

BURRA PARK

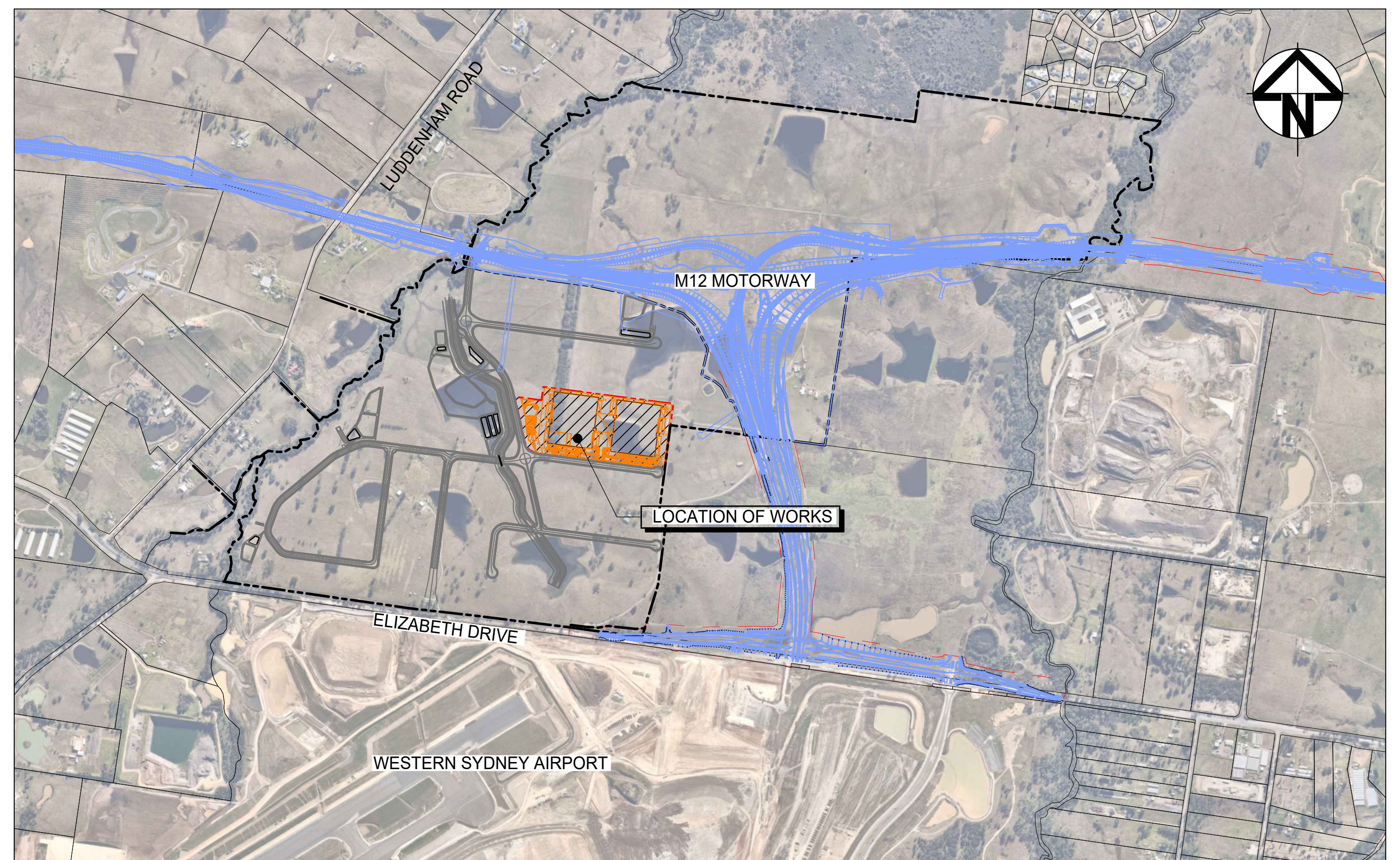
ELIZABETH DRIVE, BADGERYS CREEK

LOT 4.3 & 4.4 (WAREHOUSE 01 & 02)

CIVIL WORKS PACKAGE

SSD-70817958 DEVELOPMENT APPLICATION

DRAWING LIST	DRAWING TITLE
22-993-C2000	LOT 4.3 & 4.4 (WH 01 & 02) COVER SHEET, DRAWING LIST AND LOCALITY PLAN
22-993-C2001	LOT 4.3 & 4.4 (WH 01 & 02) GENERAL NOTES
22-993-C2002	LOT 4.3 & 4.4 (WH 01 & 02) GENERAL ARRANGEMENT
22-993-C2005	LOT 4.3 & 4.4 (WH 01 & 02) SITE SECTIONS
22-993-C2008	LOT 4.3 & 4.4 (WH 01 & 02) BULK EARTHWORKS CUT/FILL PLAN
22-993-C2011	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 1
22-993-C2012	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 2
22-993-C2013	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 3
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22-993-C2015	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 5
22-993-C2016	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 6
22-993-C2017	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 7
22-993-C2018	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 8
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22-993-C2021	LOT 4.3 & 4.4 (WH 01 & 02) STORMWATER DRAINAGE DETAILS
22-993-C2023	LOT 4.3 & 4.4 (WH 01 & 02) PAVEMENT PLAN
22-993-C2024	LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL PLAN BULK EARTHWORKS PHASE
22-993-C2025	LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL PLAN CIVIL WORKS PHASE
22-993-C2026	LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL PLAN STABILISATION PHASE
22-993-C2030	LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL DETAILS SHEET 1
22-993-C2031	LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL DETAILS SHEET 2



LOCALITY PLAN
NTS

			THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client 	Scales NTS Grid GDA2020 Height Datum AHD 	Drawn CK Designed CK Checked CB Approved	Project INDUSTRIAL DEVELOPMENT BURRA PARK Title LOT 4.3 & 4.4 (WH 01 & 02) COVER SHEET, DRAWING LIST AND LOCALITY PLAN	Civil Engineers and Project Managers  Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
D	ISSUED FOR COORDINATION	15-10-24						Status FOR COORDINATION NOT FOR CONSTRUCTION Project - Drawing No. 22-993-C2000	A1 Issue D
WIP	ISSUED FOR COORDINATION	09-09-24							
C	ISSUED FOR APPROVAL	14-06-23							
B	ISSUED FOR COORDINATION	20-04-23							
A	ISSUED FOR COORDINATION	22-12-22							
Issue	Description	Date							

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 AT & L.
3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
5. 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)
6. PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
7. ASPHALTIC CONCRETE SHALL CONFORM TO R.M.S SPECIFICATION R116.
8. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S FORM 3051 (UNBOUND), R.M.S FORM 3052 (BOUND) 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 OF BASECOURSE MATERIAL PLACED.
9. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH R.M.S FORM 3051, 3051.1 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 50m 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 AND 3051.1 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF AT & L.
11. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THE CONTRACTOR IS TO SEEK ACCEPTANCE OF THE PRODUCT FROM AT&L. THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
12. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY BOXALL SURVEYORS, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. AT & L 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 AT & L.

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

NOTES

1. THE BOUNDARIES HAVE APPROXIMATELY BEEN SURVEYED IN ACCORDANCE WITH CLAUSE 9 OF THE SURVEYING & SPATIAL INFORMATION REGULATION 2017
2. ALL AREAS AND DIMENSIONS HAVE BEEN COMPILED FROM PLANS MADE AVAILABLE BY NSW LAND REGISTRY SERVICES AND ARE SUBJECT TO FINAL SURVEY
3. ORIGIN OF COORDINATES HAS BEEN DERIVED USING GPS (GNSS) SURVEY FROM SSM33562
4. ORIGIN OF LEVELS ON A.H.D. IS TAKEN FROM SSM33562 R.L. 43.021 (A.H.D.) IN MAMRE ROAD USING GPS (GNSS) SURVEY METHODS.
5. CONTOUR INTERVAL 0.5 m
6. CONTOURS ARE INDICATIVE ONLY. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION
7. NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. SERVICES HAVE BEEN PLOTTED FROM RELEVANT AUTHORITIES INFORMATION AND HAVE NOT BEEN SURVEYED. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE
8. 8/47 DENOTES TREE SPREAD OF 8m, TRUNK DIAMETER OF 0.4m & APPROX HEIGHT OF 7m
9. SHOWS APPROXIMATE POSITION OF ROAD LINEMARKING AND IS INDICATIVE ONLY
10. BEARINGS SHOWN ARE MGA (MAP GRID OF AUSTRALIA) ADD APPROX. 1°00' FOR TRUE NORTH



CONTRACTOR SHALL OBTAIN ALL CURRENT SERVICE AUTHORITY PLANS PRIOR TO COMMENCEMENT OF WORK

STORMWATER DRAINAGE NOTES

GENERAL NOTES

1. STORMWATER DESIGN CRITERIA:
ANNUAL EXCEEDANCE PROBABILITY:
MINOR STORM: 5% AEP
MAJOR STORM: 1% AEP
2. PIPES LESS THAN 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
3. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN DN300
4. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT AS 3600 3.1 AND AS/NZS 3500 3.2.
5. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
6. ALL DRAINAGE LINES TO PROVIDE A 3.0m LENGTH OF DN100 SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, ON THE UPSTREAM SIDE OF EACH PIT. ALLOW FOR SECONDARY SUBSOIL FOR PIPES FOR PIPE GRATER THAN DN825
7. SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK SHALL BE PROVIDED BENEATH ALL KERBLINES WHERE NO DRAINAGE LINES ARE SHOWN ON THE DRAWINGS AND SHALL DISCHARGE INTO DOWNSTREAM PITS.
8. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPES ARE TO BE USED.
9. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL FROM AT&L.
10. GRATES AND COVERS SHALL CONFORM TO THE CURRENT AS 3996. CLASS D COVER (MINIMUM) SHALL BE PROVIDED IN TRAFFICKED PAVEMENTS WITH CLASS B (MINIMUM) BEING PROVIDED IN NON-TRAFFICKED AREAS.
11. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, THE CONTRACTOR SHALL PROVIDE ADEQUATE SAFETY PROCEDURES TO PREVENT THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
12. ALL PITS AND PIPES TO BE FOUNDED ON SUITABLE MATERIAL. WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100kPa UP TO 3.0m DEPTH TO INVERT AND 150kPa FROM 3.0m TO 6.0m DEPTH TO INVERT. ONCE EXCAVATED, A CONCRETE BLINDING LAYER (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED) MAY BE PROVIDED. CONTRACTOR TO ENGAGE GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION.
13. 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.
14. ALL STORMWATER PITS ARE TO BE CAST IN-SITU IN ACCORDANCE WITH THE STORMWATER DETAILS AND SPECIFICATIONS.
15. ALL PITS MUST BE BENCHED AND STREAMLINED TO DIRECT WATER FROM THE INLET PIPE TO THE OUTLET PIPE.
- RIGID & SEMI-RIGID PIPE NOTES**
16. PIPES 300 DIA. AND LARGER TO BE STEEL REINFORCED CONCRETE CLASS '3' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS COMPLYING WITH AS/NZS 4088. U.N.O. ALL ROAD CROSSINGS TO BE CLASS '4' U.N.O.
17. EQUIVALENT STRENGTH FIBRE REINFORCED CONCRETE PIPES COMPLYING WITH AS 4139 MAY BE USED SUBJECT TO APPROVAL BY AT&L OR THE LOCAL GOVERNMENT AUTHORITY.
18. PIPES TO BE INSTALLED WITH TYPE H33 (ROAD) AND H32 (LOTS) SUPPORT IN ACCORDANCE WITH THE CURRENT AS/NZS 3725. IN ALL CASES BACKFILL TRENCH WITH SELECT FILL TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENT'S 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 THE CURRENT AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)

FLEXIBLE PIPE NOTES

19. FLEXIBLE PIPES TO COMPLY WITH THE CURRENT AS/NZS 2566.1.
20. PIPES TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT AS/NZS 2566.2. IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENT'S 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 THE CURRENT AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)

PRECAST CONCRETE PIT NOTES

21. PRECAST PITS MAY BE USED WITH THE APPROVAL OF AT&L, THE SUPERINTENDENT, AND THE LOCAL GOVERNMENT AUTHORITY AND SHALL BE INSTALLED TO THE MANUFACTURERS RECOMMENDATIONS
22. ALL PRE-CAST PITS ARE TO BE STRUCTURALLY CERTIFIED TO MEET RELEVANT REQUIREMENTS OF THE CURRENT AS3600 AND AS3996 (2019).
23. PRE-CAST STORMWATER PITS ARE TO BE APPROVED FOR TfNSW CONSTRUCTION (R11) AND ARE TO ARE TO BE DESIGNED AND CUSTOM MADE WITH OPENINGS UP TO A MAXIMUM +50mm OD OF THE STORMWATER PIPES. PITS ARE ALSO TO INCLUDE PENETRATIONS FOR SUBSOIL CONNECTIONS AND DOUBLE STEP-IRONS INSTALLED FOR PITS >0.9m DEEP. DEMOLITION SAWS MAY BE USED PROVIDING A NEAT FULL DEPTH CUT IS APPLIED AND ANY ADDITIONAL PENETRATIONS REQUIRED ARE TO BE CORE DRILLED.
24. SHOP DRAWINGS ARE TO BE PROVIDED FOR REVIEW AND ACCEPTANCE. IT SHOULD BE NOTED THAT THE CONTRACTOR IS TO ENSURE THAT THE STRUCTURAL COMPONENTS OF THE PITS ARE NOT COMPROMISED AND ONLY THE PIPE KNOCKOUTS ARE TO BE REMOVED FOR THE PIPE PENETRATIONS.
25. ALL PRECAST PITS TO BE FOUNDED ON CONCRETE BLINDING LAYER (100MM ON AN EARTH FOUNDATION OR 150mm ON A ROCK FORMATION) WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100kPa UP TO 3.0m DEPTH TO INVERT AND 150kPa FROM 3.0m TO 6.0m DEPTH TO INVERT (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED). CONTRACTOR TO ENGAGE GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION.
26. ALL PRE-CAST PIT PENETRATIONS SHALL BE CUT SO THAT IT IS FLUSH WITH THE INTERNAL WALL.

STORMWATER DRAINAGE NOTES

(CONTINUED)

27. ALL PIPE JOINTING, SPARGING, RENDERING, FILLING OF GAPS TO BE FILLED WITH A HIGH STRENGTH NON-SHRINK GROUT WITH A MINIMUM 40MPa COMPRESSIVE STRENGTH AT 28 DAYS. (LANKO DURABED 702 OR SIMILAR).
28. SINGLE UNITS PREFERRED BUT IF REQUIRED MINIMUM RISER DEPTH 600mm PIT INSTALLATION AND JOINTING BETWEEN UNITS SHALL BE UNDERTAKEN IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
29. ANY DAMAGE TO THE STRUCTURAL INTEGRITY OF THE PRE-CAST PIT WILL BE REPAIRED AND STRUCTURALLY CERTIFIED AT THE CONTRACTORS EXPENCE TO THE SATISFACTION OF THE AT&L SUPERINTENDENT / LOCAL GOVERNMENT AUTHORITY.

CONCRETE NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. CONCRETE QUALITY
ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	AS 3600 F _{ck} MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
VEHICULAR BASE	32	60	20
KERBS, PATHS, AND PITS	25	80	20

- CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL

- PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379.

3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY AT & L.

4. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED 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, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.M.S SPECIFICATION R83.

REINFORCEMENT SYMBOLS:

N DENOTES GRADE 450 N BARS TO AS 1302 GRADE N
R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS 1302
SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304

NUMBER OF BARS IN GROUP

17 N 20 250
NOMINAL BAR SIZE IN mm

THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS 1304.

8. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:

25 MIN
LAP TWO WIRES

KERBING NOTES

1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25MPa U.N.O IN REINFORCED CONCRETE NOTES.
2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MIN. 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).

3. EXPANSION JOINTS (E-J) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.

4. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.

5. BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.

6. IN THE REPLACEMENT OF KERB AND GUTTER :-
EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 900mm WIDE U.N.O.

EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB AND GUTTER WITH 100mm DIA HOLE.

EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

DEWATERING

ANY DEWATERING WORKS TO BE AS PER THE DEWATERING PROCEDURE AS CONTAINED WITHIN THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP).

DECOMMISSIONING / DEMOLITION

DEMOLITION OF EXISTING DWELLING TO BE CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF AS2601:2001 - DEMOLITION OF STRUCTURES BY CONTRACTORS EXPERIENCED IN THIS CLASS OF WORK AND HOLDING REQUIRED CURRENT PERMITS AND LICENSES AS REQUIRED.

EXISTING INTERNALS FENCING, CATTLE YARDS, UTILITIES AND OTHER REDUNDANT STRUCTURES TO BE DEMOLISHED AND REMOVED TO AN APPROVED WASTE MANAGEMENT FACILITY.

DAM DECOMMISSIONING TO BE COMPLETED AS PER THE DAM DECOMMISSIONING PROCEDURE AS CONTAINED WITHIN THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP).

EMBANKMENT CONSTRUCTION

SEQUENCE

1. STRIP VEGETATION AND TOPSOIL FROM EMBANKMENT AREA AND STOCKPILE TOPSOIL FOR LATER USE. CUT BACK AREA TO FIRM GROUND.

2. CONSTRUCT EMBANKMENT IN PRESENCE OF QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER IF NOT ROCK.

3. IN THE CASE WHERE THE EMBANKMENT AREAS SLUSH, GROUTING AND DENTAL CONCRETE MAY BE REQUIRED, AS DIRECTED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.

4. COMPACT CLAY STABILIZED WITH GYPSUM (3% BY DRY MASS, MINIMUM) AS APPROVED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER INTO THE CUT-OFF TRENCH OF LAYERS NOT EXCEEDING 150mm LOOSE THICKNESS TO A DRY DENSITY EQUIVALENT TO 98% OF THAT DETERMINED BY STANDARD COMPACTION (AS 1289.5.1.1) AND AT A MOISTURE CONTENT OF -2% TO +2% OF OPTIMUM MOISTURE CONTENT.

5. GYPSUM STABILIZED NATURAL SOILS EXPOSED IN EMBANKMENT AREA WITH MINIMUM 3% GYPSUM BY DRY MASS AND COMPACT AS FOR #4. ALL TO THE APPROVAL OF A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.

6. CONSTRUCT BODY OF EMBANKMENT WITH CLAYEY MATERIAL WON FROM SITE. COMPACT THE CLAYEY MATERIAL APPROVED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER IN LAYERS NOT EXCEEDING 150mm THICKNESS TO A DRY DENSITY EQUIVALENT TO 98% OF THAT DETERMINED BY STANDARD COMPACTION (AS 1289.5.1.1) AND AT A MOISTURE CONTENT OF -2% TO +2% OF OPTIMUM MOISTURE CONTENT. MOST IMPORTANTLY, IF SHRINKAGE CRACKS OCCUR, AS DIRECTED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.

7. OVERFILL THE EMBANKMENT AND TRIM OFF, SO THAT THE ENTIRE BODY OF THE EMBANKMENT IS COMPACTED.

8. TRIM THE EMBANKMENTS BATTERS TO THE OVERFILLED MATERIAL, STABILIZE THE UPSTREAM CLAY BATTERS WITH WELL MIXED GYPSUM (3% BY DRY MASS, MINIMUM) AND COMPACT TO MIN. 98% STD -2% TO +2% OMC.

9. PLACE ROCK RIP-RAP AS SHOWN.

10. RECOVER TOPSOIL FROM STOCKPILE AND SPREAD OVER EMBANKMENT AND CUT BATTERS (A THIN COVER OF TOPSOIL ONLY HAS BEEN NOMINATED). ONLY LIGHTLY TRACK-ROLL THE TOPSOIL AND THEN LANDSCAPE IN ACCORDANCE WITH THE LANDSCAPE AREA DRAWINGS.

11. WATER AND FERTILIZE LANDSCAPE AS REQUIRED BY CLIMATIC CONDITIONS TO ENSURE THE LANDSCAPE IS SUCCESSFUL.

12. AT THE COMPLETION OF WORK WRITTEN CONFIRMATION & CERTIFICATION IS TO BE PROVIDED FROM A QUALIFIED & EXPERIENCED GEOTECHNICAL ENGINEER THAT THE EMBANKMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THESE DRAWINGS.

FINISHED SURFACE LEVELS

1. ALL FINISHED SURFACE LEVELS ARE ±1000mm U.N.O.

EXISTING UNDERGROUND SERVICES NOTES

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.

AT & L 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.

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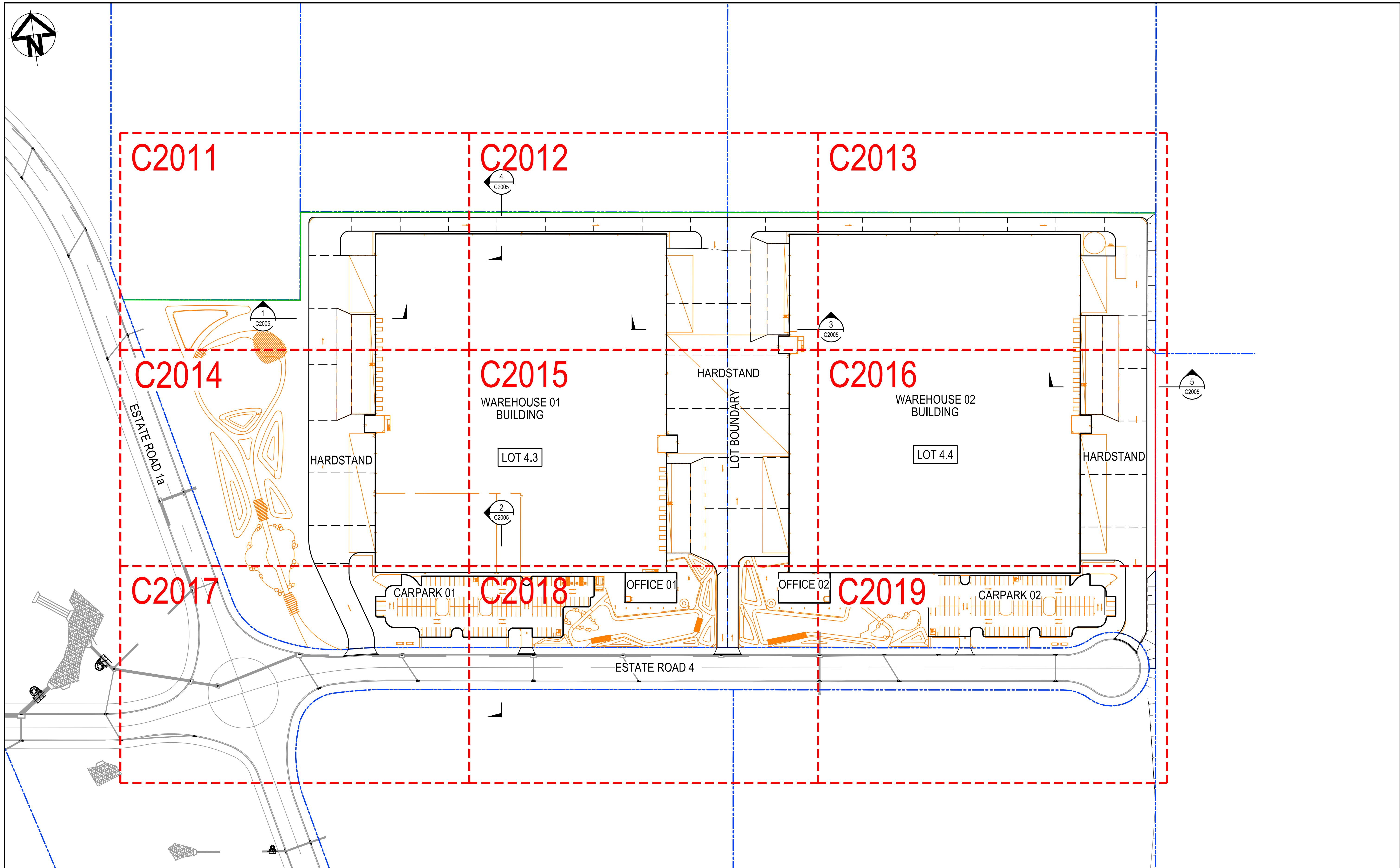


Scales	NTS	Drawn	CK
		Designed	CK
Grid	GDA2020	Checked	CB
Height Datum	AHD	Approved	

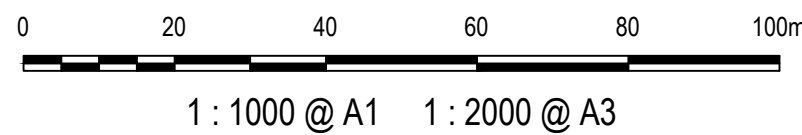


Project	INDUSTRIAL DEVELOPMENT BURRA PARK
Title	LOT 4.3 & 4.4 (WH 01 & 02) GENERAL NOTES

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Issue	A1
	D



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D	ISSUED FOR COORDINATION	15-10-24
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B	ISSUED FOR COORDINATION	20-04-23
A	ISSUED FOR COORDINATION	22-12-22



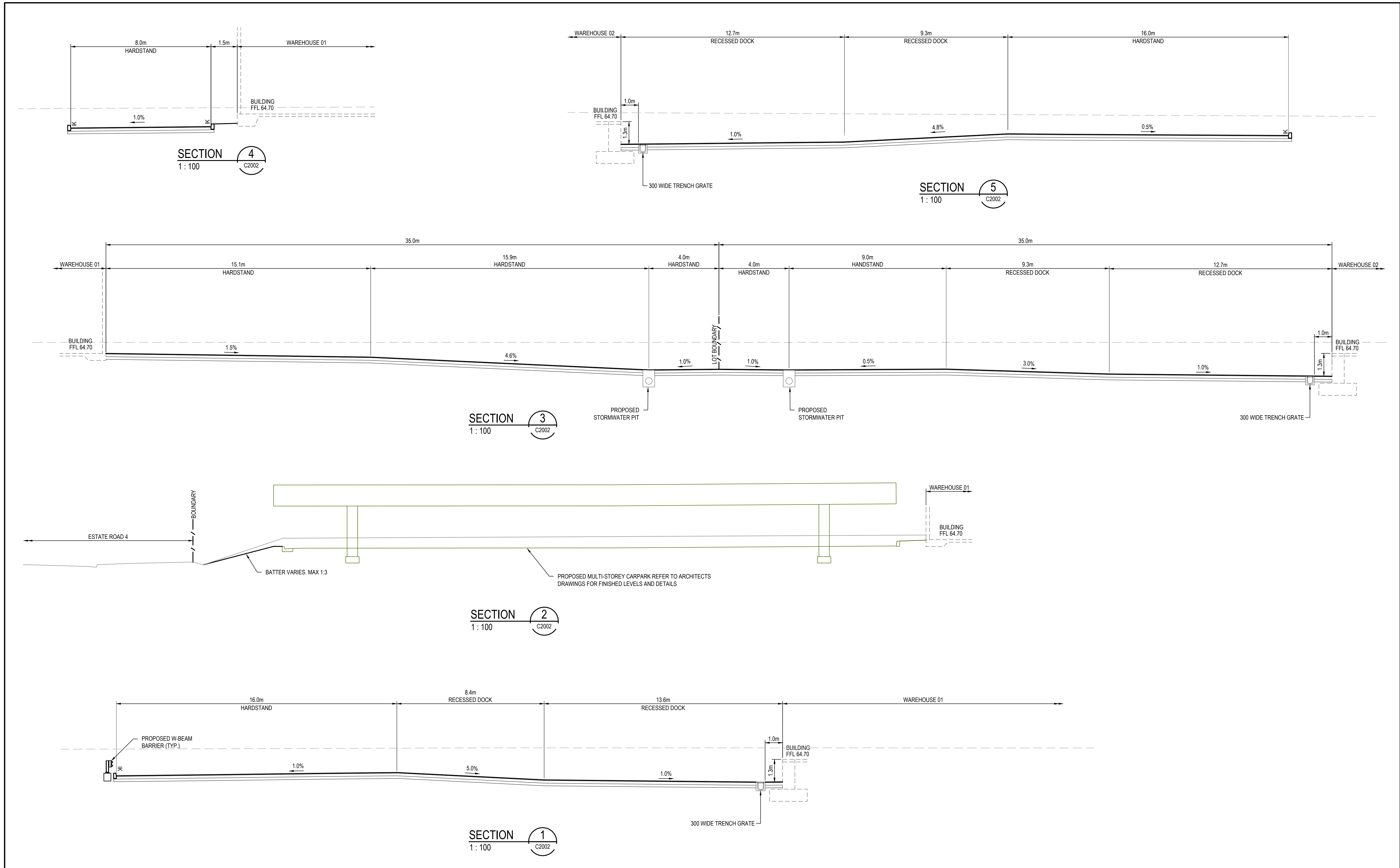
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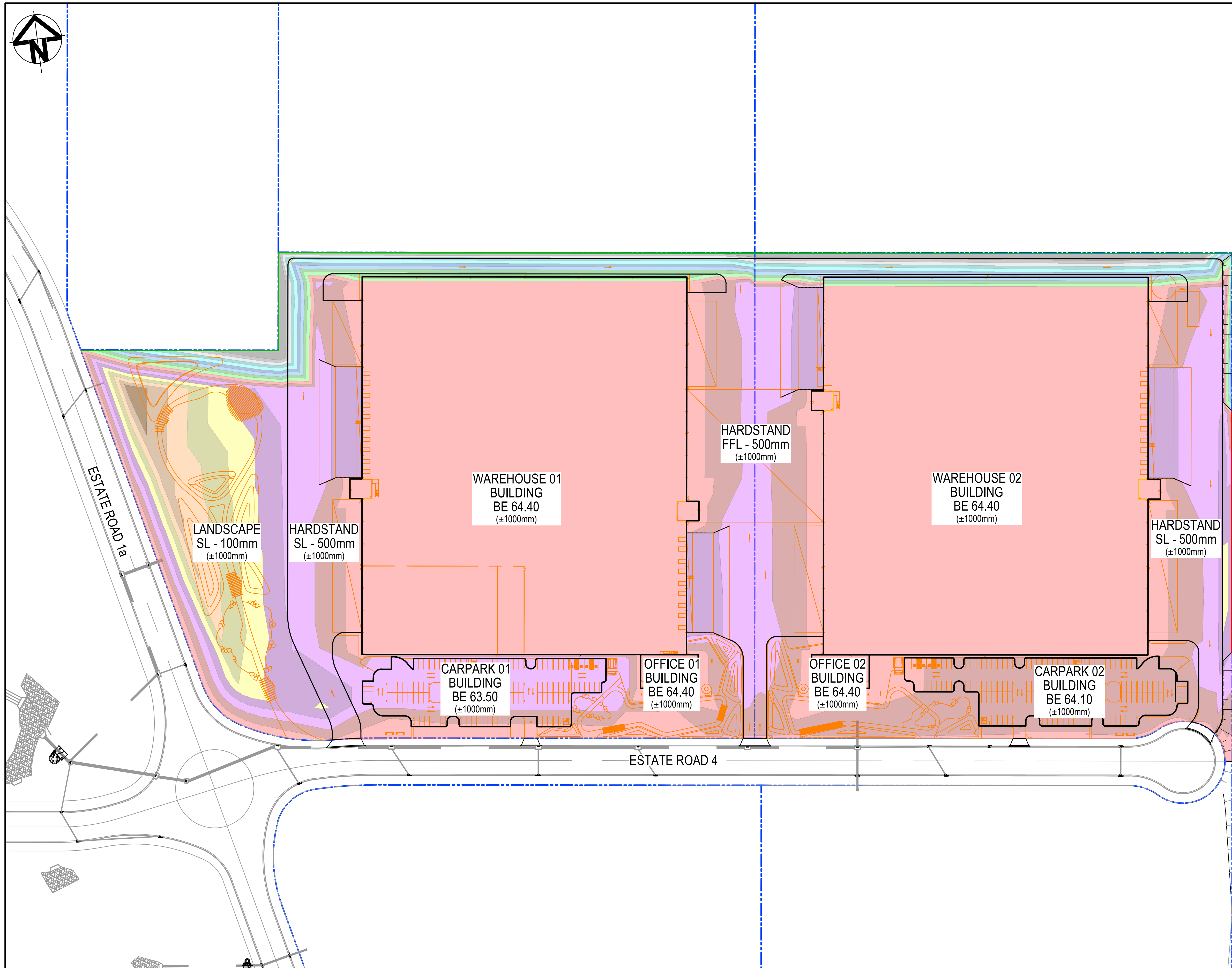
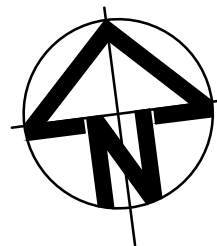
Scales	1:1000 @ A1	Drawn	CK
		Designed	CK
Grid	GDA2020	Checked	CB
Height Datum	AHD	Approved	

Project	INDUSTRIAL DEVELOPMENT BURRA PARK
Title	LOT 4.3 & 4.4 (WH 01 & 02) GENERAL ARRANGEMENT

Civil Engineers and Project Managers		
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au		
Status	FOR COORDINATION NOT FOR CONSTRUCTION	A1
Project - Drawing No.	22-993-C2002	Issue D



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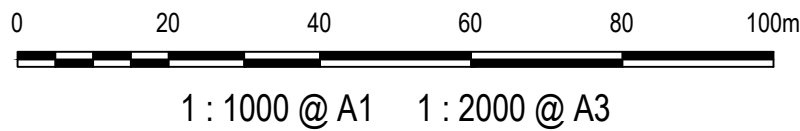
- NOTES
1. EARTHWORKS VOLUMES WERE CALCULATED BETWEEN THE DESIGN EARTHWORKS SURFACE AND THE ESTATE VENDOR'S EARTHWORKS SURFACE.
 2. IT IS ASSUMED THAT ON-LOT EARTHWORKS WILL COMMENCE IMMEDIATELY AFTER COMPLETION OF THE ESTATE VENDOR'S EARTHWORKS. NO SITE STRIPPING NECESSARY.
 3. EARTHWORKS VOLUMES DO NOT TAKE INTO ACCOUNT THE FOLLOWING :-
 - BULKING FACTORS
 - REMOVAL AND/OR REMEDIATION OF ANY EXISTING UNCONTROLLED FILL AND FARM DAMS.
 - STORMWATER AND UTILITY TRENCHING
 - PROPOSED RETAINING WALL AND UNDERGROUND TANK EARTHWORKS AND BACKFILL MATERIAL
 - SEDIMENT BASINS
 4. ALL LEVELS ARE SUBJECT TO FURTHER COORDINATION WITH THE ESTATE WORKS. ALLOW FOR ±1000mm

EARTHWORKS VOLUMES

A	B	C=A+B
NET CUT (cu.m)	NET FILL (cu.m)	BALANCE (cu.m)
-85,900m³	20,230m³	-65,670m³ (EXPORT)

CUT/FILL DEPTH RANGE LEGEND		
Lower_value	Upper_value	Colour
-100	to -4.0	m
-4.0	to -3.5	m
-3.5	to -3.0	m
-3.0	to -2.5	m
-2.5	to -2.0	m
-2.0	to -1.5	m
-1.5	to -1.0	m
-1.0	to -0.5	m
-0.5	to 0.0	m
0.0	to 0.5	m
0.5	to 1.0	m
1.0	to 1.5	m
1.5	to 2.0	m
2.0	to 2.5	m
2.5	to 3.0	m
3.0	to 3.5	m
3.5	to 4.0	m
4.0	to 100	m

Issue	Description	Date
D	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
C	ISSUED FOR APPROVAL	14-06-23
B	ISSUED FOR COORDINATION	20-04-23
A	ISSUED FOR COORDINATION	22-12-22



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Scales
1:1000 @ A1

Grid
GDA2020

Height Datum
AHD

Drawn
CK

Designed
CK

Checked
CB

Approved

Project
INDUSTRIAL DEVELOPMENT
BURRA PARK

Title
LOT 4.3 & 4.4 (WH 01 & 02)
BULK EARTHWORKS
CUT/FILL PLAN

Civil Engineers and Project Managers

Level 7, 153 Walker Street
North Sydney NSW 2060
ABN 96 130 882 405
Tel: 02 9439 1777
Fax: 02 9923 1055
www.atl.net.au
info@atl.net.au

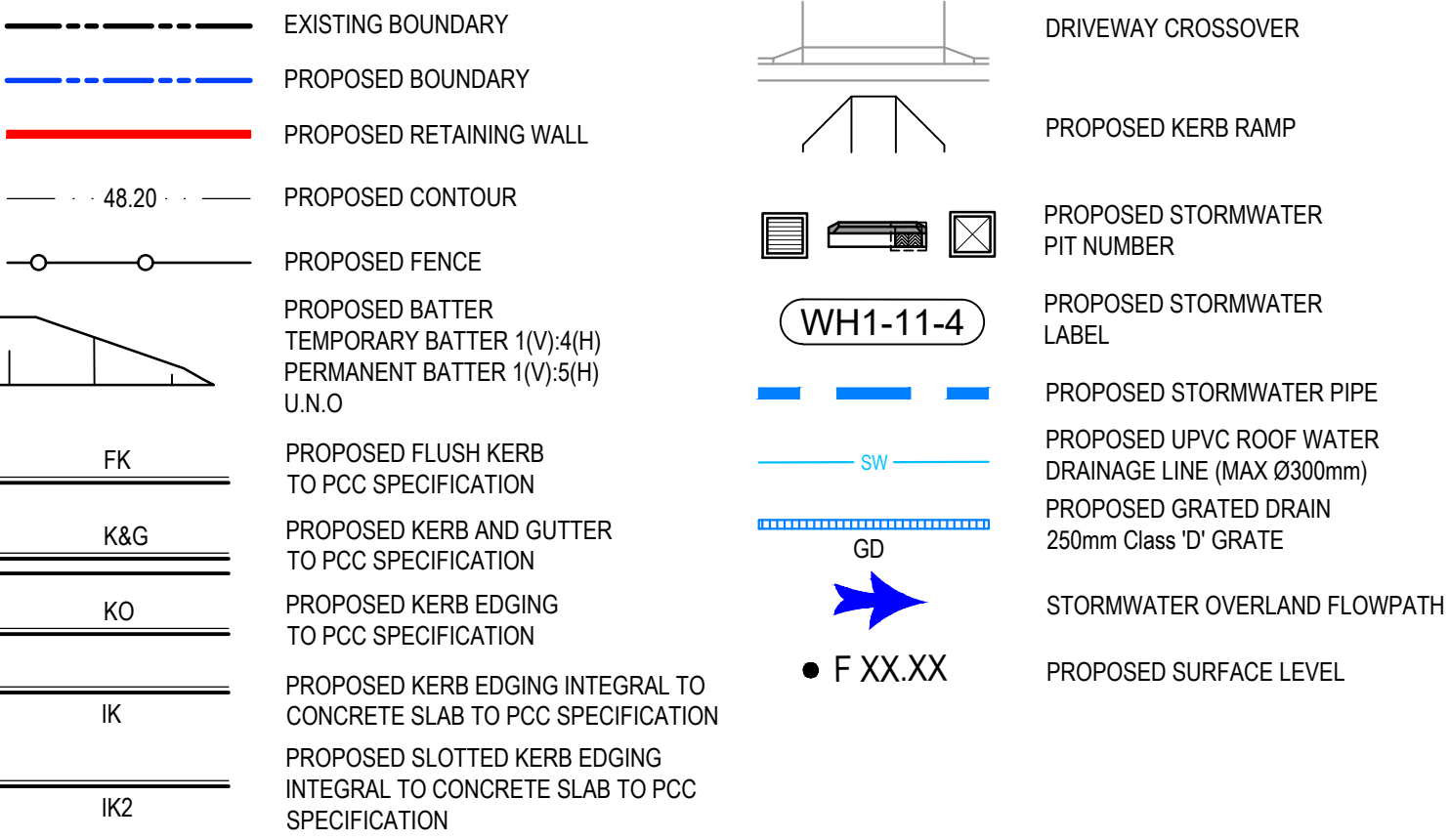
Status
FOR COORDINATION
NOT FOR CONSTRUCTION

Project - Drawing No.
22-993-C2008

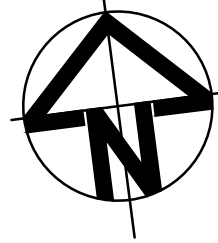
A1

Issue
D

LEGEND:



- NOTES:
- ALL LEVELS SHOWN ARE $\pm 1000\text{mm}$
 - ROOF WATER DOWN PIPE LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
 - RETAINING WALL LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
 - VEHICLE TURNING PATHS TO BE CONFIRMED DURING DETAILED DESIGN.
 - EXTERNAL / SUBDIVISION WORKS BY VENDOR. REFER SSD-19406916.



LOT 5.3
FFL 59.85
BEL 59.50

LOT 5.2
FFL 58.45
BEL 58.10

WAREHOUSE 01
BUILDING
FFL 64.70
($\pm 1000\text{mm}$)

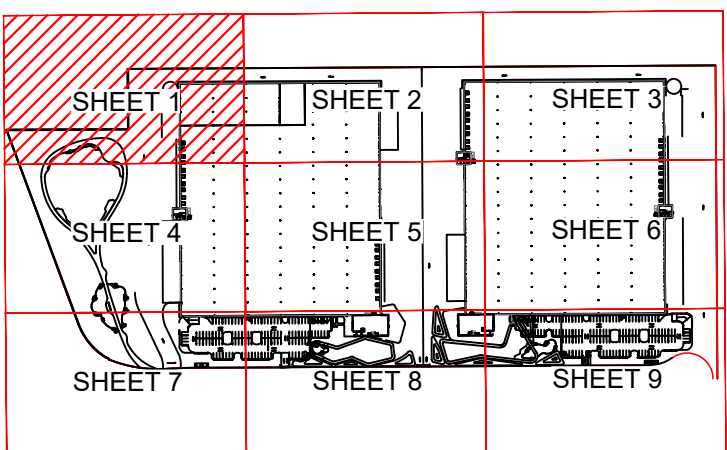
LOT 4.3

LOT 4.3

CONTINUATION ON DRAWING C2014

CONTINUATION ON DRAWING C2012

Issue	Description	Date
E	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
D	ISSUED FOR APPROVAL	14-06-23
C	ISSUED FOR COORDINATION	20-04-23
B	ISSUED FOR COORDINATION	22-12-22
A	ISSUED FOR COORDINATION	24-11-22



KEYPLAN

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0 5 10 15 20
1 : 250 @ A1 1 : 500 @ A3

Scales	1:250 @ A1	Drawn	CK
Grid	GDA2020	Designed	CK
Height Datum	AHD	Checked	CB
		Approved	



Project	INDUSTRIAL DEVELOPMENT BURRA PARK
Title	LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 1

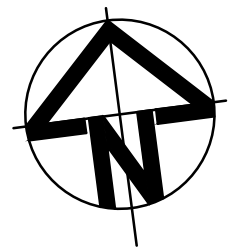
Civil Engineers and Project Managers	
at&l	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR COORDINATION NOT FOR CONSTRUCTION
Project - Drawing No.	22-993-C2011
Issue	E

LEGEND:

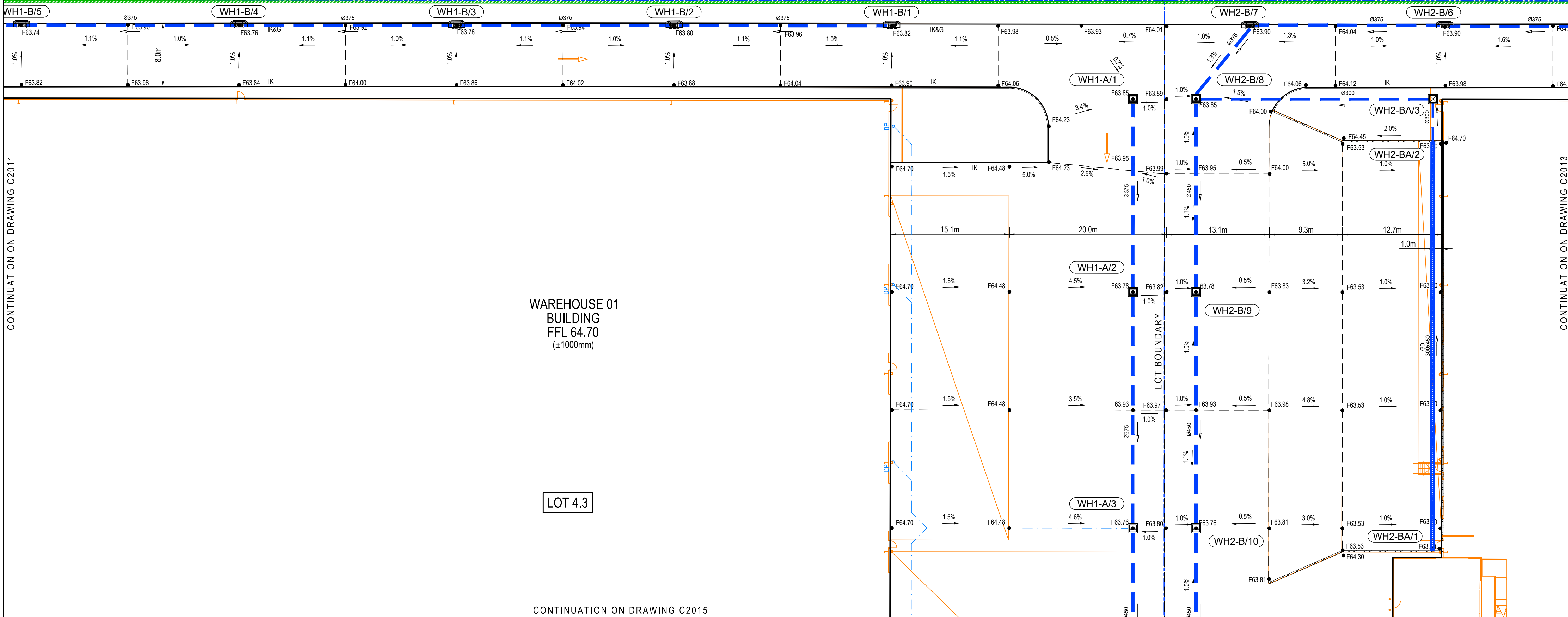
- EXISTING BOUNDARY
PROPOSED BOUNDARY
PROPOSED RETAINING WALL
PROPOSED CONTOUR
PROPOSED FENCE
PROPOSED BATTER
TEMPORARY BATTER 1(V):4(H)
PERMANENT BATTER 1(V):5(H)
U.N.O
FK
K&G
KO
IK
IK2
- PROPOSED GRASSED SWALE
DRIVEWAY CROSSOVER
PROPOSED KERB RAMP
PROPOSED STORMWATER PIT NUMBER
PROPOSED STORMWATER LABEL
PROPOSED STORMWATER PIPE
PROPOSED UPVC ROOF WATER DRAINAGE LINE (MAX Ø300mm)
PROPOSED GRATED DRAIN 250mm Class 'D' GRATE
STORMWATER OVERLAND FLOWPATH
PROPOSED SURFACE LEVEL
- WH1-11-4
SW
GD
F XX.XX

NOTES:

- ALL LEVELS SHOWN ARE $\pm 1000\text{mm}$
- ROOF WATER DOWN PIPE LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
- RETAINING WALL LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
- VEHICLE TURNING PATHS TO BE CONFIRMED DURING DETAILED DESIGN.
- EXTERNAL / SUBDIVISION WORKS BY VENDOR. REFER SSD-19406916.



LOT 5.4
FFL 59.00
BEL 58.65



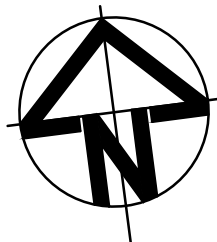
Continuation on Drawing C2011			Continuation on Drawing C2015			Continuation on Drawing C2013		
Warehouse 01 Building FFL 64.70 (±1000mm)			Lot 4.3			Lot 5.4		
KEYPLAN			THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L			INDUSTRIAL DEVELOPMENT BURRA PARK		
Client			Scales			Project		
Drawn			Grid			Title		
Designed			Height Datum			Status		
Checked			GDA2020			FOR COORDINATION NOT FOR CONSTRUCTION		
Approved			AHD			Project - Drawing No.		
GDA2020			22-993-C2012			Issue		
Lot 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 2			22-993-C2012			E		

LEGEND:

- EXISTING BOUNDARY
PROPOSED BOUNDARY
PROPOSED RETAINING WALL
PROPOSED CONTOUR
PROPOSED FENCE
PROPOSED BATTER
TEMPORARY BATTER 1(V):4(H)
PERMANENT BATTER 1(V):5(H)
U.N.O
FK
K&G
KO
IK
IK2
- PROPOSED GRASSED SWALE
DRIVEWAY CROSSOVER
PROPOSED KERB RAMP
PROPOSED STORMWATER PIT NUMBER
PROPOSED STORMWATER LABEL
WH1-11-4
PROPOSED STORMWATER PIPE
PROPOSED UPVC ROOF WATER DRAINAGE LINE (MAX Ø300mm)
PROPOSED GRATED DRAIN 250mm Class 'D' GRATE
GD
STORMWATER OVERLAND FLOWPATH
PROPOSED SURFACE LEVEL
F XX.XX

NOTES:

- ALL LEVELS SHOWN ARE $\pm 1000\text{mm}$
- ROOF WATER DOWN PIPE LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
- RETAINING WALL LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
- VEHICLE TURNING PATHS TO BE CONFIRMED DURING DETAILED DESIGN.
- EXTERNAL / SUBDIVISION WORKS BY VENDOR. REFER SSD-19406916.



LOT 5.4
FFL 59.00
BEL 58.65

LOT 5.5
FFL 63.60
BEL 63.25

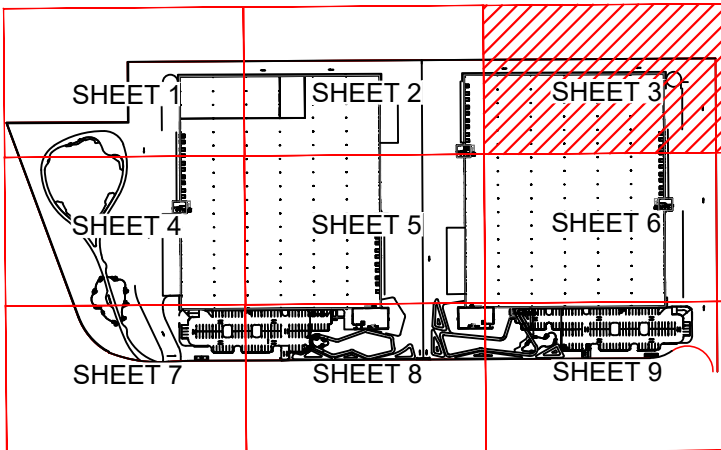
CONTINUATION ON DRAWING C2012

WAREHOUSE 02
BUILDING
FFL 64.70
($\pm 1000\text{mm}$)

LOT 4.4

CONTINUATION ON DRAWING C2016

Issue	Description	Date
E	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
D	ISSUED FOR APPROVAL	14-06-23
C	ISSUED FOR COORDINATION	20-04-23
B	ISSUED FOR COORDINATION	22-12-22
A	ISSUED FOR COORDINATION	24-11-22



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Client



0 5 10 15 20
1 : 250 @ A1 1 : 500 @ A3

Scales

1:250 @ A1

Grid

GDA2020

Height Datum

AHD

Drawn

CK

Designed

CK

Checked

CB

Approved



Project

INDUSTRIAL DEVELOPMENT
BURRA PARK

Title

LOT 4.3 & 4.4 (WH 01 & 02)
SITEWORKS AND
STORMWATER DRAINAGE
PLAN SHEET 3

Civil Engineers and Project Managers



Level 7, 153 Walker Street
North Sydney NSW 2060
ABN 96 130 882 405
Tel: 02 9439 1777
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www.atl.net.au
info@atl.net.au

Status

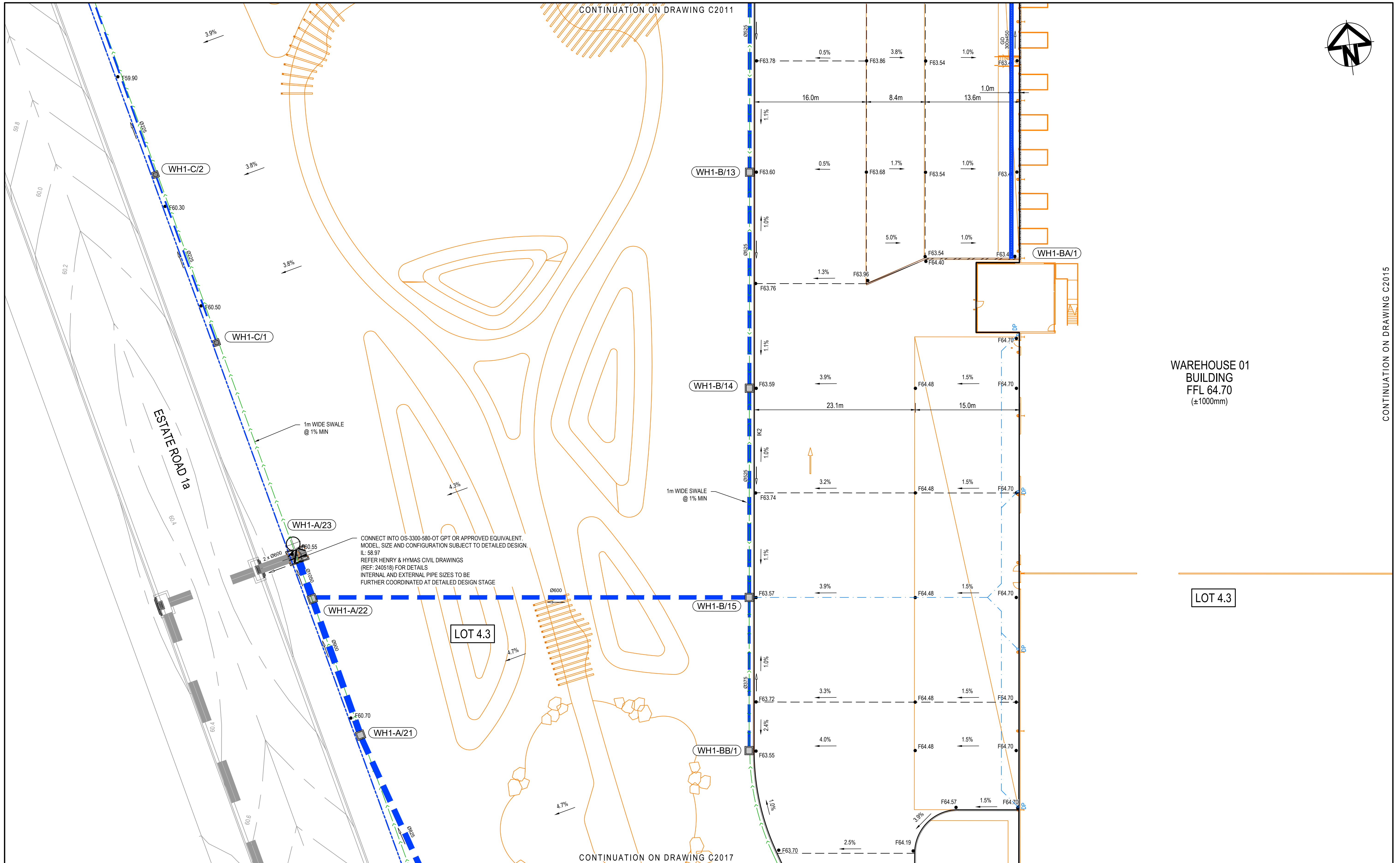
FOR COORDINATION
NOT FOR CONSTRUCTION

Project - Drawing No.

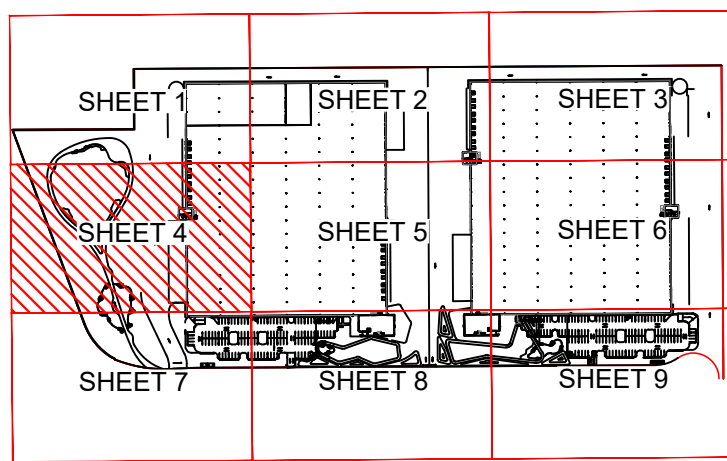
22-993-C2013

Issue

E



Issue	Description	Date
E	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
D	ISSUED FOR APPROVAL	14-06-23
C	ISSUED FOR COORDINATION	20-04-23
B	ISSUED FOR COORDINATION	22-12-22
A	ISSUED FOR COORDINATION	24-11-22



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Client

0 5 10 15 20

1 : 250 @ A1 1 : 500 @ A3

Scales

1:250 @ A1

Grid GDA2020

Height Datum AHD

Drawn CK

Designed CK

Checked CB

Approved

Project

INDUSTRIAL DEVELOPMENT BURRA PARK

Title

LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 4

Civil Engineers and Project Managers

Level 7, 153 Walker Street
North Sydney NSW 2060
ABN 96 130 882 405
Tel: 02 9439 1777
Fax: 02 9923 1055
www.atl.net.au
info@atl.net.au

Status

FOR COORDINATION
NOT FOR CONSTRUCTION

Project - Drawing No.
22-993-C2014

Issue

A1
E

LEGEND:

EXISTING BOUNDARY

PROPOSED BOUNDARY

PROPOSED RETAINING WALL

PROPOSED CONTOUR

PROPOSED FENCE

PROPOSED BATTER

TEMPORARY BATTER 1(V):4(H)

PERMANENT BATTER 1(V):5(H)

U.N.O

FK

PROPOSED FLUSH KERB

TO PCC SPECIFICATION

K&G

PROPOSED KERB AND GUTTER

TO PCC SPECIFICATION

KO

PROPOSED KERB EDGING

TO PCC SPECIFICATION

IK

PROPOSED KERB EDGING INTEGRAL TO

CONCRETE SLAB TO PCC SPECIFICATION

IK2

PROPOSED SLOTTED KERB EDGING

INTEGRAL TO CONCRETE SLAB TO PCC

SPECIFICATION

PROPOSED GRASSED SWALE

DRIVEWAY CROSSOVER

PROPOSED KERB RAMP

PROPOSED STORMWATER

PIT NUMBER

WH1-11-4

PROPOSED STORMWATER

LABEL

PROPOSED STORMWATER PIPE

PROPOSED UPVC ROOF WATER

DRAINAGE LINE (MAX Ø300mm)

PROPOSED GRATED DRAIN

250mm Class 'D' GRATE

GD

STORMWATER OVERLAND FLOWPATH

PROPOSED SURFACE LEVEL

• F XX.XX

NOTES:

1.

ALL LEVELS SHOWN ARE ± 1000mm

2.

ROOF WATER DOWN PIPE LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.

3.

RETAINING WALL LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.

4.

VEHICLE TURNING PATHS TO BE CONFIRMED DURING DETAILED DESIGN.

5.

EXTERNAL / SUBDIVISION WORKS BY VENDOR. REFER SSD-19406916.

CONTINUATION ON DRAWING C2012

WAREHOUSE 01
BUILDING
FFL 64.70
(±1000mm)

LOT 4.3

CONTINUATION ON DRAWING C2014

CONTINUATION ON DRAWING C2016

Issue	Description	Date
E	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
D	ISSUED FOR APPROVAL	14-06-23
C	ISSUED FOR COORDINATION	20-04-23
B	ISSUED FOR COORDINATION	22-12-22
A	ISSUED FOR COORDINATION	24-11-22

KEYPLAN

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Client

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1 : 250 @ A1 1 : 500 @ A3

Scales

1:250 @ A1

Grid

GDA2020

Height Datum

AHD

Drawn

CK

Designed

CK

Checked

CB

Approved

Project

INDUSTRIAL DEVELOPMENT
BURRA PARK

Title

LOT 4.3 & 4.4 (WH 01 & 02)
SITEWORKS AND
STORMWATER DRAINAGE
PLAN SHEET 5

Civil Engineers and Project Managers

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Status

FOR COORDINATION
NOT FOR CONSTRUCTION

Issue

E

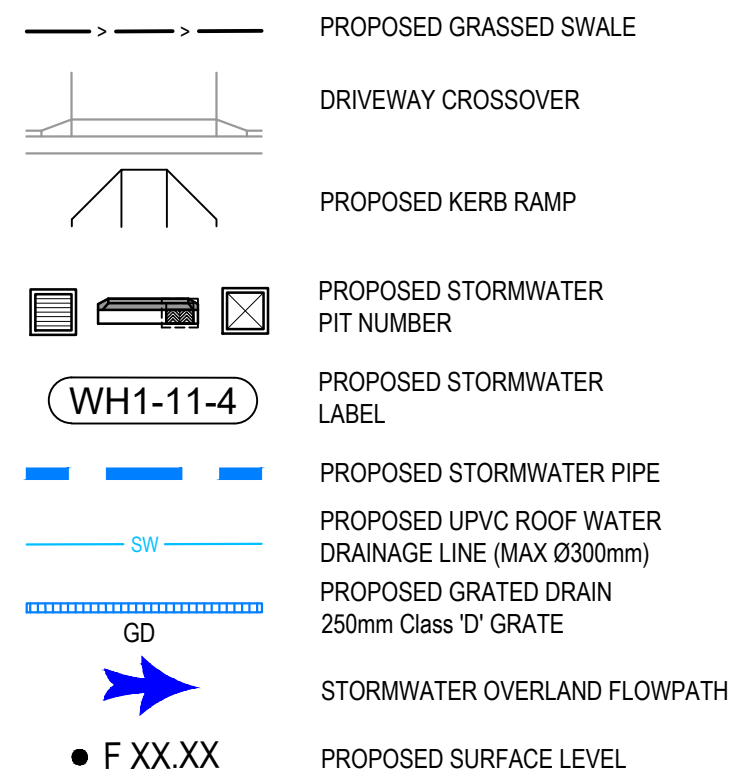
Project - Drawing No.

22-993-C2015

F:\22-993 DHL\6.0 Drgs\Civil\Final\SSDA\LOT 3.1\22-993-C2015.dwg

	EXISTING BOUNDARY
	PROPOSED BOUNDARY
	PROPOSED RETAINING WALL
	PROPOSED CONTOUR
	PROPOSED FENCE
	PROPOSED BATTER
	TEMPORARY BATTER 1(V):4(H)
	PERMANENT BATTER 1(V):5(H)
	U.N.O
	PROPOSED FLUSH KERB
	TO PCC SPECIFICATION
	PROPOSED KERB AND GUTTER
	TO PCC SPECIFICATION
	PROPOSED KERB EDGING
	TO PCC SPECIFICATION
	PROPOSED KERB EDGING INTEGRAL TO
	CONCRETE SLAB TO PCC SPECIFICATION
	PROPOSED SLOTTED KERB EDGING
	INTEGRAL TO CONCRETE SLAB TO PCC
	SPECIFICATION

1. ALL LEVELS SHOWN ARE $\pm 1000\text{mm}$
2. ROOF WATER DOWN PIPE LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
3. RETAINING WALL LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
4. VEHICLE TURNING PATHS TO BE CONFIRMED DURING DETAILED DESIGN.
5. EXTERNAL / SUBDIVISION WORKS BY VENDOR. REFER SSD-18406916.



LOT 4.4

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INDUSTRIAL DEVELOPMENT BURRA PARK

LOT 4.3 & 4.4 (WH 01 & 02)
SITEWORKS AND
STORMWATER DRAINAGE
PLAN SHEET 6



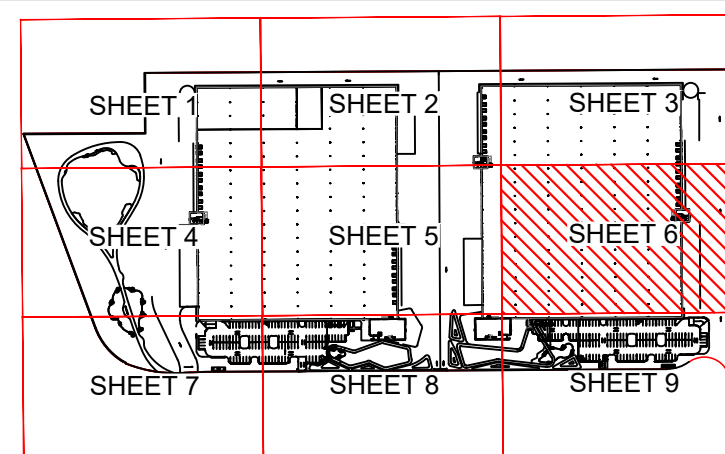
Status **FOR COORDINATION**
NOT FOR CONSTRUCTION

Project - Drawing No.

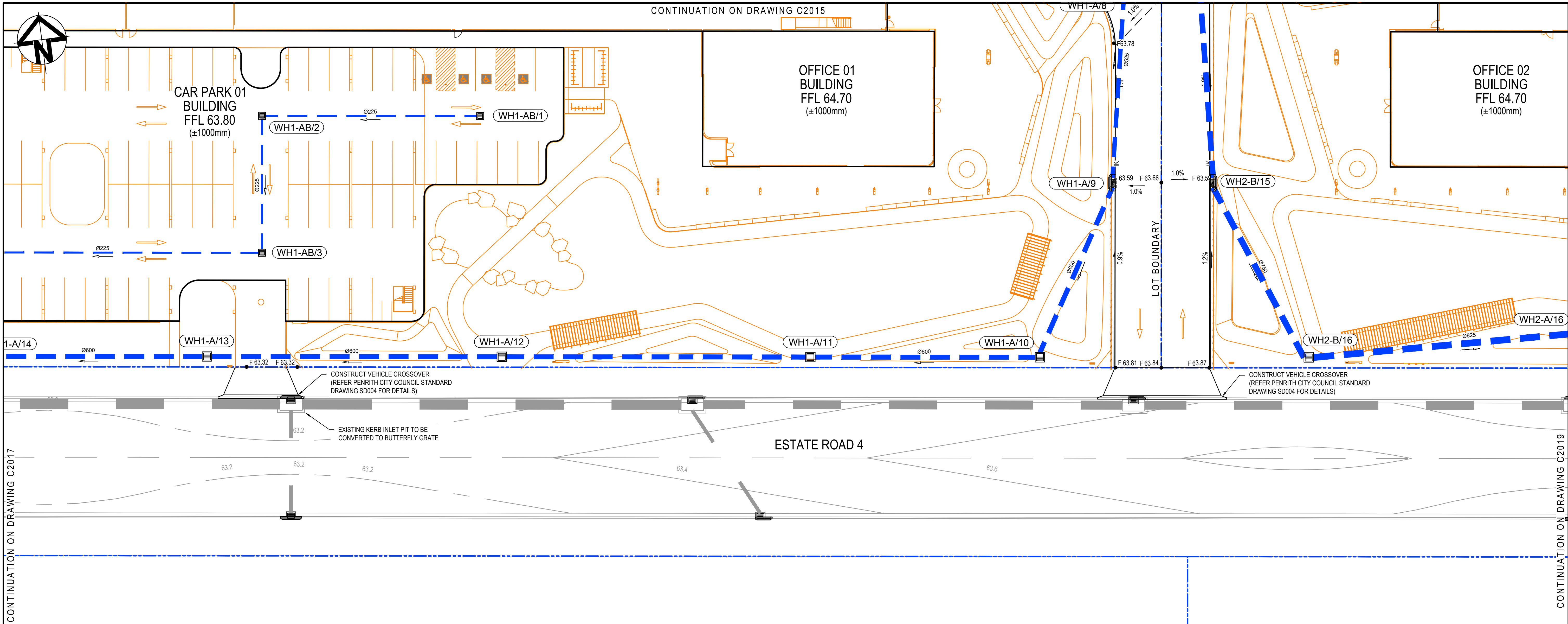
22-993-C2016

A1

Issue
E



KEYPLAN

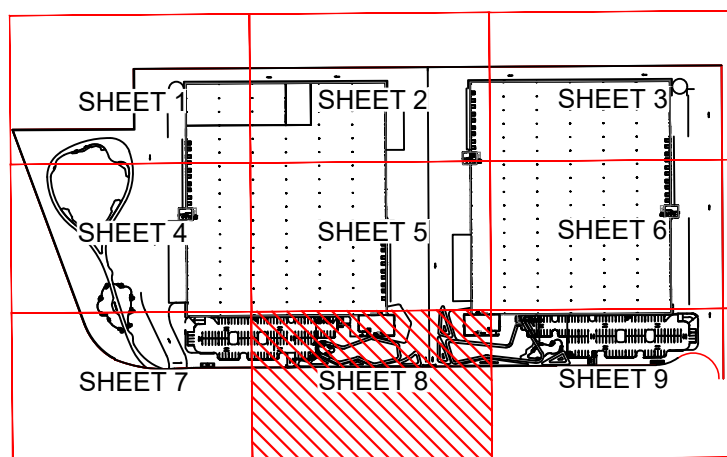


LEGEND:

	EXISTING BOUNDARY		PROPOSED GRASSED SWALE
	PROPOSED BOUNDARY		DRIVEWAY CROSSOVER
	PROPOSED RETAINING WALL		PROPOSED KERB RAMP
	PROPOSED CONTOUR		PROPOSED STORMWATER PIT NUMBER
	PROPOSED FENCE		PROPOSED STORMWATER LABEL
	PROPOSED BATTER		PROPOSED STORMWATER PIPE
	PROPOSED TEMPORARY BATTER 1(V):4(H)		PROPOSED UPVC ROOF WATER DRAINAGE LINE (MAX Ø300mm)
	PROPOSED PERMANENT BATTER 1(V):5(H)		PROPOSED GRATED DRAIN
	PROPOSED FLUSH KERB TO PCC SPECIFICATION		STORMWATER OVERLAND FLOWPATH
	PROPOSED KERB AND GUTTER TO PCC SPECIFICATION		PROPOSED SURFACE LEVEL
	PROPOSED KERB EDGING TO PCC SPECIFICATION		
	PROPOSED KERB EDGING INTEGRAL TO CONCRETE SLAB TO PCC SPECIFICATION		
	PROPOSED SLOTTED KERB EDGING INTEGRAL TO CONCRETE SLAB TO PCC SPECIFICATION		

NOTES:

- ALL LEVELS SHOWN ARE ± 1000mm
- ROOF WATER DOWN PIPE LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
- RETAINING WALL LOCATIONS TO BE CONFIRMED DURING DETAILED DESIGN.
- VEHICLE TURNING PATHS TO BE CONFIRMED DURING DETAILED DESIGN.
- EXTERNAL / SUBDIVISION WORKS BY VENDOR, REFER SSD-18406916.



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Client



0 5 10 15 20
1 : 250 @ A1 1 : 500 @ A3

Scales

1:250 @ A1

Grid

GDA2020

Height Datum

AHD

Drawn

CK

Designed

CK

Checked

CB

Approved



Project

INDUSTRIAL DEVELOPMENT
BURRA PARK

Title

LOT 4.3 & 4.4 (WH 01 & 02)
SITEWORKS AND
STORMWATER DRAINAGE
PLAN SHEET 8

Civil Engineers and Project Managers



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Status
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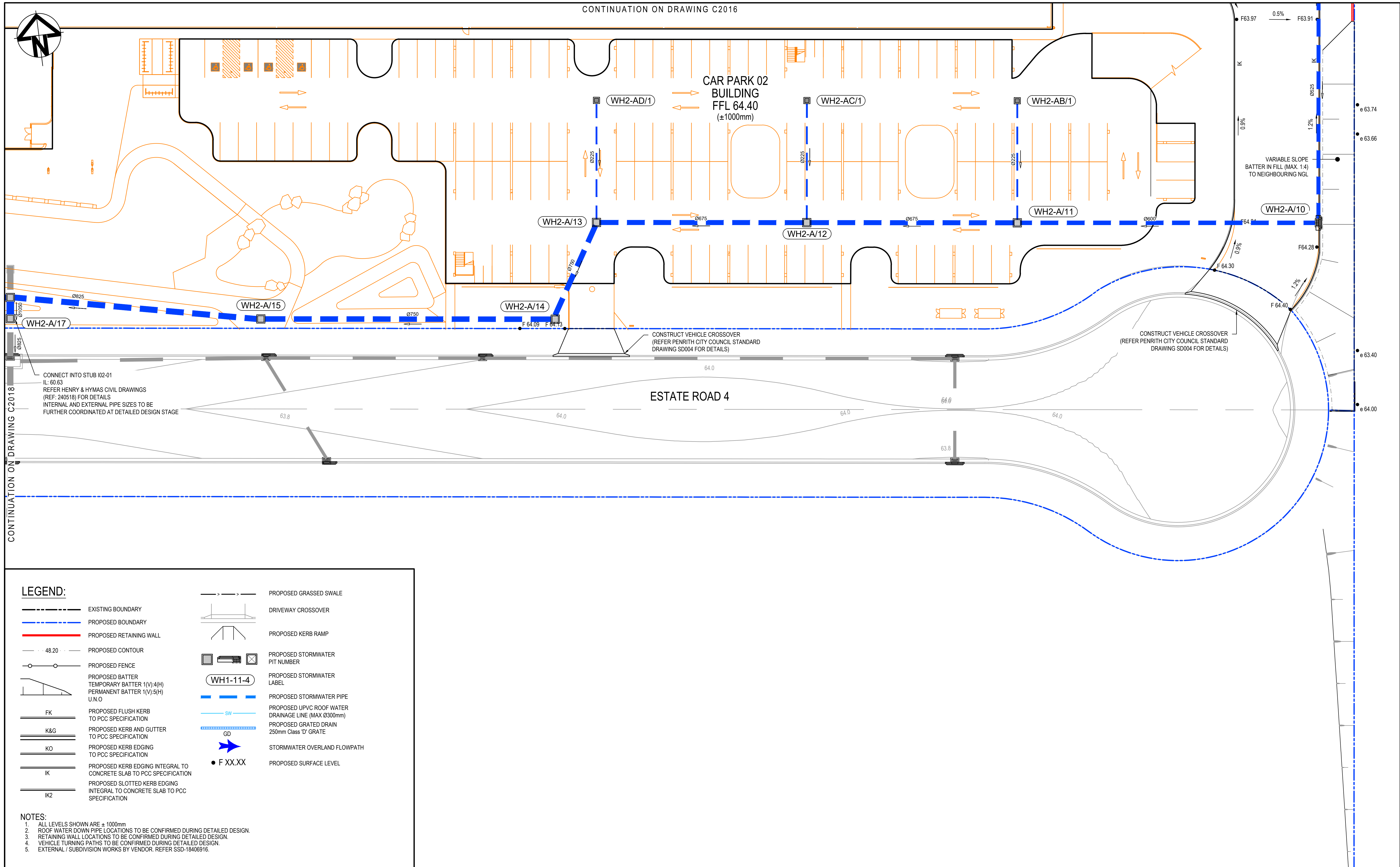
Project - Drawing No.

22-993-C2018

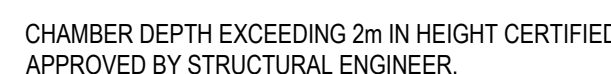
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Issue

D



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									Grid GDA2020		Height Datum AHD		Designed CK		Title LOT 4.3 & 4.4 (WH 01 & 02) SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 9		Status FOR COORDINATION NOT FOR CONSTRUCTION	
									0 5 10 15 20 1 : 250 @ A1 1 : 500 @ A3				Checked CB				Project - Drawing No. 22-993-C2019	
Issue			Description			Date							Approved				Issue D	
D			ISSUED FOR COORDINATION			15-10-24												
WIP			ISSUED FOR COORDINATION			09-09-24												
C			ISSUED FOR APPROVAL			14-06-23												
B			ISSUED FOR COORDINATION			20-04-23												
A			ISSUED FOR COORDINATION			22-12-22												



REFER PIT SETOUT PLANS
FOR ENLARGED CHAMBERS



NOTE

1. $\geq 0.2D$ OR $0.3m$ (WHICHEVER IS GREATER)
2. 100mm FOR PIPE DIA. ≤ 1500



1. $\geq 0.2D$ OR $0.3m$ (WHICHEVER IS GREATER)
2. $100mm$ FOR PIPE DIA. ≤ 1500

1. STANDARD GULLY PITS REFER TO PENRITH COUNCIL STANDARD DRAWINGS FOR DETAILS
2. FOR INLET SIZE, PIT CHAMBER SIZE AND SETOUT REFER TO STORMWATER LONGITUDINAL SECTIONS.
3. REINFORCING MESH IS TO BE BENT TO LAP 300 AROUND ALL CORNERS. VERTICAL BARS ARE NOT TO BE CUT. ALTERNATELY PROVIDE N12 "L" BARS (500x500) AT 400 VERTICAL CTS.
4. COMPRESSIVE STRENGTH (F_{CD}) FOR CAST IN SITU CONCRETE SHALL BE A MINIMUM 32 MPa AT 28 DAYS.
5. TOP OF BENCHING SHALL BE $\frac{1}{2}$ OF OUTLET PIPE DIAMETER.
6. 100mm SUBSOIL DRAINAGE PIPE 3000 LONG WRAPPED IN FABRIC SOCK TO BE PROVIDE ADJACENT TO INLET PIPES.
7. ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP.
8. PIT GRATE TO BE "WELDLOK" GULLY GRATE GG 78-50 OR APPROVED EQUIVALENT.
9. DURING INSTALLATION OF GRATE AND FRAME CONTRACTOR IS TO ENSURE CLEARANCE BETWEEN LINTEL AND OPENED GRATE (REFER TO INSTALLATION TOLERANCE).
10. PROVIDE STEP IRONS AS INDICATED FOR PITS DEEPER THAN 900.
11. N12 AT 200 CENTRALLY PLACED MAY BE USED IN LIEU OF MESH. LAP 500 AT CORNERS
12. MINIMUM REINFORCEMENT COVER TO BE 45mm UNLESS NOTED OTHERWISE
13. CHAMBER DEPTH EXCEEDING 2m IN HEIGHT WILL BE DESIGNED AND APPROVED BY STRUCTURAL ENGINEER
14. CONCRETE STRENGTH - UNLESS NOTED OTHERWISE

Project - Drawing No.

A1

Issue
D



1. IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OHS REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES.
2. THE TRENCH SHALL BE EXCAVATED TO A WIDTH 1.4 TIMES THE EXTERNAL DIAMETER OF THE PIPE, OR TO THE EXTERNAL DIAMETER OF THE PIPE PLUS 300mm ON EACH SIDE, WHICHEVER IS THE GREATER.

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Scales

AS SHOWN	Designed	CK
	Checked	CB
Grid	GDA2020	
Height	AHD	



	Project
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INDUSTRIAL DEVELOPMENT BURRA PARK

	Title
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LOT 4.3 & 4.4 (WH 01 & 02)
STORMWATER DRAINAGE
DETAILS

Civil Engineers and Project Managers

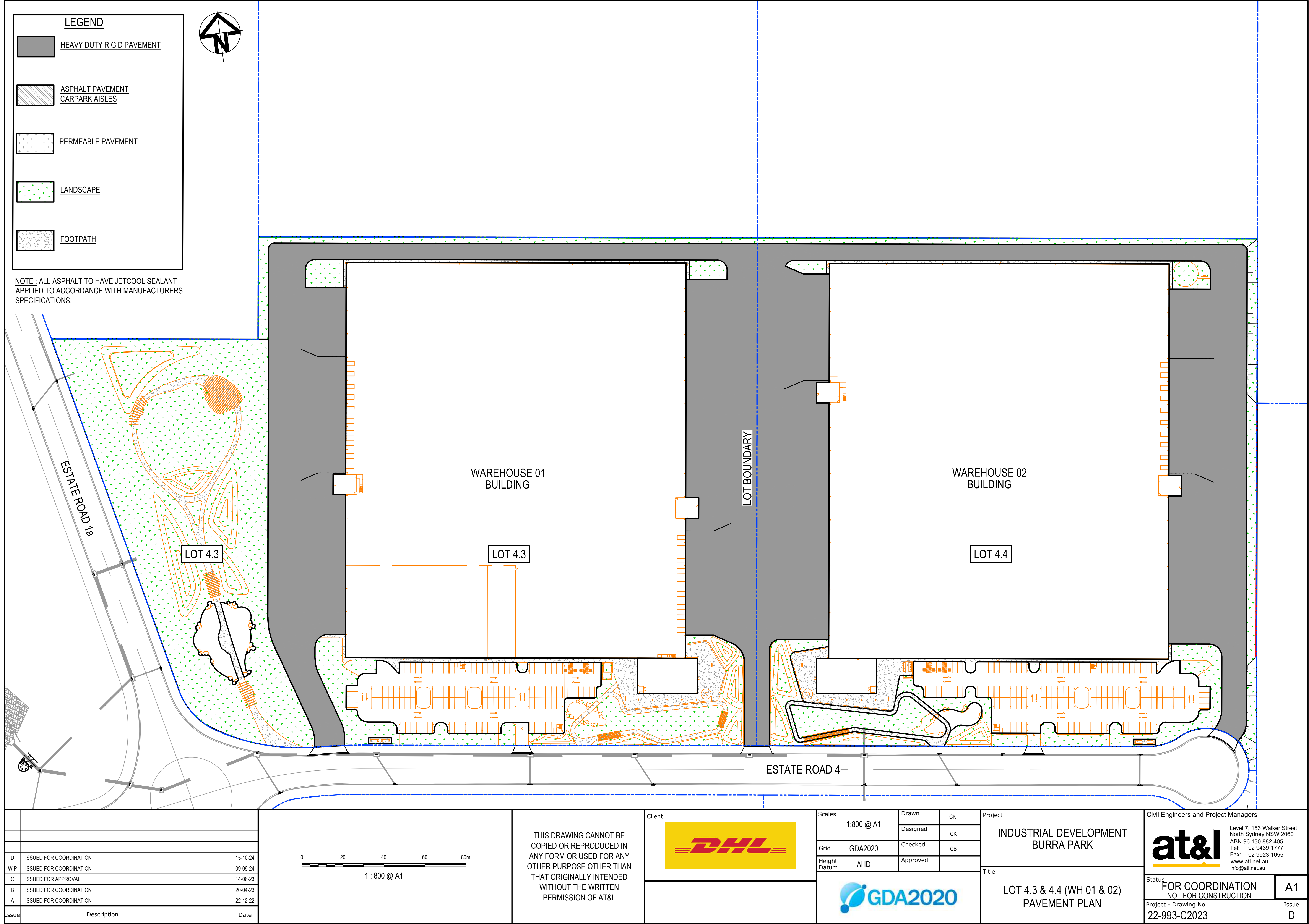
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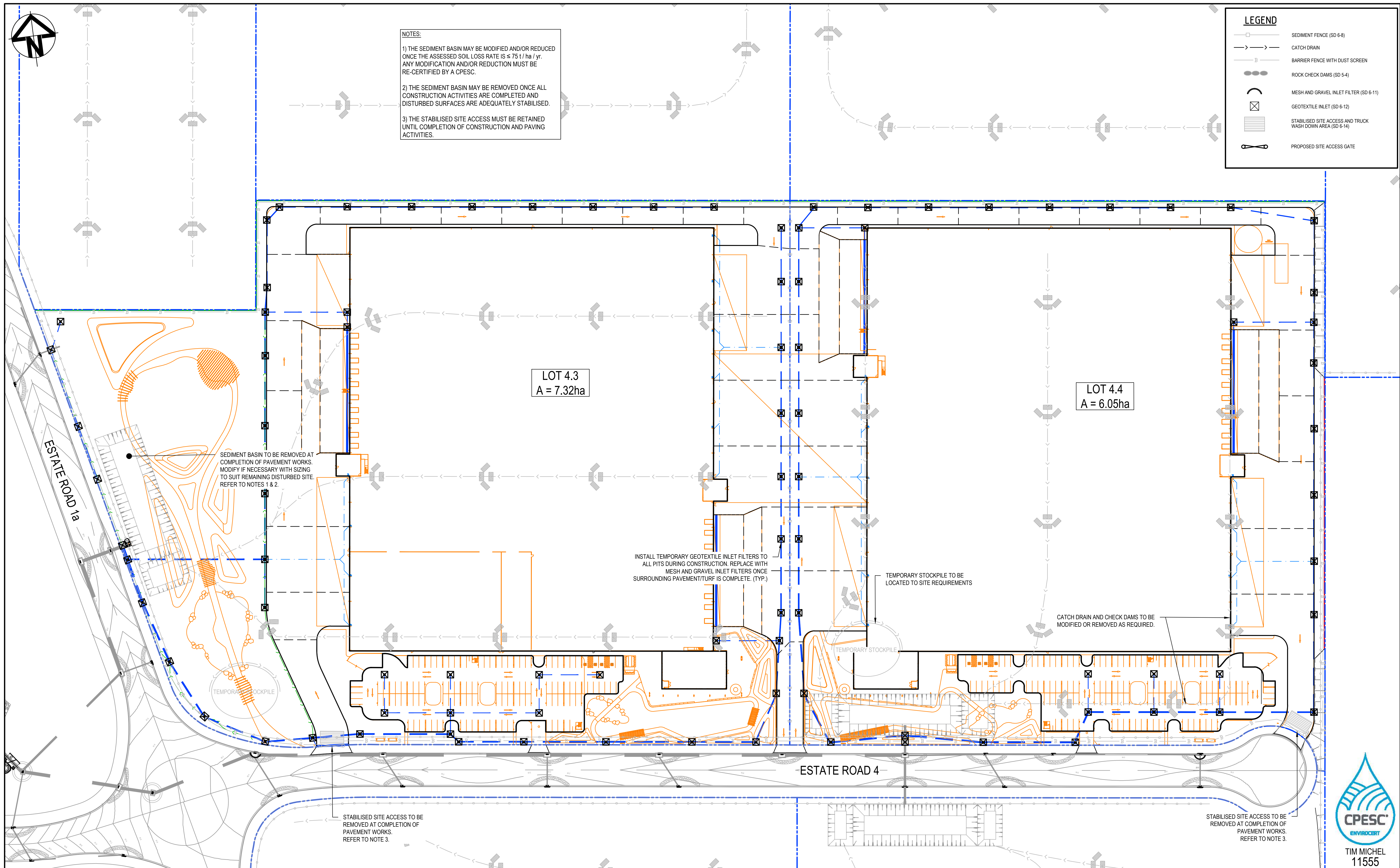
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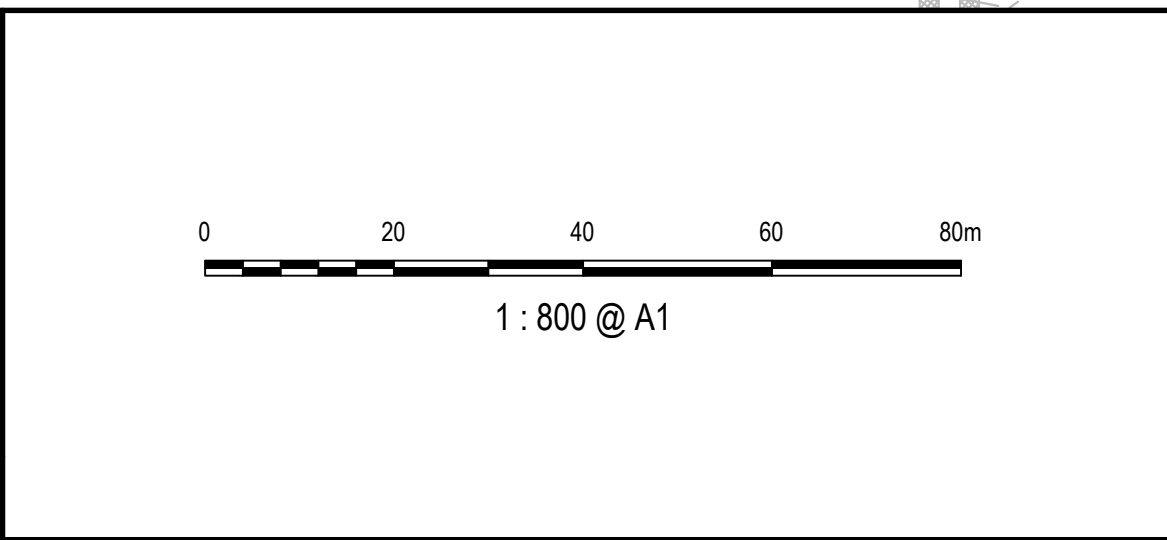
Project - Drawing No.

A1





C	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
B	ISSUED FOR APPROVAL	14-06-23
A	ISSUED FOR COORDINATION	20-04-23
Issue	Description	Date



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Scales

1:800 @ A1

Grid GDA2020

Height Datum AHD

Drawn CK

Designed CK

Checked CB

Approved



Project

INDUSTRIAL DEVELOPMENT BURRA PARK

Title

LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL PLAN CIVIL WORKS PHASE

Civil Engineers and Project Managers



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Status

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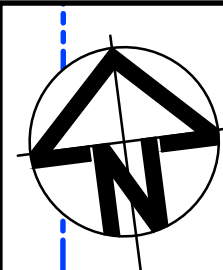
Project - Drawing No.
22-993-C2025

A1

Issue
C



TIM MICHEL
11555

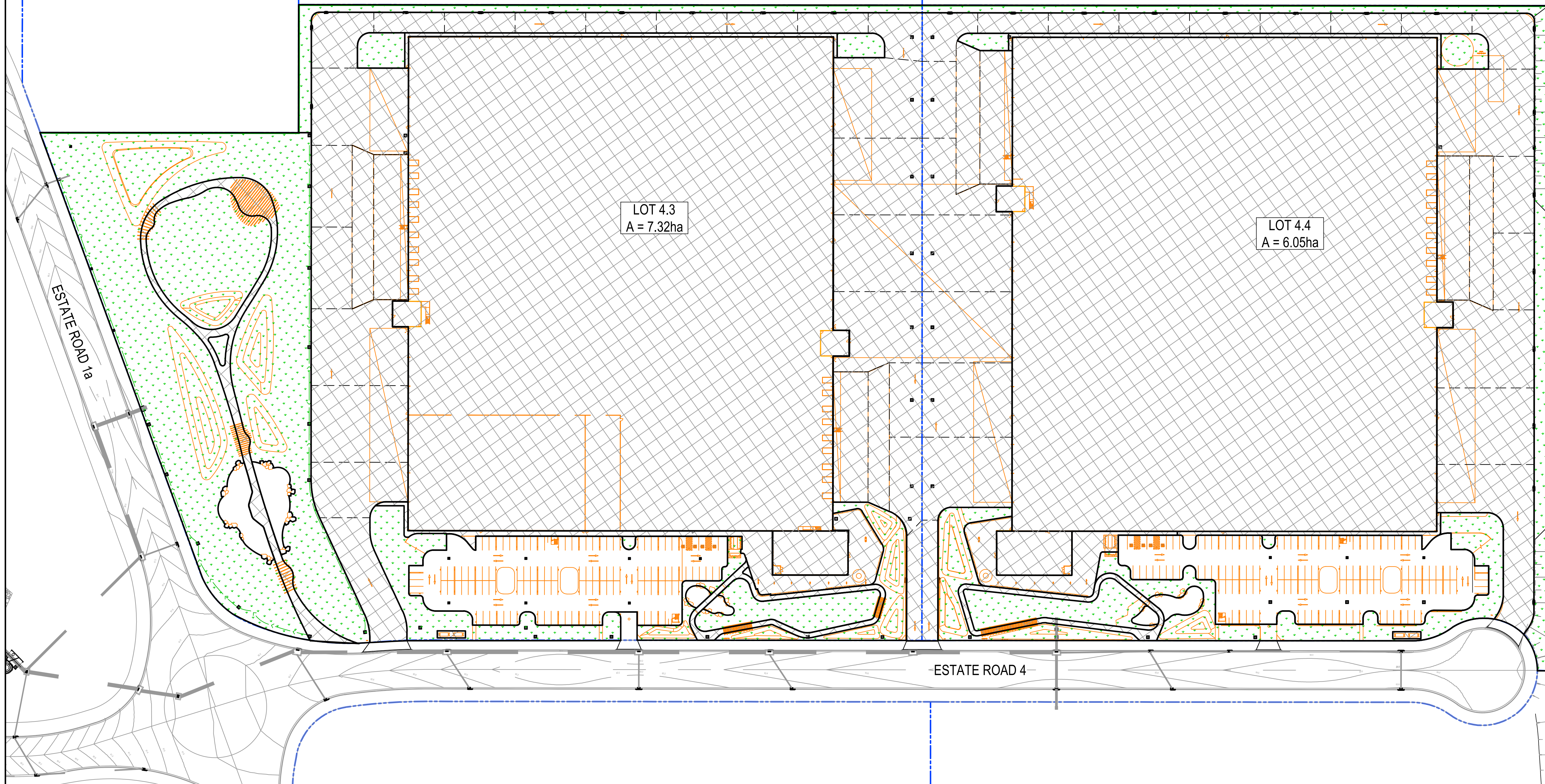


NOTES:

- 1) TURF, TREES AND PLANTS TO BE PLANTED AND PROTECTED AS EARLY AS POSSIBLE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S / SUPPLIER'S SPECIFICATIONS.
- 2) CONTRACTOR TO MAINTAIN ALL TURF AND PLANTING THROUGHOUT THE MAINTENANCE PERIOD IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S / SUPPLIER'S SPECIFICATIONS.
- 3) ALL PAVED SURFACES SHALL BE SWEEPED CLEAN REGULARLY TO PREVENT LITTER AND SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
- 4) TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAY BE REMOVED AT COMPLETION OF ALL CONSTRUCTION AND STABILISATION WORKS.
- 5) LANDSCAPE IRRIGATION SYSTEM TO BE INSTALLED AND OPERATIONAL PRIOR TO PLANTING. IRRIGATION SYSTEM IS TO BE SUPPLIED FROM RAINWATER HARVESTING TANKS WITH AUTOMATIC SWITCH TO RECYCLED WATER SUPPLY SYSTEM WHEN THE TANKS ARE EMPTY.
- 6) TEMPORARY RAINWATER TANKS TO BE REMOVED WHEN PERMANENT RECYCLED WATER SUPPLY IS AVAILABLE TO THE SITE.

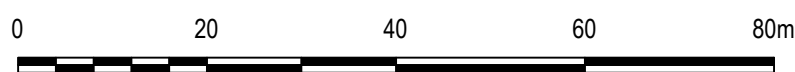
LEGEND

-  SURFACES TO BE STABILISED WITH TURF/PLANTING. (REFER LANDSCAPE ARCHITECT'S DWGS)
-  SURFACES TO BE STABILISED WITH PAVING AND STRUCTURES



TIM MICHEL
11555

Issue	Description	Date
C	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
B	ISSUED FOR APPROVAL	14-06-23
A	ISSUED FOR COORDINATION	20-04-23



1 : 800 @ A1

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Drawn

CK

Designed

CK

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CB

Approved

Grid

GDA2020

Height Datum

AHD



Project

INDUSTRIAL DEVELOPMENT
BURRA PARK

Title

LOT 4.3 & 4.4 (WH 01 & 02)
EROSION AND SEDIMENT
CONTROL PLAN
STABILISATION PHASE

Civil Engineers and Project Managers



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Status

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Project - Drawing No.

22-993-C2026

Issue

C

EROSION AND SEDIMENT CONTROL

NOTES

PRELIMINARY BASIN SIZING - TYPE A SEDIMENT BASIN SIZING
(REFER VENDOR WORKS CIVIL ENGINEERING PLANS BY HENRY & HYMAS FOR DETAILS)

THE SEDIMENT BASIN SHALL BE CONSTRUCTED ON A RATE PER HECTARE BASIS AND HAS BEEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) APPENDIX B SEDIMENT DESIGN AND OPERATION (REVISION - JUNE 2018). THE DISTURBED AREA WITHIN THIS CATCHMENT AT ANY ONE TIME SHOULD BE LIMITED TO AN AREA FOR WHICH EACH SEDIMENT BASIN HAS BEEN DESIGNED FOR. IF REQUIRED, EACH BASIN SHALL BE RE-SIZED IN ACCORDANCE WITH THE TABLE ADJACENT.

VALUES PRESENTED IN THE HENRY & HYMAS CIVIL DRAWINGS ARE BASED ON FULL SITE AREA. SUBJECT TO FUTURE DETAIL DESIGN. DISTURBED SITE AREAS (AND THUS BASIN AREAS) MAY CHANGE OR BE DISTRIBUTED TO MULTIPLE BASINS AS SITE CONDITIONS DICTATE. A REVIEW OF SIZING (AND UPSIZING) TO BE UNDERTAKEN DURING DETAILED DESIGN PHASE USING THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) APPENDIX B SEDIMENT DESIGN AND OPERATION (REVISION - JUNE 2018). DETAILED DESIGN OF BASIN TO BE UNDERTAKEN WHEN SITE CONDITIONS, SOIL CONDITIONS AND FINAL CONTRIBUTING CATCHMENTS ARE KNOWN. FURTHERMORE, SITE CONDITIONS MAY VARY FROM THOSE DETAILED ABOVE IN THE TABLE ADJACENT.

JAR TESTING: IN ACCORDANCE WITH SECTION B3 OF THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) APPENDIX B SEDIMENT DESIGN AND OPERATION (REVISION - JUNE 2018) IS REQUIRED IN ORDER TO DETERMINE THE CHEMICAL DOSING RATES OF SEDIMENT. IT IS RECOMMENDED THAT THIS ANALYSIS IS UNDERTAKEN PRIOR TO BASIN CONSTRUCTION AS THE FINDINGS MAY POTENTIALLY IMPACT THE SEDIMENT AND EROSION CONTROL (BASIN SIZING ALSO) ADOPTED. IT SHOULD BE NOTED THAT THE MOST SUITABLE FLOCCULANT AND/OR COAGULANT IS LIKELY TO VARY WITH SOIL TYPE. CONSEQUENTLY, THERE IS A NEED TO REVIEW THE EFFICACY OF CERTAIN PRODUCTS OVER TIME AS SOIL CHARACTERISTICS CHANGE DURING THE VARIOUS STAGES OF CONSTRUCTION.

BASIN MANAGEMENT

IN ACCORDANCE WITH THE BLUE BOOK, THE SEDIMENT BASINS WILL BE MANAGED AND MAINTAINED UNTIL THE CONTRIBUTING CATCHMENT UPSTREAM IS COMPLETED AND FULLY STABILISED ON MORE THAN 90% OF THE TOTAL AREA. A GENERIC BASIN MAINTENANCE STRATEGY IS DETAILED BELOW - NOTE THIS STRATEGY WILL NEED TO BE TAILORED TO SITE CONDITIONS AND PARAMETERS:

- AN AUTOMATED SYSTEM OF FLOCCULANT DOSING IS REQUIRED AND A SUITABLE SUPPLY OF FLOCCULANT/COAGULANT, DOSER AND SUPPLY OF FLOCCULANT TO BE PROVIDED ON LEVEL PAD 4MX4M WITHIN 10M OF DOSING POINT. SELECTION OF AUTOMATIC DOSING SYSTEM IS BASED ON-SITE CHARACTERISTIC AND JAR TESTING OF PRODUCTS ON-SITE SPECIFIC TURBID WATER. AUTOMATIC DOSING SYSTEM MUST ACHIEVE PERFORMANCE TARGETS DETAILED BELOW.
- FURTHER DETAILS FOR BASIN MANAGEMENT ARE PROVIDED IN CHAPTER 6 AND APPENDIX E4 OF LONDON'S 'BLUE BOOK'.
- FURTHER DETAILED BASIN MANAGEMENT ARE PROVIDED IN IECA (INTERNATIONAL EROSION CONTROL ASSOCIATION) (2008) APPENDIX B SEDIMENT DESIGN AND OPERATION (REVISION - JUNE 2018), INTERNATIONAL EROSION CONTROL ASSOCIATION AUSTRALASIA.
- BASIN PERFORMANCE REQUIREMENTS AS FOLLOWS: AT LEAST 80% OF THE AVERAGE ANNUAL RUNOFF VOLUME (I.E. 80% HYDROLOGICAL EFFECTIVENESS) TO 50 MG/L TSS OR LESS, AND PH IN THE RANGE 6.5-8.5.
- JAR TESTING IS TO BE UNDERTAKEN TO SELECT THE APPROPRIATE COAGULANTS AND/OR FLOCCULANTS ALONG WITH DETERMINING THEIR OPTIMUM DOSE RATES. JAR TESTING IS TO BE UNDERTAKING IN ACCORDANCE WITH THE RECOMMENDATIONS AND TESTING PROCEDURE SPECIFIED IN THE CHAPTER 5 OF THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) CHEMICAL COAGULANTS AND FLOCCULANTS FACT SHEET (IECA 2018).
- TYPE A AND B BASINS REQUIRE A FAST ACTING COAGULANT AND FLOCCULANT TO PERFORM BASED ON THE JAR TESTING. A FACTOR OF SAFETY (IN ACCORDANCE WITH ABOVE GUIDELINES) SHOULD BE APPLIED TO ALLOW FOR THE DIFFERENT SETTLING TIMES EXPERIENCED BY BASINS DUE TO DOSING, MIXING, FLOW VELOCITY AND WIND ACTION.
- REFER EROSION AND SEDIMENT CONTROL PLAN (ESCP PLAN) BY HENRY AND HYMAS, REFERENCE 240518.E&SC REV 1.0 FOR GENERIC BASIN MANAGEMENT AND OPERATION DETAILS.

BASIN MANAGEMENT (CONT.)

- MAINTENANCE AND OPERATING PROCEDURES REPORT TO BE PREPARED AT DETAIL DESIGN PHASE. REPORT TO INCLUDE THE FOLLOWING:
- DECANT WATER QUALITY OBJECTIVES
- DESCRIPTION OF PROPOSED CHEMICAL TREATMENT OF THE BASIN, INCLUDING MINIMUM JAR TESTING PERFORMANCE REQUIREMENTS
- PERFORMANCE ASSESSMENT PROCEDURES
- GUIDANCE ON CORRECTIVE MEASURES BASED ON WATER QUALITY MONITORING OUTCOMES
- DESCRIPTION OF DE-WATERING TRIGGERS, INCLUDING TRIGGERS FOR TEMPORARY SHUT-OFF OF THE DECANT SYSTEM IN THE EVENT OF POOR WATER QUALITY
- DESCRIPTION OF DE-SILTING TRIGGERS
- DESCRIPTION OF THOSE CIRCUMSTANCES AND/OR WEATHER CONDITIONS THAT WOULD TRIGGER DE-WATERING OF THE BASIN PRIOR TO AN IMMINENT STORM.
- MAINTENANCE PROCEDURES AND PROTOCOLS INCLUDING DE-SILTING METHOD AND FREQUENCIES.

THE LONG TERM GROUND COVER FACTORS FOR THE CONSTRUCTION WORKS IS NOT TO EXCEED THE FOLLOWING LIMITS:

LAND	MAXIMUM G-FACTOR	REMARKS
WATERWAYS AND OTHER AREAS OF CONCENTRATED FLOWS, POST CONSTRUCTION	0.05	APPLIES AFTER TEN WORKING DAYS OF COMPLETION OF FORMATION AND BEFORE CONCENTRATED FLOWS ARE APPLIED. FOOT AND VEHICULAR TRAFFIC IS PROHIBITED IN THIS AREA AND 70% GROUND COVER IS REQUIRED.
STOCKPILES, POST CONSTRUCTION	0.10	APPLIES AFTER TEN WORKING DAYS FROM COMPLETION OF FORMATION. 60% GROUND COVER IS REQUIRED.
ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION.	0.15	APPLIES AFTER 20 DAYS OF INACTIVITY, EVEN THOUGH WORKS MAY BE INCOMPLETE. 50% GROUND COVER IS REQUIRED.

REFERENCE PARAMETERS - FOR CALCULATION OF SOIL LOSS
(NOT USED IN ABOVE CALCULATIONS)

SEDIMENT BASIN SIZING TYPE D SOILS	
VOLUMETRIC RUNOFF COEFFICIENT, CV	6.4
80TH PERCENTILE 5 DAY TOTAL RAINFALL DEPTH, R	35mm
CATCHMENT AREA, A	VARIES
SETTLING ZONE VOLUME (PER HECTARE) 10 CV A R	124 x A
DISTURBED CATCHMENT AREA	VARIES
R K L S P C	143 x Ls
SEDIMENT ZONE VOLUME (0.17 A (R K L S P C))/1.3	18.7 x Ls
TOTAL SEDIMENT BASIN VOLUME REQUIRED :	REFER ADJACENT TABLE

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

2. THE FOLLOWING DESIGN PARAMETERS HAVE BEEN ASSESSED FOR THE SITE:

CONSTRAINT	VALUE	(SOURCE)*
RAINFALL EROSIVITY (R-FACTOR)	2200	APPENDIX B - MAP 10
LENGTH/SLOPE GRADIENT FACTOR, LS	VARIOUS	APPENDIX A - TABLE A1
SOIL ERODIBILITY (K-FACTOR)	0.05	(TABLE C19)
EROSION CONTROL PRACTICE FACTOR (P-FACTOR)	1.3	APPENDIX A - TABLE A2
COVER FACTOR (C-FACTOR)	1.0 (DURING EARTHWORKS)	APPENDIX A - FIGURE A5
CALCULATED SOIL LOSS, A (RUSLE EQUATION)	VARIES	A = R K L S P C
SOIL HYDROLOGIC GROUP	GROUP D	APPENDIX C TABLE 19
85TH PERCENTILE 5-DAY RAINFALL EVENT	35mm	TABLE 6.3A

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

Construction Notes

- Install filters to kerb inlets only at sag points.
- Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.
- Form an elliptical cross-section about 150 mm high x 400 mm wide.
- Place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spacer blocks.
- Form a seal with the kerb to prevent sediment bypassing the filter.
- Sandbags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly abut each other and sediment-laden waters cannot pass between.

MESH AND GRAVEL INLET FILTER

SD 6-11

Construction Notes

- Fabricate a sediment barrier made from geotextile or straw bales.
- Follow Standard Drawing 6-7 and Standard Drawing 6-8 for installation procedures for the straw bales or geofabric. Reduce the picket spacing to 1 metre centres.
- In waterways, artificial sag points can be created with sandbags or earth banks as shown in the drawing.
- Do not cover the inlet with geotextile unless the design is adequate to allow for all waters to bypass it.

GEOTEXTILE INLET FILTER

SD 6-12

D	ISSUED FOR COORDINATION	15-10-24
WIP	ISSUED FOR COORDINATION	09-09-24
C	ISSUED FOR APPROVAL	14-06-23
B	ISSUED FOR COORDINATION	20-04-23
A	ISSUED FOR COORDINATION	22-12-22
Issue	Description	Date

THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L



Scales	AS SHOWN	Drawn	CK
		Designed	CK
Grid	GDA2020	Checked	CB
Height Datum	AHD	Approved	



Project	INDUSTRIAL DEVELOPMENT BURRA PARK
Title	LOT 4.3 & 4.4 (WH 01 & 02) EROSION AND SEDIMENT CONTROL DETAILS SHEET 2

Civil Engineers and Project Managers	
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Status	FOR COORDINATION NOT FOR CONSTRUCTION
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