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## LENDLEASE JORDAN SPRINGS EAST STAGE 3D - CIVIL WORKS DRAFT DEVELOPMENT APPLICATION



	PRECINCT, ADI ST MARYS\Drawings\21 Central Precinct Stage 3D\Drawings\CV-CARDNO-ST03D-1001-DWG(1).dwg
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Date

05.06.18 ISSUED FOR DRAFT DEVELOPMENT APPLICATION

Description

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### SCHEDULE OF DRAWINGS

RAWING No.	DESCRIPTION
/-CARDNO-ST03D-1001	COVER SHEET & DRAWING SCHEDULE
/-CARDNO-ST03D-1011	GENERAL NOTES & LEGENDS
/-CARDNO-ST03D-1021	CONTEXT PLAN
/-CARDNO-ST03D-1031	GENERAL ARRANGEMENT PLAN
/-CARDNO-ST03D-1041	DEVELOPMENT APPLICATION STAGING PLAN AND ROAD HIERARCHY PLAN
/-CARDNO-ST03D-1051	EXISTING SERVICES AND SURVEY PLAN
/-CARDNO-ST03D-1101	EROSION AND SEDIMENTATION CONTROL PLAN
/-CARDNO-ST03D-1131	EROSION AND SEDIMENTATION CONTROL DETAILS
/-CARDNO-ST03D-1251	TYPICAL ROAD CROSS SECTIONS AND PAVEMENT TYPES
/-CARDNO-ST03D-1301	ROADS AND STORMWATER DRAINAGE PLAN
/-CARDNO-ST03D-1351	ROAD LONGITUDINAL SECTIONS ROAD 013 & 027
/-CARDNO-ST03D-1601	CIVIL WORKS DETAILS SHEET 1
/-CARDNO-ST03D-1602	CIVIL WORKS DETAILS SHEET 2
/-CARDNO-ST03D-1701	PAVEMENT, SIGNAGE & LINEMARKING PLAN
/-CARDNO-ST03D-2201	STORMWATER DRAINAGE DETAILS SHEET 1
/-CARDNO-ST03D-2202	STORMWATER DRAINAGE DETAILS SHEET 2
/-CARDNO-ST03D-2301	INTERNAL STORMWATER CATCHMENT PLAN

Drawn	Date	Status				
MCD	05.06.18					
Checked	Date		FOR AP	PROVAL		
DAC	05.06.18	NOT TO BE I	ISED FOR CO	NSTRUCTION		RPOSES
Designed	Date	NOT TO BE C			110	
DAC	05.06.18					
Verified	Date	Datum		Scale	Size	
ARM	05.06.18	AHD				A1
Approved		Drawing Number				Revision
ARM	05 06 18	CV-CA	RDNO-ST	03D-1001		1
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#### GENERAL

- 1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH PENRITH CITY COUNCIL ENGINEERING CONSTRUCTION SPECIFICATION FOR CIVIL WORKS.
- 2. PENRITH CITY COUNCIL STANDARD DETAILS TO BE USED AT ALL TIMES.

#### SITEWORKS NOTES

1. ORIGIN OF LEVELS:- REFER SURVEY NOTES.

- 2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO CARDNO.
- 3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS AND SURFACES.
- 4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- . PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- 7. ASPHALTIC CONCRETE SHALL CONFORM TO R.M.S. SPECIFICATION R116.
- 3. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S. FORM 3051, COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>3</sup> OF BASECOURSE MATERIAL PLACED.
- ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S. FORM 3051, AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH A.S 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 100m<sup>3</sup> OF SUB-BASE COURSE MATERIAL PLACED.
- 10. AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH R.M.S. FORM 3051 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF PENRITH CITY COUNCIL AND THE SUPERINTENDENT.
- 11. A HANDRAIL OR SAFETY BARRIER IS TO BE PROVIDED AT THE TOP OF ALL HEADWALLS AND RETAINING WALLS GREATER THAN 1m HIGH IN ACCORDANCE WITH THE LENDLEASE GMR'S.

#### BULK EARTHWORKS NOTES

- . ORIGIN OF LEVELS: REFER SURVEY NOTES
- 2. STRIP ALL TOPSOIL/ORGANIC MATERIAL FROM CONSTRUCTION AREA AND STOCK PILE AS DIRECTED BY SUPERINTENDENT FOR FUTURE REUSE.
- EXCAVATED MATERIAL TO BE USED AS STRUCTURAL FILL PROVIDED THE PLACEMENT MOISTURE CONTENT OF THE MATERIAL IS +/- 2% OF THE OPTIMUM MOISTURE CONTENT.
- 4. COMPACT FILL AREAS AND SUBGRADE TO NOT LESS THAN: STANDARD DRY DENSITY LOCATION (AS 1289 E 5.1.1.)
- UNDER BUILDING SLABS ON GROUND 98% UNDER ROADS AND CARPARKS 100%
- LANDSCAPED AREAS UNLESS NOTED OTHERWISE 98%
- 5. FOR NON COHESIVE MATERIAL, COMPACT TO 75% DENSITY INDEX.
- . BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 8 TONNE (MIN) DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER TO DETECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm MOVEMENT UNDER ROLLER).
- FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN:-(A) 1 TEST PER 1,000m<sup>3</sup> OF FILL PLACED PER LAYER OF FILL.
- (B) 3 TESTS PER VISIT
- (C) 1 TEST PER 1000m<sup>2</sup> OF EXPOSED SUBGRADE "LEVEL 1" TESTING SHALL BE TESTING IN ACCORDANCE WITH AS 3798 (1996).
- 8. FILLING TO BE PLACED IN MAXIMUM 300mm LOOSE LAYERS AND
- COMPACTED AS SPECIFIED
- 9. NO FILLING SHALL TAKE PLACE TO EXPOSED SUBGRADE UNTIL THE AREA HAS BEEN PROOF ROLLED IN THE PRESENCE OF A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER AND APPROVAL GIVEN IN WRITING THAT FILLING CAN PROCEED.

### **EROSION AND SEDIMENT CONTROL** NOTES

#### GENERAL INSTRUCTIONS

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL, NSW OFFICE OF WATER, SYDNEY WATER, THE OFFICE OF ENVIRONMENT AND HERITAGE, AND LENDLEASE'S REPRESENTATIVE. TO THIS END, THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE DRAWINGS SHALL ONLY BE USED AS A GUIDE BY THE CONTRACTOR, AND REPRESENT THE MINIMUM REQUIREMENT ONLY.
- THE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT.
- ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH a. LOCAL AUTHORITY REQUIREMENTS
- b. EPA REQUIREMENTS c. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
- MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE
- SUPERINTENDENT AND THE LOCAL AUTHORITY.
- WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

#### LAND DISTURBANCE

- WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
- a. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
- b. CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL. c. INSTALL SEDIMENT BASIN AS SHOWN ON PLAN (D) INSTALL SEDIMENT
- TRAPS AS SHOWN ON PLAN.
- d. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

#### EROSION CONTROL

- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS IS PRACTICABLE AFTER THE COMPLETION OF CONSTRUCTION ACTIVITIES.

#### SEDIMENT CONTROL

- STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT
- I. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE. I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
- 2. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- 3. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- 4. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY: a. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS
- INSTALLED OUTSIDE THE DRIP LINE b. ENSURING THAT NOTHING IS NAILED TO THEM
- c. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
- (I) ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
- (II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL
- FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

#### NOISE

EPA AND COUNCIL REQUIREMENTS MUST BE ADHERED TO REGARDING LEVEL OF NOISE AND WORKING HOURS TO ENSURE THAT RESIDENTS AND OTHER APPLICABLE NEIGHBORS TO THE SITE ARE NOT DISTURBED UNREASONABLY. THE GENERATION OF NOISE MUST BE MINIMISED.

#### DUST

DUST MUST BE MINIMISED TO ENSURE THERE IS NO HEALTH RISK OR LOSS OF AMENITY.

STAGING OF WORKS STRIPPING

STOCKPILE PROTECTION

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF

DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. CARDNO CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER. CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE

INCLUDING HAND EXCAVATION WHERE NECESSARY. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS, CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH. PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

STORMWATER DESIGN CRITERIA: (A) AVERAGE RECURRENCE INTERVAL:

5 YEAR ARI PIPED DRAINAGE 100 YEAR ARI OVERLAND FLOW

5 MINUTES

5 YEAR ARI= 126mm/hr 100 YEAR ARI= 219mm/hr

- SOLVENT WELDED JOINTS.
- TYPF
- THEIR SOCKETS.

- 2. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

- UNLESS NOTED OTHERWISE.



STRIPPING WORKS ARE TO BE STAGED TO MINIMISE EXTENT OF EXPOSED AREA. WEATHER CONDITIONS TO BE ASSESSED PRIOR TO UNDERTAKING

SEDIMENT RETENTION STRUCTURES TO BE PLACED DOWNSLOPE OF ANY STOCKPILES. STOCKPILE IN PLACE > 28 DAYS TO BE TEMPORARILY GRASSED.

#### VEHICLE AND ROAD MANAGEMENT

SITE ACCESS TO BE RESTRICTED TO ALLOCATED TRUCK ROUTES. EXTERNAL ROADS TO BE SWEPT REGULARLY FOR DURATION OF WORKS.

### **EXISTING UNDERGROUND** SERVICES NOTES

### STORMWATER DRAINAGE NOTES

(B) RAINFALL INTENSITIES: TIME OF CONCENTRATION:

PIPES 375 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '2'

APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.

PIPES 300 DIA AND LESS SHALL BE DWV GRADE (CLASS SN8) uPVC WITH

. EQUIVALENT STRENGTH FRC PIPES MIN CLASS 3 MAY BE USED SUBJECT TO PRIOR APPROVAL BY PENRITH CITY COUNCIL.

ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. REFER TO BEDDING SUPPORT

PIPES WITH SOCKETS SHALL BE LAID IN BEDDING WHERE SUITABLE RECESSES HAVE BEEN PROVIDED TO ENSURE PIPES DO NOT BEAR ON

PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).

REFER TO AS/NZS 3725:2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT.

WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE. THE CONTRACTOR SHALL REFER TO AS 3725 (2007) TO DETERMINE THE APPROPRIATE PIPE CLASS. PROPOSED PIPE CLASS SHALL BE REVIEWED BY CARDNO PRIOR TO INSTALLATION.

0. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500.3 (2015).

1. THE USE OF PRECAST PITS IS ONLY PERMITTED WITH THE PRIOR APPROVAL OF PENRITH CITY COUNCIL.

13. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC DWV SEWER GRADE PIPE IS TO BE USED.

14. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.

5. GRATES AND COVERS SHALL CONFORM TO AS 3996. MINIMUM CLASS C.

6. ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.

7. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.

content of this document.

### STORMWATER DRAINAGE NOTES CONTINUED

18. 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.

### TELSTRA - DUTY OF CARE NOTE

TELSTRA'S PLANS SHOW ONLY THE PRESENCE OF CABLES AND PLANT. THEY ONLY SHOW THEIR POSITION RELATIVE TO ROAD BOUNDARIES. PROPERTY FENCES ETC. AT THE TIME OF INSTALLATION AND TELSTRA DOES NOT WARRANT OR HOLD OUT THAT SUCH PLANS ARE ACCURATE THEREAFTER DUE TO CHANGES THAT MAY OCCUR OVER TIME. DO NOT ASSUME DEPTH OR ALIGNMENT OF CABLES OR PLANT AS THESE VARY SIGNIFICANTLY. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR TELSTRA CABLES AND PLANT.

BEFORE USING MACHINE EXCAVATORS TELSTRA PLANT MUST FIRST BE PHYSICALLY EXPOSED BY SOFT DIG POTHOLING TO IDENTIFY IT'S LOCATION TELSTRA WILL SEEK COMPENSATION FOR DAMAGES CAUSED TO IT'S PROPERTY AND LOSSES CAUSED TO TELSTRA AND IT'S CUSTOMERS.

### SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY RPS GROUP PLC (FORMERLY WHELANS INSITES), BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. CARDNO DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION

BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CARDNO.

THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

- ORIGIN OF MGA BASED SITE CO-ORDINATES FROM PM 147113 AND PLANE DISTANCES HAVE BEEN USED.
- CO-ORDINATES FOR PM 147113 WERE DEDUCED BY WHELANS FROM SUROUNDING SSM & PM'S ON PUBLIC RECORD. CO-ORDINATES FOR PM 147113 HAVE BEEN ADOPTED AS 292202.160E 6266005.820N
- CONTOUR INTERVAL 0.25m
- LEVELS ARE BASED ON AUSTRALIAN HEIGHT DATUM (AHD) USING SSM 79753 WITH RL OF 19.758 (ACC 2) LOCATED ON LINKS ROAD.
- FEATURES SHOWN INCLUDING TREES AND LEVELS ARE TO BE USED ONLY FOR CONCEPT PLANNING DESIGN. DATA SHOWN SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. PRIOR TO CONSTRUCTION ANY FEATURE OR LEVEL SHOULD BE VERIFIED IF THE LOCATION OR HEIGHT IS TO HAVE SIGNIFICANT IMPACT ON DESIGN OR CONSTRUCTION.
- 6. TREES SHOWN HAVE A TRUNK DIAMETER OF 300MM OR GREATER.
- TREE CAPTURE CONFIDENCE INTERVAL OF 99%

### **ROOF WATER KERB OUTLETS**

- KERB OUTLETS TO BE PROVIDED IN ACCORDANCE WITH PENRITH CITY COUNCILS CIVIL WORKS SPECIFICATION AT EACH LOT WHERE INTERALLOTMENT DRAINAGE IS NOT PROVIDED
- 2. KERB OUTLETS ARE TO BE CONSTRUCTED AT THE SAME TIME KERBS ARE POURED.

### STREET FURNITURE

- ALL LIGHT POLES. STREET NAMES AND BUS SHELTERS IN THIS SUBDIVISION WILL BE GALVANISED BLACK POWDER COATED TO THE SATISFACTION OF PENRITH CITY COUNCIL. FURTHER THAT THESE LIGHT POLES WILL COMPLY WITH COUNCIL'S SPECIFICATIONS.
- 2. ALL LIGHT POLES ARE TO BE TYPE 'MACARTHUR'. REFER ELECTRICAL DESIGN DRAWINGS.

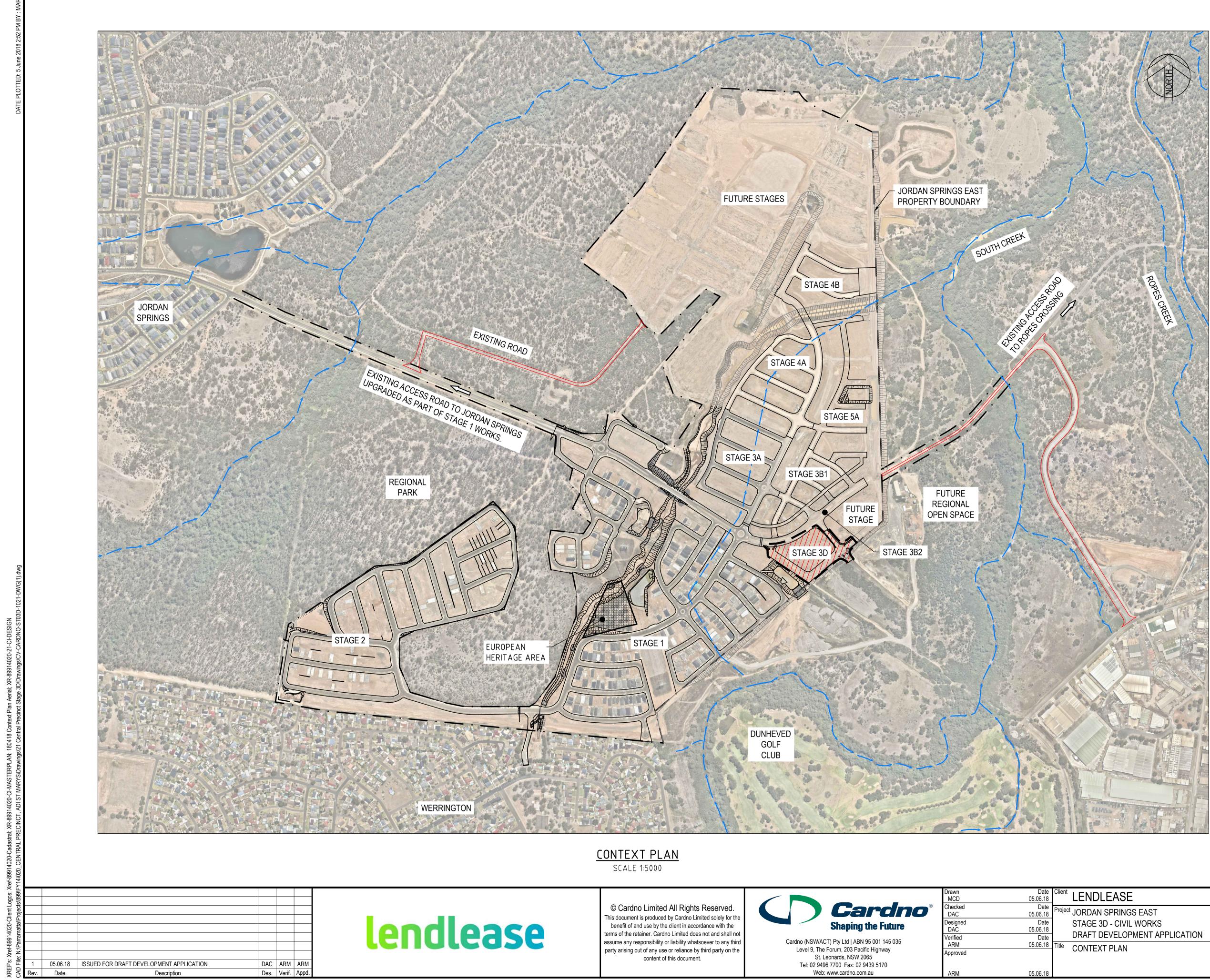
REINFORCEMENT NOTES	PROPOSED	WORKS LEGEND	
DRCEMENT IS REPRESENTED DIAGRAMMATICALLY. IT IS NOT	PROPOSED		
SARILY SHOWN IN TRUE PROJECTION. ES IN THE REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS N. THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED	<u> </u>	PROPOSED CONTOURS	
NY OTHER SPLICES. WHERE THE LAP LENGTH IS NOT SHOWN IT BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE DRCEMENT.	·	SITE BOUNDARY	
NG OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN E STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE EER.	<u> </u>	BATTER SLOPE	
DRCEMENT SYMBOLS - NOTES GRADE 400N TEMPCORE DEFORMED BARS TO AS 1302 NOTES GRADE 250R HOT ROLLED PLAIN BARS TO AS 1302 ENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304		EXTENT OF WORKS	
NOTES HARD-DRAWN PLAIN WIRE TO AS 1303 DRCEMENT COGS AND EXTENSIONS TO BE IN ACCORDANCE WITH D.		TREES TO BE REMOVED AS PART OF BULK EARTHWORKS PACKAGE.	
ER OF BARS IN GROUP - BAR GRADE AND TYPE	$\left( \right)$	TREES TO BE RETAINED	
AL BAR SIZE IN mm		BATTERS	
GURES FOLLOWING THE FABRICS SYMBOL 'SL' IS THE ENCE NUMBER FOR FABRIC TO AS 1304. EINFORCEMENT FABRIC SHALL COMPLY WITH AS1303 AND 4 AND SHALL BE SUPPLIED AS FLAT SHEETS.	1001	LOT NUMBERS	
25 MIN. TYPICAL FABRIC LAP	<u>K&amp;G</u>	KERB & GUTTER REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
C SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm. ED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER RES WITH 3 WRAPS OF WIRE.	RK&G	ROLL KERB & GUTTER REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
SUFFICIENT BAR CHAIRS UNDER BOTTOM REINFORCING RODS OP CROSSRODS IN SLABS TO ALLOW THEM TO BE SUPPORTED IN CORRECT POSITIONS DURING CONCRETING (NOT GREATER	КО	KERB ONLY REFER PENRITH CITY COUNCIL STANDARD DETAIL	
900mm CENTRES BOTH WAYS) ORCEMENT LAYERS DENOTED THUS UNO - ENOTES TOP BARS LAID LAST IN TOP NOTES TOP BARS LAID FIRST IN TOP	DD	DISH DRAIN REFER DRAWING 1601 FOR DETAILS	
NOTES BOTTOM BARS LAID SECOND IN BOTTOM ENOTES BOTTOM BARS LAID FIRST IN BOTTOM E TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-300 ED WHERE NECESSARY AND LAP WITH MAIN BARS 450mm	VC	VEHICULAR CROSSING REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
IS NOTED OTHERWISE. JM LAP LENGTHS UNLESS NOTED OTHERWISE SHALL BE - JR N12 BARS JR N16 BARS JR N20 BARS		PRAM RAMP REFER PENRITH CITY COUNCIL FOR DETAIL.	
OR N24 BARS OR N28 BARS OR N32 BARS OR N36 BARS		INDICATIVE GARAGE/DRIVEWAY LOCATION ONLY	
CONCRETE NOTES		STORMWATER PIPELINE	
RENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY TRACT DOCUMENTS.		CONCRETE HEADWALL	
TE QUALITY JIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION NT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND TE UNLESS NOTED OTHERWISE.	(4\2)	DRAINAGE LINE No. DRAINAGE PIT No.	
AS 3600 F'c MPa     SPECIFIED     NOMINAL       AT 28 DAYS     SLUMP     AGG. SIZE       JLAR BASE     32     60     20	]	DRAINAGE CAP	
AND PATHS         25         80         20           COUNDATIONS &         40         80         20           RT BASE SLABS		STORMWATER DRAINAGE PITS	
PE SHALL BE (ACSE SPECIFICATION) TYPE SL ONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH		SCOUR PROTECTION	
TURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN	>>	EXISTING WATER COURSES AS PER 1:10000 TOPOGRAPHIC MAPS	
BY CARDNO. DNCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED		ENDEAVOUR ENERGY KIOSK SUB STATION	
SE. FORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT			
R THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT TE INTERSECTIONS.	EXISTING W	ORKS LEGEND	
CHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, TELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE CEMENT AND FREE OF STONE POCKETS. ALL CONCRETE G SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED		TRANSGRID PYLON	
ED IN ACCORDANCE WITH R.T.A. SPECIFICATION R83.	— · · — ·100.0 — · · —	EXISTING CONTOURS	
		TRANSGRID EASEMENT	
	e	TRANSGRID OVERHEAD ELECTRICAL	
	s	EXISTING SEWER	
		<b>_</b> ,	

			WORKS LEGEND	
	REINFORCEMENT NOTES		WURKS LEGEND	
1.	REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.	<u>PROPOSED</u>		
2.	SPLICES IN THE REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN. THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICES. WHERE THE LAP LENGTH IS NOT SHOWN IT	<u> </u>	PROPOSED CONTOURS	
	SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT.		SITE BOUNDARY	
3.	WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER.	4	BATTER SLOPE	
4.	REINFORCEMENT SYMBOLS - N - DENOTES GRADE 400N TEMPCORE DEFORMED BARS TO AS 1302 R - DENOTES GRADE 250R HOT ROLLED PLAIN BARS TO AS 1302		EXTENT OF WORKS	
5.	SL - DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304 W - DENOTES HARD-DRAWN PLAIN WIRE TO AS 1303 REINFORCEMENT COGS AND EXTENSIONS TO BE IN ACCORDANCE WITH		TREES TO BE REMOVED AS PART OF BULK EARTHWORKS PACKAGE.	
	AS3600. NUMBER OF BARS IN GROUP — BAR GRADE AND TYPE		TREES TO BE RETAINED	
	4N20-200 NOMINAL BAR SIZE IN mm	<u>_ + + + + + + + + + + + + + + + + + + +</u>	BATTERS	
5. 6.	THE FIGURES FOLLOWING THE FABRICS SYMBOL 'SL' IS THE REFERENCE NUMBER FOR FABRIC TO AS 1304. ALL REINFORCEMENT FABRIC SHALL COMPLY WITH AS1303 AND AS1304 AND SHALL BE SUPPLIED AS FLAT SHEETS.	1001	LOT NUMBERS	
	25 MIN. TYPICAL FABRIC LAP	<u>K&amp;G</u>	KERB & GUTTER REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
	FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm. BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER CENTRES WITH 3 WRAPS OF WIRE.	RK&G	ROLL KERB & GUTTER REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
7.	PLACE SUFFICIENT BAR CHAIRS UNDER BOTTOM REINFORCING RODS AND TOP CROSSRODS IN SLABS TO ALLOW THEM TO BE SUPPORTED IN THEIR CORRECT POSITIONS DURING CONCRETING (NOT GREATER	КО	KERB ONLY REFER PENRITH CITY COUNCIL STANDARD DETAIL	
8.	THAN 900mm CENTRES BOTH WAYS) REINFORCEMENT LAYERS DENOTED THUS UNO - TT - DENOTES TOP BARS LAID LAST IN TOP T - DENOTES TOP BARS LAID FIRST IN TOP	DD	DISH DRAIN REFER DRAWING 1601 FOR DETAILS	
9.	B - DENOTES BOTTOM BARS LAID SECOND IN BOTTOM BB - DENOTES BOTTOM BARS LAID FIRST IN BOTTOM WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-300 SPLICED WHERE NECESSARY AND LAP WITH MAIN BARS 450mm		VEHICULAR CROSSING REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
10.	UNLESS NOTED OTHERWISE. MINIMUM LAP LENGTHS UNLESS NOTED OTHERWISE SHALL BE - 500 FOR N12 BARS 600 FOR N16 BARS		PRAM RAMP REFER PENRITH CITY COUNCIL FOR DETAIL.	
	900 FOR N20 BARS 1000 FOR N24 BARS 1200 FOR N28 BARS 1500 FOR N32 BARS 1800 FOR N36 BARS		INDICATIVE GARAGE/DRIVEWAY LOCATION ONLY	
	CONCRETE NOTES	<u> </u>	STORMWATER PIPELINE	
	3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS. CONCRETE QUALITY		CONCRETE HEADWALL	
	ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.	(4\2)	DRAINAGE LINE No. DRAINAGE PIT No.	
	ELEMENT     AS 3600 F'c MPa     SPECIFIED     NOMINAL       AT 28 DAYS     SLUMP     AGG. SIZE       VEHICULAR BASE     32     60     20		DRAINAGE CAP	
	KERBS AND PATHS258020PITS, FOUNDATIONS &408020CULVERT BASE SLABS		STORMWATER DRAINAGE PITS	
- Pl	EMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL ROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH 1379.			
	NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN	>>	EXISTING WATER COURSES AS PER 1:10000 TOPOGRAPHIC MAPS	
	WRITING BY CARDNO. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY		ENDEAVOUR ENERGY KIOSK SUB STATION	
	SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.			
	ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT			
	GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.	EXISTING W	ORKS LEGEND	
	THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED		TRANSGRID PYLON	
	AND CURED IN ACCORDANCE WITH R.T.A. SPECIFICATION R83.	-··	EXISTING CONTOURS	
			TRANSGRID EASEMENT	
		e	TRANSGRID OVERHEAD	
		s	ELECTRICAL EXISTING SEWER	

		WORKS LEGEND	
REINFORCEMENT NOTES	PROPOSED		
<ol> <li>REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.</li> <li>SPLICES IN THE REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS</li> </ol>			
SHOWN. THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICES. WHERE THE LAP LENGTH IS NOT SHOWN IT SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE		PROPOSED CONTOURS SITE BOUNDARY	
REINFORCEMENT. 3. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE		BATTER SLOPE	
ENGINEER. 4. REINFORCEMENT SYMBOLS - N - DENOTES GRADE 400N TEMPCORE DEFORMED BARS TO AS 1302	4		
R - DENOTES GRADE 250R HOT ROLLED PLAIN BARS TO AS 1302 SL - DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304 W - DENOTES HARD-DRAWN PLAIN WIRE TO AS 1303		EXTENT OF WORKS TREES TO BE REMOVED AS PART OF	
<ul> <li>REINFORCEMENT COGS AND EXTENSIONS TO BE IN ACCORDANCE WITH AS3600.</li> <li>NUMBER OF BARS IN GROUP</li></ul>		BULK EARTHWORKS PACKAGE.	
4N20-200		TREES TO BE RETAINED	
NOMINAL BAR SIZE IN mm		BATTERS	
REFERENCE NUMBER FOR FABRIC TO AS 1304. 6. ALL REINFORCEMENT FABRIC SHALL COMPLY WITH AS1303 AND AS1304 AND SHALL BE SUPPLIED AS FLAT SHEETS.	1001	LOT NUMBERS	
25 MIN. TYPICAL FABRIC LAP	<u>K&amp;G</u>	KERB & GUTTER REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
FABRIC SHALL BE LAPPED 2 TRANSVERSE WIRES PLUS 50mm. BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETER CENTRES WITH 3 WRAPS OF WIRE.	RK&G	ROLL KERB & GUTTER REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
7. PLACE SUFFICIENT BAR CHAIRS UNDER BOTTOM REINFORCING RODS AND TOP CROSSRODS IN SLABS TO ALLOW THEM TO BE SUPPORTED IN THEIR CORRECT POSITIONS DURING CONCRETING (NOT GREATER	КО	KERB ONLY REFER PENRITH CITY COUNCIL STANDARD DETAIL	
THAN 900mm CENTRES BOTH WAYS) B. REINFORCEMENT LAYERS DENOTED THUS UNO - TT - DENOTES TOP BARS LAID LAST IN TOP T - DENOTES TOP BARS LAID FIRST IN TOP	DD	DISH DRAIN REFER DRAWING 1601 FOR DETAILS	
B - DENOTES BOTTOM BARS LAID SECOND IN BOTTOM BB - DENOTES BOTTOM BARS LAID FIRST IN BOTTOM WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-300 SPLICED WHERE NECESSARY AND LAP WITH MAIN BARS 450mm		VEHICULAR CROSSING REFER PENRITH CITY COUNCIL STANDARD DETAIL.	
UNLESS NOTED OTHERWISE. 0. MINIMUM LAP LENGTHS UNLESS NOTED OTHERWISE SHALL BE - 500 FOR N12 BARS 600 FOR N16 BARS		PRAM RAMP REFER PENRITH CITY COUNCIL FOR DETAIL.	
900 FOR N20 BARS 1000 FOR N24 BARS 1200 FOR N28 BARS 1500 FOR N32 BARS 1800 FOR N36 BARS		INDICATIVE GARAGE/DRIVEWAY LOCATION ONLY	
1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS	Ø675	STORMWATER PIPELINE	
3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS. 2. CONCRETE QUALITY		CONCRETE HEADWALL	
ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.	(4\2)	DRAINAGE LINE No. DRAINAGE PIT No.	
ELEMENTAS 3600 F'c MPa AT 28 DAYSSPECIFIED SLUMPNOMINAL AGG. SIZEVEHICULAR BASE326020		DRAINAGE CAP	
KERBS AND PATHS258020PITS, FOUNDATIONS &408020CULVERT BASE SLABS		STORMWATER DRAINAGE PITS	
- CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL - PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH		SCOUR PROTECTION	
AS 1379. 3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN	$\longrightarrow$ $\longrightarrow$ $\longrightarrow$	EXISTING WATER COURSES AS PER 1:10000 TOPOGRAPHIC MAPS	
<ul> <li>WRITING BY CARDNO.</li> <li>CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE</li> </ul>		ENDEAVOUR ENERGY KIOSK SUB STATION	
OTHERWISE. 5. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT			
GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS. 6. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS,	EXISTING W	ORKS LEGEND	
COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED		TRANSGRID PYLON	
AND CURED IN ACCORDANCE WITH R.T.A. SPECIFICATION R83.	-··	EXISTING CONTOURS	
		TRANSGRID EASEMENT	
	e	TRANSGRID OVERHEAD ELECTRICAL	
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	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES					
OPMENT APPLICATION	Datum		Scale	Size		
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	Drawing Number					
	CV-CARDNO-ST03D-1011			1		



Date

Description

DAC ARM ARM

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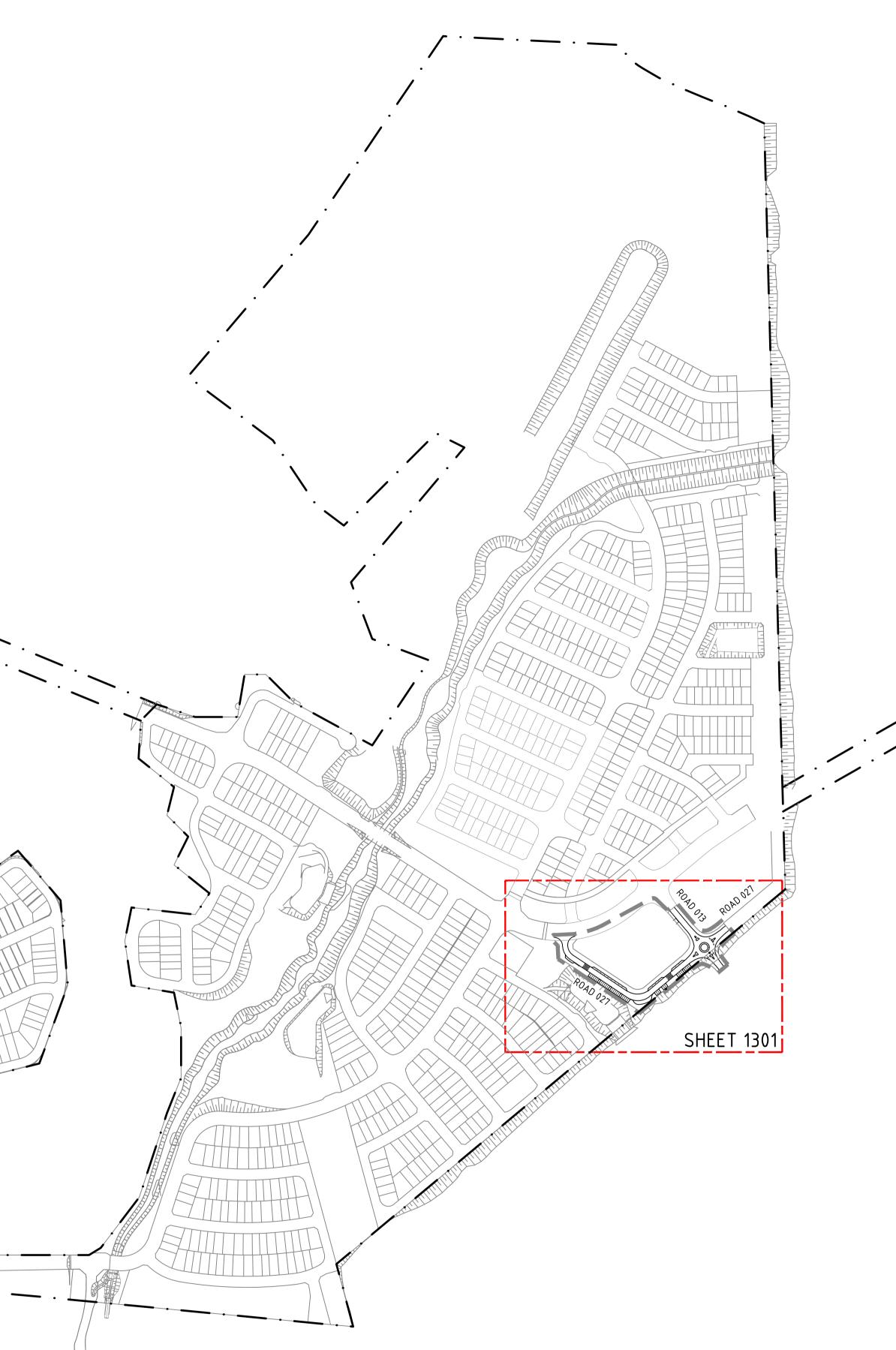
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Drawn MCD	05.06.18	Client LENDLEASE			
Checked DAC	Date 05.06.18	Project JORDAN SPRINGS EAST	Status	R APPROVAL	
Designed DAC	Date 05.06.18	STAGE 3D - CIVIL WORKS	NOT TO BE USED F		N PURPOSES
Verified	Date	DRAFT DEVELOPMENT APPLICATION	Datum		Size
ARM	05.06.18	Title CONTEXT PLAN	AHD	1:5000	A1
Approved			Drawing Number		Revision
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0 100	200	300	400	500m
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2	15.06.18	REISSUED FOR DRAFT DEVELOPMENT APPLICATION	DAC	ARM	ARM
1	05.06.18	ISSUED FOR DRAFT DEVELOPMENT APPLICATION	DAC	ARM	ARM
Rev.	Date	Description	Des.	Verif.	Appd.

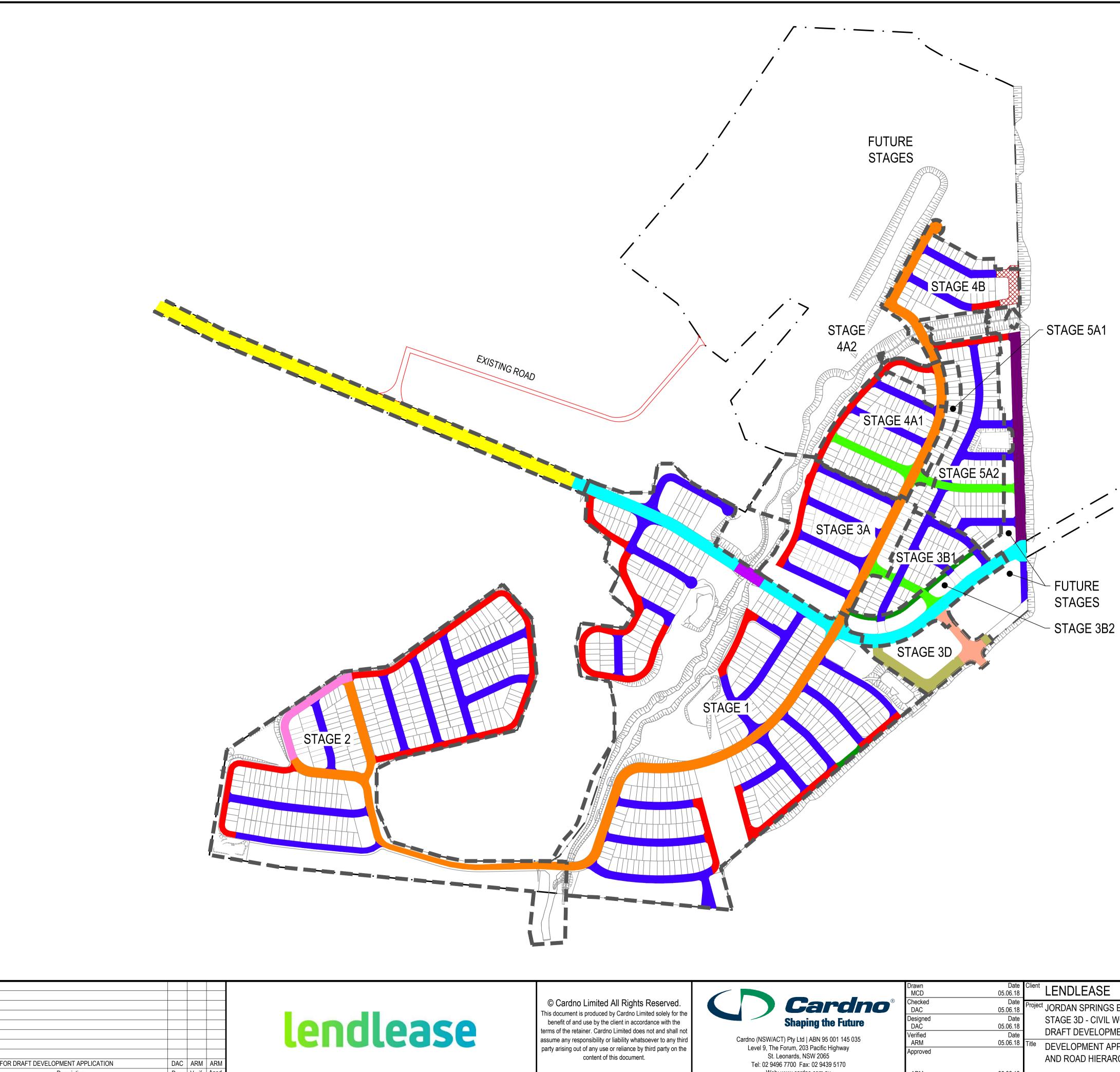




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			0 SCALE 1:4	100 4000	200	300	400m @A1
Drawn MCD	Date Clie 05.06.18	LENDLEASE					
hecked DAC esigned DAC erified	Date 05.06.18 Date 05.06.18 Date	<sup>iject</sup> JORDAN SPRINGS EAST STAGE 3D - CIVIL WORKS DRAFT DEVELOPMENT APPLICATION	N	etus OT TO BE USE tum	FOR APPI ED FOR CONS	STRUCTION	PURPOSE Dize
ARM	05.06.18 Title	e GENERAL ARRANGEMENT PLAN		AHD awing Number	DNO-ST0	1:4000	A1 Revision 2



Date

05.06.18 ISSUED FOR DRAFT DEVELOPMENT APPLICATION

Description

DAC ARM ARM

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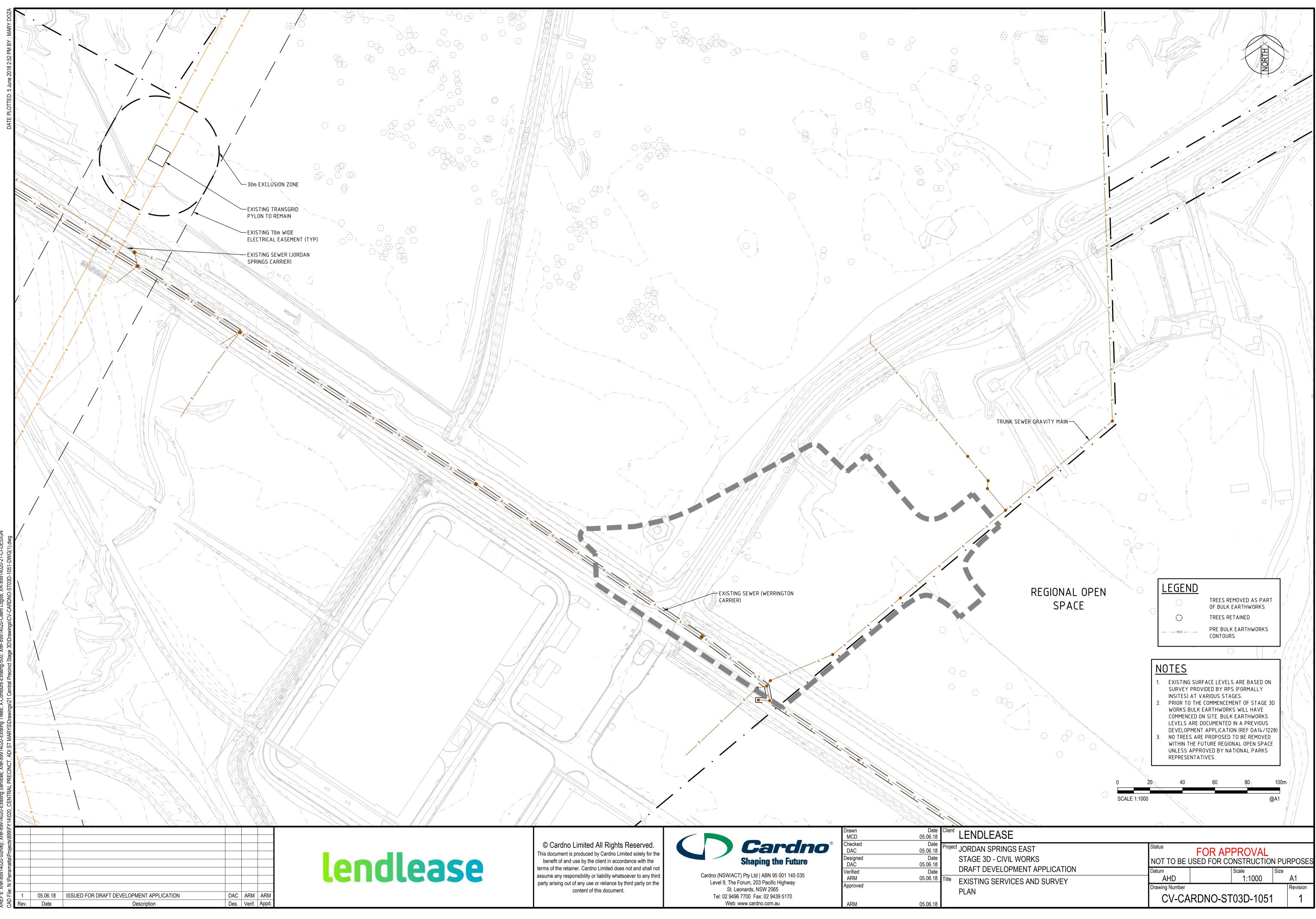
Drawn MCD	Date 05.06.18				
Checked DAC Designed DAC	Date 05.06.18 Date 05.06.18	Project JORDAN SPRINGS EAST STAGE 3D - CIVIL WORKS		OR APPROVAL	JRPOSES
Verified	Date	DRAFT DEVELOPMENT APPLICATION	Datum	Scale Size	Δ.1
ARM Approved	05.06.18	DEVELOFINIEINT AFFLICATION STAGING FLAN	AHD Drawing Number	1:4000	A1 Revision
ARM	05.06.18	AND ROAD HIERARCHY PLAN	°,	NO-ST03D-1041	1

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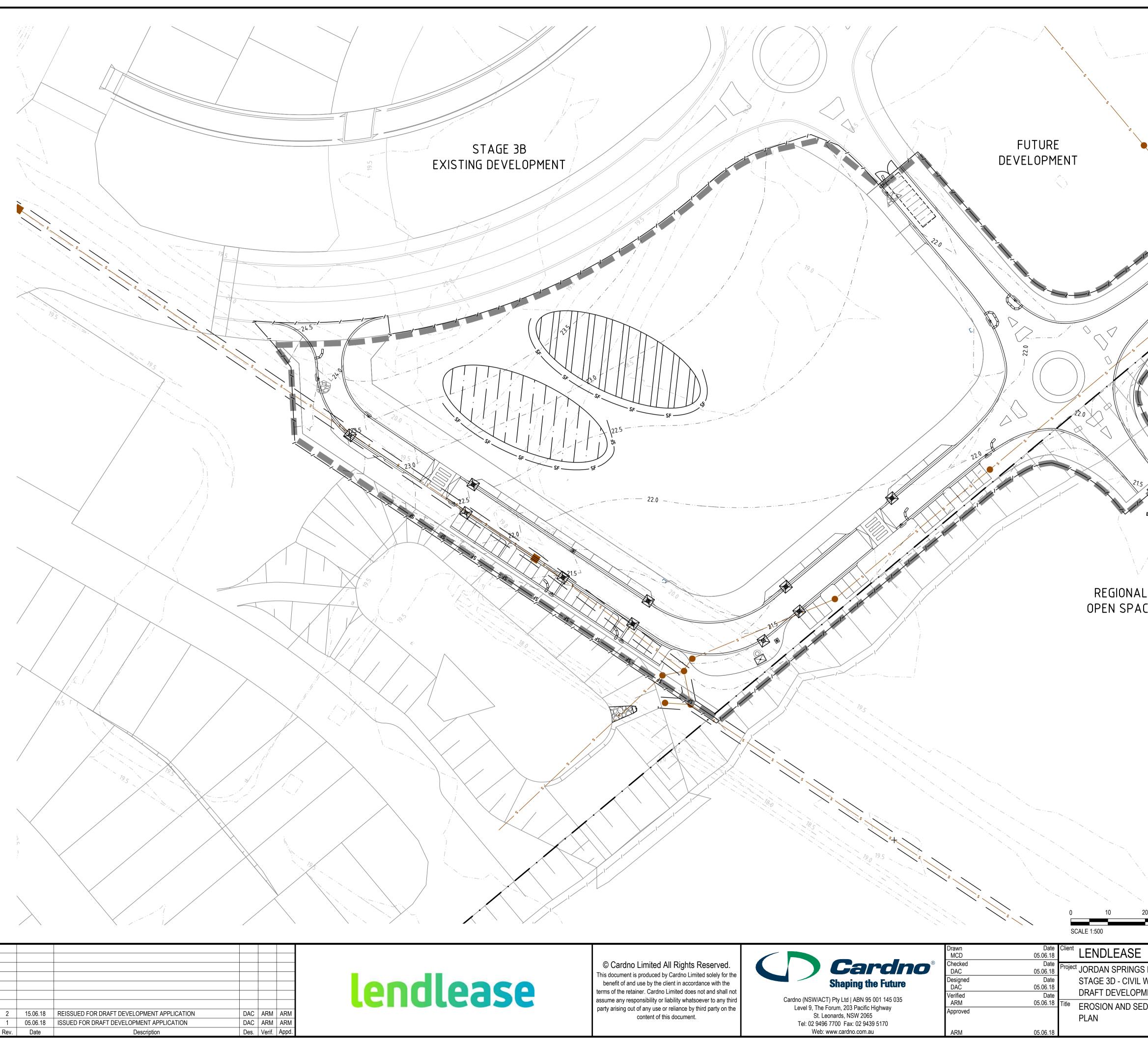
### NOTES:

- 1. BASED ON INFORMATION PROVIDED BY LENDLEASE (14/05/18).
- 2. EXTENT OF FUTURE STAGES SUBJECT TO REFINEMENT.
- ROAD AND LOT LAYOUTS OUTSIDE OF З. PROPOSED STAGING BOUNDARIES ARE BASED ON A PRELIMINARY MASTERPLAN PREPARED BY LENDLEASE AND IS SUBJECT TO FUTURE REFINEMENT.



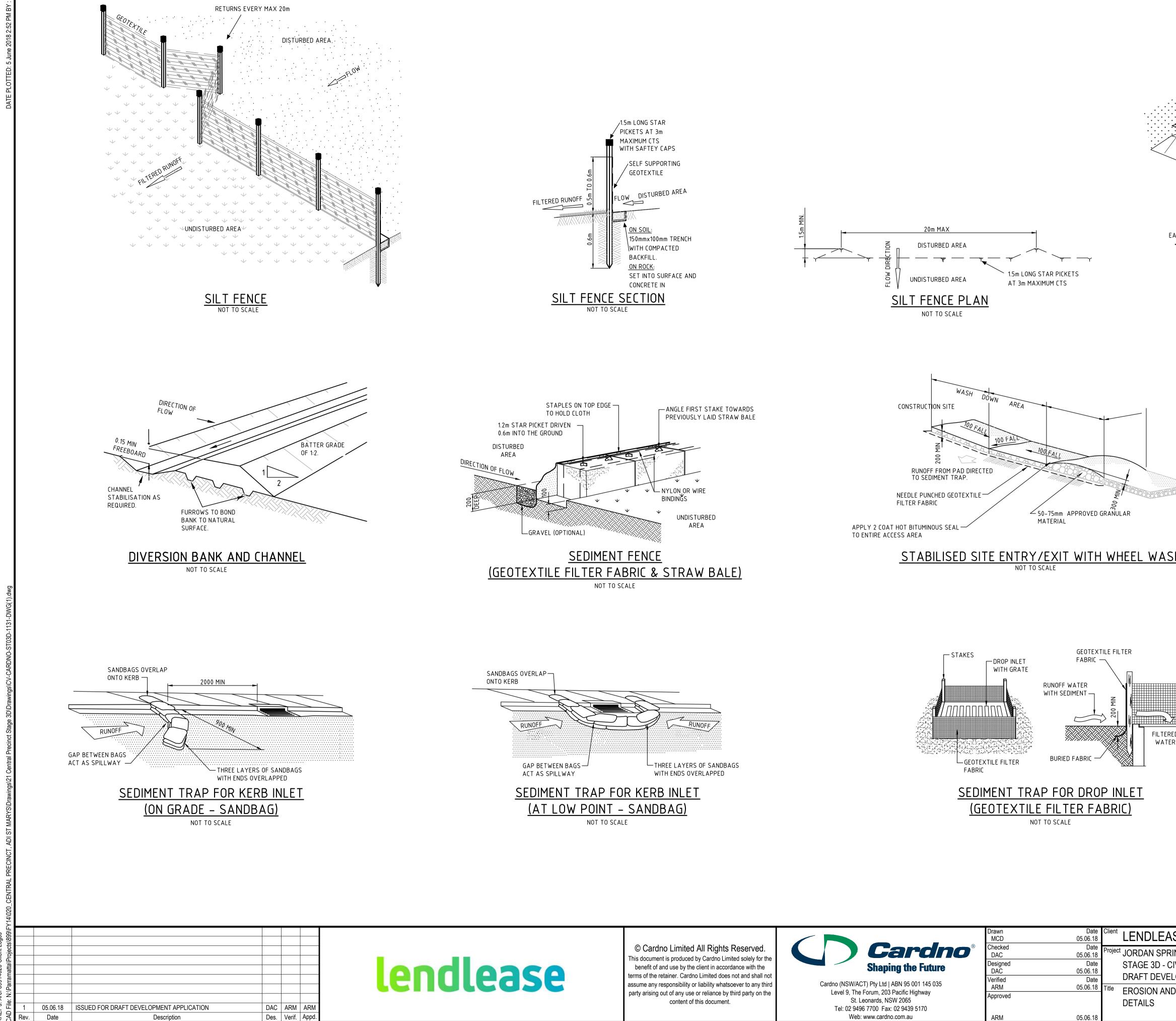






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Α.	LULIND     EXISTING 1800mm CHAIN WIRE FENCE
	PROPOSED 1800mm CHAIN WIRE FENCE
19.0	
	Improve the stabilised site entry/exit with       Improve the stabilised site entry       Improve the stabili
	LEVEL SPREADER
	INLET SEDIMENT TRAP DURING CONSTRUCTION, KERB INLET
	CONSTRUCTION, KERB INLET CONTROL AFTER CONSTRUCTION TO PENRITH CITY COUNCIL DETAILS.
	STRAW BALES
	SAND BAGS
	(       ) INDICATIVE TOPSOIL STOCKPILE LOCATIONS
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	STOCKPILE LOCATIONS
20 30 40 50m	SITE ENTRANCE
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GS EAST L WORKS	Status FOR APPROVAL
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SEDIMENTATION CONTROL	AHD 1:500 A1 Drawing Number Revision
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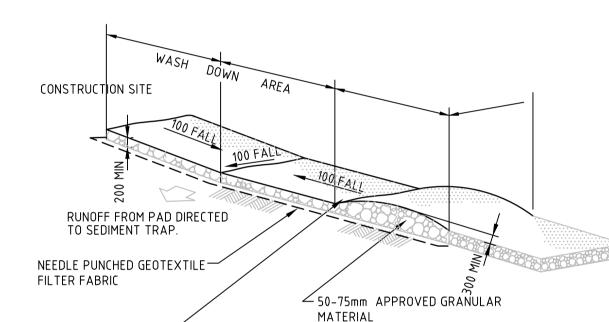
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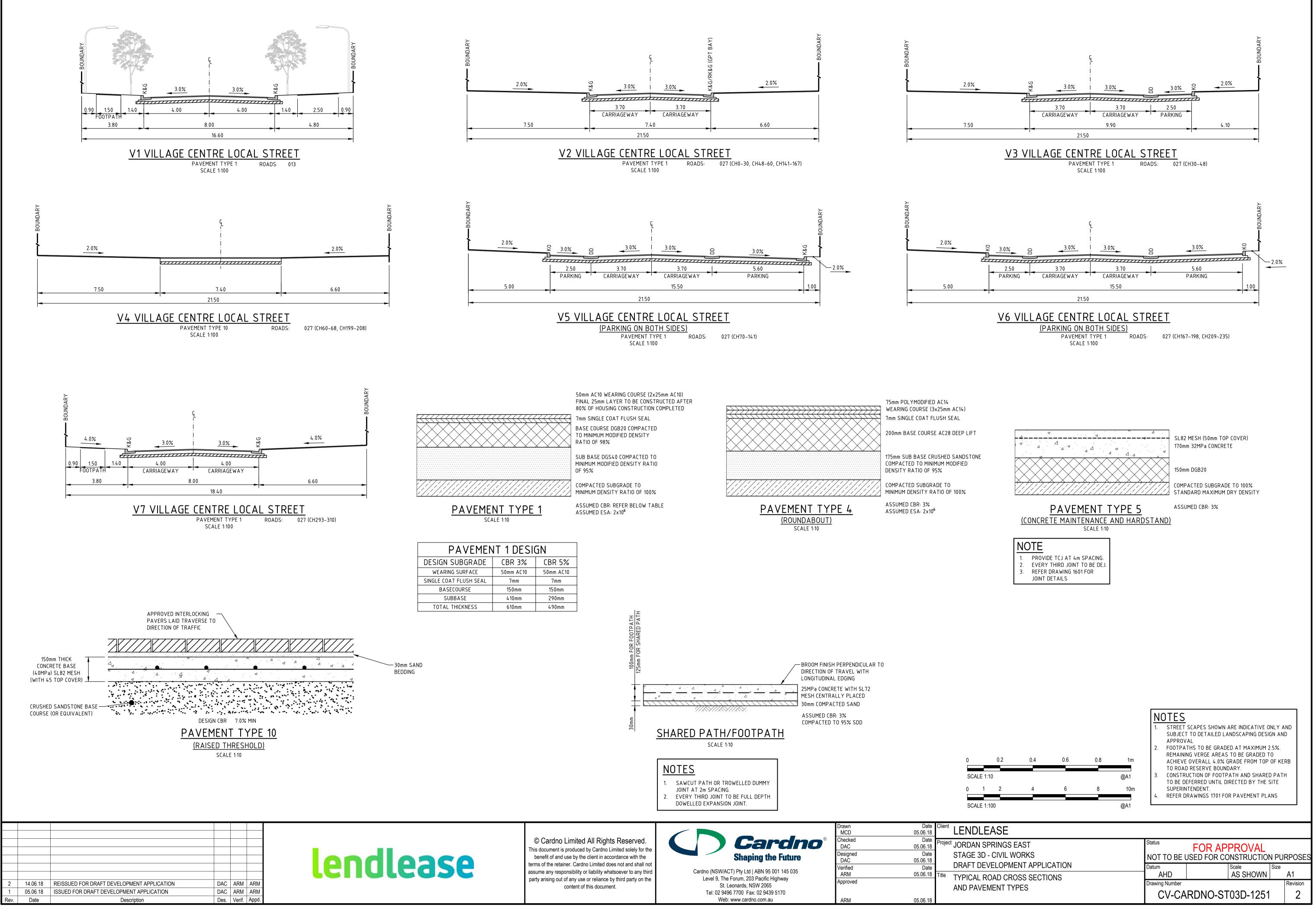
Drawn MCD	Date 05.06.18	Client	LENDLEASE
Checked DAC	Date 05.06.18	Project	JORDAN SPRINGS
Designed DAC	Date 05.06.18		STAGE 3D - CIVIL \ DRAFT DEVELOPM
Verified ARM	Date 05.06.18	<b>T</b> '0 -	EROSION AND SEL
Approved			DETAILS
ARM	05.06.18		

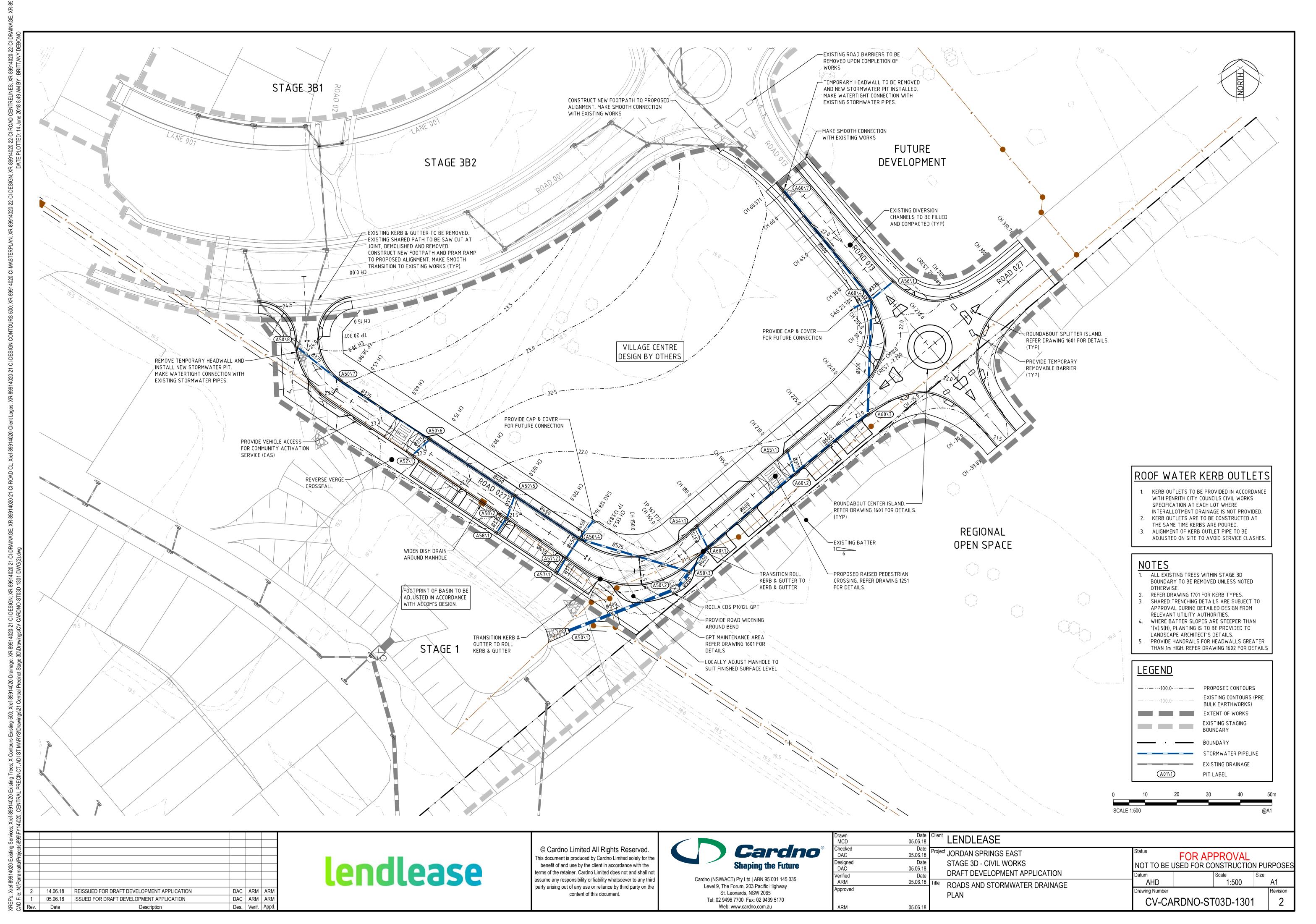


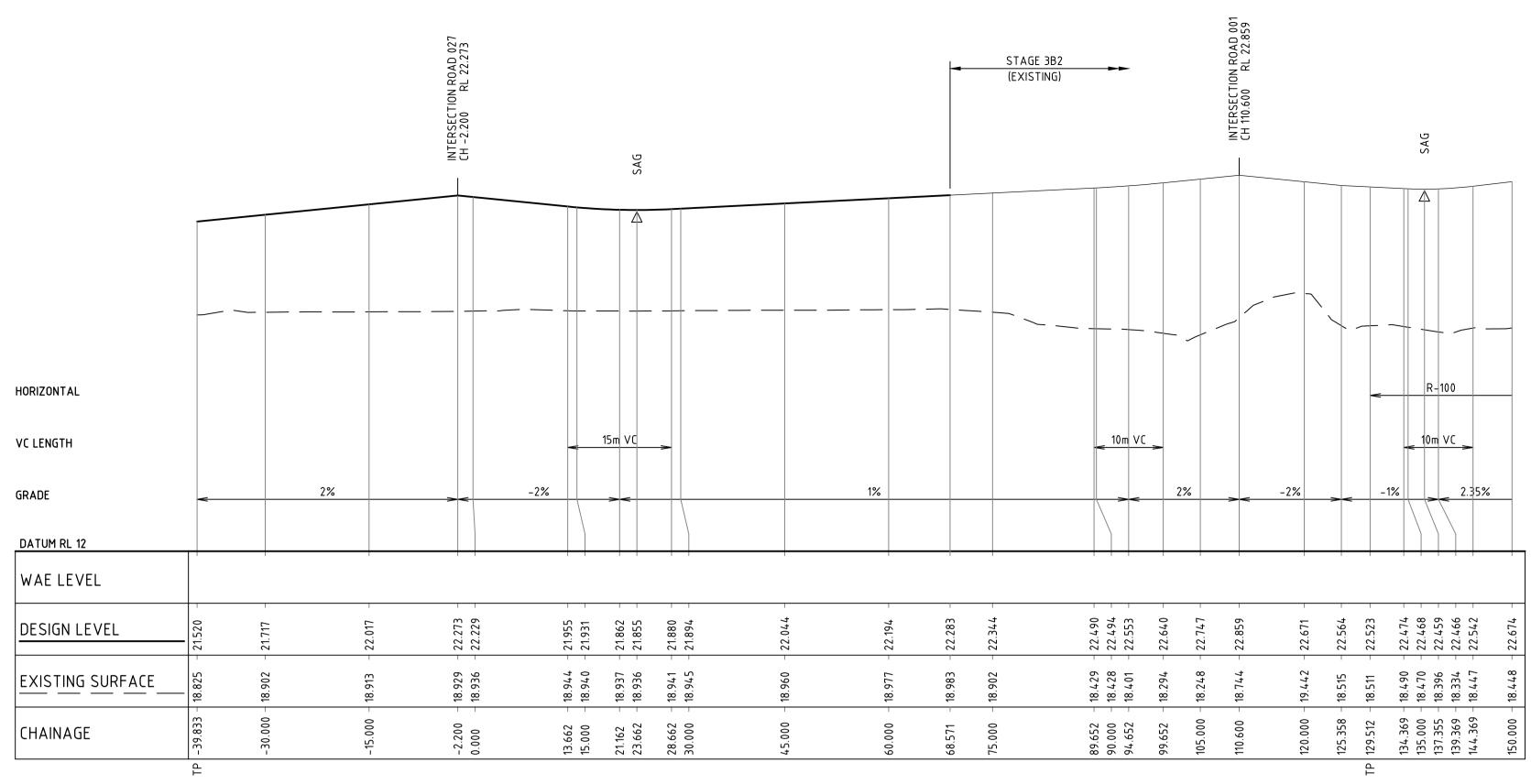


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S EAST WORKS	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES					
MENT APPLICATION	Datum		Scale	Size		
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	Drawing Number				Revision	
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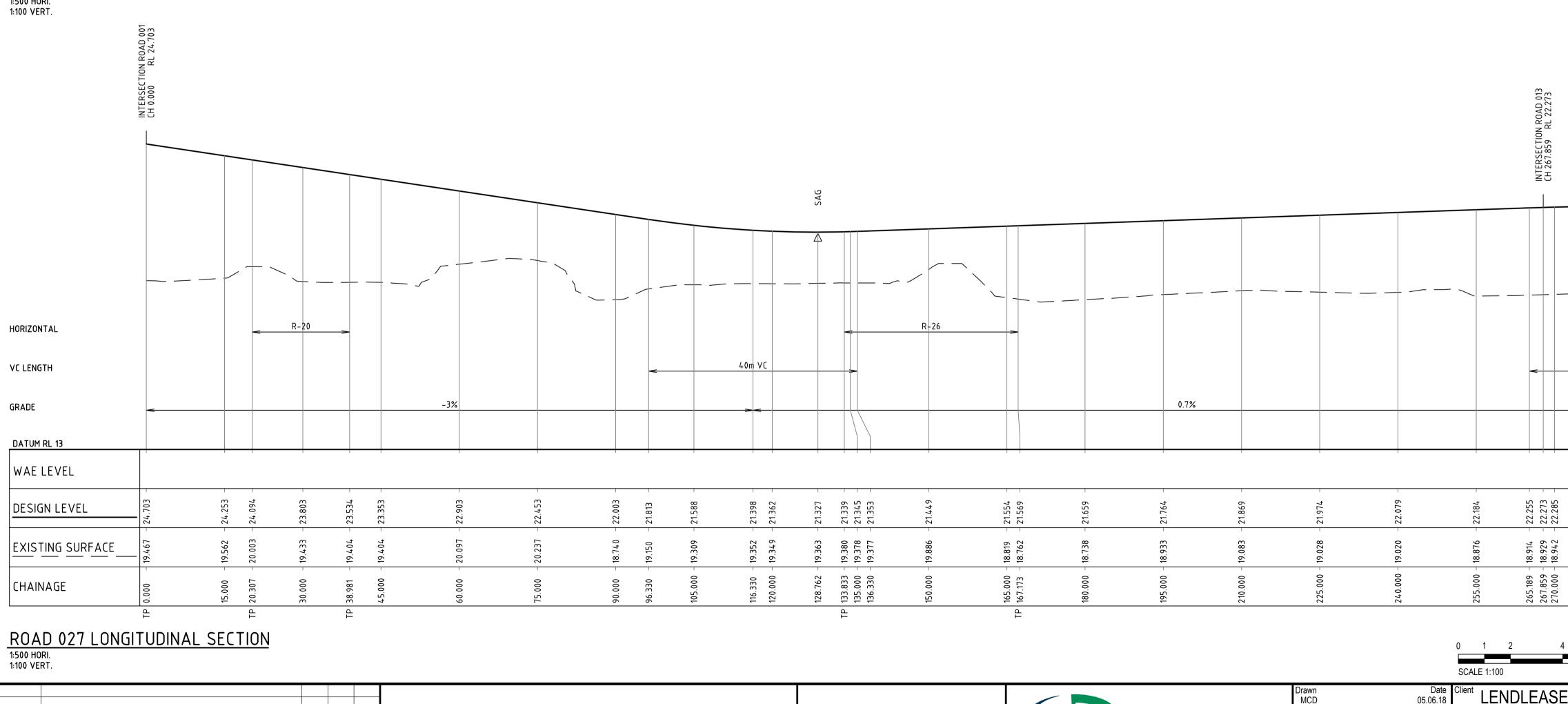






### ROAD 013 LONGITUDINAL SECTION

1:500 HORI. 1:100 VERT.



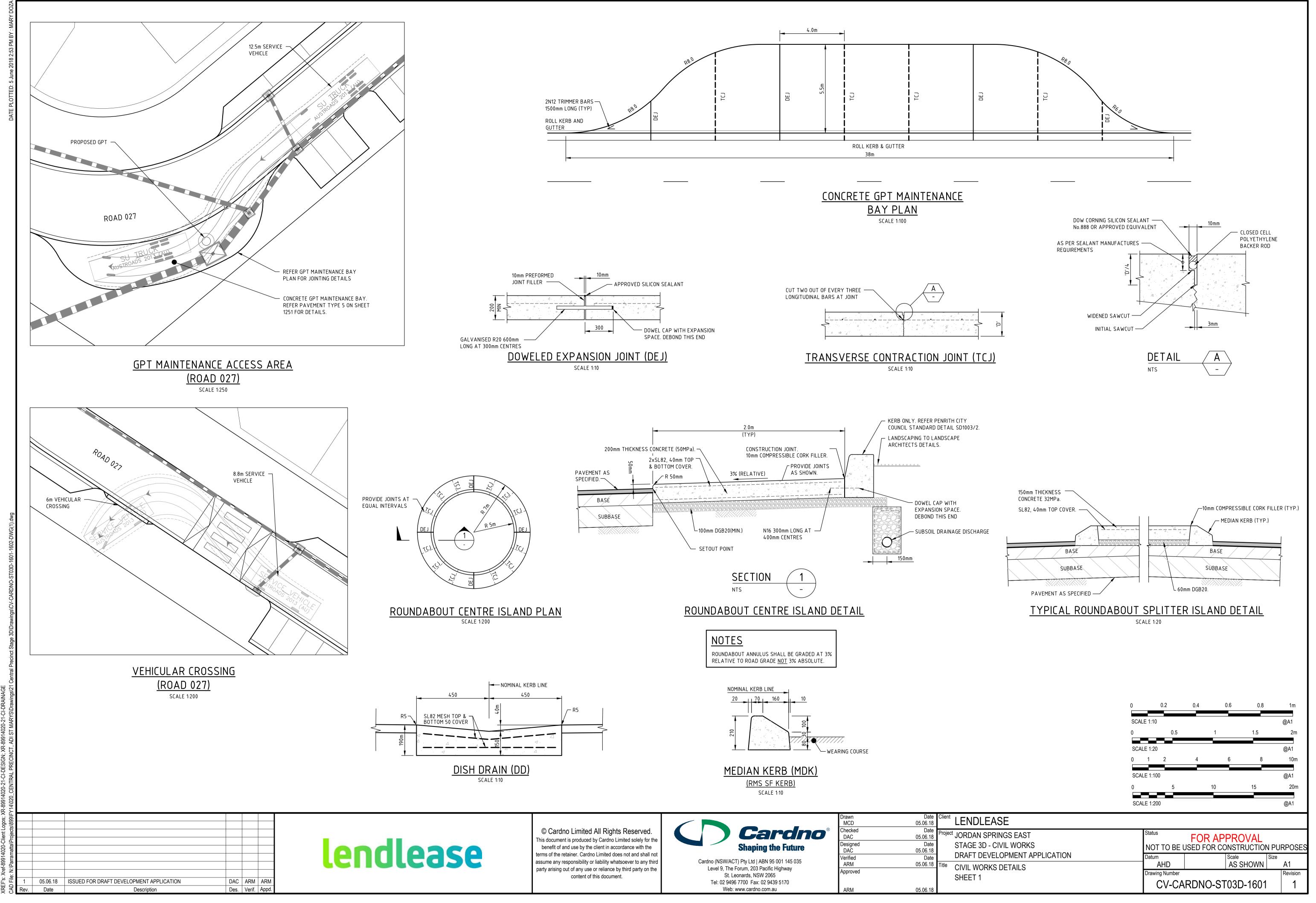
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### 05.06.18 ISSUED FOR DRAFT DEVELOPMENT APPLICATION DAC ARM ARM CAD CAD Date Description Des. Verif. Appd.

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	SAG					INTERSECTION ROAD 013 CH 267.859 RL 22.273	CREST		FUTURE WO	RKS	
0m VC	R-26		0.7%				 35m VC		-0.7%		
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21.398 - 21.362 -	21.327 - 21.339 - 21.353 - 21.449 - 21.449 -	21.554 - 21.569 - 21.659 -	21.764 - 21.869 -	21.974 -	22.079 -	22.184 - 22.255 - 22.273 -	22.316 - 22.316 -	22.257 - 22.255 -	22.152 -	22.047 -	21.942 - 21.907 -
- 19.352 - - 19.349 -	- 19.363 - 19.380 - 19.377 - 19.376 - 19.886	- 18.819 - 18.762 - 18.738 - 18.738	- 18.933 - 19.083 -	- 19.028	- 19.020	- 18.876 - - 18.914 - - 18.929 -	19 19 19	- 18.911 -	- 18.860 - 18.912 -	- 18.762 -	- 18.922 - 18.986 -
116.330 120.000	TP 128.762 135.000 136.330 150.000	TP 167.173 167.173 180.000	195.000	225.000	240.000	255.000 265.189 267.859	282.689	300.000 300.189	310.742 315.000	330.000	345.000
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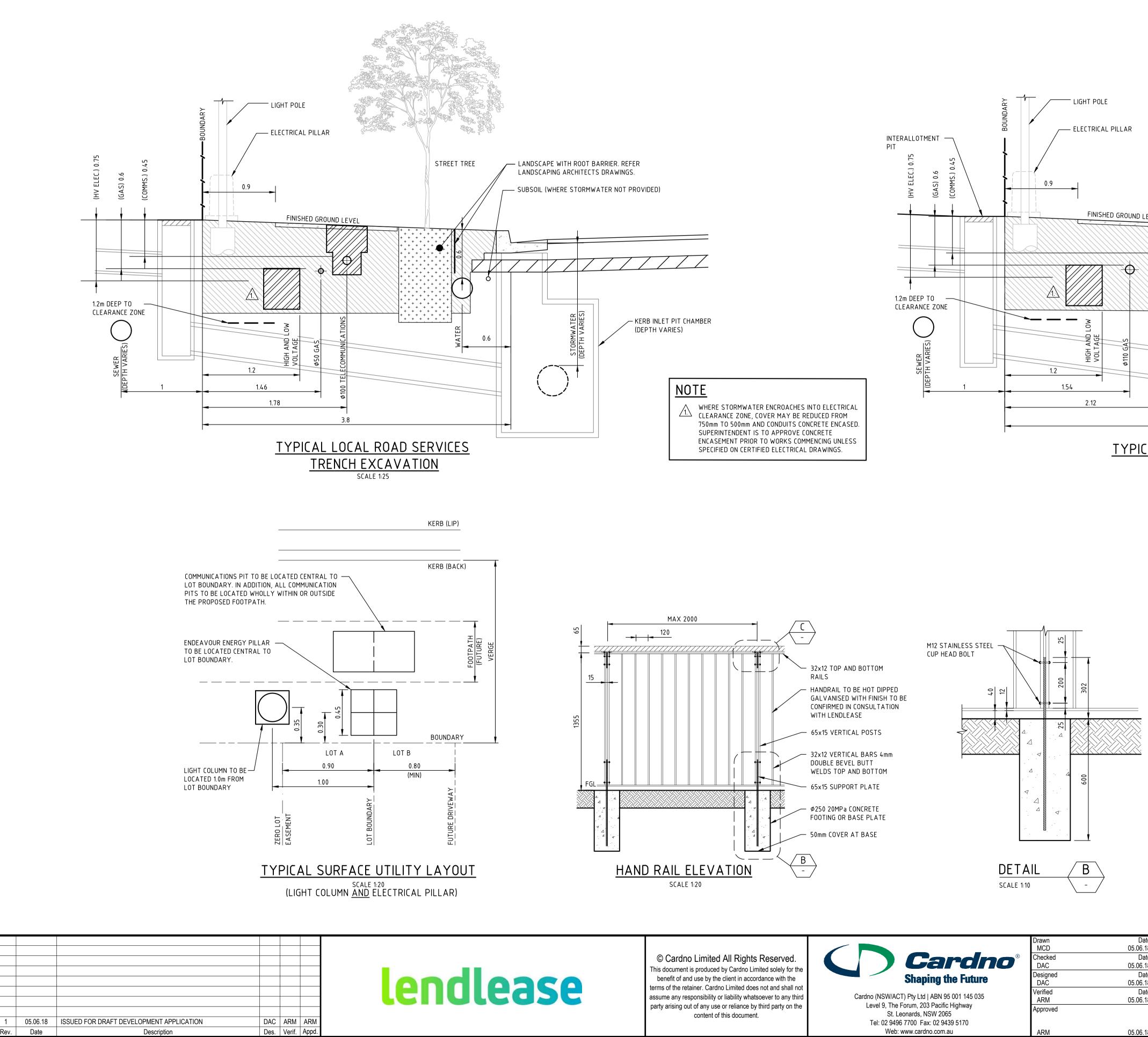


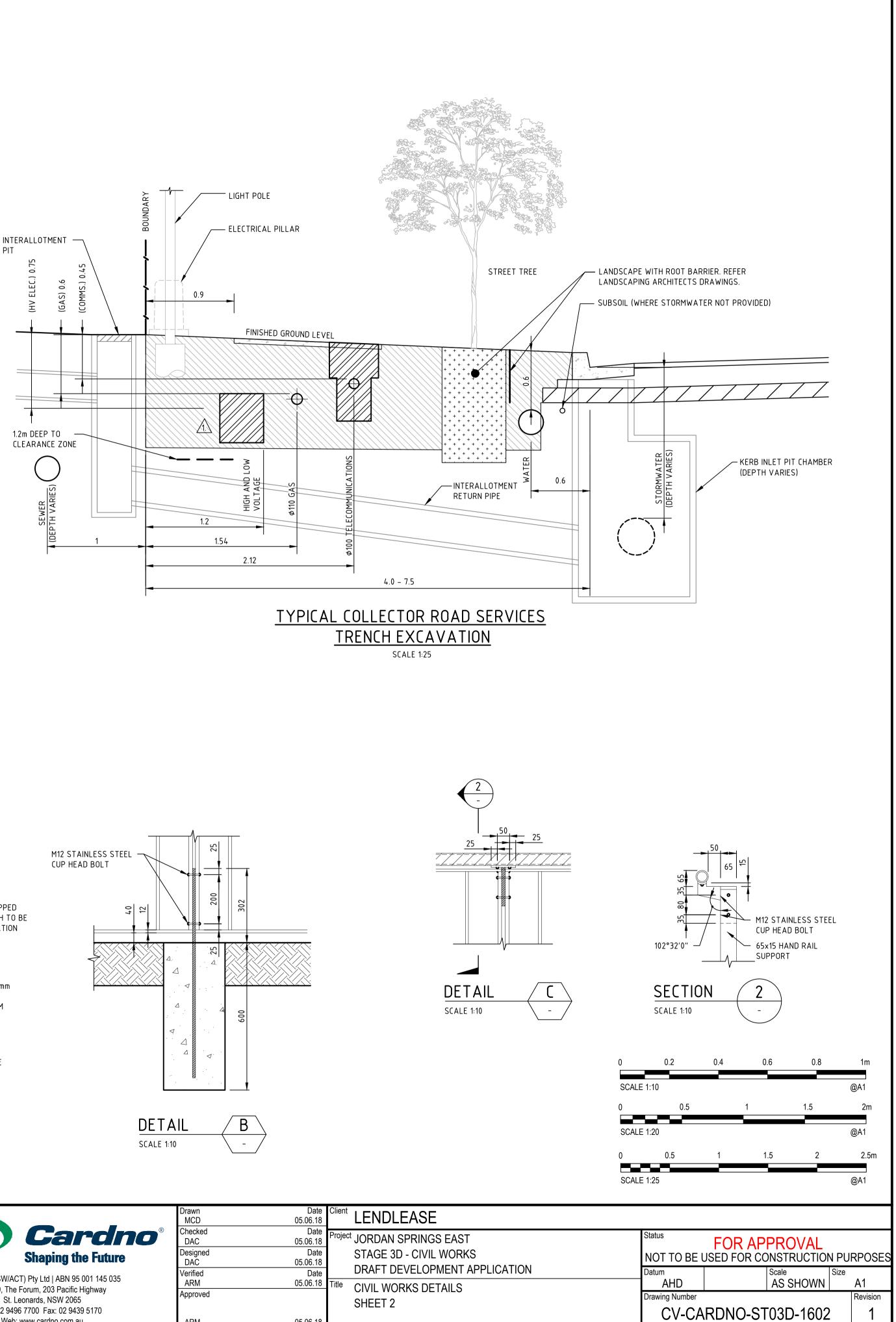
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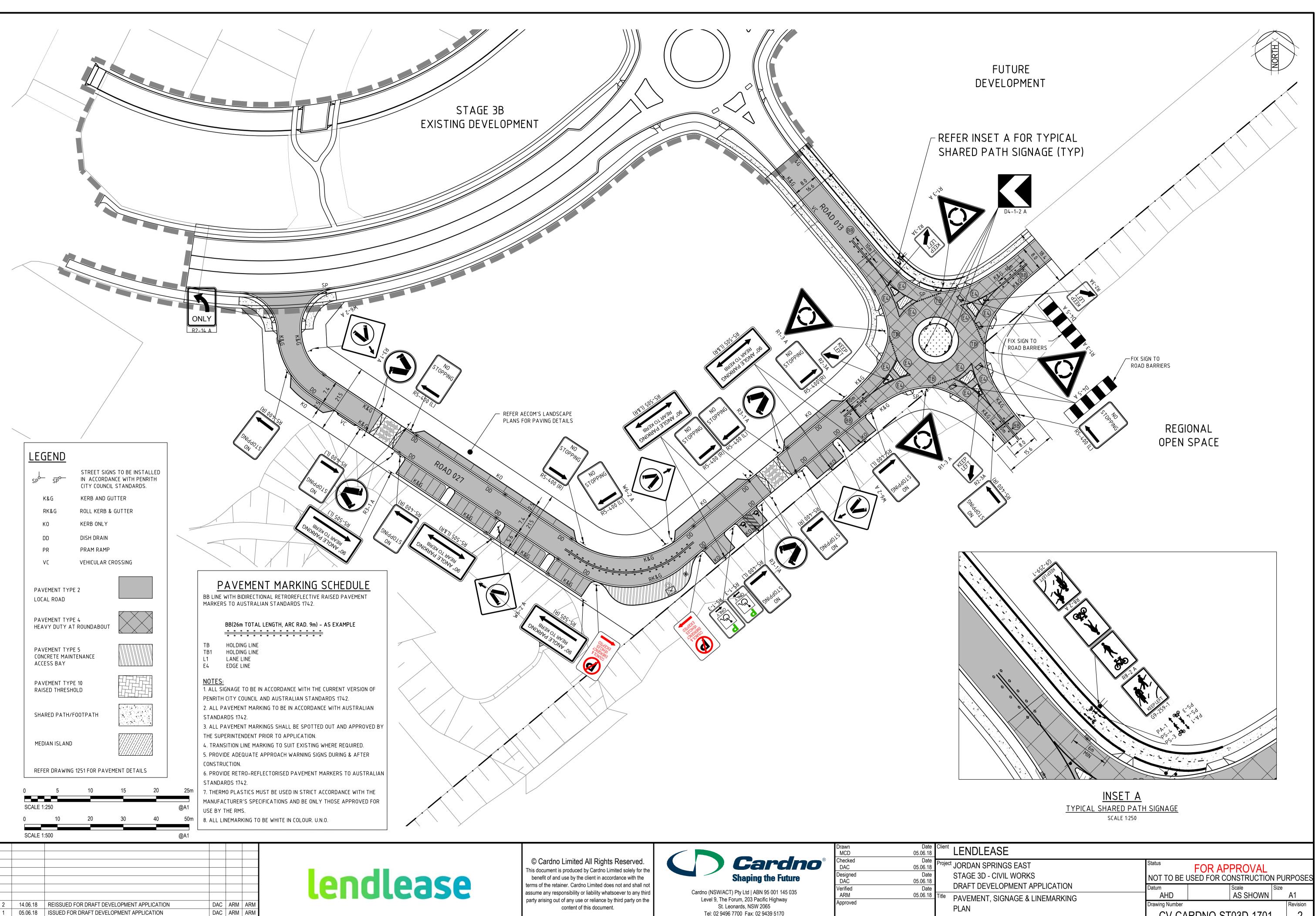
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Date

Description

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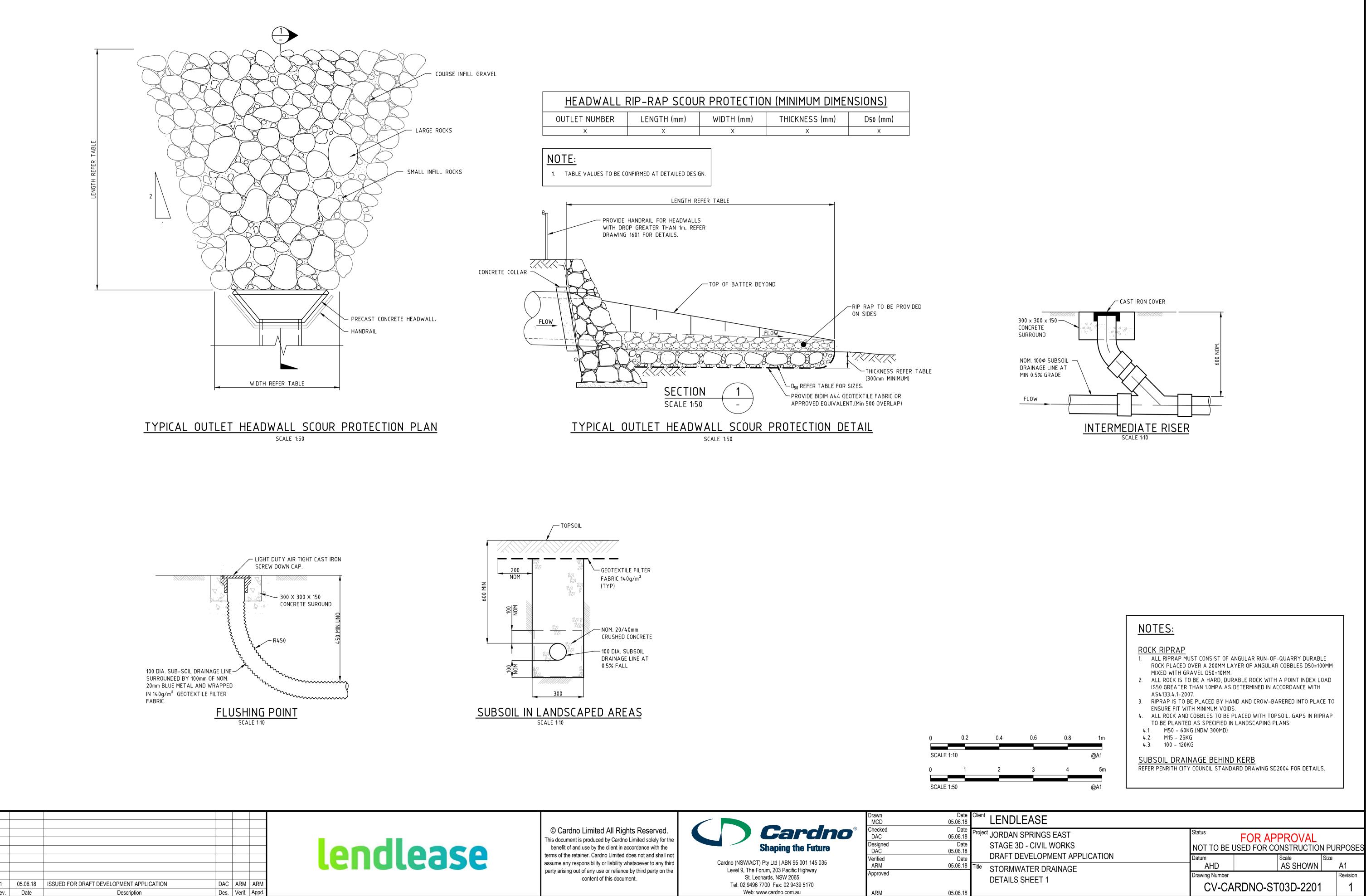
Tel: 02 9496 7700 Fax: 02 9439 5170

Web: www.cardno.com.au

Drawn MCD	Date 05.06.18	Client LENDLEASE
Checked DAC	Date 05.06.18	Project JORDAN SPRINGS
Designed DAC	Date 05.06.18	STAGE 3D - CIVIL DRAFT DEVELOPI
Verified ARM	Date 05.06.18	Title PAVEMENT, SIGN
Approved		PLAN
ARM	05.06.18	

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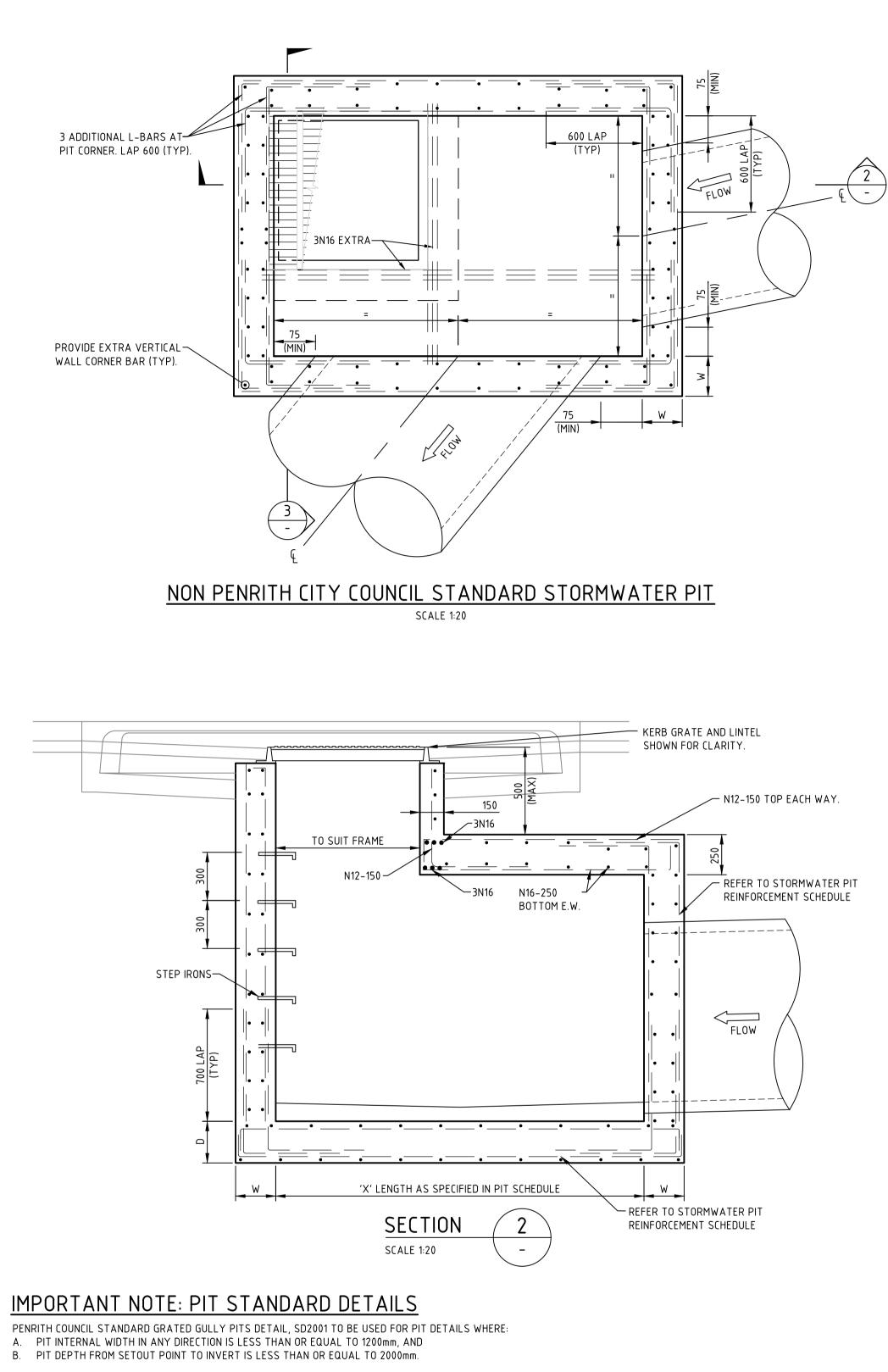


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	hecked DAC C	Date 05.06.18	Project JORDAN SPRING
	esigned DAC C	Date )5.06.18	STAGE 3D - CIVIL
	erified ARM C	Date 05.06.18	DRAFT DEVELOP
A	pproved		DETAILS SHEET 1
	ARM C	5.06.18	

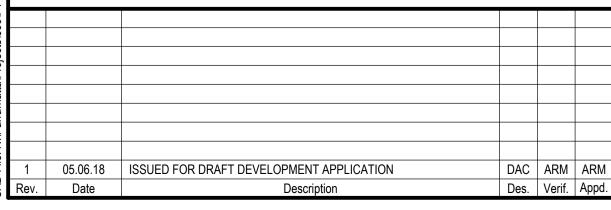
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1	Drawing Number	RDNO-ST	03D-2201		Revision 1



FOR PITS WIDER THAN 1200mm AND/OR DEEPER THAN 2000mm REFER TO THE BELOW TABLE AND DETAILS.

NON PCC STORMWATER PIT REINFORCEMENT SCHEDULE							
PIT DIMENS	IONS(mm)	WALL DIME	NSIONS(mm)	VERTICAL HORIZONTAL		BASE	
LENGTH 'X','Y'	DEPTH 'H'	BASE THICKNESS 'D'	WALL THICKNESS 'W'		REINFORCEMENT		
1200 <x,y<3300< td=""><td>2000<h<3900< td=""><td>230</td><td>230</td><td>N12-200 E.F.</td><td>N12-200 E.F.</td><td>N12-200 E.F.</td></h<3900<></td></x,y<3300<>	2000 <h<3900< td=""><td>230</td><td>230</td><td>N12-200 E.F.</td><td>N12-200 E.F.</td><td>N12-200 E.F.</td></h<3900<>	230	230	N12-200 E.F.	N12-200 E.F.	N12-200 E.F.	
X,Y<1200	H<6000	230	230	N16-250 E.F.	N16-250 E.F.	N16-250 E.F.	

NOTE: PIT REINFORCEMENT TO BE SELECTED USING MAXIMUM PIT DIMENSION

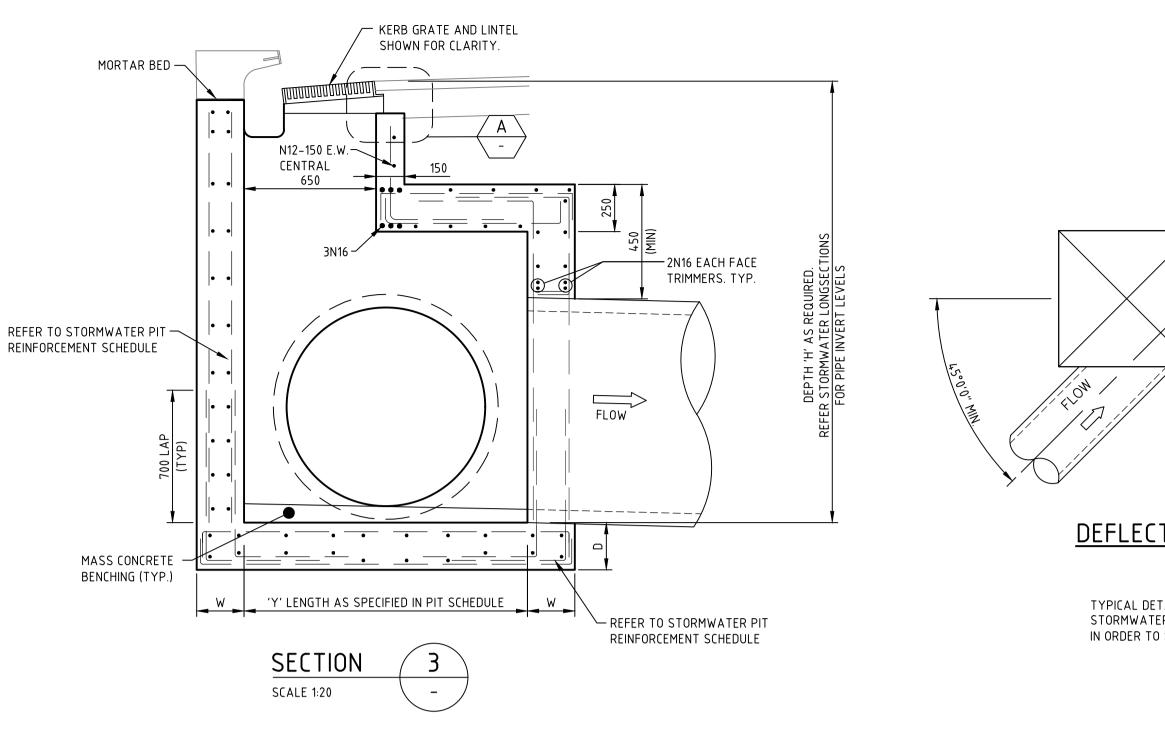


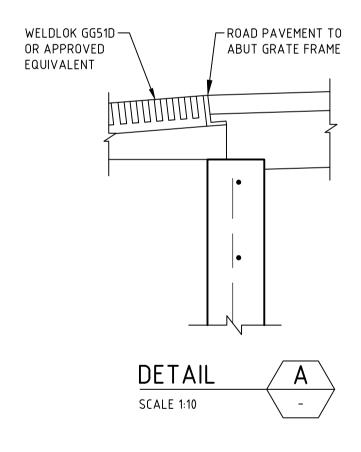


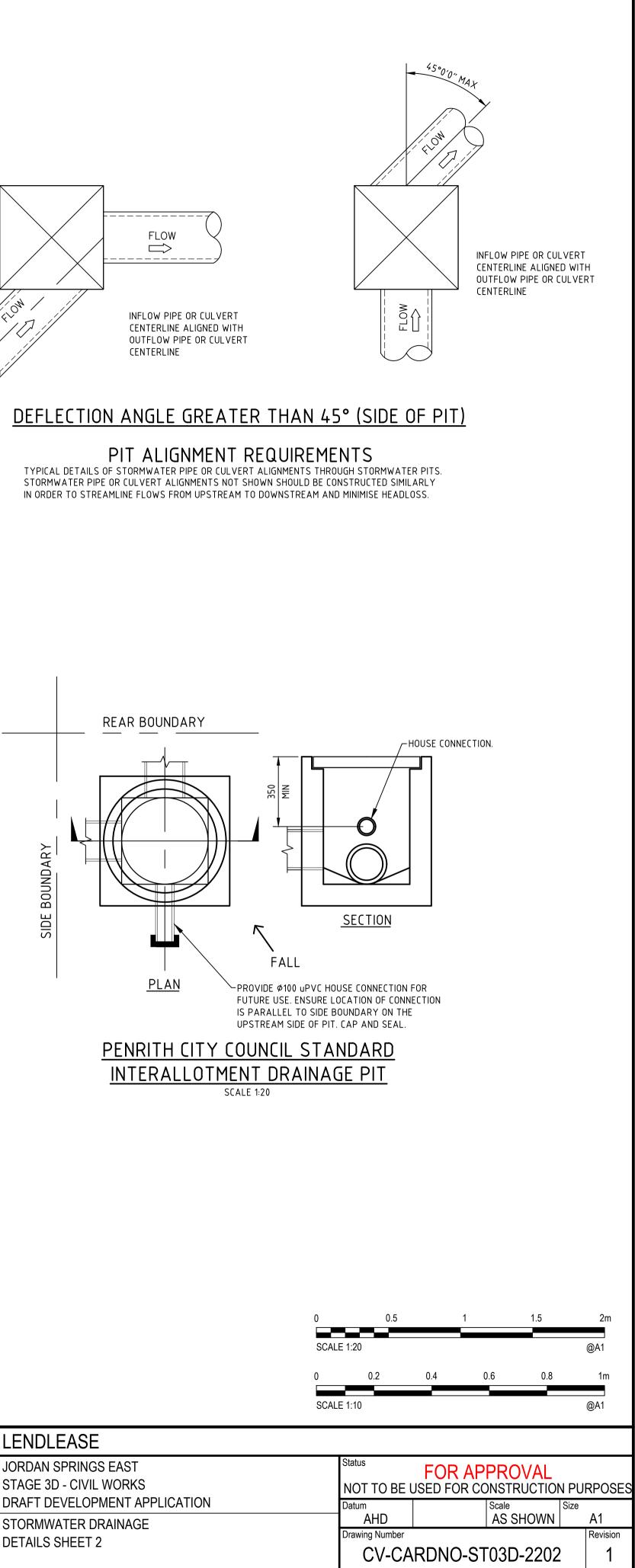
er-89914u2u-cilent Logos 4:\Parramatta\Projects\899\FY14\020\_CENTRAL PRECINCT, ADI ST MARYS\Drawings\21 Central Precinct Stage 3D\Drawings\CV-CARDNO-ST03D-2201-2202-D

XREF's: Xref-89914020-Client Logos XREF's: Xref-89914020-Client Logos CAD File: N:\Parramatta\Projects\899\Fy

Version: 1, Version Date: 25/06/2018





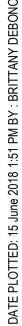


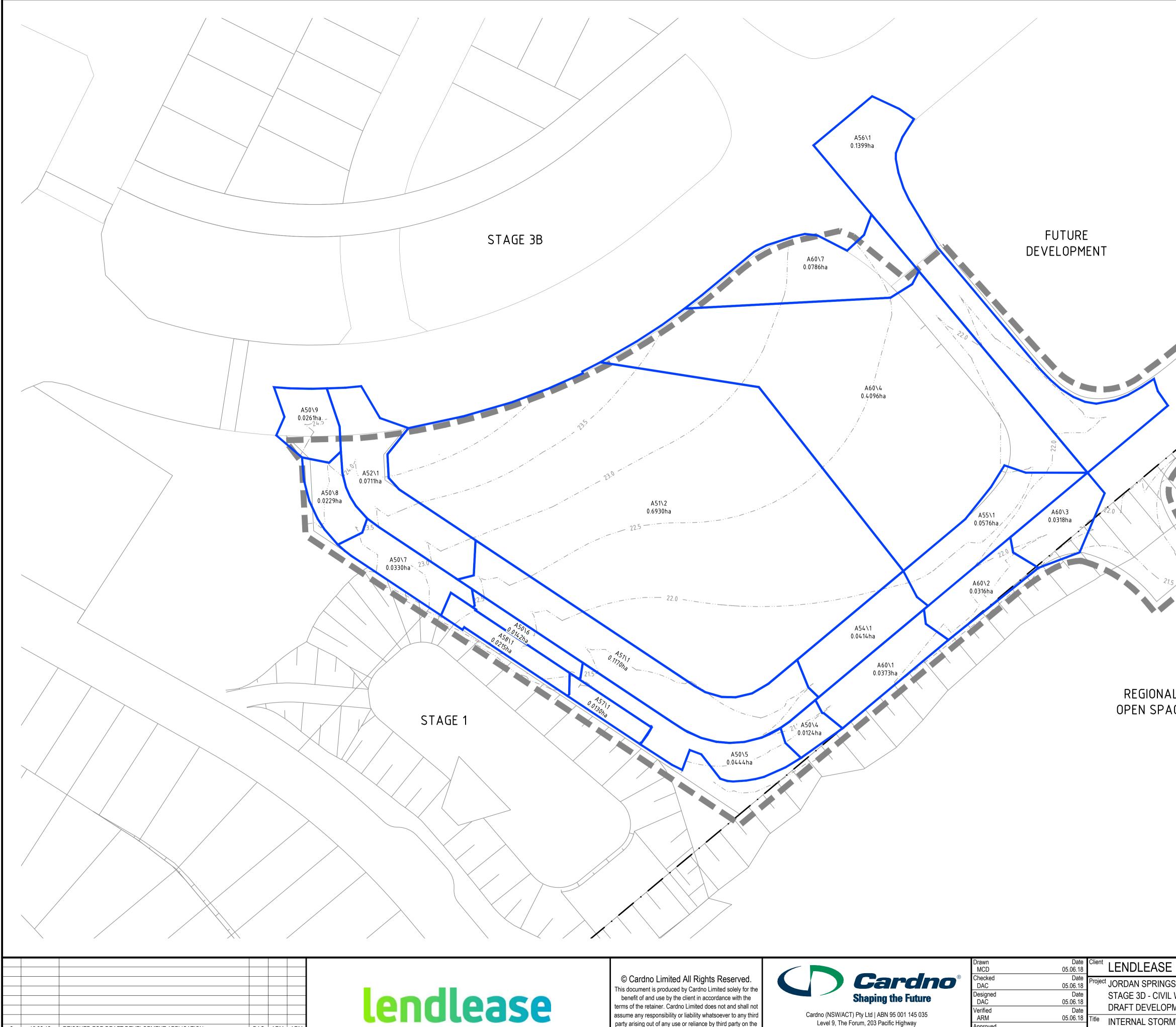
 PIT REINFORCEMENT TO BE SELECTED USING MAXIMUM PIT DIMENSION.
 MINIMUM COVER TO REINFORCING AND CONCRETE STRENGTH AS SPECIFIED ON SHEET 1011.

NOTES:

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Drawn MCD	Date 05.06.18	Client	LENDLEASE
Checked DAC	Date 05.06.18	Project	JORDAN SPRINGS
Designed DAC	Date 05.06.18		STAGE 3D - CIVIL \
Verified ARM	Date 05.06.18	Title	DRAFT DEVELOPM
Approved			STORMWATER DR DETAILS SHEET 2
ARM	05.06.18		





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500

05.06.18 Date

15.06.18 REISSUED FOR DRAFT DEVELOPMENT APPLICATION

ISSUED FOR DRAFT DEVELOPMENT APPLICATION

Description

DAC ARM ARM

DAC ARM ARM

Des. Verif. Appd.

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MCD	05.06.18	
Checked DAC	Date 05.06.18	Project JORDAN SPRING
Designed DAC	Date 05.06.18	STAGE 3D - CIVIL
Verified ARM	Date 05.06.18	
Approved		PLAN
ARM	05.06.18	

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	Drawing Number Revision
	CV-CARDNO-ST03D-2301 2