

EARLY WORKS PACKAGE

LOT 6 FIRST ESTATE ORCHARD HILLS

SITE WORKS – GENERAL

- ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH LOCAL COUNCIL, AUSTRALIAN AND AUTHORITY STANDARDS.
- ALL TRENCHING WORKS ARE TO BE RESTORED TO ORIGINAL CONDITION.
- THE INTEGRITY OF ALL EXISTING AND NEW SERVICES IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL PLANS ARE TO BE READ IN CONJUNCTION WITH APPROVED ARCHITECTS, STRUCTURAL ENGINEERS AND OTHER CONSULTANT'S PLANS. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER FOR CLARIFICATION.

SITE WORKS – ACCESS AND SAFETY

- ALL WORKS ARE TO BE UNDERTAKEN IN A SAFE MANNER IN ACCORDANCE WITH ALL STATUTORY AND INDUSTRIAL RELATION REQUIREMENTS.
- ACCESS TO ADJACENT BUILDINGS AND PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
- WHERE NECESSARY SAFE PASSAGE SHALL BE PROVIDED FOR VEHICLES AND PEDESTRIANS THROUGH OR ADJACENT TO THE SITE.

SEDIMENT AND EROSION CONTROL

- THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH PENRITH CITY COUNCIL REQUIREMENTS AND THE "BLUE BOOK" (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION, PRODUCED BY THE DEPARTMENT OF HOUSING). THESE MEASURES ARE TO BE REGULARLY INSPECTED AND MAINTAINED.
- THE CONTRACTOR SHALL UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.
- 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. TACIFIERS MAY BE USED TO CONTROL DUST DURING EXTENDED PERIODS OF DRY WEATHER.
- WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED OUT.
- TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.
- THE CONTRACTOR SHALL ALLOW FOR THE ESTABLISHMENT OF ANY OTHER EROSION PROTECTION MEASURES, (IF APPLICABLE).
- THE CONTRACTOR SHALL REGULARLY INSPECT (MINIMUM TWICE PER WEEK) ALL EROSION AND SEDIMENT CONTROL MEASURES TO ENSURE THEY ARE OPERATING EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.
- ACCEPTABLE RECEPTORS SHALL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER. WASTE FROM THESE RECEPTORS SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.

BULK EARTHWORKS

- THE CONTRACTOR SHALL MAKE THEMSELVES FAMILIAR WITH AND UNDERTAKE THE WORKS WITH REFERENCE TO THE FOLLOWING STANDARDS AND GUIDELINES:
 - AS3789-2007, GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS
 - LANDCOM, MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION, CURRENT EDITION (THE BLUE BOOK)
- THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE REQUIREMENTS OF THE BLUE BOOK, SSD7173 AND ANY REQUIREMENTS OF THE CDC APPROVAL.

- THE CONTRACTOR SHALL PROVIDE IMPORTED SELECT FILL WHICH SHALL BE NON-COHESIVE GRANULAR MATERIAL (VENM OR ENM) FREE OF DELETERIOUS AND ORGANIC MATERIAL AND COMPLYING TO THE FOLLOWING PARTICLE SIZE DISTRIBUTION:

SIEVE SIZE (mm)	%PASSING
37.5	100
19.0	80-100
9.50	60-100
4.75	45-100
2.36	30-100
1.18	20-100
0.425	5-100
0.150	3-30
0.075	1-10

- THE MAXIMUM PARTICLE SIZE IS TO BE 75mm WITHIN THE TOP 500mm, MAXIMUM PARTICLE SIZE ELSEWHERE TO BE 150mm.
- THE CONTRACTOR SHALL PLACE THE FILL MATERIAL AT A MAXIMUM OF 150MM COMPACTED LAYERS AND COMPACTED TO 98% STANDARD, WITHIN +/-2% OF OMC.
- THE MATERIAL SHALL ACHIEVE A MINIMUM CBR VALUE OF 3.0% UPON COMPLETION OF COMPACTION.
- ANY AREAS THAT FAIL SHALL BE RECTIFIED BY THE CONTRACTOR UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER.
- THE CONTRACTOR SHALL UNDERTAKE THE EARTHWORKS UNDER LEVEL 1 CONTROL IN ACCORDANCE WITH AS3798-2007.
- THE CONTRACTOR SHALL PROVIDE ALL GEOTECHNICAL TEST RESULTS TO THE SUPERINTENDENT AS SOON AS THEY ARE AVAILABLE FROM THE REGISTERED TESTING AUTHORITY. THIS SHALL INCLUDE A MUD MAP OF THE APPROXIMATE TEST LOCATION.
- THE CONTRACTOR SHALL COMPLETE THE FINAL EARTHWORKS LEVELS AS SHOWN ON THE DRAWINGS ISSUED BY THE SUPERINTENDENT TO WITHIN A TOLERANCE OF +0MM/-15MM.
- THE CONTRACTOR SHALL PROVIDE WORKS AS EXECUTED (WAE) PLANS OF THE COMPLETED BULK EARTHWORKS UPON COMPLETION OF THE WORKS TO THE SUPERINTENDENT. THE LEVELS WILL BE TAKEN ON A 10m x 10m GRID AND THE PLANS WILL SHOW THE COMPLETED SURFACE LEVEL AND THE VARIANCE FROM THE DESIGN LEVEL.

RETAINING WALLS

- THE CONTRACTOR SHALL DESIGN AND CONSTRUCT A RETAINING WALL AS PER THE EXTENTS SHOWN ON DRAWINGS ISSUED BY THE SUPERINTENDENT.
- THE CONTRACTOR SHALL DESIGN THE RETAINING WALL IN ACCORDANCE WITH THE REQUIREMENTS OF AS4678-2002, EARTH RETAINING STRUCTURE AS A MINIMUM, UNO.
- THE RETAINING WALL SHALL BE DESIGNED TO SUPPORT THE FOLLOWING LOADS:
 - DEAD LOAD – 5KPA
 - LIVE LOAD – 10KPA
- THE CONTRACTOR SHALL CONFIRM THE FACE FINISH OF THE RETAINING WALL WITH THE SUPERINTENDENT PRIOR TO COMMENCING FINAL DETAILED DESIGN.
- THE CONTRACTOR SHALL ALLOW TO COORDINATE THE DESIGN OF THE RETAINING WALL WITH THE MAIN WORKS DESIGN AND CONSTRUCT CONTRACTOR, PROPOSED MAIN WORKS STORMWATER DRAINAGE INFRASTRUCTURE, THE LOCATION OF EXISTING SERVICES AND EASEMENTS, AND LIMIT THE EFFECTS OF IMPOSED LOADS ON EXISTING SERVICES AS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION DRAWINGS TO THE SUPERINTENDENT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE WORKS AS EXECUTED (WAE) PLANS TO THE SUPERINTENDENT OF THE COMPLETED WORKS.
- THE CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN CERTIFICATION PRIOR TO CONSTRUCTION, AN INSPECTION REPORT OF THE CONSTRUCTION WORKS COMPLETE WITH PHOTOS OF THE VARIOUS STAGES OF CONSTRUCTION, AND CONSTRUCTION COMPLIANCE CERTIFICATION AT THE COMPLETION OF CONSTRUCTION TO THE SUPERINTENDENT.



LOCALITY PLAN

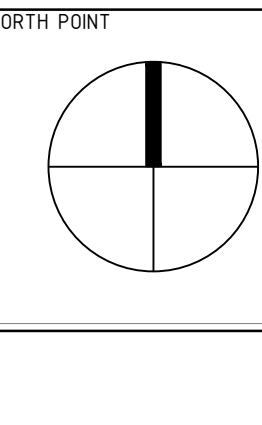
NOT TO SCALE – SOURCE: NEARMAP

DRAWING SCHEDULE

- C1.01 COVER SHEET, SPECIFICATION, LOCALITY PLAN AND DRAWING SCHEDULE
- C3.01 BULK EARTHWORKS CONTOURS PLAN
- C3.05 BULK EARTHWORKS CUT TO FILL DEPTHS PLAN

1. DO NOT SCALE OFF THIS DRAWING. USE DIMENSIONS & ARCHITECTURAL DRAWINGS ONLY	CHECKED	DATE	NORTH POINT
2. DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.	APPROVED	DATE	
3. LEVELS ARE INDICATIVE ONLY AND ARE TO BE CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS	PAGE	PLOT DATE	
4. AUTHORITIES MAINS AND/OR EXISTING SERVICES ARE TO BE LOCATED AND CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS	A1	July 31, 2018	
5. COMPLETION OF THE QUALITY RECORD IS EVIDENCE THAT THE DESIGN AND DRAWING HAVE BEEN VERIFIED.	THE INFORMATION ON THIS DRAWING REMAINS THE PROPERTY OF SPARKS & PARTNERS CONSULTING ENGINEERS. REPRODUCTION OF THE WHOLE OR PART OF THE DOCUMENT CONSTITUTES AN INFRINGEMENT OF COPYRIGHTS	INITIAL	DATE
VERIFICATION	SCALE		
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DATE	
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DATE	No	AMENDMENT	INIT	REV
31.07.18		CONTRACT ISSUE	SK	1

DATE	No	AMENDMENT	INIT	REV

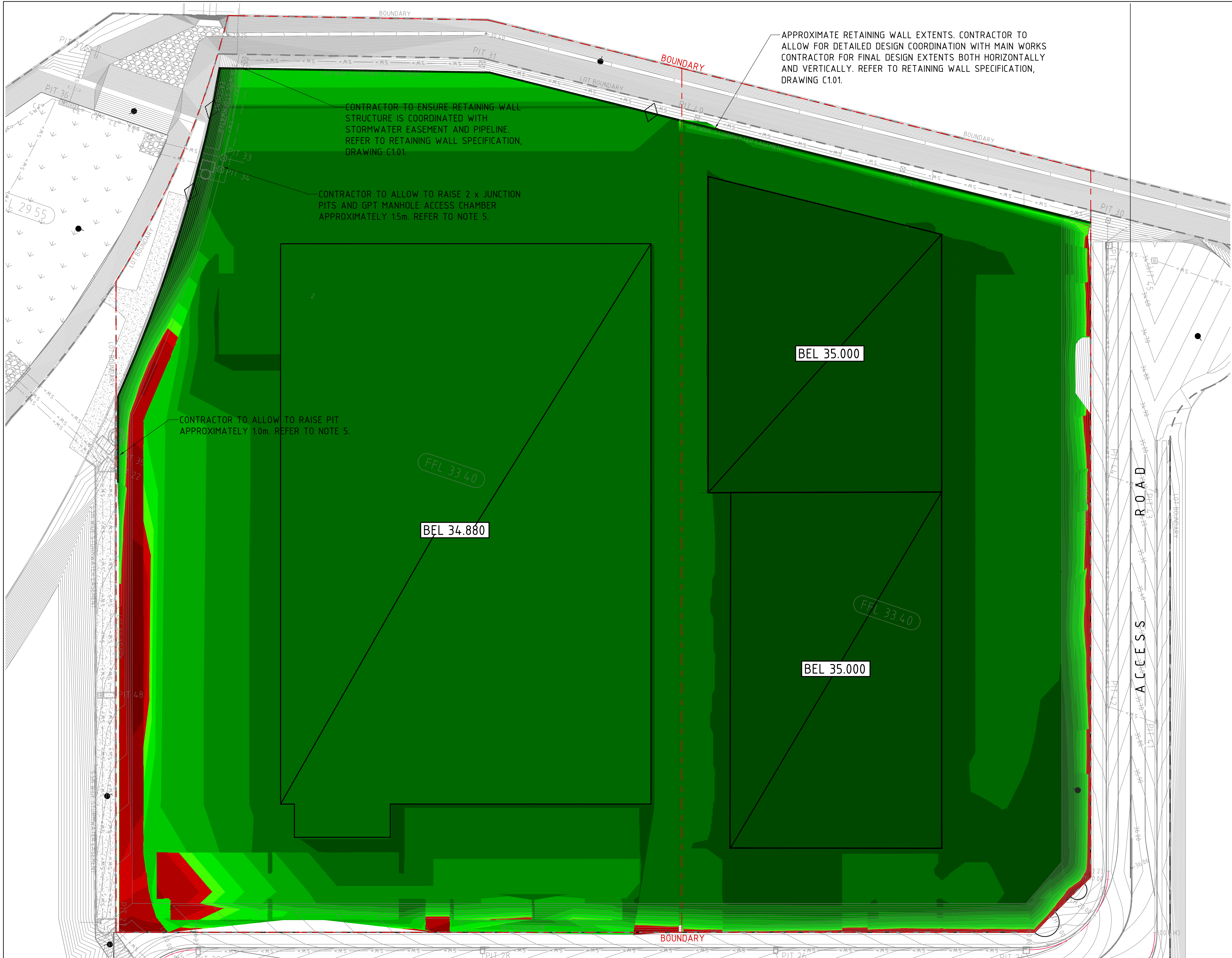
PROJECT MANAGER	
PROJECT STRATEGY	NSW PTY LIMITED

CLIENT	ALTIS Property Partners 60 Castlereagh St, Sydney
ARCHITECT	

PROJECT	EARLY WORKS PACKAGE LOT 6 FIRST ESTATE ORCHARD HILLS
DRAWING TITLE	CIVIL DESIGN COVER SHEET, SPECIFICATION, LOCALITY PLAN AND DRAWING SCHEDULE

CONTRACT ISSUE

SPARKS+PARTNERS CONSULTING ENGINEERS HYDRAULIC CIVIL FIRE	
Level 1, 91 George Street Parramatta NSW 2150 P 02 9891 5033 F 02 9891 3898 E admin@sparksandpartners.com.au	
DATE	DESIGNED
SCALE	DRAWN
JOB No	BWG No
18157	C1.01
No IN SET	REV
	1



LEGEND		
CUT:		FILL:
-5.0 TO -2.5m		0.0 TO 0.1m
-2.5 TO -1.5m		0.1 TO 0.25m
-1.5 TO -1.0m		0.25 TO 0.5m
-1.0 TO -0.75m		0.5 TO 0.75m
-0.75 TO -0.5m		0.75 TO 1.0m
-0.5 TO -0.25m		1.0 TO 1.5m
-0.25 TO -0.1m		1.5 TO 2.5m
-0.1 TO 0.0m		2.5 TO 5.0m

- NOTES**
- REFER TO DRAWING C101 FOR BULK EARTHWORKS SPECIFICATION.
 - CUT TO FILL DEPTHS SHOWN ARE BASED ON LEVELS SHOWN ON ESTATE INFRASTRUCTURE PLANS PREPARED BY COSTINROE CONSULTING, REF: 12042.00, SURVEY PREPARED BY BOXALL SURVEYORS REF: 10116.
 - VOLUMES DETAILED BELOW DO NOT TAKE INTO ACCOUNT BULKING & COMPACTION OF THE MATERIAL, DETAILED EXCAVATION FOR SERVICES TRENCHING & FOUNDATIONS AND BACKFILL FOR RETAINING WALL CONSTRUCTION.
CUT - 34.0m³
FILL - 65,907m³
IMPORT - 65,567m³
 - CONTRACTOR TO ALLOW FOR COORDINATION OF FINAL BULK EARTHWORKS LEVELS WITH MAIN WORKS DESIGN AND CONSTRUCT CONTRACTOR AND MAIN WORKS DESIGN FINISHED SURFACE LEVELS.
 - MANHOLE AND ACCESS CHAMBER RISER/EXTENSION DETAILS TO BE PROVIDED TO SUPERINTENDENT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

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VERIFICATION
COMPLETION OF THE DRAWING STATUS IS EVIDENCE THAT THE DESIGN HAS BEEN VERIFIED AS CONFORMING TO THE REQUIREMENTS OF THE PROJECT QUALITY PLAN

PRELIMINARY	INITIAL	DATE

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PAGE	PLOT DATE
A1	July 31, 2018

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SCALE
0 5 10 15 20 25 30 35 40
METERS

NORTH POINT

DATE	No	AMENDMENT	INIT	REV
31.07.18		CONTRACT ISSUE	SK	1

DATE	No	AMENDMENT	INIT	REV

PROJECT MANAGER

PROJECT STRATEGY
NSW PTY LIMITED

CLIENT

ALTIS
Property Partners
60 Castlereagh St, Sydney

PROJECT

EARLY WORKS PACKAGE
LOT 6 FIRST ESTATE ORCHARD HILLS

DRAWING TITLE

CIVIL DESIGN
BULK EARTHWORKS CUT TO FILL
DEPTHS PLAN

CONTRACT ISSUE

SPARKS+PARTNERS
CONSULTING ENGINEERS
HYDRAULIC | CIVIL | FIRE

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DATE	DESIGNED	
SCALE	DRAWN	
1:500 @ A1	SK	
JOB No	BWG No	No IN SET
18157	C3.05	REV 1