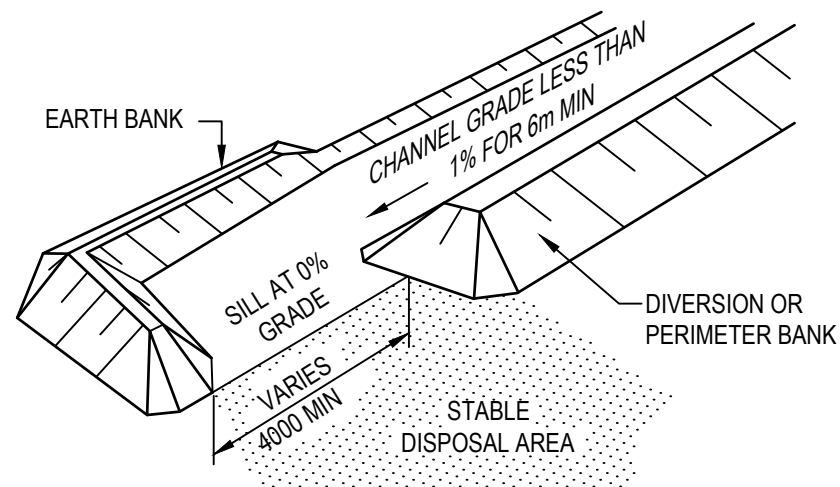
SHEET 02

Scale 1:2000	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 18/11/2019	Project Number/Drawing Number 180001-P1BE-DA-C03.02
Size A1	Revision 3
Datum AHD	

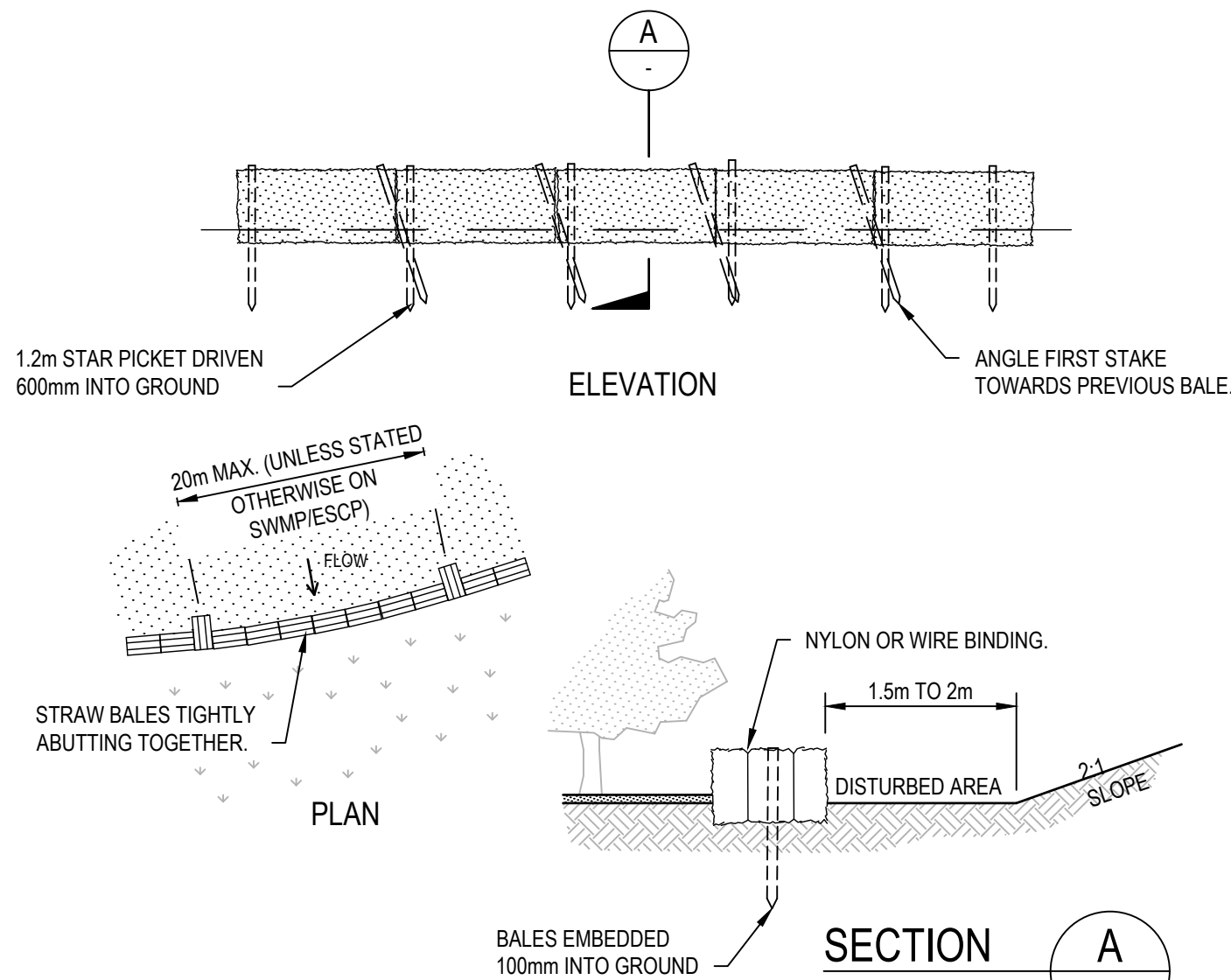


**TEMPORARY CONSTRUCTION EXIT
(WASH DOWN DETAIL)**
NOT TO SCALE

THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE REPAIR AND OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.



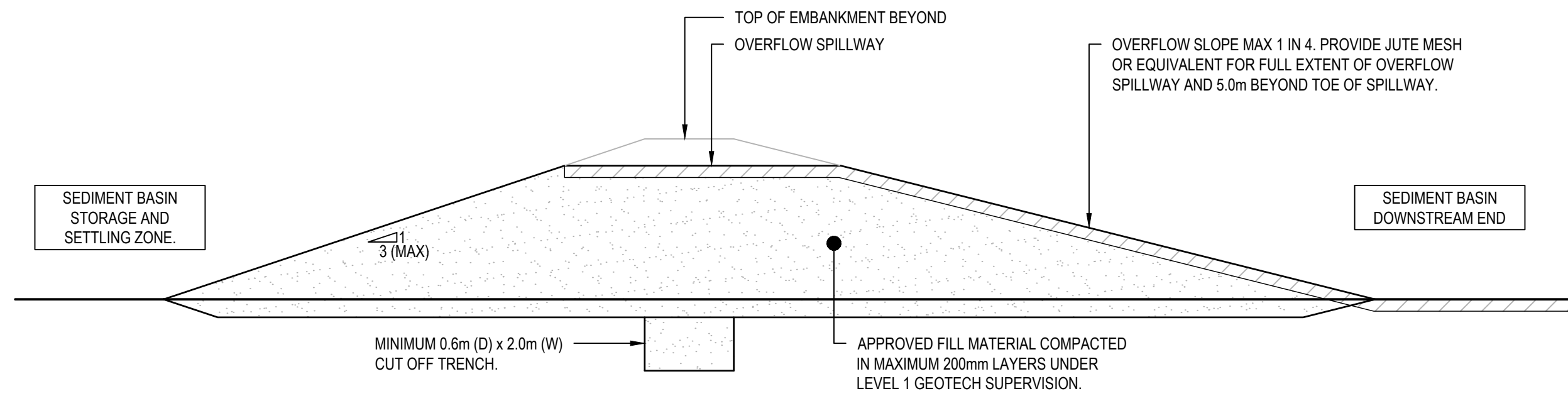
LEVEL SPREADER
NOT TO SCALE



CONSTRUCTION NOTES

1. CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
3. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
4. EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METRES DOWNSLOPE FROM THE TOE.
6. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

STRAW BALE FILTER (SD 6-7)

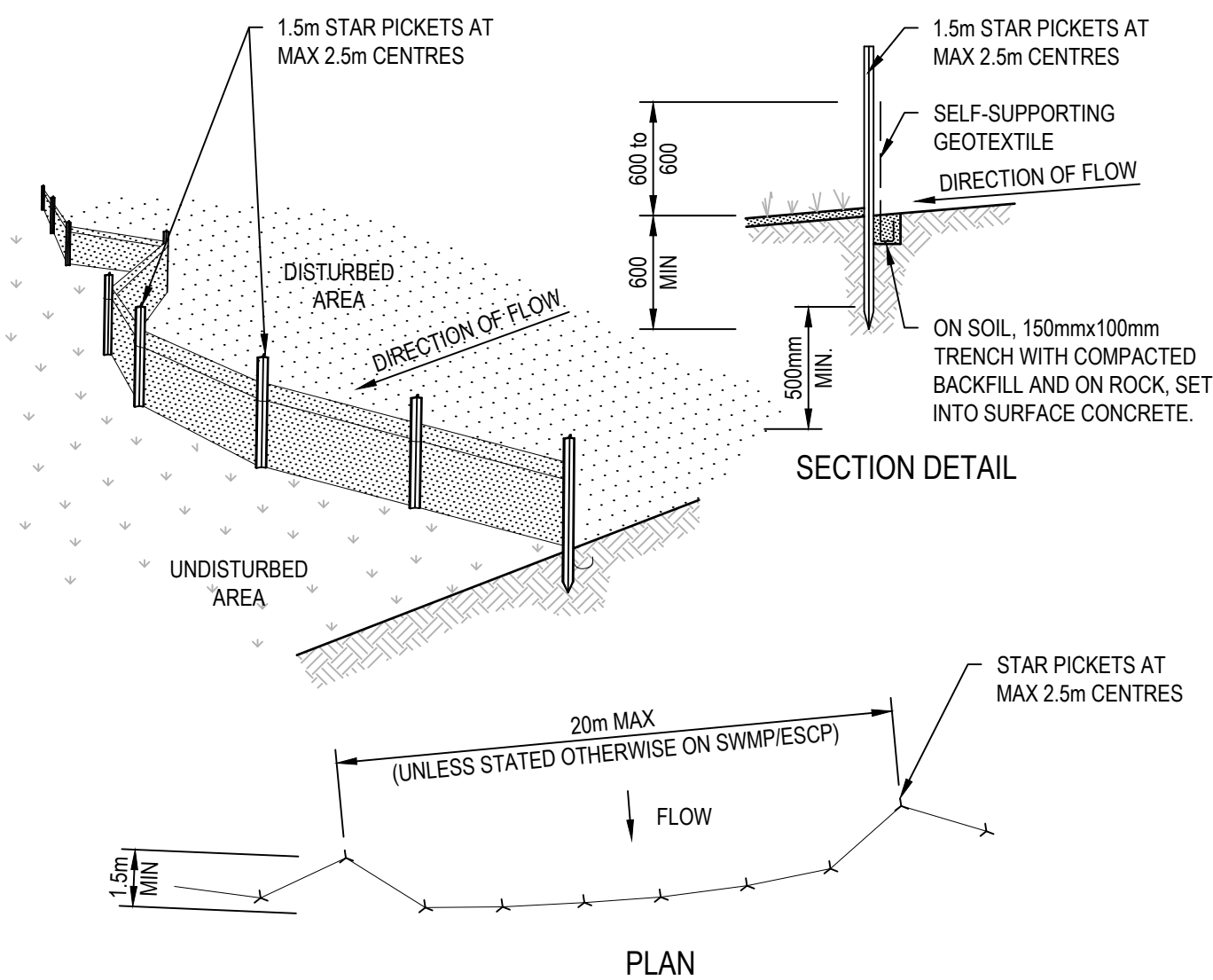


TYPICAL SEDIMENT BASIN EMBANKMENT DETAIL
NOT TO SCALE

SEDIMENT BASIN CALCULATIONS				
BASIN	AREA (ha)	SETTLING ZONE (m³)	STORAGE ZONE (m³)	TOTAL (m³)
A	19.69	2,167	1,083	3,250
B	10.89	1,198	599	1,797
C	9.32	1,026	513	1,539
D	6.89	785	379	1,137
E	7.51	826	431	1,239

NOTES:

1. SETTLING ZONE VOLUME = $10 \times C_v \times A \times R_v$
2. STORAGE ZONE VOLUME = SETTLING ZONE VOLUME $\times 0.5$
3. C_v = 0.50
 R_v = 21.80
4. VOLUMES CALCULATED ARE MAXIMUM BASIN VOLUMES. EARTHWORKS SHOULD BE UNDERTAKEN IN STAGES TO REDUCE LAND DISTURBANCE AT ANY ONE TIME TO MINIMISE REQUIRED SEDIMENT BASIN VOLUMES. BASIN VOLUMES AND ARRANGEMENT TO BE REFINED DURING DETAILED DESIGN.



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE (SD 6-8)

REV.	DATE	DESCRIPTION	BML	SHH	MKH	SHH
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION				



Scale: North

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Project: SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title: EROSION AND SEDIMENTATION CONTROL DETAILS

Scale	Status
N.T.S	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date	Revision
18/11/2019	1
Size	Project Number/Drawing Number
A1	180001-P1BE-DA-C03.21
Datum	
AHD	



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH

Client

SYDNEY SCIENCE PARK

CELESTINO

Scale

0 100 200 300 400m

SCALE 1:4000 @A1

North

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Project
SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title
SALINITY MANAGEMENT PLAN

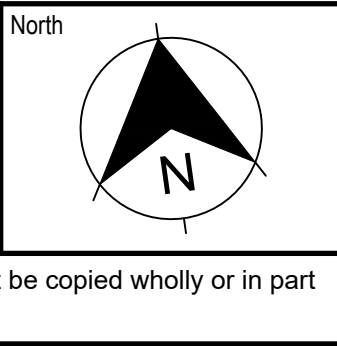
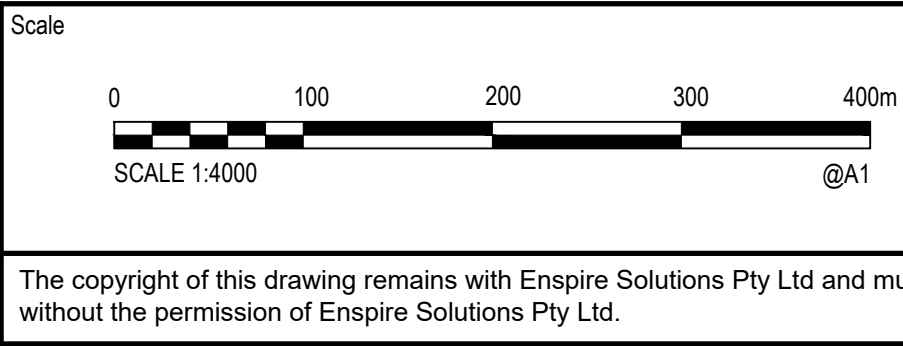
Scale 1:4000	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 18/11/2019	Project Number/Drawing Number 180001-P1BE-DA-C03.51
Size A1	Revision 3
Datum AHD	



NOTE:
CUT AND FILL SHOWN IS BASED ON ULTIMATE DESIGN LEVELS TO EXISTING SURFACE.

CUT AND FILL LEGEND:	
	GREATER THAN 7.0m CUT
	6.0m TO 7.0m CUT
	5.0m TO 6.0m CUT
	4.0m TO 5.0m CUT
	3.0m TO 4.0m CUT
	2.0m TO 3.0m CUT
	1.0m TO 2.0m CUT
	0.0m TO 1.0m CUT
	0.0m TO 1.0m FILL
	1.0m TO 2.0m FILL
	2.0m TO 3.0m FILL
	3.0m TO 4.0m FILL
	4.0m TO 5.0m FILL
	GREATER THAN 5.0m FILL

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH



Project	SYDNEY SCIENCE PARK BULK EARTHWORKS DEVELOPMENT APPLICATION
Title	CUT AND FILL PLAN

Scale	1:4000	Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date	18/11/2019	Project Number/Drawing Number	180001-P1BE-DA-C04.01
Size	A1	Revision	3
Datum	AHD		

LEGEND

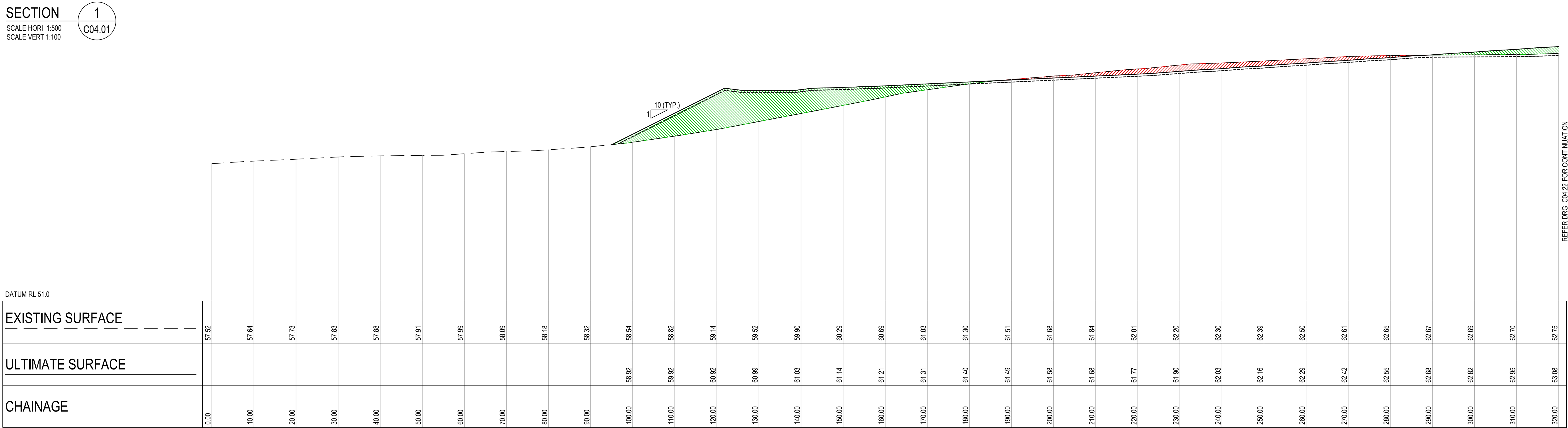
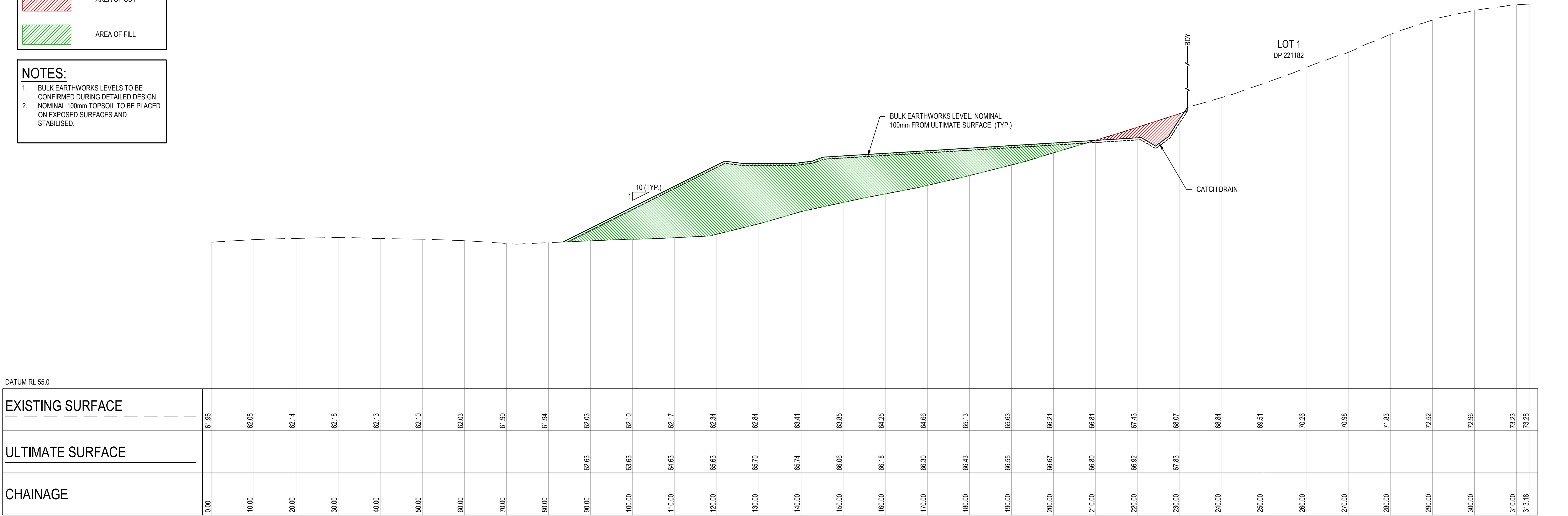
AREA OF CUT

AREA OF FILL

NOTES:

1. BULK EARTHWORKS LEVELS TO BE CONFIRMED DURING DETAILED DESIGN.

2. NOMINAL 100mm TOPSOIL TO BE PLACED ON EXPOSED SURFACES AND STABILISED.



SECTION 1

SCALE HORI 1:500
SCALE VERT 1:100

SECTION 2

SCALE HORI 1:500
SCALE VERT 1:100

3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH	
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH MKH	SHH	
REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.

Client

Scale

H: 0 10 20 30 40 50m

V: 0 2 4 6 8 10m

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

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Project

SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title

SITE SECTIONS

SHEET 01

Scale

AS SHOWN

Date

18/11/2019

Size

A1

Datum

AHD

Status

FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number

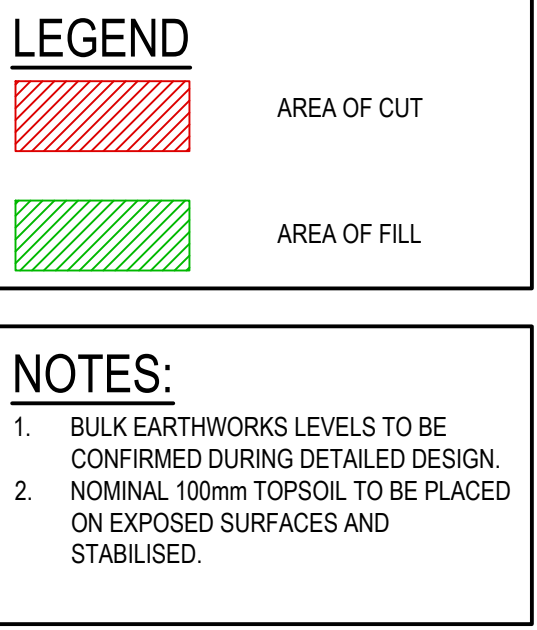
180001-P1BE-DA-C04.21

Revision

3

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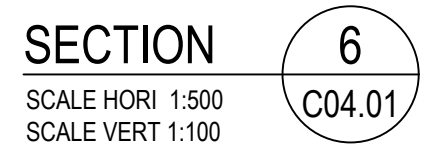
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2
C04.01

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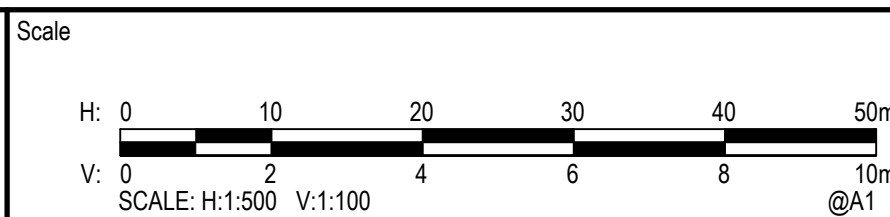
LEGEND

	AREA OF CUT
	AREA OF FILL

NOTES:

1. BULK EARTHWORKS LEVELS TO BE CONFIRMED DURING DETAILED DESIGN.
2. NOMINAL 100mm TOPSOIL TO BE PLACED ON EXPOSED SURFACES AND STABILISED.

2	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH
1	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	SHH
REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF. APPD.



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Project
SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title
SITE SECTIONS

SHEET 07

Scale AS SHOWN	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	
Date 27/11/2019		
Size A1	Project Number/Drawing Number 180001-P1BE-DA-C04.27	Revision 2
Datum AHD		



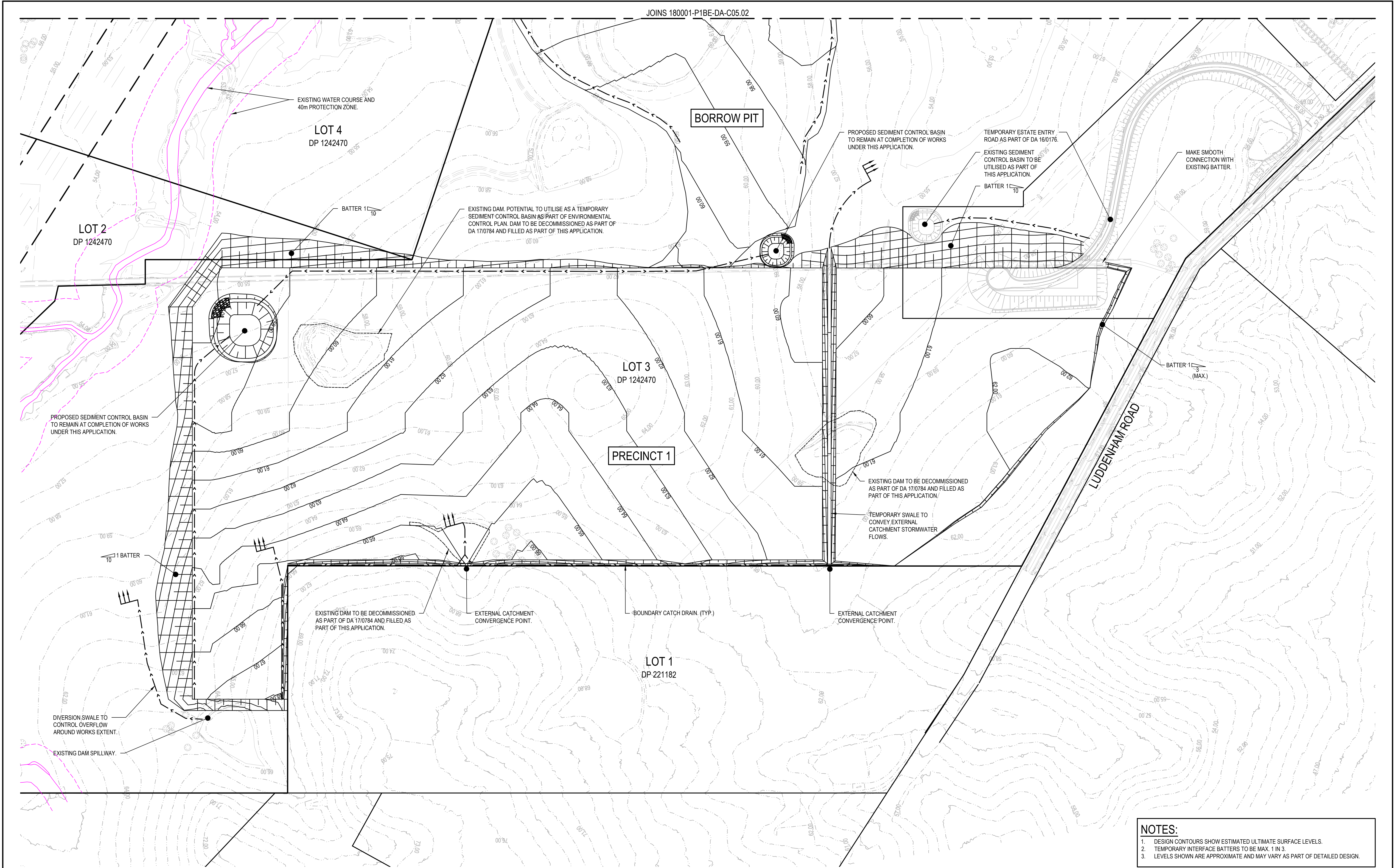
Client

 **SYDNEY
SCIENCE PARK**

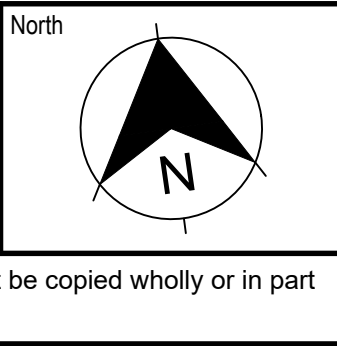
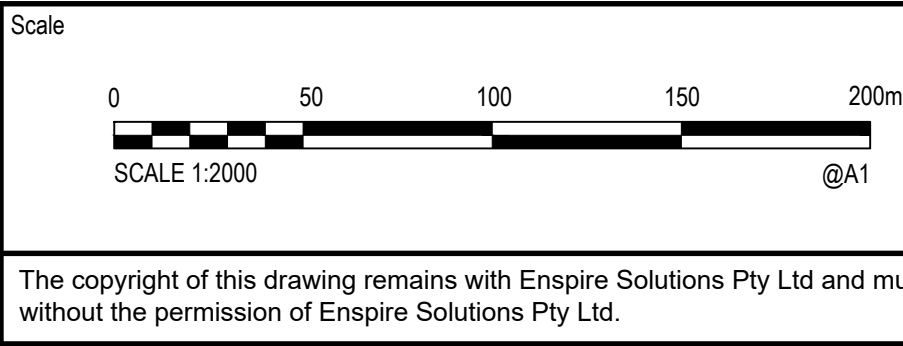
CELESTIN®



CAD File: P:\180001 SSPID-Civil\06-P1 Bulk Earthworks\Drawings\6-DACC\1-DA\180001-P1BE-DA-C04.21-C04.28 SITE SECTIONS.dwg

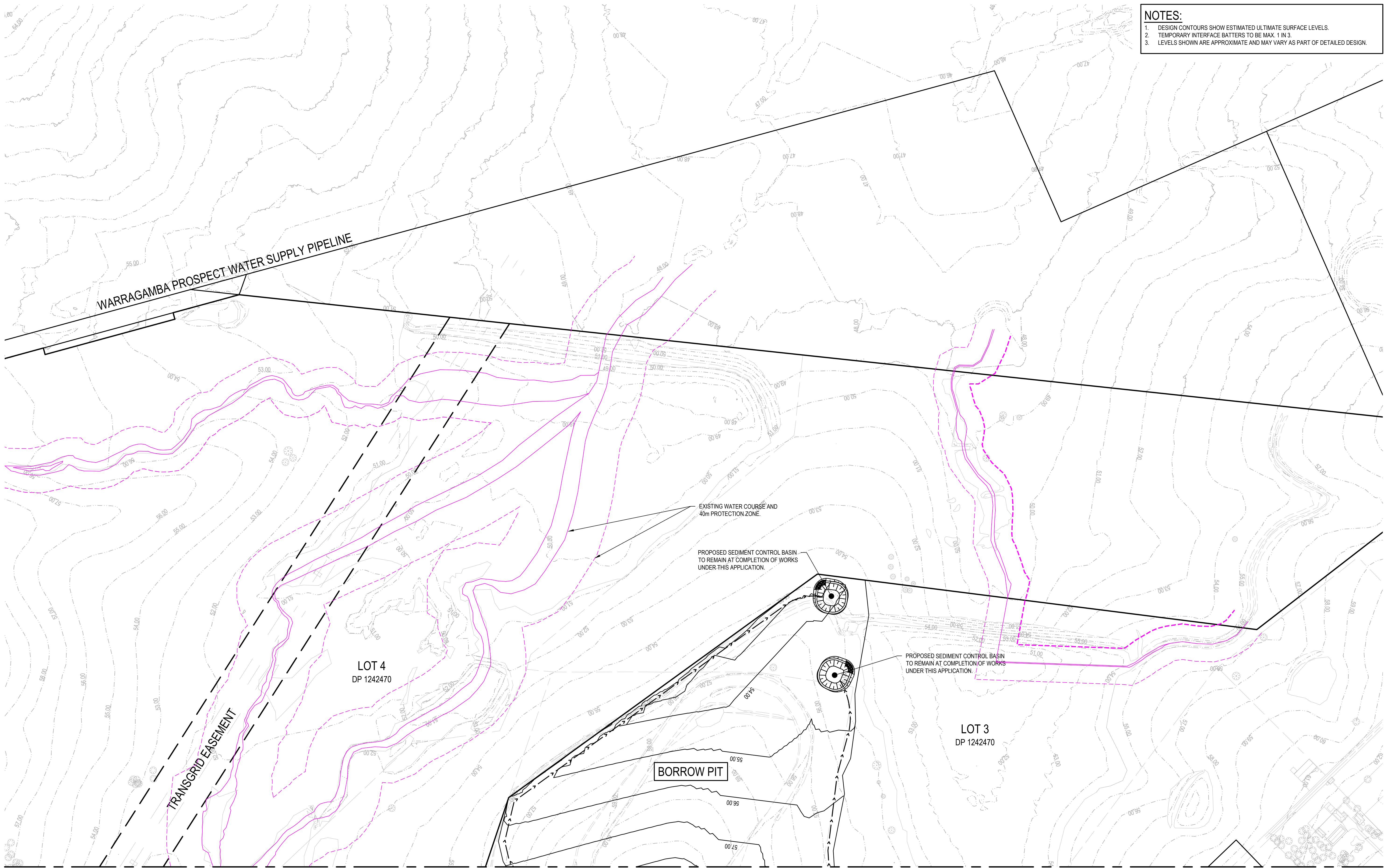


REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH



Project	SYDNEY SCIENCE PARK BULK EARTHWORKS DEVELOPMENT APPLICATION
Title	BULK EARTHWORKS PLAN
SHEET 01	

Scale	1:2000	Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date	18/11/2019	Project Number/Drawing Number	180001-P1BE-DA-C05.01
Size	A1	Revision	3
Datum	AHD		



- NOTES:**
- DESIGN CONTOURS SHOW ESTIMATED ULTIMATE SURFACE LEVELS.
 - TEMPORARY INTERFACE BATTERS TO BE MAX. 1 IN 3.
 - LEVELS SHOWN ARE APPROXIMATE AND MAY VARY AS PART OF DETAILED DESIGN.

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	21/01/2020	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
2	27/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH		SHH
1	18/11/2019	ISSUED FOR DEVELOPMENT APPLICATION	BML	SHH	MKH	SHH

Client

SYDNEY SCIENCE PARK

CELESTINO

Scale

0 50 100 150 200m

SCALE 1:2000 @A1

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Project
SYDNEY SCIENCE PARK
BULK EARTHWORKS
DEVELOPMENT APPLICATION

Title
BULK EARTHWORKS PLAN

SHEET 02

Scale 1:2000	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 18/11/2019	Project Number/Drawing Number 180001-P1BE-DA-C05.02
Size A1	Revision 3
Datum AHD	