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NSW Department of Planning and Environment

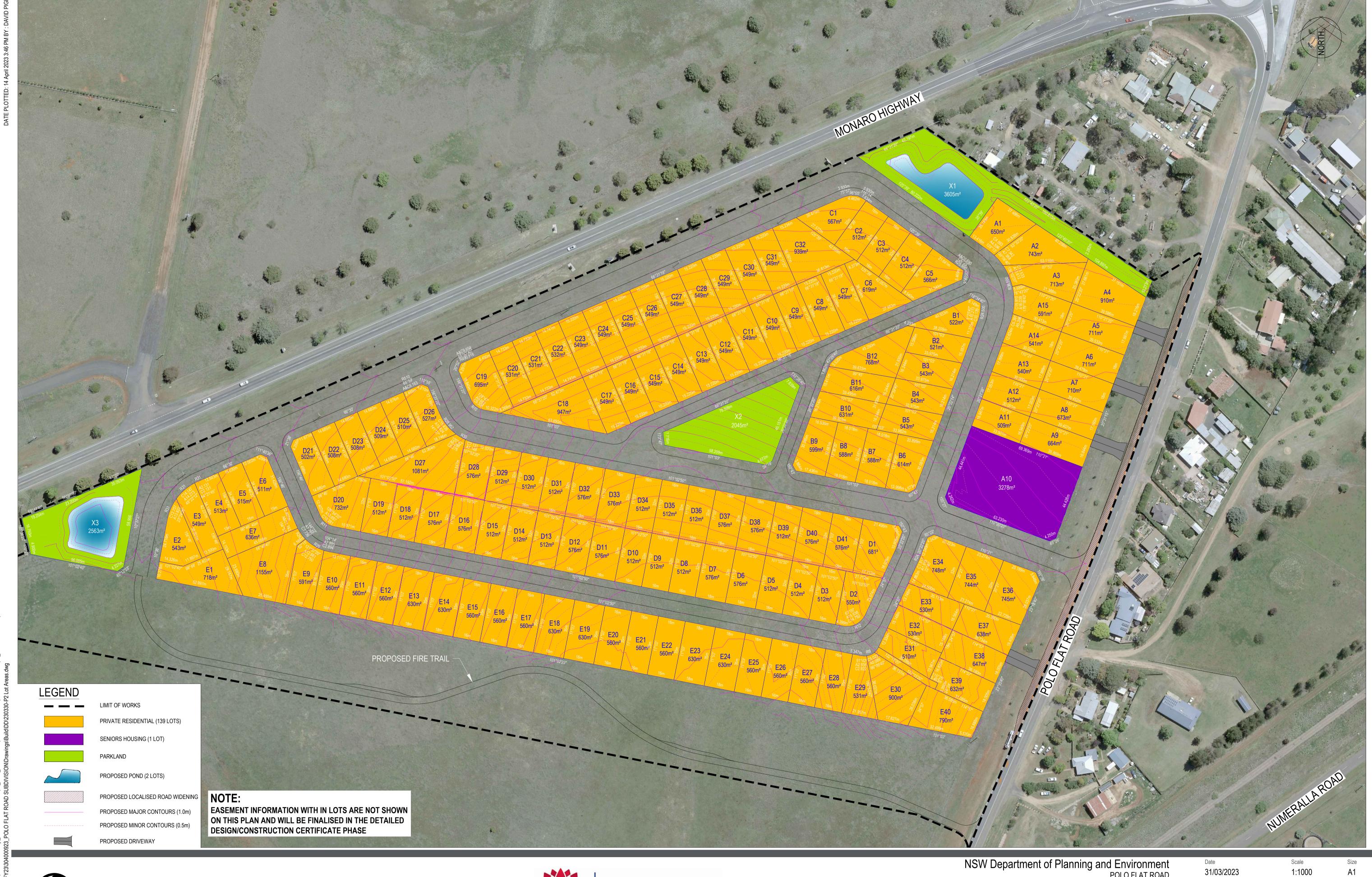
POLO FLAT ROAD RESIDENTIAL DEVELOPMENT (PRECINCT 2, LOT 2 & 4 DP 1285072)

COVER SHEET AND LOCALITY PLAN APRIL 2023

PART 5 NSW LACH APPLICATION - BGYV7



Drawing Number

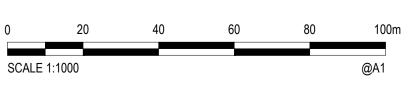




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POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072

PROPOSED LOT DEVELOPMENT LAYOUT LOT LAYOUT DETAILS

304000923-SK-C-1000 Drawing Number

	SCHEDULE OF DRAWINGS
DRAWING No.	DESCRIPTION
50522046-C-2000	COVER SHEET AND LOCALITY PLAN FOR DEVELOPMENT APPLICATION
50522046-C-2001	SITE PLAN AND DRAWING SCHEDULE
50522046-C-2002	GENERAL NOTES AND LEGEND
50522046-C-2005	GENERAL ARRANGEMENT PLAN
50522046-C-2010	EXISTING ZONING PLAN
50522046-C-2011	BUSHFIRE ASSET PROTECTION PLAN
50522046-C-2012	ROAD HIERARCHY PLAN
50522046-C-2015	TYPICAL ROAD CROSS SECTIONS SHEET 1 OF 2
50522046-C-2016	TYPICAL ROAD CROSS SECTIONS SHEET 2 OF 2
50522046-C-2020	ROAD LONG SECTIONS ROAD 01
50522046-C-2021	ROAD LONG SECTIONS ROAD 07 SHEET 1 OF 2
50522046-C-2022	ROAD LONG SECTIONS ROAD 07 SHEET 2 OF 2
50522046-C-2023	ROAD LONG SECTIONS ROAD 08 AND ROAD 09
50522046-C-2030	ACTIVE TRAVEL PLAN
50522046-C-2032	ISOPACH
50522046-C-2034	RETAINING WALL PLAN
50522046-C-2035	TYPICAL CUT/FILL SECTIONS SHEET 1 OF 4
50522046-C-2036	TYPICAL CUT/FILL SECTIONS SHEET 2 OF 4
50522046-C-2037	TYPICAL CUT/FILL SECTIONS SHEET 3 OF 4
50522046-C-2038	TYPICAL CUT/FILL SECTIONS SHEET 4 OF 4
50522046-C-2040	CONCEPT STORMWATER PLAN AND WATER SENSITIVE URBAN DESIGN OUTCOME PLAN
50522046-C-2041	WATER SENSITIVE URBAN DESIGN OUTCOME PLAN AND WATER QUALITY TABLE
50522046-C-2042	WATER SENSITIVE URBAN DESIGN SPEL ECOCEPTOR - SERIES 4000 SHEET 1 OF 2
50522046-C-2043	WATER SENSITIVE URBAN DESIGN SPEL ECOCEPTOR - SERIES 8000 SHEET 2 OF 2
50522046-C-2045	CONCEPT SEWER PLAN
50522046-C-2046	CONCEPT SEWER PLAN SEWER CALCULATIONS TABLE
50522046-C-2050	CONCEPT WATER PLAN
50522046-C-2051	WATER DEMAND CALCULATION
50522046-C-2055	CONCEPT SERVICES PLAN
50522046-C-2060	SOIL AND WATER MANAGEMENT PLAN
50522046-C-2065	VEHICLE TURNING PATH ANALYSIS SHEET 1 OF 2
50522046-C-2066	VEHICLE TURNING PATH ANALYSIS SHEET 2 OF 2

SITE PLAN SCALE 1:5000

17/04/2023 FINAL DRAWINGS FOR Part 5 APPLICATION 27/10/2022 FINAL 20/10/2022 DRAFT FOR REVIEW TM FL JS 05/10/2022 DRAFT FOR REVIEW TM FL JS 28/09/2022 DRAFT FOR REVIEW 23/09/2022 DRAFT FOR REVIEW TM FL 09/09/2022 DRAFT FOR REVIEW

Description

Des. Verif. Appd.

Date





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Client	NSW Department of Planning and En
Project	POLO FLAT ROAD
	RESIDENTIAL DEVELOPMENT
	PRECINCT 2, LOT 2 & 4 DP 1285072
Title	
	SITE PLAN AND DRAWING SCHEDULE

ment					
	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PUR				RPOSES
	Date 27/10/2022	Datum AHD	Scale 1:5000	Size	A1
	Drawing Number				Revision
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NSW	Planning &
SOVERNMENT	Environment

GENERAL NOTES

- 1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 2000, WHICH REQUIRES EMPLOYERS TO ENSURE THE HEALTH, SAFETY AND WELFARE OF EMPLOYEES.
- 2. THE CONTRACTOR SHALL AT ALL TIMES EXERCISE ALL NECESSARY PRECAUTIONS APPROPRIATE TO ENSURE THE SAFETY OF ALL PERSONS ON THE WORK SITE OR IN THE VICINITY OF THE WORK SITE.
- 3. SEDIMENT AND EROSION CONTROL MEASURES AS DETAILED ON THE EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH LANDCOM'S SOILS AND CONSTRUCTION VOLUME 1, 4TH EDITION MARCH 2004 AND GOULBURN MULWAREE COUNCIL'S DEVELOPMENT DESIGN SPECIFICATION D7.
- 4. ALL CONSTRUCTION WORK IS TO BE CARRIED OUT SO THAT AT ANY TIME ADJOINING PROPERTY OWNERS ARE NOT DEPRIVED OF AN ALL-WEATHER ACCESS OR SUBJECTED TO ADDITIONAL STORM WATER RUN-OFF DURING THE PERIOD OF CONSTRUCTION.
- 5. TO LIMIT THE IMPACT OF THE CONSTRUCTION ON ADJOINING OWNERS, ALL WORKS SHALL BE RESTRICTED TO THE HOURS OF 7am-6pm MONDAY TO FRIDAY AND 8am-3pm SATURDAY. NO WORK SHALL TAKE PLACE ON SUNDAYS OR PUBLIC HOLIDAYS.
- 6. ALL WORK IS TO BE SET OUT BY A COMPETENT SURVEYOR APPROVED BY COUNCIL
- 7. THE CONTRACTOR SHALL NOT DISTURB ANY SURVEY CONTROL MARKS. SHOULD ANY SURVEY CONTROL MARK BE DISTURBED OR OBLITERATED, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT IMMEDIATELY. THE CONTRACTOR SHALL HAVE THE MARKS REPLACED AT HIS EXPENSE.
- 8. ALL WORKS ARE TO BE CONDUCTED TO THE REQUIREMENTS OF THE SUBDIVISION MANAGER OR DELEGATE.
- 9. ALL GREEN WASTE IS TO BE MULCHED. STOCKPILED AND USED (WHERE POSSIBLE) ON SITE, ALL EXCESS MULCH IS TO BE REMOVED OFF SITE.
- 10. THE DEPTH OF PAVEMENT MATERIAL SHALL BE APPROVED BY SNOWY MONARO REGIONAL COUNCIL WITH REFERENCE TO THE ACT GEOTECHNICAL ENGINEER'S PTY LTD PAVEMENT DESIGN REPORT. THE TYPE OF PAVEMENT MATERIAL IS TO BE APPROVED BY SNOWY MONARO REGIONALCOUNCIL.
- 11. THE SURVEYOR IS TO BE NOTIFIED 1 WEEK PRIOR TO THE POURING OF KERB SO SSMs AND THEIR LOCATIONS CAN BE PROVIDED.
- 12. ALL DISTURBED AREAS INCLUDING BATTERS, TABLE DRAINS AND FOOTPATH AREAS ARE TO BE TOP SOILED, FERTILIZED AND SEEDED TO THE SATISFACTION OF COUNCIL'S SUBDIVISION MANAGER OR DELEGATE. THE TYPE OF SEED (NATIVE MIX) IS TO BE APPROVED BY THE SUPERINTENDENT.
- 13. IF ROCK IS ENCOUNTERED THE SUPERINTENDENT SHALL BE NOTIFIED IMMEDIATELY SO MEASUREMENTS OF VOLUMES CAN BE MADE. NO VARIATIONS FOR ROCK WILL BE CONSIDERED UNLESS THE SUPERINTENDENT HAS VERIFIED THE AMOUNTS PRIOR TO BACKFILLING.
- 14. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE COOMA-MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION COUNCIL. AND TO THE REQUIREMENTS OF THE PRINCIPAL CERTIFYING AUTHORITY.
- 15. SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED PRIOR TO CONSTRUCTION WORK COMMENCING AND MAINTAINED DURING THE CONSTRUCTION PHASE. SEDIMENT AND EROSION CONTROL MEASURES ARE TO INCORPORATE THOSE AS DETAILED ON THE SEDIMENT AND EROSION CONTROL PLAN. MEASURES SHOULD ALSO INCORPORATE THOSE AS SET OUT IN COUNCIL'S STANDARDS DURING THE INSTALLATION OF UTILITY SERVICES.
- 16. THE CONTRACTOR IS TO GAIN APPROVAL UNDER SECTION 138 OF THE ROADS ACT 1993 PRIOR TO COMMENCING CONSTRUCTION WITHIN ALL ROAD RESERVES.
- 17. TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH AS 1742.3 ARE TO BE IN PLACE AND MAINTAINED AT ALL TIMES. TRAFFIC CONTROL PLAN IS TO BE SUBMITTED TO COUNCIL AND APPROVED PRIOR TO CONSTRUCTION WORK COMMENCING.
- 18. PRIOR TO COMMENCEMENT OF EXCAVATION THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL SERVICES AND WILL BE RESPONSIBLE FOR ADJUSTMENT OF SERVICES AND REPAIR OF ANY DAMAGE TO COUNCIL'S INFRASTRUCTURE. SUCH REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF THE SUBDIVISION AND DEVELOPMENT MANAGER.

DRAINAGE NOTES

- 1. ALL STORMWATER WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS - CONSTRUCTION, C220 - STORMWATER.
- PIPES ARE TO BE LAID TO DESIGN LEVELS AND GRADES IN 10mm AGGREGATE BED (MIN 75mm DEEP). BACKFILL PIPES 100mm OVER TOP OF BARREL WITH 10mm AGGREGATE AND TO FINISHED SURFACE LEVEL WITH SELECTED BACKFILL.
- 3. PITS MORE THAN 1.0m DEEP TO HAVE STEP IRONS.
- 4. SUBSOIL DRAINAGE LINES ARE TO BE LAID AT A MINIMUM GRADE OF 1%.
- 5. STORMWATER PIPES TO BE uPVC SN8 MANUFACTURED TO AS1254, INSTALLED IN ACCORDANCE WITH

WATER RETICULATION MAIN NOTES:

- 1. ALL WATER MAIN WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION, C401 - WATER RETICULATION.
- 2. PE PIPE SHALL COMPLY WITH AS/NZ 4130.
- 3. FITTINGS USED ON PE PIPE SHALL COMPLY WITH AS/NZ 4129.
- THE PE COMPOUND SHALL BE PE80B OR PE100 AND SHALL COMPLY WITH AS/NZ 4131.
- 5. PE MAY BE COLD BENT TO A MINIMUM RADIUS OF 33xOD. STAKES OR OTHER SOURCES OF POINT LOADS SHALL NOT BE USED TO ASSIST IN BENDING THE PIPE.
- 6. ALLOWANCE SHALL BE MADE DURING CONSTRUCTION FOR EXPANSION AND CONTRACTION OF PE PIPE DUE TO TEMPERATURE CHANGES.
- 7. PE PIPE SHALL BE BLACK PIPE WITH BLUE STRIPES.
- 8. NOMINATED DIAMETER IS O.D. U.N.O.

SEWER NOTES

- ALL SEWER WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION, C402 - SEWERAGE SYSTEM.
- SEWER PIPE CLASS SN8, FLEXIBLE RUBBER RING (ELASTOMERIC) JOINTS, MANUFACTURED TO

PAVEMENT NOTES

- 1. ALL SUBGRADE AND SUBBASE ARE TO BE COMPACTED TO A MINIMUM DENSITY OF 100% OF THE STANDARD MAXIMUM DRY DENSITY.
- 2. BASE COURSE MATERIALS ARE TO BE COMPACTED TO A MINIMUM DENSITY RATIO OF 98% OF THE MODIFIED MAXIMUM DRY DENSITY WITHIN -1.0% TO 3.0% OF STANDARD OPTIMAL MOISTURE
- DESIGN SUBGRADE CBR VALUES AND ADOPTED TRAFFIC LOADING ARE NOTED WITH EACH INDIVIDUAL PAVEMENT TYPE. APPROPRIATE SUBGRADE TREATMENT SHOULD BE ASSESSED AFTER PRELIMINARY BOXING. A NON WOVEN GEOFABRIC LAYER SUCH AS BIDUM A34 SHOULD BE PLACED ON SUBGRADE TO ACT AS A SEPARATION LAYER WHERE WET AND DEFLECTING SUBGRADE CONDITIONS ARE ENCOUNTERED.
- 4. PAVEMENT SUBGRADE COMPACTION SHOULD MEET THE FOLLOWING MINIMUM SPECIFICATION WHICH IS AS FOLLOWS:

BASECOURSE 98% MDD SUB-BASE 98% MOD SUBGRADE 98% MDD.

WHERE EXISTING CBR VALUES OF LESS THAN 3% ARE ENCOUNTERED. SUBGRADES COULD BE CEMENTED OF LIME STABILISED TO A DEPTH OF 150mm, WITH DESIGN THEN BASED ON A VALUE OF 3%. ALTERNATIVELY, THE LOW STRENGTH SUBGRADES COULD BE TREATED BY EXCAVATION OF AT LEAST AN ADDITIONAL 300mm FOLLOWED BY REPLACEMENT WITH SUITABLE GRANULAR MATERIAL, THUS SATISFYING THE REQUIREMENTS OF A CBR 3% SUBGRADE.

EARTHWORKS NOTES

- SET OUT OF WORKS ON SITE ARE TO APPROVED BY THE PRINCIPAL'S REPRESENTATIVE PRIOR TO CONSTRUCTION WORKS.
- ALL TOPSOIL UNDER THE DESIGN FOOTPRINT IS TO BE STRIPPED TO A MAXIMUM DEPTH OF 300MM AND IS TO BE STOCKPILED FOR FUTURE USE.
- ALL UNSUITABLE IN-SITU FOUNDATION MATERIAL IS TO BE STRIPPED AND STOCKPILED SEPARATELY PRIOR TO CONSTRUCTION.
- ALL IMPORT FILL TO BE PLACED AND SPREAD IN 300MM LOOSE LAYERS, MOISTURE CONDITIONED TO OMC ± 2% AND COMPACTED TO 95% MMDD BEFORE THE END OF EACH WORKING DAY
- ALL EARTHWORKS OPERATIONS ARE TO BE SUPERVISED AND CERTIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER AND UNDERTAKEN UNDER LEVEL 1 SUPERVISION.
- FREQUENCY OF COMPACTION TESTING SHALL BE IN ACCORDANCE WITH AS 3798 AND COOMA MONARO SPECIFICATION FOR ENGINEERING WORKS - CONSTRUCTION, C213 - EARTHWORKS.
- COMPACTED AREAS ARE TO BE EITHER COVERED OR TREATED WITH A SUITABLE POLYMER OR ALTERNATIVE METHOD TO PREVENT WATER EROSION OR DUST BLOW BEFORE THE END OF EACH WORKING DAY. THE PREFERRED OPTION IS TO BE APPROVED BY THE PRINCIPAL'S REPRESENTATIVE.
- LANDSCAPED AREAS ARE TO BE COMPACTED TO 90% MMDD.

RETAINING WALL NOTES

ALL RETAINING WALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COOMA-MONARO SPECIFICATION FOR ENGINEERING WORKS - CONSTRUCTION, C271-MINOR CONCRETE WORKS.

TRAFFIC AND PEDESTRIAN MANAGEMENT

- THE CONTRACTOR SHALL PROVIDE SAFE AND UNRESTRICTED ACCESS THROUGHOUT THE CONSTRUCTION PERIOD FOR PEDESTRIANS, CYCLISTS AND VEHICLES.
- 2. THE CONTRACTOR SHALL ENSURE TRAFFIC AND PEDESTRIANS ARE PROTECTED FROM CONSTRUCTION VEHICLES, DUST, WATER AND OTHER NUISANCE BY MEANS OF TEMPORARY SCREENS, BARRIERS, SIGNAGE AND FENCING.
- THE CONTRACTOR SHALL PREPARE AND GAIN APPROVAL FOR A TEMPORARY TRAFFIC MANAGEMENT PLAN, FOLLOWING ENDORSEMENT FROM COOMA - MONARO SPECIFICATION FOR ENGINEERING WORKS CONSTRUCTION C201 - CONTROL OF TRAFFIC.

VERGE MANAGEMENT

- THERE SHALL BE NO PARKING, SITE SHEDS, SITE AMENITIES, BILLBOARDS OR STORAGE OF MATERIALS ON THE VERGE, OVERLAND FLOW PATHS OR OPEN SPACE UNDER ANY CIRCUMSTANCES. PROTECT ALL GRASSLAND, TREES AND SHRUBS OUTSIDE THE WORKS AREA FROM DAMAGE.
- ANY WORKS THAT ALTER OR DISTURB GRASSED FLOODWAYS, VERGE AREAS, MEDIANS OR OTHER OPEN AREAS MUST BE REINSTATED TO EXISTING CONDITION BY THE PERSON(S) RESPONSIBLE FOR THE DISTURBANCE IN ACCORDANCE WITH THE CANBERRA LANDSCAPE GUIDELINES.
- 3. FENCING TO PROTECT EXISTING VERGE (REFER LEGEND)
- a. FENCING TO BE ERECTED ON COMMENCEMENT OF SITE WORK AND REMOVED AT COMPLETION OF COMMENCEMENT OF VERGE RESTORATION.
- b. THE FENCE IS TO REMAIN CONTINUOUS THROUGHOUT THE PROJECT, EXCEPT WHERE SERVICE TRENCHING OCCURS.
- c. REALIGN FENCE TO PROVIDE LANE FOR SERVICE TRENCHING BUT RE-ERECT FENCE TO ENCLOSE TREES BEFORE TRENCHING COMMENCES AND ON COMPLETION OF TRENCHING RETURN TO ORIGINAL FENCE ALIGNMENT
- d. NO ACTIVITY SHALL BE CARRIED OUT WITHIN 2m OF A TREE TO BE RETAINED.
- 4. VERGE RESTORATION IS TO BE OVERSEEN BY A LANDSCAPE ARCHITECT.

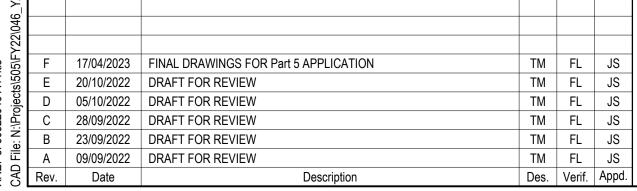
ANY WORKS THAT ALTER OR DISTURB GRASSED VERGE AREAS, MEDIANS OR OTHER OPEN AREAS MUST BE REINSTATED TO EXISTING CONDITION BY THE PERSON(S) RESPONSIBLE FOR THE DISTURBANCE TO THE SATISFACTION OF THE SUPERINTENDENT.

- 5. EXISTING TREES:
- a. ALL TREES ARE TO BE RETAINED AND KEPT UNDAMAGED UNLESS SHOWN OTHERWISE.
- b. EXISTING CROWN CLEARANCE NOT TO BE ALTERED. c. ENSURE CONSTRUCTION EQUIPMENT CAN PASS BENEATH LOWEST LIMB, THROUGH DRIVEWAY
- ACCESS. d. CROWNS AND APEX OF CANOPY NOT TO BE ALTERED OR REDUCED.
- e. ENSURE LIFTING EQUIPMENT AND LOAD CAN CLEAR HEIGHT AND WIDTH OF TREE CROWN WITHOUT DAMAGE TO THE CROWN.
- f. ANY SERVICE CONNECTIONS WITHIN 2m OF AN EXISTING TREE CANOPY TO BE APPROVED BY SUPERINTENDENT.
- g. EXCAVATION THAT OCCURS WITHIN THE DRIP ZONE OF A TREE MUST BE APPROVED AND IS TO BE RESTRICTED TO ONE SIDE OF THE TREE ONLY.
- h. WHERE EXCAVATION IS APPROVED THE FOLLOWING MEASURES ARE TO BE ADOPTED FOR TREE
- DO NOT SEVER LARGE ROOTS (>50mm DIA.) CLOSER THAN HALFWAY FROM THE DRIPLINE TO THE
- ALL ROOTS MUST BE CUT CLEANLY WITH EQUIPMENT SPECIFICALLY DESIGNED TO CUT ROOTS OR OTHER PRUNING EQUIPMENT.
- ROOTS EXPOSED DURING EXCAVATION MUST BE PROTECTED FROM DESICCATION. KEEP LIGHTLY
- WATERED OR COVER WITH HESSIAN WHICH MUST BE KEPT MOIST. WATER TREES WHICH HAVE HAD DISTURBANCE IN THEIR ROOT ZONE. THE AMOUNT AND
- FREQUENCY OF WATER NEEDS TO BE ADAPTED TO THE TREES' REQUIREMENT, BASED ON SEASONAL CONDITIONS.

DETAIL OF INVERT LEVELS SUMPS AND SW MANHOLES

EXISTING SERVICES

- 1. EXISTING SERVICES HAVE BEEN DIGITISED FROM SUPPLIED DATA. NO GUARANTEE IS GIVEN FOR THE ACCURACY OF THE DETAIL. IT IS THE CONTRACTORS RESPONSIBILITY TO ESTABLISH THE EXACT ALIGNMENT OF ALL EXISTING SERVICES WITHIN THE LIMIT OF WORKS PRIOR TO THE COMMENCEMENT OF WORKS.
- 2. THE CONTRACTOR WILL CONTACT, FOR EACH SERVICE AUTHORITY, THE OFFICER-IN-CHARGE OF THE AREA IN WHICH THE SITE IS LOCATED BEFORE COMMENCING WORK ON THE SITE.
- 3. THE CONTRACTOR WILL INSPECT THE LOCATION OF ALL EXISTING SERVICES AND NOTIFY THE SUPERINTENDENT OF ANY OMISSIONS FROM THE
- 4. THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE SUPERINTENDENT AND THE OFFICER-IN-CHARGE OF THE AREA IN THE EVENT OF DAMAGE TO ANY WATER, GAS, STEAM, COMPRESSED AIR, ELECTRIC, DRAINAGE, SEWERAGE, TELECOMMUNICATIONS, FIRE ALARM, CONTROL CABLE OR OTHER SERVICES
- 5. ALL EXISTING SERVICES WHICH NEW SERVICES, PATHS, ROAD OR OTHER PARTS OF THE NEW WORKS ARE TO PASS UNDER, OVER, IN THE VICINITY OF OR CONNECT TO, ARE TO BE POTHOLED BY THE CONTRACTOR AT THE COMMENCEMENT OF WORKS IN ORDER TO DETERMINE IF THE NEW WORKS CAN BE CONSTRUCTED AS DESIGNED. THE COST OF POTHOLING IS TO BE ALLOWED FOR IN THE RATES GENERALLY. (HOLD POINT).
- DAMAGES OR CONSEQUENTIAL DAMAGES AND DELAY DUE TO FAILURE TO ESTABLISH THE ALIGNMENT OF ALL EXISTING SERVICES ARE THE CONTRACTOR'S RESPONSIBILITY, NO PAYMENT WILL BE MADE FOR ADDITIONAL WORKS OR DAMAGES WHERE THE CONTRACTOR HAS NOT COMPLIED WITH THIS REQUIREMENT.





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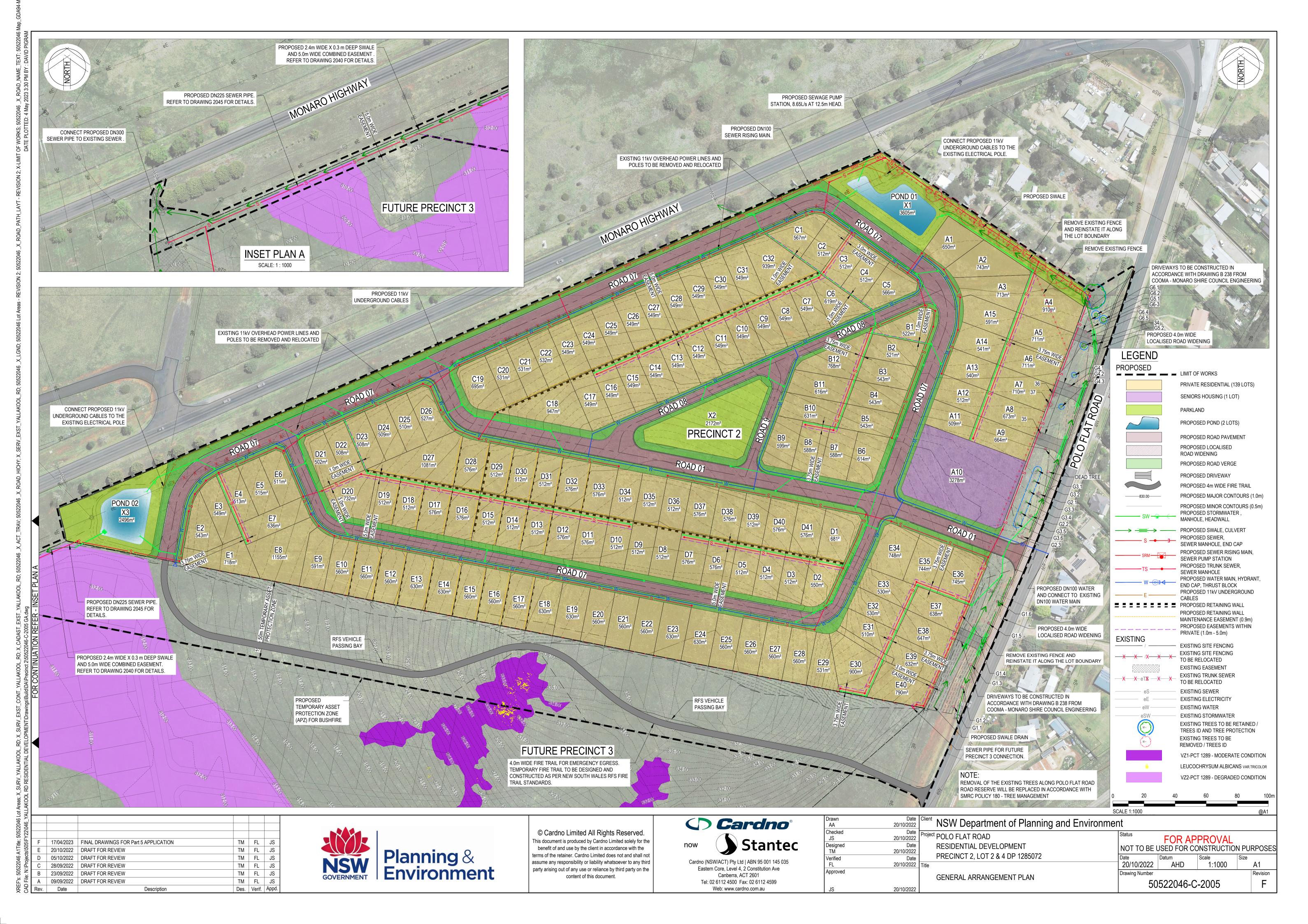
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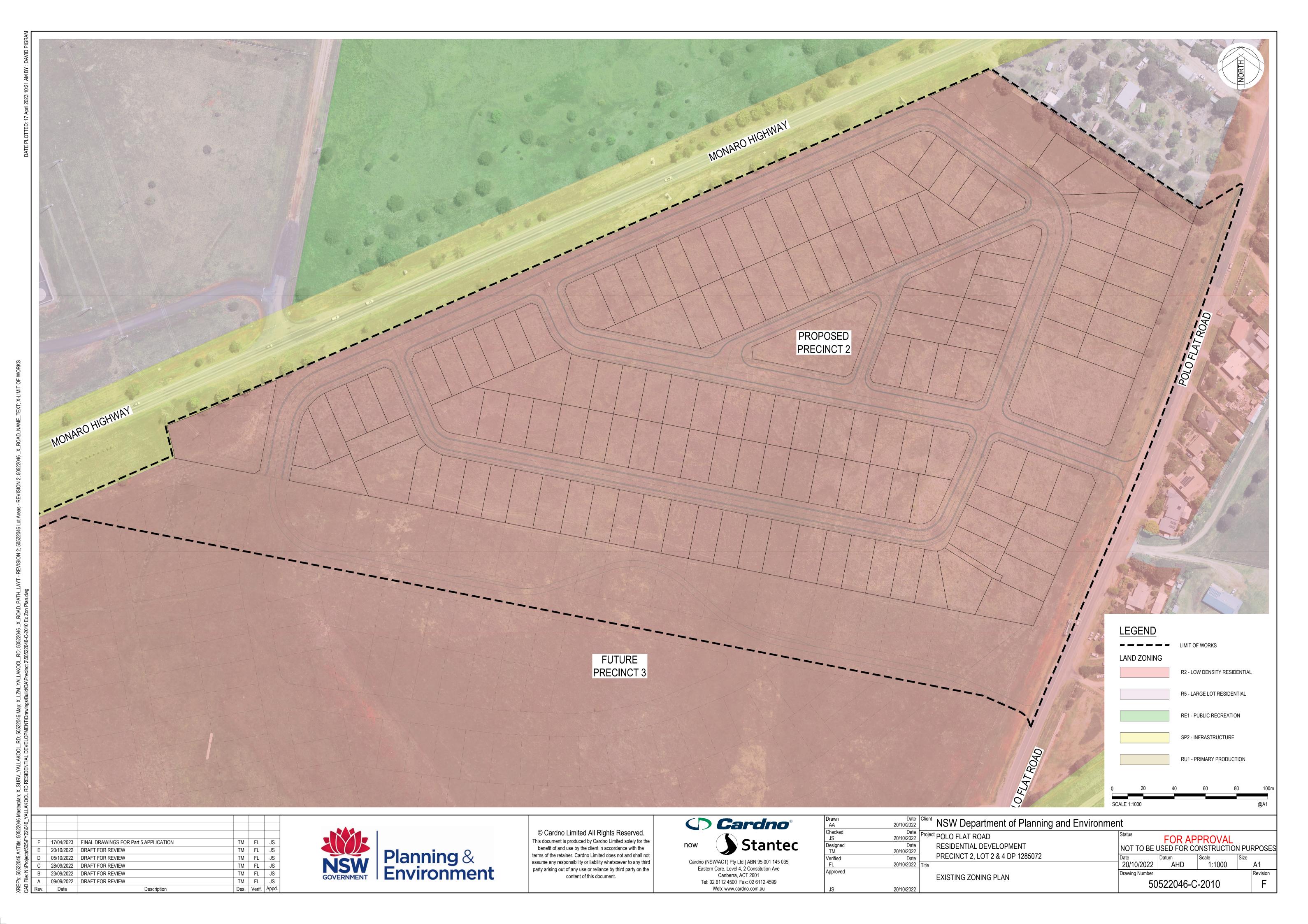
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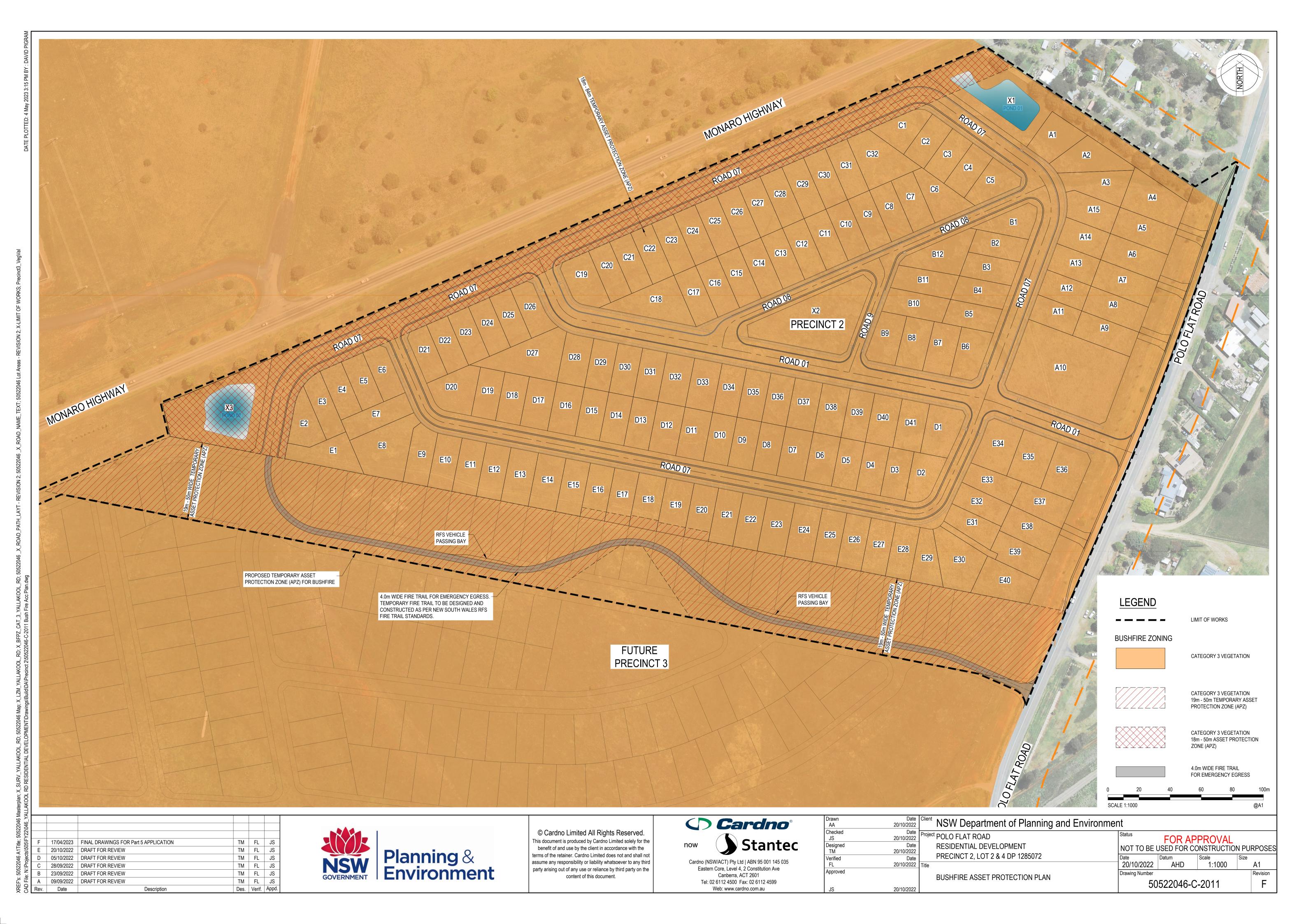
GENERAL NOTES AND LEGEND

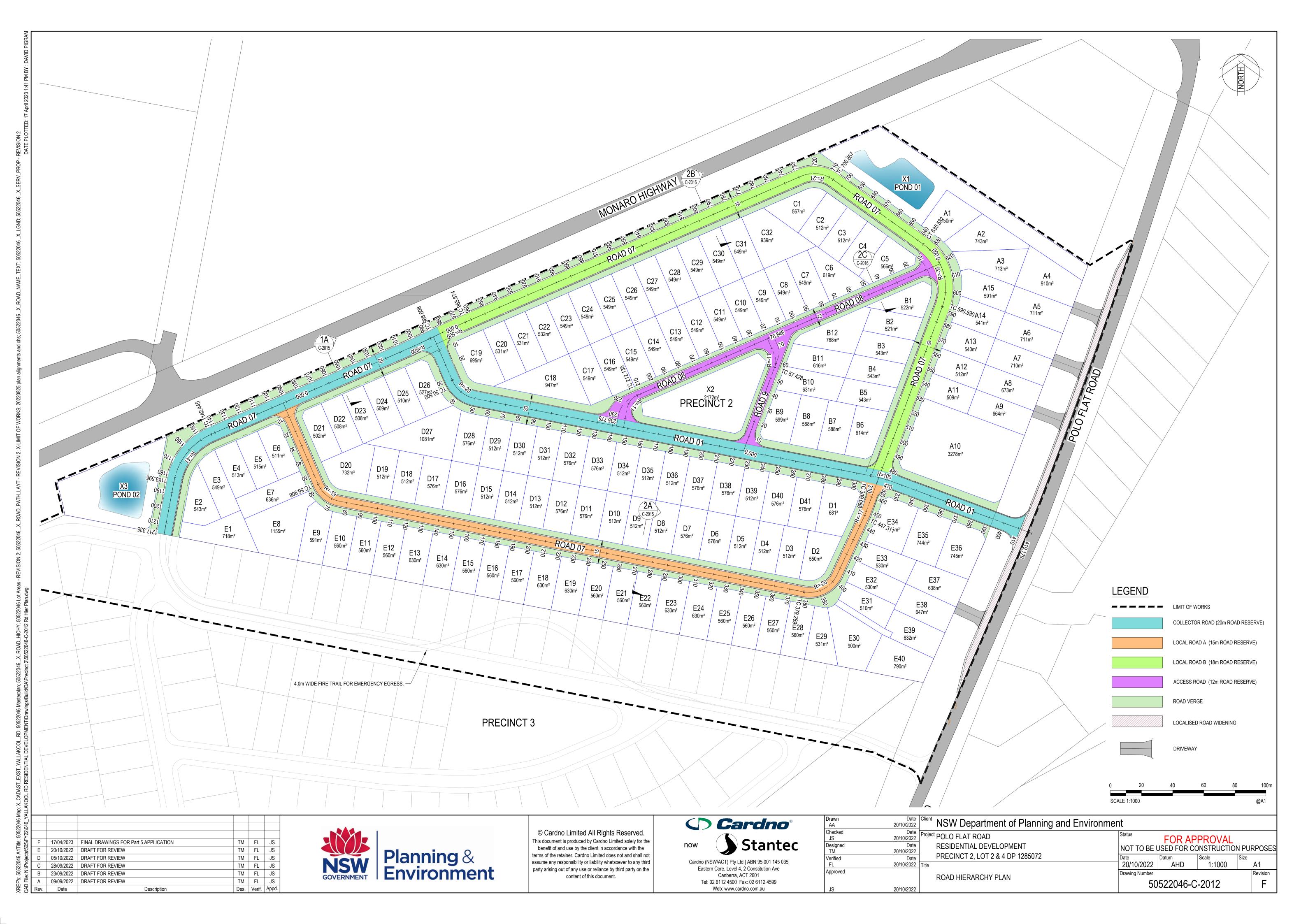
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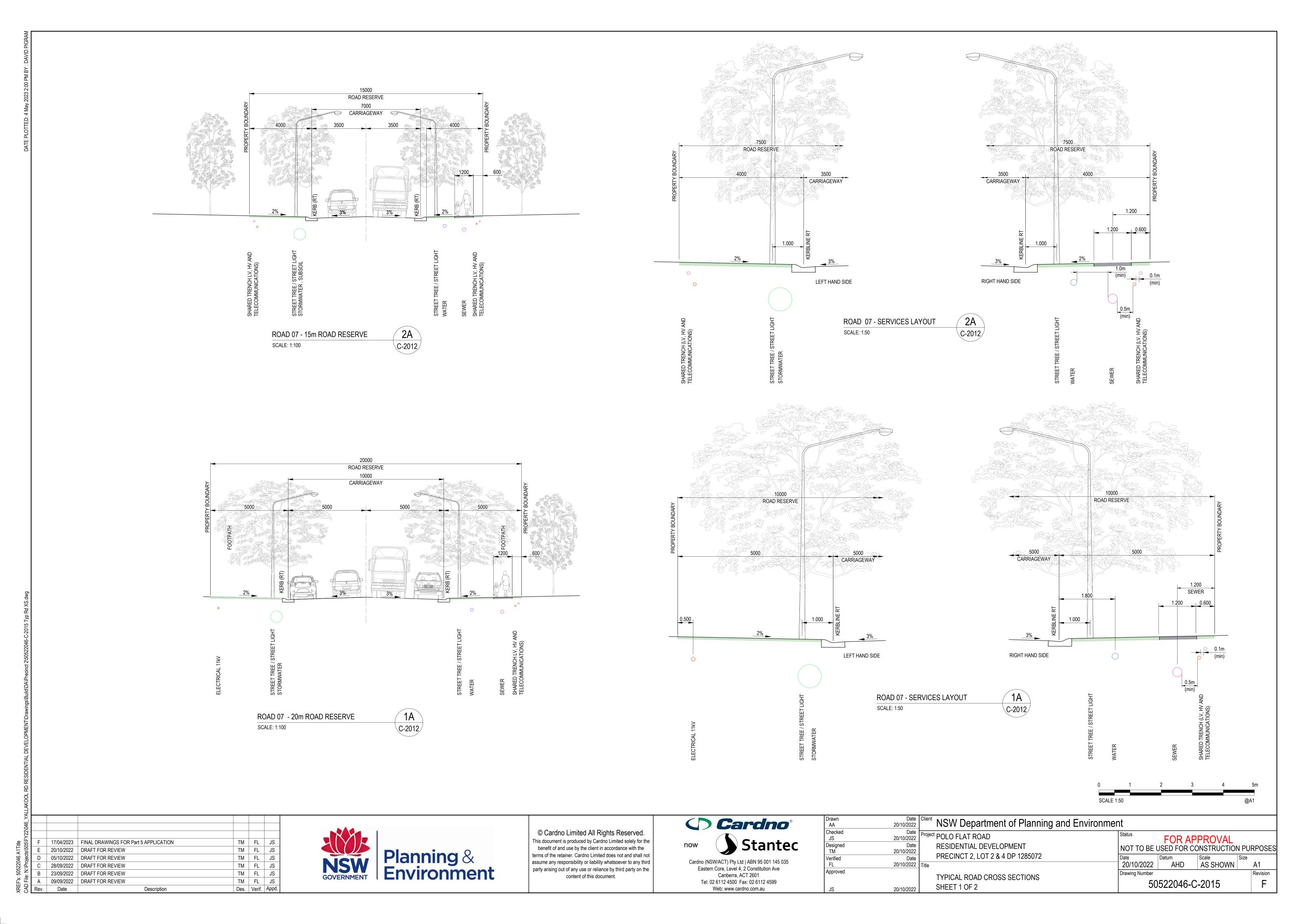
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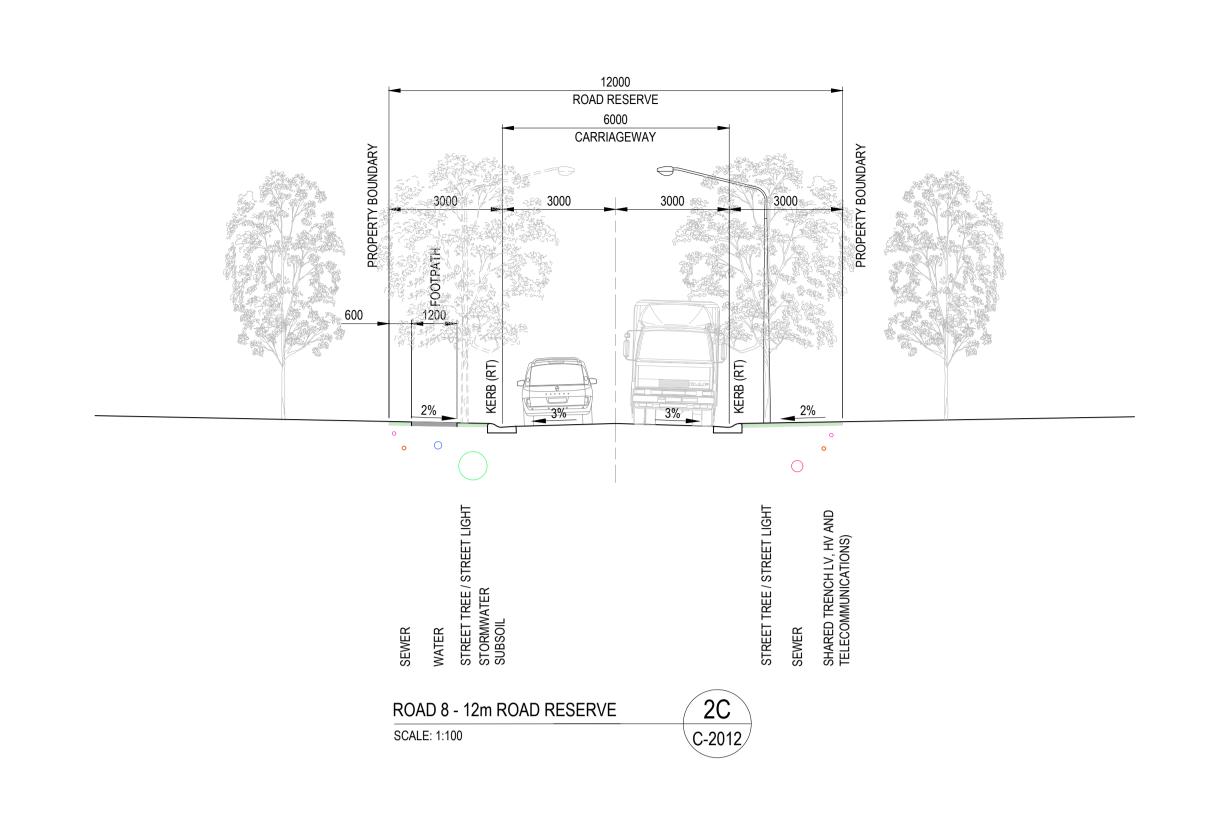


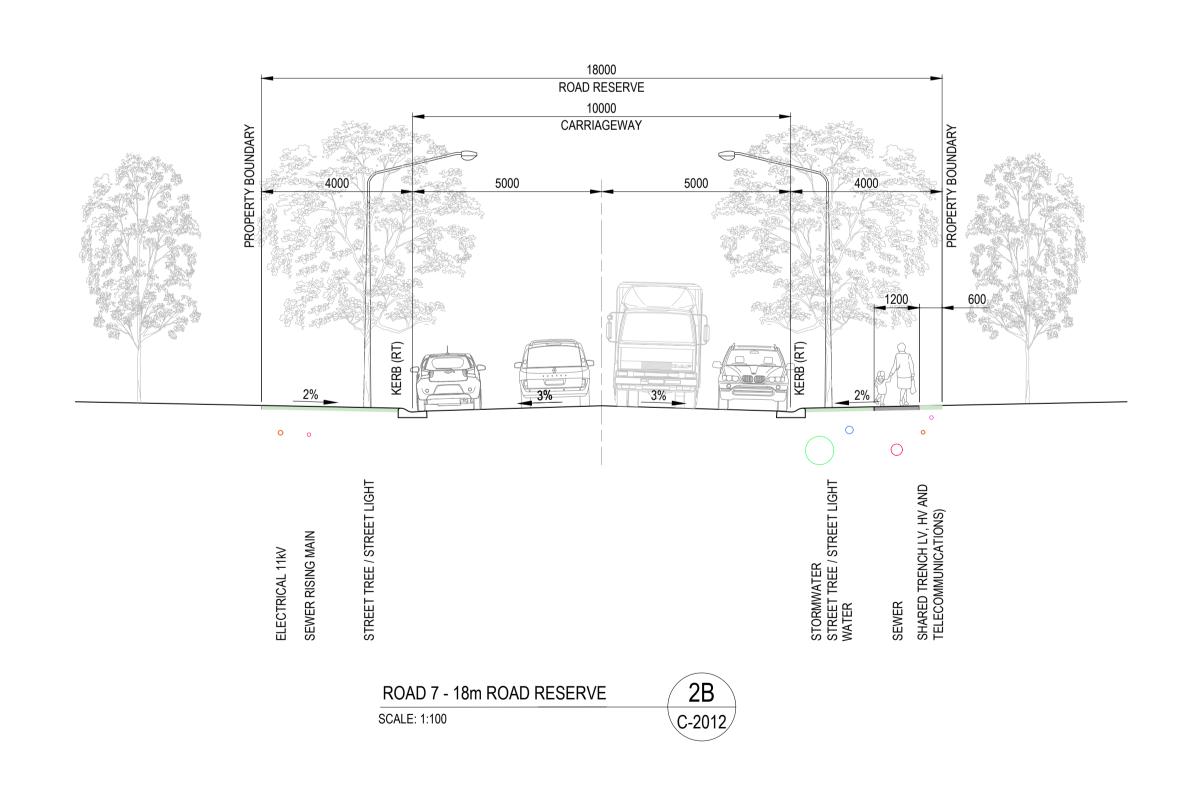


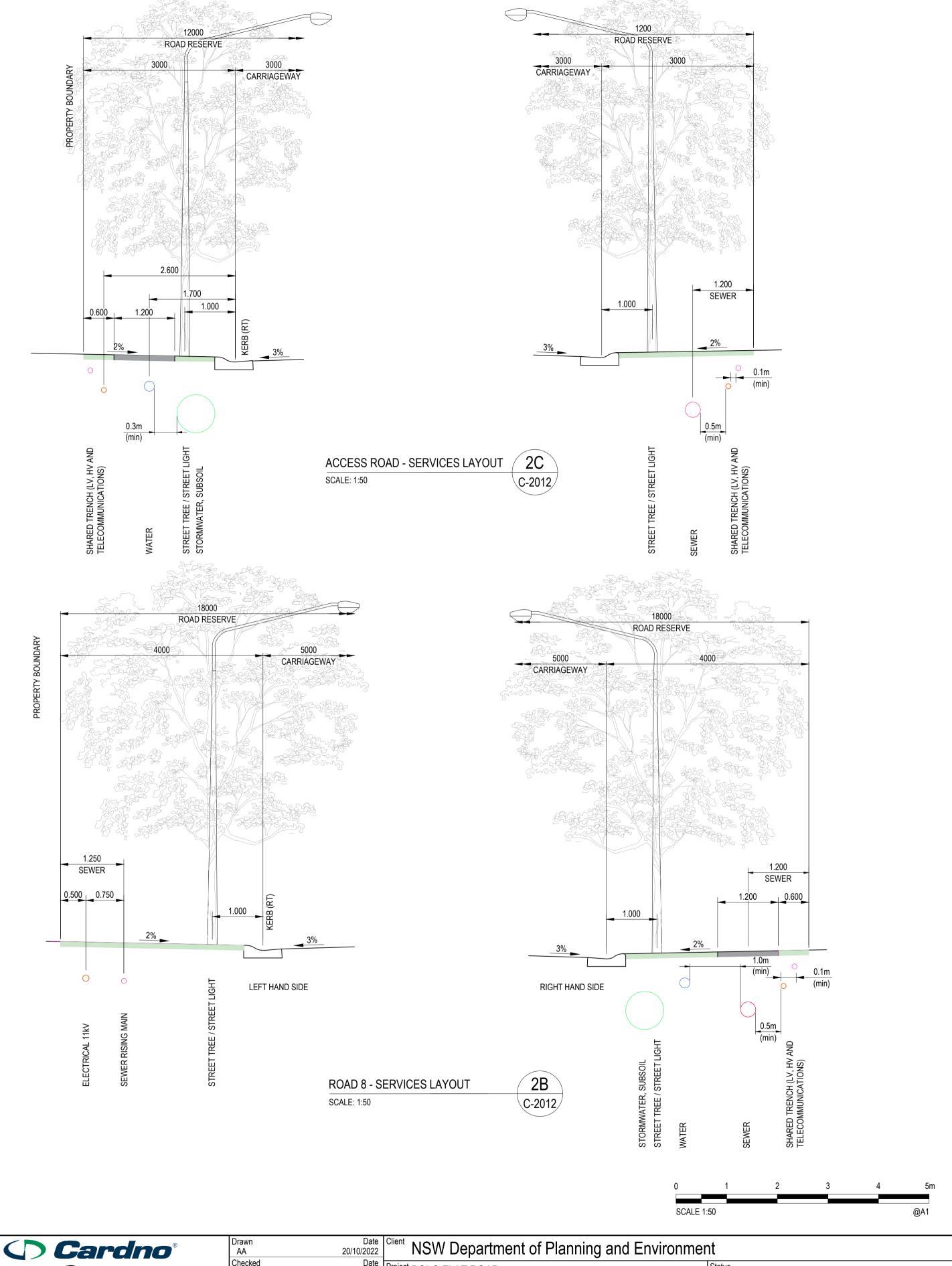












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20/10/2022	Client NSW Department of Planning and Environment					
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20/10/2022	TYPICAL ROAD CROSS SECTIONS SHEET 2 OF 2	Drawing Number 50)522046-C	-2016		Revision F

LONGITUDINAL SECTION ROAD 01 SCALE 1:1000 HORI. SCALE 1:100 VERT.

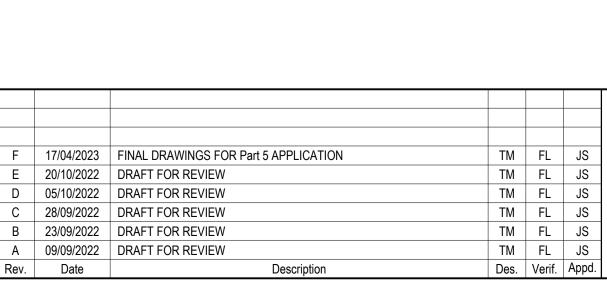
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Project	RESIDENTIAL DEVELOPMENT	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOS				
	PRECINCT 2, LOT 2 & 4 DP 1285072	Date	Datum			
Title	ROAD LONG SECTIONS	20/10/2022	AHD	AS SHOWN	A1	
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		Project POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072	Project POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072 Fitle ROAD LONG SECTIONS ROAD 01 Status NOT TO BE 10 Date 20/10/2022 Drawing Number	Project POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072 Fitle ROAD LONG SECTIONS ROAD 01 Status FOR AP NOT TO BE USED FOR CO Date 20/10/2022 AHD Drawing Number	NSVV Department of Planning and Environment Project POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072 Fitle ROAD LONG SECTIONS Status NOT TO BE USED FOR CONSTRUCTION Date 20/10/2022 AHD AS SHOWN Drawing Number	Project POLO FLAT ROAD RESIDENTIAL DEVELOPMENT PRECINCT 2, LOT 2 & 4 DP 1285072 Fittle ROAD LONG SECTIONS ROAD 01 Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPO Date 20/10/2022 AHD Scale AS SHOWN A1 Drawing Number Revis





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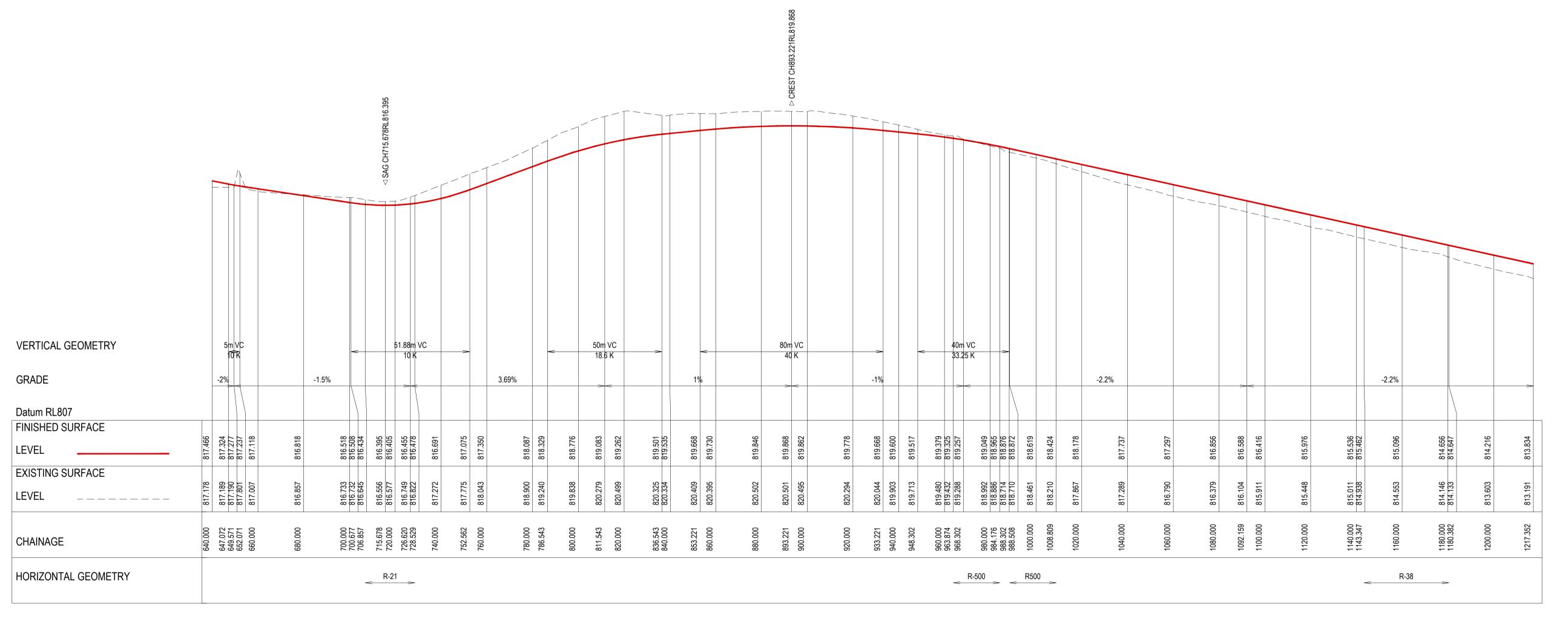
LONGITUDINAL SECTION ROAD 07

SCALE 1:1000 HORI. SCALE 1:100 VERT.

Julia
Cardno (NSW/ACT) Pty Ltd ABN 95 001 145 035
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Orawn AA	20/10/2022	Client	NSW Department of Planning and Environment	nt						
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Designed TM	Date 20/10/2022			NOT TO BE USED FOR CONSTRUCTION PUI						
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JS	20/10/2022		SHEET 1 OF 2	50	522046-C	-2021		F		

RTICAL GEOMETRY			30m VC 3.75 K	~				83	3.02m VC 8 K	>			106.54m VC 8 K		≥ 20m VC ≥ 2.06 K		20m VC 2.5 K	44.25m VC 10 K ≥	45.75	m VC	
ADE		3%	30m VC 3.75 K	>		10.99%		83	8.02m VC 8 K		0.61%			-12.7%	20m VC 2.06 K	-3%	20m VC 2.5 K -11%	10 K ≥	45.75 10 -6.58%	m ∨¢ K -2%	
		3%		3	4	10.99%	7-10		8 K	50 00	0.61%	3 8 4	8 K				-11%	10 K	-6.58%	-2%	4
tum RL810 IISHED SURFACE VEL	816.591	3%	818.265 818.300 819.014 819.324 819.324 819.772	820.363	824.124	828.520	830.441		833.985 NOTE: 100 Miles 100	835.255 835.259	0.61%	835.624 835.628 835.643 835.514			829.188 828.398 827.671 827.371 827.029 V N S26.632	-3%		10 K	10	-2%	817.554
ADE um RL810 ISHED SURFACE /EL STING SURFACE	816.107 816.591	817.791	818.265 818.300 818.415 819.014 819.324 M		823.653 824.124	828.094 828.520 826.322 %%	829.901 830.441 A 830.715	832.600	8 K	835.636 835.255 V	834.660 835.501 %		8 K	832.185 831.687		826.032	825.628 825.346 825.128 824.228 824.219 823.529	822.030 V 01 N N N N N N N N N N N N N N N N N N	820.081 820.081 820.081 819.039	818.594 N 818.293 818.119 V 7.5% N 817.866	
tum RL810 IISHED SURFACE VEL ISTING SURFACE	0.000 816.107 816.591 0.000 816.672 817.191	817.395 817.791		819.969		826.322		832.848 832.600	833.985 V ® 833.985 S S S S S S S S S S S S S S S S S S S		835.501		834.904 834.181 W 8 833.844 A N	833.449 832.185 832.919 831.687 831.316 830.075	829.188 828.398 827.671 827.104 827.029 826.828	826.032	-11%	821.584 822.030 V DE 821.501 821.658 A N N DE 821.501 820.331 A N N N DE 820.331	820.341 820.331 820.845 820.185 820.176 820.081 888 820.081 819.949 819.039	818.594 N 818.293 818.119 V 7.2 %	817.174



LONGITUDINAL SECTION ROAD 07 SCALE 1:1000 HORI. SCALE 1:1000 VERT.

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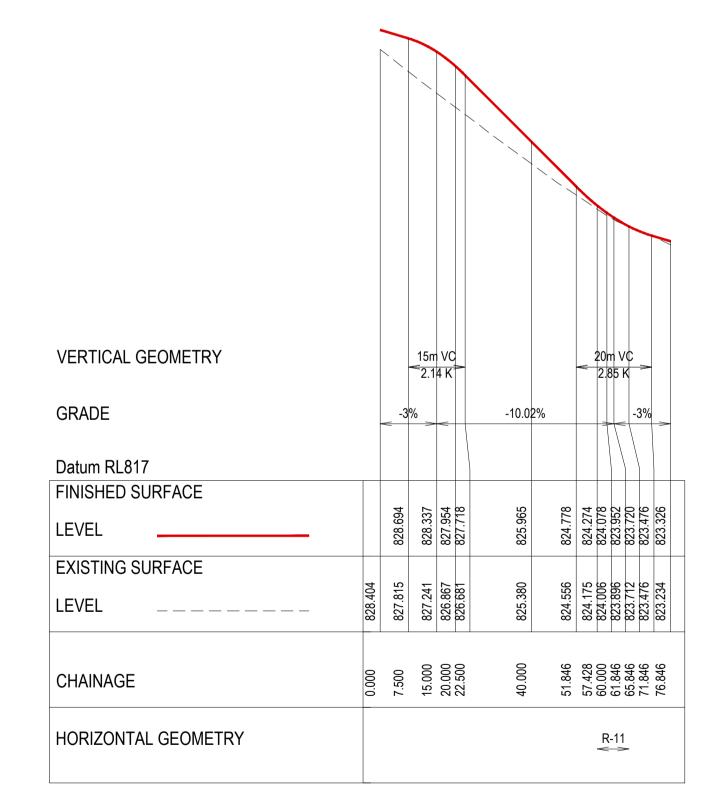
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Eas	tern Core, Level 4, 2 Constitution Ave
	Canberra, ACT 2601
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	Web: www.cardno.com.au

Drawn	Date
AA	20/10/2022
Checked	Date
JS	20/10/2022
Designed	Date
TM	20/10/2022
Verified	Date
FL	20/10/2022
Approved	

Client	nt NSW Department of Planning and Environment									
	^t POLO FLAT ROAD RESIDENTIAL DEVELOPMENT	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURPOSES								
	PRECINCT 2, LOT 2 & 4 DP 1285072	Date	Datum	Scale	Size					
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	ROAD 07	Drawing Number				Revision				
	SHEET 2 OF 2	50	522046-C	-2022		F				

LONGITUDINAL SECTION ROAD 08

SCALE 1:1000 HORI.
SCALE 1:100 VERT.



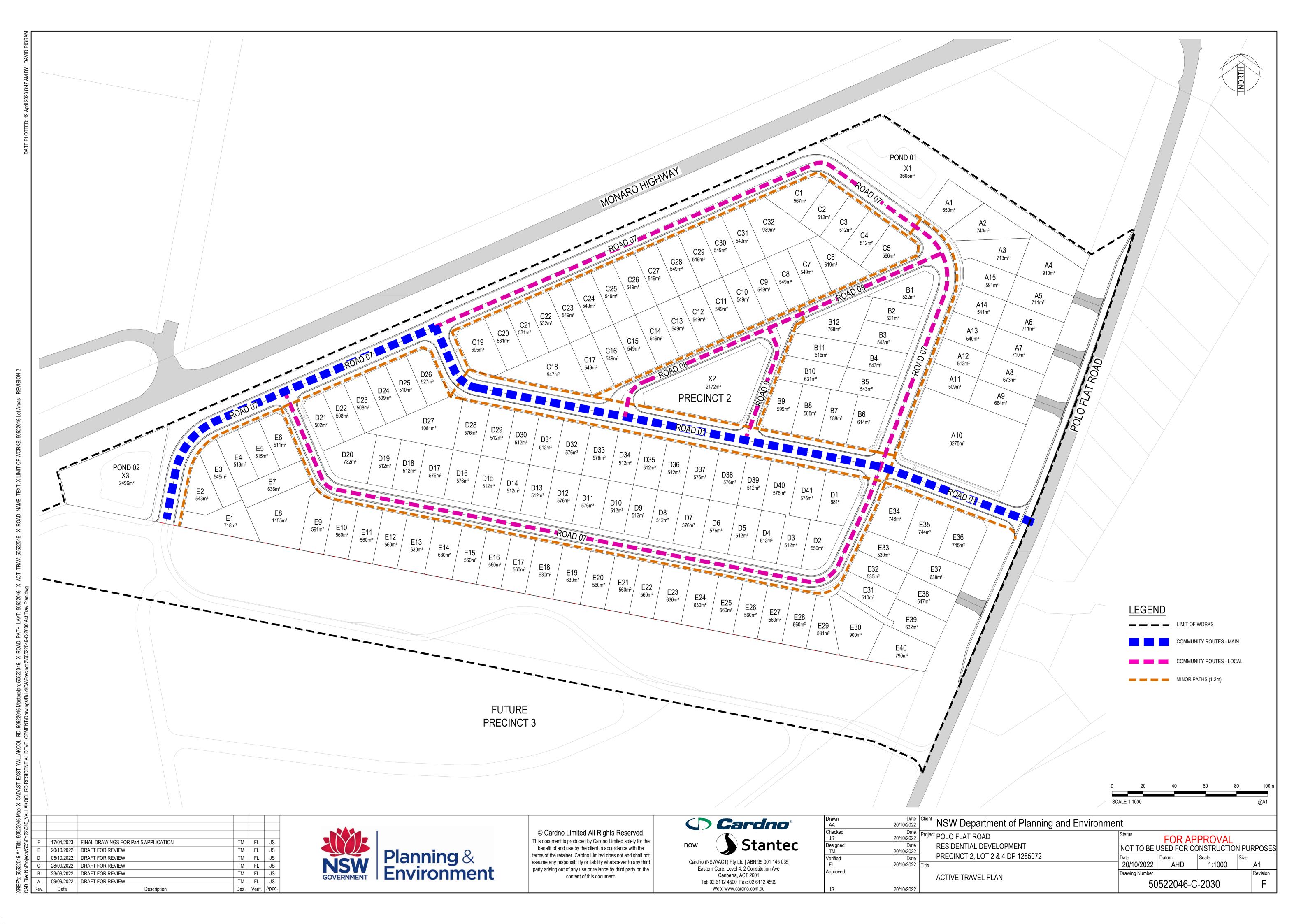
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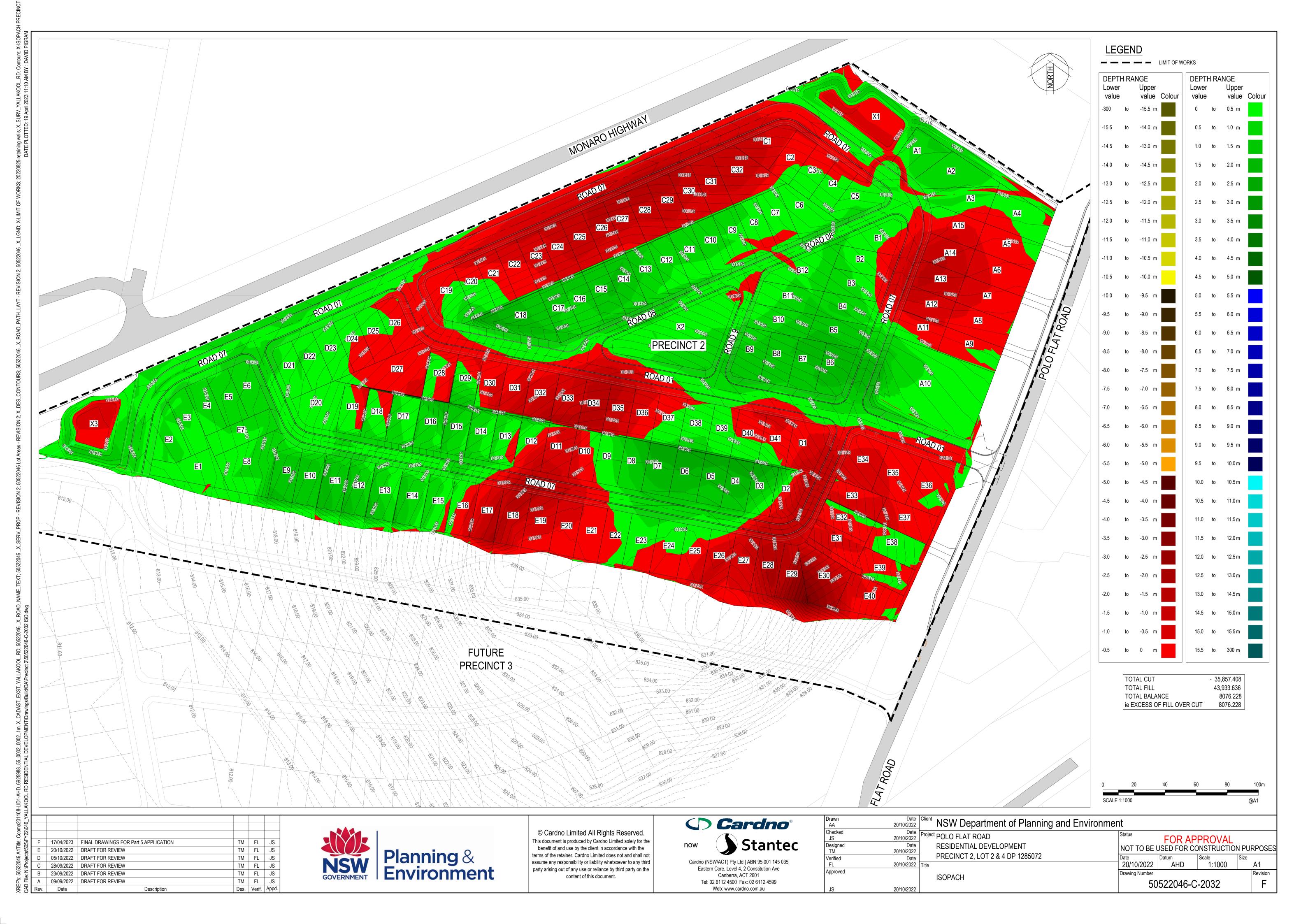
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CAD	Rev.	Date	Description	Des.	Verif.	Appd.

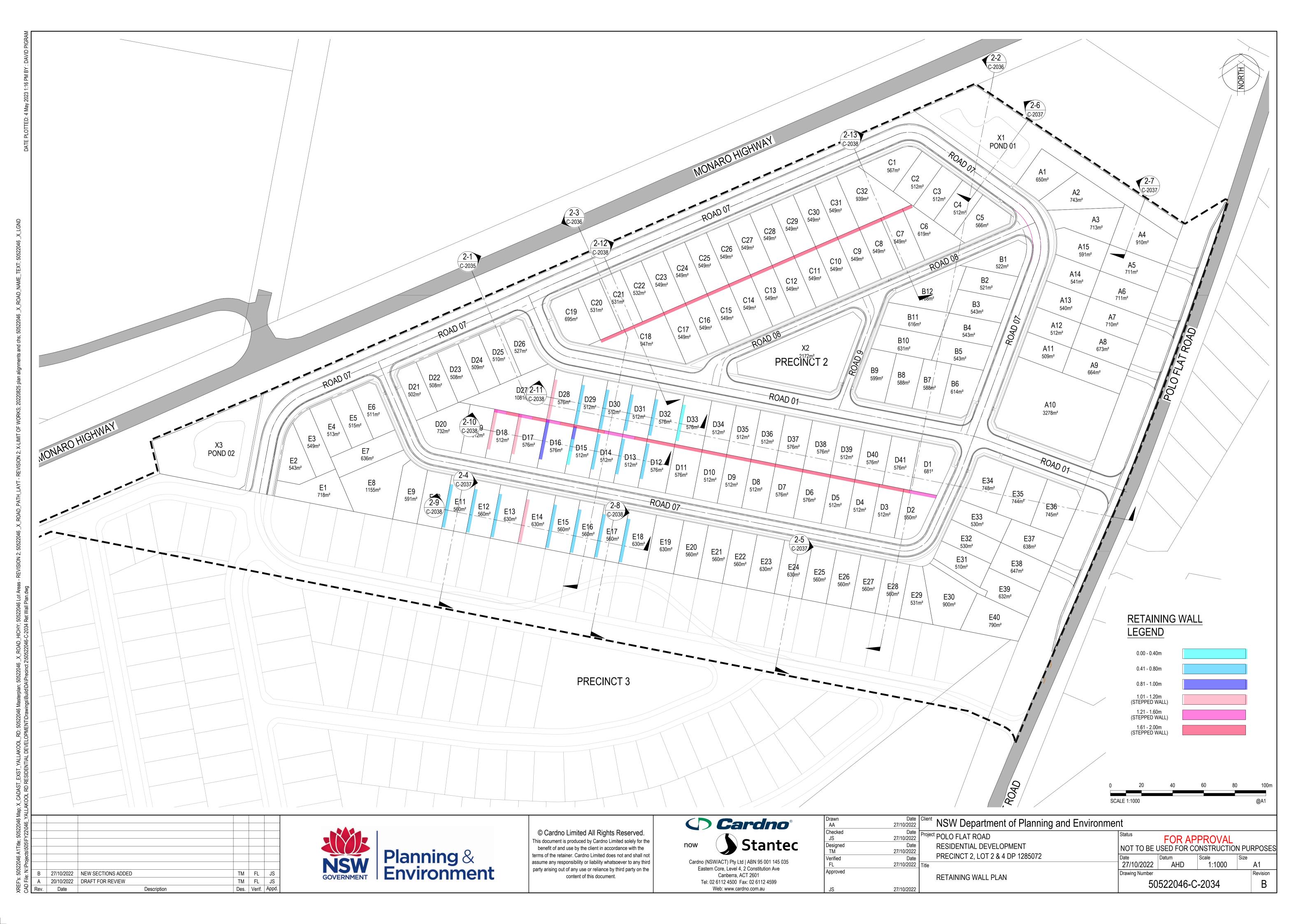




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Checked JS	Date 20/10/2022	Project POLO FLAT ROAD	Status	FOR AP	PROVAL	
Designed TM	Date 20/10/2022	RESIDENTIAL DEVELOPMENT	NOT TO BE		ONSTRUCTION	N PURPOSES
Verified FL	Date 20/10/2022	PRECINCT 2, LOT 2 & 4 DP 1285072 Title ROAD LONG SECTIONS	Date 20/10/2022	Datum AHD	Scale AS SHOWN	Size A1
Approved		ROAD LONG SECTIONS ROAD 08 AND ROAD 09	Drawing Number			Revision
JS	20/10/2022		50)522046-C	:-2023	F







17/04/2023 FINAL DRAWINGS FOR Part 5 APPLICATION

Description

27/10/2022 FINAL

Date

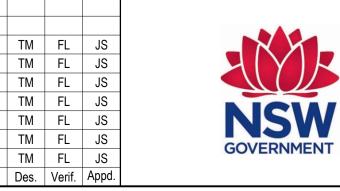
20/10/2022 DRAFT FOR REVIEW

05/10/2022 DRAFT FOR REVIEW

28/09/2022 DRAFT FOR REVIEW

23/09/2022 DRAFT FOR REVIEW

09/09/2022 DRAFT FOR REVIEW





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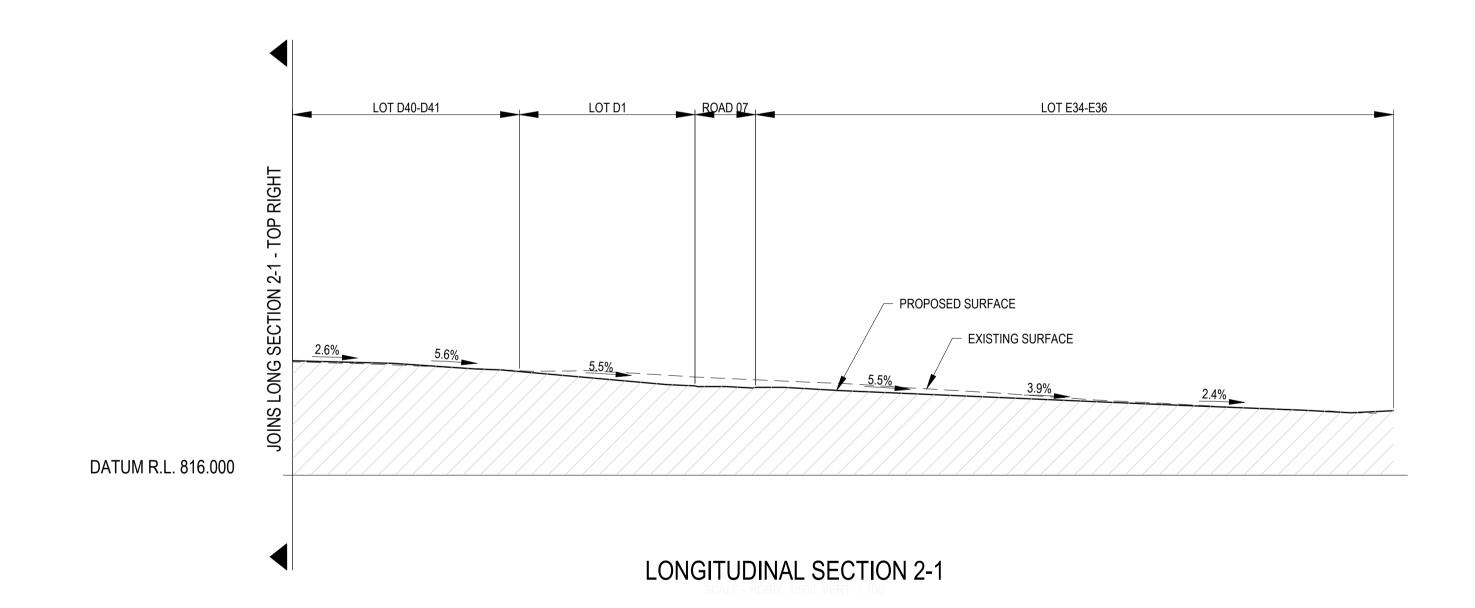
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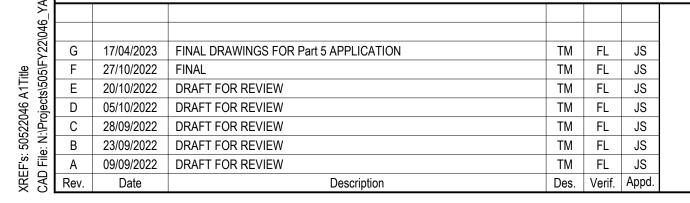


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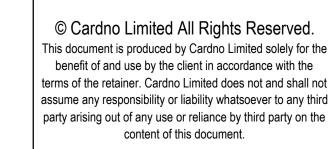
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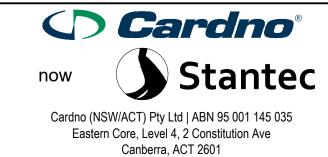
LONGITUDINAL SECTION 2-1



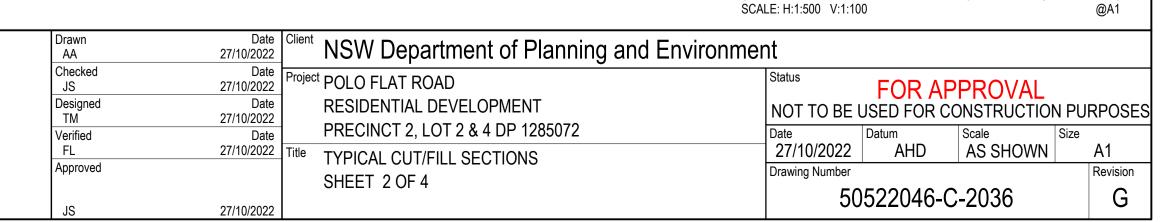


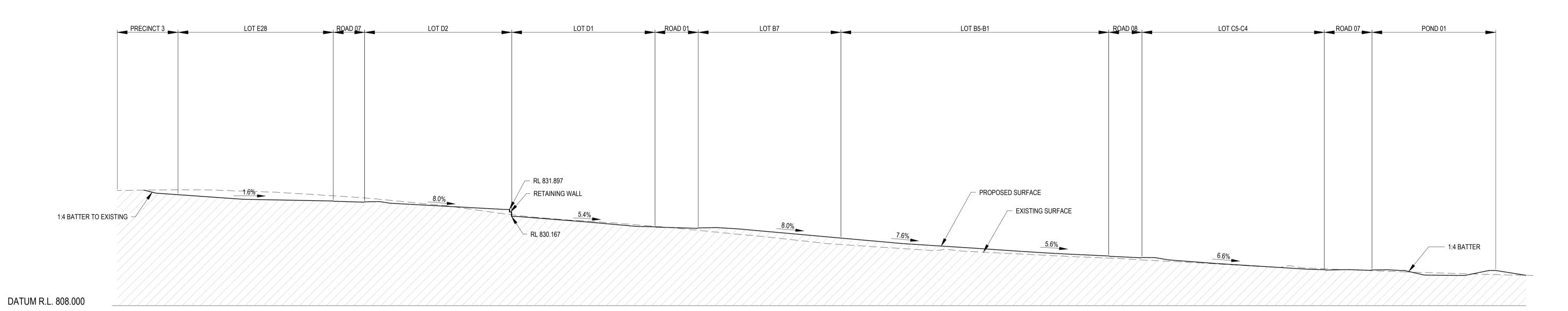




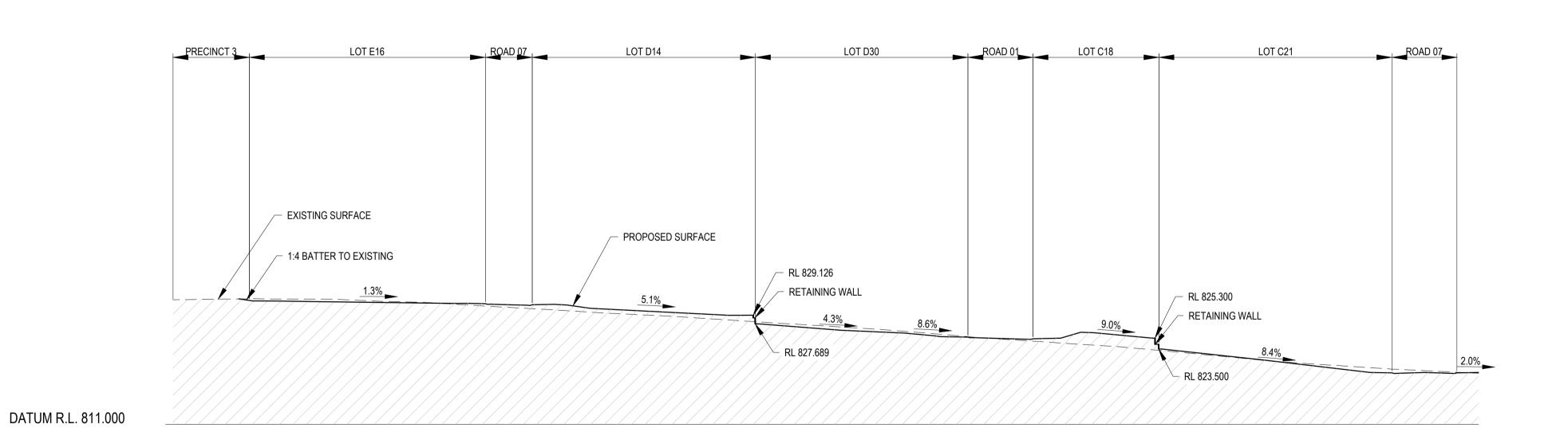


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LONGITUDINAL SECTION 2-2



LONGITUDINAL SECTION 2-3

LONGITUDINAL SECTION 2-4

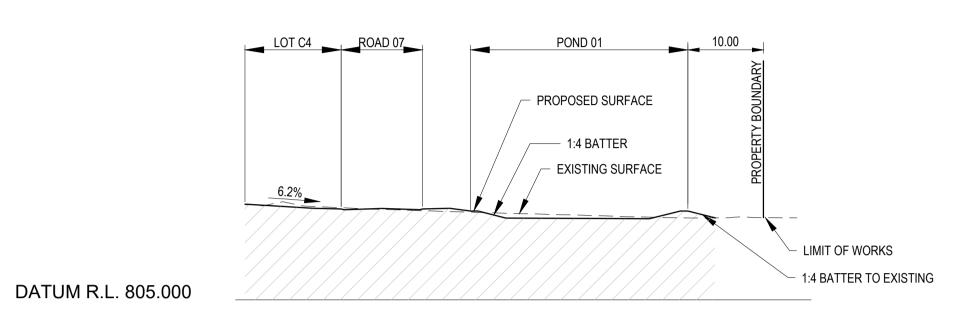
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1:4 BATTER TO EXISTING

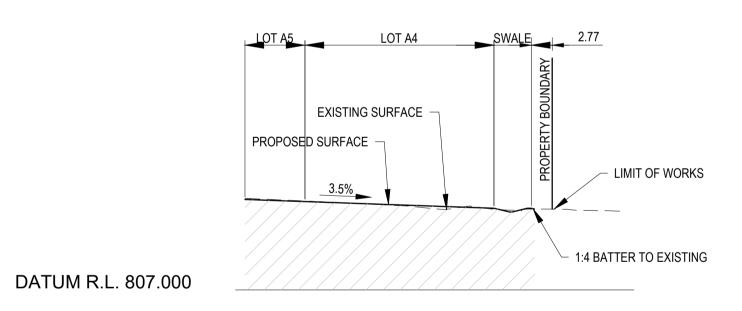
LIMIT OF WORKS

EXISTING SURFACE

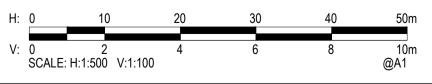
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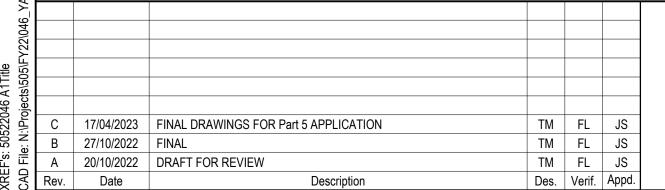


LONGITUDINAL SECTION 2-6



LONGITUDINAL SECTION 2-7





DATUM R.L. 802.000

DATUM R.L. 827.000

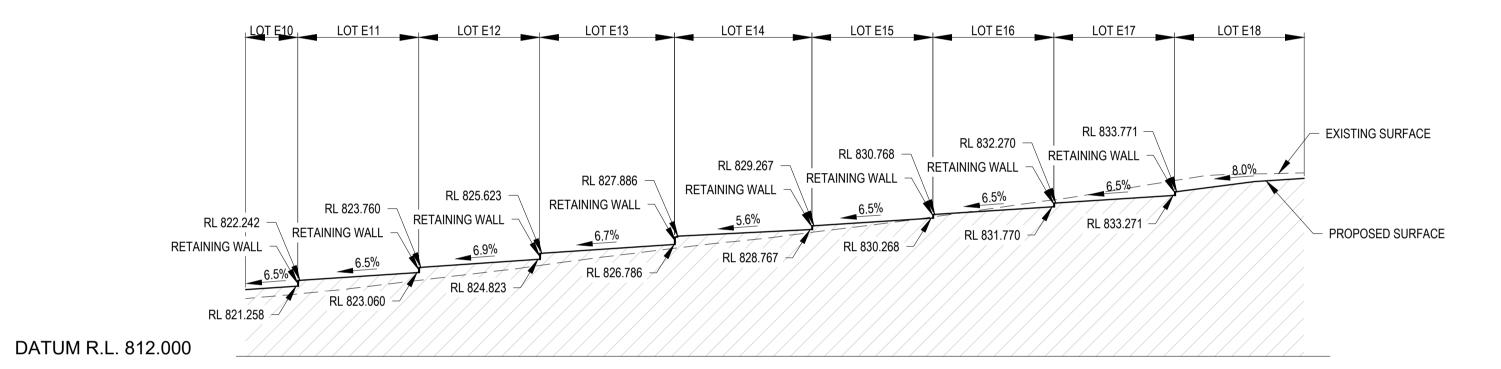




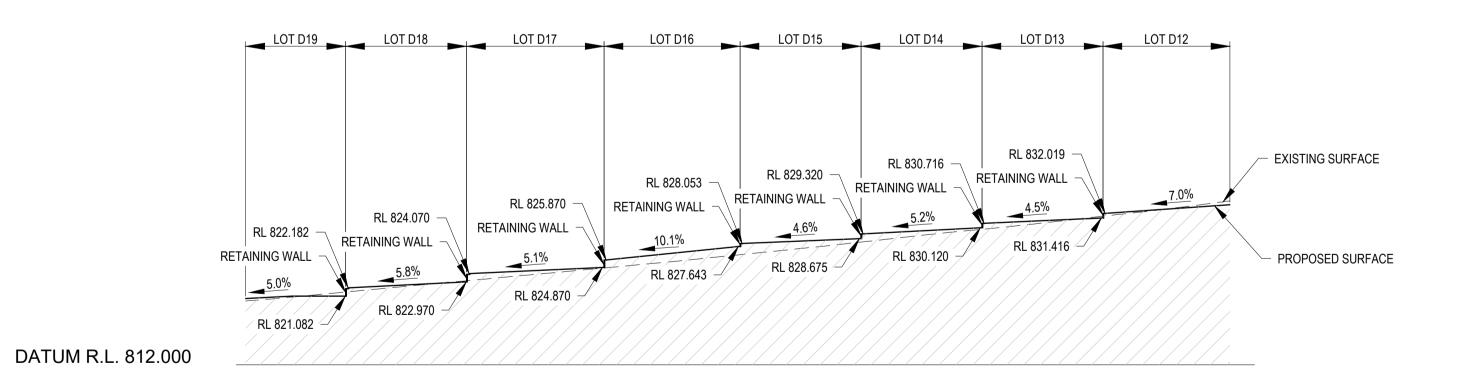
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Designed TM	Date 27/10/2022	RESIDENTIAL DEVELOPMENT	NOT TO BE		ONSTRUCTIO	N PURPOS
Verified FL	Date 27/10/2022	PRECINCT 2, LOT 2 & 4 DP 1285072	Date 27/10/2022	Datum AHD	Scale AS SHOWN	Size A1
Approved		Title TYPICAL CUT/FILL SECTIONS SHEET 3 OF 4	Drawing Number	7	7.00 01101111	Revisio
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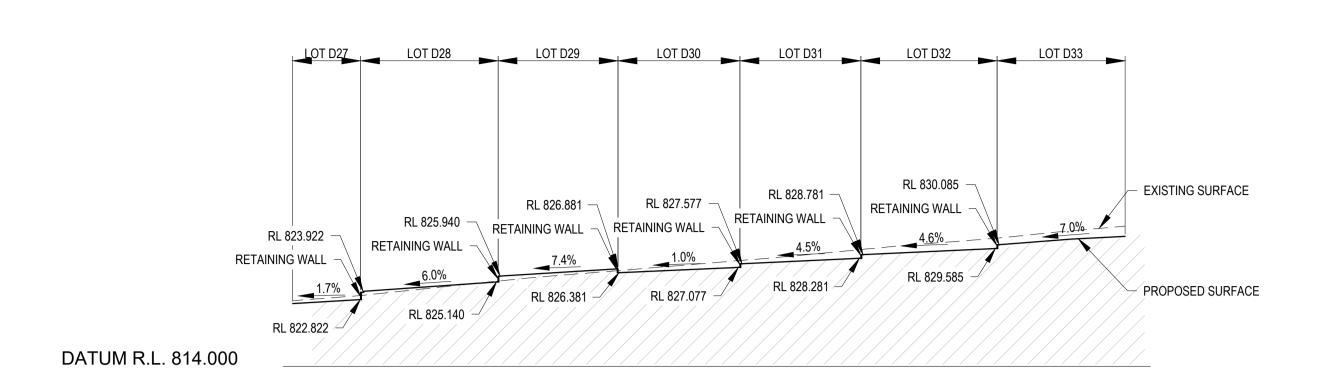
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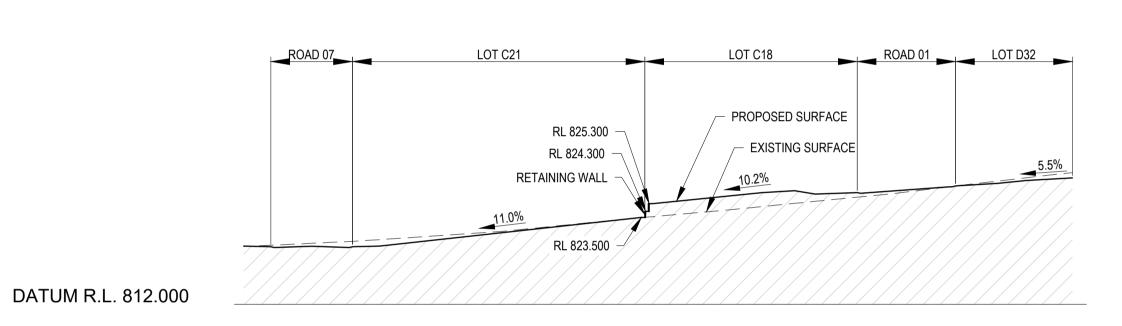
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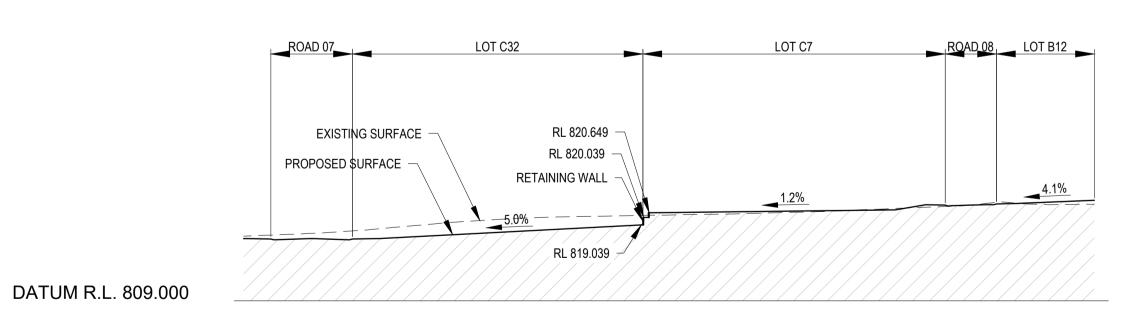
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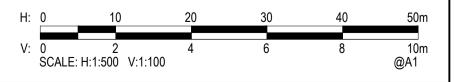
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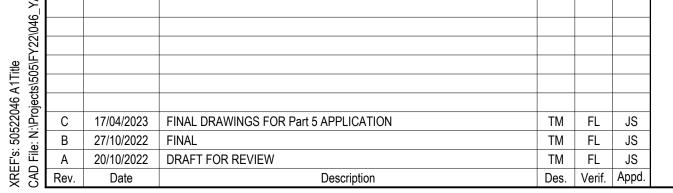


LONGITUDINAL SECTION 2-12



LONGITUDINAL SECTION 2-13

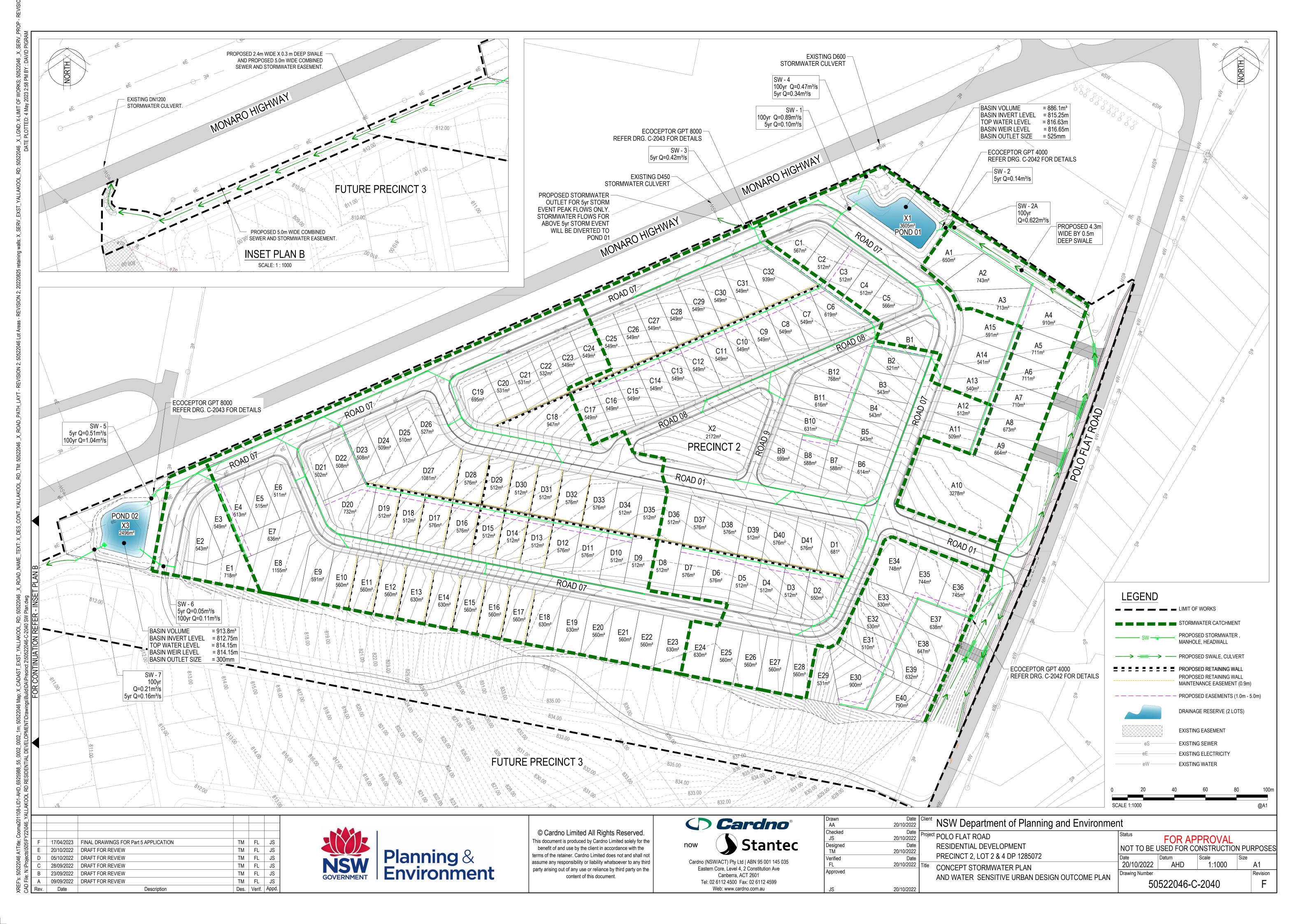




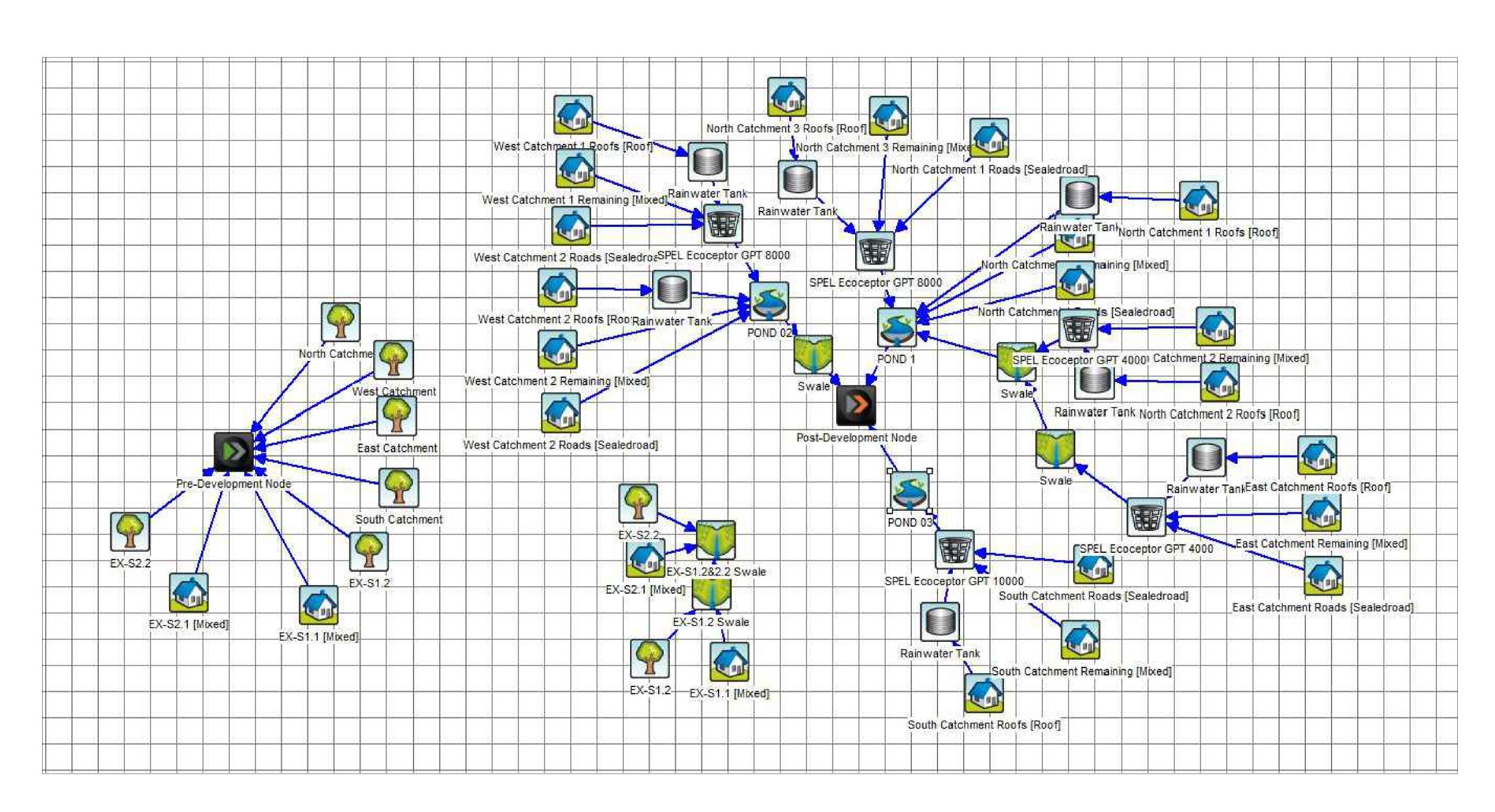




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Designed Date TM 27/10/2022		NOT TO BE		ONSTRUCTION	PURPOSES
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Approved	SHEET 4 OF 4	Drawing Number			Revision
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Parameters	Sources	Residual Load	% Reduction	% Target	Compliance
Flow (ML/yr)	93.5	77.1	17.6		
Total Suspended Solids (kg/yr)	1.18E+04	1.77E+03	85	80	Υ
Total Phosphorus (kg/yr)	22.6	7.86	65.2	45	Υ
Total Nitrogen (kg/yr)	217	93.8	56.9	45	Υ
Gross Pollutants (kg/yr)	3.30E+03	0	100		



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East	ern Core, Level 4, 2 Constitution Ave

Canberra, ACT 2601

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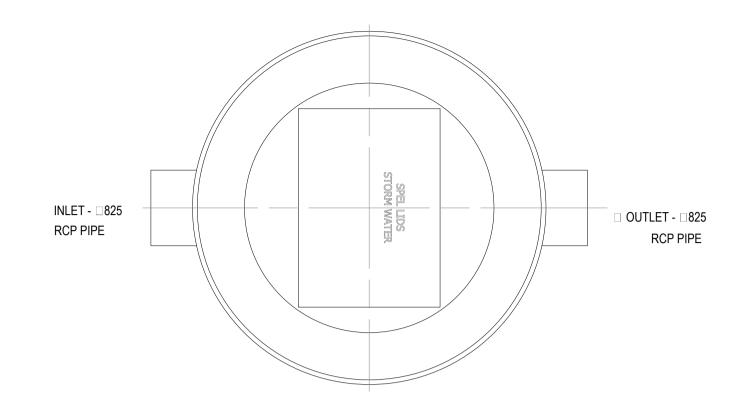
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NSW Department of Planning and Environmer

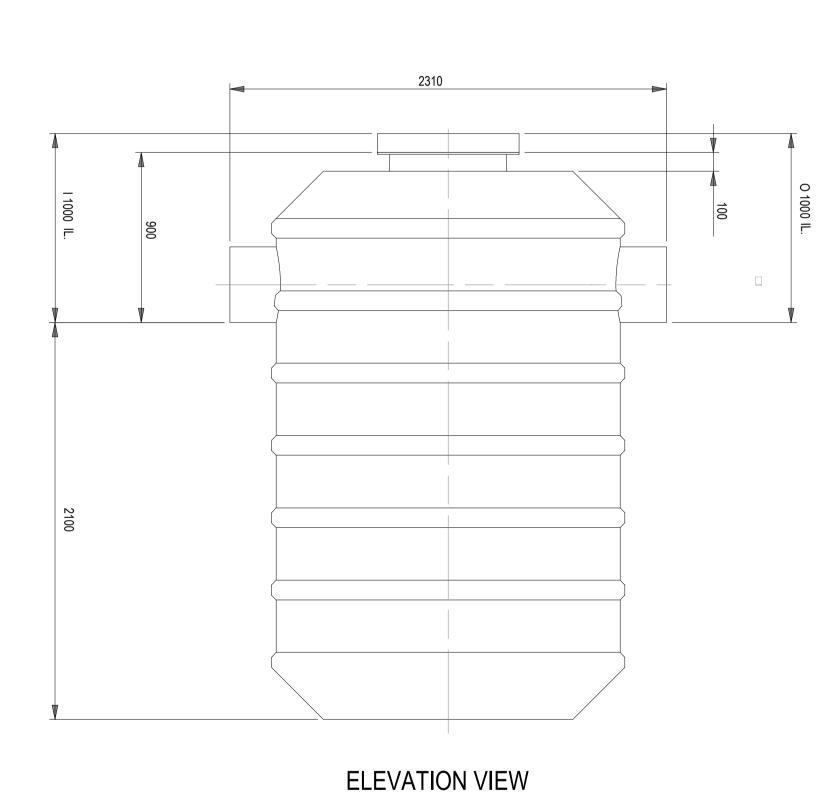
Project POLO FLAT ROAD
RESIDENTIAL DEVELOPMENT
PRECINCT 2, LOT 2 & 4 DP 1285072

Title WATER SENSITIVE URBAN DESIGN OUTCOME PLAN
AND WATER QUALITY TABLE

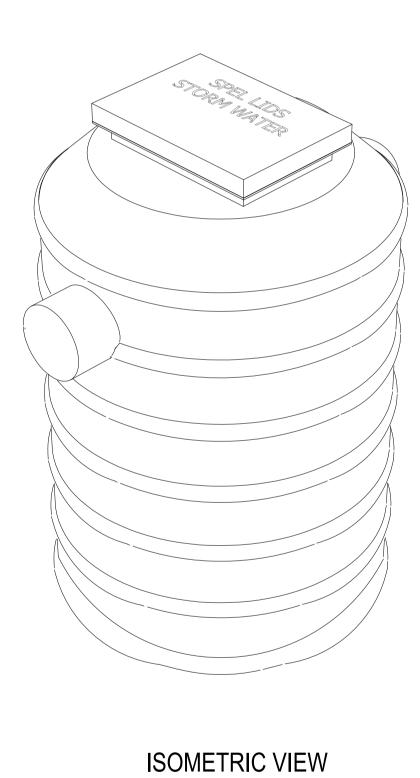
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	20/10/2022	AHD	NTS		A1
	Drawing Number				Revision
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PLAN VIEW



ACCESS MANHOLE 600 x 900 — COVERD CLASS 'D' LID D. I 1800 SIDE VIEW



TOLERANCE: ALL DIMENSIONS 10mm UNLESS OTHERWISE STATED.

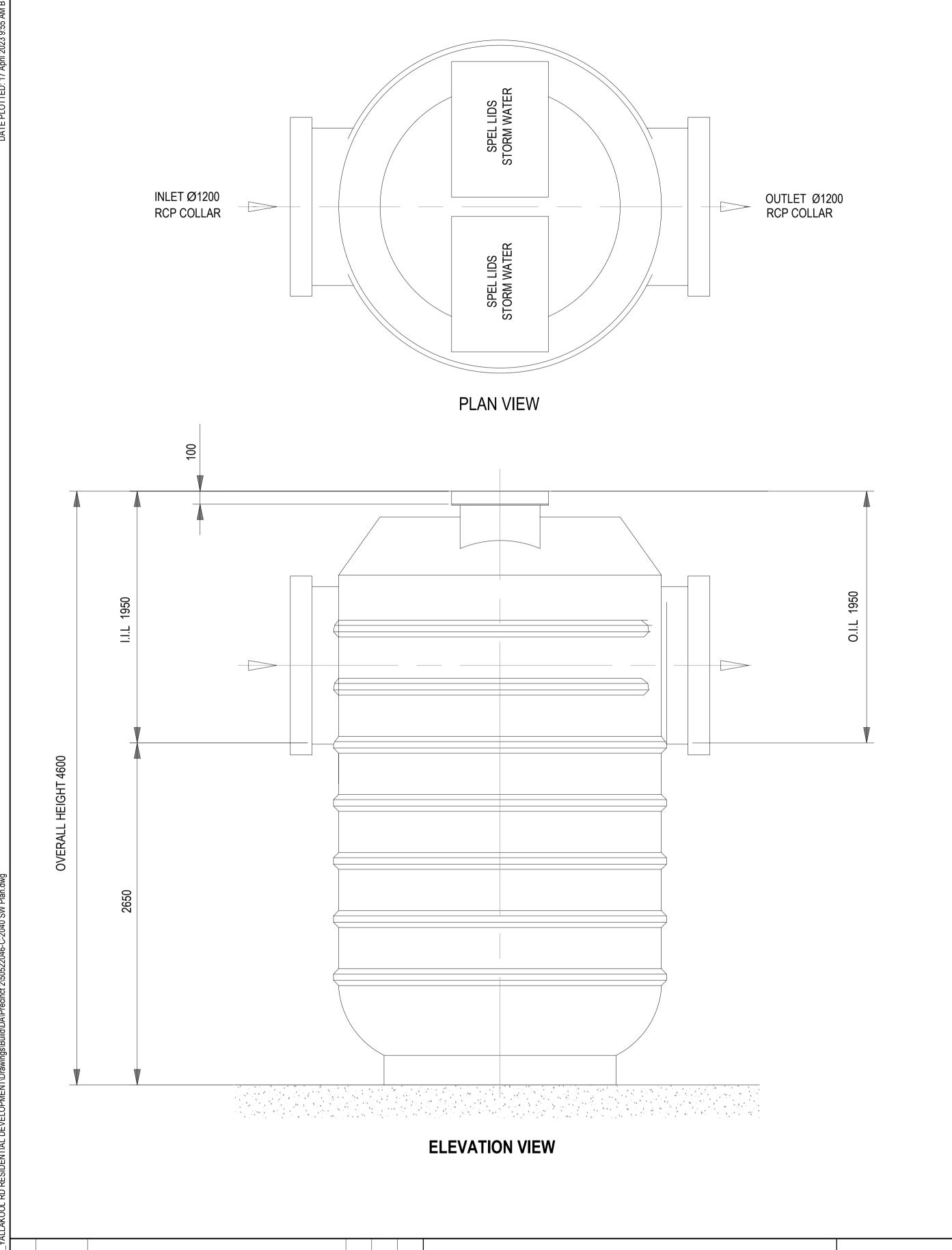
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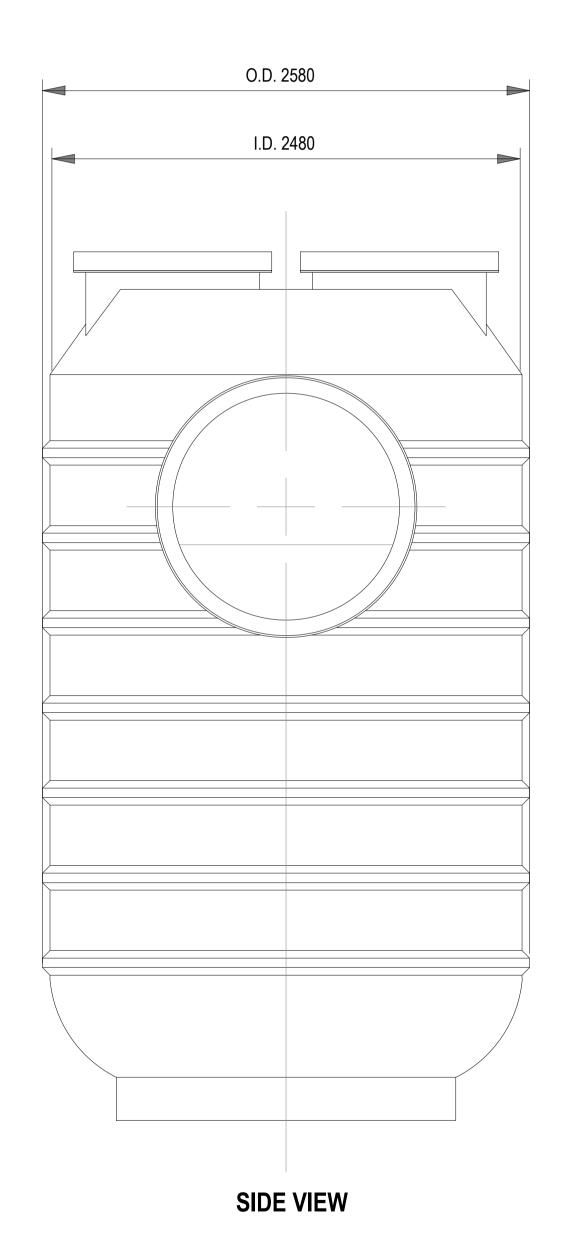


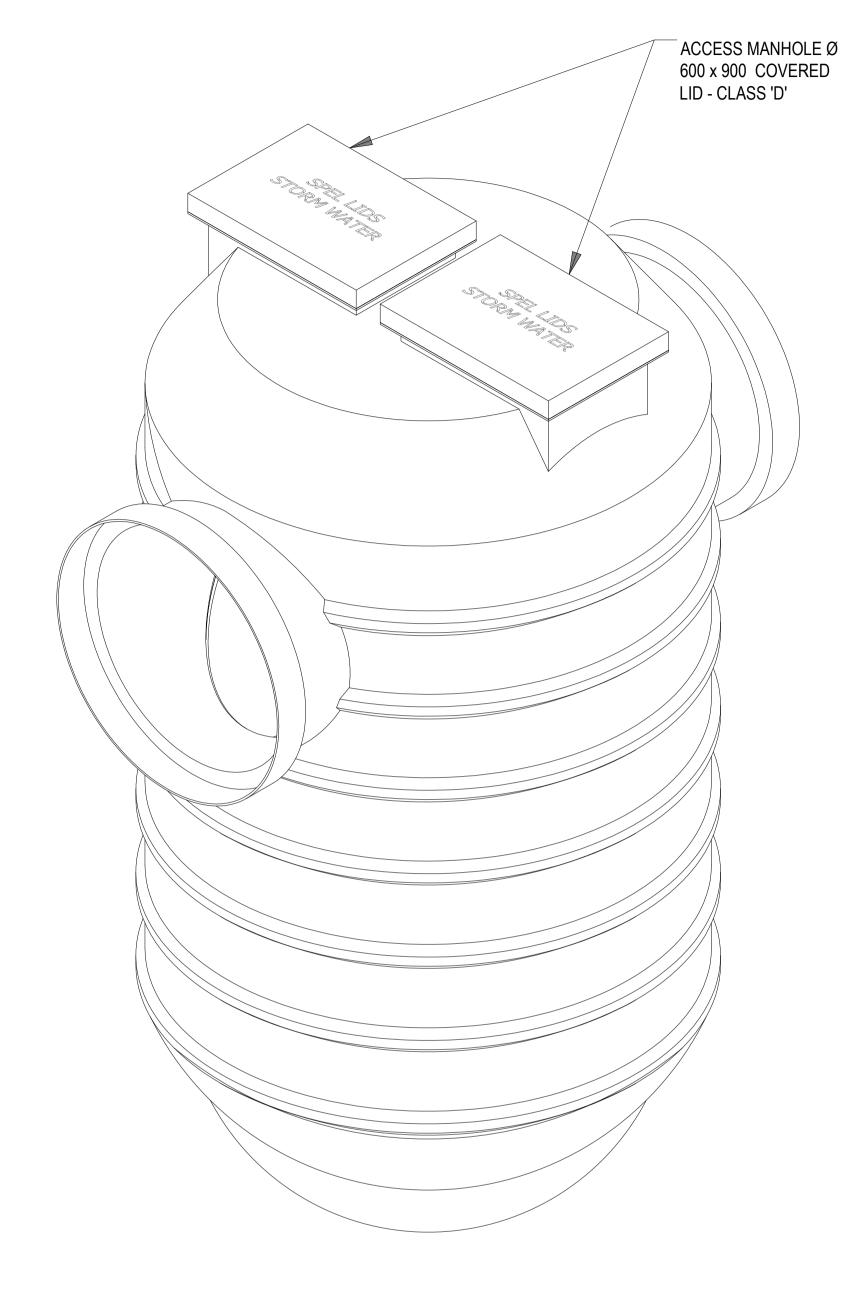
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ern Core, Level 4, 2 Constitution Ave Canberra, ACT 2601	Approved		
: 02 6112 4500 Fax: 02 6112 4599 Web: www.cardno.com.au	JS	20/10/2022	

Client	NSW Department of Planning and Environment	nt				
Projec	POLO FLAT ROAD RESIDENTIAL DEVELOPMENT	Status NOT TO BE		PROVAL ONSTRUCTION	N PUI	RPOSES
Title	PRECINCT 2, LOT 2 & 4 DP 1285072 WATER SENSITIVE URBAN DESIGN	Date 20/10/2022	Datum AHD	Scale NTS	Size	A1
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ISOMETRIC VIEW

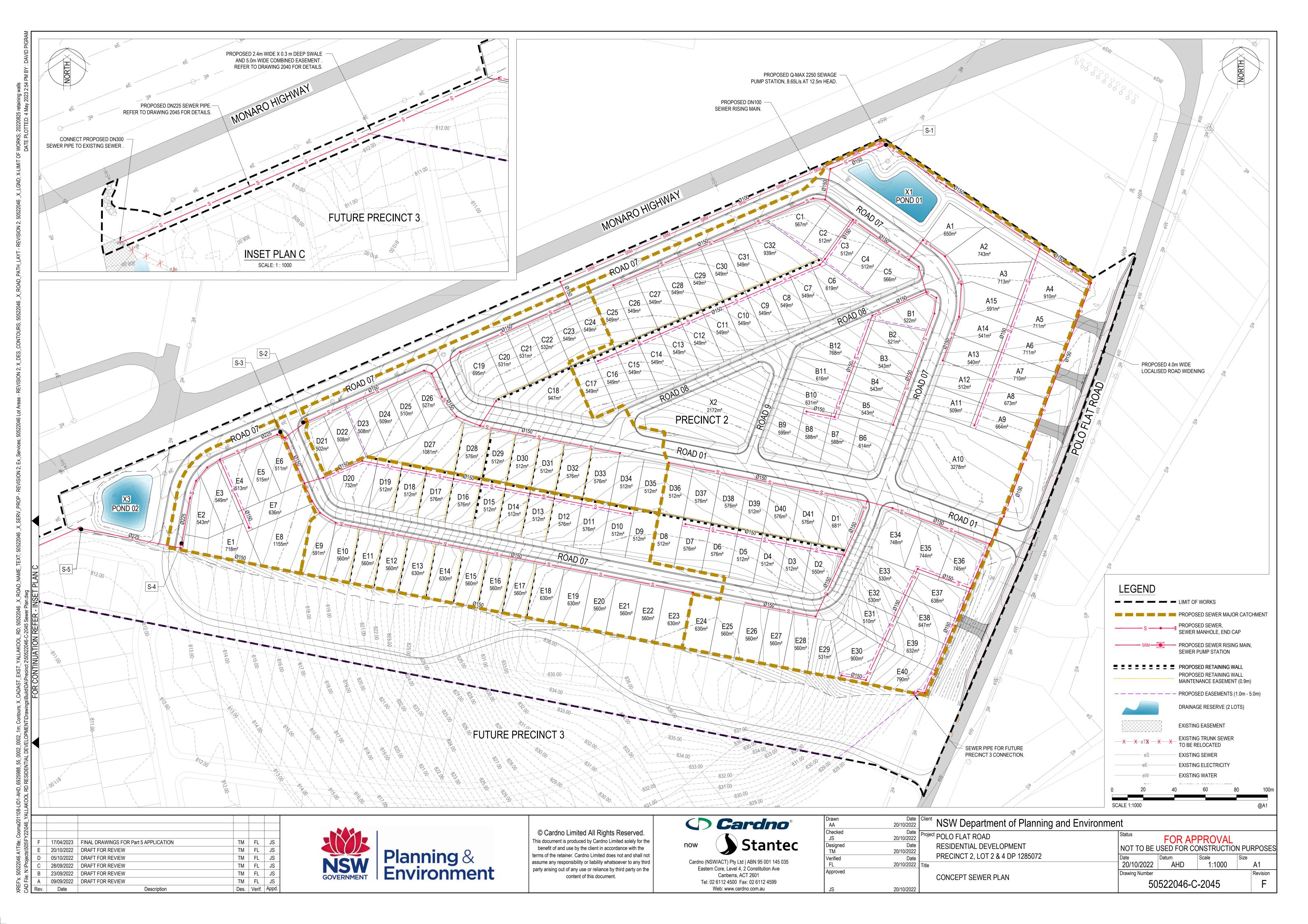
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Eastern Core, Level 4, 2 Constitution Ave
O AOT 0004
Canberra, ACT 2601
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Web: www.cardno.com.au

Drawn	Date
AA	20/10/2022
Checked	Date
JS	20/10/2022
Designed	Date
TM	20/10/2022
Verified	Date
FL	20/10/2022
Approved	

Client N	ISW Department of Planning and Environmer	nt					
Project Po	OLO FLAT ROAD ESIDENTIAL DEVELOPMENT	Status		PROVAL DNSTRUCTION	N PU	RPOSES	
	RECINCT 2, LOT 2 & 4 DP 1285072 /ATER SENSITIVE URBAN DESIGN	Date 20/10/2022	Datum AHD	Scale NTS	Size	A1	
SI		Drawing Number 50522046-C-2043					



			idential¹)welling)	"										Flow	Calculations ²					Ssc and S	Sss Grading Require	ments			
Node	Incorporating Catchment Nodes			Number of dwellings per NSA ha	TEP Residential	Density (For Residential Only) Eqn 3.4.4.1	TEP mixed landuse Eqn. 3.3.2A	TEP mixed landuse Eqn. 3.3.2B	sum (Residential EP)+sum (non residential EP)	TEP	Total NSA (Ha)	ADWF (L/S), PCC= 180 I/EP/day: Eqn 3.4.2.2	PDWF (L/s)	GWI (L/s)	RDI (L/s), i(1,2)= 22 mm, EY=0.5	Total Pump Flow	Design Flow (L/s) - PWWF	Select Pipe Size	ID (mm)	Min Pipe Grade ICON Water Table IW.5 for DN150 & larger 80/ID (%)	Qsc - Minimum Flow for Self Cleansing (From WSAA Sewer Pipe Sizing Calculator) (L/s)	Pipe Capacity Qdf (L/s) at min grade (k=1.5mm)	Overall Min Grade Requirement (%)	Ultimate Design Grade (%)	Pipe Capacity Qf (L/s) at ultimate grade and design Pipe size (k=1.5mm)
S-1		85	20	14	347.5	44.8	347.5	125.1	347.5	347.5	7.752	0.72	2.35	0.11	5.72	0.00	8.18	DN150	150.000	0.7%	1.55	12.97	0.70%	0.70%	12.97
S-2'		20		12	70.0	43.7	70.0	25.2	70.0	70.0	1.603	0.15	0.56	0.02	1.41	0.00	1.99	DN150	150.000	0.8%	1.23	13.83	0.80%	0.80%	13.83
S-2	S-1, S-2'	105	20	13	417.5	44.6	417.5	150.3	417.5	417.5	9.355	2.87	6.01	0.13	6.74	8.18	12.88	DN150	150.000	0.7%	1.55	13.83	0.70%	0.70%	13.83
S-3'		26		13	91.0	46.0	91.0	32.8	91.0	91.0	1.977	0.19	0.70	0.03	1.74	0.00	2.47	DN150	150.000	0.8%	1.23	15.48	0.80%	0.80%	13.83
S-3	S-2, S-3'	131	20	13	508.5	44.9	508.5	183.1	508.5	508.5	11.332	3.06	6.71	0.16	8.00	0.00	14.87	DN225	225.000	0.7%	1.84	38.27	0.70%	0.70%	38.27
S-4'		8		13	28.0	44.5	28.0	10.1	28.0	28.0	0.629	0.06	0.24	0.01	0.63	0.00	0.88	DN150	150.000	1.0%	0.84	17.00	1.00%	1.00%	15.48
S-4	S-3, S-4'	139	20	13	536.5	44.9	536.5	193.1	536.5	536.5	11.961	3.12	6.96	0.17	8.38	0.00	15.51	DN225	225.000	0.7%	1.84	38.27	0.70%	0.70%	38.27
S-5	S-4	139	20	13	536.5	44.9	536.5	193.1	536.5	536.5	11.961	3.12	6.96	0.17	8.38	0.00	15.51	DN225	225.000	0.7%	1.84	38.27	0.73%	0.73%	38.27

NOTE

- 1. LAND USE CLASSIFICATION AND CORRESPONDING EP RATE IS IN ACCORDANCE WITH ICON WATER STD SPE-G-011 TABLE IW.1.
- 2. FLOW CALCULATIONS ARE UNDERTAKEN IN ACCORDANCE WITH ICON WATER STD SPE-G-011 IW.3.4

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) FIIE:	Α	09/09/2022	DRAFT FOR REVIEW	TM	FL	JS
	В	23/09/2022	DRAFT FOR REVIEW	TM	FL	JS
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ojeci	D	05/10/2022	DRAFT FOR REVIEW	TM	FL	JS
)C\S	Е	20/10/2022	DRAFT FOR REVIEW	TM	FL	JS
N:\Projects\505\FY2Z\046	F	17/04/2023	FINAL DRAWINGS FOR Part 5 APPLICATION	TM	FL	JS
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Approved	

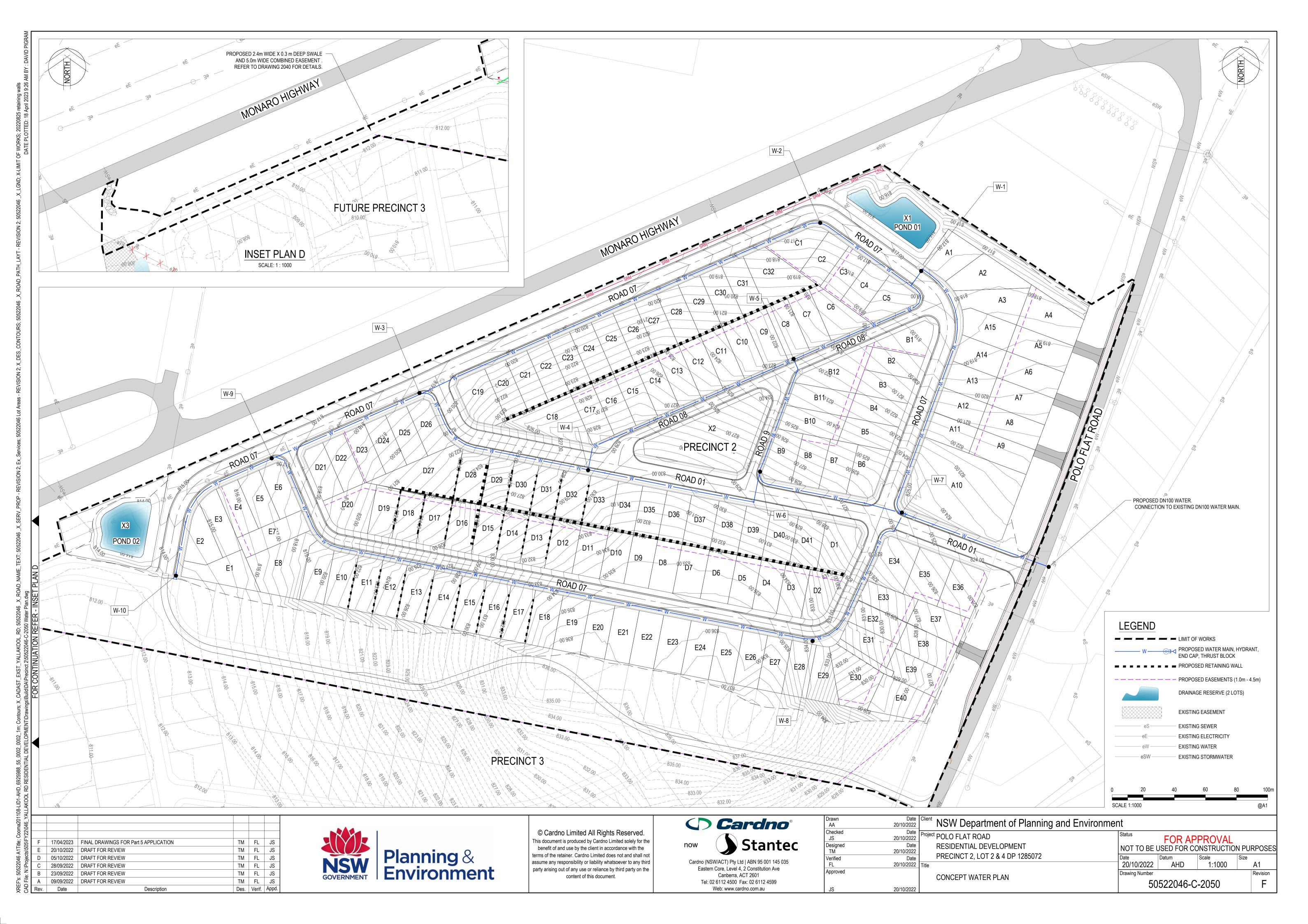
Client NSW Department of Planning and Environment

Project POLO FLAT ROAD
RESIDENTIAL DEVELOPMENT
PRECINCT 2, LOT 2 & 4 DP 1285072

Title CONCEPT SEWER PLAN
SEWER CALCULATIONS TABLE

Status
NOT TO BE US
Date
20/10/2022
Drawing Number

1	11									
	Status		PROVAL							
	NOT TO BE USED FOR CONSTRUCTION PURPOSES									
	Date	Datum	Scale	Size						
	20/10/2022	AHD	NTS		A1					
	Drawing Number				Revision					
	50	522046-C	-2046		F					



Node	Elevation	No. Dwelling			Combined Peak Demand and Fire
			(L/s)	(L/s)	Flow (L/s)
W-1		11	5.78	25	30.78
W-2		12	6.30	25	31.30
W-3		13	6.83	25	31.83
W-4		13	6.83	25	31.83
W-5		9	4.73	25	29.73
W-6		26	13.65	25	38.65
W-7		19	9.98	25	34.98
W-8		20	10.50	25	35.50
W-9		15	7.88	25	32.88
W-9		13	6.83	25	31.83
Main Connection	n Point	151	72.45		

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A I I	Е	20/10/2022	DRAFT FOR REVIEW	TM	FL	JS
y40, ojec	D	05/10/2022	DRAFT FOR REVIEW	TM	FL	JS
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e: 20	В	23/09/2022	DRAFT FOR REVIEW	TM	FL	JS
rs. 3 File:	Α	09/09/2022	DRAFT FOR REVIEW	TM	FL	JS
A A	Rev	Date	Description	Des	Verif	Appd.





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iwn A	Date 20/10/2022	Client NSW Department of Planning and Enviro	onment						
ecked S	Date 20/10/2022	Project POLO FLAT ROAD	Status	FOR AF	PPROVAL				
signed M	Date 20/10/2022	RESIDENTIAL DEVELOPMENT	NOT TO BE	NOT TO BE USED FOR CONSTRUCTION PURPOS					
ified _	Date 20/10/2022	PRECINCT 2, LOT 2 & 4 DP 1285072	Date 20/10/2022	Datum AHD	Scale NTS	Size A1			
proved		WATER DEMAND CALCULATION	Drawing Number	<u> </u>		Revision			
5	20/10/2022	WALLE COLOUR TOTAL	50	50522046-C-2051					

